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THE VIETNAM PROVINCIAL COMPETITIVENESS INDEX 2008

MEASURING ECONOMIC GOVERNANCE FOR PRIVATE SECTOR DEVELOPMENT

VNCI
Vietnam Competitiveness Initiative

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FOREWORD

The Provincial Competitiveness Index (PCI) is designed to assess and rank the performance, capacity and willingness of provincial governments to develop business-friendly regulatory environments for private sector development. The fourth iteration, PCI 2008, once again validates that economic governance does matter. At each level of initial conditions, better-governed provinces are able to not only use their endowments more efficiently but also influence business performance and income in subsequent years.

Due to its widespread acceptance, there have been many practical applications of the PCI reports and analyses. Provincial governments find it a reflection of their respective provinces' strengths and weaknesses, a pressure for reforms and a source of best practices for replication. In the past year, over 40 provinces and state agencies have used the PCI to engage in public-private dialogue and diagnostic analysis with the local communities to better understand the competitive factors that drive economic growth. Investors use the index as reference for their investment decision-making and advocacy for local initiatives.

This PCI 2008 report also introduces a new provincial analysis of infrastructure which is a critical factor affecting access to markets, transaction costs, and economic growth and the overall competitiveness of the investment environment in Vietnam. Its policy implications offer for government planners, provincial and business leaders important insights and recommendations on how to tackle the major obstacles created by out-dated and inadequate infrastructure that affects all enterprises.

The next phase of the PCI initiative should focus on using this valuable tool to stimulate dialogue and focus priority actions on national and provincial strategies to create higher value-added industries and clusters of goods and services in different parts of the country based on their natural comparative advantages.

We hope this publication will serve as a useful resource for business associations, government and business leaders, academic and research institutes, donor agencies, and the media as they seek to improve the quality of economic governance throughout Vietnam's provinces. Vietnam Competitiveness Initiative and Vietnam Chamber of Commerce & Industry are ready to be your partners to improve the socio-economic development of Vietnam.

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Director
Vietnam Competitiveness Initiative

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Edmund Malesky of the University of California - San Diego led the development of the PCI's research methodology and authored the presentation of its analytical findings.

Professor Malesky was supported by a PCI research team that included Tran Huu Huynh, Deputy Secretary General and Director of the Legal Department at VCCI; Dau Anh Tuan, Le Thanh Ha and Nguyen Le Ha of VCCI; Le Thu Hien, Nguyen Ngoc Lan, and Trinh Thi Hang of VNCI; Nina Merchant and Nguyen Thu Hang of TAF; and Paul Schuler of the University of California - San Diego. David Brunell, Jr., and Anne Le provided valuable inputs to the PCI construction and analysis.

Do Hoang Anh, VNCI Deputy Project Director provided comments and Steve Parker of DAI served as the report's expert reviewer.

The PCI was developed under the overall leadership of Vu Tien Loc, Chairman of VCCI, James Packard Winkler, VNCI Project Director, and benefited from the assistance and input provided by David Brunell, Director of Economic Growth for USAID, and Kim Ngoc Bao Ninh, Vietnam Representative of The Asia Foundation.

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The Asia Foundation

DAI

The PCI research team extends special thanks to our expert advisory panel, who provided valuable insights on methodology and indicator selection.

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ABBREVIATIONS AND ACRONYMS

ASMED	Agency for SME Development
BRVT	Ba Ria-Vung Tau province
DPI	Department of Planning and Investment
GDP	Gross Domestic Product
GSO	General Statistics Office
HCMC	Ho Chi Minh City
ICT	Information and communication technology
IZ	Industrial zone
LND	Legal normative document
LURC	Land Use Rights Certificate
MPI	Ministry of Planning and Investment
OSS	One-stop shop
PAR	Public Administration Reform
PCI	Provincial Competitiveness Index
PSD	Private sector development
RIA	Regulatory impact assessment
SME	Small and medium-sized enterprise
SOE	State-owned enterprise
STAR	Support for Trade Acceleration project
TAF	The Asia Foundation
VAT	Value-added tax
VCCI	Vietnam Chamber of Commerce and Industry
VNCI	Vietnam Competitiveness Initiative
WTO	World Trade Organization

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Provincial Competitiveness Index (PCI) was developed in 2005 by the Vietnam Chamber of Commerce and Industry and the U.S. Agency for International Development-funded Vietnam Competitiveness Initiative. Since that time, the PCI is widely viewed as a critical tool for measuring and assessing the standards of economic governance in Vietnam's 64 provinces from the perspective of private sector businesses [1]. This year marks the fourth iteration of the PCI analysis.

Overall Rankings and Scores

The 2008 version of the PCI brought some surprising findings. First, Binh Duong, the defending PCI champion for the past three years, lost its crown to Da Nang, which had ranked second in all previous iterations. Both provinces still remain in the Excellent tier and their final scores (72.18 and 71.76) are statistically indistinguishable.

Second, despite the strong stability in PCI rankings over time, 2008 scores are generally lower across every level of the PCI rankings. The median province received a score about 2.4 points lower than in 2007, dropping from 55.6 to 53.2. Median scores remain higher than in 2006 (52.41), but the impressive governance improvements experienced between 2006 and 2007 have reversed somewhat.

While most PCI sub-indices experienced moderate increases, two sub-indices, Labor and Private Sector Development, show dramatic declines. Because of the high weights of these indices, the declines affected the overall PCI scores significantly. We explore the causes of the lower scores in Chapter Four, finding that they are predominantly due to either: 1) evidence of actual deterioration in public service delivery, or 2) increasing firm expectations that have not been met by proportionate improvements in the quality of government services. Negativity, due to Vietnam's macroeconomic instability, also had a measurable influence on firms' perceptions.

Governance Improvements

In terms of individual indicators, there are a number of reasons for celebration:

- Waiting periods for business registration and other formalities of business entry are at historic lows. One-stop shop (OSS) implementation has had a positive impact on entry costs. In the median province, registration now takes only 12.5 days and fewer than 6 percent of respondents waited more than three months to finish all business entry procedures. These regulatory changes continue to be reflected in greenfield business start-up and formalization of household enterprises. Chapter Two takes a close empirical look at OSS, finding that the greatest decline in waiting periods occurred in provinces with more thorough implementation of the official procedures.
- Property rights are at historic highs. This year, 81 percent of PCI respondents in the median province have formal Land Use Rights Certificates, up from 75 percent in 2007 and 55 percent in 2006. This startling growth will yield positive dividends in future investment and business expansion as firms feel more secure about their business prospects.
- As a result of the proliferation of provincial legal gazettes (Công báo), access to business documentation also continues to improve. Over 65 percent of firms believe they can access legal documents in their province, up

1. Ha Tay has now been merged with Ha Noi, but was a separate entity at the time of the survey. We assess it as a separate unit because firms would have been responding to questions with Ha Tay and not Ha Noi authorities in mind. A similar approach is used for the districts of Vinh Phuc and Hoa Binh provinces that have now been merged partially with Ha Noi.

from 61 percent in 2007. Increasing access is highest for People's Committee Resolutions, which we trace directly to the publication of legal gazettes. We find that access to legal documentation is especially high in provinces that publish their gazettes online. Furthermore, the percentage of firms negotiating their tax payments with local officials-another important indicator of transparency-improved in 2008. Only 36 percent of firms admit to this activity in 2008, down from 41 percent last year and 61 percent in 2006.

- Usage of Provincial Economic Courts to resolve business disputes has nearly doubled in the past year. The number of total cases filed more than doubled between 2006 and 2007, from 2,445 to 5,198, while the number of cases filed by private entrepreneurs grew by 130 percent in 2007 compared with 2006. Higher usage of courts by private actors is considered a positive development because it indicates that entrepreneurs have greater faith in legal institutions and are more willing to move beyond social relations as a mechanism for enforcing contracts [2]. It also may reflect improvement in contract and other commercial laws in Vietnam over the past six years, due in part to the Bilateral Trade Agreement (BTA) with the US. These changes have made the law clearer in many regards and, thus, given firms greater confidence in their rights and responsibilities.
- Bias toward local state-owned enterprises is no longer a worry. Equitization of these enterprises, expansion of bank lending to private firms, and increasing growth of the private sector have diminished firms' worries about special favors being granted to local champions. Improvement on this sub-index is so impressive that we are considering dropping it in future PCI iterations, although firms do still worry about bias in favor of large state conglomerates.

2. Bergling, Per, 1999 Legal Reform and Private Enterprise: The Vietnamese Experience, Umea Studies in Law No. 1, Department of Law, Umea University: 130

Reform Challenges

On the other hand, there is still cause for worry:

- A disconcerting deterioration in performance is observable in the Time Costs of Regulatory Compliance sub-index. The decline in the median score from 6.2 to 5.8 is not nearly as dramatic as the precipitous falls in Private Sector Development and Labor, nor is it a statistically significant change. Nevertheless, individual indicators within the index demonstrate some decline. The percentage of time spent on bureaucratic procedures continues to increase annually. Currently, 23 percent of firms spend more than 10 percent of their time on bureaucratic procedures, with few firms detecting any improvements in the burden caused by administrative barriers. While entry costs have improved dramatically, it appears there is still much work to do to address the cumbersome post-registration costs of regulatory compliance faced by firms. Most policy efforts on post-registration regulation have focused on inspections; consequently, these have been reduced to minimal levels and do not appear to be an important obstacle faced by entrepreneurs. On the other hand, firms still complain of cumbersome paperwork and other procedures in day-to-day interactions with provincial bureaucrats.
- Indicators of informal charges show no discernable improvements. Frequency and size of bribes, and the obstacles posed by bribery, have remained the same for the past three years, despite the government's highly public efforts to reign in such activity. One of the cornerstones of public administration reform was to increase the salaries and improve the quality of civil servants so bribes would become a less important part of public service delivery. These ambitious goals do not appear to have been achieved at the local level. Anti-corruption efforts through administrative simplification have the stated goal of reducing ambiguity in regulations and thereby minimizing the discretion of civil servants that

enables informal charges. The PCI can serve as an effective monitoring tool by government and private actors for analyzing the impact of these changes on informal charges and the time cost of compliance.

In sum, tremendous improvements have been recorded, but more work remains. The continuing burden of cumbersome regulatory procedures unnecessarily raises firms' costs and cuts into their bottom lines, while the lack of real progress on informal charges substantially raises the risks of entrepreneurial activity. The continuing reform efforts of the Government are essential to remove administrative burdens and red tape to reduce these costs and risks. Such notable efforts include the Prime Minister's Master Plan on Administrative Procedures Simplification in all aspects of State Administration from 2007 to 2010 (Project 30), the National Strategy on Combating and Preventing Corruption to 2020, and Civil Service Reform through the adoption of a new Law on Public Officials and Civil Servants.

Economic Impact of Improving Governance

This year's report on our analysis of the governance premium varies from previous versions of the PCI. Past reports relying on comparisons among provinces within a single year have demonstrated that provinces with above-average PCI scores make more efficient use of initial conditions than poorly governed provinces. At every level of initial endowments, therefore, provinces with good governance have higher levels of gross domestic product (GDP) per capita than their peers. We termed this gap in achievement the "governance premium." This analysis was important, but it was limited by its static nature. Time series data was necessary for a dynamic analysis of the impact of policy changes over time.

The new analysis takes advantage of time series data to show that improvements in PCI scores within a single province are associated with economic growth over time and not just across geographic space. All else being equal, a one point improvement in the 100-point PCI score in a given year, within a particular province, is associated with a 6.9 percent increase in active private companies, a 2.6 percent increase in average investment per capita, and a 1.6 percent increase in GDP per capita in the subsequent year. Governance improvements do not appear to be associated with year-to-year changes in average firm profitability.

Transparency of business information, proactivity of leadership, and labor policies have the most consistent and robust impact on private sector development. Simply enhancing access to legal and planning documents through a one-point improvement on transparency is associated with a 3.7 percent rise in the number of firms per 10,000 citizens in the province.

Infrastructure Index

Chapter Five of this year's report adds a new feature to the PCI analysis-the Infrastructure Index. A series of recent, high-profile reports have demonstrated that Vietnam's infrastructure is harming its competitive advantage internationally. At the same time, increased fiscal decentralization has, in theory, increased the opportunities for provinces to raise their own resources for infrastructure improvements. Consequently, a number of our key stakeholders requested that we bring PCI data to bear on the subject. Longer time series of annual data will be necessary for more rigorous analysis of the influence of changes in infrastructure. Nevertheless, the PCI Infrastructure Index represents a baseline that can be used to track and analyze future developments.

The Infrastructure Index ranks the relative levels of infrastructure across the country along four dimensions: 1) industrial zone quality and capacity; 2) transportation costs; 3) telecommunications and energy costs and stability; and 4) major infrastructure (ports/airports). We find that Da Nang, Binh Dinh, Ho Chi Minh City (HCMC), Hai Phong, Binh Duong, and Dong Nai have the best infrastructure in the country, while the rural Northwestern Uplands have the worst.

It is immediately obvious that the absolute levels of infrastructure are associated with economic development, but it is not clear which way the causal arrow points. Many of these provinces inherited stocks of infrastructure going back several generations or more. At the same time, their ability to attract early investment has bolstered their revenue, allowing them to spend more on subsequent infrastructure improvements.

Despite their absolute advantage, we find that the infrastructure in the high-performing provinces is not keeping up with demands on its usage. The provinces in the North Southeast industrial hub have the fastest population growth and the largest share of private enterprises and economic output, yet they lag behind other regions in the percentage of road covered with asphalt and improvements in road quality and they pay the highest average energy prices in the country. In essence, infrastructure does appear to be placing constraints on development in high-growth regions, while policy makers have used infrastructure spending as a tool for redistribution.

It is critical that policy makers find the right balance between redistribution and growth-inducing infrastructure investments. After all, slower national growth reduces the pool of monies available for redistribution. Fiscal decentralization and the corresponding powers of finance it has brought to provincial authorities may be a first step in allowing high-growth areas to raise the capital necessary to meet their changing economic needs. The draft Laws on Public Debt and State Budget that are under discussion in the current session of the National Assembly should facilitate fiscal decentralization but maintain centralized oversight to ward off irresponsible spending.

Information and Communication Technology Index

In addition to the traditional types of infrastructure highlighted above, more and more firms in Vietnam recognize the utility of information technology for facilitating interactions with business partners and acquiring market and technology information. In fact, 27 percent of respondents recorded active email addresses on their PCI survey forms. In Ha Noi and HCMC, over 60 percent of firms used email addresses for their contact information. Annual growth in information and communication technology (ICT) penetration in all of Vietnam is estimated at 8 percent.

The ICT Index borrows from an excellent dataset assembled by Office of the Steering Committee for National Information Technology Readiness of the Ministry of Information and Communications to build on five sub-indices: 1) hardware, or the physical infrastructure for internet usage; 2) human resources, including the training, skill sets, and personnel necessary for technology acquisition; 3) ICT applications, measuring the scope, scale, and efficiency of current use on existing ICT hardware; 4) availability of private ICT providers as a substitute for government provision; and 5) the conduciveness of the provincial regulatory framework for ICT development, including whether provinces have local ICT committees and development policies.

HCMC, Ha Noi, Binh Duong, TT-Hue, Da Nang, Bac Ninh, and Vinh Phuc received the top overall scores on the ICT Index. As with infrastructure, a number of mountainous provinces in the Northwest rank near the bottom.

CHAPTER ONE

BACKGROUND AND KEY FINDINGS

BACKGROUND AND KEY FINDINGS

At its most basic level, the 2008 Provincial Competitiveness Index (PCI) is the collective voice of 7,820 domestic private firms. Private entrepreneurs' opinions regarding economic governance in their provinces are collected in a large-scale survey. Their responses are adjusted with published data to address perception biases, and these answers are aggregated into provincial-level scores. The final outcome is a composite index ranking Vietnam's 64 provinces according to their performance on 10 dimensions of governance that are critical for private sector development [3]. As a result, the PCI provides the most objective metric available for gauging the impact of economic and administrative reforms at provincial and national levels.

Four features of the PCI approach have enhanced its reception among Vietnamese policy makers and businesspersons since its initiation in 2005. First, by normalizing the scores around best economic governance practices already found in Vietnam and not against ideal and possibly unattainable standards of good governance, the PCI encourages subnational governments to improve their performance. For each indicator, a "star" or top-performing locality can be identified and any other province can conceivably attain a perfect score of 100 in future PCIs by emulating these Vietnamese best practices.

Second, by separating out the economic growth generated by initial conditions (that is, the fundamental underlying factors that contribute to economic growth in a province but that are virtually impossible to address in the short term, such as location, infrastructure, size of the domestic market, and human resources), the PCI identifies good economic governance practices achieved at the provincial level.

Third, by comparing economic governance practices against actual economic performance, the PCI estimates how important governance practices are in attracting investment and generating growth. The research shows a strong association among: 1) business-friendly economic governance practices; 2) business operations in response to those practices; and 3) importantly, improvements in economic activity such as output, investment, profits, and income. This last connection is critical because it makes clear that business-friendly policies encourage firms to operate in ways that benefit not only the executives and workers in each firm but also society more broadly by creating jobs and raising incomes throughout the economy.

Fourth, the indicators that comprise the PCI are actionable in the sense that they are specific items that provincial officials can target and monitor improvement upon, and they are action-worthy because they represent policies that private firms have identified as critical to their business success and that previous research has shown to be influential for firm performance.

More detail is provided on specific indicators in Chapter Six, but a province that performs well on all 10 PCI sub-indices is one that has: 1) low entry costs for business start-up; 2) uncomplicated access to land and security of business premises; 3) transparent and equitable legal and business information; 4) minimal informal charges; 5) limited time wasted on bureaucratic procedures and inspections; 6) lack of bias toward particular types of firms, especially state-owned enterprises (SOEs); 7) a proactive and creative leadership; 8) special private sector development (PSD) initiatives to address market failures; 9) well-trained labor; and 10) fair and effective legal procedures for dispute resolution.

1.1 A Picture of the PCI Respondents

The claim that the PCI represents the collective voice of the private sector is somewhat presumptuous. Who are these entrepreneurs who purport to speak for the entire business

3. See footnote 1.

community? After all, any bias in the selection of operations affects the value of the information that can be gleaned from the survey.

By delineating the PCI sample according to key factors of interest to readers, Table 1.1 shows that firms answering the PCI survey look much like the business community as a whole, representing all sizes and flavors of entrepreneurial activity in Vietnam. This, of course, is by design. Respondents are randomly selected from a list of registered private firms that is supplied by the National Tax Authority and precautions are put in place to ensure the representativeness of the sample[4].

4. Results are based on a stratified random sample and mail-out survey in each province, yielding a national response rate of 26 percent, up from 21 percent in 2007. Response rates are similar throughout the country, so non-response bias is likely systematic across jurisdictions. This year we followed up with non-responders in our survey, finding that 21 percent of our mail-out went to firms that were no longer in existence or had moved their operations, or where the Tax Authority had incorrect contact information. Taking these into account, our true response rate is 30.2 percent.

Table 1.1: Who Answers the PCI Survey?
(Composition of the 7820 Total Respondents)

	Provincial Sample		National Sample	
Legal Form	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Sole Proprietorship	41.1%	43.8%	26.3%	25.9%
Limited Liability	42.7%	44.3%	50.1%	56.8%
Joint Stock	15.4%	10.4%	21.6%	17.3%
Joint Stock with Share Listed on Stock Exchange	0.3%	NA	1.8%	NA
Partnership/Other	0.2%	1.5%	0.0%	NA
Sector w/Majority Output	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Manufacturing/Construction	43.9%	44.1%	43.6%	42.6%
Service/Commerce	50.6%	53.3%	55.4%	52.8%
Agriculture/Aquaculture/Natural Resources	1.2%	2.6%	0.4%	3.6%
Equal Output in Two Sectors	4.2%	NA	0.6%	NA
Age of Firm	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Registered before Enterprise Law	12.2%	7.2%	15.9%	10.40%
Registered After Enteprise Law	87.8%	92.7%	84.1%	89.60%

	Provincial Sample		National Sample	
Size of Operations (Total Assets, Billion VND)	**PCI**	**Median GSO**	**Weighted PCI**	**GSO Census**
Under 0.5	14.5%	16.7%	8.6%	13.5%
From 0.5 to under 1	17.8%	18.7%	16.5%	18.5%
From 1 to under 5	42.7%	44.7%	44.3%	54.0%
From 5 to under 10	13.3%	8.4%	18.1%	9.9%
From 10 to under 50	9.3%	8.4%	8.2%	7.5%
Over 50	2.4%	3.1%	4.2%	2.0%
History of Company	**PCI**		**Weighted PCI**	
Greenfield Private Company	36.5%		34.8%	
Began Operation as Household Enterprise	57.7%		54.9%	
Former Local State Owned Enterprise	4.8%		6.4%	
Former Central State Owned Enterprise	1.0%		3.9%	
Primary Customers	**PCI**		**Weighted PCI**	
Vietnamese Indivduals and Companies	64.7%		58.2%	
State Owned Companies	25.2%		21.0%	
Export Directly or Indirectly	5.2%		11.4%	
Foreign Individuals or Companies in Vietnam	3.5%		9.4%	

PCI is the PCI survey sample, stratified at the provincial level.
Weighted PCI is the PCI survey sample, but weighted by provincial share of enterprises to create a nationally representative sample.
Median Tax Authority provides the values in the median province.
Total Tax Authority shows the national level aggregate scores.
GSO Census is the 2007 Enterprise Census of the General Statistical Office.
(http://www.gso.gov.vn/default_en.aspx?tabid=479&idmid=4&ItemID=7184)

Forty-one percent of respondent firms are sole proprietorships, 43 percent are limited liability companies, and 16 percent of firms are registered as joint-stock companies. By design, these proportions reflect the average provincial patterns; the PCI uses a stratified random sampling strategy at the provincial level. According to the Tax Authority, the median province possesses 44 percent sole proprietorships, 44 percent limited liability companies, 10 percent joint-stock companies, and 2 percent other. Thus, our sample is perfectly adjusted to each province, but varies slightly from national scores as a whole, where limited liability companies are better represented, because Ha Noi and Ho Chi Minh City (HCMC) represent a smaller share of the PCI sample than they do national-level private sector activity. Table 1.1 also presents a national PCI sample (re-weighted by the proportion of total firms in each province) and aggregate data from the Tax Authority to facilitate national-level comparisons.

Nineteen of the joint-stock companies in the sample are traded on either the Ha Noi (HaSTC) or Saigon (HOSE) stock exchanges, accounting for about 7 percent of all listed firms and including some of the most important operations in the country.

Half of the respondents are engaged in the service or commerce sectors, and about 44 percent are involved in manufacturing (22 percent) or construction (22 percent). By way of comparison, according to the Tax Authority data, 53 percent of registered firms are involved in service and commerce and 43 percent in manufacturing and construction nationally. Eighty-eight percent of PCI respondents registered after the 2000 Enterprise Law; 12 percent precede that law and, therefore, registered under older, less efficient procedures.

Forty-three percent of firms have between VND 1 billion (US$56,000) and VND 5 billion ($282,500) in total assets. Thirty-two percent of firms have less than VND 1 billion in assets and 25 percent have over VND 5 billion. Two percent of firms have over VND 50 billion ($2.8 million) in assets. This is not a dramatic share of large firms, but it does mirror national-level data. Over 40 percent of firms have between 10 and 50 employees. Six percent of respondents have more than 200 employees and 49 companies have more than 1,000.

More than half of PCI respondents began operations as household firms before they decided to formalize their activities by registering at provincial Departments of Planning and Investment. This is a critical finding because it demonstrates that Vietnamese institutions are conducive to formalization [5]. A total of 454 enterprises resulted from equitizations (the Vietnamese form of privatization) of local or central SOEs. An additional 320 companies have owners who formerly managed SOEs, and more than 1,000 have owners who worked in some capacity for an SOE. Finally, about 37 percent of firms are greenfield entities, meaning that their owners established and registered the firms at roughly the same time.

Most companies concentrate their business activity on the domestic market, selling either to Vietnamese individuals and private companies (65 percent) or to SOEs (25 percent). About 6 percent are actively engaged in exporting, either directly or indirectly through trading companies.

Finally, and quite importantly for the purposes of the PCI, all of Vietnam's 64 provinces are represented in the Index. The average number of responses per province was 122, with only one province (Lai Chau) receiving fewer than 75. Nevertheless, the 52 firms that did answer in Lai Chau account for about one-third of all operations in the rural, Northwestern jurisdiction.

1.2 The Final 2008 Provincial Competitiveness Ranking

The weighted 2008 PCI ranking is shown in Figure 1.1. Three differences between this year and last year are immediately apparent. First, for the first time in four years, we have a new top-performing province-Da Nang (72.18) moved slightly past Binh Duong (71.76) province. The margin between the two top provinces, however, is so small that it is statistically negligible. Both remain within the Excellent performance tier.

5. For a more detailed discussion of the formalization in Vietnam, see Malesky, Edmund, and Markus Taussig. 2008a. "Out of the Gray: The Impact of Institutions on Business Formalization." Presented at the Annual Meeting of the American Political Science Association, Boston, Massachusetts, August 28.

Figure 1.1: Weighted Provincial Competitiveness Index 2008

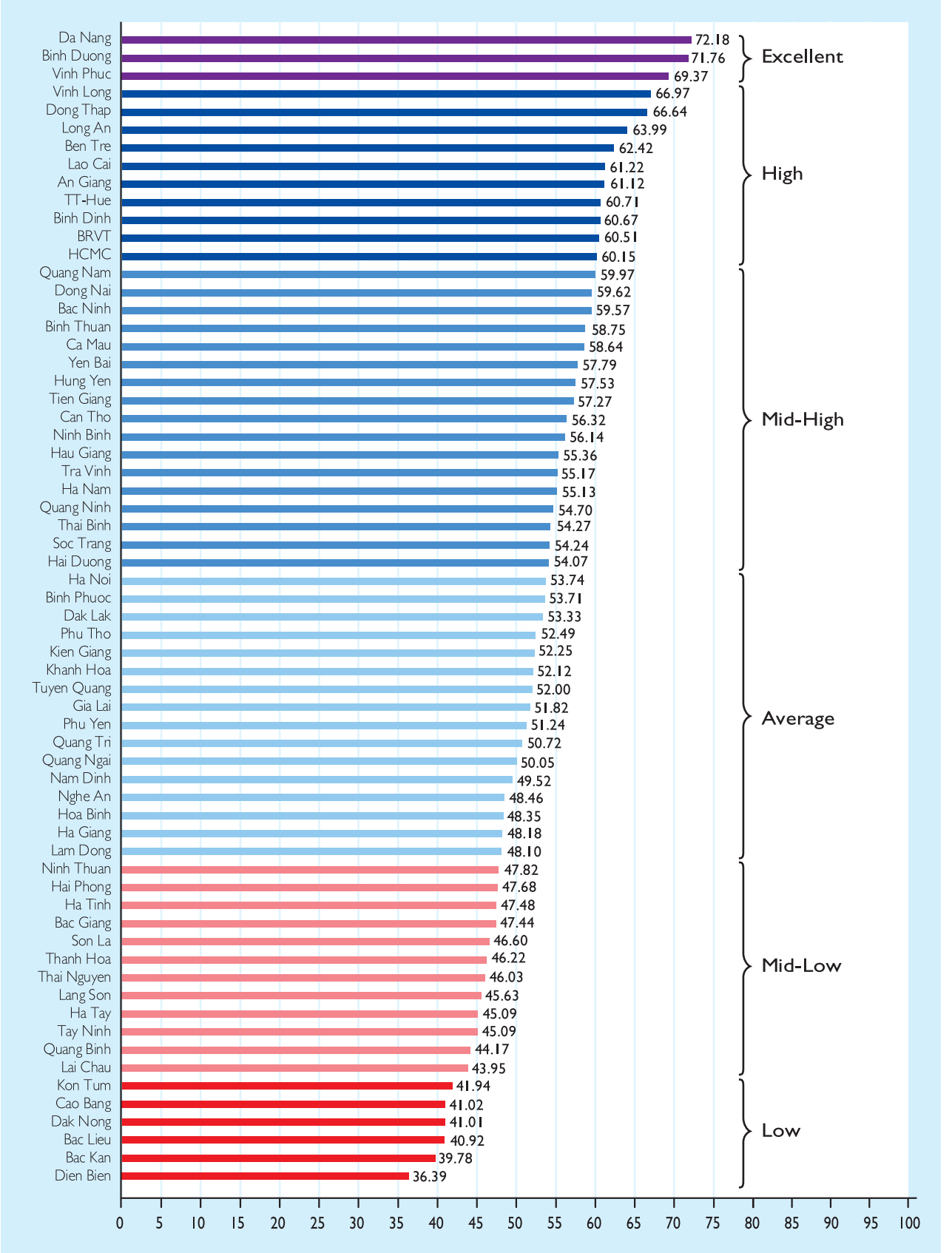
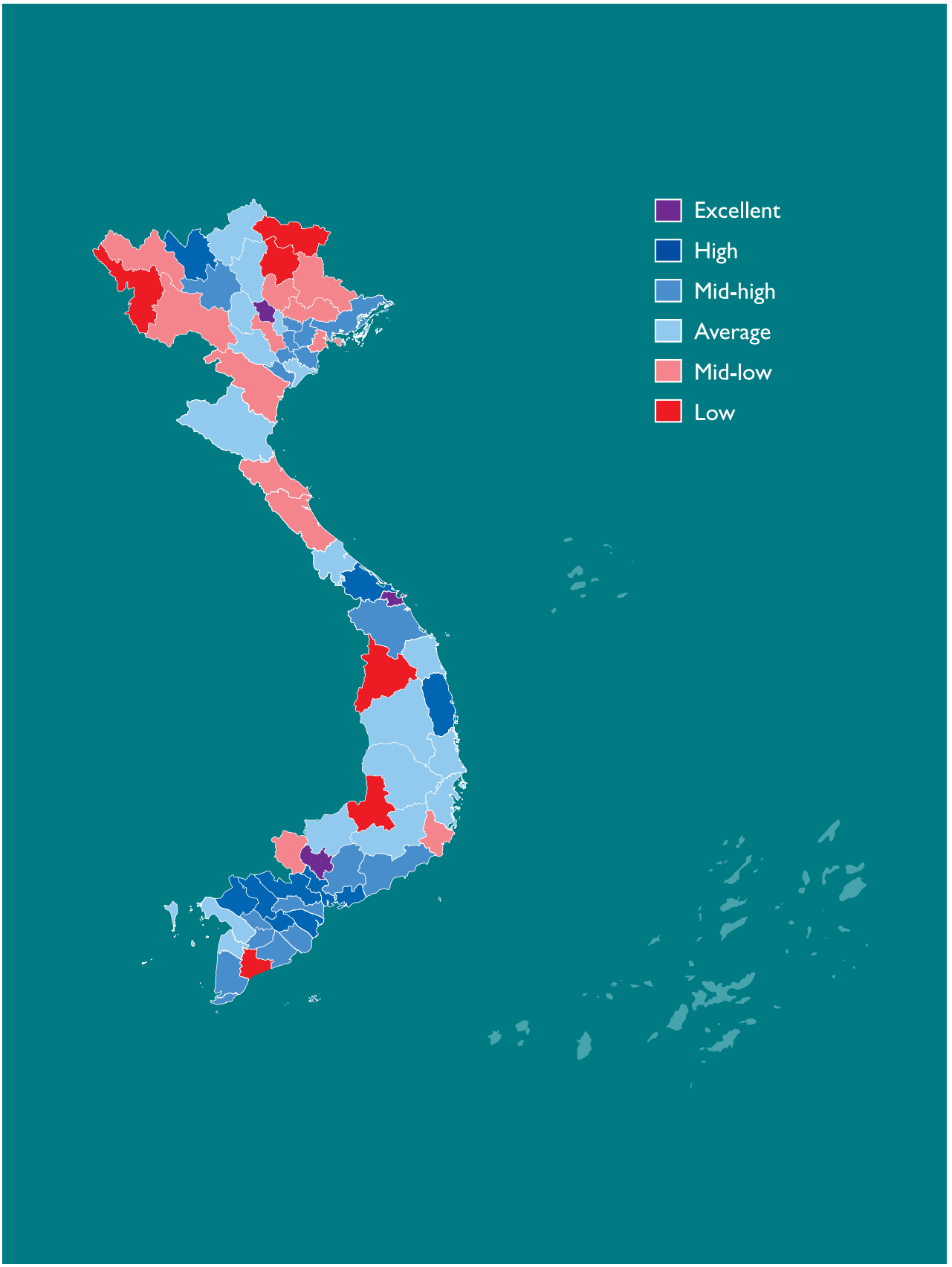


Figure 1.2: PCI 2008 Map of Vietnam



The final 2008 PCI represents the weighted sum of the scores of the 10 sub-indices, based on the weights shown in Table 1.2. In 2006, weights were calculated using a three-step statistical procedure [6]. The ultimate goal of weighting is to ensure that PCI scores are calibrated to private sector performance and, therefore, that the PCI relates the most relevant information to provincial officials regarding the impact of their policies on private sector activity. Sub-indices that were shown to have the largest association with private sector growth, investment, and profitability received the highest weight class of 15 percent. Correspondingly, those that are not strongly correlated with private sector development outcomes received the lowest weight class of 5 percent. Medium weights of 10 percent were reserved for average correlations across the three outcome variables or a large substantive effect on one outcome (e.g., profitability), but a minimal relationship with the other two. The 2008 PCI employs the 2006 weights to allow for longitudinal comparison. In future versions of the PCI, however, weights will be re-calibrated to capture the dynamic nature of the Vietnamese economic reform agenda.

The second difference between this year's PCI and last year's is that the median weighted PCI score (53.2) is slightly lower than the 2007 median (55.6), yet it remains above the 52.4 median recorded in 2006. Significant drops in scores were limited to two specific areas: PSD and Labor Policy. Because these are two of the four most heavily weighted sub-indices, their impact on the overall outcomes was quite substantial. Low scores on PSD and especially Labor Policy are not anomalies; they are recorded among most provinces and represent what appears to be a growing disappointment among the private sector regarding the effectiveness of the contribution by both local and national officials to economic development. In some cases, the disappointment emanates from tangible declines in public service delivery. In other cases, negative firm perceptions are more likely the result of increasing expectations brought about by a strong history of improvement in legal and regulatory reform in Vietnam. Constant improvement in government performance over the past decade may have raised firm expectations to the point where no improvement or marginal declines may generate negative perceptions from respondents. We explore this issue more directly in Chapter Four.

As a result of declines in scoring, another overall difference can be seen between the 2007 and 2008 ratings-shifts in the tiers of provincial performance. A smaller number of provinces are now ranked in the Excellent and High tiers in Figure 1.1. Once again, to facilitate comparisons with previous years, we pegged the six performance tiers (Excellent, High, Mid-High, Average, Mid-Low, and Low) to the break-points set in the 2006 analysis. For instance, this year both Binh Dinh and Vinh Long dropped below the break-point at 69, which differentiates Excellent (shaded in purple) and High performers (shaded in dark blue), while Vinh Phuc rose above the threshold. At the bottom of the rankings, two new provinces slipped below 42 and into the realm of low-performers.

6. See Malesky, Edmund. 2008. A Peek under the Engine Hood: The Methodology of The Asia Foundation's Subnational Economic Governance Indices. San Francisco: The Asia Foundation , p. 16. http://asiafoundation.org/publications/index.php?q=&searchType=country&country=3.

Table 1.2: Sub-Index Weightings

Sub-Index	Rounded Weights	Weight Class
PSD services	15%	High
Transparency	15%	High
Labor training	15%	High
Proactivity	15%	High
Time costs of regulatory compliance	10%	Medium
Legal institutions	10%	Medium
SOE bias (competition environment)	5%	Low
Informal charges	5%	Low
Land access and security	5%	Low
Entry costs	5%	Low

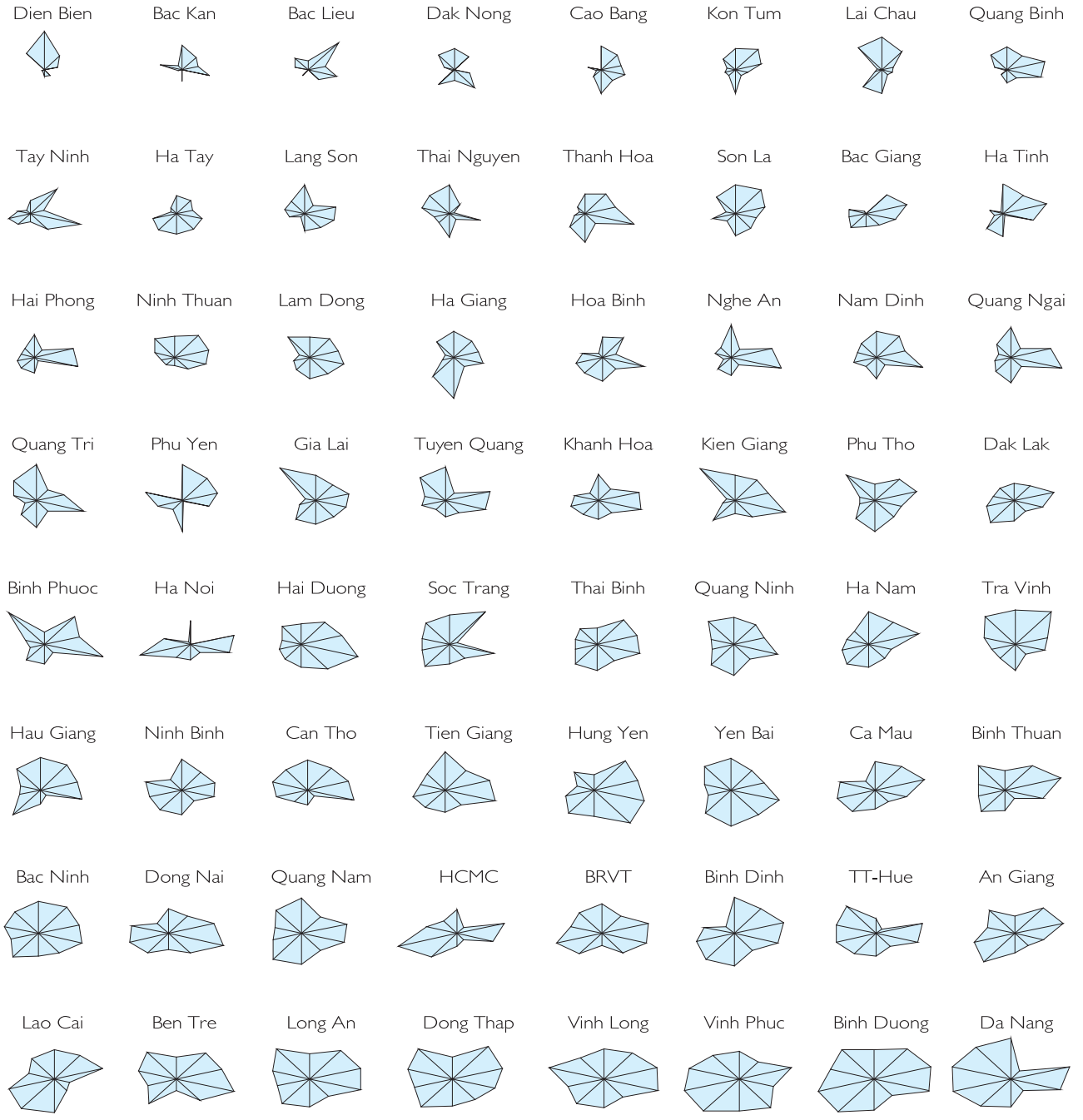
Weights are derived from regression analysis using three dependent variables (number of private firms, investment per capita, and profit per firm). See Appendix 2 for full regression results.

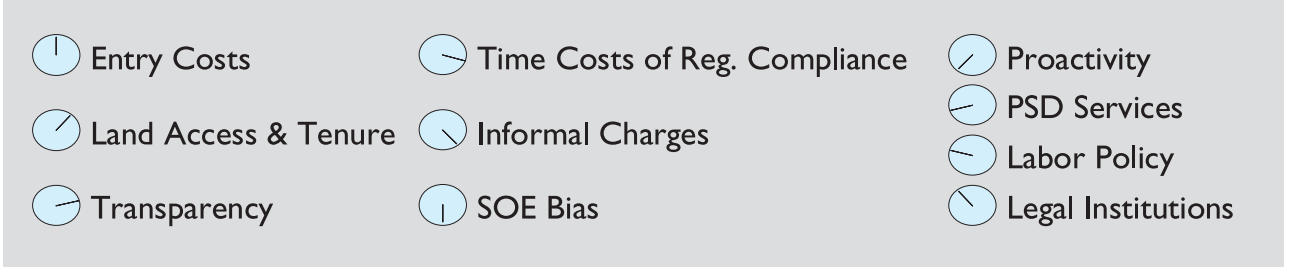
Box : The 10 Sub-Indices of the PCI

As in early reports, the PCI 2008 uses a range of indicators that are grouped together into 10 composite sub-indices. These 10 sub-indices, illustrated in Figure 1.3, are:

1. Entry Costs: A measure of: i) the time it takes a firm to register and acquire land; ii) the time to receive all the necessary licenses needed to start a business; iii) the number of licenses required to operate a business; and iv) the perceived degree of difficulty to obtain all licenses/permits.
2. Land Access and Security of Tenure: A measure combining two dimensions of the land problems confronting entrepreneurs: how easy it is to access land and the security of tenure once land is acquired.
3. Transparency and Access to Information: A measure of whether firms have access to the proper planning and legal documents necessary to run their businesses, whether those documents are equitably available, whether new policies and laws are communicated to firms and predictably implemented, and the business utility of the provincial webpage.
4. Time Costs and Regulatory Compliance: A measure of how much time firms waste on bureaucratic compliance, as well as how often and for how long firms must shut their operations down for inspections by local regulatory agencies.
5. Informal Charges: A measure of how much firms pay in informal charges, how much of an obstacle those extra fees pose for their business operations, whether payment of those extra fees results in expected results or "services," and whether provincial officials use compliance with local regulations to extract rents.
6. SOE Bias and Competition Environment : A measure focusing on the perceived bias of provincial governments toward state-owned enterprises, equitized firms, and other provincial champions in terms of incentives, policy, and access to capital.
7. Proactivity of Provincial Leadership: A measure of the creativity and cleverness of provinces in implementing central policy, designing their own initiatives for private sector development, and working within sometimes unclear national regulatory frameworks to assist and interpret in favor of local private firms.
8. Private Sector Development Services: A measure of provincial services for private sector trade promotion, provision of regulatory information to firms, business partner matchmaking, provision of industrial zones or industrial clusters, and technological services for firms.
9. Labor and Training: A measure of the efforts by provincial authorities to promote vocational training and skills development for local industries and to assist in the placement of local labor.
10. Legal Institutions: A measure of the private sector's confidence in provincial legal institutions; whether firms regard provincial legal institutions as an effective vehicle for dispute resolution, or as an avenue for lodging appeals against corrupt official behavior.

Figure 1.3: Province Performance by Sub-index





Robustness of the Rankings

The decline in the rankings cited above is systematic across the country. No region or particular group of provinces was impacted disproportionately. As a result, the 2008 rankings look remarkably similar to those from previous years. Da Nang, Binh Duong, Vinh Phuc, Lao Cai, Dong Thap, and An Giang remain among the very best performers in the country. Furthermore, the bivariate correlation between 2008 and 2007 final scores is 0.9 (see Figure 1.4). In Panel B, we see that 2006 PCI scores are also strongly correlated with 2007 scores. Together, the plots show convincingly that historical governance is an excellent predictor of future governance. This makes sense; governance practices cannot change overnight. It takes time to plan and implement new initiatives, and there is even a longer lag between implementation and firms experiencing their effects.

This consistency in the provincial rankings has important methodological and policy implications. Policy-wise, the stability of the rankings, despite the decline in scores, indicates that the negativity that the PCI is picking up this year results from national-level factors that are being experienced across the country. It is quite likely that the decline in firm perceptions is somehow connected to the macroeconomic instability and subsequent insecurity experienced by private actors at the beginning of 2008. It may be that provincial leaders have insufficient levers to address the decline in perception to the degree that problems are associated with national-level policies. Alternatively, it could simply be a case of rising expectations of respondents not being met by improvements in performance.

Methodologically, the strong correlation over time indicates that the indexing approach works quite well. The index can consistently identify top

Figure 1.4: Stability of PCI ranking over time

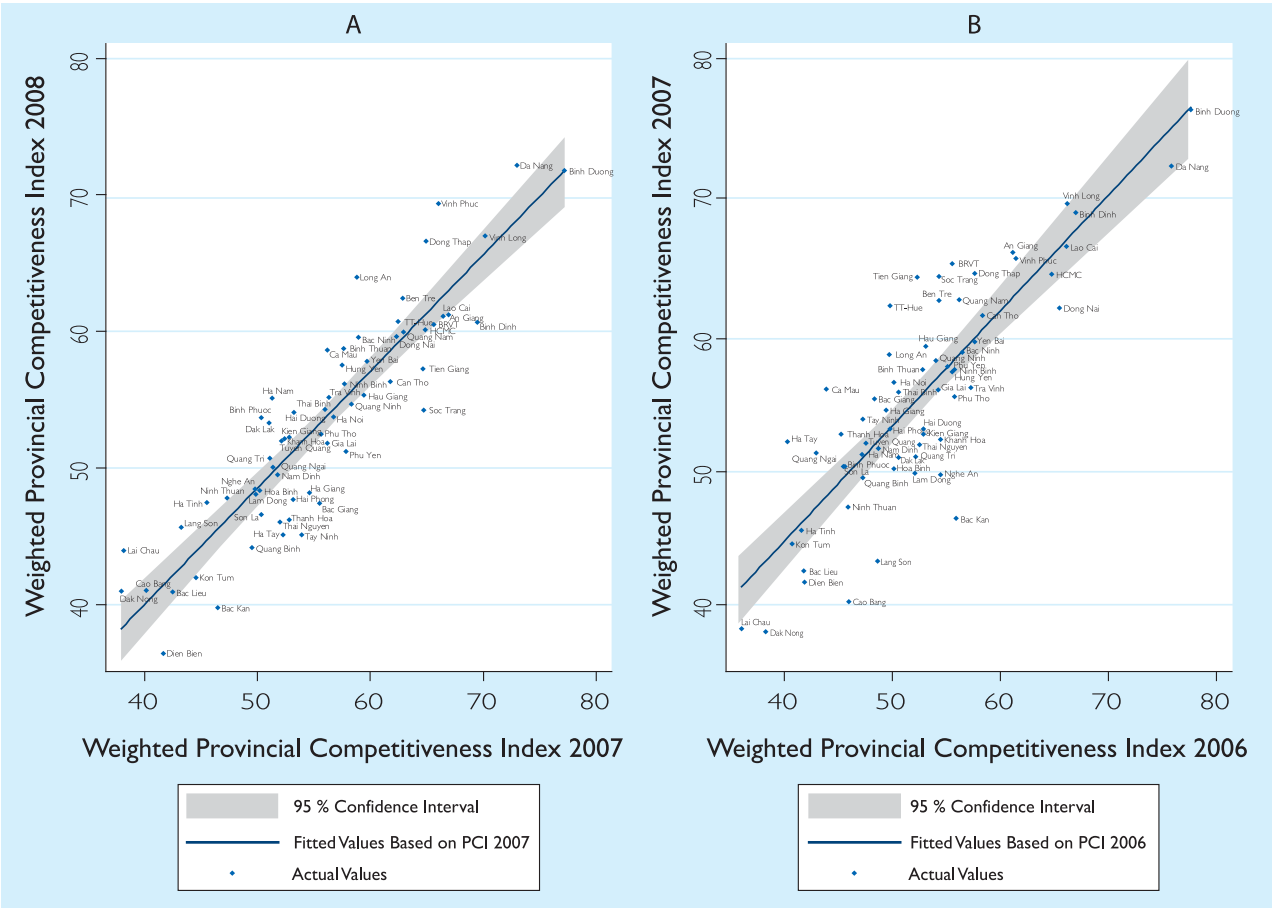
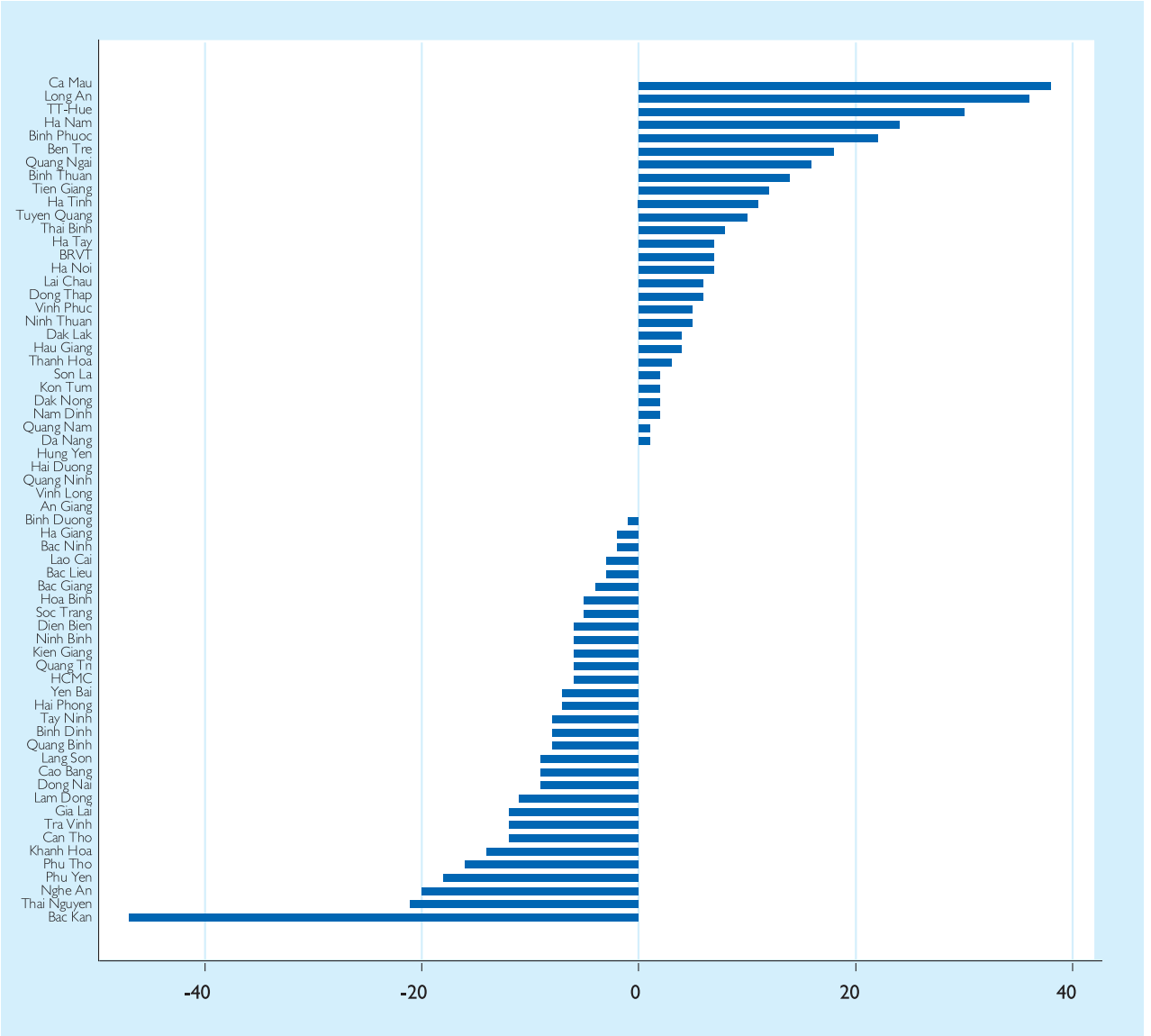


Figure 1.5: Improvement in PCI Ranking Between 2006 and 2008



performers, while allowing room for other provinces to improve and receive higher scores in subsequent years. Such stability is confirmation that the PCI approach offers a consistent and accurate measure of provincial economic governance over time.

"Stability" is not synonymous with "fixed." Over the past two years, a number of provinces have gradually climbed up the PCI ladder. Figure 1.5 shows the cumulative changes experienced by all provinces over the past two-years, while Table 1.3 highlights the provinces that have recorded the greatest two-year and single-year improvements. There are several interesting things to note in Table 1.3. First, 4 of the top 10 improvements were achieved by provinces in the Mekong Delta, including the 2 provinces with the greatest improvements-Ca Mau and Long An. Long An now ranks among the top-performing provinces in the country. Second, whereas last year the key drivers of improvement were the Transparency and Transactions Costs sub-indices, this year, improvements have been led by less Bias toward SOEs and greater Proactivity of Provincial Leadership.

Table 1.3: Provinces with Greatest Improvement in Weighted PCI Rankings

Two-Year Improvement 2006-2008					One-Year Improvement 2007-2008		One-Year Improvement 2006-2007	
Province	Improvement in Ranking	2008 PCI Rank	2008 PCI Score	Sub-Indices Most Important for Improvement	Province	Improvement in Ranking	Province	Improvement in Ranking
Ca Mau	38	18	58.64	Proactivity/Land	Ca Mau	20	Ca Mau	27
Long An	36	6	63.99	Labor/SOE	Long An	17	TT-Hue	25
TT-Hue	30	10	60.71	Legal	TT-Hue	15	Tien Giang	21
Ha Nam	24	26	55.13	Proactivity	Ha Nam	15	Ha Tay	21
Binh Phuoc	22	32	53.71	SOE Bias	Binh Phuoc	11	Long An	21
Ben Tre	18	7	62.42	Proactivity/SOE	Ben Tre	10	Thanh Hoa	17
Quang Ngai	16	41	50.05	Entry/Informal	Quang Ngai	8	Bac Giang	13
Binh Thuan	14	17	58.75	SOE Bias	Binh Thuan	8	Soc Trang	13
Tien Giang	12	21	57.27	Transparency	Tien Giang	8	Tay Ninh	13
Ha Tinh	11	49	47.48	SOE/Entry	Ha Tinh	7	Quang Ngai	12
Median Province	0	32	53.51		Median Province	1	Median Province	0

Finally, and most importantly, more than half of the greatest leaps were experienced in provinces that made legal commitments to improve their PCI scores through official resolutions of the Party Secretary and People's Committee or through action plans sanctioned by the top leadership (TT-Hue, Tien Giang, Ca Mau, Long An, Quang Ngai). These documents go beyond noncommittal statements that call for general improvements to specifically identify key provincial weaknesses in economic governance, assign responsibility to individual actors, provide clear targets for measuring success, and identify local initiatives to help achieve those results.

In essence, the provinces that have shown improvement are the ones where local leaders openly committed themselves to the task, formally announcing commitments to their subordinates and, in many cases, to the public at large. While the PCI research team has collected and assembled a library of such documents, these reports do not have a direct impact on scoring. Our scoring is based only on the opinions of independent firms. Thus, the rise in scores in the provinces that committed overtly to change is the result of entrepreneurs in those areas having experienced the new environment first-hand and having recorded their improved perceptions in their survey responses. Rises in scores are a credit to the work and openness of local officials in these locations.

1.3 Changes over Time

As discussed above, there is little evidence of general improvement in economic governance this year. Most of the sub-indices show small improvements, but none that are as dramatic as the leaps taken between 2006 and 2007. Nevertheless, trends on a few critical indicators are worthy of note. Detailed chronological tables and descriptions of indicators are available in Chapter Six. This section provides only a few highlights.

Positive Signs

As a result of one-stop shop (OSS) implementation, which we discuss in more detail below, waiting periods for business registration and procedures for start-up have declined significantly this year. Security of property rights also continues to improve. This year, 81 percent of PCI respondents have formal Land Use Rights Certificates, up from 75 percent in 2007 and 55 percent in 2006. This solid increase is supported by official data from the Ministry of Natural Resources and Environment. Importantly, as a result of a proliferation of Provincial Legal Gazettes (see Section 2.2), access to legal documents also continues to improve. The percentage of firms negotiating their tax payments with local officials-another important indicator of transparency-improved in 2008 as it has in previous years. Only 36 percent of firms admit to this activity in 2008, down from 41 percent last year and 61 percent in 2006. Finally, SOE bias is at a historical low: only 39 percent report explicit bias on behalf of SOEs. More than 50 percent of firms believe that their province has a positive attitude toward private entrepreneurs, and the number of SOEs operating in provinces has declined by 60 percent since 2000. In fact, SOE Bias is now so low that we will likely drop it in future iterations of the PCI. Although firms still worry about central conglomerates, they are much less concerned about favoritism toward local SOEs.

Worries

A disconcerting deterioration in performance is observable in the Time Costs of Regulatory Compliance sub-index. The decline in the median score from 6.2 to 5.8 is not nearly as dramatic as the precipitous falls in PSD and Labor, nor is it a statistically significant change. Nevertheless, individual indicators within the sub-index demonstrate clear declines. The percentage of time spent on bureaucratic procedures continues to increase annually. Currently, 23 percent of firms spend more than 10 percent of their time on bureaucratic procedures, with few firms detecting any improvements in the burden caused by administrative barriers. While entry costs have improved dramatically, it appears there is still much work to do on addressing the cumbersome post-registration costs of regulatory compliance. Most policy efforts on post-registration regulation have

focused on inspections. Consequently, these have now been reduced to minimal levels and do not appear to be an important obstacle faced by entrepreneurs. On the other hand, firms still complain of cumbersome paperwork and other procedures in day-to-day interactions with provincial bureaucrats. Clear guidelines involving the distribution of value-added tax (red) receipt books and renewals of environment, health, and safety certificates top the lists of firms' priorities for policy makers. As always in Vietnam, interpretation and implementation of administrative procedures varies heavily by province.

The Prime Minister's Master Plan on Administrative Procedures Simplification (Project 30) implemented by the Office of the Government and supported by VNCI go a long way toward resolving these issues by inventorying and reviewing all of the administrative procedures affecting firms at both the national and provincial levels in a transparent, accessible, and comprehensive database. First the inventory phase will allow for a quick and thorough assessment of the current post-registration regulatory burden faced by firms in each economic sector and province. Firms will have better understanding of their rights and obligations. The inventory will allow for standardization of all nationally issued administrative procedures and ready comparison of provincial regulatory initiatives, so local leaders can follow national initiatives and identify the standards that best suit their needs. The second phase of Project 30 to review, simplify, or abolish unnecessary, illegal, and cumbersome procedures will reduce the huge burden of paperwork and compliance costs affecting firms in their daily operations, easing the interpretation and implementation of administrative procedures nationwide.

Other indicators do not demonstrate significant year-on-year changes. Though not declines, these trends are worrying because they have been identified as key policy initiatives by the leadership and, therefore, stagnation is disquieting. Indicators of Informal Charges, for instance, have shown no discernable improvements. Frequency of, size of, and obstacles posed by bribery have remained the same for the past three years, despite the government's highly public efforts to reign in such activity [7]. One of the cornerstones of public administration reform was to increase the salaries and improve the quality of civil servants so that bribes would become a less important part of public service delivery. These ambitious goals do not appear to have been achieved at the local level.

Currently, two new initiatives are underway that are planned to help address the deficiencies of previous corruption efforts. The National Strategy on Combating and Preventing Corruption by 2020 and its Action Plan, which is being drafted, is planning an integrated strategy across a number of line ministries and local agencies. In addition, the newly passed Law on Public Officials and Civil Servants is expected to upgrade and create a clean, motivated, and effective civil service through merit-based performance incentives, including performance evaluations, competitive recruitment for contract positions, and clearly defined job descriptions. PCI data will certainly help gauge the effectiveness of these efforts as well.

In sum, tremendous improvements have been recorded, but more work remains. The continuing burden of cumbersome regulatory procedures unnecessarily raises firms' costs and cuts into their bottom lines, while the lack of real progress on informal charges substantially raises the risks of entrepreneurial activity.

1.4 Impact of Governance Improvements on Private Sector Growth and Welfare

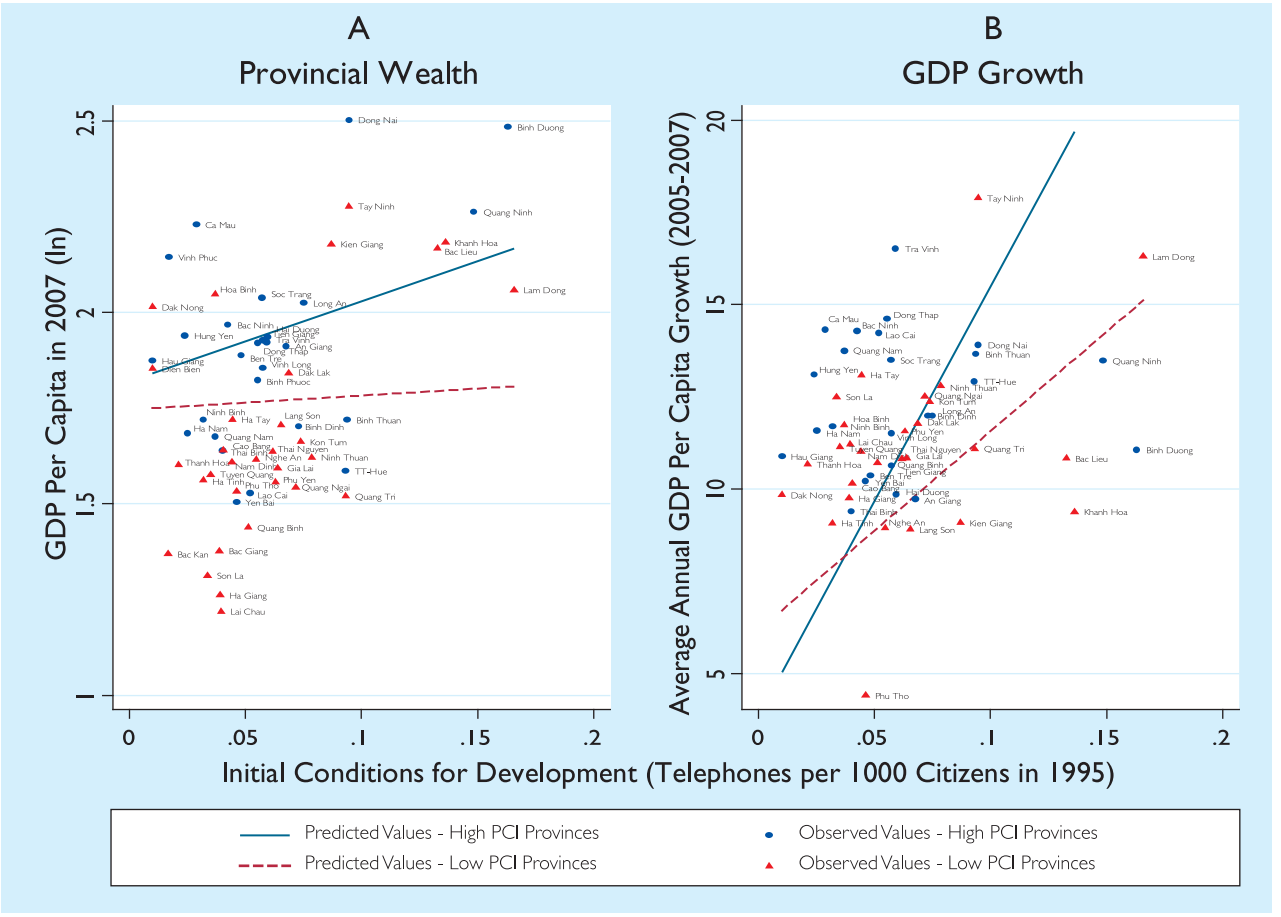
Each year, the PCI research team provides regression results that establish a strong association between the unweighted PCI results and key private sector performance outcomes.

We consistently show that provinces with better governance make more productive use of initial endowments. Initial conditions certainly matter;

7. Vasavakul, Thaveeporn. 2008. "Recrafting State Identity: Corruption and Anti-Corruption in Doi Moi Vietnam from a Comparative Perspective." Presented at the Conference on Re-Making the Vietnamese State, Hong Kong, August 21.

more well-endowed provinces have much higher incomes (measured by gross domestic product (GDP) per capita) than their less well-endowed peers. However, at every level of initial endowments, better-governed provinces (i.e., those with PCI scores above the 2006 median) outperform less well-governed localities. This is true whether we use overall level of GDP per capita (see Figure 1.6, Panel A) or focus solely on the average change in GDP per capita over the past two years (see Panel B). The gap between the solid blue line (the predicted values for high PCI provinces) and the dashed red line (predictions for low PCI provinces) is what we term the "economic governance premium." It indicates that at each level of initial conditions, better-governed provinces are able to use their endowments more efficiently and achieve higher levels of economic welfare. (See Appendix 1 [especially Appendix 1B] for detailed regression results.)

Figure 1.6: Governance Premium
(The Impact of Good Governance on Provincial Wealth and GDP Growth)



Note for display purpose, this graph drops national-level cities and Ba Ria - Vung Tau, because they are outliers that are difficult to display in a single figure.

While these regressions control for a range of factors-notably infrastructure, human capital, and proximity to major markets-we were never wholly satisfied with them. Because we did not have sufficient data on economic governance over time, we were only able to establish that there was an association between good governance and outcomes among provinces within a given year. This is the relationship demonstrated in Panel A. That is, we could show that private sector performance in well-governed provinces was better than that in poorer provinces. In this case, the governance premium in the figure is the relative difference in GDP per capita, within a single year, between well- and poorly governed provinces. Although this cross-sectional (across geographic space) correlation is important, it is static and limited because it cannot effectively track the influence of changes over time.

From a policy perspective, it is more useful to allow for more dynamic analysis of whether governance improvements within a single province influence that specific province's business performance and income in future years. In other words, it would be helpful to show that over-time improvements on PCI indicators lead to improvements in economic outcomes. After all, this is the calculation that a provincial leader must make, asking: "Will this initiative that I am considering today improve the economy in my province tomorrow?"

Now that comparable data on both the PCI scores and economic outcomes going back three years are available, time-series analysis can be performed within each province (sometimes referred to as longitudinal or panel analysis). Here is what we learned. All else being equal, a one-point improvement in the 100-point PCI score in a given year within a particular province is associated with a 6.9 percent increase in active private companies, a 2.6 percent increase in average investment per capita, and a 1.6 percent increase in GDP per capita in the subsequent year. This is the relationship illustrated in Figure 1.6, Panel B. These effects are strongly statistically significant and the findings are robust relative to changes in control variables and different regression specifications. To put these figures in context, an equivalent shift in one indicator of infrastructure quality in a province (an additional telephone for every 10 citizens) is associated with a 4 percent growth in private companies, a 1.1 percent growth in average investment, and a 2.1 percent change in GDP per capita. These results show that while governance is not the only driver of improvements in economic conditions in a province, it does matter a great deal.

There is one important qualification for this finding. There is no statistically significant relationship between improvements in governance and changes in profitability. Although there is a strong cross-sectional association (well-governed provinces have higher profits), there is no clear evidence that a single-year improvement in PCI scores influences firms' bottom lines in subsequent years. Improvements in governance seem to be more clearly associated with the willingness of firms to take risks through entry or expanded investments. The bottom line is that firms in better governed provinces have higher profitability, but profit margins have not expanded along with governance improvements. Other factors are more influential in explaining changes in profitability over time.

As in previous reports, we studied the differential association of individual sub-index scores with key outcome variables. Once again, transparency of business information, proactivity of the leadership, and labor policies have the most consistent and robust impact on private sector development. Simply enhancing access to legal and planning documents through a one-point improvement in transparency is associated with a 3.7 percent rise in the number of firms per 10,000 citizens in the province. Some sub-indices that have been only marginally important in past years proved to have significant effects on individual-outcome variables this year. Key among these was the Entry Costs sub-index, which, because of the differential impact in OSS implementation across the country, was significantly related to new enterprises established in a province. Interestingly, lowering entry costs was also negatively associated with profits per firms. This can be explained because lower barriers to entry

increase competition for existing entrepreneurs, cutting into their profit margins. On the other hand, Land Access and Security of Tenure had a large impact on firm profitability. A single-point improvement on this proxy for property rights is correlated with almost VND 9 million per firm in annual profits.

The formal details of the regression specifications are in Appendices 1C, D, and F, but there are three technical details that general readers should understand.

First, we use the unweighted PCI score because the weighted PCI is calibrated to private sector outcomes.

Second, the panel analysis includes provincial-level fixed effects; that is, we only compare each province to itself over time and not to other provinces in the country. As a result, we do not need to worry about historical or cultural factors that are specific to a locality. The fixed effects absorb this variation, allowing us to isolate the impact of policy/institutional change independent of a province's initial conditions.

Third, there are a number of factors that affect provincial economies but are out of control of the provincial authorities in the short run, including infrastructure, human capital, population growth, and national economic trends such as macroeconomic conditions, foreign investment, and commodity price increases. Our model controls for these factors so that we can calculate the marginal improvement of changes in governance. Clearly these factors are important, but the purpose of our analysis is to assess the singular impact of governance on private business activity, holding constant the other drivers of economic performance.

CHAPTER TWO

INDIVIDUAL POLICY EVALUATION USING THE PCI DATASET

INDIVIDUAL POLICY EVALUATION USING THE PCI DATASET

As provincial officials often remind the research team, it makes little sense to focus on the impact of improvements on the aggregate sub-indices. After all, these are composite measures that include multiple factors and, therefore, the direct connection to the levers of policy makers is unclear. What exactly does a one-point improvement on the Entry Costs sub-index mean anyway, and if I want to lower entry costs in my province this year, what should I do? What really matters for policy makers and stakeholders are the individual indicators that comprise the PCI data because these reflect actual policy choices. What they need to know are the potential benefits of specific practices that they can weigh against the costs of implementing them. The new time-series data provide a powerful tool to investigate these questions. Specifically, we can use the PCI data to evaluate policy changes and generate direct measurement of their impact. Three changes are relevant for this year's analysis: 1) one-stop shop (OSS) business registration; 2) the publication of Provincial Gazettes; and 3) the increasing use of courts as a means of dispute resolution. We find that OSS has significantly increased the speed of business registration; that publication of Provincial Gazettes, particularly online versions, has dramatically increased transparency of business documentation; and that increasing usage of provincial courts appears to be associated with firms' stated confidence in legal institutions.

2.1 One-Stop Shop Business Registration

Although the idea has been around for some time in Vietnam, and a number of provinces have experimented with pilot versions, one-stop shops for business registration were not officially recognized as a fundamental obligation of local officials until October 23, 2006, under the Prime Minister's Decision No. 236/2006/QD-TTg The decision formally approved the Small and Medium-Sized Enterprise (SME) Development Plan (2006-2010), which mentioned OSSs, while a subsequent interministerial circular (02/2007/BKH-BTC-BCA) assigned responsibility for implementing them to provincial Departments of Planning and Investment (DPIs) and articulated the specific processes. Circular 02 was entirely voluntary. Provinces were not forced to implement it; rather, the legislation was meant to provide guidance for DPIs interested in moving forward with OSSs.

According to Circular 02, OSSs were meant to involve three separate business start-up procedures: the business registration certificate issued by DPI; the tax code issued by the Tax Authority; and the chop (or red seal) for stamping documents that is granted by the local police department. According to the decision, private companies need only visit a single office and an individual within that office is charged with collecting all three pieces of documentation on behalf of the company. Circular 02 also identified a maximum waiting period of 15 days for all three procedures.

There was a wide variance in the interpretation of these policies among localities. Some provinces granted official approval to have the chop made, but still required entrepreneurs to visit provincial Departments of Public Security to register the chop after it was manufactured. Other provinces required that an official from the Department of Public Security work directly in the OSS, so the chop

registration could be granted immediately. Some provinces required separate applications for each document, while others found ways to consolidate the applications. Eventually, in December 2007, the different interpretations of the procedures for chop issuance led central officials to take action. The chop license was abolished by the Ministry of Public Security entirely. Now, a firm must only have its chop made at a local establishment and take it to the police for registration, a formality that cannot take longer than two days.[8] Because the chop license no longer exists, a revised Circular 05 was issued in July 2008 that dropped the chop license requirement from the OSS procedures. It further reduced the maximum waiting period for registration and tax certificates to five total days.

Have these national-level policy changes reduced the time that firms wait to become fully legal establishments? Thus far, most evaluations of OSSs have relied on official data supplied by DPIs. This evidence has been confirmatory, but has also been viewed with some suspicion because DPI officials have strong career self-incentives for improving their numbers. They cannot be considered independent evaluators of their own efforts. More directly, official numbers tend to underestimate the true amount of time required for business entry because registration officials only record a registration process when a complete form is received, but do not account for days lost when applications are returned because of minor errors in the documentation.[9]

PCI's firm-level data can provide an independent test of the impact of changes in policy on business entry. Table 2.1 takes a national-level perspective, dividing the entire PCI sample by the year in which firms registered. Three broad groups of dates are visible by the shading: 1) firms that registered between the formal recognition of private firms in 1991 and the inauguration of the Enterprise Law at the end of 1999; 2) firms that registered between the Enterprise Law and the initiation of OSSs; and 3) firms that registered after Circular 02 on implementation of OSSs. We do not consider the Unified Enterprise Law of 2005 separately because it did not change registration procedures for private firms dramatically, but, instead, united foreign and private enterprises under the same legal regime.

We should be a bit cautious about the recollections of firms that registered in the early 1990s. These are the firms that survived and, consequently, may be viewing the past with slightly rose-colored glasses. Thirty days for business registration seems exceedingly fast given the anecdotal evidence from that period. Even with the survivor bias of older firms, however, the evidence of improvement in registration periods appears dramatic. The 1999 Enterprise Law cut median registration times in half, to about 15 days, and the OSS procedures have further pushed down waiting periods to 10 days in 2007 and to single-digits by 2008, although the 2008 numbers only involve firms that registered in January before the survey. Furthermore, in line with expectations for OSSs, the total time before a firm is fully legal has declined dramatically-only 5 percent of firms in 2007 waited more than three months for all of their documentation. None has crossed that threshold thus far in 2008.

By way of comparison, we also include the data on total registered and active firms, as reported by the Ministry of Planning and Investment (MPI), the General Statistics Office, and the Tax Authority. Focusing on the most accurate indicator-the number of registered firms listed on taxpayer rolls in 2008-we can see a dramatic post-OSS spike. More than 50,000 new firms registered their businesses after the onset of OSSs, compared with 26,000 the year before. Clearly, something significant has occurred that is not captured in the World Bank's Doing Business measure of the official waiting periods for business registration, which have barely budged since 2004 despite the new OSS procedures. Circulars 02 and 05 may have occurred too recently for Doing Business researchers to incorporate the changes into their analysis.

8. Le Nguyen Minh. 2008. **"Bỏ giấy phép khắc dấu"** [Removal of the Stamp Licenses] **An ninh thủ đô** [Capital Security], January 9.
9. Association for Small and Medium Size Enterprise Development for Circular 05 Drafting Committee: 2008. Report on Implementation of the One Stop Shop for Business Registration, Tax Registration, and Stamps and Licenses for business establishment in accordance with the Enterprise Law. Ha Noi, Viet Nam.

Table 2.1. History of Private Business Entry in Vietnam

Year		Provincial Competitiveness Index Data 2008					Official Data on Firm Activities			World Bank's Doing Business	
		PCI 2008 Respondents Established During Year (#)	Median Days for Registration	Median Number of Licenses	Firms waiting over one month to be fully legal companies (%)	Firms waiting over three months to be fully legal companies (%)	Newly Registered Firms (MPI)	Total Active Private Firms (Enterprise Census)	National Tax Authority List of Tax-Paying Operations	Registration (Number of Procedures)	Registration (Number of Days)
Pre-Enterprise Law	1991	37	30	4	32%	13.04%	61				
	1992	99	30	3	35%	7.46%	3500				
	1993	137	30	5	30%	9.24%	4239	518			
	1994	108	30	3	23%	4.30%	2843	924			
	1995	114	30	4	32%	8.79%	4222	14762			
	1996	105	30	4.5	26%	10.87%	2764	1486			
	1997	146	30	4	32%	8.33%	2764	25027			
	1998	134	30	5	30%	12.39%	3630	25965			
	1999	151	22.5	3	25%	8.81%	3601	25440			
Post-Enterprise Law	2000	418	15	3	22%	6.83%	8785	35004			
	2001	552	15	3	24%	8.41%	19662	44314			
	2002	576	15	3	24%	7.49%	17992	55236			
	2003	714	15	3	25%	7.04%	25982	64526		12	63
	2004	844	15	3	24%	7.03%	48336	84003	126569	11	56
	2005	1059	15	3	21%	6.41%	39918	105169	151249	11	50
	2006	1026	14	2	21%	6.21%	39984	123392	177815	11	50
OSS	2007	1139	10	2	19%	5.08%	34100	144369*	228255	11	50
	2008	67	8.5	2	18%	0.00%				11	50

Estimated based on relationship between active firms registration data.

Currently, the Doing Business data still count the chop license as an official procedure.[10] Another discrepancy between the PCI and Doing Business is that the PCI counts some recurring activities, such as obtaining value-added tax (VAT) receipts and registrations for health and social insurance, under our measure of Time Costs, while Doing Business counts these as entry costs. As noted above, the PCI also finds that there has been little change in these post-registration activities.

Although the aggregate annual measures show a clear change in performance of provincial registration processes, it is not clear that we can attribute the improvement directly to the initiation of OSSs. It may simply be that local officials are doing their jobs more efficiently as a result of accumulated experience and perhaps the greater attention they are receiving from higher authorities. The exact impact of OSSs on business registration can be estimated by exploiting cross-sectional variation in how OSSs are implemented among different provinces. The needed data for this test are available from the Agency for SME Development (ASMED) in the Ministry of Planning and Investment. The data were assembled for internal use only by the Circular 05 drafting committee and were provided to the PCI team, but had not been made publicly available. ASMED records the date that an OSS was initiated in a province. According to ASMED's analysis, Hai Phong established the first OSS on July 25, 2006. Lai Chau was the last province to establish an OSS, not until January 11, 2008. Only 60 provinces submitted data to ASMED and, of those, only 50 provided comprehensive data for analysis.

Consequently, our analysis drops 14 provinces, including some that first started experimenting with OSSs in the mid-1990s, such as Binh Duong and Dong Nai. The missing data should cause us to under-estimate the impact of OSSs by neglecting these well-governed entities.

A second useful measure is the percentage of firms that registered through OSSs and those that entered through older procedures. As provincial administrations were phasing-in OSSs, they invited firms to use the new registration window but allowed others to follow the older methods. In some cases, firms actually wanted to use the older system because they knew an official in one of the component offices or because they wanted to keep better track of their file as it passed through the bureaucracy. Therefore, it is possible to calculate a measure of the percentage of firms that used an OSS in each province as a test of the system itself. This metric ranged from 100 percent in 21 provinces to zero in 15 provinces.

Controlling for structural conditions, such as proximity to markets and the capacity of local government (proxied by the number and salary of local officials), we find that increasing the percentage of firms using OSSs from zero to 50 percent decreases the median registration period in a province by 1.3 days. The number may seem small, but it is substantively important given that the median waiting period before OSSs was 14 days. One day, therefore, represents a 9 percent improvement. This finding is statistically significant and robust to alternative specifications (see Appendix 2A for the regression results).

Other tests are not significant. According to PCI data, usage of OSSs is not correlated with the declines in the number of documents required, the total time to complete all procedures necessary for a business to be fully legal, or the satisfaction that firms have with the process. Since the mandate for OSSs is to reduce the total time required for a firm to achieve a legal status, this finding is critical. Registration times have been reduced, but firms still claim dissatisfaction with a number of other procedures that occur immediately after registration. Officials may want

10. World Bank. 2008. Doing Business 2009: Comparing Regulation in 181 Economies. World Bank: Washington, D.C. The 11 listed Doing Business procedures are:
    1. Obtain a business registration certificate.
    2. Obtain a seal-making license.
    3. Make a company seal.
    4. Pick up company seal.
    5. Open a bank account.
    6. Publish a notice in a business paper.
    7. Register for taxes.
    8. Buy pre-printed VAT invoices.
    9. Register with the local labor office.
    10. Register for health and social insurance.
    11. Register for trade union with Vietnam General Confederation of Labour.

to re-orient their attention away from the OSS and on to bottlenecks facing a firm after business registration. In terms of the number of procedures, the unification of registration certificates and tax codes that is currently being devised by the MPI with the assistance of the United Nations Industrial Development Organization is a helpful step in the right direction. The efforts of Project 30 to simplify administrative procedures and forms within OSSs and after business registration will further reduce time costs of regulatory compliance.

In sum, it would appear that business entry procedures are improving dramatically. This can be partially attributed to wide-scale implementation of one-stop shops, but it is unclear that OSSs are wholly responsible for the success. General changes in attitude and efficiency improvements at the local level may have also influenced the process.

2.2. Publication of Provincial Legal Gazettes

For the past four years, the PCI report has argued that the most critical factor in improving the local business environment is the transparency of business information. Only with access to legal and planning documents can entrepreneurs properly plan for the future and assess their business risks. Consistently, firms tend to expand investment most rapidly when operating in provinces where regulatory information, master plans, and infrastructure maps are most widely available.

National policy makers in Vietnam have recognized the need for greater access to information. Major legislation has been approved to improve transparency, first with the revision to the Law on the Promulgation of Legal Normative Documents (LNDs), better known as the Law on Laws, in 2002 to require publication of all LNDs for 15 days in the Official Gazette before coming into legal effect; next with the passage of the Law on Local Laws in 2005, which required the establishment of provincial Official Gazettes; and most recently with the further revisions of the Law on Laws in 2008 to require 60-day public comment periods for LNDs. These initiatives served not only to meet requirements in the U.S.-Vietnam Bilateral Trade Agreement and for accession to the World Trade Organization, but also to improve transparency and participation for Vietnamese businesses and citizens.

Of particular interest for the PCI, given its focus on provincial transparency, is the requirement specified in Decree 136/2005/ND-CP that mandated that provinces publish all LNDs passed at the provincial level in a provincial gazette (Công Báo)[11]. Publication of the gazettes proceeded slowly at first. On April 27, 2006, when the Public Administration Reform Steering Committee of the Government issued its report on implementation, it listed only nine provinces and national-level cities that had established provincial gazettes.[12] By June 2008, however, a subsequent review found that all but one province (Ca Mau) published a hard copy of a provincial official gazette and that an additional 20 provinces published searchable, online gazettes.[13]

Has this growth in the publication of legal documents been a source of transparency at provincial levels? The PCI is well-positioned to analyze this question using a panel dataset of 2,500 firms that have answered the PCI survey every year. Because these firms answer the PCI annually, they are familiar both with the PCI survey instrument and with the history of policy changes over time. Therefore, their responses are quite robust, because assessing their understanding of improvements over time is less prone to sampling error and thus more reliable than a new cross-section of firms.

Observing the responses of these 2,500 firms about access to legal documents over time (Table 2.2) reveals a clear pattern. Far more firms believe they

11. This Circular filled in the details of the Law on Promulgation of Legal Documents of People's Councils and People's Committees, December 3, 2004.
12. Ho Chi Minh, Da Nang, Ha Noi, Vinh Phuc, Nam Dinh, Binh Duong, Ben Tre, and Can Tho. See Report No.01/BC-BC?CCHC dated April 27, 2006 by PAR Steering Committee of the Government.
13. Other important recent transparency initiatives that have not been required by law include the establishment of an Electronic Government Portal by the Office of the Government where many national laws and regulations can be found. In 2004, the Vietnam Chamber of Commerce and Industry established the VIBONLINE webpage (www.vibonline.com.vn), where it posted for public comment many draft laws and regulations.

have access to legal documents than planning documents (65 percent vs. 48 percent), and the rate of improvement between 2007 and 2008 in access is faster for legal documents. This is a sign that the promulgation of laws in provincial gazettes is working, because there is no corresponding law regarding promulgation of planning documents. As is to be expected, given the timeline of implementation, the number of firms reporting access to documentation in 2006 and 2007 are statistically indistinguishable (within a 3 percent sampling error range). The major growth in access to legal documentation occurred between 2007 and 2008. Importantly, the percentage of firms that believe relationships are necessary to access the documents has declined substantially since the mandate that gazettes be published-down from 62 percent in 2006 to 49 percent today.

Table 2.2: Access to Business Documentation
(Percentage of the 2,500 PCI Panel Respondents who believe access to documentation is possible)

Document	2008	2007	2006
Legal Normative Document	*65.46*	*61.19*	*62.86*
Central Laws and Decrees	65.19	60.31	60.56
Implementing Documents of Ministries	65.19	58.26	60.90
People's Committee Decisions	67.49	62.61	67.38
Incentive Policies	48.34	47.70	49.74
Changes in Tax Law	81.11	77.09	75.72
Official Legal Gazette	63.15		
Planning Document	*47.59*	*43.85*	*48.66*
Provincial Budget	35.15	31.09	35.09
10-Year Master Plan	54.47	50.77	57.84
Annual Plan	57.79	53.07	59.97
Private Sector Development Plan	53.11	49.74	54.68
New Infrastructure Plans	42.81	40.54	46.93
Central Investment Plan	30.30	27.68	31.18
Access to Land Use Plan and Maps	38.64	36.12	41.82
Business Registration and Land Use Applications	62.47	61.75	61.75
Address and Phone of Local Agencies	52.60		
Data on Registered Enterprises	48.60		
Relationship Necessary to Get Documents (% Agree)	49.28	56.3	61.88
Central Changes in Laws are Predictable (% Usually)	13.12	13.99	16.62
Provicial Implementation is Predictable (% Usually)	6.46	8.42	11.38

On the downside, predictability of new laws and the implementation of those laws at the provincial level continue to decline despite the proliferation of gazettes. Few firms seem to have any understanding of what legal changes are in the pipeline; they only have a sense of the legal documents that have already been issued. This represents a major deficiency in the process. The few actors who do have knowledge of potential changes in legislation and local implementation of that legislation have a critical business advantage over their competitors. But acknowledgement of this deficiency should be tempered by the fact that the legal environment has become noticeably more complex in recent years, resulting directly from Vietnam's development and expanded international commitments. Firms' answers about predictability could be influenced by these macro-developments.

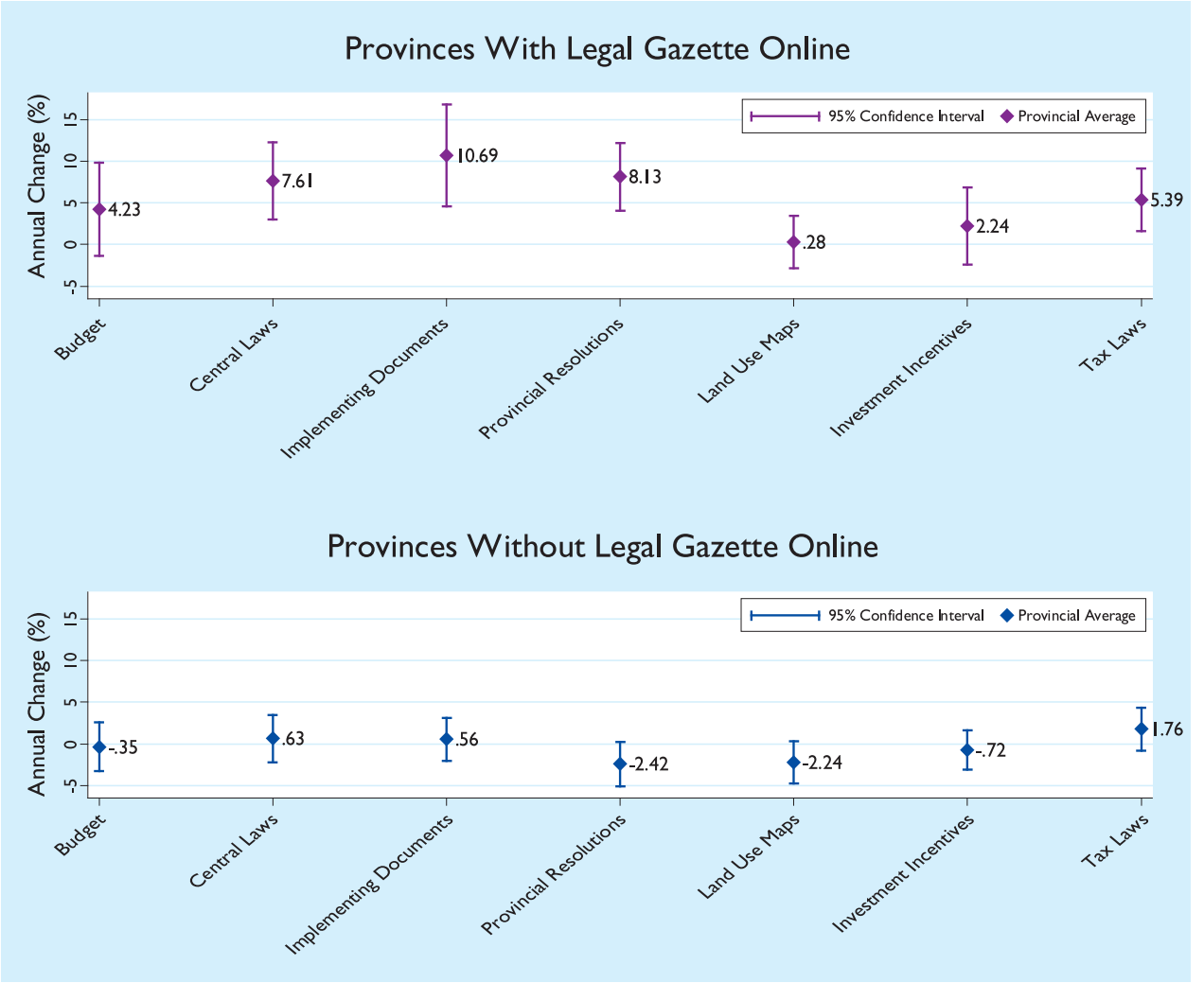
Central officials are aware of the lack of legal predictability and have already taken steps to address the issue. Recent reforms of the Law on Laws 2008, including the requirement for 60-day publication of all draft legal normative documents for public comments and rigorous policy analysis through Regulatory Impact Assessments (RIA), will be implemented by both central ministries and provincial authorities shortly, which will hopefully engage affected parties in the process of law and policy making. If successful, these innovations will enhance firms' perceptions of predictability.

Beyond the availability of a provincial official gazette, a key aspect of information access from a policy perspective is whether the gazette is available on provincial websites. As of July 2008, 20 provinces have provincial gazettes linked to their provincial websites. How does an internet version of the gazette affect firm perceptions of document accessibility?

To answer this question, first keep in mind that internet access to a gazette is not a function of provincial wealth. Several quite rural and poor provinces, such as Thai Nguyen, Tay Ninh, Ninh Binh, and Ben Tre, have gazettes linked to their websites, while rich provinces like Binh Duong do not. In fact, there is no correlation between an internet version of the gazette and provincial wealth. Thirty-two percent of provinces above the median gross domestic product per capita of VND 4.5 million have gazettes online, compared with 26 percent of provinces below median wealth. A t-test shows that this difference is not statistically significant.

Controlling for wealth and other structural factors, firms in provinces with gazettes online are significantly more likely to believe they have access to legal documentation, especially provincial resolutions and decisions. Figure 2.1 illustrates this point: it shows the annual change in accessibility of a sample of important documents according to firms in the PCI panel survey, separated by whether provinces post gazettes online or not. In every case, provinces with gazettes online have demonstrated stronger annual improvements in accessibility. Confidence intervals around the mean values indicate that only three of these differences are statistically significant: 1) central laws; 2) implementing documents; and 3) provincial resolutions. The biggest substantive difference is in access to provincial documentation. Provinces with gazettes online have increased access by over 10 percent, while provinces with only paper versions of the gazettes are actually rated by firms as having diminished accessibility. This makes sense because these are the documents most likely to be included in gazette. Other documents may also be available online, but the positive change in the accessibility of documents is highly related to those required by law. Central documents need not be included in a gazette legally, but provinces with useful websites tend to post them online anyway, often with links. See Dong Nai's webpage for an excellent example of this cross-listing that accounts for the significant signs on central documentation.

Figure 2.1: Access to Business Documentation, (By Online Availability)

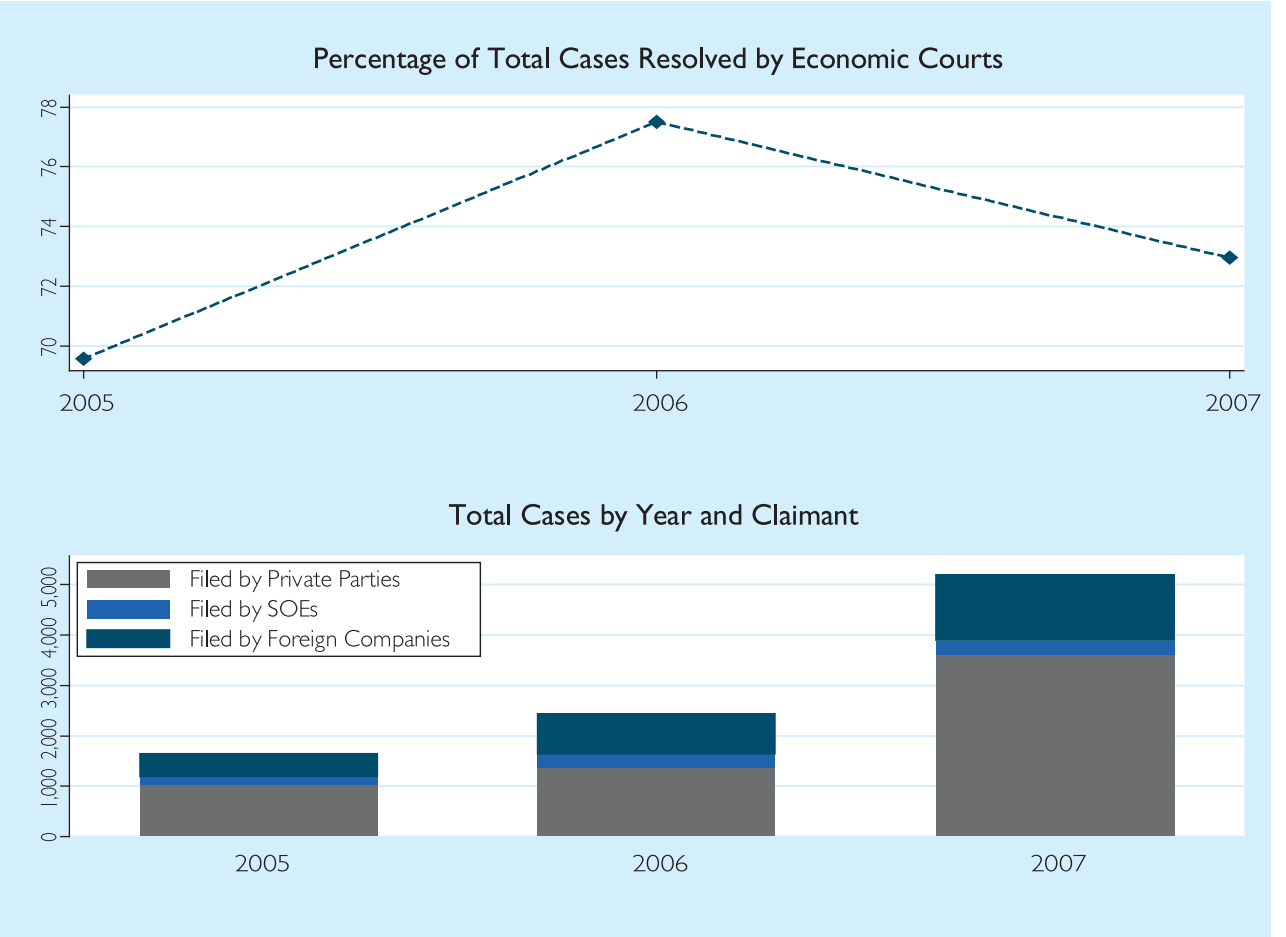


A key conclusion is that the national policy of publishing all legal normative documents has increased transparency at provincial levels, but provinces that have gone beyond the national regulations and posted their gazettes online have facilitated much greater accessibility. Posting gazettes online is an easy step that every province in the country can implement immediately.

2.3 Legal Cases

An important development in this year's PCI is the large increase in the usage of provincial economic courts this year, as reported by the People's Supreme Court of Vietnam. The number of total cases filed more than doubled between 2006 and 2007, from 2,445 to 5,198. The number of cases filed by private entrepreneurs grew by 130 percent in 2007 compared with 2006 (see Figure 2.2). Higher usage of courts by private actors is generally considered to be a positive development because it indicates that entrepreneurs have greater faith in legal institutions and are more willing to move beyond social relations as a mechanism for enforcing contracts. It also may reflect the considerable improvement in contract and other commercial laws in Vietnam over the past six years since the Bilateral Trade Agreement with the US, which has made the law clearer in many regards and, thus, provides firms with a greater confidence in their business rights and responsibilities.

Figure 2.2: Changes in Usage of Court System Over Time



As Vietnam's private firms expand and start to do business with actors in other provinces and countries-outside of their immediate social circle-they must rely more on formal, arms-length legal processes, which must be perceived to be fair and independent. Further analysis of the disaggregated People's Supreme Court data by case type reveals that the vast majority of legal cases filed (roughly 70 percent) involve some form of contract enforcement on the purchase or sale of goods. Much smaller percentages have to do with finance and banking (8 percent) and problems related to construction (6 percent). Thus, on its face, the greater usage of courts in Vietnam by private firms appears to be an excellent indicator of successful legal reform.

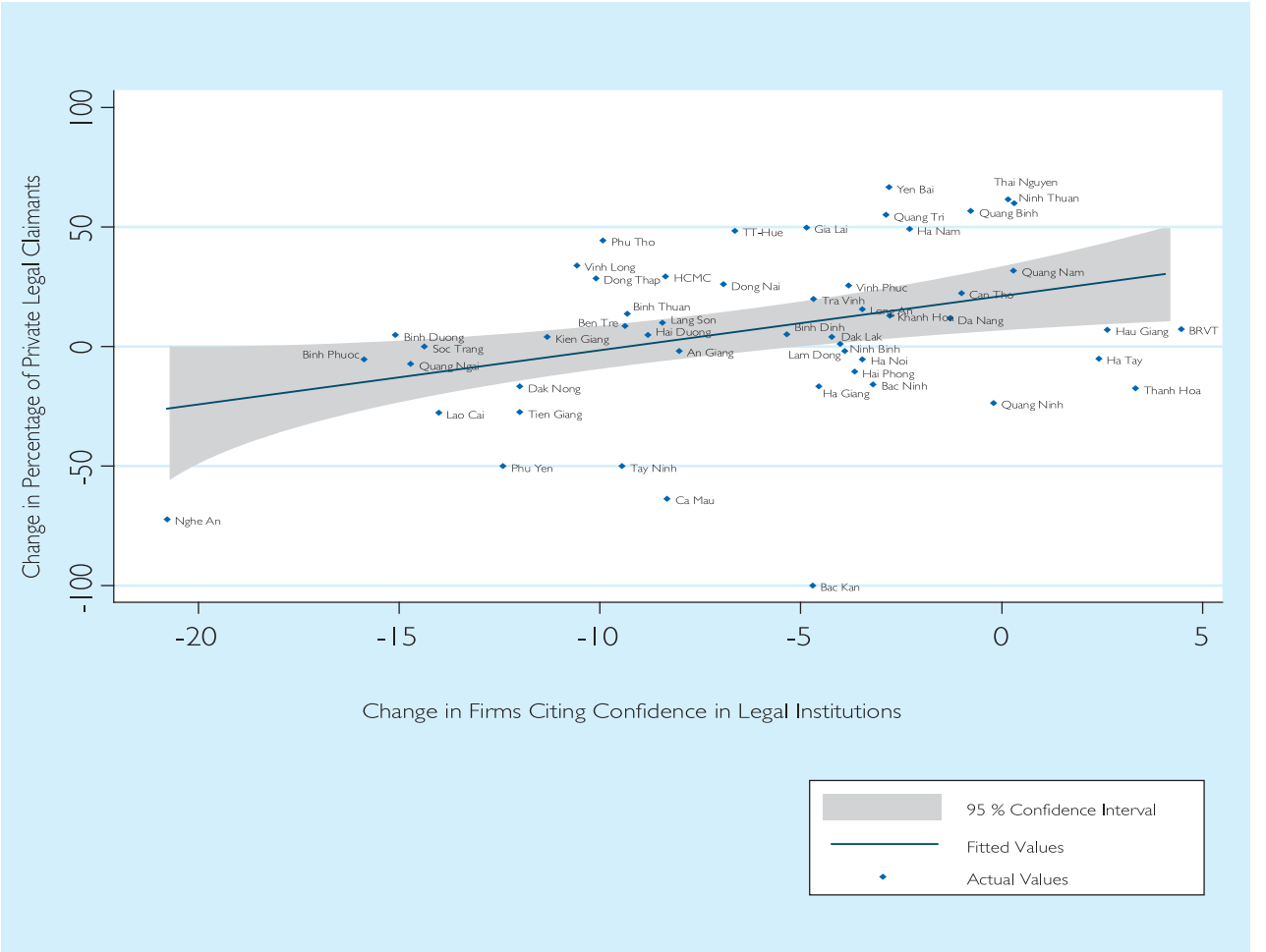
On the other hand, respondents to the PCI survey throughout the country do not report significantly higher usage of the courts or confidence in local legal institutions. In fact, the number of firms responding that courts are among their preferred three forms of dispute resolutions actually dropped from 18 percent to 12 percent.

Probing deeper into the data, we find that two correlates of court usage are the amount of economic activity in the province and the presence of foreign investors. There is a separate line item in the Supreme Court data for foreign firms, but private firms are also more likely to use courts where there is a large foreign investor presence; this could be because of greater contractual interactions with foreigners or simply because foreigners help shape a more legally oriented business environment. Urban centers and southern locales also tend to have more private cases filed.

Controlling for these factors and the increase of private sector business generally, however, we do find that provinces that experienced the greatest increases in court usage from the Supreme Court data are also the ones with the greatest increase in confidence in the court system according to the PCI survey (See Appendix 2B for details).

Figure 2.3 illustrates this relationship and demonstrates that increasing court usage is associated with growing confidence in the legal system. Provinces experiencing the greatest change in confidence are also the places where court usage appears to be spiking. We should be careful about asserting a causal story, because reverse causality is a possibility. Confidence may grow as firms see more of their peers successfully filing cases.

Figure 2.3: Increasing Court Usage and Confidence in the System



CHAPTER THREE

INFLUENCE OF PCI AND POLICY IMPLICATIONS

INFLUENCE OF PCI AND POLICY IMPLICATIONS

The exciting and multifaceted ways the PCI has been embraced and employed since its inauguration four years ago have far surpassed our original expectations. It has been rewarding to observe the many different individuals and organizations who have found the PCI useful in their day-to-day activities.

3.1 Catalyst for reform

Since its launch, the PCI has been widely used by provincial governments to design economic reform interventions and to benchmark their own efforts and progress against "star performer" provinces. In the past two years, four provinces (Ha Tay, Khanh Hoa, Phu Yen, and Binh Phuoc) have issued Party or People's Committee Resolutions that formally commit authorities to improving PCI scores, often indicating specific indicators in need of improvement and initiatives designed to achieve those efforts.[14] Binh Phuoc's recent People's Committee decision is particularly ambitious because it singles out individual departments and offers targets for their improved governance. Another 10 provinces have not issued legal documents but instead have released non-binding action plans for improving PCI scores.[15] Despite their lower status, these documents show a keen understanding of the PCI indicators and publicly demonstrate a commitment to improvement and accountability to provincial constituents. A host of other provincial officials have made public speeches about the PCI. The speech of the People's Committee Chairman of Ha Noi in early 2007 was memorable for the detail of his research and the boldness of his suggestions.[16]

Speading Best Practices

In addition to the formal commitments to reform, we also have observed provincial officials visiting and learning from one another. In an interview with the People's Committee of Binh Duong, we were told that officials from nearly every province have traveled to Thu Dau Mot, the province's capital, in the past few years to learn about best practices from the perennial number one in the PCI survey. Intraregional visits are even more common. In a visit to the Mekong Delta, we observed a number of cases where provincial initiatives had been borrowed

14. Tỉnh Ủy Hà Tây. 2005. "Về tổ chức đợt sinh hoạt kiểm điểm nhằm nâng cao năng lực cạnh tranh về môi trường đầu tư của tỉnh." Nghị quyết 14/NQ-TU, June 4; [Party Secretariat of Ha Tay, Resolution 14, "On the organization of review activities in order improve the competitiveness and investment environment of the province."]. Tỉnh Ủy Khánh Hòa. 2008. "Về tiếp tục cảo thiện môi trường kinh doanh và đầu tư, nâng cao chỉ số năng lực cạnh tranh của tỉnh." Chỉ Thị 19/CT-TU, May 15. [Party Secretariat of Khanh Hoa, Circular 19, "On continuing the improvement of the environment for business and investment, raising the ranking the PCI ranking of the province."]. Ủy Ban Nhân Dân Tỉnh Bình Phước. Forthcoming. "Về việc Ban hành chương trình hành động nâng cao chỉ số năng lực cạnh tranh (PCI) tỉnh Bình Phước. Quyết Định XX/ QD_UBND. [People's Committee of Binh Phuoc, Decision XX, "On the promulgation of an administrative program to raise the PCI scores of Binh Phuoc Province."] Hội Đồng Nhân Dân Tỉnh Phú Yên Khóa V, Kỳ Họp Thứ 10. Nghị quyết về nhiệm vụ kinh tế—xã hội, an ninh—quốc phòng năm 2008. [People's Council of Phu Yen, 10th Meeting of the 5th Council, "Resolution on the responsibilities for economics, society, security, and defense in the year 2008.]

15. These provinces include Binh Duong, Hai Phong, Ha Noi, Da Nang, Ho Chi Minh City, Thai Nguyen, Tien Giang, Kien Giang, Ca Mau, Thua-Thien Hue, and Lao Cai.
16. Nguyễn Thế Thảo. 2008. "Phát biểu của Chủ tịch UBND TP - tại kỳ họp thứ 11 HĐND khóa XIII:
Năng động sáng tạo trong tổ chức thực hiện, phấn đấu hoàn thành vượt mức kế hoạch KT-XH." [Presentation of the People's Committee Chairman of Ha Noi at the 11th Meeting of the 9th Ha Noi People's Council: Proactivity and Creativity within Organization and Implementation; Striving for Exceeding the Goals of the Socio-Economic Plan.]

from neighboring provinces. Tra Vinh and Long An provinces were particularly proactive about learning from their compatriots, citing registration procedures, land policy, and investment promotion as specific sources of inspiration and cooperation. One explanation for the startling improvement and convergence among provinces in the delta has been their willingness to share reform initiatives.

3.2 Uses of the PCI

Private Sector - Investment Decisions and Advocacy

Private firms have used the index to better inform their investment decisions, and to advocate for local initiatives intended to make their locale more conducive for business. The PCI is increasingly used by Provincial People's Councils to question the performance of the administrative departments during annual query sessions, which includes representatives from the business community. As a result, local officials have requested meetings with the PCI research team to discuss the details of the policies cited by the People's Council, so that they can better understand the methodology and design of the PCI. Another useful case of local business advocacy occurred in Binh Duong province, when an entrepreneur objected to a particular local regulation and went on a radio show to declare that he would give Binh Duong lower PCI scores if the regulation was not altered. The PCI research team has witnessed such advocacy in the course of our provincial diagnostics in a number of localities.[17] Firms often use the PCI indicators as a frame of reference for specific local initiatives that they would like to see changed.

Donors and Academic World

Members of the international donor community-both multilateral and bilateral agencies-have used specific PCI indicators for monitoring and evaluating their own local economic development projects. The U.S. Ambassador and Consul General in Ho Chi Minh City are frequent users of the data in their interactions with provincial leaders, but the reach of the PCI extends beyond just the American community. The Danish International Development Agency program specifically monitors success in its four target provinces by using PCI benchmarks.[18] The German Technical Cooperation Agency, International Labour Organization, and International Finance Corporation also make frequent use of the dataset and findings.[19]

PCI data have been employed in a range of academic studies. Key PCI results have been used in research regarding private sector performance,[20] determinants of foreign direct investment,[21] access to bank credit,[22] state sector crowding out of private business,[23] industrial policy,[24] poverty alleviation,[25] and even the role of the National Assembly in policy making.[26]

17. Provincial diagnostics are tailored presentations of the PCI results to provincial leaders. To date, PCI teams have travelled to more than 40 provinces, some more than once, to discuss results with leaders.

18. Danish Embassy. 2008. " Danida's Support to Ha Tay Province Improves Business Climate Significantly." April 4. http://www.ambHaNoi.um.dk/en/menu/AboutUs/News/DanidasSupportToTheProvinceOfHaTayImprovesBusinessClimateSignificantly.htm
19. International Finance Corporation. 2008. "Provincial Economic Governance and Its Impact on Local Competitiveness." Business Issues Bulletin. 23(26), March.
20. Tran, Thi Bich, R. Quentin Grafton, and Tom Kompas (2008). "Institutions Matter: The Case of Vietnam." Journal of Socioeconomics. (forthcoming).
21. Vu Thanh Tu Anh, Le Viet Thai, Vo Tat Thang. 2007. "Provincial Extralegal Investment Incentives in the Context of Decentralisation in Viet Nam: Mutually Beneficial or a Race to the Bottom?" United Nations Development Program Vietnam Working Paper Series. Ha Noi: Vietnam; Malesky, Edmund. 2008. Provincial Governance and Foreign Direct Investment in Vietnam." in Twenty Years of Foreign Investment in Vietnam." Ho Chi Minh City: Saigon Economic Times; Reihl, Evan (2008). "Regional Regulations and Foreign Investment in Vietnam." Unpublished Manuscript. University of Washington: St. Louis
22. Malesky, Edmund and Markus Taussig. 2008. "Where is Credit Due? Legal Institutions, Connections, and the Efficiency of Bank Lending in Vietnam." Journal of Law, Economics, and Organization. Available online June 20 (http://jleo.oxfordjournals.org/cgi/content/abstract/ewn011v1?andorexacttitleabs=and&HITS=2&hits=2&andorexacttitle=and&maxtoshow=&andorexactfulltext=and&resourcetype=HWCIT&titleabstract=vietnam&searchid=1&RESULTFORMAT=)
23. Nguyen Van Thang. 2005. "Is The Development of State-Owned Enterprises (SOEs) Crowding Out The Private Sector? Evidence from PCI Survey," Ha Noi, Vietnam: US-AID, August.
24. Perkins, Dwight and Vu Thanh Tu Anh. 2008. "Vietnam's Industrial Policy: Designing Policies for Sustainable Development. UNDP-Harvard Policy Dialogue Papers.
25. Nguyen, Hoang-Phuong, 2008. "What is in it for the poor? Evidence from fiscal decentralization in Vietnam," Journal of Public and International Affairs, Chapter 4. http://www.hbs.edu/research/pdf/08-099WP.pdf.
26. Malesky, Edmund and Paul Schuler. 2009. "Paint-by-Numbers Democracy: The Stakes, Structure, Results, and Implications of the 2007 Vietnamese National Assembly Elections," (with Paul Schuler). Journal of Vietnamese Studies. Forthcoming (January 2009).

3.3 Influence of the PCI

According to our records, Vietnamese journalists have cited the index in more than 500 investigative and news articles on provincial business environments. Each year, the Saigon Economic Times, Vietnam's most important economic weekly and the local equivalent of the Economist, has a special issue with the PCI results displayed on its front cover.[27] But information from the PCI has also extended beyond coverage of the launch and has begun to inform normal journalistic research. Many journalists use PCI data in the leads of their story as a way to quickly introduce the business environment in a province or group of provinces. These articles in turn have had an impact on policy makers. A sampling includes a story on differing tax policies in Ben Tre and Tien Giang provinces, a series discussing planned governance improvements in Ha Tay, and the challenges facing a new People's Committee Chairman in Hau Giang.[28]

Indeed, because of the PCI's impact, *VTV 1* ranked it among the 10 most important economic events to occur in Vietnam in 2005. Reflecting the extent to which the PCI has entered into wider social awareness, it even found its way into the final question for university students competing in the well-known television game show *Ring the Golden Bell* and *Face Off* on VTV3.[29]

National policy makers have also taken note of the PCI. Both Prime Ministers Phan Van Khai and Nguyen Tan Dung quoted PCI statistics in dialogues with the private sector and upon introducing new legislation.[30] Truong Tan Sang, Director of the Standing Committee of the Party Secretariat, recently discussed the utility of the PCI for evaluating the performance of local officials and creating incentives for policy makers.[31] Sang even suggested that a ranking of national line ministries be created.

In short, the PCI has become an important component in Vietnam's policy dialogue relating to economic and administrative reform, as well as business liberalization, both at the provincial and the national levels. However, with the increased visibility and application of the PCI index, there have also come increasing responsibilities for the research team. We are obligated to ensure that policy makers and other readers of the PCI report are given the most accurate, carefully analyzed, and unbiased information available. It is a responsibility that we take very seriously.

3.4 The Way forward

The multiple uses of the PCI have been quite remarkable and inspiring, but there are ample opportunities for new applications. Surveying the economic policy horizon, here are some suggestions of how to build PCI indicators into policy evaluation programs.

27. Hoang Lang. 2005. "Cạnh tranh cấp tỉnh" [Competiteveness of the Provinces]. Thời báo Kinh tế Sàigòn [Saigon Economic Times], May 26: 14. Phuong Quynh. 2006. "Những Bất Ngờ Của PCI 2006" [Many Surprises: PCI 2006]. Thời báo Kinh tế Sàigòn [Saigon Economic Times]. June 1: 12. Quynh Nhu. 2007. "PCI 2007: Đằng Sau Những Con Số" [PCI 2007: Behind the Numbers]. Thời báo Kinh tế Sàigòn [Saigon Economic Times], November 8, 2007: 10.
28. Van Truong. 2005. "Tiền Giang: Dân kêu vì thuế" [Tien Giang: Citizens Complain about Taxes]. Tuổi Trẻ Online [Youth Online], August 6. Le Dang Khoat. 2006. "Hà Tây cải thiện môi trường đầu tư." [Ha Tay improves investment environment]. Thời báo Kinh tế Việt Nam [Vietnam Economic Times]. Vol. 42; Nguyen Anh. 2008. "Chủ tịch UBND tỉnh Hậu Giang Huỳnh Minh Chắc: Dốn sức bứt phá trước vận hội mới [People's Committee Chairman of Hau Giang, Huynh Minh Chac: Tearing up Everything Before a New Culture." Kinh tế Nông Thôn [Agricultural Economics] January 22. http://www.kinhtenongthon.com.vn/Story/xuanmauty/gapgodauxuan/2008/1/8921.html
29. http://www.vtv.vn/VN/TrangChu/Media/#.
30. Phan Văn Khải. 2006. "Doanh nhân là những chiến sĩ xung kích thực hiện nhiệm vụ phát triển kinh tế - xãc hội 2006 - 2010 và hội nhập quốc tế thành công" [Entrepreneurs are the soldiers, aggressively pushing forward in the implementation of economic development (2006-201) and successful international integration]. Phát biểu của Thủ tướng Phan Văn Khải kết thúc Hội nghị với doanh nghiệp, Ha Noi, January 9, 2006 [Speech of Prime Minister Phan Van Khai to conclude the Enterprise Conference]; Thông Báo Kết luận của Thủ tướng Chính phủ Nguyễn Tấn Dũng tại buổi làm việc với lãnh đạo thành phố Hà Nội [Communication of Prime Minister Nguyen Tan Dung to conclude the working meeting with the leaders of Ha Noi City], S?: 262/TB-VPCP December 18, 2007.
31. Tuổi Trẻ [Youth]. 2008. "Thường trực ban bí thư Trương Tấn Sang: Cần đo chỉ số hài lòng về các bộ ngành." [Head of the Party Secretariat Truong Tan Sang: We need a ranking of ministries], July 22. http://www.tuoitre.com.vn/Tianyon/Index.aspx?ArticleID=269871&ChannelID=3

Year-on-year progress of the Government's path-breaking Project 30 to reform administrative procedures across all ministries and provinces can be tracked directly by the PCI sub-indices of entry costs, land access, transparency of information, time costs of regulatory compliance, and informal charges. Provinces that are diligent in carrying out the inventory and review of administrative procedures in order to cut and simplify the cumbersome paperwork for firms will most likely see these efforts reflected in PCI indicators, as firms come to appreciate how the efforts have improved transparency and reduced information gathering costs.

Moreover, the PCI's detailed questions about informal charges and commissions paid by firms to government officials can be employed to evaluate the efforts of the government's new National Strategy for Combating and Preventing Corruption through the Government Inspectorate. Future scores can be compared to the historical indicators collected by the PCI research team. Findings from this comparative analysis can be used to monitor progress and devise new procedures if initial endeavors fail to bear fruit.

Appropriate evaluation of the impact of decentralization is a major area for concern for Government leaders, because no systematic mechanism for evaluation currently exists. The PCI provides both yearly snapshots of local authority performance in economic governance and panel data on annual changes that can be easily integrated into these efforts. Initial conversations with the Ministry of Home Affairs and the Central Committee of the Party indicate they are interested in using PCI in their daily oversight of the decentralization policies in Vietnam.

The National Assembly of Vietnam is working hard to create the rule-of-law for the emerging market economy in Vietnam. PCI equips deputies with a tool to oversee the effectiveness and efficiency of the Government in carrying out a wide range of reforms. As noted in Chapter 2, judicial reform can also be assessed by the rich dataset PCI obtains in court cases as well as the confidence of firms in the court system.

CHAPTER FOUR

ANALYSIS OF CHANGING EXPECTATIONS AND THE DECLINE IN PCI SCORES

ANALYSIS OF CHANGING EXPECTATIONS AND THE DECLINE IN PCI SCORES

As noted in Chapter One, two sub-index scores show considerable decline-Labor and Private Sector Development (PSD) policies. These fundamental drops dramatically affected the overall PCI scores, causing a consistent slide across the rankings. In addition, a battery of questions about infrastructure that were employed in the brand new infrastructure index (described in Chapter Five), also showed significant year-on-year decline. What caused this fall in scores? It is important to understand the roots of the decline because it will have critical implications for Vietnam's future growth and directions in policy making. After exploring a range of possible causes, we were able to rule out any PCI methodological decisions as reasons for the fall in scores. Decreases are due primarily to the increasing expectations of private entrepreneurs and the inability of Vietnamese policy makers to keep pace with their needs. In fact, as we document below, there have actually been significant declines in public service delivery over the past year that have contributed to falling perceptions.

As always, this year's PCI survey was mailed to respondents after Tet. Tet is an auspicious time; employees of firms are more likely to be home and have the free time to spend a few moments filling out the Vietnam Chamber of Commerce and Industry queries. We usually accept the slightly upward bias in scores caused by the celebratory atmosphere because of the higher response rate we receive during this period. This year, however, the bad macroeconomic news during the season may have influenced the answers firms gave to many of the survey questions.

It is critical to note that not all indices received declining scores. In a number of areas, particularly those highlighted in Chapter One (Entry Costs, Property Rights, Transparency, and Confidence in Courts), improvements in the policy environment are clearly reflected in more positive firm perceptions. Table 4.1 (also see Chapter 6) demonstrates, in fact, that most sub-index and indicator scores registered marginal improvements this year. The fact that declines were only experienced in a particular set of questions is interesting; it indicates that we are not capturing general negativity in perceptions. Firms are able to discriminate among issues in the business environment that have improved and others that frustrate them.

Table 4.1: Comparison of Overall Scores & Sub-Indices (2006-2008)

Index	Measure	2006		2007		2008	
		Score	Province	Score	Province	Score	Province
Final Weighted Provincial Competitiveness Index	Min	36.07	Lai Chau	37.96	Dak Nong	36.39	Dien Bien
	Median	52.41	Lam Dong/Thai Nguyen	55.56	Bac Giang/Phu Tho	53.17	Dak Lak/Binh Phuoc
	Max	77.61	Binh Duong	77.2	Binh Duong	72.18	Da Nang
	Correlation w/ Previous Year	NA		0.85*		0.90*	
Unweighted Total Index	Min	42.51	Lai Chau	43.93	Dak Nong	45.29	Dien Bien
	Median	55.23	Hoa Binh/Lam Dong	58.49	Thai Binh/Ha Giang	58.17	Phu Tho/Kien Giang
	Max	74.87	Binh Duong	76.02	Binh Duong	72.87	Binh Duong
	Correlation w/ Previous Year	NA		0.82*		0.88*	
Entry Costs	Min	4.96	Binh Phuoc	6.23	Hau Giang	6.31	Bac Giang
	Median	7.4	Ha Tinh/BRVT	7.87	Hai Duong/Lam Dong	8.25	Nam Dinh/Khanh Hoa
	Max	9.17	Da Nang	9.49	Quang Tri	9.36	Da Nang
	Correlation w/ Previous Year	NA		0.33*		0.25*	
Land Access & Security of Tenure	Min	3.84	Lai Chau	4.32	Ha Noi	4.73	Ha Noi
	Median	6	Quang Ngai/Bac Kan	6.27	Lao Cai/Thai Nguyen	6.68	Thanh Hoa/Hoa Binh
	Max	7.98	Soc Trang	7.71	Long An	8.05	Dong Thap
	Correlation w/ Previous Year	NA		0.68*		0.73*	

Index	Measure	2006		2007		2008	
		Score	Province	Score	Province	Score	Province
Transparency	Min	2.15	Dak Nong	2.24	Dak Nong	2.99	Dak Nong
	Median	5.43	TT-Hue/BRVT	5.83	Ha Tinh/Phu Tho	6.32	Hai Phong/Dak Lak
	Max	8.5	Binh Duong	8.56	Lao Cai	7.92	Da Nang
	Correlation w/ Previous Year	NA		0.6*		0.74*	
Time Costs of Regulatory Compliance	Min	2.64	Phu Yen	2.99	Lai Chau	2.85	Dien Bien
	Median	4.42	Quang Ngai/Kien Giang	6.21	Vinh Long/Phu Tho	5.38	Tuyen Quang/TT-Hue
	Max	7.12	Binh Duong	8.18	Ha Tay	6.52	Binh Phuoc
	Correlation w/ Previous Year	NA		0.36*		0.62*	
Informal Charges	Min	5.05	Ha Tinh	5.35	Ha Noi	5.7	Bac Kan
	Median	6.33	Bac Kan/Bac Lieu	6.58	An Giang/Ha Giang	6.65	Ninh Thuan/An Giang
	Max	8.35	Ben Tre	7.71	Hung Yen	8.3	Hung Yen
	Correlation w/Previous Year			0.33*		0.50*	
Bias toward State Owned Enterprise	Min	4.7	Ha Noi	4.79	Dak Nong	5.99	Bac Lieu
	Median	6.49	Da Nang/Lang Son	6.72	Quang Binh/Quang Nam	7.53	Hai Duong/Tien Giang
	Max	8.4	Lao Cai	8.29	Binh Duong	8.77	Ha Giang
	Correlation w/Previous Year	NA		0.56*		0.54*	

Index	Measure	2006		2007		2008	
		Score	Province	Score	Province	Score	Province
Proactivity	Min	1.54	Quang Ngai	2.3	Cao Bang	2.32	Bac Kan
	Median	4.83	Tuyen Quang/Thai Binh	4.95	Phu Tho/Thai Binh	5.56	Lai Chau/Phu Tho
	Max	10	Binh Duong	9.2	Binh Duong	8.45	Binh Duong
	Correlation w/ Previous Year	NA		0.79*		0.78*	
Private Sector Development Policies	Min	2.4	Dak Nong	2.26	Bac Lieu	1.4	Bac Lieu
	Median	4.88	Ha Giang/Kien Giang	4.71	Ben Tre/Tuyen Quang	3.35	NamDinh/Tuyen Quang
	Max	9.62	Da Nang	8.73	HCMC	6.35	HCMC
	Correlation w/ Previous Year	NA		0.79*		0.86*	
Labor Policies	Min	1.99	Lai Chau	1.92	Lai Chau	1.84	Dien Bien
	Median	5.1	Lang Son/Quang Nam	5.02	Quang Nam/Quang Ngai	4.25	Thai Binh/Bac Kan
	Max	9.6	Da Nang	8.34	Da Nang	8.4	Da Nang
	Correlation w/Previous Year	NA		0.81*		0.85*	
Legal Institutions	Min	2.13	Quang Ngai	2.24	Ha Tinh	2.5	Cao Bang
	Median	3.63	Son La/Ninh Binh	4.33	Phu Tho/Vinh Phuc	4.66	Son La/Hai Duong
	Max	6.55	Bac Giang	6.56	Bac Kan	6.7	Gia Lai
	Correlation w/Previous Year			0.37*		0.33*	

* Significant at 5% Level; NA = Not Applicable

All values are at the provincial-level.

Data includes 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.

Could minor changes in the sample of firms responding have caused the drop in the PSD and Labor sub-indices? We can say definitively that this was not the case. It is true that the absolute number of firms responding, the response rate, and the proportion of firms covered in each province were all significantly higher this year. Perhaps the well-intentioned efforts to improve response rates and reach a larger portion of the private sector population caused the survey to tap into a more negative group of firms that had not bothered to respond in earlier iterations. This possibility can easily be checked by using the panel data of 2,500 firms who fill out the survey every year. Because these are the same firms every year, we need not worry about a new population of angry enterprises. The 2,500 panel firms reflect the same negativity as the larger sample, and, in some cases, the decline among panel respondents was even larger. Furthermore, other questions showed significant upticks. Thus, including new firms with a bias toward negative responses was not to blame for lower scores.

A second methodological concern is that a marginal change in survey design could have introduced a "framing effect" into the survey. A framing effect occurs when the choice of language in one part of the survey inadvertently or intentionally influences subsequent responses by manipulating the mindset of the respondent (for example, asking respondents to reflect on the number of survivors of a plane crash as opposed to the number of casualties). In trying to improve the flow of the survey, we changed the title of Section E from "Policies and Planning" to "Infrastructure and Other Elements of Business Activity." Not a single question changed; the only alteration was the bolded heading at the top of the page. It was a minor adjustment, to be sure, but perhaps it inadvertently introduced a more negative frame of mind. Because most questions related to PSD and Labor were in this section, this issue deserves further analysis.

As shown in Table 4.2, the decline across items is not proportional. Firms record a drop of almost 40 percent in their thoughts about the quality of education policy and infrastructure, but only a 16 percent decline related to telecommunications. And, for the most part, the majority of firms were quite positive about telecommunications. While framing may have played a minor role in focusing firms on the actual quality of these items and away from provincial plans to improve them, it alone cannot account for the steep fall—not seen since 2005—on education, PSD, and indicators of infrastructure, which are not included in the PCI ranking, but are used subsequently in Chapter Five to create a new infrastructure index..

Table 4.2. Assessment of Provincial Services and Infrastructure
(% Believing Quality is Good or Very Good)

Item	2008	2007	2006	2005
Full Sample (Selected Questions)				
Education	36.56	73.6	72.65	42.6
General Infrastructure	21.78	61.02	58.73	34.79
Roads	29.34	65.96	68.41	30.91
Telecom	66.93	82.41	82.33	59.79
Panel				
Education	28.68	62.18	55.79	
General Infrastructure	16.77	52.47	46.17	
Roads	24.17	61.93	60.56	
Telecom	61.02	77.26	74.96	
Market Information	16.17	37.99	43.10	
Consulting on Regulatory Information	17.11	41.99	39.86	
Industrial Zones	20.68	43.10	33.73	
Equitization	19.06	47.44	38.07	
Business Partner Match-Making	8.09	25.55	22.83	
Attraction of FDI	13.28	26.83	20.10	
Vocational Training	17.02	47.27	45.06	
Labor Exchange Services	13.87	42.16	36.88	
Export Promotion and Trade Fairs	18.38	47.19	40.80	

A third potential factor in the lower scores was the general negativity among respondents caused by the bad news in the macroeconomy. Newspaper headlines in February and March announced the onset of hyperinflation, bank failure, currency depreciation, and a sharp slowdown in economic growth. Could these factors have enhanced the pessimism of firms in the country? We explored this possibility by studying the average tenor of the responses by the month the PCI survey was received. If the downturn in the economy, accompanied by the desperate news stories, influenced the responses of entrepreneurs, we should be able to see it based on the date of return. Firms responding in April and May should be more negative than those responding immediately after Tet in February and March-the worst economic news appeared at the end of March and anxiety among economic indicators increased until the end of July. Table 4.3 chronicles the results.

Table 4.3: Firms' Evaluations of Infrastructure and Public Service, By Month of PCI Response and Type of Firm Ownership

Response Date	Firms Planning to Expand Operations	Roads	Telecom	Education	Market Information	Consulting on Regulatory Information	General Infrastructure
	(%)	(% Good or Very good)					
Full Sample							
All Firms	71.04%	26.50%	52.60%	27.76%	17.93%	18.50%	20.92%
- February 08	77.50%	19.86%	48.36%	24.09%	9.24%	8.70%	15.45%
- March 08	68.53%	41.78%	50.53%	25.39%	15.23%	18.15%	15.85%
- April/May 08	66.55%	28.64%	58.42%	26.79%	18.60%	20.20%	22.39%
Sole Propriertorships							
All Firms	58.59%	28.79%	66.06%	32.46%	18.11%	19.41%	18.44%
- February 08	66.89%	27.41%	63.17%	31.69%	16.49%	18.63%	15.42%
- March 08	56.84%	27.63%	67.28%	33.49%	18.80%	20.17%	19.94%
- April/May 08	50.14%	29.58%	67.32%	28.73%	18.31%	20.00%	18.87%
Limited Liability Companies							
All Firms	77.83%	27.57%	61.94%	30.95%	18.34%	18.82%	20.44%
- February 08	80.66%	25.46%	60.07%	30.67%	16.44%	18.40%	19.21%
- March 08	76.27%	25.52%	62.24%	29.25%	17.69%	19.85%	18.88%
- April/May 08	77.32%	31.82%	65.91%	33.52%	18.75%	18.18%	22.44%

In response to whether firms plan to expand their businesses in the coming years, there is a 5 percent downturn for the population as a whole. Small sole proprietorships reported an 8 percent decline and were more greatly affected than larger limited liability companies. Nevertheless, this cautiousness about business prospects did not appear to translate into negativity regarding infrastructure and other public services. No pattern of decline is evident among any population, and some indicators even demonstrate a small uptick.

In addition to the impact of macroeconomic instability, firm expectations provide another explanation for the decline in PCI scores. Firm evaluations of services have declined either because the firms have witnessed a decline in the quality of services offered or because their expectations have grown to the point that they expect continual improvements but instead have seen stagnation or relative decline. During the boom times of the past two years, with opportunities expanding like wildfire, these issues were an afterthought. Now, however, with the price of inputs rising and growth slowing, such concerns have become more pressing. To illustrate this point, Figure 4.1 charts the PCI perception of education quality alongside the actual percentage of secondary graduates in the country, measured in the General Statistics Office handbook. This shows that there was a substantial real drop in the percentage of secondary graduates between 2006 and 2007, from 93 percent to 82 percent nationally, with a freefall from 72 percent to 38 percent occurring in the most poorly educated provinces. Note that this decline was recorded one year before the Ministry of Education recalibrated the standard for secondary school graduation rates.[32] These declines have probably been exacerbated in 2008 as inflation and tightening purse strings have made it more difficult for poorer students to afford school fees. Vocational schools have experienced similar declines in enrollment rates. Thus, when the PCI survey asked firms to rate the quality of labor in their provinces, only 18.5 percent believed that labor quality was sufficient for the needs of local businesses.

Indeed, a group of Harvard Researchers have singled-out education and training as the single largest deficiency in the Vietnamese economy, calling it a crisis at all levels.[33] It is not just about insufficient spending; a great deal of waste exists in the education system. A recent report highlighted extensive corruption in the educational bureaucracy that impedes proper training and skill-set development.[34]

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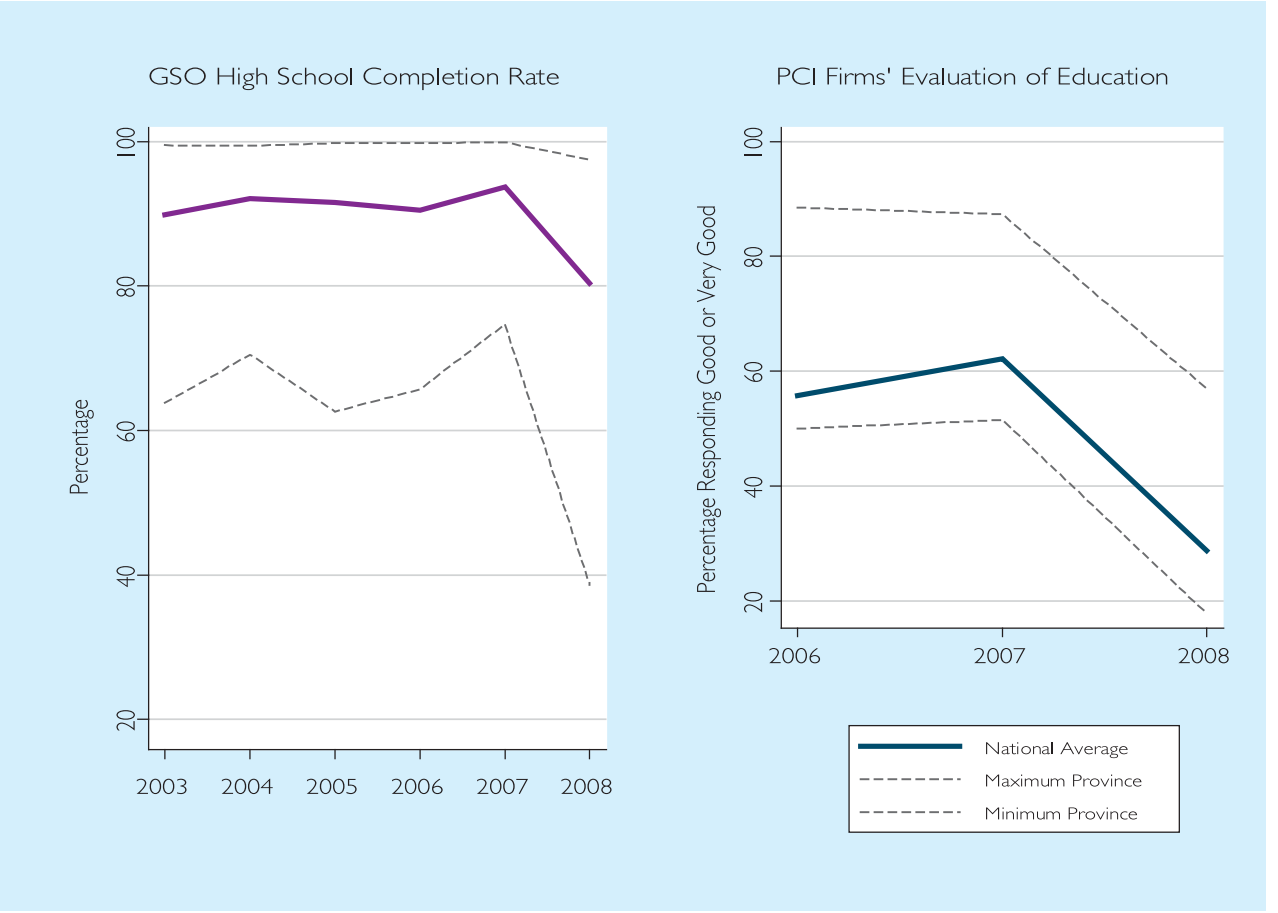
32. **Tiến Dũng. 2008. "Gần 250.000 thí sinh THPT trượt tốt nghiệp"** [Nearly 250,000 secondary school examinees fail to graduate." VNEXPRESS, June 20. http://vnexpress.net/GL/Xa-hoi/Giao-duc/2008/06/3BA0391A/. **Kiều Oanh. 2007. "Không dùng tỷ lệ tốt nghiệp THPT để đánh giá thi đua"** [The proportion of secondary school graduates is not correct enough in order to evaluate competitiveness] VietnamNet, May 3.
33. Harvard Fulbright Program. 2008. Choosing Success: The Lessons of East and Southeast Asia and Vietnam's Future. Ha Noi: United National Development Programme: 4
34. Nguyen Dinh Cu. 2007. Corruption in General Education in Vietnam. Ha Noi: Institute of Population and Social Studies – National Economic University.

Figure 4.1: Average Firm Evaluation of Education versus Actual Educational Quality



We cannot attribute the entire drop in the Labor Index to declining educational attainment; other factors certainly played a role. Expansion of private firms over the past few years has tightened the labor market. The most talented individuals are not available anymore, so firms may be tapping into second-tier employees. Similarly, migration to high-growth areas has declined in the past year for a variety of socioeconomic reasons, which further reduces the pool of talent in the areas that most need high-quality labor. All of these elements point to the fact that firm complaints about labor quality are reflecting real trends in the business environment that have taken on greater saliency in a declining economy.

A similar trend can be seen in infrastructure. Though road quality has not seen a decline in absolute quality, it also has not improved dramatically enough for the needs of businesses. As a result, firms have expressed their displeasure in the survey. Since 2002, the coverage of paved roads in the country grew from 40,000 kilometers (about 34 percent of all roads) to 64,000 kilometers (about 42 percent of all roads). This is an annual growth rate of 15 percent, compared with a 26 percent annual growth in private companies over the same period. Infrastructure development is simply not keeping pace with the demands on its usage and firms are beginning to become frustrated with the constraints it imposes on their development. According to the 2008 data, private firms lose an average of 7.5 days per year of business because roads to the provincial capital are blocked by rainy conditions; 71 percent of manufacturing firms experience some loss in goods due to breakage on poor roads, which in turn costs the average firm about VND 43 million (US$2,530).

The downturn is also evident in survey responses regarding business services provided by provincial authorities. Firms did not express severe difficulties with the availability of business services when expansion was easy, but in the current environment-when market information and trade fairs are of critical importance-local authorities have not met the demands of the private firms in their provinces. Provincial budgets indicate that budget trimming is responsible for cuts in some programs. More likely, however, is that the increasing growth of private firms has augmented the demands for these services at the same time the growth rate in provincial bureaucracies has been slashed dramatically. Between 2002 and 2003, the number of provincial government employees grew by 10 percent, compared with 1 percent growth in 2004 and an actual 0.19 percent decline in 2005. While there are important reasons for reducing the number of local government officials, it is important to acknowledge that such an action does impact service delivery in the short term. A wide array of private providers of businesses services-about 3,825 law and consulting firms - have begun to fill the vacuum by providing many of the same services. However, these private providers are mostly concentrated in the large metropolitan areas and have yet to reach out to more distant locales.

In conclusion, there is no evidence that the negative responses reported in this year's PCI report were caused by data and methodological problems. We are confident that the responses of private firms reflect a growing perception that provincial governments were less effective in 2008 than 2007 in providing public services-specifically labor training, private sector development policies, and infrastructure. Firms have grown as fast as possible, given the existing conditions for development, but they have begun to push up against the parameters set by those conditions. This finding confirms research by the Harvard Fulbright School, which found that education and infrastructure rank among the most pressing developmental issues facing Vietnam today.[35] This has important ramifications, especially in the context of the major reforms implemented at the national and provincial levels over the past five years. Indeed, the Support for Trade Acceleration Project (STAR) reports have identified a similar problem as the implementation gap between better "letter of the law" compliance but less improvement in the application of the new law in practice.[36]

35. Harvard Fulbright Program. 2008.
36. Support for Trade Acceleration Project (STAR). 2008. Supporting Vietnam's Legal and Governance Transformation. Ha Noi: USAID, February.

CHAPTER FIVE

INFRASTRUCTURE AND INFORMATION AND COMMUNICATION TECHNOLOGY

INFRASTRUCTURE AND INFORMATION AND COMMUNICATION TECHNOLOGY

Infrastructure is one of the most important constraints on economic growth and productivity in Vietnam. Inadequate infrastructure hinders market participation and trade facilitation, limits competition, and increases transportation costs for all enterprises. Indeed, the costs of shipping a 40-foot container are nearly twice as high in Vietnam as they are in China.[37] In previous years, the PCI analysis has controlled infrastructure as a natural endowment to more precisely estimate the impact of economic governance in provinces. This report includes a provincial analysis of infrastructure to increase awareness of its role in provincial competitiveness and to identify possible areas for improvement.

Demand for investment in infrastructure by local authorities is growing very rapidly. The government has been attempting to deal with this growing demand, but the results so far have been marginal. This chapter presents baseline data on existing infrastructure capabilities in each province to create greater awareness of the opportunities for developing and financing infrastructure.

Governance of infrastructure reaches beyond the jurisdiction of provincial leaders, as they are dependent on central ministries for the final determinations about scope and quality. Recently, the Vietnamese government has come under increased scrutiny regarding infrastructure development. In a recent National Assembly query session, parliamentary delegates were sharply critical of several aspects of economic governance related to infrastructure decisions, including: the haphazard, irrational, and inconsistent master planning linking road networks, sea and air ports and related facilities into a coherent transport hub; inadequate administrative and technical capacity for transparent procurement of private investment in public-purpose infrastructure; poor prioritization and allocation of limited budget resources; limited financing through state budget and government bonds; and inadequate legal provisions to mobilize financing and expertise to develop infrastructure.[38]

In a high-profile report to the Prime Minister, a team of researchers highlighted infrastructure as one of the two most important constraints (along with education) to Vietnam's development. The report stresses that the infrastructure deficiencies result not from insufficient spending, but instead from poor project selection, time and cost overruns, and a politically infused process that does not allocate infrastructure investments to the fast-growing regions that need it most.[39] As a result, road, water, rail, and air transport networks all lag significantly behind Vietnam's major competitors; and the problem is most severe in Vietnam's industrial hub in the North Southeast.[40]

These are important arguments to which

37. Harvard Fulbright Program. 2008.
38. Xuan Toan. 2008. "Legislators urge tighter monitoring of public projects." Thanh Nien News, November 6. www.thanhniennews.com/politics/?catid=1&newsid=43521
39. Abrami, Regina, Edmund Malesky, and Yu Zheng. 2008. "Accountability and Inequality in Single Party Regimes: A Comparative Analysis of Vietnam and China." Harvard Business School Working Papers 08-099 (http://www.eldis.org/go/country-profiles&region=22)
40. Frost and Sullivan. 2008. "Vietnam Transportation and Logistics - Challenges and Opportunities." APL Logistics, Singapore. Asian Development Bank, 2008. "Vietnam," Asian Development Outlook 2008 Update. ADB: Manila: 233-8.

policymakers should pay careful attention, but the key decisions about infrastructure development choices and financing must begin with a thorough assessment of available data on actual quality and the perception of the infrastructure's end-users. Thus far, data on infrastructure at the provincial level has not been organized or easy-to-understand.

Financing local infrastructure. Correcting this deficiency is particularly important because Vietnam's fiscal decentralization efforts, especially under the 2002 Budget Law, have given provincial leaders increasingly more power over provincial expenditures. Provinces, especially net-revenue producers, are less dependent on central government permission to finance infrastructure improvements than they have been in the past. Provinces can now finance infrastructure development directly in four ways. First, they can use surplus revenue above their biannually determined targets. Alternatively, they can mobilize central transfers that are not earmarked for specific expenditures (although some provinces have limited amounts of non-marked transfers). Third, they can use pre-determined project-based expenditures, which account for between 80 and 90 percent of provincial allotments.[41] Finally, they can use debt financing, providing they can find interested investors.

The 2002 Budget Law allows provincial governments to finance up to 30 percent of their infrastructure investments using bonds. Further, the law applies a 100% infrastructure investment cap to the amount of debt that Ha Noi and Ho Chi Minh City can raise. Decree 78/2007/ND-CP gives provinces the right to grant licenses directly for public-private partnership vehicles-such as build-operate-transfer, build-transfer-operate, and build-transfer-that lure private investors into the infrastructure sector.[42] Such projects no longer need the permission of the Ministry of Planning and Investment (MPI) or the Prime Minister, though MPI retains a right to approve and appraise and has set investment thresholds.

Despite these advances, financing for infrastructure by local authorities remains limited because debt markets are insufficiently developed. Vietnam's current laws and regulations do not adequately allow for the use of modern project financing techniques including project revenue bonds and securitization, or create sufficient confidence for private investment in infrastructure. As a result, provinces have limited capacity to finance large-scale infrastructure, such as ports, roads, railroads, airports, and other assets that affect the transportation costs and investment returns for both small and large enterprises.

Along with increased responsibilities, provinces need a better understanding of their needs relative to their peers so they can make appropriate cost-benefit analyses. Such an understanding should improve the operational capacity of local governments to efficiently plan and execute large-scale infrastructure enhancements. This chapter attempts to push such analyses forward by bringing data from the PCI survey to bear on the question of infrastructure development. The data presented below should be seen as a first step. Before we can document the impact of infrastructure, we first need to measure it. This analysis presents a snapshot of the stock of infrastructure as it exists in 2008. We look at two types of infrastructure: bricks and mortar infrastructure, as this serves as the backbone for Vietnam's current manufacturing and export-led growth economy, and information and communication technology (ICT) to gauge Vietnam's preparation for the information age. More important than this year's assessment, however, will be the accumulated data on this index that allow for assessing the effect of infrastructure improvements on business growth and development.

5.1 Core Elements of the PCI Infrastructure Index

The PCI Infrastructure Index is divided into four sub-indices:

- Industrial zones and small and medium-sized enterprise (SME) concentrations, measuring the capacity and quality of local industrial zones;
- Road and transport, gauging the coverage of roads in Vietnam and the indirect and direct costs of transport that result from them;

41. Kim N.B. Ninh and Vu Thanh Tu Anh. 2008. Decentralization in Vietnam: Changes and Policy Implications for Sustainable Economic Growth. Ha Noi: Vietnam Competitiveness Initiative.
42. Decree 78/2007/N?-CP dated 11 May 2007. http://www.vir.com.vn/Client/VIR/index.asp?url=content.asp&doc=13545

- Utilities, measuring the costs and reliability of telecommunications and energy delivery in the province; and
- Major infrastructure, which simply details whether a province has an airport or seaport within its borders, which would lower transport costs for businesses in that province.

As in the PCI, each sub-index is a combination of hard data from published sources and perceptions data gleaned from the 7,820 PCI respondents. Figure 5.1 details the final scores on the infrastructure index, where the first panel includes the first three sub-indices, and the second panel adds the measures of major infrastructure to the mix. Table 5.1 provides source data and summary statistics on the indicators used in each sub-index.

Figure 5.1. PCI Infrastructure Index

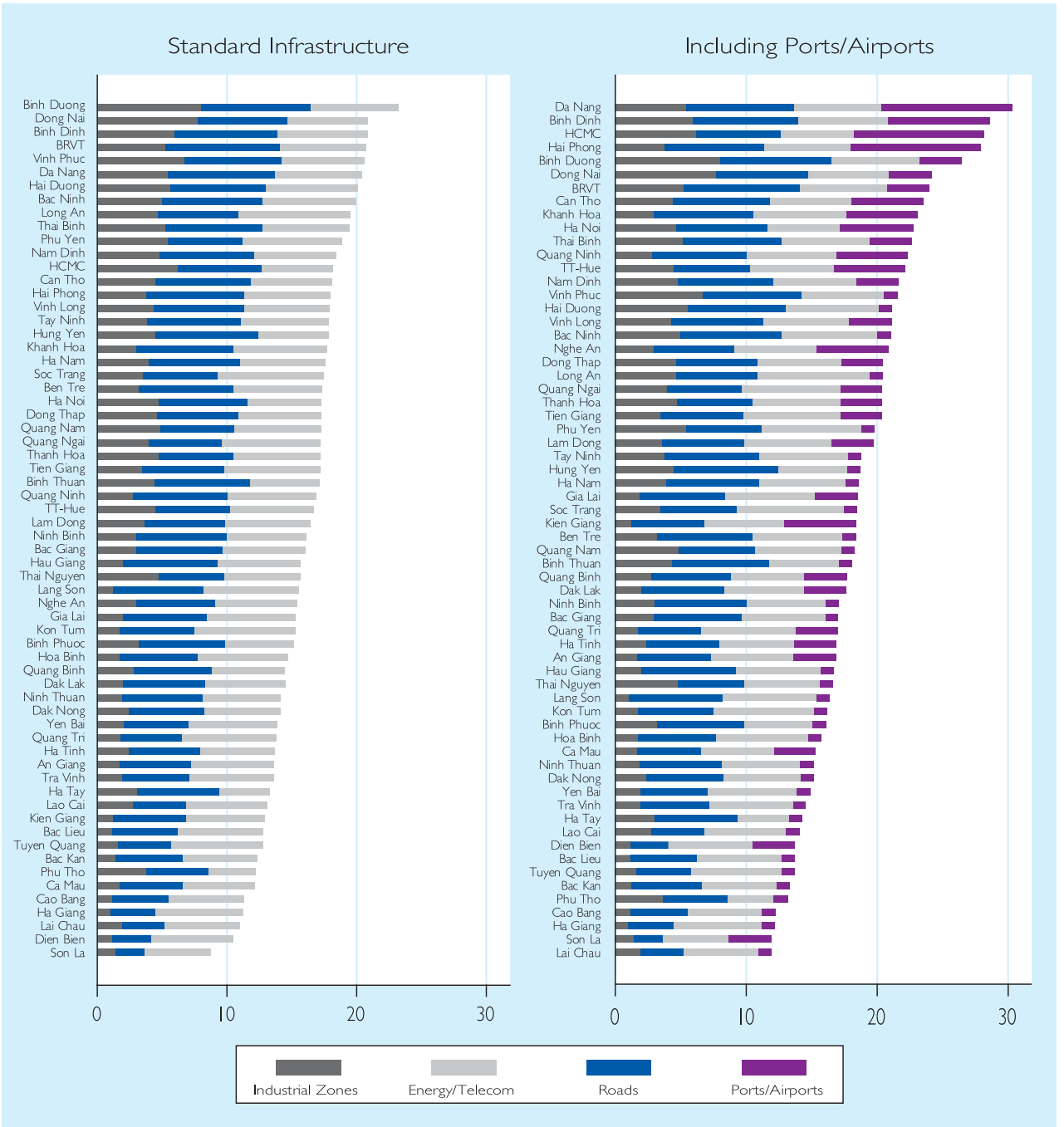


Table 5.1 Indicators Used In Infrastructure Index

Sub-Index	Indicator	Source	2008 Measures	
1) Industrial Zone Quality and Coverage	Number of Industrial Zones and Concentrations in Province	Ministry of Planning and Investment (August 2007)	Min Median Max	0 1 23
	Percentage of total IZ surface area that currently has occupants.	Ministry of Planning and Investment (August 2007)	Min Median Max	0.00 30.13 93.55
	Firm Rating of Provinical Industrial Zone Quality (% Very Good or Good).	PCI Survey Question: E1.14	Min Median Max	3.07 23.87 72.89
2) Road Quality and Transport Costs	Number of days annually that roads are impassable due to rainfall.*	PCI Survey Question E2	Min Median Max	3 7 19
	Monetary loss annually from spoiled and damaged products in the past year (Millions of VND)*	PCI Survey Question: E3	Min Median Max	14.6 31.9 83.1
	Transport costs of a 40-foot container from provincial capital to nearest major ports (HP, HCMC, DN) in Millions of VND*	Average estimates by three local transport companies	Min Median Max	2.1 6.5 16.0
	Percentage of roads in province (national, provincial, or district) that are paved with asphalt	General Statistics Office	Min Median Max	1.98 51.28 100.00
3) Utilities (Energy and Telecommunications)	Hours of Telecommunications outages in the province per month*	PCI Survey Question E5	Min Median Max	7 13 50
	Assessment of telecommunications quality (% Good or Very Good)	PCI Survey Question E1.2	Min Median Max	75.00 94.18 100.00
	Telephones (Land and Cellular) per 100,000 Citizens in 2007	Ministry of Information and Communications	Min Median Max	1.2 11.7 113.1

Sub-Index	Indicator	Source	2008 Measures	
	Average cost per kilowat of energy in province (VND)	Electricity Vietnam (EVN)	Min Median Max	595.51 776.17
	Hours of electricity outages in the last month*	PCI Survey Question E4	Min Median Max	27.00 44.00 101.00
4) Major Infrastructure (Ports/Airports)	National Seaport (Container Cargo > 34,000 TEU)	APL Logistics	Provinces with Provinces w/o	5 59
	Local Seaport (Container Cargo > 2,000 TEU)	APL Logistics	Provinces with Provinces w/o	25 39
	International Airport	APL Logistics	Provinces with Provinces w/o	4 60
	Domestic Airport	APL Logistics	Provinces with Provinces w/o	15 49

Unlike the original PCI, the Infrastructure Index is not a definitive evaluation of the quality of local leadership. Many of the indicators measured are out of the control of provincial authorities.

Much of the current infrastructure was completed long before the tenure of today's current provincial leaders: some was built in the early central planning years after independence and unification and some even dates back to the 19th century under Emperor Minh Mang. Provincial officials cannot be held responsible for the infrastructure stock they inherited from a bygone era.

Second, firms in distant areas have higher transport costs that are inherently difficult to overcome. The mountainous regions offer harsher and more expensive terrain for building major thoroughfares than provinces in the Red River Delta. Many Mekong Delta provinces use waterways as their primary means of transport, but because many of these waterways are quite small, transport companies cannot realize economies of scale from packing products in large containers. Often products must be reloaded after passage on the Mekong River before being sent on to the nearest port.

Third, many infrastructure decisions are made by central government planners. Provinces can supplement infrastructure spending out of their own budgets as discussed above, but poorer provinces do not have this option and must depend on central transfers. Winning some national infrastructure monies is occasionally dependent on who has better access to central officials or is able to plead their case for central supplements more persuasively. It makes little sense to reward or punish provincial officials based on the success of their lobbying efforts.

Fourth linkages of infrastructure across provincial borders affect firm perceptions in ways that are difficult to disentangle using provincial-level survey data. It would be unfair to rank province A below its neighbor, province B, simply because central authorities selected B as the sight of the national highway. Alternatively, a province that has done a good job of marshalling local resources for new roads and maintenance may be downgraded by firms that are forced to ship products outside those provincial borders over the roads of neighbors that may not have been so diligent about infrastructure development and upkeep. Another example of spillover is a province that invests in a port that benefits firms in an adjacent province more than it does some of its own entrepreneurs, who might be

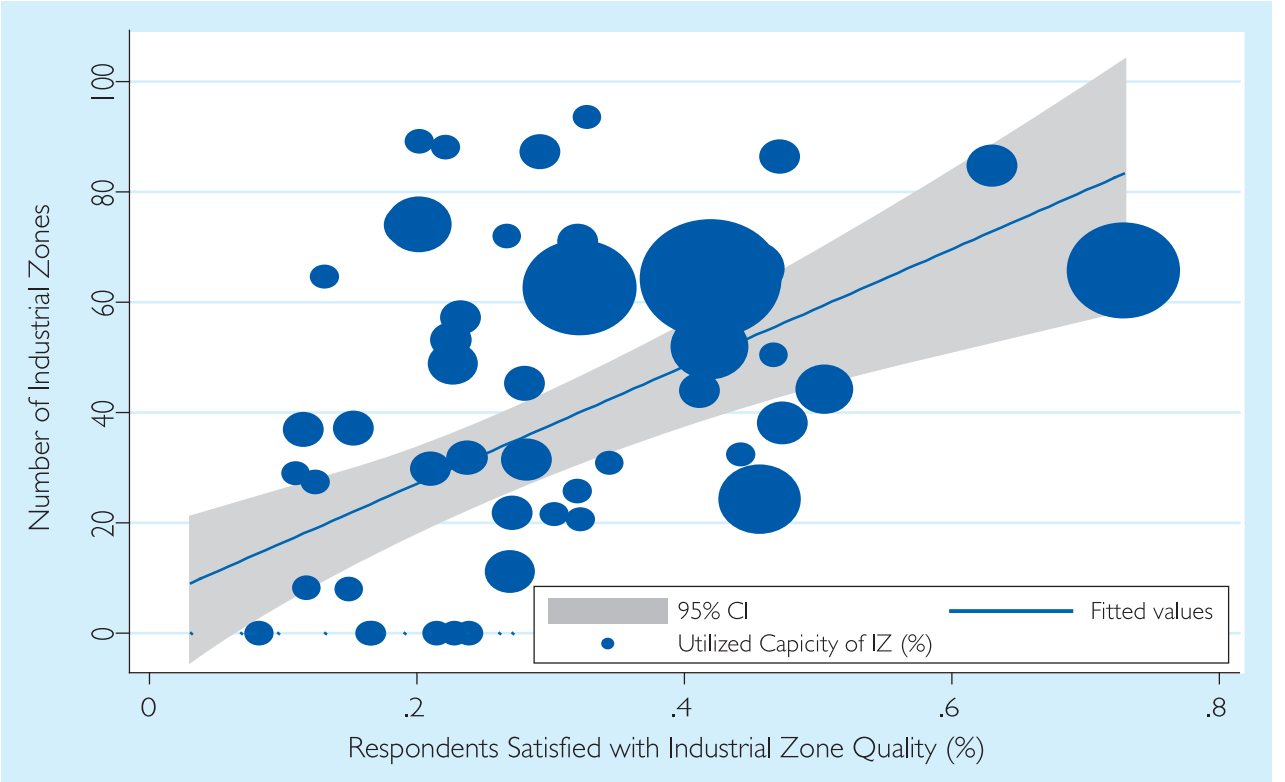
too far away to make use of it. It is not clear that entrepreneurs have a perfect understanding of where provincial borders are situated, and which authorities deserve praise or complaint for poor infrastructure. We had hoped to use provincial budgets on infrastructure expenditures to understand local-level commitment to improving the quality of its infrastructure, but such provincial budgets are of such disparate quality that it is difficult to draw firm conclusions.

Consequently, the Infrastructure Index is simply an assessment of total infrastructure quality. We make no assumptions about credit or culpability, and present it simply as a tool to inform the investment decisions of local entrepreneurs and the policy priorities of central and local officials.

5.2 Industrial Zone Quality

Sub-index 1 measures the scale, usage, and overall quality of industrial zones (IZs) in each province. To calculate this, we first count the number of IZs, export processing zones, and industrial concentrations (**cụm công nghiệp**) within each province's borders. Dong Nai with 23 zones, Ho Chi Minh City (HCMC) and Binh Duong with 15, and Long An with 8 have the most, while 14 provinces have no zones at all. Because a province can build IZs that nobody uses, we supplement the number of zones with a measure of the percentage of IZ surface area that is currently occupied by a firm. This offers a useful indicator of whether the provinces are building IZs that meet the needs of business, or creating zones for other reasons. Utilization rates are highest in Phu Yen at 93.5 percent and Thanh Hoa at 89 percent. The third and final indicator is the assessment by individual firms in the PCI on the quality of zones in their province. Firms were asked to assess not only large IZs, which are primarily targeted at foreign-invested enterprises, but also the smaller industrial concentrations that were built specifically to attract SMEs. Binh Duong at 72 percent and Vinh Phuc at 63 percent had the highest number of firms ranking IZ quality as good or very good, while less than 8 percent of firms in the mountainous provinces of Ha Giang, Cao Bang, Dien Bien, and Lang Son reported that zones in their province were of high quality. Figure 5.2 provides a composite graphic with all three IZ indicators in a single view. Note the strong correlations between the three measures, which are all significant at the .05 level.

Figure 5.2: Industrial Zone Quality in Province



Overall, Binh Duong, Dong Nai, Vinh Phuc, and HCMC ranked as the provinces with the best policy regarding IZs, while rural Cao Bang, Bac Lieu, and Ha Giang has the weakest results.

5.3 Road Quality and Transport Costs

Sub-index 2 combines the quality of road infrastructure in each province with the direct and indirect costs of shipping goods on provincial roads. The first indicator is road coverage, the percentage of total roads (measured in kilometers squared) in the province covered with asphalt. Total roads included thoroughfares managed by three levels of government-national, provincial, and district authorities. The quality of district and provincial roads is probably the best measure of an individual province's contribution to infrastructure, but this measure does not fully capture how roads in a province affect business costs. Most entrepreneurs cannot distinguish between the different types of road (district, provincial, national). All they care about is the overall quality of roads, regardless of who manages them. It would make little difference to them that national roads are excellent, if their goods are damaged on provincial roadways. Moreover, the quality of local (provincial and district) roads and national roads are interrelated. A province that is fortunate to be chosen as the location of a major thoroughfare may not need to spend as much of its own resources. Thus, it is not useful to consider the types of roads separately; we have included all three road types together in a single measure.

A 0.9 correlation between provincial and total road quality can be seen in the top row of Figure 5.3, a scatterplot matrix, where there is a tight relationship between district and provincial coverage with total coverage, but little relationship between the location of paved national roads and total road coverage. This is because in many provinces the only paved road within their border is the national highway that crosses through the province. This is particularly true in the Northwest and Central Highlands, where over 40 percent of total paved road is accounted for by national highways. Lai Chau is a particular outlier even within this region with 65 percent of its paved road within its borders coming from national roads.

Figure 5.3. Percentage of Road Covered with Asphalt, By Responsible Authority

Hai Phong and Nam Dinh province have road coverage of 100 percent, followed by Thai Binh (99.7), Ha Noi (95.7 percent), and Vinh Phuc (95.6 percent). Noticeably, all of these provinces are in the Red River Delta Region. In fact, 8 of the top 12 provinces in road quality are Red River provinces. The region as a whole has 83 percent coverage. The lowest road quality is found in Ca Mau (2 percent) and the mountainous provinces of Tuyen Quang (13 percent), Thai Nguyen (13.6 percent), Son La (18.5 percent), and Phu Tho (19.1 percent).

The second hard indicator of infrastructure in the province was created by asking three logistics and shipping companies to provide the PCI research team with estimates for how much it would cost to ship a 40-foot container from the provincial capital to the major port in each region of the country. All three companies were careful to acknowledge that most of their shipping is from IZs and that they rarely are asked to ship from the most rural provinces. If they ever do have to ship from deep in the Mekong Delta or the Northwest, they generally pick up the product at specific loading zones. How the cargo gets to the container loading zones is highly variable, often involving small boats in the Mekong and even horses in the Northwest. As a result, the estimates for provinces in these regions are much less precise than for those closer to the main cities. Nevertheless, the estimates by the shipping companies provide an interesting measure of the transportation barriers faced by small entrepreneurs in each province to sell goods to major domestic consuming areas or to export.

About 30 percent of the variance among provinces in reported transport costs is accounted for by the distance it is from one of the three major ports. After all, most shipping companies charge by the kilometer. Our regression analysis reveals that each additional kilometer between a major port and the province of origin adds VND 10,000 in additional shipping charges to the total bill. Controlling for distance, each kilometer of paved road reduces overall transport costs by just over VND 2 million. The remaining variance in transport costs is accounted for by region-specific effects, such as mountainous terrain or dense waterways, as well as measurement error in the estimates of logistics firms (See Appendix 3).

Higher transport cost is only one type of expense caused by poor infrastructure. The PCI survey data capture two other important costs to businesses. First, firms were asked how many days in the year that provincial roads were rendered impassable by heavy rainfall-meaning that firms were unable to ship. Waiting periods can be especially costly for firms in food processing industries, because it can often lead to spoilage. Firms in the average province lost about seven days per year due to inadequate infrastructure for bad weather; on the end of the spectrum, firms in Bac Lieu province lost almost 19 full days in the past year.

A final cost for firms was the monetary cost of breakage or spoilage caused by poor infrastructure quality. Firms in Khanh Hoa suffered the least damage from breakage and spoilage, losing only about VND 15 million or US$880 per firm in damaged product, while firms in mountainous Son La had VND 83 million (or $4,900) in broken or spoiled shipments.

Considering all these issues, Ba Ria-Vung Tau (BRVT), Binh Duong, Da Nang, and Hung Yen are ranked as the provinces with the lowest transport costs in the country. Mountainous Lai Chau, Dien Bien, and Son La, due to the difficult terrain and distance from urban centers, suffered from the highest transport costs.

5.4 Utilities (Telecommunications and Energy)

As Vietnam has transitioned away from an agriculture-based economy toward manufacturing and services, affordable telecommunications have become more vital to economic development. Telecommunications infrastructure connects entrepreneurs to the wider world, allowing them to reach a larger spectrum of suppliers and potential customers, while simultaneously expediting the speed of their transactions. Electricity, as the Harvard researchers put, is "the oxygen of a modern economy."[43] They move on to explain that Vietnam is on the verge of suffocation due to over investment in hydroelectricity, leading to costly outages and unpredictable supplies.

Although they represent separate dimensions of infrastructure, telecommunications and energy are combined into the same sub-index because they

43. Harvard Fulbright School. 2008: 3.

are both utilities. The two sectors are dominated by large, state conglomerates-Vietnam Post and Telecommunications (VNPT) and Electricity of Vietnam (EVN). Compared to energy, telecommunications is a far more competitive sector, as a number of providers are available, even in the most remote provinces, especially in terms of providing internet and cell-phone services. In fact, EVN was recently granted a license for cell-phone service. VNPT continues to have a monopoly on fixed-line telephony and in access to foreign communication markets, especially high-volume international satellite transmission. The more extensive competition in telecommunications may help account for the higher satisfaction ratings it receives from PCI respondents, compared to energy. Vietnam's World Trade Organization commitment will allow a phase-in of foreign energy and telecom suppliers, which should drive down prices further. Nevertheless, foreign competition is still a few years off.

Our hard data measure of telecommunication service is the total number of landline and cellular telephones per 100,000 citizens in each province. We supplement this with a measure from the PCI survey that captures the number of outages in phone service experienced by firms in the month before the survey. On average, firms experienced about 13 outages in the month before the release of the PCI survey. Firms in Ben Tre experienced the least phone outages, with seven in a month, but this is still high by international standards. Binh Phuoc firms experienced an astounding 50 outages in January 2008, about 1.6 events per day. Finally, firms ranked the quality of telecommunications in their province on a five-point scale. In general, firms were quite pleased. Strikingly, only Phu Tho province had an approval rating for telecommunications that was below 80 percent.

Energy reliability and cost have always been important for producers, but have become more salient in the past two years due to rising oil and gas prices. Local newspapers have been filled with stories of businesses closing their doors because the rising cost of energy had put them in the red. We use two measures to capture the provision of energy-one a measure of reliable energy provision and the other a measure of the cost of energy.

As with telecommunications, firms were asked to list the number of power outages they experienced in the month before the survey. Answers ranged from a best of 27 outages in Da Nang, which is considerable in itself, to an exceedingly high 101 outages in Ha Tay province.

To supplement this measure of reliability, the average cost of energy was calculated using data from EVN for each province. Prices are quite complicated, differing by the end user. For instance, households pay less than businesses. In addition, there are discounts built in for development and policy purposes. Consequently, we used the average energy price across end-users within a province.[44] Prices were highest in the three major cities: HCMC, at VND 1,068 per kW; Ha Noi, at VND 996 per kW; and Da Nang, at VND 912 per kW. The lowest energy costs were all in rural regions, indicating that energy in rural, poor provinces are subsidized relative to urban areas. Energy costs were VND 595 per kW in Bac Giang and VND 616 per kW in Ha Tinh. According to EVN data, energy prices have increased on average by about 45 percent in the past year, and will continue to evolve as global energy markets fluctuate.

5.5 Major Infrastructure

The final measure of infrastructure represents the existence of major sea and air ports in a province. Provinces receive a point if they have an international airport, a domestic airport, a major seaport (capable of handling more than 34,000 TEU or 2 million tons of cargo), or a minor seaport used primarily for local shipping.

The median province in Vietnam receives a zero on major infrastructure, because it does not have an air or sea port. Three national-level cities (HCMC, Hai Phong, and Da Nang) receive scores of 4, followed closely by Binh Dinh, which receives a 3 due to its active, deep-water port and domestic airport.

We include this measure with some trepidation. First, the location of major infrastructure is primarily the result of central-level planning. Not many provinces have the resources to self-finance their own port, nor should they. It makes little sense for neighboring provinces to each have their own seaport, or domestic airport for that matter. In these cases, rational regional planners should allocate infrastructure in the manner most efficient to the region and country as a whole.

44. http://www.hanoipc.evn.com.vn/EVNShow/tintuc1.asp?InforID=11847&CategoryID=881&Pos=893&rCount=2

Second, central infrastructure decisions may respond to economic growth in some localities rather than cause it. For instance, it may make sense to open a new airport in a province that has attracted a great deal of investment to meet the needs of existing investors.

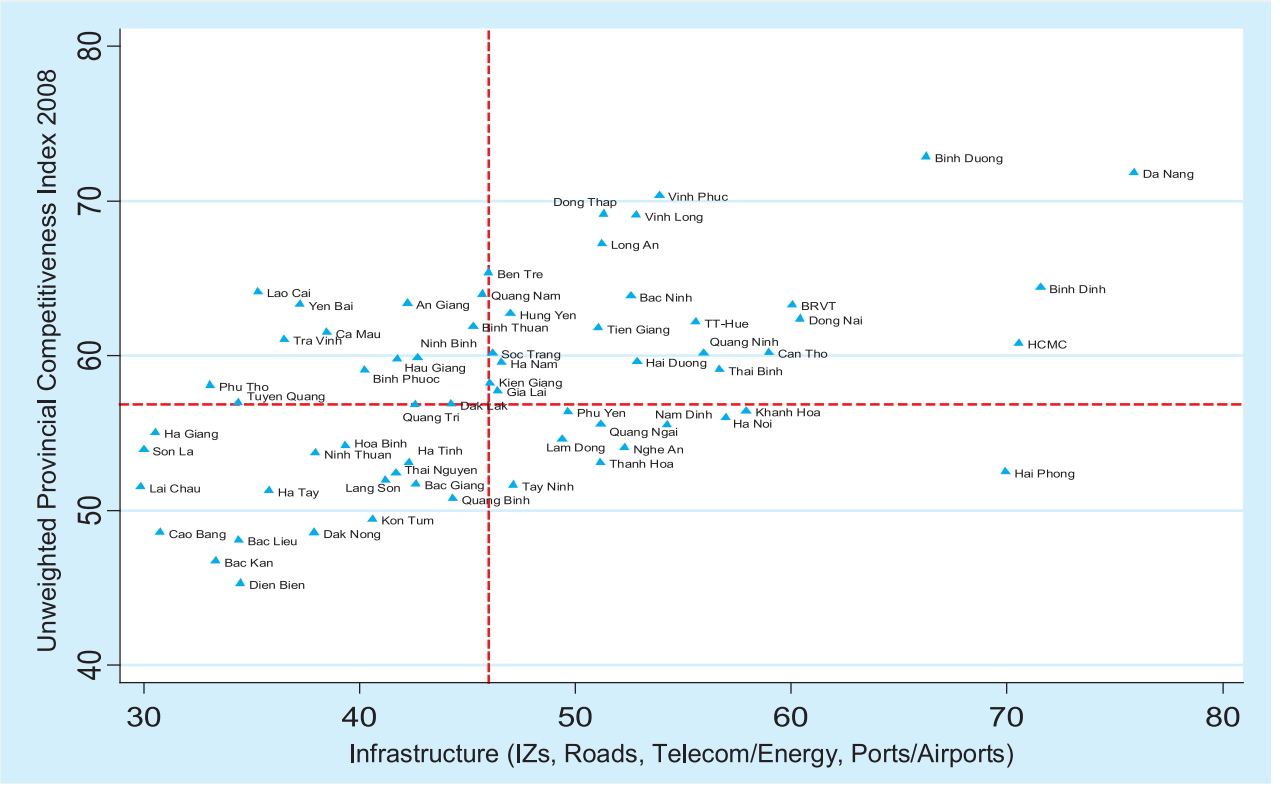
Nevertheless, firms do benefit from the lower costs and new opportunities that result from proximity to ports or airports, so in the spirit of exhaustiveness we have included it. Readers should feel free to use the dimensions of infrastructure that best fit their needs and should not feel limited to our method of aggregation.

5.6. The PCI Infrastructure Index and Economic Governance

As Figure 5.4 illustrates, infrastructure (including the four sub-indices) and economic governance are closely correlated, making it difficult to disentangle their effects. The bivariate correlation between the unweighted PCI and the final infrastructure is about 0.6, which is significant at the .01 level. A number of factors can explain this relationship:

- Proactive provinces that are interested in private-sector development are likely to invest resources in both providing better infrastructure and improving the regulatory environment. There is no reason why they must necessarily choose one over another.
- Good governance can engender better infrastructure. Fast-growing provinces have more resources to spend on infrastructure. If good governance helps a province like Binh Dinh develop a robust private sector that generates healthy provincial revenue, it will have more money to spend on infrastructure. Alternatively, the central government may allocate money for roads or ports to accommodate the needs of fast-growing clusters of firms.
- Infrastructure attracts foreign investors who interact with policy makers, providing them insights into regulatory reform that benefit not only foreign firms, but also private firms.
- Poorer provinces are more dependent on central transfers for infrastructure and are therefore less able to develop independent governance institutions of their own. They are more likely to invest their scarce resources in appealing for greater central transfers.

Figure 5.4: Relationship Between Infrastructure and Governance



Even given this correlation between economic governance and infrastructure, Figure 5.4 separates out provinces with four combinations of governance and infrastructure attributes. The dotted lines on the scatterplot indicate the median scores for the infrastructure and unweighted PCI index. The northeast quadrant identifies provinces with above-average governance and infrastructure provision, which represent the best locations for investors. Provinces in the southeast quadrant offer above-average infrastructure but less-than-friendly business environments. Those in the northwest quadrant are handicapped by poor infrastructure, but offset this impediment with above-average governance. Finally, provinces in the southeast quadrant are the most problematic, with poor infrastructure and poor economic governance. As infrastructure is a key long-term development issue, the provinces in this last quadrant could benefit the most from initiating a virtuous circle of economic development by improving their regulatory environment, which could lead to higher revenue or investors in bonds or build-operate-transfer, and consequently additional infrastructure spending.

5.7 Infrastructure as a Constraint on Fast Growing Regions

The finding that infrastructure is highly correlated with gross domestic product (GDP) is useful, but uninteresting. As we mentioned above, the legacy of infrastructure stocks goes back several generations. We demonstrate in every PCI report that the telecommunications capacity in 1995 is strongly correlated with economic outcomes today. Causality is difficult to ascertain, because infrastructure and economic performance are mutually reinforcing. Initial infrastructure was among the primary determinants of investment in the early years of Vietnam reform era.[45] High investment at that time expanded provincial revenue and allowed better provinces to invest more in infrastructure, thereby increasing the infrastructure gap.

Furthermore, equivalent infrastructure across provinces is unwanted. Infrastructure decisions need to be national-level policy decisions. Projects should lead to coordination across provincial boundaries. Local authorities should not be encouraged to invest in duplicative projects. Most importantly, major infrastructure investments should go where they are most needed from a national development perspective. The most common criticism from economic analysts and foreign investors interested in Vietnam is not that the infrastructure in the country is unequal; it is quite the opposite: critics assert that Vietnam's policy apparatus directs infrastructure on a political basis, using it as a redistributive tool. As a result, the high growth areas of Vietnam are disproportionately neglected in central infrastructure schemes. They may have higher levels of infrastructure on an absolute basis, but improvements in infrastructure are not keeping pace with the demands on them. As the authors of Choosing Success put it, "Provinces with slow population growth receive "gold plated" infrastructure-broad high speed roads and bridges-while infrastructure in the Southeast focal economic zone is stretched to the breaking point."[46]

Indeed, using PCI data we can confirm that this appears to be true. Road coverage is fairly high in Ba Ria-Vung Tau (83 percent), but the four other provinces that comprise Vietnam's growth hub-Binh Duong (64 percent), HCMC (56 percent), Dong Nai (52 percent), and Long An (29 percent)-rank in the middle of the pack or worse. Moreover, within these provinces, most of the paved roads are locally managed and do not benefit from spillovers from national highways as much as other localities. National highways account for 22 percent of total paved road coverage in the average province. In the five growth centers cited above, they account for only 12 percent.

Has growth in road coverage kept pace with demands on its usage? The key issue in Choosing Success is not that the roads are generally bad; rather, it is that funding for infrastructure has been allocated to the wrong places. As noted above, the number of paved kilometers of road throughout Vietnam has grown at an annualized rate of 15

45. Malesky, Edmund. 2008. "Straight Ahead on Red: How Foreign Direct Investment Empowers Provincial Leaders." Journal of Politics 70(1): 97-119 (http://journals.cambridge.org/download.php?file=%2FJOP%2FJOP70_01%2FS0022381607080085a.pdf&code=ff21ae7c9a9eb3d901f7ea49a2a202a6)

46. Harvard Fulbright School. 2008: 25

percent, compared to a 26 percent rate in the growth of private firms. In the North Southeast, which is the engine of the Vietnamese economy, growth in asphalted roads has averaged only 9.6 percent, despite the fact that the region accounts for 36 percent of GDP and 40 percent of private economic activity.

Table 5.2 demonstrates the issue succinctly by using population growth as a proxy for the change in demands on infrastructure due to increased urbanization, economic activity, and labor migration. This is the indicator highlighted by the Choosing Success authors when speaking of the North Southeast, because of the rapid growth in population relative to other areas, despite relatively constant fertility rates in the country.[47] The table shows that the population of the North Southeast has been growing much faster than the rest of the country, but the change in asphalted roads lags behind every region except the Red River Delta even though the Red River Delta already has the highest coverage in the country by quite some margin. Average coverage in the North Southeast also lags behind the both the North and South Central Coast. More interesting still, Ba Ria-Vung Tau and Dong Nai have experienced road coverage declines, despite above-average population growth. At least on the measure of road coverage, it does seem that high-growth provinces are more heavily constrained by infrastructure.

Table 5.2: Infrastructure Growth Versus Demand for Usage

	Population Growth (2002-2006)	Share of GDP (2007)	Share of Active Private Firms (2007)	Growth in Asphalted Kilometers of Road (2002-2006)	Percentage of Total Kilometers of Road Covered by Asphalt (2006)	Average Price of Energy (VND/KW)
Entire Country	1.4%	100%	100%	15.2%	42.0%	777.0
Red River Delta	1.1%	20.9%	27.5%	8.7%	83.5%	734.0
Northern Uplands	0.1%	8.3%	6.0%	17.1%	38.1%	766.3
North Central Coast	0.8%	6.1%	5.0%	52.7%	55.8%	687.6
South Central Coast	1.1%	7.0%	8.5%	18.7%	60.6%	789.9
Central Higlands	1.6%	4.2%	2.9%	10.3%	49.4%	779.8
North Southeast	2.3%	36.4%	39.0%	9.7%	52.0%	865.8
Mekong Delta	0.2%	17.2%	11.0%	19.9%	40.7%	791.7
Ba Ria - Vung Tau	2.0%	7.7%	1.1%	-5.6%	82.5%	860.7
Binh Duong	6.0%	1.7%	2.3%	10.0%	64.5%	871.9
Dong Nai	2.0%	4.0%	2.4%	-3.0%	52.2%	865.1
HCMC	3.0%	18.3%	29.7%	1.9%	55.9%	1068.1
Long An	1.0%	1.5%	1.3%	18.7%	28.5%	813.9

47. Harvard Fulbright School. 2008: 3

It is not just roads. The same provinces are also paying more for electricity than other regions in the country. While the average provinces pays about VND 777 per kW, the fast-growing provinces of the North Southeast are all paying well over VND 800 per kW. This indirect transfer system could potentially burden development in high growth areas.

Vietnamese national leaders must work out their infrastructure priorities and set out a national plan that takes into account redistributive needs, while not handcuffing the high-growth centers. In addition, provinces should be allowed to take more advantage of the privileges granted to them under decentralization, so they can use debt markets or public-private partnerships to finance infrastructure on their own accord.

5.8. Information and Communication Technology

In addition to the traditional types of infrastructure discussed above, more and more firms in Vietnam recognize the utility of information technology for facilitating interactions with business partners and acquiring market and technology information. In fact, 27 percent of respondents recorded active e-mail addresses on their PCI survey forms. In the two major cities of Ha Noi and HCMC, more than 60 percent of firms used e-mail addresses for their contact information. Annual growth in ICT penetration in Vietnam is estimated at 8 percent per year.[48]

The 2008 PCI attempted to incorporate an ICT sub-index into the infrastructure index. It became clear that the Office of the Steering Committee for National Information Technology Readiness of the Ministry of Information and Communications had already developed all the information that would be needed for such an index.[49] Not only did this office have the best repository of data available on ICT in the country, but also, together with the Association for the Study of ICT in Vietnam, they created an annual index of provincial readiness for ICT. The ICT Report, however, is available only in Vietnamese and has not been widely circulated among researchers and the public. The government created it primarily as an internal policy document. Nevertheless, both its methodology and data are of excellent quality. Rather than attempting to create a rival index, we base our analysis on ICT capabilities on this strong, existing report.

The ICT Index is subdivided into five sub-indices, which are described along with their indicators in Table 5.3. Sub-index 1 is a measure of the level of infrastructure necessary to promote ICT. It includes basic infrastructure such as telecommunications capacity, but also provides the number of household and business computer users and internet subscribers in each province. Most importantly, it calculates overall capacity, including domestic and international bandwidth, as well as broadband services. As with the measure of infrastructure above, sub-index 1 is endogenous to economic development. Richer provinces and citizens are likely to have more resources to spend on ICT equipment. A correlation with development, therefore, does not necessarily indicate that ICT generates growth, since the opposite relationship is possible as well. Consequently, it is not surprising that the four highest-ranked provinces are Ha Noi, HCMC, Da Nang, and BRVT. The five localities with the worse ICT scores are all in the poor and mountainous Northern Uplands (Cao Bang, Son La, Bac Giang, Hoa Binh, and Ha Giang).

48 Le Truong Tung. 2007. Vietnam ICT Outlook 2007. Presented at the Vietnam Computer Electronics World Expo, July.

49. Le Truong Tung. 2007. **Văn Phòng Ban Chỉ Đạo Quốc Gia Về CNTT** [Office of the Steering Committee for National Information Technology Readiness] and **Hội Tin Học Việt Nam** [Association of Informatik Studies]. 2006 **."Báo Cáo Chỉ Số Sẵn Sàng Cho PhátTriển Và ứng Dụng CNTT-TT Việt Nam Năm 2006** [Report on the Index for the Develpment and Usage of Information and Commincation Technology in Vietnam 2006].

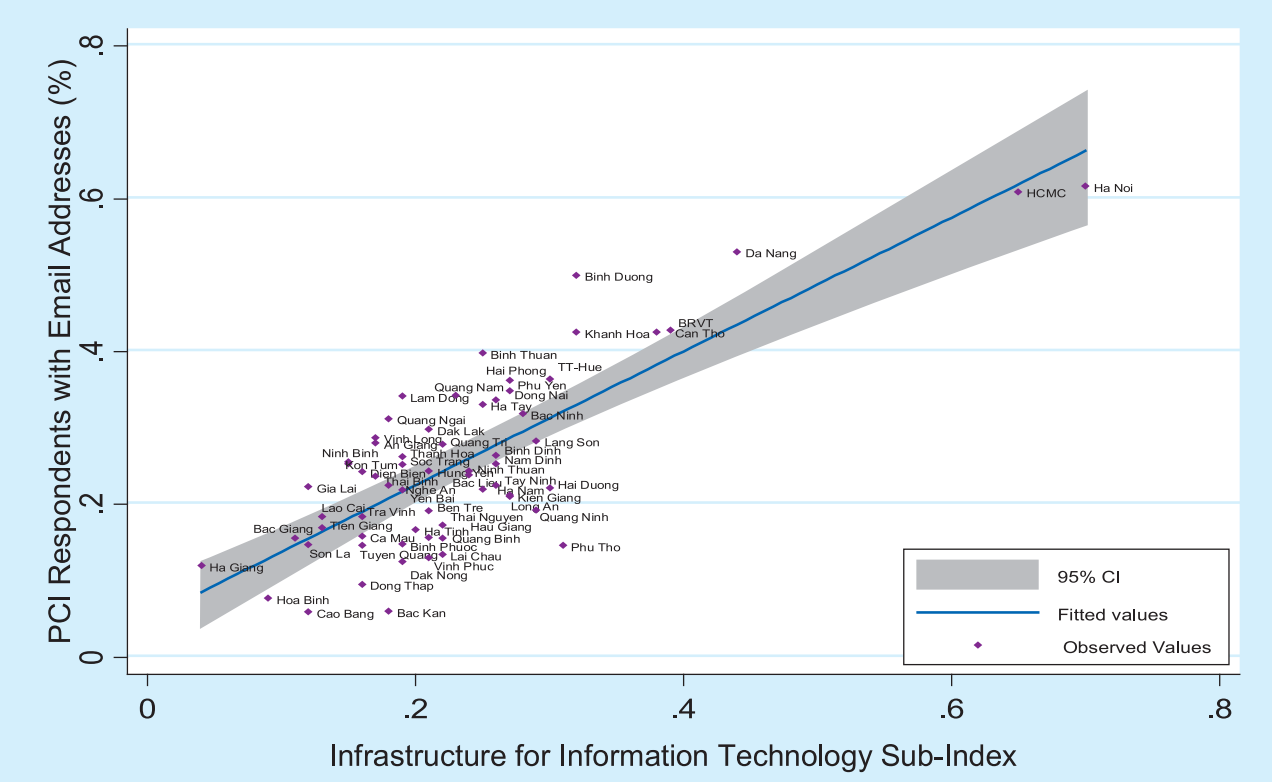
Table 5.3: Indicators Used in ICT Index

Sub-Index	Sub-Index	2008 Measures	
1) ICT Infrastructure (Level of hardware and physical equipment for technology usage)	a. Land line telephones/100 people b. Mobile telephones/100 people c. Dial-up internet accounts/100 people d. Broadband internet subscriptions/1000 people e. Domestic bandwidth (traffic on Vietnamese websites)/per capita f. International bandwidth (traffic on international websites)/per capitag. g. Households with a computer h. Households with broadband internet i. Computers/per capita in state offices j. Computers with internet in state offices k. Computers with broadband internet in state offices l. Businesses with broadband internet	Min	0.04
		Median	0.21
		Max	0.7
2) ICT Human Resources (Schooling, training, and personnel required for technology skill acquisition)	a. Primary schools with information technology (IT) courses b. Middle schools with IT courses c. High schools with IT courses d. State workers with computer skills e. Educational institutes (higher than high school) with IT courses/100000 people f. Graduates from above institutes/1000 people g. Official training centers with IT courses/100000 people h. Graduates from above centers/1000 people	Min	0.14
		Median	0.31
		Max	0.65

Sub-Index	Sub-Index	2008 Measures	
3) ICT Applications (Scope, scale, and efficiency of uses of information technology on existing infrastructure).	a. Total time of domestic phone calls/per capita b. Total time of international and long distance calls/per capita c. State budget for ICT/per capita d. Small administrations and districts with websitese. e. Businesses with websites f. Provinces with websites or information portal and basic information available (including: a general introduction, administration structure, news and events, activities of the local administration, instructions for individuals and businesses to complete administrative procedures, legal documents, development plans and policies, business information, questions and answers on ICT policies, search function, visitor comments, frequently asked questions (FAQ), and discussion). g. Public services offered on the internet (including: business registration, investment licensing, construction permission, payment methods for utility bills, private registration for pharmaceuticals, job advertisements, public transport services, queries and status of administration procedures).	Min	0
		Median	0.17
		Max	0.67
4) Resources of Private ICT Providers	a. Number of ICT businesses/1000 people b. Total revenue of ICT businesses/per capita	Min	0
		Median	0.09
		Max	0.89
5) Organization and Regulation of ICT (Local policies, administrative structure, and official regulations governing internet usage)	a. Number of ICT steering committees and number of meetings of these committees b. ICT policies for development: strategy and plans, encouragement, human resources development c. Interest of local state leader/officals in ICT development and application: no interest, little interest, some interest, interested, very interested	Min	0.11
		Median	0.705
		Max	1

As a test of the external validity of the ICT index, Figure 5.5 shows the bivariate correlation between ICT infrastructure and the percentage of PCI respondents with e-mail addresses in each province. The two variables are almost perfectly correlated, giving us a clear indication that the ICT index is a useful gauge of internet readiness.

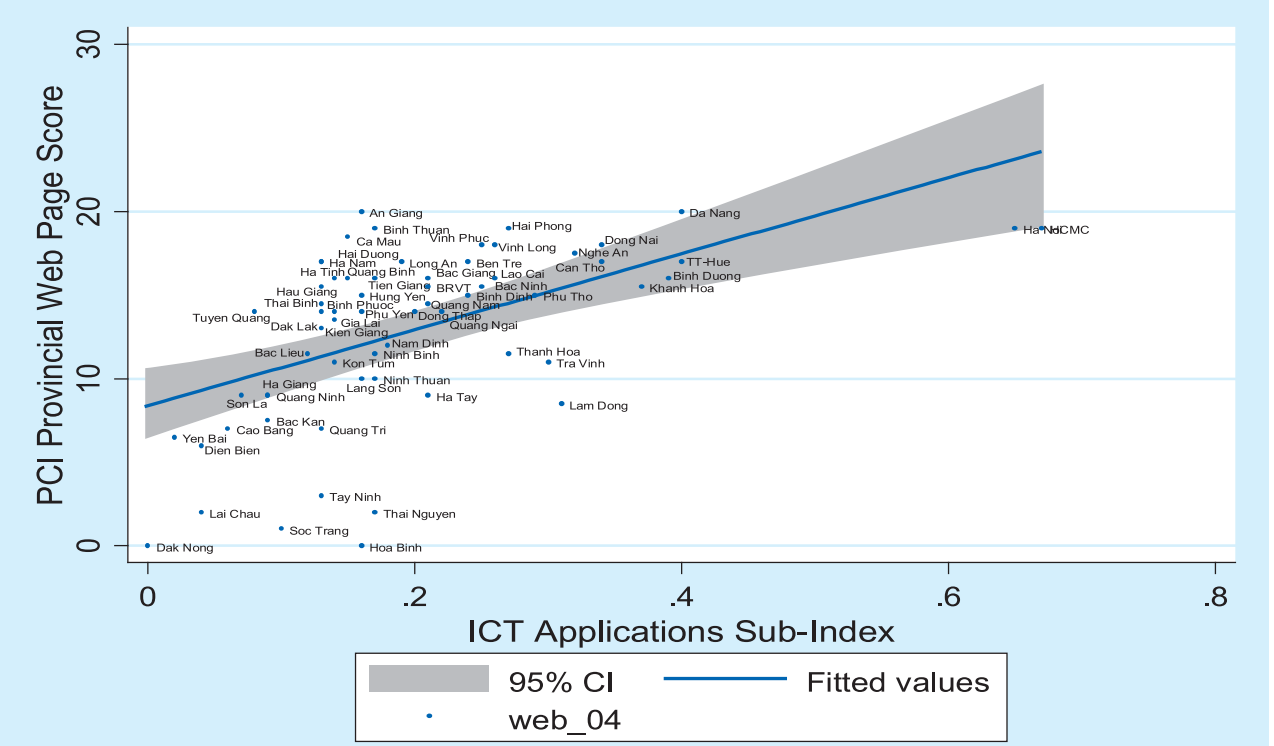
Figure 5.5: Relationship Between ICT Infrastructure and Email Usage in PCI



The second ICT measure looks beyond the hardware of telephone lines and computer usage, and gauges social and human resource capacity-the readiness of the local populace to take advantage of internet expansion. This indicator analyzes ICT training at every level of education, from primary school through university education, as well as the number of training centers and graduates from those centers in each province. Ultimately, the index helps us understand where ICT infrastructure is likely to be used most efficiently. Ha Noi tops the human resources rankings, followed, surprisingly, by Thai Nguyen province. HCMC, Binh Duong, and Vinh Phuc are the third to fifth strongest provinces in terms of ICT human resources. Son La in the far north of Vietnam and Ca Mau in the far south, on the other hand, have the lowest ranked human resources capacity for internet usage.

Sub-index 3 examines the scope and efficiency of ICT applications that are already in operation in the province. These include measures of telecommunication usage, provincial expenditures on ICT, local businesses with websites, the quality of information available on administrative websites, and the quantity of e-governance services available on provincial websites. The final two indicators are quite similar to the indicators of webpage openness from the PCI Transparency sub-index, except that they also include information and services that are useful to the public at large, such as options for paying utility bills, filing driver's-license applications, and registering for pharmaceuticals. In fact, the two variables are correlated at a 0.6 level (See Figure 5.6). HCMC, Ha Noi, TT-Hue, Da Nang, and Binh Duong have the strongest internet applications, while Dak Nong and Yen Bai have the lowest penetration of internet applications.

Figure 5.6: Relationship between ICT Application and the PCI Webpage Score



Sub-index 4 tracks the number and total sales of ICT-related businesses in the province, as a way of gauging both the receptiveness of local officials toward internet oriented-businesses and the private services available to citizens and entrepreneurs. Once again, this figure is affected by economic performance, as ICT-related businesses are more likely to operate in locations where there is demand for their services. HCMC, predictably, has the strongest ICT business capabilities, but there are some surprises at the top. Kon Tum and Bac Ninh have a high proportion of ICT-related businesses, given the small size of their businesses communities. The two provinces rank second and third, above Ha Noi and BRVT. Similar surprises are evident at the bottom. Tien Giang and Long An, two highly business-friendly provinces, have no ICT businesses registered at all.

Finally, sub-index 5 measures the commitment of provincial authorities to develop the ICT infrastructure. It tracks the number of ICT steering committees within local administrative units and the number of meetings held by those units in order to assess their commitment to the task. It analyzes provincial planning documents to see whether they specifically indentify strategies for developing local ICT infrastructure and human resources. Finally, it uses the results of a survey of citizens to analyze their perspectives on the interest of local officials in developing ICT in their province. Eleven provinces, including all of the provinces ranked 'excellent' in the PCI index, received perfect scores on this measure.

Figure 5.7 shows the final ICT index ranking. HCMC and Ha Noi, with their deep and sophisticated markets, are rated the provinces with the best ICT capabilities, followed by a familiar group of provinces, including Binh Duong, Da Nang, TT-Hue, and Vinh Phuc. While there are some notable surprises, strong correlations exist between the PCI, the Infrastructure index, and the ICT index. Table 5.4 shows these correlations and establishes bivariate correlations between these indices and several important outcome variables.

Figure 5.7: Final ICT Readiness Index

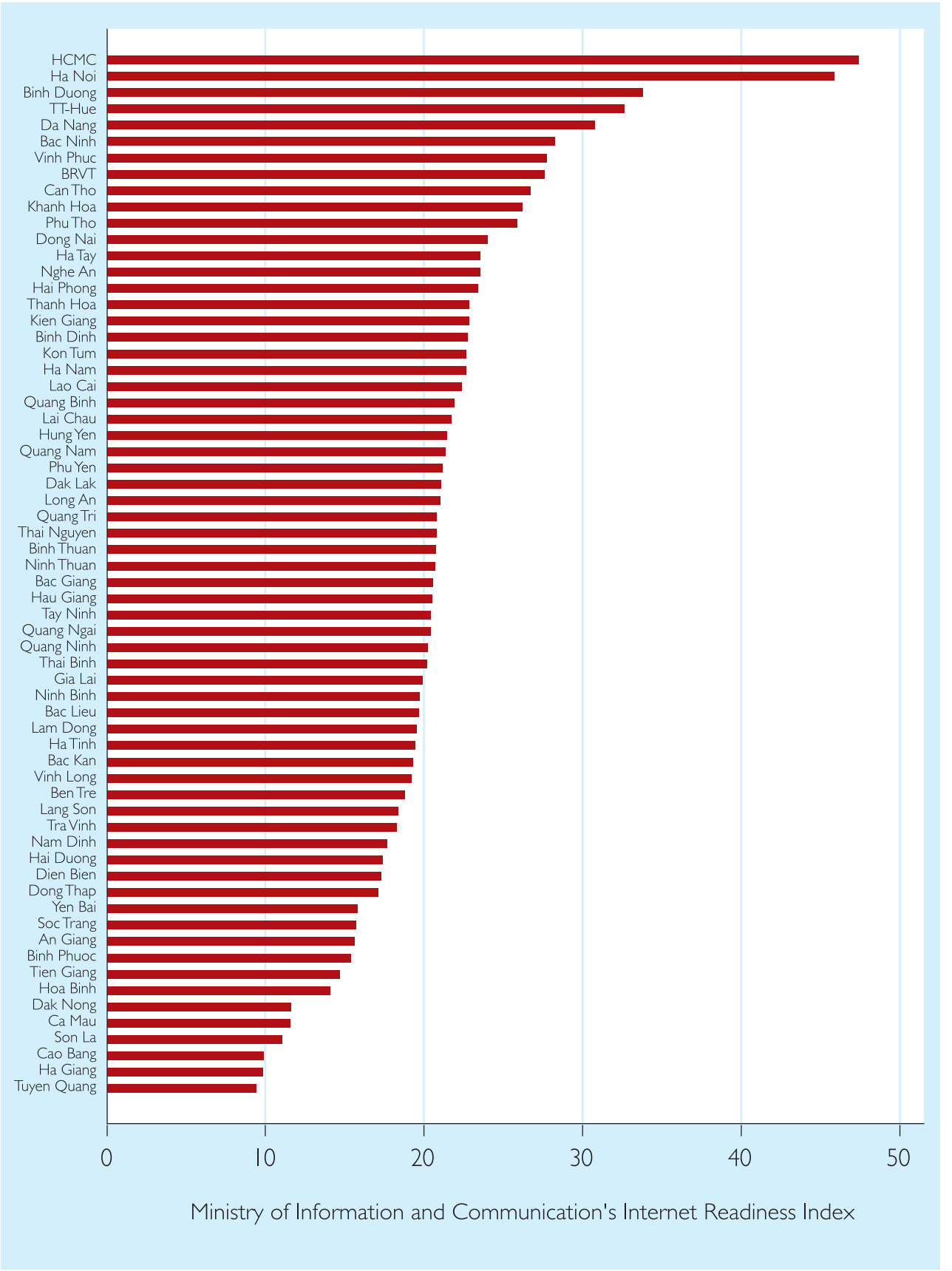


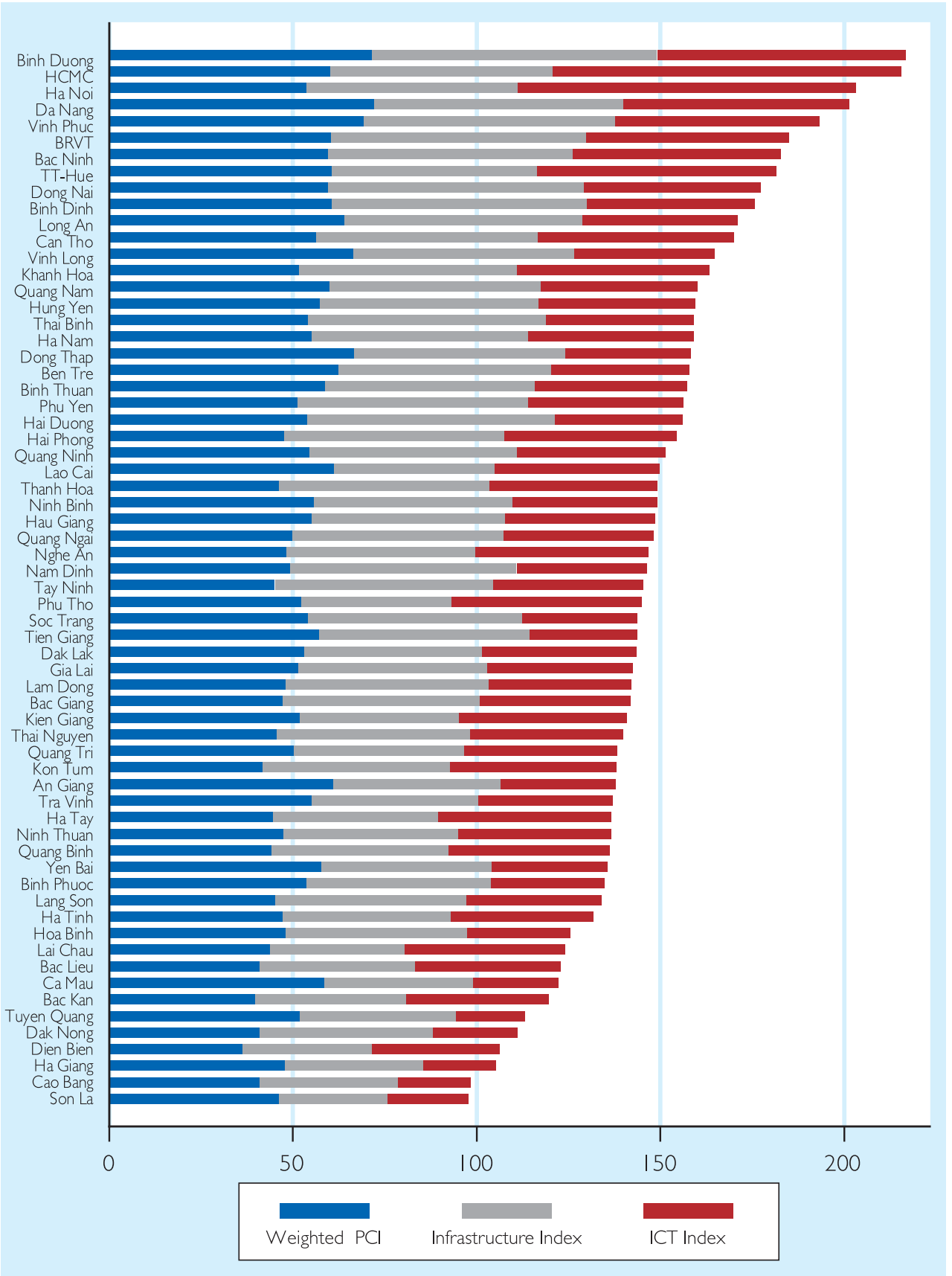
Table 5.4: Bivariate Correlations of Final Indices and Outcome Variables

Final Weighted PCI	1								
Unweighted PCI	0.9785*	1							
Standard Infrastructure	0.6186*	0.5983*	1						
Full Infrastructure Index	0.5657*	0.5186*	0.8533*	1					
ICT Index	0.3715*	0.2794*	0.4923*	0.6237*	1				
Enterprises per Capita (ln)	0.3943*	0.3335*	0.4372*	0.6757*	0.7794*	1			
Investment per Capita (ln)	0.4219*	0.3851*	0.4946*	0.6534*	0.7223*	0.8534*	1		
Profit per Enterprise	0.3191*	0.3273*	0.1859	0.1662	0.0455	0.1141	0.2121*	1	
GDP per Capita (ln)	0.3527*	0.3197*	0.5102*	0.5806*	0.4763*	0.6784*	0.6166*	0.2916*	1
* Significant at the .05 level ln: Natural Log									

5.9 Conclusions

As we indicated in last year's report, there is evidence that increasing inequality is beginning to appear across the country. Top performing provinces excel at all aspects of economic development, as shown in this report in terms of economic governance, infrastructure, and ICT capability. This group is pulling away from the rest of the country. At the same time, another group that must struggle with weak initial conditions and poor infrastructure has not been able to develop the good governance practices to compensate for their handicap. These are steadily falling behind the performance of their peers. The extent of this divergence can be seen in Figure 5.8, a total investment environment index, created by standardizing the PCI, infrastructure, and ICT indices to a common 100-point scale and adding them up. More than 100-points separate the urban and industrial centers at the top of the index from the rural mountainous regions at the bottom.

Figure 5.8: Total Investment Environment



CHAPTER SIX

DETAILED DESCRIPTION OF INDIVIDUAL SUB-INDICES

DETAILED DESCRIPTION OF INDIVIDUAL SUB-INDICES

6.1 Entry Costs

The intellectual origin for this section of the report arose from the World Bank's surveys of start-up costs for entrepreneurs in developing[50] and transition[51] countries. The goal of this sub-index is to assess the differences in entry costs for new firms across provinces. According to the two versions of the Enterprise Law (2000 and 2005), as well as the Prime Minister's Decision 236 regarding SME development, these procedures should now be uniform across all provinces, but studies of business registration indicate they are not.[52] The PCI measures the extent of the variance in entry costs with eight variables (see Table 6.1 and Figure 6.1).

- *Length of business registration in days.* According to the new one-stop shot procedures cited in Joint-Ministerial Circular 05-08, provincial departments of planning and investment are required to complete registration procedures in five days or less.
- *Length of business re-registration in days.* For a variety of reasons, registered business may need to re-register their operations. Such motivations may include changing the legal form of the company, increasing the registered capital amount, or changing the product line in which a firm operates. Such a re-registration should take a maximum of five days according to Decree 88/2008/ND-CP.
- *Number of business licensing requirements required to operate.* Article 6 of the 2000 Enterprise Law provided the legal foundation for removing hundreds of irrelevant business licensing requirements. This was followed by a series of Prime Ministerial decisions and decrees that removed these licenses by name, beginning with the 84 licenses articulated in the well-known Decision No. 19/2000/QD-TTg.[53] Unfortunately, many line ministries and Provincial People's Committees have created new license requirements (more more than 300) since the Enterprise Law was enacted. Hidden licenses in the form of written "approvals" have also emerged, contributing to lengthier and more expensive entry costs for private firms.[54] The PCI attempts to capture the variance in licenses across the country by asking: "How many registrations, licenses (environmental, labor, natural resource exploitation, etc.), and permits does your firm presently need to operate (Please count all the licenses, permits, stamps, etc. issued by different agencies, even if they deal with the same type of activity.)?"
- *Percentage of firms having difficulty obtaining all the necessary documentation to start a business.* Simply asking about the number of required documents is limiting, as it does not adequately capture the fact that only one extra license can be a significant burden if it takes an inordinately

50. See Doing Business in 2009 at http://www.doingbusiness.org/ for more information on the survey and data set.
51. See The Business Environment and Enterprise Performance Survey (BEEPs) at http://info.worldbank.org/governance/beeps/
52. Le Dang Doanh. Tinh Hinh Thuc Hien Luat Doanh Nghiep (Implementation Situation of the Enterprise Law), paper presented at the Vietnam Consultative Group-Private Sector Forum, Ha Noi, 2000. Central Institute for Economic Management (CIEM), 2001. "One Year Enforcement of the Enterprise Law: Results and Remaining Problems," unpublished mimeo. Central Institute for Economic Management (CIEM), Task Force for Enterprise Law Endorsement, 2003. "Assessment Report on Three Years of the Implementation of the Law on Enterprises," Vietnam Business Forum Mid-Year Consultative Group Meeting, Ha Noi: World Bank, IFC, and Ministry of Planning and Investment, June.
53. CIEM and German Technical Cooperation Agency (GTZ). 2006. "6 Years of Implementing the Enterprise Law: Issues and Lessons Learnt," Business Issues 05, Ha Noi, p. 26.
54. Ibid, p. 27. Prime Ministers Research Commission (PMRC). GTZ, and Asian Development Bank. 2006. "Business Licensing: Current Status and the Ways Forwards." Business Issues 04, Ha Noi.

long time to obtain or requires several additional unexpected return visits.

- *Percentage of firms waiting more than a month to complete all steps necessary to start their business.* We gauge bureaucratic entry barriers by including an indicator of the percentage of firms in each province waiting over a month to receive all the remaining licenses and complete all the steps necessary to begin business activities since the promulgation of the Enterprise Law.
- *Percentage of firms waiting more than three months to complete all steps necessary to start their business.* This indicator captures provinces with particularly slow environments, where firms' investment plans were held up for an entire fiscal quarter.
- *Length of wait for land to begin business activities.* A number of research projects have identified obtaining land for business start up as one of the most critical obstacles faced by firms throughout Vietnam, even under the Land Law of 2004.[55] A recent International Finance Corporation study determined that to set up a factory in Bac Ninh and TT-Hue province, it would require 234 procedures, 48 documents, and a 399-day wait for land.[56]

  Unfortunately, calculating the total amount of time, beginning with the initial communication with local authorities to the date the land was finally accessed leads to unfair comparisons across provinces. Some provinces take a longer time to introduce land to firms because there is simply too little to go around for the firms that need it. Under these conditions, earnest efforts to locate land for a firm would be counted as a longer land wait. To compensate for this issue, our indicator simply focuses on the sum of two baskets of bureaucratic procedures that are unrelated to land constraints.[57]

  - *From the start of negotiations with the original owners until completion, how long did it take the business to complete the purchase (in days)?* This measure gauges the arbitration efforts provided by the province to ease land negotiation and compensation. We include this measure because the 2003 Land Law specifically states that enterprises must cooperate with Provincial People's Committees in negotiating compensation with local residents. The People's Committee can often complicate the negotiations when members allow its provincial socio-economic goals, such as employment generation, to influence the discussions.
  - *From the day the business submitted its application, how long did it take to receive the Land Use Rights Certificate (LURC) (in days)?* This is a simple measure of the ability of the provincial apparatus to formalize the land use rights of a firm after the land has been obtained. Often this involves coordination between multiple agencies at both the district and province level including the People's Committee, the Land Authority, and the Department of Construction to sign off on the procedure, thereby adding to waiting periods.

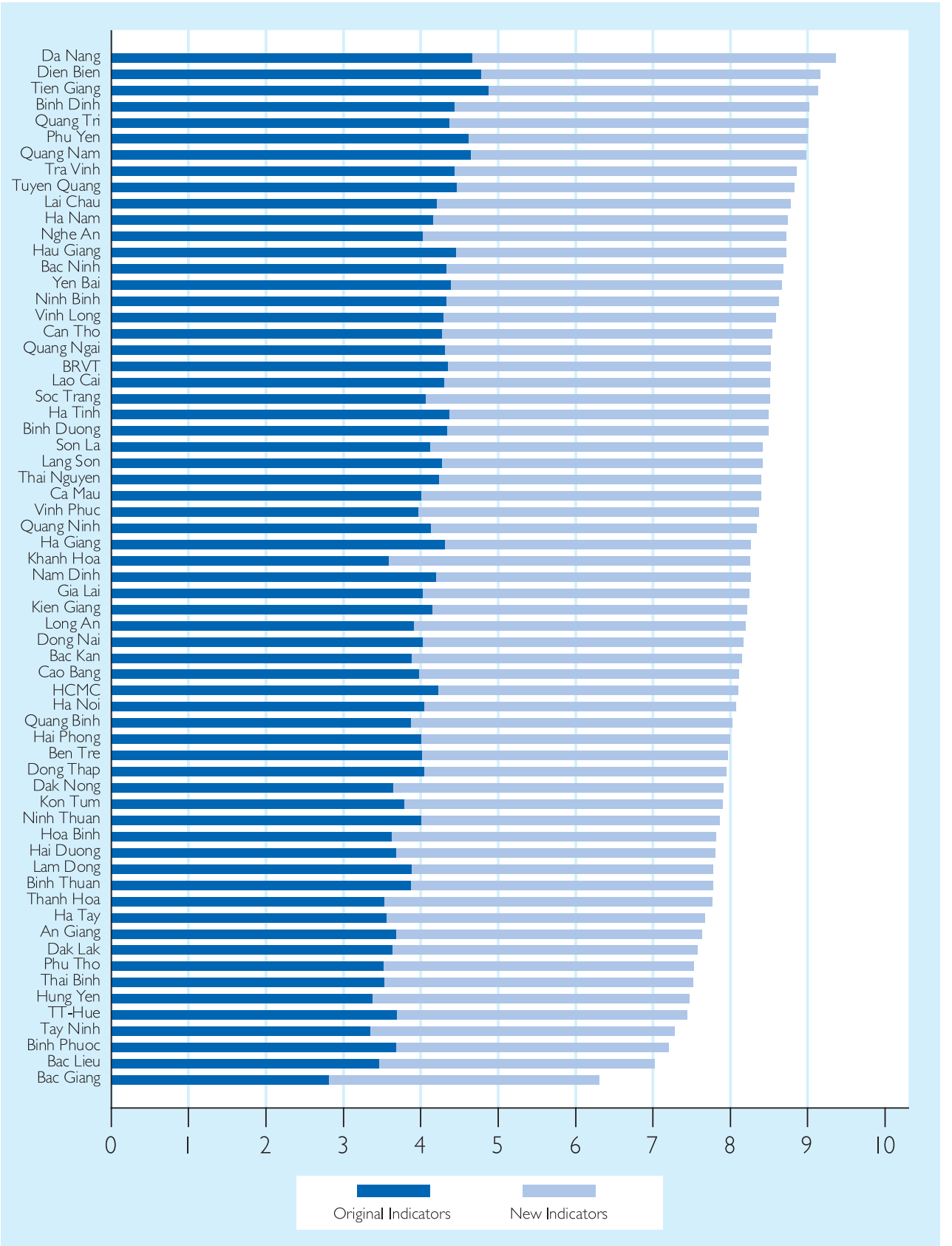
55. CIEM and GTZ. 2005. "From Business Idea to Reality: Still a Long and Costly Journey." Business Issues 04, Ha Noi, 15. Carlier, Amanda ,and Son Thanh Tra. 2004. "Firm Dynamism: Beyond Registration: How are Vietnam's new domestic firms faring?" Vietnam Private Sector Development Policy Note, Ha Noi: World Bank.
56. Foreign Investment Advisory Service and International Finance Corporation. 2008. Improving Land Access in Vietnam: Study of Bac Ninh and Thue Thien Hue. Ha Noi: World Bank Group. Vietnam Investment Review. 2008. Land Use Ruling Closes Gates on Firms, August 29. CIEM and GTZ, 2005, 21.
57. In the 2005 PCI, the available land constraint issue was resolved by dividing the land-use wait by the number of private firms per 1,000. This quantity was then multiplied by the ratio of land in the province currently zoned for business purposes. In essence, effective land use wait = (land wait/enterprises per 1,000)*(percentage of business land/100). This year, the survey was redesigned to capture the different time costs available, so such a formula was unnecessary.

Table 6.1: Comparison of Entry Costs Sub-Index (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Percentage of firms waiting over a month to complete all steps necessary to start operations.	PCI Survey Question: C4	Min	9.76	3.23	5.18	6.67
		Median	33.33	25.81	27.21	21.91
		Max	63.41	44	53.8	39.13
		Correlation w/Previous Year	NA	0.24	0.26*	0.15
Percentage of firms waiting over three months to complete all steps necessary to start operations.	PCI Survey Question: C4	Min	0	0	0	0
		Median	5.9	5.78	6.78	5.72
		Max	21.95	25.64	27.27	16
		Correlation w/Previous Year		0.02	0.15	0.18
Percentage of firms having difficulty obtaining all licenses and permits necessary to do business.	PCI Survey Question: C6	Min		0	0	2.08
		Median		12.4	11.1	10.05
		Max		27.27	36.8	26.92
		Correlation w/Previous Year		NA	0.30*	0.1
Length of business registration in days (Median).	PCI Survey Question: C1	Min		12	7	5
		Median		20	15	12.25
		Max		58	22.5	15
		Correlation w/Previous Year		NA	0.27*	0.46*
Length of business re-registration in days (Median).	PCI Survey Question: C2	Min		6	3	3
		Median		10	7	7
		Max		35	15	10
		Correlation w/Previous Year		NA	0.24*	0.53*
Number of licenses and permits necessary to start operations (Median).	PCI Survey Question: C3	Min		2	1	1
		Median		4	2.5	2
		Max		7.5	5	4
		Correlation w/Previous Year		NA	0.15	0.31
Effective Wait for Business Premises (Median).	PCI Survey Questions: B4.1.2 (Wait for Land Use Rights Certificate) + B4.1.3 (Negotiations with Holders before Conversion)	Min		65	45	42.5
		Median		231	90	81
		Max		1318	450	195
		Correlation w/Previous Year		NA	0.05	0.45*

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
Data includes 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.

Figure 6.1: Entry Costs Sub-Index



Original Indicators are those used in the original 2005 survey, while New Indicators are those first used in 2006. Both dimensions account for 50% of the final index.

6.2 Land Access and Security of Tenure

Land issues can be divided into two dimensions. First, the PCI considers access to business premises because the inability to locate and obtain productive land not only reduces opportunities for investment in a new business, but also limits access to capital because firms cannot use land-use rights as collateral for bank loans.[58] A second dimension of land policy, however, is the security of tenure on a particular property: do firms feel that their land rights are certain over the long term? The more secure the tenure, the more firms will be emboldened to invest in the long-term productivity of their premises.[59] If expropriation or materially damaging changes in lease contracts are a possibility, firms will take a short-term outlook with their investment and business plans. Employing the latter approach tends to undermine overall provincial welfare in terms of income and employment creation.[60]

6.2.1. Land Access

Four indicators in determining land access follow:

- *The percentage of firms with LURCs or in the process of receiving them.* While technically all Vietnamese land belongs to the state, the rights to its use have been assigned to individuals and firms through LURCs since 1993. These certificates legalize their owners' rights to the long-term use of the allocated land (for as little as 20, but up to 70 years) and to transfer, exchange, lease, inherit, and mortgage the land-use right. Particularly important is the ability to use a formal LURC as collateral in accessing bank loans. The percentage of private firms that do have secure land use rights varies considerably across provinces. Many provinces have myriad firms with informal land rights inherited from previous generations or purchased through informal exchange. Thus, we measure the total number of respondents with LURCs.
- *Percentage of firms that feel land availability constrains their business expansion.* The second indicator are whether firms feel investment has been sacrificed due to the lack of available land. Firms are asked whether they have limited their expansion plans due to the unavailability of land.
- *Provincial land conversion policies.* Provincial land conversion policies must be thought of in two periods. The first is provincial zoning policies before a firm takes possession of the plot. A number of provinces have worked hard to convert agricultural land for manufacturing use in order to increase the supply of land, thereby lowering waiting periods and prices.[61] The second type of land conversion policy takes place after a firm has assumed possession of agricultural land and then wants to use it for commercial purposes. In these cases, provinces are obligated by law to respond to a firm petition for land conversion within 20 days. If approved and the firm pays all the appropriate fees, the Provincial People's Committee must issue an amended LURC within five days. The PCI uses the percentage of firms in each province that rated land conversion policies as good or very good.
- *Percentage of total land in province with an LURC according to the Ministry of Natural*

58. De Soto, Hernando. 2000. The Mystery of Capital. New York: Basic Books.
59. De Soto, Hernando. 2000; Field, Erica, 2007. "Entitled to Work: Urban Tenure Security and Labor Supply in Peru." The Quarterly Journal of Economics, Vol. 122, No. 4 (November), 1561-1602; Di Tella, Rafael, Sebastian Galiani, and Ernesto Schargrodsky, 2007. "The Formation of Beliefs: Evidence from th Allocation of Land Titles to Squatters." The Quarterly Journal of Economics, Vol. 122, No. 1 (February).
60. Knack, Stephen, and Phillip Keefer. 1995. "Institutions and Economic Performance: Cross-Country Testing Using Alternative Institutional Measures," Economics and Politics 7(3), 207-228.

61. Cung et al.

Resources and the Environment. This data, based on the proportion of all land in the province that has been formally granted an LURC is used as hard data to anchor firm perceptions of land access. The measure includes agriculture, household, manufacturing, urban, military, and religious land.

6.2.2. Security of Land Tenure

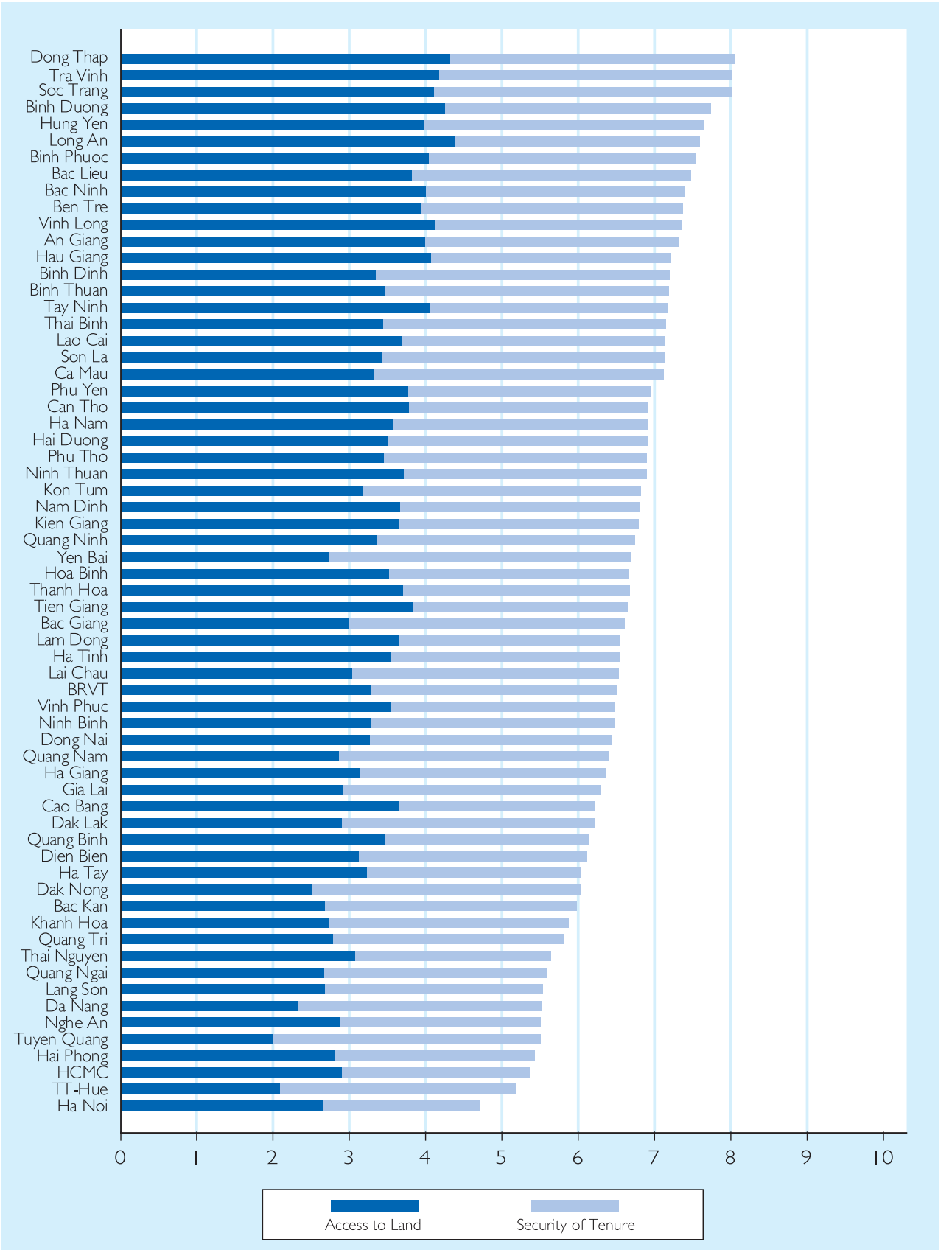
Four indicators for determining the security of land tenure follow:

- *Risk of expropriation.* As noted above, once an investor has land, the fundamental determinant of the effort and expense they put into developing their investment is directly related to their fears that the land on which their firm sits could be taken from them. Indeed, just over half of all LURC holders in the sample of firms believe that the risk of expropriation is high or very high. For this indicator, we take the mean score on a five-point scale, where five represents the very low risk of expropriation.
- *Fair compensation for expropriated land.* Fear of expropriation must be tempered by the fact that some declarations of eminent domain by local government authorities may be unavoidable. After all, firms themselves demand better infrastructure, which generally entails wider roads and highways; land clearance and conversion for development, which often involves the repossession of large swaths of land for industrial zones; and better public services, which may entail government usage of land. Even the U.S. Supreme Court has recently ruled, in the hotly debated 2004 Kelo versus New London Case, that land repossession of private houses and businesses could proceed to promote economic development. In these cases, the relevant question is whether the individual or firm forced to surrender their property receives fair compensation for the value of that land. This is no easy task. While the 2003 Land Law attempts to bring state compensation prices closer to market prices, there is always a delay between the bureaucratic process of revaluing land and the daily changes in market value. In addition, entrepreneurs are often concerned about the future value of land as opposed to the present market value. New infrastructure and re-zoning often enhance the value of the land, but the market rate is based on the land's current status.

To capture whether firms felt that compensation in their province was just, we posed the following question, "Based on your observations of other cases in your province, do you believe firms/individuals receive fair compensation for expropriated land?" We used the percentage of firms who ticked usually or always as an indicator.

- *Risk of change in lease contract.* For firms that lease property as opposed to purchasing it, the analogous risk to expropriation is a change in the lease contract that does material harm to their business. Such changes are common occurrences in Vietnam, where tenants often find after a few months of productive activity that their space has been promised to another investor, who offered a higher rent even before the end of the lease. Obviously, this can do major harm to an investor, who has put sufficient effort into developing the property. To maintain equivalency with the expropriation measure, we used an analogous five-point scale.
- *Perception of fair process of disputing changes in lease contracts.* Just as some eminent domain is unavoidable, disputes between landlords and tenants are also bound to arise. In these cases, the important issue is whether firms feel there is a fair system for disputing these changes. Once again, this question is scored in an equivalent manner to the question regarding disputes over expropriation.

Figure 6.2: Land Access and Security of Tenure Sub-Index



Access to Land is a measure of how long and how costly it is to obtain business premises. Security Tenure is a measure of the risk of expropriation or loss of business property. Both dimensions account for 50% of the final index.

Table 6.2: Comparison of Land Access and Tenure Security Sub-Index (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Percentage of firms that feel land availability constrains their business expansion.	PCI Survey Question: B3.1	Min	48.48	48.57	47.06	49.56
		Median	71.31	64.27	64.77	65.37
		Max	81.08	78.38	81.16	77.06
		Correlation w/Previous Year	NA	0.28	0.51*	0.52*
Percentage of firms in possession of Land Use Rights Certificate (LURC).	PCI Survey Question: B4.1	Min		23.29	51.35	38.36
		Median		55.28	75.57	81.16
		Max		77.78	92.45	94.74
		Correlation w/Previous Year			0.76*	0.70*
Percentage of firms rating provincial land conversion policies as good of very good.	PCI Survey Question: E1.8	Min		33.73	23.53	1.17
		Median		52.45	56.83	21.51
		Max		82.14	81.25	59.4
		Correlation w/Previous Year			0.78*	0.48*
Total land in province with official Land Use Rights Certificates	Ministry of Natural Resources and the Environment 2003 & 2007 Datasets†	Min		11.3	13.28	19.52
		Median		69.2	63.13	77.56
		Max		96.5	97.46	98.75
		Correlation w/Previous Year			0.85*	0.78*
Firm rating of expropriation risk (1: Very High to 5: Very Low)	PCI Survey Question: B4.1.4	Min		1.95	1.74	1.63
		Median		2.49	2.24	2.04
		Max		3.05	2.57	2.49
		Correlation w/Previous Year			0.28*	0.95*
If land expropriated, firs receive fair compensation (% Always or Usually).	PCI Survey Question: B5.2	Min		21.43	22.22	21.25
		Median		40	40.76	38.82
		Max		58.33	57.14	52.75
		Correlation w/Previous Year			0.37*	0.34*
Firm rating of changes in lease contracts (1: Very High to 5: Very Low)	PCI Survey Question: B5.2	Min		2.55	2.59	2.63
		Median		3.09	3.1	3.12
		Max		4	3.59	3.54
		Correlation w/Previous Year			0.15	0.25*
If changes in leases contracts, is there a fair process for disputing them (% Always or Usually).	PCI Survey Question: B5.3	Min		0	17.65	20.69
		Median		44.44	40	39.09
		Max		69.7	60.71	60
		Correlation w/Previous Year			0.24	0.27*

* 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.
† MONRE 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.

6.3 Transparency

Transparency is one of the most crucial factors highlighted by academics and development practitioners in identifying environments conducive to private sector business.[62] Tara Vishwanath and Daniel Kaufman define transparency as:

> [T]he increased flow of timely and reliable economic, social and political information about government service provision, monetary and fiscal policy.… Contrariwise, a lack of transparency may be described as someone … deliberately withholding access to, or misrepresenting, information or failure to ensure that the information provided is of adequate relevance and quality.[63]

A working measure of transparency should therefore encompass the following four dimensions: access, equity of information, predictability and openness. We measure transparency according to these attributes, using the nine indicators described in the subsections that follow.[64] Results of these indicators are shown in Table 6.3 and Figure 6.3.

62. Kaufman, Daniel, et al. 2002. Governance Matters, World Bank Policy Research Working Paper No. 2772, February, 5-7. Florini, Ann M., 1999. Does the Invisible Hand Need a Transparent Glove? The Politics of Transparency, paper prepared for the World Bank Conference on Development Economics, Washington, D.C., April. Tenev, Stoyan, Amanda Carlier, Omar Chaudry, and Quynh-Trang Nguyen, 2003. Informality and the Playing Field in Vietnam's Business Sector, Washington, D.C: International Finance Corporation.

63. Vishwanath, Tara, and Daniel Kaufmann. 1999. "Towards Transparency and Finance and Governance," World Bank Mimeo found at www.worldbank.org/wbi/governance/pdf/tarawish.pdf.

64. Vishwanath and Kaufman concede, however, that transparency is notoriously difficult to measure, because it deals with agents who actively try to hide information. Measuring transparency in Vietnam can be additionally troublesome, because the term (minh bach) is not obvious to many respondents. It can take on different meanings across geographical boundaries and across firms with different relationships to the provincial government. Misunderstanding of the term is not systematic across provinces, but varies according to firms' interactions with Western donors and investors.

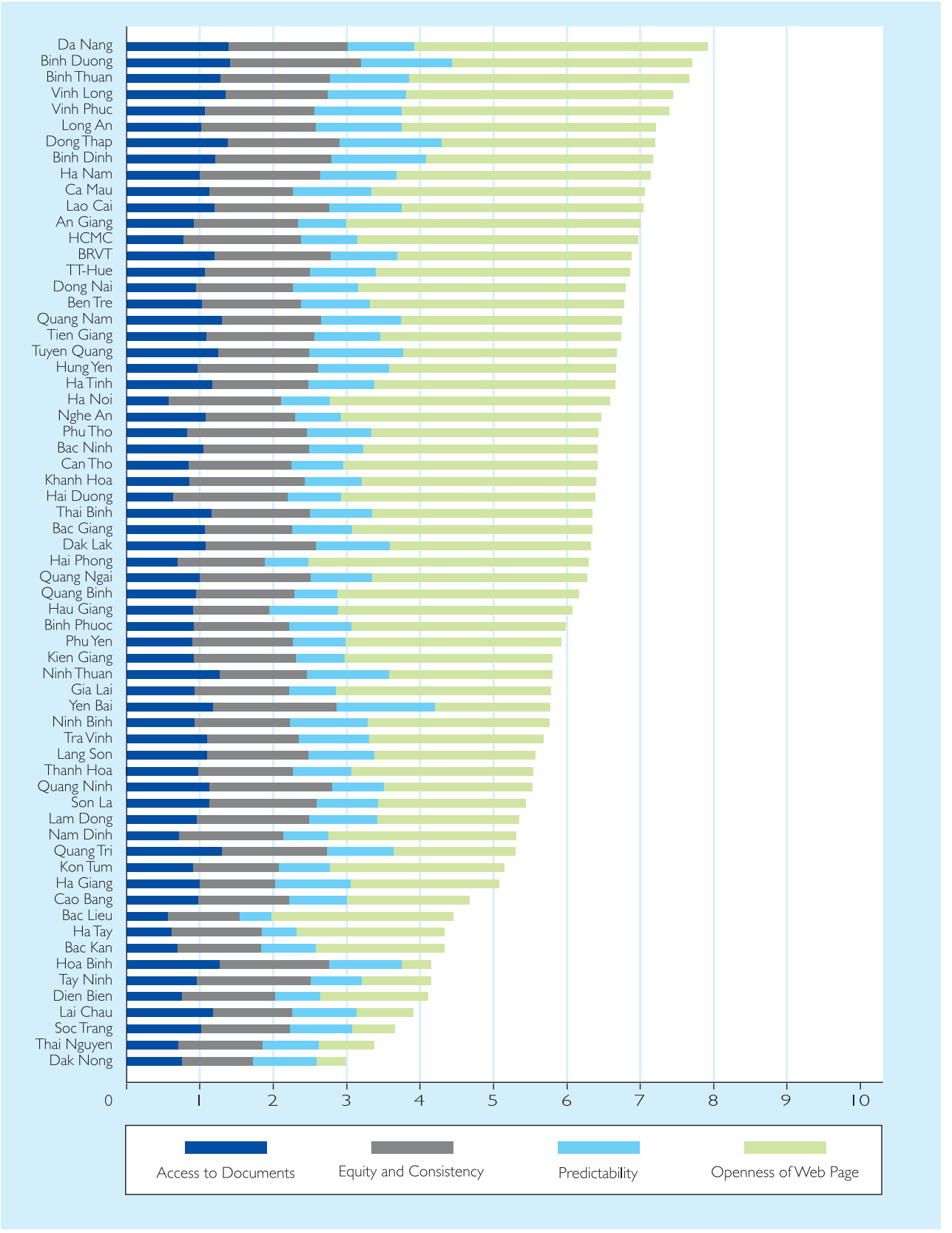
Table 6.3: Comparison of Transparency Sub-Index (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Transparency of planning documents	PCI Survey Question: F1.1-F1.13 (Factor 1)†	Min	-0.79	-0.4	-0.39	-0.41
		Median	-0.04	-0.02	-0.002	0.008
		Max	1.49	0.68	0.57	0.48
		Correlation w/Previous Year	NA	0.40*	0.63*	0.62*
Transparency of legal decisions and decrees	PCI Survey Question: F1.1-F1.13 (Factor 2)†	Min	-0.49	-0.45	-0.4	-0.35
		Median	0.04	0.01	0.02	0.02
		Max	0.48	0.35	0.34	0.4
		Correlation w/Previous Year	NA	0.46*	0.55*	0.59*
Relationship important or very important to get access to provincial documents (% Important or Very Important)	PCI Survey Question: F2	Min	50	31.48	38.4	33.57
		Median	72.11	62.5	56.6	49.82
		Max	100	77.14	73.4	67.9
		Correlation w/Previous Year	NA	0.27	0.38*	0.55*

Indicator	Source	Measure	2005	2006	2007	2008
Friends important for negotiating with government (% Important or Very Important)	PCI Survey Question: F7	Min	34.35	37.74	38.7	40
		Median	56.07	57.21	54.7	53.04
		Max	80	82.35	65.1	67.47
		Correlation w/Previous Year	NA	0.22	0.45*	0.55*
Negotiations with tax authority are an essential part of doing business (% Agree or Strongly Agree)	PCI Survey Question: G9.3	Min	52.17	47.17	24.1	17.39
		Median	75.22	61.05	44.7	36.71
		Max	96.15	86.96	73.2	54,25
		Correlation w/Previous Year	NA	-0.16	0.52*	0.73*
Predictability of implementation of Central laws at the provincial level (% Usually or Always)	PCI Survey Question: F6	Min	4.35	2.76	1.89	1.03
		Median	14.91	9.49	7.96	6.94
		Max	60.38	37.88	18.3	15.69
		Correlation w/Previous Year	NA	0.38*	0.46*	0.3*
Province discussed changes in laws with you (% Usually or Always)	PCI Survey Question: F3	Min	0	0	0.9	1.21
		Median	12.16	8.84	7.57	8.57
		Max	61.54	20.9	21.62	18.6
		Correlation w/Previous Year	NA	-0.29	0.45*	0.52*
Services Provided by Provincial Agencies: Consulting on National and Provincial Regulations (% Very Good or Good).	PCI Survey Question: E.1.5	Min		24.49	30.3	6.67
		Median		48.05	48.28	20.08
		Max		60.94	72.84	33.77
		Correlation w/Previous Year		NA	0.63*	0.53*
Openness of Provincial Web Page Score	Analysis by VNCI Research Team	Min	0	0	0	0
		Median	10	9	13.75	14.25
		Max	21	18	20	20
		Correlation w/Previous Year	NA	0.36*	0.51*	0.70*

* 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 a battery of 13 documents.
? 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.

Figure 6.3: Transparency Sub-Index



Access to Documents measures the availability of 13 different legal and planning documents. Equity and Consistency gauges whether those documents and other services are universally available. Predictability is the ability of firms to predict laws and implementation of those laws. Each of first three dimensions are drawn from survey data and are weighted at 20% of the final index. Openness of Web Page is a accounting of businessing information and services on provincial web pages. It accounts for 40% of the final index.

6.3.1. Access

The first dimension of transparency is access, defined as the timely dissemination of information. While legally, information on land and provincial planning may be available to all, accessing that information can often be quite problematic. Access includes the availability of new laws, implementing documents, or provincial decisions. When changes in the legal regime are not readily accessible, a firm may operate for several years, only to find itself on the wrong side of the law, simply out of ignorance. In most cases, such ignorance will cost the firm very little, but there is always the potential for an unscrupulous government official to exploit the asymmetric information about the legal code to their advantage. Conversely, a firm may be eligible for savings, investment opportunities, or tax refunds, but never take advantage of these because they are unaware of the benefits available to them.

To measure access to information across the surveyed provinces, a list of the 13 provincial documents most vital to business operations was given to each firm. They were then asked to rate their access to these documents on a scale ranging from very easy to impossible. Factor analysis of their answers generates the same two baskets of business documents discovered in every PCI going back to 2005:

- *Access to provincial planning documents (Factor 1),* which include a firm's evaluation of their access to the Provincial Budget, 10 - and 5-Year Master Plans, Annual Socio-Economic Plans and Infrastructure Development Plans, Private Sector Action Plans, Central Investment Plans, and Land Use Allocation Maps.
- *Access to laws and regulations (Factor 2),* which include a firm's evaluation of their access to Central Laws and Decrees, Ministerial Implementing Documents, Decisions of the Provincial People's Committee, applications for registration and land use, and changes in tax information.

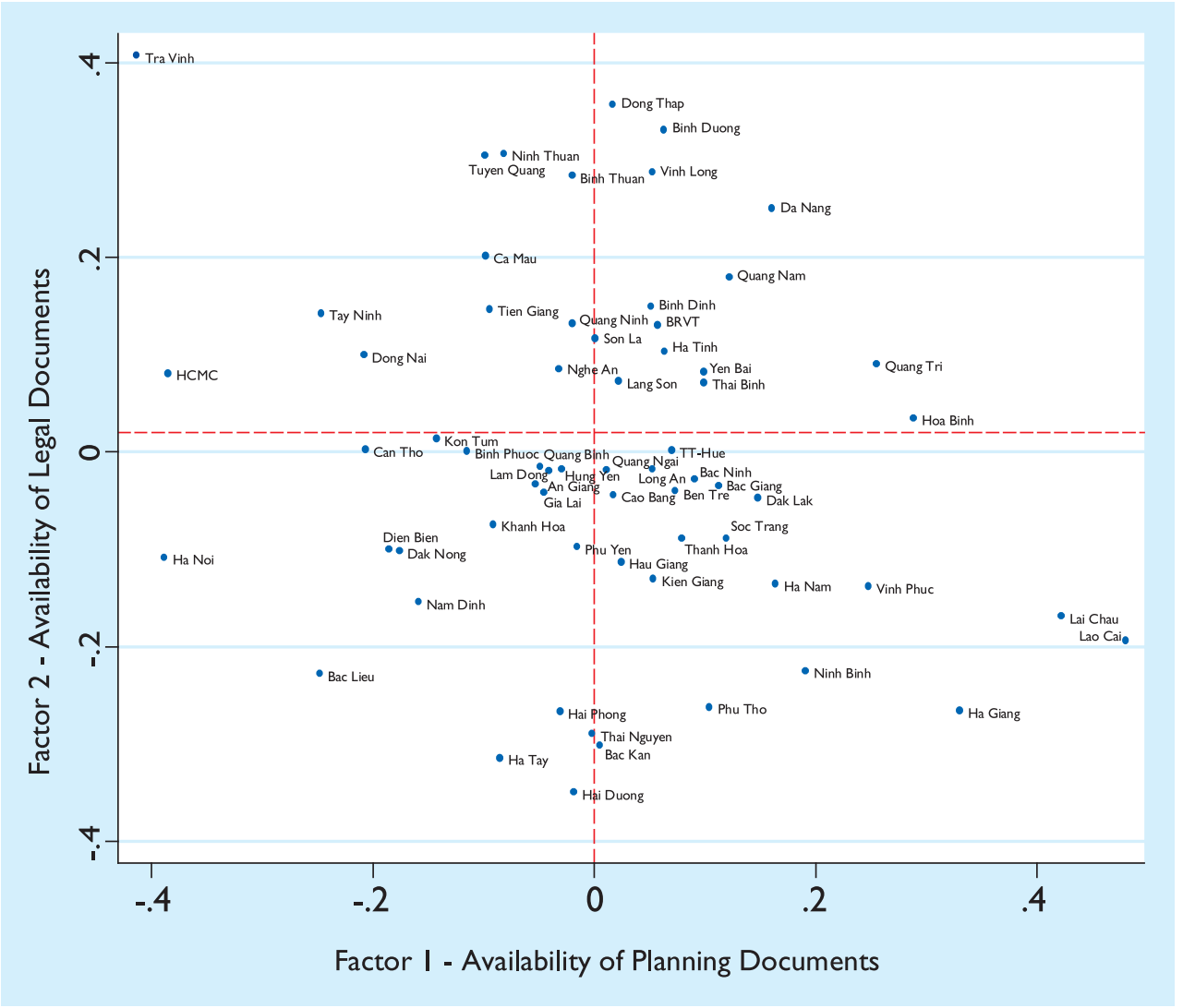
Table 6.4 displays the factor loadings of the two variables. High loadings represent a strong correlation with the underlying factors -- planning or legal documents. Together the two factors explain over 60 percent of the total variance among all documentation. Figure 6.4 plots the average score of these two factors on a scatter plot. Provinces located in the northwest quadrant are localities that demonstrate high transparency on both types of documentation.

Table 6.4: Factor Analysis of Planning and Legal Documents

Document	Planning	Legal
10 and 5 Year Master Plans	0.8087	0.2278
Yearly Planning Documents	0.7993	0.2635
Provincial Budget	0.7374	0.1683
Central Investment Plans	0.6985	0.3363
Private Sector Action Plans	0.6943	0.3252
Plans for Infrastructure	0.6817	0.4072
Land Use Allocation Maps	0.6159	0.3172
Provincial Investment Incentive Policies	0.5825	0.4726
Implementing Documents	0.3011	0.8067
Information on Changes in Tax Laws	0.0767	0.7612
Central Decisions and Decrees	0.3427	0.7491
PCOM Decisions and Circulars	0.395	0.7448
Applications for Registration and Land Use	0.3067	0.5715
Eigen Value	6.79	1.2
Cumulative Variance Explained	34.26	61.42

Documents listed in Questions F1_1 to F1_13 of Survey; Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.

Figure 6.4: Access to Planning and Legal Documents by Province



6.3.2. Equity and Consistency of Application

While dimension captures access to information, it does not necessarily imply equitable access, which can lead to severe inefficiencies in the use of provincial resources-inefficiencies that represent more than a simple transfer of resources from one party to another. Take, for instance, provincial planning. The impact of grand infrastructure and land conversion plans will be marginal if the details are available to only a select few insiders.[65] If only a few knowledgeable insiders know the location of future infrastructure projects and industrial zones, these insiders can then make one-way bets by buying up the land ahead of time. Other investors in real estate must make large conjectures based on small bits of information. Similarly, opportunities for corruption are rife when the provincial budget is not available to firms, so firms are unable to compare a province's actual expenditures to its planned outlays. Therefore, a follow-up question measures different aspects of equitable access in the transparency sub-index. Three variables are used to capture equity:

- *Access dependent on relationship with provincial government* is an indicator measuring the

65. The arrests in Phu Quoc island of Le Minh Be and Do To, the District People's Committee Chairman and People's Council, illustrate this point. According to Thanh Nien, these officials were arrested for taking bribes to hand over land documents that should have been available legally (Thanh Nien, 8 September 2004).

percentage of firms that felt that having a relationship with someone in the provincial government is important or very important for facilitating access to the above documents.

- *Friends/family important for negotiations with provincial officials.* Many firms rely on an extended network of relations to receive positive judgments from provincial officials that may not be possible for less connected firms. Researchers measured this question by including an indicator for the percentage of firms that agree or strongly agree with the sentence: "Friends and family are important for negotiations with provincial officials".
- *Negotiations over tax payments with the local tax authority are an essential part of doing* business is used to capture how consistently tax rules are applied. While negotiations are a normal part of tax collection with household businesses, private firms should have a tax code and regularly submit payments based on value added tax receipts.

6.3.3. Predictability

The third attribute of transparency is predictability, or the notion that provincial laws and regulations are implemented in a manner that allows firms to forecast and build changes into their business plans. Two indicators are used to capture the extent of predictability of implementation. In this context, it is important to capture information as to whether firms understand how provincial decisions are made and how they will be implemented, so that they can correctly understand the direction of long-term strategies and increase their ability to make informed investment decisions. Predictability is assessed based on the percentage of firms answering always or usually to the following two questions:

- How predictable is the implementation of central rules, laws, and regulations that materially affect your business at the provincial level?
- How often do provincial leaders discuss changes in laws with your firm?

6.3.4 Openness

A measure of openness is created by assessing the provincial webpages of every province to determine the business information available to the firms. A province receives one point for all of the types of information listed in Table 6.5. Together these elements total 15. Because the number of self-reported hits on a website is prone to error, we use the Google Alexa ranking of the most clicked-on and linked-to websites, as our measure of how important the website is in the provincial business environment.[66]

66. http://developers.evrsoft.com/find-traffic-rank.shtml. Thanks to An Giang's People's Committee for suggesting this procedure.

Table 6.5: Scoring System for Provincial Websites

Document	Planning
Province has website	1
Website includes map of province	1
Information on actual infrastructure/project planning	1
Statistics on province's size/weather/human resources	1
Incentive Policy to attract Investment(domestic)	1
Incentive Policy to attract Investment(foreign)	1
Information on Industrial Zones/Industrial Concentration	1
Statistics on existing Investors	1
Business/Economic information of districts within provinces	1
Information on specialized provinces endowments/capacity	1
Reports on Provincial economic achievements	1
Application for Registration/ Incentive, land use	1
Contact Information for relevant authorities	1
Information on obtaining VAT receipts	1
Other (Something special that firms may need for business)	1
Sub-Total	**15**
Google Alexa Ranking	0-200,000 = 5 200,001-400,000= 4 400,000-600,000 =3 600,000-800,000= 2 800,000+ = 1
Possible Points	**20**

6.4 Time Costs of Regulatory Compliance

The study of transaction costs in time has been an important element of the economic transition literature.[67] The old business maxim "time is money" is particularly relevant in the Vietnamese provinces. Firm managers are often torn away from their business operations in order to deal with and attend to mundane bureaucratic problems-time that could be more productively spent managing the operations of the company is lost. The PCI considers two, equally weighted dimensions of time costs: bureaucratic procedures and time lost to inspections (see Table 6.6 and Figure 6.5).

Indicators for bureaucratic procedures include:

- *What percentage of management's time is spent dealing with bureaucratic procedures and paperwork?* This question is given to firms in the form of a five-point Likert scale. The indicator is taken from the number of firms that answered three or above, essentially capturing the percentage of firms who spend more than 10 percent of their time dealing with government required paperwork.
- *Have the above "time taxes" been reduced over the past three years?* This indicator measures the progress provinces have made since the year 2000.

To some extent, inspections policy is unavoidable, especially as Vietnam moves to a fully regulatory system.[68] As more and more environmental, health, and safety licenses are removed at the onset of business activities, the responsibility shifts to regulatory agencies to ensure that these standards are continually met by private firms. The trick is to manage these regulatory responsibilities without expensive and costly intervention.

- *How many inspections a year must firms endure?* According to present Vietnamese Law, no firm may receive more than two visits from all agencies per year. In fact, the median number of inspections does not exceed two for any province-the vast majority of provinces average only one inspection. Because of this positive finding, the number of inspections receives a diminished weight in the final index. There is no longer any variation on this indicator.
- *Firms believing inspection policy has improved over the past three years.* The second indicator for inspection captures the percentage of firms that felt inspection policy had improved since the passage of the Enterprise Law. While new implementing documents potentially lowered the number of inspections, new burdens placed on regulatory agencies create additional incentives to ramp up inspections.
- *Median length of tax inspections.* Some provinces make up for the lower absolute number of inspections by increasing their duration. Therefore, the third indicator records the number of hours it takes to complete tax inspections. There is some confusion about the role of the tax authority, as in some provinces, officers of the tax authority are sent to small businesses to take a cursory look at their books and offer assistance with new tax policies. These visits are not technically 'inspections', but firms often had trouble distinguishing them from true inspections. The PCI survey instrument is careful to distinguish between these voluntary visits and formal inspections.

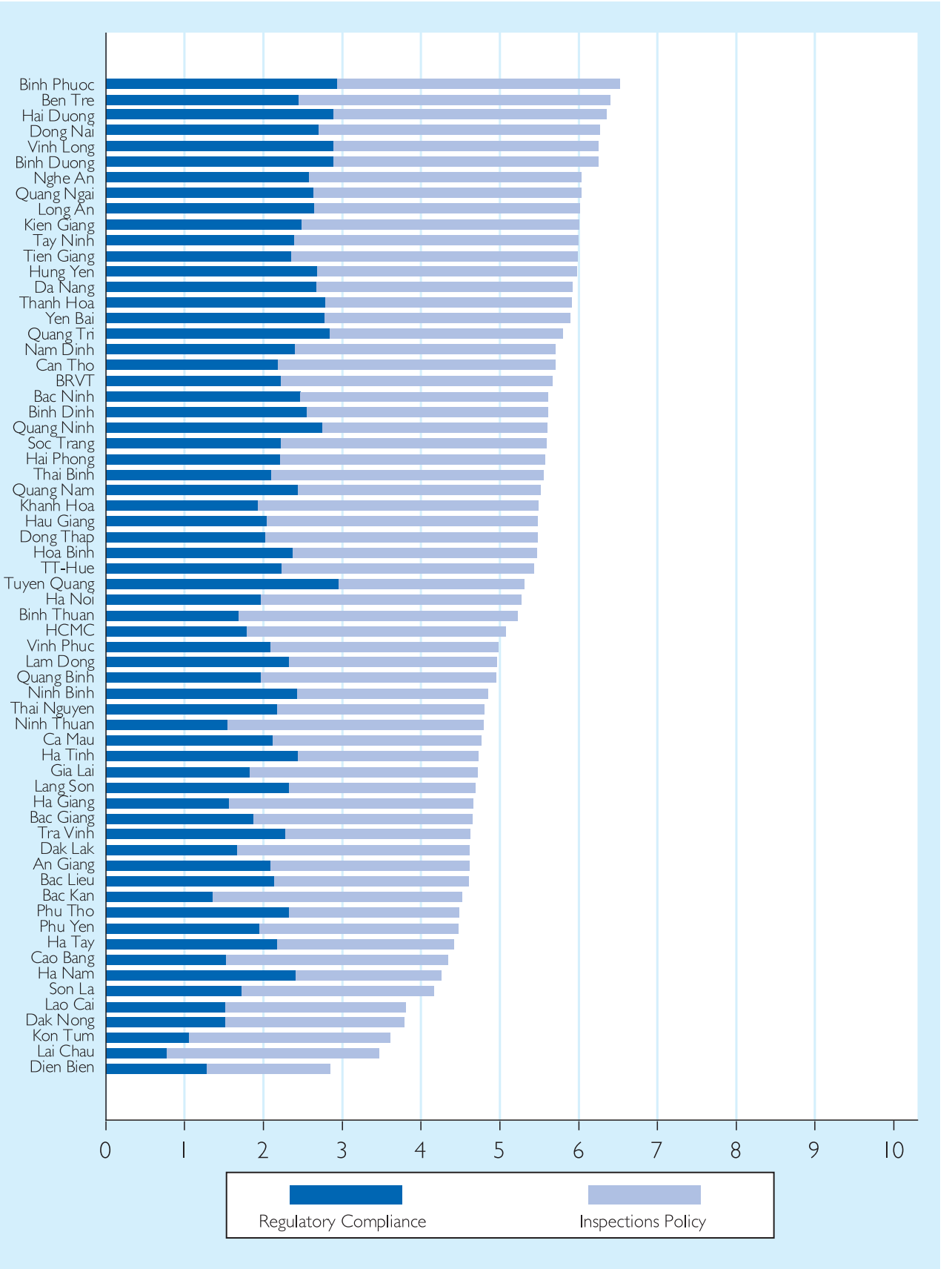
67. European Bank of Reconstruction and Development. 1999. EBRD Transition Report 1999, London:, 120-128. World Bank, 2002. 2002 Transition: The First Ten Years: Analysis for Eastern Europe and the Former Soviet Union, Washington, D.C., 2002, 103-107. Hellman, Joel et al, 2002. Seize the State, Seize the Day: State Capture, Corruption, Influence in Transition, World Bank Policy Research Working Paper No. 2444, World Bank Institute, September, 7-14. Hellman, Joel, et al. 2002. "Measuring Governance, Corruption, and State Capture: How Firms and Bureaucrats Shape the Business Environment in Transition Economies," World Bank Policy Research Working Paper No. 2312, World Bank Institute, April.
68. Though Vietnamese authorities often distinguish between kiem tra (short-term control visits) and thanh tra (when local authorities are called in due to suspected problems), in practice, there is simply too much overlap to separate them. This survey considers them together.

Table 6.6: Comparison of Time Costs of Regulatory Compliance (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Percentage of firms spending over 10% of their time dealing with bureaucracy or bureaucratic regulations.	PCI Survey Question: G1	Min	3.64	6.52	10.94	13.83
		Median	13.67	21.24	21.87	22.99
		Max	30.43	39.39	43.75	42.55
		Correlation w/Previous Year	NA	0.44*	0.62*	0.67*
Days spent on bureacracy reduced in past two years (%)†	PCI Survey Question: G2	Min	18.18	23.94	13.75	12.78
		Median	40	41.72	22.86	23.85
		Max	78.57	60.87	35.04	34.86
		Correlation w/Previous Year	NA	0.18	0.21	0.31*
Median number of inspections (all agencies)	PCI Survey Question: D1	Min	1	0	1	1
		Median	1	1	1	1
		Max	3	2	2	2
		Correlation w/Previous Year	NA	0.35*	0.30*	0.46*
Inspections have decreased in past two years (%)†	PCI Survey Question: D2	Min	12.5	28.07	11.9	11.54
		Median	42.12	45.52	24.36	24.51
		Max	70	73.91	36.92	37.59
		Correlation w/Previous Year	NA	0.26	0.30*	0.51*
Median Tax Inspection hours	PCI Survey Question: D4	Min	1	1	2	1
		Median	7.5	8	8	8
		Max	24	40	40	32
		Correlation w/Previous Year	NA	0.62*	0.86*	0.88*

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
2005 data only include 42 provinces.
† In 2005 and 2006, provinces were asked to compare changes to before Enterprise Law not the past two years. Pre-testing for 2007, however, revealed many firms could not remember the pre-Enterprise period sufficiently enough. This small wording change is the reason behind the lower percentages.

Figure 6.5: Time Costs of Regulatory Compliance



Regulatory Compliance is a measure of the wait and costliness of bureaucratic procedures. Inspections Policy is the length and frequency of regulatory inspections in the province Both dimensions account for 50% of the final index.

6.5 Informal Charges

This section analyses the amount that firms pay in fees, fines, and extraordinary payments as a normal part of doing business (see Table 6.7 and Figure 6.6 below). This group of five indicators measures the extent of the problem by gauging the frequency, type, and amount of extra payments:

- The percentage of firms that believe that extra payments are an obstacle is used as a simple measure of the scope of extra payments in the sample.
- The percentage of firms that felt that enterprises in their line of business were subject to bribes from provincial authorities. Note that this question was phrased so that firms were answering about firms in general as opposed to their own behavior with bribes-thereby increasing the response rate substantially. Sixty-six percent of firms in the median province believed such payments were normal.
- The percentage of firms paying more than 10 percent of their revenue in extra payments is used to measure the scale of extra payments. To counter the distortion from firms not answering the question, we performed two diagnostic checks. First, we ran a test to ensure that the percentage of nonresponses in each province was unrelated to firm scores (percentage missing correlates with the amount paid at -0.1 which is not significantly different from 0). Second, missing data was imputed using a program known as NORM.[69] This procedure imputes an expected score for a firm, given its answers to all other questions including descriptive characteristics as well as other measures of governance. The imputation procedure raised average scores for all provinces by about two percent, but no provinces were affected dramatically by the operations. As a result, researchers felt comfortable using the non-imputed data in the analysis.
- Officials use compliance with local regulations to extract rents. The percentage of firms agreeing with this statement provides added nuance on the business environment. Bribery is of course an issue, but when new barriers to business are erected to generate rents for local officials, the effects can be pernicious. Thirty-seven percent of firms in the median province agreed or strongly agreed with the statement.
- Informal charges delivered expected results: Field testing the survey revealed that some firms believed informal charges were beneficial if they expedited bureaucratic procedures, were predictable, and delivered the expected results. In fact, it is possible that firms voluntarily supplement provincial fees. Such behavior is premised on the notion that firms get what they pay for. As a result, we ask firms if their informal payments provided the expected results.

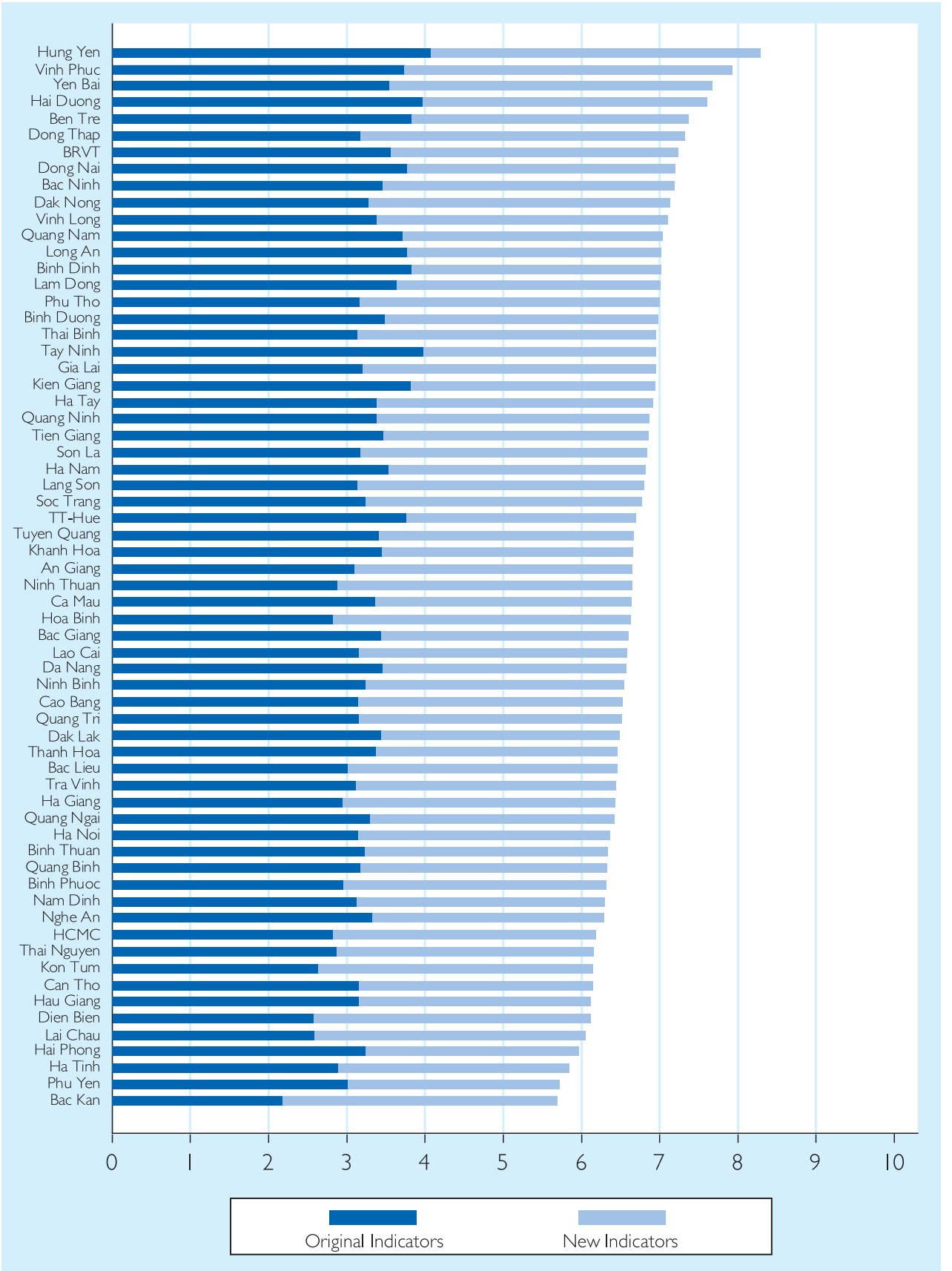
69. Schafer, J.L. 1997. Analysis of Incomplete Multivariate Data. London: Chapman & Hall. A free version of this software can be obtained at http://www.stat.psu.edu/~jls/misoftwa.html

Table 6.7: Comparison of Informal Charges (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Percentage of firms that believe that extra payments are a major obstacle to doing business.	PCI Survey Question: G6	Min	5	22.73	13.95	18.75
		Median	26.42	42.59	26.03	27.71
		Max	60.61	65.09	44.4	55
		Correlation w/Previous Year	NA	-0.48*	0.47*	0.46*
Percentage of firms that felt that enterprises in their line of business were subject to bribe requests from provincial authorities.	PCI Survey Question: G3	Min	6.67	53.57	40	45.54
		Median	26.57	70	68.25	65.93
		Max	48.28	84.62	82.72	83.59
		Correlation w/Previous Year	NA	0.05	0.56*	0.64*
Percentage of firms paying over 10% of their revenue in extra payments.	PCI Survey Question: G4	Min	0	4.35	1.39	2.13
		Median	9.6	12.99	11.54	9.89
		Max	29.41	34.38	26.19	22.08
		Correlation w/Previous Year	NA	0.21	0.45*	0.55*
Government uses compliance with local regulations to extract rents (% Strongly Agree or Agree)	PCI Survey Question: G9.2	Min		22.86	17.44	20
		Median		39.76	38.21	37.12
		Max		76.74	79.41	64.54
		Correlation w/Previous Year		NA	0.78*	0.68*
Informal Charges Delivered Expected Result (% Usually or Always)	PCI Survey Question: G5	Min		20.83	29.03	27.94
		Median		47.89	48.28	48.99
		Max		65.93	59.8	62.91
		Correlation w/Previous Year		NA	0.2	0.50*

* 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.

Figure 6.6: Informal Charges Sub-Index



Original Indicators are those used in the original 2005 survey, while New Indicators are those first used in 2006. Both dimensions account for 50% of the final index.

6.6 Competition Environment and State-Owned Enterprise Bias

Do private firms feel that they must they overcome a subtle bias toward the state in the form of special advantages or soft budget constraints? State sector favoritism is a measure of the bias of provincial governments toward SOEs in terms of contracting, land, incentives, and access to capital. State sector bias does not necessarily include direct competition in the same product or service; it also may include assistance in competition for skilled labor, land, or credit. Some provinces have stated explicitly that their primary goal is to promote large state-owned champions as the primary engine of growth, allowing the private sector to offer only secondary services and intermediate good to those provincial champions.[70] Others may not have such an explicit bias, but instead have an institutional incentive to promote SOEs, because of the high employment or revenue they generate for the province. Results are shown below in Table 6.8 and Figure 6.7. Indeed, an earlier Vietnam National Competitiveness Initiative (2006) study by Nguyen Van Thang using PCI data concluded that, "the density of SOEs (in a province) has a negative impact on the private sector's access to key resources (land and bank loans) and markets, and a negative influence on the private sector's growth in terms of number of firms and employment."[71]

6.6.1. Perceptions Indicators

Perception indicators are based on five-point scales asking how strongly firms agree with a statement. The percentage of firms answering agree or strongly agree is used for each indicator.

- *Favoritism toward SOEs* offers direct evidence of bias toward the state sector by accounting for the percentage of firms that agree that there is a bias in decision making on the part of provincial officials.
- *Attitude toward private sector* captures the percentage of firms that agree that the attitude of their provincial government toward the private sector is positive.
- *Attitude has improved over past three years* is a more dynamic question, measuring whether firms agree that the attitude has improved since 2005.
- *Attitude depends on contribution* probes whether firms agree that biases in provincial policies is determined, not by ownership, but results from a bias toward a specific set of revenue or labor-producing firms, regardless of their ownership. This variable is intended to capture whether administrations are biased toward provincial champions and raise entry barriers to possible competitors.
- *Equitization policy:* Firms were asked to rank their perception of provincial equitization. This measure demonstrates whether the leadership has made a concerted effort to reduce the number of local SOEs, thereby promoting private sector competition.
- *Bias toward equitized firms* takes the previous equitization question a step further by asking whether, despite wide-ranging equitization, state favoritism persists by provincial officials, allowing special privileges to continue for equitized firms. Recent evidence has suggested that connections between former general managers of local SOEs and provincial leaders led to equitized companies being favored in access to capital public procurement contracts.[72]

6.6.2. Hard Indicators

Hard indicators toward state sector favoritism follow.

- Change in the number of local SOEs. The Statistical Handbook of the General Statistical

70. Malesky, Edmund. 2004. "Entrepreneurs on the Periphery: A Study of Private Sector Development in Beyond the High Performing Cities and Provinces of Vietnam," Mekong Private Sector Development Facility Private Sector Discussion Series, Number 18, November; Vietnam.
71. Nguyen Van Thang. 2005. "Is The Development of State-Owned Enterprises (SOEs) Crowding Out The Private Sector? Evidence from PCI Survey," Ha Noi: Vietnam Competitiveness Initiative, August.
72. Malesky and Taussig. 2008. "Where is Credit Due? Companies, Banks, and Locally Differentiated Investment Growth in Vietnam," Journal of Law, Economics, and Organization

Office (GSO) reveals that despite the earlier SOE reforms initiatives in 1995, equitization did not begin in earnest in all provinces until 1997. To maintain a consistent source, the research team calculates the decline in locally managed SOEs between 2000 and 2007 from GSO census data-2000 rather than 1997 is used because this was the first year of the GSO census. We chose this number, rather than the simple number of equitizations, because the decline also captured the number of firms that were liquidated, closed due to poor performance, or merged with other enterprises.

- The ratio of local SOE share of outstanding liabilities to their share of the provincial economy. This final SOE indicator is designed to capture disproportionate lending to the state sector (provinces lending large amounts to inefficient and unproductive SOEs). The formula described below will deliver a score greater than 1 if the state-sector share of outstanding liabilities exceeds the state-sector's share of the economy, and less than 1 in the opposite case:

$$\text{Ratio} = \frac{Loans_{LSOE}}{Loans_{Prov}} \Big/ \frac{PGDP_{LSOE}}{PGDP_{Prov}}$$

Loans, in the formula above, are outstanding liabilities as measured by the most recent (2007) GSO Enterprise Census. PGDP is the provincial gross domestic profit as proxied by total enterprise revenue in the same census. In each case, the subscripts LSOE and Prov represent data for local state-owned enterprises and the total province respectively. Given the higher productivity of investment in the private sector (as measured by returns on investment, employment creation, and so on), it would be desirable to see more provinces with ratio scores less than 1.

Table 6.8: Comparison of SOE Bias and Competition Environment (2005-2008)

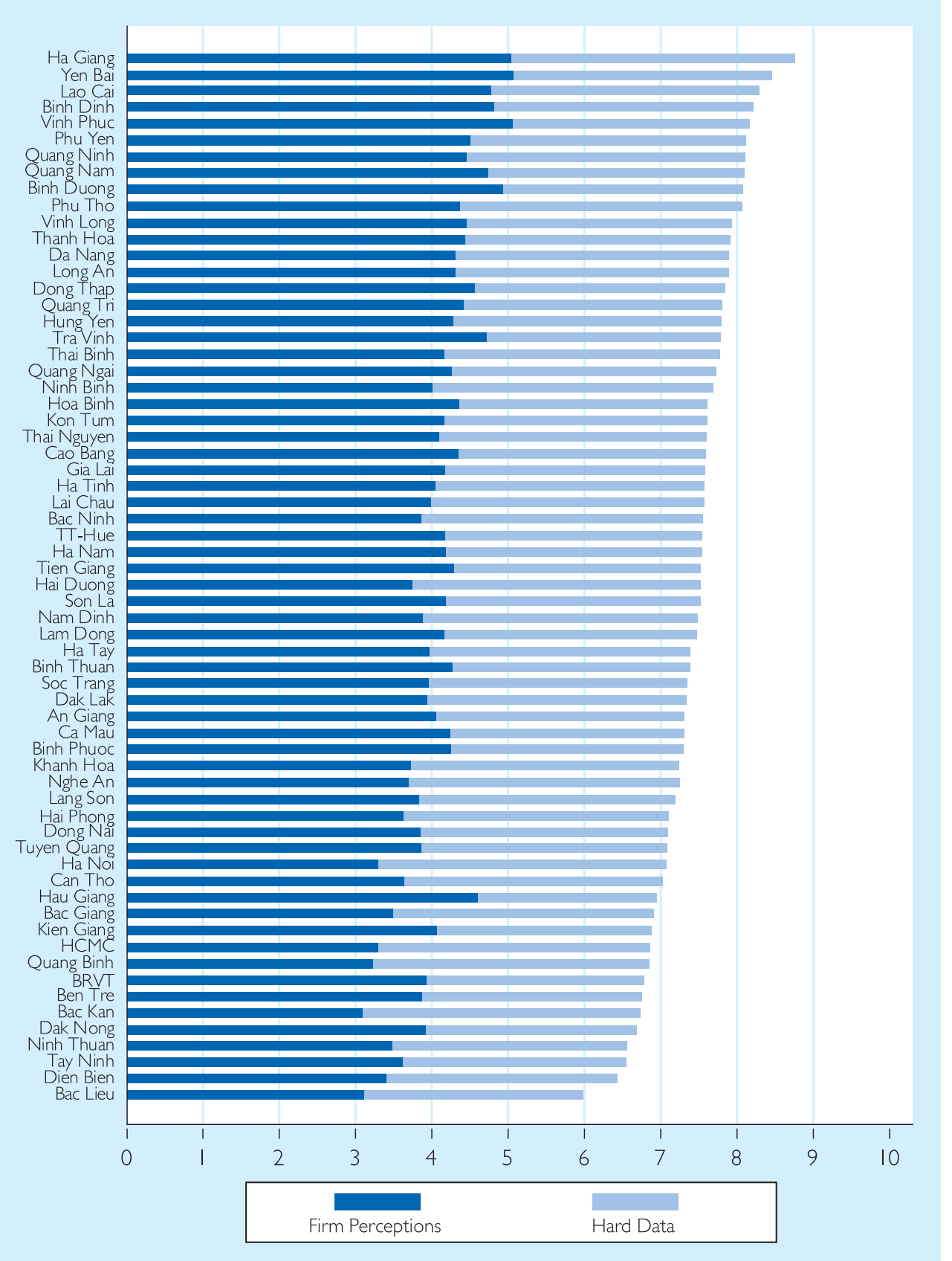
Indicator	Source	Measure	2005	2006	2007	2008
Favoritism toward the state sector is an obstacle to firm's business (% Strongly Agree or Agree).	PCI Survey Question: H4.10	Min	33.33	30	27.38	23.81
		Median	59.4	44.35	42.16	38.38
		Max	78.95	63.59	59.33	50.29
		Correlation w/Previous Year	NA	0.25	0.25*	0.35*
Perceived attitude of provincial government toward private sector (% Very Positive or Positive).	PCI Survey Question: H1	Min	20.59	30.21	24.5	32.71
		Median	47.83	48.28	44.97	53.4
		Max	78.26	71.56	67.37	72.22
		Correlation w/Previous Year	NA	0.63*	0.67*	0.53*
Attitude has improved in the past two years (%).†	PCI Survey Question: H2	Min	53.85	46.15	36.23	44.86
		Median	71.34	68.34	63.41	68.78
		Max	95.45	83.08	80.91	81.06
		Correlation w/Previous Year	NA	0.31*	0.61*	0.60*
Attitude does not depend on contribution to provincial revenue (% Strongly Agree or Agree).	PCI Survey Question: G9.1	Min	29.09	18.28	22.22	51.94
		Median	52.17	36.56	35.1	65.07
		Max	78.57	50	50.75	84.62
		Correlation w/Previous Year	NA	0.23	0.17	0.03
Favoritsism toward equitzied companies an obstacle to firm's business (% Strongly Agree or Agree).	PCI Survey Question: H7.12	Min	18.18	11.29	12.7	17.19
		Median	31.87	29.45	29.68	30.78
		Max	50	41.67	42.72	42.45
		Correlation w/Previous Year	NA	0.14	0.35*	0.24
Firm rating of provincial equitization policies (% Very Good or Good).	PCI Survey Question: E1.10	Min		25	25.53	0
		Median		57.28	59.5	1.65
		Max		74.55	87.67	6.56
		Correlation w/Previous Year		NA	0.58*	0.65*

Indicator	Source	Measure	2005	2006	2007	2008
Percentage change in number of locally-managed state owned enterprises since 2000.	GSO Enterprise Census 2000-2006 (Author's Calculation)	Min		-66.67	-71.11	-93.94
		Median		-30.72	-41.65	-60
		Max		60	24	25
		Correlation w/Previous Year		NA	0.89*	0.80*
Ratio of Local SOE share of liabilities to their share of revenue contribution in previous year.	GSO Enterprise Census 2005 & 2006 (Author's Calculation)	Min		0.49	0.4	0.27
		Median		1.27	1.29	1.39
		Max		4.13	10.33	3.91
		Correlation w/Previous Year		NA	0.25*	0.29*
Average proportion of State Commercial Bank Loans to SOEs[Ψ]	Directly from State Commercial Banks	Min		1.5		
		Median		16.2		
		Max		71.1		
		Correlation w/Previous Year				

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
2005 data only include 42 provinces.
[†] In 2005 and 2006, provinces were asked to compare changes to before Enterprise Law not the past two years. Pre-testing for 2007, however, revealed many firms could not remember the pre-Enterprise period sufficiently enough. This small wording change is the reason behind the lower percentages.

[Ψ] Due to propietary concerns related to State Commercial Bank Equitization, this data was not made available in 2007.

Figure 6.7: Bias Toward State-Owned Enterprises Sub-Index



Firm perceptions of SOE Bias account for 60% of the index, hard data of bias accounts for 40%.

6.7 Proactivity of Provincial Leadership

Ambiguity is a standard part of doing business in Vietnam and is often the result of unclear wording in legal documents, long delays in implementing documents being promulgated for central laws or decrees, and contradictions between implementing documents (circulars, directives, official letters, and People's Committee decisions) and even central laws themselves. For many industry segments new to Vietnam, there is a lack of any clear legal regime. When business projects are delayed because of legal ambiguity, the choices of the provincial government can make a huge difference in the success of the business venture. Provincial officials can cost businesses considerable time and money by forcing them to wait until the ambiguity is cleared up by subsequent implementing documents or an appeal to central authorities. Unfortunately, a few provinces even use these uncertainties as an entry barrier to firms that might offer competition to their local champions. On the other hand, provinces that are creative and clever about working within the confines of central law can be of major assistance to private sector firms. Similarly, provinces with a knack for crafting proactive provincial initiatives to solve the problems of private firms can have a positive impact on private sector development.

Four indicators determine the extent of provincial dynamism, by recording the percentage of firms that agree or strongly agree with the following statements (see Table 6.9 and Figure 6.8):

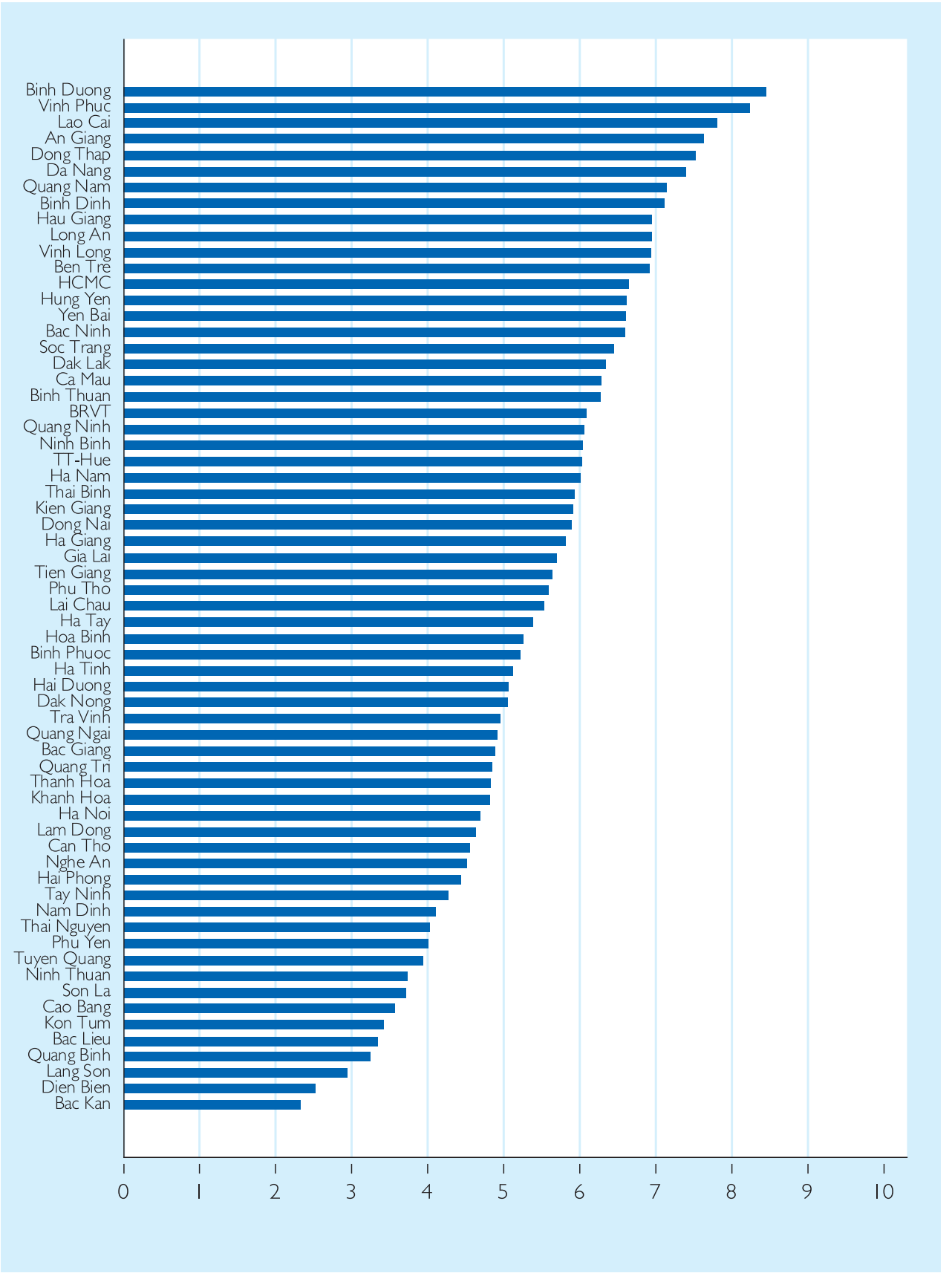
- *Provincial officials are knowledgeable enough about national law to find opportunities within current legal documents to solve firm problems.* This indicator captures how well the provincial leadership operates within the existing legal framework.
- *Provincial officials are creative and clever about working within national law to solve the problems of private sector firms.* The measure records whether the provincial leadership is capable of seeking opportunities or loopholes in the present central law that may aid firm performance.
- *All good initiatives come from the provincial government, but central authorities frustrate them.* This indicator seeks to gauge the relationship between provincial and central authorities, specifically whether the province is more proactive about assisting the private sector than central officials.
- *There are no good initiatives at the provincial level; all important policy comes from the central government.* The final indicator simply records the percentage of firms that believe that their provincial leadership has nothing to do with new initiatives that aid the private sector.

Table 6.9: Comparison of Proactivity (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Provincial officials are knowledgeable enough about present national law to find opportunities within existing law to solve firm problems (% Strongly Agree or Agree)	PCI Survey Question: H7.2	Min	43.75	51.61	53.68	57.35
		Median	76.93	74.44	71.74	77.28
		Max	94.29	93.48	92.47	91.41
		Correlation w/Previous Year	NA	0.60*	0.68*	0.68*
Provincial officials are creative and clever about working within the national law to solve the problems of private sector firms (% Strongly Agree or Agree).	PCI Survey Question: H7.3	Min	31.25	40	40.22	40.9
		Median	63.27	61.88	58.12	61.5
		Max	85.71	88.64	87.91	85.05
		Correlation w/Previous Year	NA	0.69*	0.76*	0.75*
All good initiatives come from the provincial government, but the center frustrates them (% Strongly Agree or Agree).	PCI Survey Question: H7.5	Min	4.76	16.04	16.67	10.84
		Median	31.35	29.07	30.95	20.99
		Max	60	61.54	56.63	55.17
		Correlation w/Previous Year	NA	0.40*	0.47*	0.63*
There are no good initiatives at the provincial level; all important policy comes from the central government (% Strongly Agree or Agree).	PCI Survey Question: H7.8	Min	7.89	14.63	12.2	17.95
		Median	33.33	32.88	33.33	32.99
		Max	60.42	48.84	58.33	66.25
		Correlation w/Previous Year	NA	0.59*	0.55*	0.53*

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
2005 data only include 42 provinces.

Figure 6.8: Proactivity Sub-Index



6.8 Private Sector Development Policies

The next sub-index goes a step beyond the proactivity sub-index by asking how specific provincial initiatives promote private sector development. In a range of surveys of the private sector in Vietnam, firms listed among their chief obstacles difficulties in obtaining information on overseas and domestic markets, difficulties in understanding new changes in regulatory information and problems finding enough skilled employees to conduct their operations. The final sub-index is comprised of four questions that attempt to measure how well provincial officials are doing in resolving these problems on behalf of firms (see Table 6.10 and Figure 6.9). Firms were asked to rank their provinces on a five-point scale, gauging how effective they thought their province's policies were in the following four areas:

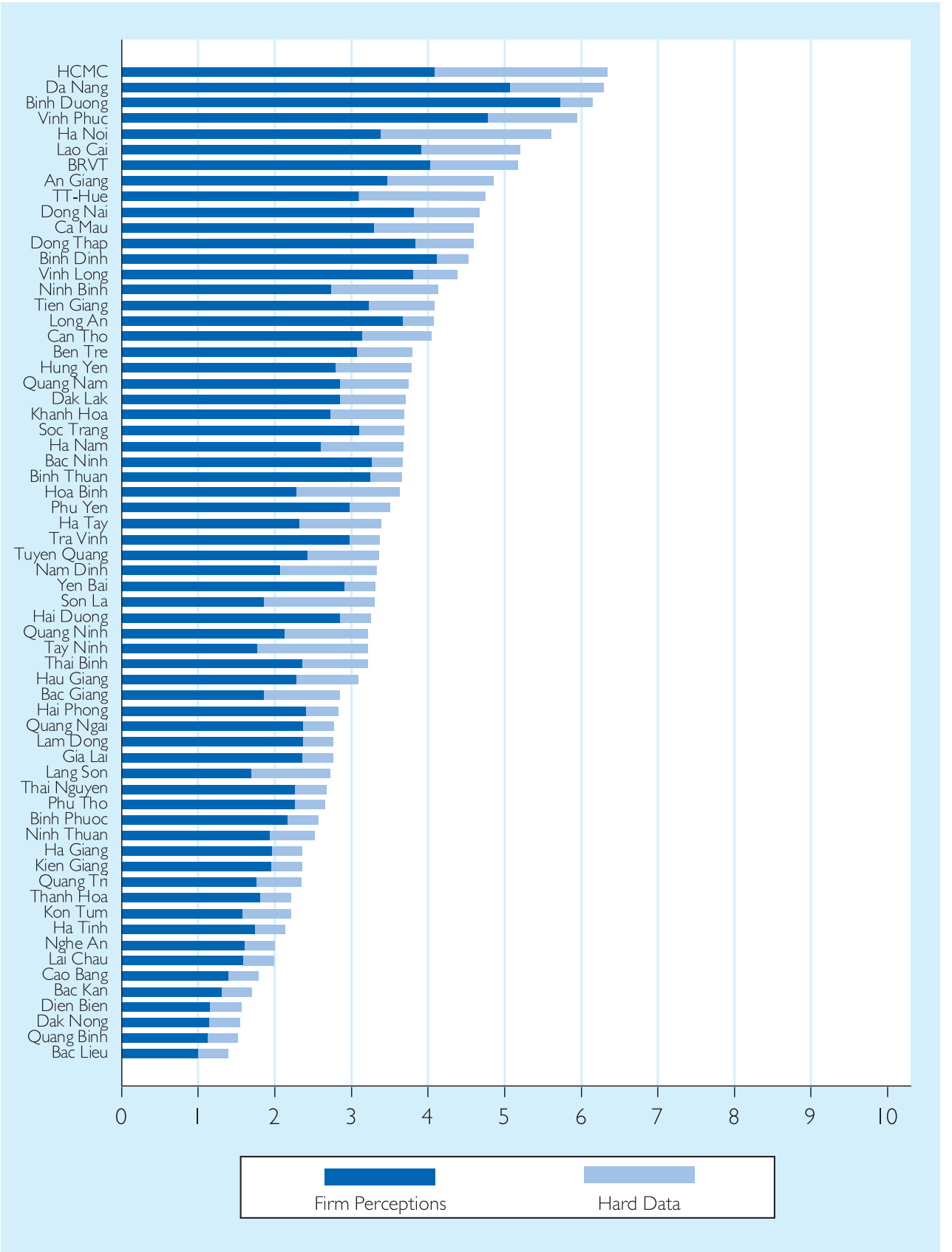
- Provision of market information through the publication of local pamphlets listing major domestic and overseas buyers for key provincial products.
- Matchmaking for business partners through activities such as the introduction of international exporters to local firms, the identification of suppliers for intermediate goods, and the availability of business services for firms unable to locate business partners on their own.
- Business information on changes in regulation. High-scoring provinces offer assistance to firms drowning in documentation from changes in the legal code.
- Industrial zones in their province. How firms feel about their provinces' attempts to assist development by creating industrial zones and smaller industrial concentrations, thereby allowing forms to access business premises and top-notch infrastructure.
- Technology and technology-related services. This includes informing firms about the efficiency improvements of new technologies in their business areas, as well as basic computer training, which will help them access online services provided by the province.
- The number of trade fairs held by the province in 2006 and planned for 2007 is a hard data indicator inserted to account for potential perception biases held by firms.
- The number of private providers of business services is calculated from the National Tax Authority's list of registered firms. Allowing private firms to provide private sector development services for profit saves provincial governments money and ensures their sustainability. In addition, private providers are often more efficient and can better tailor their products to the needs of end users.

Table 6.10: Comparison of Private Sector Development Policies (2005-2008)

Indicator	Source	Measure	2005	2006	2007	2008
Services Provided by Provincial Agencies: Provision of market information (% Very Good or Good)	PCI Survey Question: E1.4	Min	0	30.43	23.52	8.16
		Median	21.99	49.72	44.19	20
		Max	41.54	64.89	66.93	34.86
		Correlation w/Previous Year		0.17	0.18	0.67*
Services Provided by Provincial Agencies: Matchmaking for business partners (% Very Good or Good).	PCI Survey Question: E1.11	Min	0	24.49	15	1.4
		Median	13.36	48.05	31.52	11.59
		Max	26.19	60.94	62.96	30
		Correlation w/Previous Year		0.18	0.46*	0.69*
Services Provided by Provincial Agencies: Export Promotion and Trade Fairs (% Very Good or Good).	PCI Survey Question: E1.15	Min		27.03	29.17	1.37
		Median		50.68	56.22	20.69
		Max		79.03	79.55	48.84
		Correlation w/Previous Year		NA	0.76*	
Services Provided by Provincial Agencies: Industrial Zones and SME Concentrations (% Very Good or Good).	PCI Survey Question: E1.8	Min		11.91	6.67	3.07
		Median		45.8	50.84	23.87
		Max		81.36	83.48	72.89
		Correlation w/Previous Year		NA	0.84*	0.84*
Services Provided by Provincial Agencies: Technology and Technology Related Services (% Very Good or Good).	PCI Survey Question: E.16	Min		18.92	14.29	4.28
		Median		41.73	43.88	15.87
		Max		72.34	79.55	48.76
		Correlation w/Previous Year		NA	0.32*	0.82*
Trade fairs held by province in previous year and registered for present year.	PCI Survey Question: G9.3 (Data provided by Viet Trade of the Ministry of Trade)	Min		0	0	0
		Median		0	0	2.25
		Max		6	12	80
		Correlation w/Previous Year		NA	0.18	0.62*
Number of private public service providers in province	Tax Authority 2008 (Author's Calculation)	Min				0
		Median				1
		Max				3529
		Correlation w/Previous Year				NA

* 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 maximum scored by HCMC is an outlier on both of these variables. Lower values of 10 and 100, the number scored by the second highest province were used to calculate the sub-index.

Figure 6.9: Private Sector Development Policies Sub-Index



Firm perceptions of PSD delivery account for 60% of the index, hard data of bias accounts for 40%.

6.9 Labor Training Sub-Index

A major challenge confronting Vietnam is to create new jobs for the 1.4 million new job seekers entering the labor force each year.[73] At the same time, one of the most consistent complaints from firms over the past few years has been the low capacity of workforce and firms' inability to find and recruit skilled and semi-skilled workers.[74] The juxtaposition of the two commonly cited statements is telling. Vietnam is relying on its private sector to absorb the new labor entrants, but the private sector is not willing to employ just anyone; they want employees with the skill to add value to their businesses. As a result, provincial efforts to improve the skills sets of their local labor forces are a critical determinant of a successful business environment. Neoclassical economists might argue that firms should invest in their own labor training, and many have. If the firms do train workers, however, they are often poached by other companies, which pay higher wages but do not bear the upfront investment in training. This collective action problem can be solved by provinces offering general labor training.

The following indicators identify the state of labor training in the provinces (see Table 6.11 and Figure 6.10):

- *The percentage of firms who rate education in their province as good or very good.* This indictor is a baseline measure of firms' perceptions of education in the province. After all, many new hires will be coming straight from public school programs rather than from vocational centers.
- *The percentage of firms that view vocational training in their province as good or very good.* This is a more specific indicator, narrowing the scope on exactly the way provinces can support labor skill upgrading.
- *The percentage of firms that rate provincial exchange services as good or very good.* Exchange services are fairs or agencies, which help match employees with firms that make use of their talents. These are crucial for lowering the transaction costs faced by firms searching for employees on their own.
- *The number of vocational schools per 100,000 provincial citizens. This hard indicator anchors firm perceptions.* This data, supplied by the General Department of Vocational Training, includes centers and agencies funded from local budgets or privately funded ventures with licenses to operate in the province.
- *The actual number of labor exchange bureaus* is added as an additional hard indicator to modify firm perceptions.

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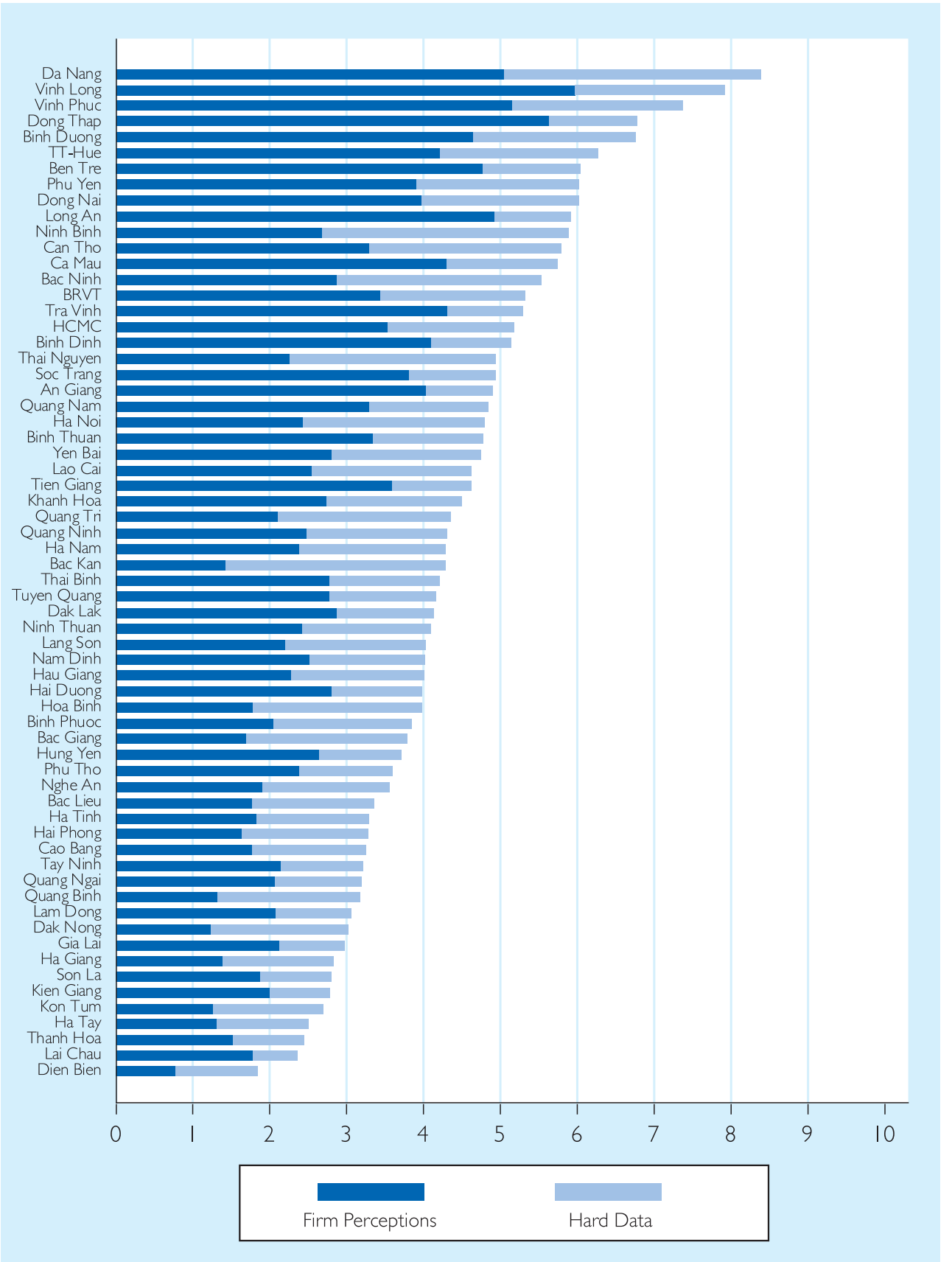
73. -United Nations, 2003. "Tap the Energies of Youth," UN Message on International Youth Day, August 12, http://209.85.173.104/search?q=cache:7K47xNuxn6AJ:www.un.org/esa/socdev/unyin/workshops/curtain.pdf+United+Nations,+2003.+%E2%80%9CTap+the+Energies+of+Youth,%E2%80%9D+UN+Message+on+International+Youth+Day,+August+12&hl=en&ct=clnk&cd=2&gl=us
74. Ministry of Labor, Invalids, and Social Affairs, 2006. "Labor and Social Issues Emerging from Vietnam's Accession to the WTO." http://209.85.173.104/search?q=cache:hxM4imcQSZgJ:www.vnep.org.vn/Modules/CMS/Upload/6/tac%2520dong%2520cua%2520WTO_Mr.Tuyen.doc+%E2%80%9CLabor+and+Social+Issues+Emerging+from+Vietnam%E2%80%99s+Accession+to+the+WTO&hl=en&ct=clnk&cd=1&gl=us

Table 6.11: Comparison of Labor Policies (2006-2008)

Indicator	Source	Measure	2006	2007	2008
Services Provided by Provincial Agencies: General Education (% Very Good or Good)	PCI Survey Question: E1.3	Min	50.00	51.51	17.71
		Median	72.72	73.29	35.20
		Max	88.52	87.34	56.90
		Correlation w/Previous Year	NA	0.21	0.61*
Services Provided by Provincial Agencies: Labor Vocational Training (% Very Good or Good)	PCI Survey Question: E1.13	Min	31.25	24	6.25
		Median	55.43	55.9	19.81
		Max	73.17	79.49	46.28
		Correlation w/Previous Year	NA	0.66*	0.78*
Services Provided by Provincial Agencies: Labor Exchange Services(% Very Good or Good)	PCI Survey Question: E1.14	Min	16.67	21.88	4.84
		Median	48.62	49.43	16.56
		Max	74.68	78.05	41.79
		Correlation w/Previous Year	NA	0.76*	0.78*
Number of locally managed vocational schools per 100,000 citizens.	General Department of Vocational Training	Min	0.103	0.14	0.09
		Median	0.705	0.81	0.79
		Max	2.09	2.19	2.05
		Correlation w/Previous Year	NA	0.92*	0.87*
Number of labor exchange bureaus per 100,000 citizens.	Ministry of Labor, Invalids and Socal Affairs: General Labor Department	Min		0	0.00
		Median		0.136	0.17
		Max		0.683	0.62
		Correlation w/Previous Year	NA	NA	0.39*

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
Labor Sub-Index did not exist in 2005

Figure 6.10: Labor Policies Sub-Index



Firm perceptions of labor policy account for 60% of the index, hard data of bias accounts for 40%.

6.10 Legal Institutions

For years, scholars and practitioners have stressed legal development and formal modes of dispute resolution as the weak link in Vietnam's transformation.[75] Most individuals and private firms still opt for informal mechanisms of dispute resolution (see Table 6.12 and Figure 6.11). To measure this, our indicators included:

- The percentage firms that agreed or strongly agreed that they are confident that the provincial legal system will uphold contract and property rights in business disputes. This is a straightforward measure of firm perceptions of the legal environment in their provinces. It is useful, but not a perfect indicator, because most firms have never used the court system and are only replying based on hearsay. In fact, firms who have not used the system may be the most likely to respond positively, because they have never tried and failed.
- The percentage of firms that believe they can always or usually go to a higher authority for redress in dealing with overzealous inspections or unofficial payments. This indicator is a measure of whether the local legal system and bureaucracy provides a mechanism for firms to appeal corrupt behavior on the part of officials. Once again, this is an interesting indicator, but not perfect, because it relies on the fact that firms must have already experienced some type of overzealous behavior.
- Use of legal institutions. Firms were asked to rank their top three modes of dispute resolution.[76] As noted above, most firms do not use formal institutions at all, but we developed an intricate ranking system to reward provinces in which firms do feel comfortable enough to use these processes. Firms have two primary legal modes to resolve disputes: Provincial People's Courts and arbitration through the local administrative apparatus. As the administrative channel opens up possibilities for rent-seeking and selective behavior, it receives only half the weight of the courts channel in the measure. The final formula is:

  Use of Legal Mechanisms =

  6 (percent of firms using courts as primary dispute resolution mechanism out of 10 listed)*

  + 4 (percent of firms using courts as secondary dispute resolution mechanism)*

  + 2 (percent of firms using courts as tertiary dispute resolution mechanism)*

  + 3 (percent of firms using provincial government as primary dispute resolution mechanism)*

  +2 (percent of firms using provincial government as secondary dispute resolution mechanism)*

  + 1 (percent of firms using provincial government as tertiary dispute resolution mechanism)*

- Actual usage of Provincial People's Courts is a hard data measure that captures how much confidence firms have in the court system by the most direct measure possible: how frequently they use it. Filing cases to the provincial courts is not without costs, so businesses behaving rationally would not submit their cases if they thought it pointless. Using data from the National People's Court, we calculate the number of cases (where claimant was a domestic private firm and not an SOE or foreign firm) per 100 active domestic private firms and the percentage of total cases in the province filed by private actors

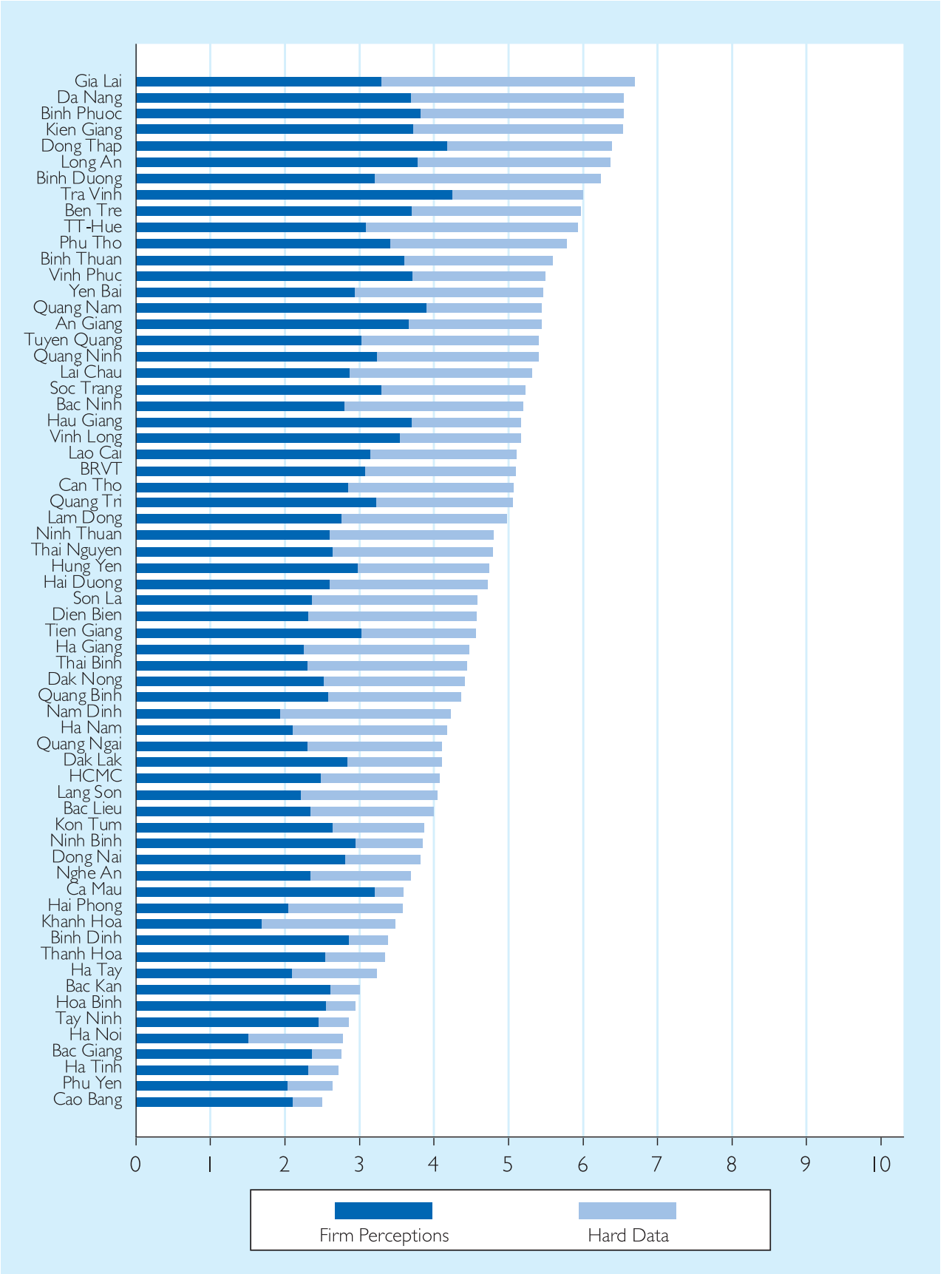
75. Lan Cao and Spencer Weber. 1997. "Law Reform in Vietnam: The Uneven Legacy of Doi Moi," New York University Journal of International Law & Politics Vol. 29, 557-576. AusAid, 2000. "Vietnam: Legal and Judicial Development," Working Paper 3. Ha Noi, Vietnam, April. Gillespie, John, 2002. "Continuity and Change in Vietnamese 'Socialist' Legal Thinking," Law and Governance: Socialist Transforming Vietnam Conference, 1-37, 2002. "Transplanted Company Law: An Ideological and Cultural Analysis of Market-Entry in Vietnam," International and Comparative Law Quarterly 51, 641-672.
76. This indicator was based on a survey of Chinese entrepreneurs. See Tsai, Kellee. 2006. "Capitalists without a Class: Political Diversity Among Private Entrepreneurs in China," Comparative Political Studies 39.

Table 6.12: Comparison of Legal Institutions (2006-2008)

Indicator	Source	Measure	2006	2007	2008
Legal system provided mechanism for firms to appeal officials' corrupt behavior (% Always or Usually)	PCI Survey Question: G8	Min	11.25	20	19.25
		Median	23.22	33.74	32.74
		Max	41.46	52.3	53.62
		Correlation w/Previous Year	NA	--0.26*	0.61*
Firm confident that legal system will uphold property rights and contracts (%Strongly Agree or Agree)	PCI Survey Question: H4.9	Min	67.03	66.67	69.49
		Median	83.99	81.2	81.21
		Max	94.32	94.19	92.68
		Correlation w/Previous Year		0.68*	0.46*
Use of Legal Institutions as Primary Modes of Dispute Resolution	PCI Survey Questions: [6*F10.1(if Court) + 4*F10.2(if Court) + 2*F10.3(if Court) + 3*F10.1(if Provincial Gov.)+2*F10.2(if Provincial Gov.)+1*F10.3(if Provincial Gov.)]	Min	47.51	30.58	13.33
		Median	94.82	64.4	46.13
		Max	208.87	138.89	82.88
		Correlation w/Previous Year		0.56*	0.38*
Cases filed by by non-state entities at Provincial Economic Court per 100 firms.	People's Supreme Court	Min	0	0	0
		Median	0.41	0.58	1.29
		Max	9.49	8.12	6.97
		Correlation w/Previous Year		0.84*	0.32*
Cases filed by by non-state entities as a percentage of total cases filed at Provincial Economic Court	People's Supreme Court	Min	0	0	0
		Median	54.7	50	63.3
		Max	100	100	100
		Correlation w/Previous Year		0.49*	-0.05

* Significant at 5% Level; NA = Not Applicable
All values are at the provincial-level.
Legal Sub-Index did not exist in 2005

Figure 6.11: Legal Policy and Institutions Sub-Index



Firm perceptions of legal policy account for 60% of the index, hard data of bias accounts for 40%.

DATASETS USED IN ANALYSIS

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2007 Final Report, Vietnam Competitiveness Initiative Policy Paper #12

2006 Final Report, Vietnam Competitiveness Initiative Policy Paper #11

2005 Final Report, Vietnam Competitiveness Initiative Policy Paper #4

APPENDICES

Appendix 1A: Multiple Regression Analysis of Governance and Key Private Sector Outcome Variables

Independent Variables/ Dependent Variables	Enterprises per 1,000 Citizens 2007 (ln)				Investment per Capita 2007 (ln)				Profit per Enterprise 2007			
	OLS	OLS	Robust	IV-2SLS	OLS	OLS	Robust	IV-2SLS	OLS	OLS	Robust	IV-2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
National City Dummy	0.325***	0.332***	0.309***	0.346***	0.674**	0.690**	0.473*	0.440	-0.412	5.569	57.27	108.8
	(0.080)	(0.064)	(0.109)	(0.120)	(0.296)	(0.290)	(0.272)	(0.278)	(56.024)	(62.830)	(48.891)	(124.349)
Distance from Hanoi or HCMC (km)	-	0.0000176	0.0000732	0.000122	-0.000418	-0.000374	-0.000263	-0.000306	-0.0760	-0.0591	-0.0665	0.000463
	0.00000134	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.047)	(0.052)	(0.052)	(0.159)
Telephones per 1,000 Citizens (1995)	(0.000)	2.519***			3.884***	3.796***			54.44	20.49		
	2.557***	(0.323)			(0.942)	(0.923)			(178.061)	(152.255)		
% Secondary School Graduates	(0.401)	0.00142	0.000150	-0.00282	0.00762*	0.00508	0.00217	0.00478	0.443	-0.533	-0.259	-4.315
	0.00252*	(0.002)	(0.001)	(0.003)	(0.005)	(0.005)	(0.004)	(0.007)	(0.899)	(0.944)	(0.940)	(3.103)
Unweighted Provincial Competitiveness Index (2008)	(0.001)	0.00787**	0.00687**	0.0294*		0.0182*	0.0159*	-0.00391		7.012***	7.223***	38.02*
		(0.003)	(0.003)	(0.017)		(0.010)	(0.009)	(0.041)		(2.438)	(2.424)	(21.320)
Telephones per 1,000 Citizens (2007)			2.728***	2.522***			5.015***	5.196***			-235.5	-515.6
			(0.302)	(0.392)			(0.919)	(0.982)			(196.226)	(550.916)
Constant		-0.177	-0.251	-1.317	0.814**	-0.0542	-0.174	0.763	103.2	-231.0*	-229.1*	-1684
	0.198*	(0.205)	(0.194)	(0.866)	(0.360)	(0.577)	(0.533)	(1.968)	(66.706)	(135.898)	(132.660)	(1040.925)
Observations	(0.108)	64	64	64	64	64	64	64	64	64	64	64
R-squared	64	0.863	0.865	0.702	0.600	0.623	0.678	0.651	0.031	0.162	0.176	-2.341
Root Mean Squared Error	0.843	0.126	0.125	0.177	0.455	0.445	0.411	0.408	115.4	108.2	107.3	205.8
Cragg-Donald F-Statistics of Instrument Strength	0.134			2.787				2.787				2.787
Anderson Cannonical Correlation LR Statistic				3.004				3.004				3.004

OLS Regression; Robust standard errors in parentheses; Robust models replaces Telephones per 1,000 Citizens from 1995 with the 2007 value.
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken. Dummy denotes dichotomous dependent variables.
IV-2SLS denotes an Instrumental Variables - Two Staged Least Squared procedures, instrumenting using the province's distance in kilometers from the 17th parallel (See Malesky and Taussig 2008 for justification of this instrument)

Appendix 1B: Multiple Regression Analysis of Governance and Provincial Gross Domestic Product

Independent Variables/ Dependent Variables	GDP per Capita 2007 (ln)				Interaction Effect
	OLS	OLS	Robust	IV-2SLS	OLS
	(1)	(2)	(3)	(4)	(5)
National City Dummy	0.300**	0.305***	0.298**	0.415	
	(0.113)	(0.114)	(0.118)	(0.366)	
Distance from Hanoi or HCMC (km)	-0.000401***	-0.000378***	-0.000349***	-0.000153	-0.000402***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Telephones per 1,000 Citizens (1995)	1.523**	1.490**			1.775***
	(0.684)	(0.621)			(0.432)
% Secondary School Graduates	0.00542**	0.00400*	0.00329	-0.00956	0.00491**
	(0.002)	(0.002)	(0.002)	(0.009)	(0.002)
Unweighted Provincial Competitiveness Index (2008)		0.0102*	0.00973*	0.106	
		(0.005)	(0.006)	(0.066)	
Telephones per 1,000 Citizens (2007)			1.575***	0.878	
			(0.519)	(1.345)	
Bia Ria - Vung Tau Dummy	1.833***	1.792***	1.755***	1.417***	1.632***
	(0.084)	(0.078)	(0.078)	(0.274)	(0.047)
High PCI Dummy (Score above 2006 PCI Median (55.1))					0.0435
					(0.084)
Interaction between High PCI*Standardized Infrastructure					1.233**
					(0.541)
Constant	1.388***	0.901***	0.854**	-3.720	1.420***
	(0.164)	(0.312)	(0.336)	(3.261)	(0.247)
Observations	64	64	64	64	64
R-squared	0.701	0.720	0.717	-1.000	0.510
Root Mean Squared Error	0.245	0.239	0.240	0.604	0.314
Cragg-Donald F-Statistics of Instrument Strength				2.565	
Anderson Cannonical Correlation LR Statistic				2.817	

OLS Regression; Robust standard errors in parentheses; Robust models replaces Telephones per 1,000 Citizens from 1995 with the 2007 value.
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken. Dummy denotes dichotomous dependent variables.
IV-2SLS denotes an Instrumental Variables - Two Staged Least Squared procedures, instrumenting using the province's distance in kilometers from the 17th parallel (See Malesky and Taussig 2008 for justification of this instrument)

Appendix 1C: Panel Analysis of Governance and Key Private Sector Outcome Variables (2006–2008)

Independent Variables/ Dependent Variables	Enterprises per 1,000 Citizens 2007 (ln) (1)	Investment per Capita 2007 (ln) (2)	Profit per Enterprise 2007 (3)	GDP per Capita 2007 (ln) (4)
Unweighted Provincial Competitiveness Index	0.00688***	0.0263***	0.0106	0.0155***
	(0.001)	(0.006)	(1.145)	(0.005)
Telephones per 1,000 Citizens	0.339**	0.718	228.1***	1.142***
	(0.145)	(0.538)	(51.145)	(0.362)
% Secondary School Graduates	-0.00200***	-0.00777***	-0.432*	-0.00237**
	(0.001)	(0.002)	(0.254)	(0.001)
Population (1,000s)	-0.350***	-0.786***	50.97***	-0.645***
	(0.020)	(0.082)	(12.722)	(0.095)
GDP (Millions of VND)	0.0267***	0.0694***	4.040***	
	(0.002)	(0.005)	(1.339)	
Panel Fixed Effects	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES
Observations	192	192	192	192
Panels	64	64	64	64
R-squared	0.990	0.983	0.890	0.991
Root Mean Squared Error	0.0472	0.147	44.75	0.0938

OLS Regression with Panel Corrected Standard Errors in parentheses, implemented in STATA using XTPCSE. Time period covers all 64 provinces for three years.
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken.; Dummy denotes dichotomous dependent variables.
Panel-Specific AR1 process used to address auto-correlation.
% Secondary School Graduates
Unweighted Provincial Competitiveness Index (2008)
Telephones per 1000 Citizens (2007)

Appendix 1D: Panel Analysis of GDP Growth (2005–2007)

Independent Variables/ Dependent Variables	GDP Growth	
	Baseline	Interaction
	(1)	(5)
Lagged GDP per Capita (ln)	-46.56***	-47.62***
	(3.201)	(3.383)
National City Dummy	14.03*	10.50
	(7.260)	(7.435)
Distance from Hanoi or HCMC (km)	-0.0212***	-0.0226***
	(0.007)	(0.006)
Telephones per 1,000 Citizens	81.49***	69.03***
	(23.449)	(24.677)
% Secondary School Graduates	0.0413	0.0393
	(0.053)	(0.054)
Bia Ria - Vung Tau Dummy	82.40***	78.81***
	(12.813)	(12.989)
High PCI Dummy (Score above 2006 PCI Median (55.1))		0.0435
		(0.084)
Interaction between High PCI*Standardized Infrastructure		1.233**
		(0.541)
Year Fixed Effects	YES	YES
Observations	125	125
Panels	64	64
R-squared	0.085	0.087
Root Mean Squared Error	3.804	3.762

OLS Regression with Panel Corrected Standard Errors in parentheses, implemented in STATA using XTPCSE.
Time period covers all 64 provinces for three years.
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken.; Dummy denotes dichotomous dependent variables.
Panel-Specific AR1 process used to address auto-correlation.

Appendix 1E: Predicted Effects of One-Point Change in Sub-Indices on Dependent Variables

(Cross-Sectional Analysis on 2008 Data)

Sub-Index	Enterprises per 1,000 Citizens (% Change)†	New Investment per Capita (% Change)†	Profit per Enterprise (Millions of VND)
1 Entry Costs	6.55	21.77	-12.43
	(0.028)**	(0.106)*	(27.42)
2 Land Access & Security of Tenure	0.47	0.00	64.92
	-0.031	(0.092)	(22.93)***
3 Transparency	3.66	8.40	23.39
	(0.016)**	(0.035)**	(15.16)
4 Time Costs of Regulatory Compliance	4.35	3.53	16.74
	(0.020)**	(0.077)	(16.58)
5 Informal Charges	3.10	0.00	83.79
	(0.028)	(0.25)	(34.84)**
6 Competition Environment & SOE Bias	0.43	27.76	11.40
	(0.038)	(0.108)**	(26.66)
7 Proactivity	2.81	8.65	36.80
	(0.015)*	(0.042)*	(11.48)***
8 Private Sector Development Policies	4.60	15.14	42.40
	(0.019)**	(0.054)**	(15.77)***
9 Labor Policies	3.85	6.07	17.66*
	(0.012)***	(0.044)	(10.49)
10 Legal Institutions	1.66	-0.30	19.49*
	(0.017)	-0.017	-10.7

OLS Regression; Robust standard errors in parentheses. All dependent variables are from General Statistical Office 2007
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken.
All are results of multiple regression countrolling for National City Dummy, Distance from Hanoi and HCMC (km), Telephones per Capita (1995), and Percentage of Secondary School Graduates. They replicate the second model in Appendix 1A for each dependent variable, replacing the full PCI score with each sub-index.
† Regrression coefficients (β) with natural logs are converted to percentages using the following formula (e^{β}-1)*100.

Appendix 1F: Predicted Effects of One-Point Change in Sub-Indices on Dependent Variables

(Panel Analysis on 2006–2008 Data)

Sub-Index	Enterprises per 1,000 Citizens (% Change)†	New Investment per Capita (% Change)†	Profit per Enterprise (Millions of VND)
1 Entry Costs	3.10	14.00	-4.953
	(0.005)***	(0.024)***	(3.218)
2 Land Access & Security of Tenure	5.24	19.96	8.964
	(0.009)***	(0.035)***	(3.713)**
3 Transparency	1.85	8.31	-8.743
	(0.001)***	(0.009)***	(3.274)***
4 Time Costs of Regulatory Compliance	2.47	9.72	-0.877
	(0.008)***	(0.032)***	(5.073)
5 Informal Charges	4.01	9.82	0.707
	(0.007)***	(0.021)***	(4.147)
6 Competition Environment & SOE Bias	5.36	20.68	13.26
	(0.013)	(0.047)***	(2.398)***
7 Proactivity	1.81	5.88	-2.684
	(0.006)***	(0.019)***	(3.637)
8 Private Sector Development Policies	-3.16	-11.13	-3.309
	(0.006)***	(0.016)***	(6.323)
9 Labor Policies	-1.77	-6.14	5.873
	(0.003)***	(0.007)***	(1.896)***
10 Legal Institutions	1.56	5.88	4.608
	(0.006)***	(0.026)**	(4.969)

OLS Regression with Panel Corrected Stanadard Errors in parentheses. All dependent variables are from General Statistical Office 2007
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken.
All are results of replicate the models in the Apendix 2C panel analysis, replacing the full PCI with sub-index scores. All controls are the same.
† Regrression coefficients (β) with natural logs are converted to percentages using the following formula (e^{β}-1)*100.

Appendix 2A: Impact of One-Stop Shop (OSS) Implementation on Business Registration Waiting Periods

Independent Variables/Dependent Variables	Total Waiting Period for Firm Registration in 2007			Re-Registration (Days)	Number of Licenses	Longer than a Month to Register	Experienced Difficulties
	NBREG	NBREG	NBREG	NBREG	NBREG	PROBIT	PROBIT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Time since OSS was Implemented in Province (days)	-0.000958**	-0.000994*	?0.00132*	0.00103**	(0.001)	0.0000135	0.0000258
	(0.000)	(0.001)	(0.001)	(0.001)	?0.00227*	(0.000)	(0.000)
Percentage of Firms Using OSS	0.000358	-0.00116	0.000371	?0.00227*	(0.001)	-0.000571	-0.000459
	(0.002)	(0.002)	(0.002)	(0.001)	-0.00185	(0.000)	(0.000)
Total Number of Provincial Bureaucrats		0.000605	0.00660	-0.00185	(0.004)	-0.00100	-0.000607
		(0.002)	(0.009)	(0.004)	0.0000828	(0.002)	(0.001)
Average Salary of Provincial Officials		-0.000632**	-0.000464	0.0000828	(0.000)	-0.0000756	0.0000672
		(0.000)	(0.000)	(0.000)	-0.000300	(0.000)	(0.000)
Number of Administrative Units in Province		0.00103	0.000195	-0.000300	(0.001)	0.0000819	-0.000152
		(0.001)	(0.001)	(0.001)	-6.98e-09	(0.000)	(0.000)
Distance from Hanoi or HCMC (km)			-0.000000568	-6.98e-09	(0.000)	0.0000000531	0.0000000674
			(0.000)	(0.000)	-0.000154	(0.000)	(0.000)
Telephones per 1,000 Citizens (1995)			-0.000856*	-0.000154	(0.000)	-0.000107*	-0.0000757
			(0.001)	(0.000)	-0.00526	(0.000)	(0.000)
% Secondary School Graduates			0.00875	-0.00526	(0.005)	-0.000767	-0.00159**
			(0.010)	(0.005)	1.564***	(0.001)	(0.001)
Constant	3.232***	4.022***	3.363***	1.564***	(0.528)		
	(0.238)	(0.633)	(0.634)	(0.528)	652		

Independent Variables/Dependent Variables	Total Waiting Period for Firm Registration in 2007			Re-Registration (Days)	Number of Licenses	Longer than a Month to Register	Experienced Difficulties
	NBREG	NBREG	NBREG	NBREG	NBREG	PROBIT	PROBIT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Observations	689	689	689	652	793	793	839
Clusters	64	64	64	64	64	64	64
Log Likelihood	-2769	-2769	-2769	-1458	-1458	-423.5	-316.4
Chi-Squared	4.045	9.653	15.95	15.05	15.05	15.27	67.02

Models 1-5 are Negative Binomial Regressions to address the dispersed count data inherent in the measures. Models 6 and 7 are PROBIT models with marginal probabilities displayed
Robust standard errors (clustered at province-level) in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
Dependent variable (Model 1-3): Total waiting period for registration in days (PCI Question C1)
Dependent variable (Model 4): Total waiting period for re-registration in days (PCI Question C2)
Dependent variable (Model 5): Total licenses/documents required for registration in days (PCI Question C3)
Dependent variable (Model 6): Firm waiting longer than one month to be fully legal (dichotomous, PCI Question C4)
Dependent variable (Model 7): Firm experienced difficulties in registration (dichotomous, PCI Question C6)

Appendix 2B: Determinants of Change in Economic Court Usage

Independent Variables/Dependent Variables	Change in Court Cases Filed by Private Firms (%)				
	OLS	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)	(5)
Confidence in Apellate System (% change)[1]		159.0**	167.0**	125.6*	142.7**
		(69.575)	(69.524)	(62.914)	(66.879)
Use of Courts in Dispute Settlement (% change)[2]			2.671***		2.475**
			(0.892)		(0.914)
Confidence in Legal System (% change)[3]				145.4*	103.3
				(75.098)	(72.104)
National City Dummy	-5.812	-0.213	-10.50	-3.128	-11.81
	(9.666)	(9.580)	(10.361)	(13.355)	(12.013)
South of 17th Parallel	5.989	7.570	12.67	5.931	11.13
	(13.733)	(13.777)	(12.345)	(13.934)	(12.639)
Distance from Hanoi or HCMC (km)	0.0105	0.00937	0.00770	0.00750	0.00650
	(0.021)	(0.021)	(0.017)	(0.021)	(0.018)
Change in Number of Foreign Invested Enterprises	0.956	0.844	0.588	1.144	0.819
	(3.296)	(3.142)	(3.272)	(3.145)	(3.209)
Change in GDP per Capita (ln)	-198.2	-247.9**	-189.9	-277.0**	-214.9*
	(128.163)	(116.107)	(120.013)	(113.721)	(125.952)
Total Number of Cases in Provincial Economic Court	0.00627	0.000669	0.00849	-0.00300	0.00531
	(0.008)	(0.008)	(0.007)	(0.010)	(0.009)
Constant	21.21	21.93	29.71	25.81*	31.88
	(16.364)	(14.437)	(18.828)	(15.227)	(19.699)
Observations	64	64	64	64	64
R-squared	0.067	0.123	0.269	0.171	0.292
Root Mean Squared Error	37.31	36.65	33.90	36.09	33.79

OLS Regression; Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1; ln indicates natural log taken. Dummy denotes dichotomous dependent variables.

1) PCI Question G8: Firms believing they can go to a superior official to appeal unjust treatment (% change)
2) PCI Question F9.1-9.3: Firms listing courts as one of three favored dispute settlement mechanisms (% change)
3) PCI Question H7.9: Firms expressing confidence in legal system (% Change)

Appendix 3: Determinants of Transport Costs (VND)

Independent Variables/ Dependent Variables	OLS (1)
Distance from Port (km)	9689***
	(2693)
Asphalted Road (% of Total Road)	-2708973**
	(1836696)
Northern Uplands	3728029***
	(1339595)
North Central Coast	-859915
	(1318825)
South Central Coast	-5887624***
	(1840104)
Central Highlands	-1351440
	(1468793)
North Southeast	97189
	(692014)
Mekong Delta	456377
	(922477)
Constant	5861267***
	(1563455)
Observations	64
R-squared	0.633

OLS Regression; Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1
Red River Delta is the untested comparative region

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