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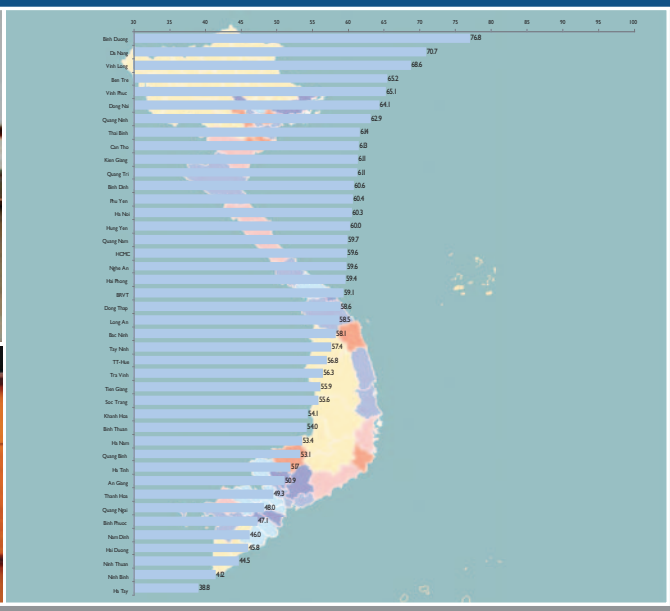
THE VIETNAM PROVINCIAL COMPETITIVENESS INDEX 2005

MEASURING ECONOMIC GOVERNANCE FOR PRIVATE SECTOR DEVELOPMENT



VCCI
VIETNAM CHAMBER OF COMMERCE AND INDUSTRY

The Asia Foundation

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Primary Author and Lead Researcher:

Dr. Edmund Malesky

Research Team:

Mr. Tran Huu Huynh
Mr. Dau Anh Tuan
Ms. Le Thanh Ha
Ms. Huynh Mai Huong
Ms. Ha Thanh Tu
Ms. Trinh Hong Hanh
Dr. Nguyen Van Thang
Dr. Franck Wiebe
Dr. David Ray

VNCI
Vietnam Competitiveness Initiative

The Vietnam Competitiveness Initiative (VNCI) is an economic growth project of the United States Agency for International Development (USAID) to improve the competitiveness of small and medium-sized enterprises (SMEs) in Vietnam. The project has three components: (1) Improving the regulatory climate for SMEs; (2) SME capacity building; and (3) SME access to finance. VNCI is managed by Development Alternatives, Inc. (DAI). The Asia Foundation is the principal subcontractor to DAI and is responsible for implementing component one of the project.

Unit 02, 15th floor, Prime Centre Building
53 Quang Trung Street, Hanoi, Vietnam
Tel : (84-4) 943-8163
Fax: (84-4) 943-8160
www.vnci.org

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ACKNOWLEDGEMENTS

The Provincial Competitiveness Index (PCI) is the result of a major collaborative effort of the Vietnam Competitiveness Initiative (VNCI) and the Vietnam Chamber of Commerce and Industry (VCCI). This report describing the PCI methodology and results was prepared by VNCI consultant Dr Edmund Malesky, the lead researcher in the development and design of the PCI. Dr Malesky's intensive research experience on Vietnamese provincial performance provided much of the intellectual basis for the selection of indicators and the design of the questionnaire. The PCI represents the culmination of Dr. Malesky's search for an objective means of comparing provincial governance.

Both VNCI and VCCI would like to thank the following for their valuable comments and inputs on the PCI methodology and results: Madam Pham Chi Lan, Mr. Vu Quoc Tuan and Mr. Nguyen Ky of the Prime Minister's Research Commission (PMRC); Dr. Le Dang Doanh, advisor to the MPI Minister; Mr. Nguyen Dinh Cung of the Central Institute for Economic Management (CIEM); Dr. Vu Quoc Huy of the Institute of Economics; and Mr. Nguyen Cao Cuong of the Saigon Times. Particular mention should also be made of Dr. Tran Xuan Gia, the Chairman of the PMRC, for his valuable and supportive comments in regards to the PCI and for jointly chairing the dissemination seminar in May, 2005.

In addition, a team of individuals from both VCCI and VNCI worked on various aspects of the PCI.

VCCI

VNCI would like to thank VCCI President Dr. Vu Tien Loc for his overall guidance and support and also for jointly chairing the dissemination workshop in Ha Noi in May 2005. Dr Loc has also played a key role in disseminating the PCI results through his frequent engagements with the media in the weeks and months following the release of the PCI results.

The VCCI team was led by the Legal Division Director General, Mr. Tran Huu Huynh. Mr. Huynh was an early enthusiast for the research endeavor, believing it would be useful for VCCI's member companies. Mr. Huynh assumed overall responsibility for all sampling and data collection, perhaps the most difficult and time-consuming element of the PCI process. There is little doubt that without the extraordinary effort of the VCCI team to collect and carefully process the huge amount of survey data, as well as their insights into the major obstacles facing Vietnamese firms and their understanding of the complexities of the Vietnamese legal framework, the PCI would not have been possible.

Deserving particular note is Mr. Dau Anh Tuan, one of the key creative forces behind the PCI. Mr. Tuan played a crucial role in the design of the survey instrument, in generating the large list of firms comprising the survey sample, in overseeing the dissemination of the survey instrument, and in the collection and processing of the survey results. He also collected much of the non-survey data and was actively involved in editing the final PCI report in Vietnamese. Also deserving particular acknowledgement is Ms. Le Thanh Ha who was responsible for managing the students recruited to assist in the data collection effort and also for overseeing the entry of survey data.

VNCI

From the VNCI side, Ms. Ha Thanh Tu of The Asia Foundation devoted much of her time in the second half of 2004 and first half of 2005 to the development and dissemination of the PCI, including a range of administrative, technical, communications and outreach duties. Of particular note was her liaison role with VCCI and her efforts to organize the main dissemination workshop in May 2005.

Ms. Huynh Mai Huong of VNCI, a latecomer to the PCI effort, quickly got up to speed on the project and became a valuable asset in performing a broad range of technical and administrative duties. Her most important contributions were the maps depicting the spatial variation of PCI data, the organization of the various dissemination workshops, and the editing and production of the final PCI report in both English and Vietnamese. Since the release of the PCI results, Ms. Huong has also played a crucial role as the primary presenter at the PCI Diagnostic workshops in the provinces. Ms Trinh Hong Hanh, an Administrative and Research Assistant at the VNCI office, collected a great deal of the non-survey data used in the index. Her innovative solutions to finding missing data were behind many of the PCI's most important indicators.

Dr. Nguyen Van Thang, VNCI consultant, played a key role in providing technical assistance on methodology issues and in presenting the PCI results at the various dissemination workshops. Along with Ms. Huynh Mai Huong, Dr. Thang was also responsible for the translation of the various PCI reports and presentations into Vietnamese. Dr. Franck Wiebe of The Asia Foundation drafted sections of the report, including parts of the introduction and the Ha Tay case study, and assisted with editing the final report. He also provided useful comments and guidance during the design stage of the PCI.

Dr. David Ray, the Deputy Director of the VNCI, provided overall management of the PCI effort and assisted in the development of the PCI methodology and the drafting and editing of the final PCI report. Dr Ray also worked closely with Dr. Malesky in the choice of indicators and the design of the sub-indices and provided input on the weighting methodology. The report was edited by Julian Carey.

The report also benefited from guidance and support from Mr. Dennis Zvinakis, Vietnam Country Manager of USAID, as well as Mr. Robert Webster, Director of the VNCI project.

Further Acknowledgements

The PCI has its origins in an earlier study by The Asia Foundation (TAF) and VCCI. This study, titled 'Best Practices in Provincial Economic Governance' was undertaken in 2003/4 and covered 14 non-metropolitan provinces. Although based upon a different methodology, the PCI used the same survey instrument as that developed for the TAF-VCCI study. The PCI also incorporated the survey data from the 14 provinces, comprising over 400 enterprise responses. VNCI would like thank Mr. Tran Huu Huynh of the VCCI, as well as Dr. Jonathan Stromseth, former Vietnam Representative of The Asia Foundation and a strong advocate and early enthusiast for the PCI, for allowing use of the survey instrument and the 14 province data.

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The Vietnam Competitiveness Initiative (VNCI) is an economic growth project funded by the United States Agency for International Development (USAID). VNCI is managed by Development Alternatives Inc. (DAI).

The Asia Foundation is the principal subcontractor to DAI and is responsible for implementing the research and policy component of the VNCI project. The objective of this component is to improve the regulatory environment for business, with a particular focus on regulations governing small and medium-sized private businesses. This is the fourth in a series of policy studies produced by The Asia Foundation under VNCI.

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ABBREVIATIONS

ASMED	Agency for Small to Medium Enterprise Development
BEEPS	Business Environment and Enterprise Performance Survey
BIDV	The Bank for Investment and Development
BRVT	Ba Ria-Vung Tau Province
CI	Confidence Interval
CIEM	Central Institute for Economic Management
DPI	Department of Planning and Investment
DONRE	Department of Natural Resources and Environment
GSO	General Statistics Office
HCMC	Ho Chi Minh City
HLM	Hierarchical Linear Model
IZ	Industrial Zone
INCOMBANK	The Industrial and Commercial Bank
LLC	Limited Liability Company
LURC	Land Use Rights Certificate
MOF	Ministry of Finance
MOLISA	Ministry of Labor, Invalids and Social Affairs
MPI	Ministry of Planning and Investment
NSE	North Southeast provinces
OLS	Ordinary Least Squares
PCI	Provincial Competitiveness Index
PPP	Purchasing Power Parity
PSD	Private Sector Development
SME	Small to Medium Enterprises
SOEs	State Owned Enterprises
TAF	The Asia Foundation
VCCI	Vietnam Chamber of Commerce and Industry
VNCI	Vietnam Competitiveness Initiative
VND	Vietnamese Dong
WTO	World Trade Organisation

INTRODUCTION

A robust and vibrant private sector is now universally regarded as the key to economic prosperity. Governments that are able to construct regulatory frameworks that encourage entrepreneurs to respond to market-based incentives have been rewarded with expanded private sector investment, economic growth, job creation and the alleviation of poverty.

This is no more apparent than in Vietnam in recent years. Following the implementation of the landmark Enterprise Law in 2000 – a law that significantly lowered entry and other regulatory barriers to business – Vietnam has enjoyed rapid private sector growth. Over 136,400 formal private companies have been registered since 2000, about six times the number of formal private registrations per year than in the nine years prior to the law. This has helped expand the economy at an impressive annual growth rate of around 7%, which in turn has generated much needed employment for Vietnam's large and expanding population, lifting a significant proportion of the population out of poverty.

While the state continues to play a significant role in the economy, the central government has clearly signaled its recognition that private investment and trade must play central roles in the development of Vietnam's economy. While this paradigm shift in Vietnam's national economic development strategy is widely known outside of Vietnam, less well understood is the more complex story of the pattern of economic development at the provincial level and the important role played by local governments.

The notion that not all parts of the country will expand equally rapidly is hardly surprising. With the rather uninteresting exceptions of a couple of city or island economies, every country has been characterized by patterns of growth that entail some parts of the country growing more rapidly than others. What makes the Vietnam story so interesting in this regard is that, even in the presence of a strong one-party central government, local governments still have considerable ability to shape the pace and pattern of development within their borders.

The pattern of development in Vietnam is striking. Roughly 20% of the provinces (11 out of 64) account for more than 60% of growth in the private sector and more than 70% of both private sector investment and revenue[1]. While state spending – which continues to represent a significant portion of GDP – is spread more evenly across regions and mitigates some of the differences in living standards in the short run, the data reflect a pattern of highly concentrated growth in a few areas, with much of the country lagging behind and displaying far less of the dynamism that would allow them to catch up.

While not highly unusual, this pattern of growth raises two potential problems in Vietnam. First, it may not be possible to sustain rapid national economic growth rates in the future if so much of the country is characterized by more modest private sector dynamism. The fast-growing provinces are likely to see their rapid expansion moderate in the face of increasing competition that drives up land and labor prices, and produces new pressure on infrastructure. High growth rates are simply easier to attain at lower economic levels. Even the most dynamic provinces of the past decade or so will find it hard to maintain their double-digit growth rates. If the remaining provinces do not accelerate their pace of development, overall national growth rates will decline, implying a much more modest improvement in living standards and reduction in poverty.

Second, the concentration of growth in only 11 provinces is generating a pattern of prosperity that may become politically unacceptable for the national government. While inequality among households is rarely the cause of social unrest, central governments often come under political pressure to undertake

1. The Asia Foundation and the Vietnam Chamber of Commerce and Industry, Provincial Economic Governance, Vol. 1, Key Determinants (Ha Noi: 2005). Hereafter cited as TAF-VCCI, Provincial Economic Governance.

measures to improve conditions in the lagging areas. In most instances, these "balancing" interventions represent inefficient investments that effectively slow aggregate growth and further reduce the attainment of national poverty alleviation objectives. In other words, extreme differences in economic performances across regions can have a political impact that leads to policy choices resulting in lower growth overall.

This pattern of significant divergences in economic performance in Vietnam may surprise some observers, given the presence of a strong central government that has demonstrated its commitment to reform. Of course, some of the differences in regional performances can be attributed to underlying natural endowments and initial conditions, such as location and the quality of the local workforce. But in Vietnam a strong central state masks what turns out to be considerable variation in performance at the provincial level. The central government has allowed, and even encouraged, experimentation and innovation by the provinces as a means of determining fruitful reforms that can be safely undertaken at the national level. Moreover, as in most countries, efforts by the central government to define and direct the national economy have been imperfect, with central laws and regulations characterized by ambiguities that lead to variations in how the policies are implemented at the local level.

In Vietnam, the recent economic experience, which varies so greatly across provinces, can be understood as the result of a combination of factors, some related to the endowments of a region and some to the performance of provincial governments. To accelerate growth in the lagging provinces, and to sustain growth in the more dynamic ones, provincial governments need to understand both what they are doing well and the areas in which they need improvement.

In 2002, The Asia Foundation (TAF) and the Vietnam Chamber of Commerce and Industry (VCCI) undertook an initial research effort in 14 provinces to study the interplay of economic and governance factors in generating provincial growth. This research then became the foundation for a much broader study of regional differences undertaken by the Vietnam Competitiveness Initiative (VNCI), a USAID-funded project. This research sought to identify the most critical economic governance determinants of growth in Vietnam[2].

The Provincial Competitiveness Index (PCI) is an effort to explain why some parts of the country perform better than others in terms of private sector dynamism, job creation and economic growth. Using new survey data from businesses that describe their perceptions of their local business environments, as well as credible and comparable data from official and other sources regarding local conditions, the PCI rates provinces on a 100-point scale. The overall index is comprised of nine sub-indices that explain much of the variation in performance across provinces in Vietnam:

- Entry Costs;
- Access to Land;
- Transparency and Access to Information;
- Time Costs of Regulatory Compliance;
- Informal Charges;
- Implementation and Consistency of Policies;
- State Sector Bias;
- Proactivity of Provincial Leadership;
- Private Sector Development Policies.

The research has a number of important design elements that make the results easily translated into governance reforms. First, by separating out the growth that is generated by initial conditions (i.e. the fundamental underlying factors that contribute to growth but that are very difficult or impossible to address in the short-term), the research was able to determine that good governance practices are possible at the provincial level and that these practices explain why some areas outperform others or why some areas have similar economic outcomes despite having very different initial conditions. The focus on governance practices should lead to improvements in economic performance, even without significant changes in a region's physical and human infrastructure.

Second, by normalizing the scores around the best practices already found in Vietnam, the index directs

2. Note that The Asia Foundation is responsible for the Provincial Competitiveness Index (PCI) and other policy-related activities.

provincial governments to improve their performance, not against some ideal standard of good governance but rather against the best performance already practiced by their peers within the same national political framework. While the performance scores by province range from 39 to 77, any province in theory could attain a perfect score by adopting the best practices already found in Vietnam. The implication is that there are no easy explanations for poor performance - every provincial government can do better to generate a more favorable economic environment within their borders.

Third, by comparing governance practices against actual economic performance, the PCI provides initial estimates of how important governance practices are to attracting investment and generating growth. The research provides a compelling demonstration of the association between business-friendly governance practices, business responses and, importantly, welfare improvements. This last connection is critical as it makes clear that business-friendly policies and practices benefit not just entrepreneurs but also the broader society that relies upon private sector dynamism to provide the jobs that raise household living standards.

The PCI research has already generated a series of publications that highlight the findings and illustrate how the data can be useful for directing governance reforms at the provincial level. This report touches on the findings too, but the main objective is to describe and explain the research methodology as clearly and succinctly as possible.

Following this introduction section, the report is divided into two sections. Section 1 describes and explains the PCI, firstly summarizing the PCI methodology and results, secondly describing the nine sub-indices in more detail and finally concluding the section with a specific focus on the implications of the PCI for provincial welfare and some early indications as to how the PCI is impacting on provincial economic governance. The conclusion includes an interesting case study on the response to the PCI results by the lowest-ranked Ha Tay province.

Section 2 is a detailed discussion of the methodology that includes much of the supporting technical material. In this section, both survey and hard data collection is discussed, demonstrating some tests of the validity of that data, explaining the method of controlling for structural endowments, and illustrating in detail how sub-indices were weighted.

As in any research project, choices have been made in the construction of the PCI regarding data collection and analysis that are open to question and disagreement. This report is not intended to settle those questions, but rather to provide an exposition of the process and an articulation of why the study was structured in this fashion.

In the end, the results should not be seen as the final word on provincial governance and economic performance but rather as an effort to inject rigor into the discussion. It is hoped that provincial governments will find the research useful and that the study will highlight areas that need further research.

Section 1:

THE PCI

SUMMARY REPORT

Introduction

The Provincial Competitiveness Index (PCI) is an effort to explain why some parts of the country perform better than others in terms of private sector dynamism, job creation and economic growth. Using new survey data from businesses that describe their perceptions of their local business environments, as well as credible official and published data regarding local conditions, the PCI rates provinces on a 100-point scale that is based on factors that previous research has shown to be important determinants of private sector growth and prosperity. These factors are grouped into nine sub-indices, listed in the Introduction (Page 1) and explained in greater detail later in the report. The sub-indices are weighted by their relative contribution to private sector development across 42 select provinces. In aggregate, the 42 provinces covered in this report account for approximately 90% of economic activity in Vietnam.

The index has been designed to gauge the differences in the quality of provincial economic governance controlling for initial endowments (such as infrastructure, human capital and proximity to markets) that may have given some provinces a head-start on economic development and which continue to impact on provincial growth rates. In this report, endowments are not limited to the natural advantages found in some provinces (such as proximity to major domestic markets or natural deep water harbors) but also include other factors (such as road quality and the literacy and skill rates of labor) that similarly require long timeframes, major expenditure and often central permission to improve[3]. By emphasizing governance over development, the PCI necessarily focuses on policies and initiatives that could be changed in a relatively short period and for which the provincial leadership is primarily responsible. For example, a provincial level government could, relatively quickly, rationalize and simplify business licensing procedures. However, any effort to significantly raise the human capital levels of the local workforce could potentially take many years, if not decades.

By controlling for initial endowments, the research team was able to compare provinces with all types of endowments on a level playing field. In essence, this research makes it possible to engage in a theoretical exercise where provincial leaderships are interchangeable. For example, to remove the provincial leadership from a poorly-endowed province such as Ha Tinh and exchange it with officials in the well-endowed metropolises of Ho Chi Minh City (HCMC) and Ha Noi. After all, it is not very interesting to explain the success of these two major cities simply by their auspicious endowments. The more interesting question is, given their initial endowments, how much greater might their developments have been with higher-rated leaderships? This question can be answered by calculating the effect of endowments on measures of private sector development and then calculating the impact of governance factors above and beyond the initial contribution of these endowments. Essentially, a province's PCI score is an assessment of how well its leadership has performed given the constraints imposed by initial endowments. As this report will show, good economic governance can improve the private sector performance of any province, regardless of its initial endowments.

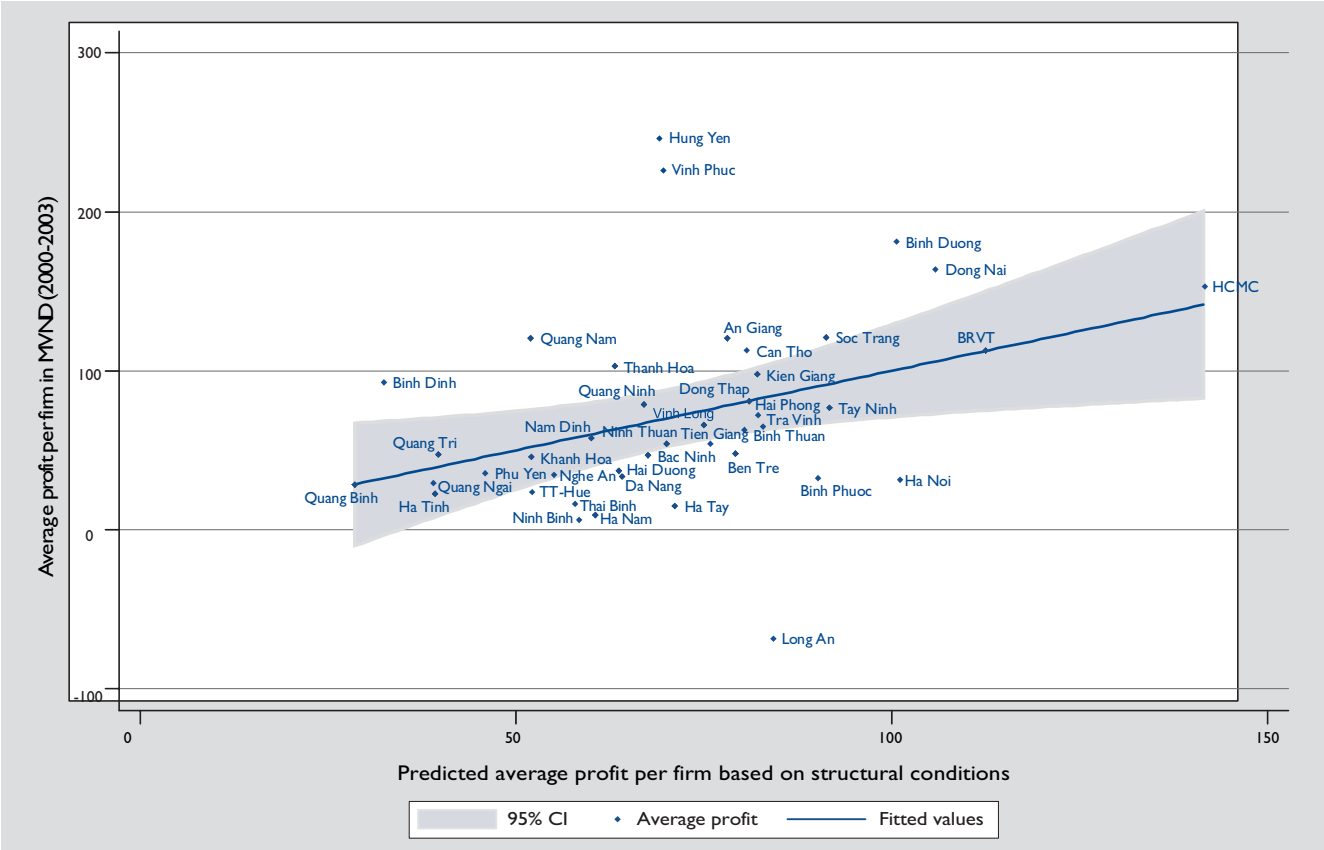
The Role of Initial Endowments [4]

Certainly, infrastructure and natural endowments play important roles in private sector development, but focusing too closely on these factors can be misleading. Both Ha Tay in the Red River Delta and Vinh Long in the Mekong Delta have about 700 active formal private enterprises, despite the fact that Ha Tay has much better endowments: Ha Tay is located within thirty minutes from the center of Ha Noi and possesses far

3. Endowments are sometimes referred to as structural conditions, initial conditions or structural endowments in this report.

4. For a more detailed discussion of structural endowments see Section 2.

Figure 1: Predicted average profit per enterprise (2000-2003) based on structural conditions



better infrastructure for transport purposes. In addition, private companies in the province can rely on a better educated and more literate workforce.

Indeed, as Figure 1 shows, structural conditions are far from determinant in their impact on private sector performance. The horizontal axis indicates the predicted average profit per enterprise based on human capital, infrastructure and proximity to markets, while the vertical axis records the actual average profit per enterprise in million Vietnamese Dong (VND) as measured by the General Statistics Office's (GSO) Enterprise Census. All provinces above the line drawn through the scatter-plot are out-performing their structural endowments, most noticeably Hung Yen, Vinh Phuc, Binh Duong, Dong Nai, Quang Nam and Binh Dinh. Provinces below the line under-perform their initial conditions, especially Thanh Hoa, Ha Tay, Ha Noi, Binh Phuoc and Long An. The ultimate goal of the PCI is to explain the substantial differences in private sector performance that are not explained by differences in structural endowments.

Furthermore, for most cash-strapped and underdeveloped Vietnamese provinces, improvements in infrastructure and human capital are a long-term dream rather than a medium-term solution to their development dilemmas. Concentrating on changes in the regulatory framework that will stimulate private sector investment is a far more feasible solution in the short-term – and it may generate higher tax revenues for investment in infrastructure and human capital improvements in the future.

Construction of the PCI

Within this context, the research team concentrated their efforts on statistically analyzing the impact of differences in provincial regulatory frameworks on private sector growth and prosperity. In so doing, the team built heavily on the 2002-2004 project implemented by The Asia Foundation (TAF) and the Vietnam Chamber of Commerce and Industry (VCCI) (Legal

Department), *Spreading Best Practices in Provincial Economic Governance in Vietnam*[5].

This focus on the regulatory framework is consistent with the traditional meaning of competitiveness found in most economics literature. Other researchers, particularly from business studies literature, have focused more on individual company operations and strategy, including the extent of their branding, use of value chains, presence of professional management and capacity for innovation[6]. While these factors may be useful to understanding firm-to-firm and cross-national comparisons, assessing these factors is premature for most of the firms in this survey and may not be as relevant to the central questions of this research. Certainly some Vietnamese firms in Ha Noi and HCMC have improved the sophistication of their business operations substantially, but most surveyed entrepreneurs have not yet developed a familiarity with these processes. Variance on these factors is minimal across Vietnamese provinces. On the other hand, variance is highest on regulatory and business environment indicators (which incidentally account for less than a third of the World Economic Forum's Growth Competitiveness and Business Competitiveness indices).

As a result, this research has set aside business sophistication measures for a later date and concentrates instead on the more observable differences in the Vietnamese business environment – specifically the sub-indices constructed around the nine factors previously highlighted by researchers and practitioners in Vietnam (see Table 1 and the next chapter for further detail):

1. Entry Costs: A measure of the time it takes firms to register, acquire land and receive all the necessary licenses to start business.
2. Access to Land: A measure of whether firms possess their official Land Use Rights Certificate (LURC), whether they have enough land for their business expansion requirements and the effective price of land in the province, taking into consideration demand and supply in the provinces, and the quality of industrial zone (IZ) policies.
3. Transparency and Access to Information: A measure of whether firms have access to the proper planning and legal documents necessary to run their business, 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 web page.
4. Time Costs of 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 down their operations for inspections by local regulatory agencies.
5. Informal Charges: A measure of how much firms pay in informal charges and how much of an obstacle those extra fees pose for their business operations.
6. Implementation and Consistency of Policies: A measure of the coordination between central and provincial governments, as well as the consistent application of central policies across provincial sub-agencies.
7. State Sector Bias: A measure of the bias of provincial governments toward State-Owned Enterprises (SOEs) in terms of incentives, policy and access to capital.
8. Proactivity of Provincial Leadership: A measure of the creativity and cleverness of provinces in both implementing central policy and designing their own initiatives for private sector development.
9. Private Sector Development Policies: A measure of provincial policies for private sector trade promotion, provision of regulatory information to firms, business partner matchmaking and capacity training to improve the quality of labor in the province.

Two general types of data were used to construct the sub-indices. Perceptions or "soft" data were drawn from a mail-out survey to 15,400 firms in 42 provinces, generating 2,020 responses. The mail-out approach was necessary to ensure that firms felt comfortable answering sensitive questions without the presence or knowledge of local government officials, who have been known to insist on attendance at interviews. This data were combined with

5. In fact, the survey used by the VNCI research team to measure entrepreneurs' perceptions of the regulatory framework made only slight changes to the original survey pioneered by TAF-VCCI, and the final PCI used data from 14 provinces collected through the TAF-VCCI survey (TAF-VCCI, Provincial Economic Governance).
6. Michael Porter, 2003. 'Building the Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index.' In the Global Competitiveness Report 2001-2002. New York: Oxford University Press for the World Economic Forum.

Table 1: Detailed Description of Sub-Indices and Component Indicators

1	Entry Costs • % of firms waiting over 1 month to start business operations • % of firms waiting over 3 months to start business operations • Waiting time for land (adjusted for supply and demand conditions)* • Post Enterprise law business registrations (number and registered capital) adjusted for provincial differences in population and GDP size**	6	Implementation and Consistency of Policies • Firm perceptions of coordination between central and provincial government • Good initiatives at centre, but provinces frustrate or do not implement well • Perceptions of the implementation of provincial policies and plans
2	Access to Land • % of firms with premises on SOE land • Firm rating of provincial government efforts to convert agricultural land for business uses • % of firms with land use rights certificate • If land easier to obtain business would expand • Effective land prices (adjusted for differences in supply and demand conditions)** • Quality of provincial policy on industrial zones (including IZ occupancy rate, firm rating of provincial IZ efforts, and planned number of IZs)*	7	State Sector Bias • Provincial government is biased towards SOEs • Province is biased toward equitized companies • Provincial attitude toward the private sector • Attitude toward private sector is improving • Monetary contributions influence attitude toward the private sector • Firm rating of provincial equitization effort • Average proportion of bank loans to state sector** • % change in no. of SOEs (1997-2003)** • Average size of local state sector (% of GDP)**
3	Transparency and Access to Information • Transparency of - and access to - local planning documents and decrees/decisions‡ • Equity and consistency of application - Importance of "relationships" to get access to these provincial documents - Importance of family and friends when dealing with government officials - Negotiations with tax officials are an essential part of doing business • Predictability and Consistency - Predictability of local implementation of laws - Province discusses regulatory changes with applicant • Openness - Assessment of provincial webpage	8	Proactivity of Provincial Leadership • Province good at working within central laws • Province creative and clever in solving problems confronting business community • No initiatives at provincial level • Good local initiatives at province, but centre frustrates
4	Time Costs of Regulatory Compliance (incl. inspections) • Days reduced dealing with bureaucracy since the Enterprise Law • % of firms spending over 10% of time dealing with bureaucracy • Number of inspections and the rate of decrease in inspections since enterprise law • Number of tax inspections and number of hours dealing with tax inspectors	9	Private Sector Development Policies • Market information and trade promotion activities • Information on regulations, procedures, etc • Information to match-make investors/traders with local producers • Labor training and vocational education services
5	Informal Charges • Informal charges are a major obstacle to doing business • Do firms in your line of business make extra payments? • % of firms paying over 10% of revenue in informal charges • % of firms paying commissions • Extra fees paid to tax inspector as a % of revenue		Notes: ** denotes component uses both hard and soft data* *** denotes component uses only hard data* *‡ derived from factor analysis* *In all sub-indices each primary component is given equal weight (i.e. Entry Costs has four primary components each worth 25%)*

objective or "hard" data gathered from statistical yearbooks, interviews with third-parties (such as state-owned banks or real estate firms) or collected from business associations (see Section 2 for a more detailed discussion of collection efforts). Each indicator was standardized to a ten-point scale and then the average of all indicators was taken to create the nine sub-indices.

Weighting of Sub-Indices in the Final Index[7]

Once each sub-index was created, the research team set about constructing the final composite index. Instead of simply adding up the various sub-indices to find the composite index, the researchers decided to use different weights for each sub-index. This was done for the simple reason that some sub-indices are more important than others in explaining cross-provincial performance. For example, in controlling for structural endowments in a multivariate regression, a one-point improvement in Entry Costs will lead to an increase in private sector investment per capita of 15%, while a similar shift in Transparency will yield a 10% increase. By contrast, a one-point increase in Land Access and Informal Charges will lead to only 6% and 2% more investment respectively, while an improvement in Implementation yields a score that is not statistically different from 0. From this exercise, the research team was able to conclude that Entry Costs and Transparency play a larger role in the divergence of private sector investment performance than other factors.

One should not interpret the above finding as a declaration that Access to Land, Informal Charges and Implementation are unimportant in a general sense. Who can deny that improving property rights, limiting the amount of bribes paid to local government officials or implementing the Enterprise Law would not improve private sector development? While all are certainly helpful for overall development in Vietnam, these factors are simply less relevant in explaining the differences in investment across provinces. There are three reasons for their lower stature (discussed in more detail in Section 2). First, sub-indices are not independent of one another. The interaction between sub-indices has substantive implications for performance. A second reason for the lower impact of some sub-indices is that some, such as Access to Land, demonstrate a great deal of convergence across provinces. Because scores are similar across provinces, these sub-indices have little impact on the differences in private sector performance across provinces. A third reason for the lower impact of certain sub-indices is that much of their explanatory power may already be captured by other sub-indices.

To capture the relative importance of sub-indices, the research team investigated how each of the sub-indices impacted upon the key economic performance variables which researchers and practitioners in Vietnam have deemed to be important indicators of private sector development[8]:

- *Ratio of private enterprises (including Sole Proprietorships, Partnerships, Limited Liability Companies [LLCs] and Joint-Stock Companies) actively operating in the provinces to the number of citizens in the province* was selected to gauge the degree of formal private sector activity within the broader community.
- *Average private sector long-term investment per capita (2000-2003)* was chosen to gauge the size of the risk entrepreneurs were willing to make.
- *Average profit per firm in millions of VND (2000-20003)* was selected as a measure of the success of individual firms over the Post-Enterprise Law period.

In each case, the research team regressed the above economic performance variables (controlling for the quality of human capital, infrastructure and proximity to markets) to determine their relative contributions (or "weights") to the sub-indices[9]. These weights

7. Weighting is discussed in more detail in Section 2.

8. All economic performance variables were calculated based on the General Statistical Office's 2000-2003 Enterprise Census. See Section 2 for a more detailed description of these variables describing provincial private sector performance.

9. This is the same methodology used by authors of the Growth Competitiveness Index. See McArthur, J.W. and Jeffrey Sachs. 2002. 'The Growth Competitiveness Index: Measuring Technological Advancement at the Stages of Development.' In the Global Competitiveness Report 2001-2002. New York: Oxford University Press for the World Economic Forum. Due to the high collinearity between sub-indices in the case of the PCI, however, researchers were unable to run each sub-index individually, instead relying on a procedure known as factor analysis to create three uncorrelated variables (Attitude, Time-Savings and Limited Rent-Seeking). The factor loadings of the variables were used to calculate the individual impact of the sub-indices which had comprised them.

Table 2: Weights of Sub-Indices in Final Provincial Competitiveness Index

Sub-Index	Contribution
Entry Costs	17.1%
Proactivity of Provicial Leadership	16.8%
Transparency and Access to Information	16.1%
State Sector Bias	13.1%
Private Sector Development Policies	11.1%
Time Costs of Regulatory Compliance	9.6%
Access to Land	8.4%
Informal Charges	7.6%
Implementation and Consistency of Policies	0.2%
Total	*100.0%*

are displayed in Table 2, which shows that Entry Costs, Proactivity and Transparency are of primary importance, followed by State Sector Bias and Private Sector Development Policies.

Analysis of Provincial Competitiveness Rankings

The Provincial Competitiveness Index was finalized (Figure 2) after weighting sub-indices to reflect their relative importance and standardizing to a 100-point scale. With a score of 76.82, Binh Duong is the highest rated province in the sample. Ha Tay province is the least competitive business environment at 38.81 points.

More important than the actual individual rankings are the five tiers of provinces. These tiers are clearly delineated by break points of one-half of a point or more in the data. These tiers are relatively robust to different sub-index weightings and provide a more useful way of interpreting the data than would an approach that wrongly attributes too much confidence to decimal points in the data.

The first tier ("High" performing group) consists of seven provinces which performed very well on nearly every sub-index, and performed especially well on the most important indices. If grades were being distributed, these provinces would be A students, with Binh Duong receiving an A+.

The second tier ("Mid-high" group) is comprised of thirteen provinces which scored above the median of 58.65. Some provinces in this category did very well on many of the sub-indices, but recorded extremely poor performances on one or two categories. For instance, Ha Noi and HCMC wind up in this tier due to their very poor performance on Transparency and Informal Charges. Hung Yen would have been in the first tier were it not for a poor showing on Private Sector Development Policies. Other provinces, notably Binh Dinh and Ba Ria-Vung Tau (BRVT), are in this tier due to their good but not excellent performance on all the indices. Twenty of the 42 provinces scored in the top two tiers.

The third tier of provinces ("Average" group) consists of eight provinces. Some of the provinces in this tier were characterized by critical development flaws in more than one area, such as Long An, which was hurt by low transparency and PSD scores. Others in this tier, including Bac Ninh, performed satisfactorily on all sub-indices but lacked high scores on the highest weighted variables.

There were seven provinces in the fourth tier provinces ("Mid-low" group). These provinces have major obstacles to private sector performance in several key areas. Many of these provinces, however, have significant achievements in a few sub-indices. For instance, An Giang had very high scores on Land Access and Implementation.

The final tier of provinces ("Low" performing group) includes seven provinces with very low scores across all sub-indices. Low scoring provinces existed in Southern, Central and Northern Vietnam, but four of the seven are concentrated in the Red River Delta.

Implications for Welfare

What do these rankings mean in terms of potential tangible improvements in the private sector environment? Using regression analysis (displayed in Tables 15 - 20 in Section 2) to control for

Figure 2: Provincial Competitiveness Index on the Business Environment in Vietnam

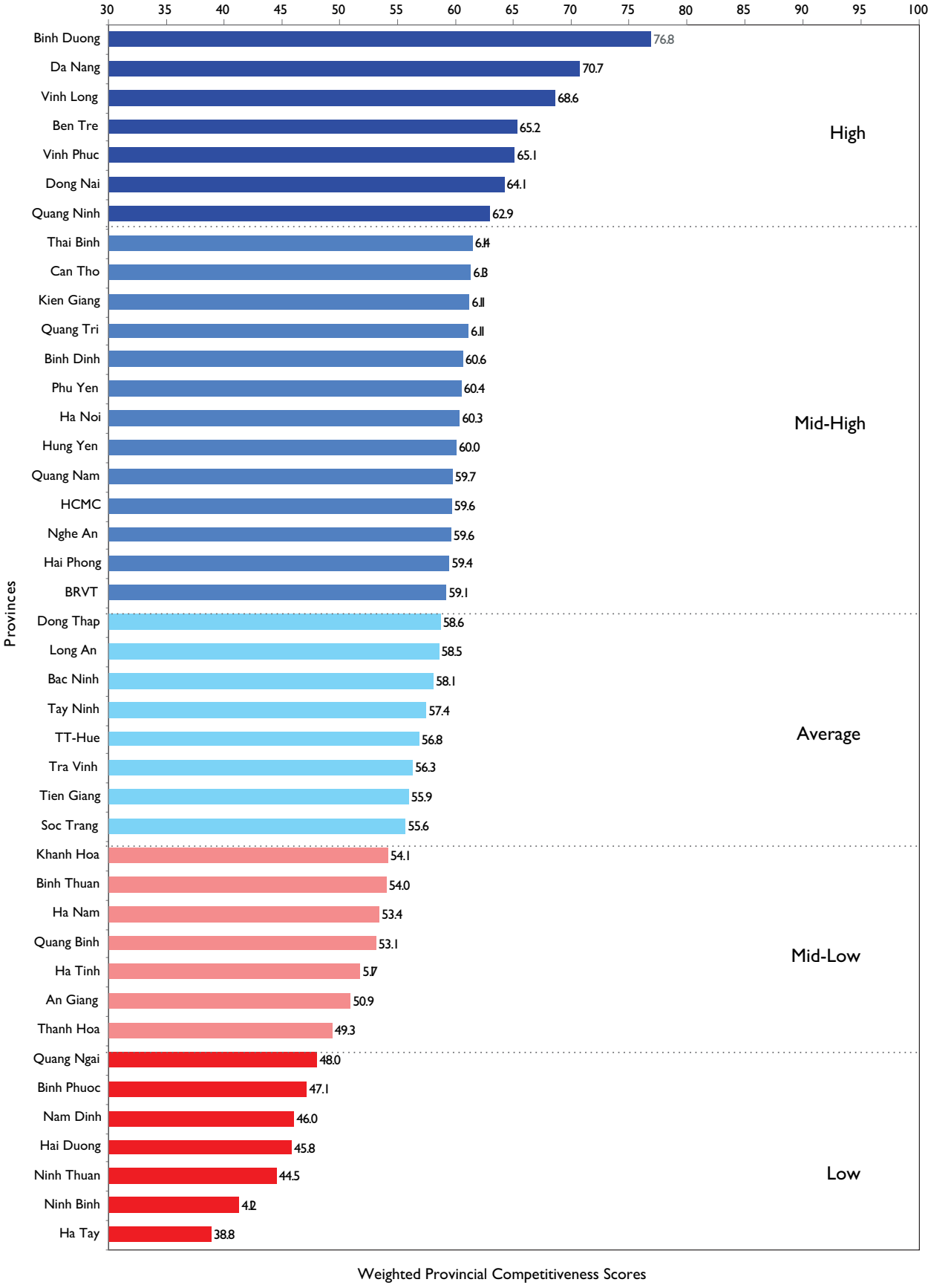
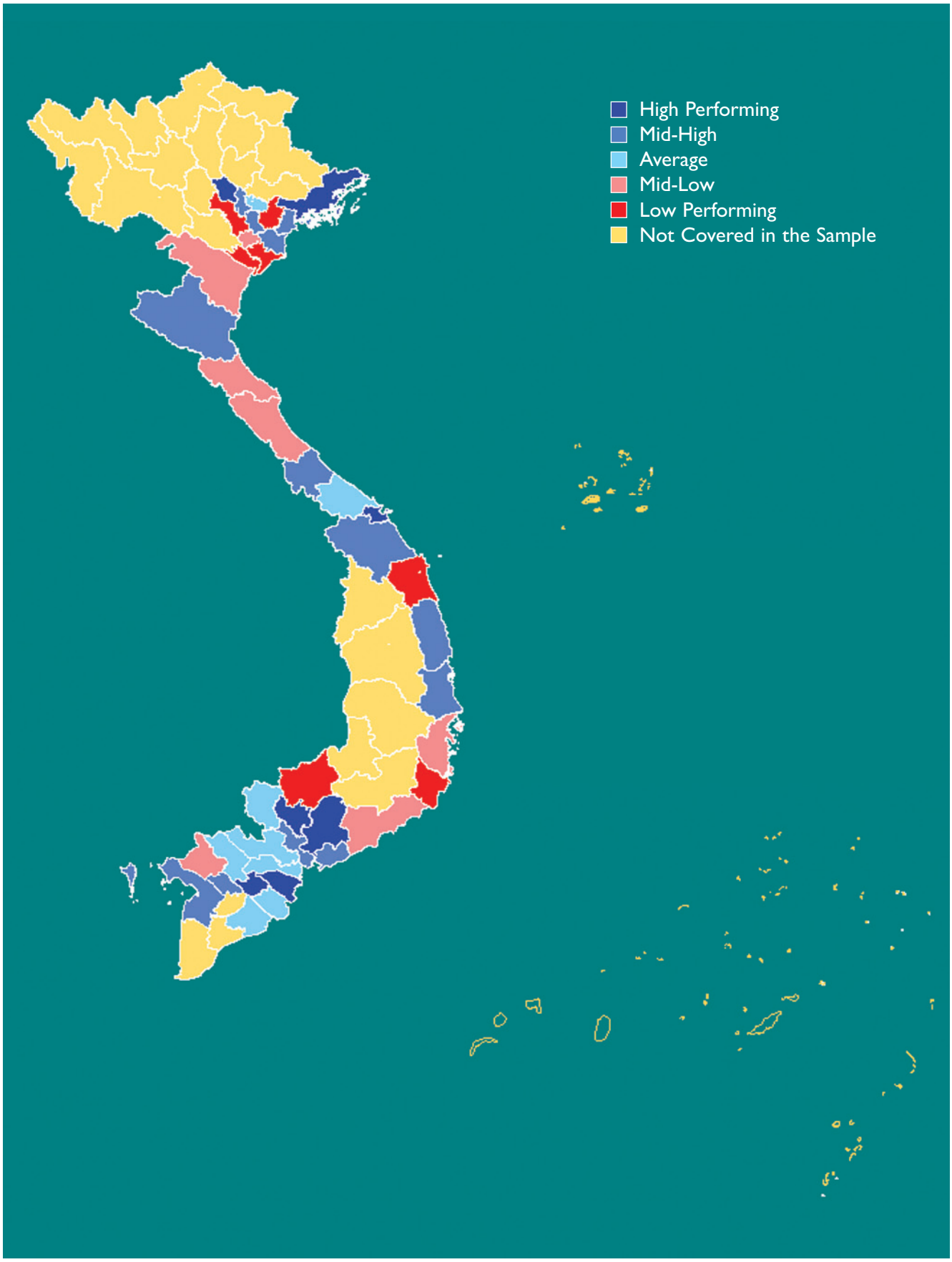


Figure 3: The PCI Map of Vietnam



structural endowments, the impact of a one-point improvement in the *non-weighted* PCI can be assessed (i.e. the impact upon a province of raising its score on any one sub-index by one point)[10]. The research reveals that a simple one-point improvement, from the mean non-weighted score of 52.4, is associated with a 2.8% increase in average private sector investment per capita, a 3.2 million VND increase in profits per firm, an extra two enterprises for every 100,000 citizens, 92 million VND for every 1,000 citizens in registered investment after the Enterprise Law at the Department of Planning and Investment (DPI) (52 million VND of which would be implemented) and an extra 11 bowls of Pho per year for every citizen.

To make the exercise more tangible, imagine Long An could improve just one point on every sub-index for a total increase of nine points, essentially improving from its present non-weighted score of 52.88 to a score compared to its Mekong neighbor Vinh Long's non-weighted score of 61.83 (a score which situates this province among the very top provinces). This nine-point increase would likely generate 200 active enterprises for every 1,000 citizens, a 28% increase in average investment per capita and a 31.8 million VND increase in profits per firm! Post-Enterprise Law registered capital per 1,000 citizens would increase by 822 million VND, 458 million VND of which would be implemented. Finally, welfare, measured in Purchasing Power Parity (PPP) per capita, would increase by 94 bowls of Pho per person per year[11].

Conclusions

Provincial leaders can use the PCI as a guide to identifying their strengths and weaknesses more clearly. Major advances in private sector performance and economic development can be achieved by initiatives that will improve scores on the weakest sub-indices. Reforms which reduce entry barriers, increase transparency and allow provincial leadership the flexibility to respond to investor needs will be especially beneficial. It should be understood by provincial governments, however, that technical quick-fixes that do not reflect a change in attitude towards the private sector may not produce the desired result, either in the desired material results of investment and job growth or in the perceptions of the business community.

The PCI is a valuable policy tool that can be used to undertake diagnostic activities that focus on the economic governance of particular provinces (or groups of provinces). In this regard, provinces should begin by looking across the sub-indices to discover their lowest scores, especially if those were in highly weighted categories. Next, they should look at the indicators which comprise the sub-indices to find the most pressing weakness within each sub-index. Finally, the province should work to design provincial activities which address these weaknesses.

Hai Duong in the Red River Delta province provides a good example of this point. Hai Duong performed poorly on all three of the most critical elements of private sector development (entry, transparency, proactivity) but performed well on other sub-indices. The province also possesses structural conditions that are highly conducive to private sector growth. As a result, Hai Duong ranks among the under-achievers despite a recent flurry of news reports to the contrary and the province's successful attraction of foreign direct investment. Hai Duong could improve the overall competitiveness of its economy most dramatically by reducing the post-registration waiting periods for licenses and the business chop (wood-stamp) necessary to begin business activities. Hai Duong's registration period is not dramatically longer than its peers, but firms appear to be stuck in limbo after registration, which prevents them from starting-up their operations.

Firms in Hai Duong would also be well-served by better transparency, specifically better information about changes in laws and provincial decisions. When this information is available in Hai Duong, access is highly limited, with almost 90% of firms saying a

10. Using the unweighted PCI is imperative for this exercise, as the final PCI is actually weighted to these outcomes. As a result, by definition, an improvement on the weighted PCI would lead to higher outcome scores. The unweighted PCI, however, is measured independently of development outcomes.

11. The PPP is calculated from the average price of the popular noodle dish, Pho, on a major road in the Provincial Capital. The average cost of Pho gives an ideal proxy for the cost of living. The universality of the measure allows a for a more adequate comparison of costs of living across provinces. As cooked Pho is a non-tradable good, it is likely to be more expensive in areas where land price, rental rates, construction costs, utility prices, wages and the costs of raw materials are higher and therefore must be factored into the price. Dividing GDP per capita by the price of a bowl of Pho creates a reasonable measure of how far the dong goes in each province.

relationship with provincial authorities is necessary to obtain it. This leads to a business climate that is unpredictable, prohibiting firms without close connections to authorities from making accurate long-term calculations about their investment risk. Clearly, this has handicapped the revenue and profitability of Hai Duong firms, both of which are substantially below the sample averages.

Hai Duong's leadership needs to be more proactive about solving a firm's dilemmas when central law proves to be an insufficient guide. Hai Duong firms were among the most critical of their province's own initiatives for private sector development, reporting that the province lacked creativity in working within central law to address business dilemmas. Indeed, almost 42% of firms agreed that there were no interesting initiatives at the provincial level.

It is not just the low-performing provinces which need to engage in such diagnostics. All provinces have major deficiencies in their regulatory frameworks that will require diligence and creativity to address. Even the top-rated provinces have room for significant improvements. Da Nang's disproportionate lending to the state sector caused it to rank below the sample average on the SOE Bias. Vinh Long scored among the lowest in the amount of time their firms waste in interactions with the bureaucracy. And firms in Quang Ninh suffer from relatively high informal charges, especially those firms engaged in the service sector.

Use of the PCI is not limited to local government officials. Investors seeking locations for prosperous greenfield projects, or looking to expand their existing operations to other locales, could also benefit from a thorough analysis of the PCI sub-indices relevant to their individual business needs. For instance, investors wishing to export might benefit most from highly transparent provinces with low time-costs, which will keep their transactions costs low as they seek to compete with international market prices, and from provinces with a proactive leadership that have the ability to implement Vietnam's new customs laws to international standards.

NINE SUB-INDICES OF COMPETITIVENESS

This chapter of the report provides more detail about the PCI sub-indices. As previously discussed, the PCI research team constructed nine sub-indices for use in the final index, each capturing a particular dimension of the regulatory environment for private sector development at the provincial level:

1. Entry Costs
2. Access to Land
3. Transparency and Access to Information
4. Time costs of Regulatory Compliance
5. Informal Charges
6. Implementation and Consistency of Policies
7. State Sector Bias (or SOE Bias)
8. Proactivity of Provincial Leadership
9. Private Sector Development (PSD) Policies.

Two different types of data were employed in each index wherever possible: perceptions data and objective data.

Entry Costs

The Entry Costs sub-index was designed to assess the differences in entry costs for new firms across provinces. The intellectual origin for this sub-index is the World Bank's surveys of start-up costs for entrepreneurs in developing[12] and transition[13] countries. According to the Enterprise Law in 2000 and its subsequent implementing documents, these procedures should have become uniform across all provinces, but researchers on the Task Force to Implement the Enterprise Law argue that they have not[14]. This project sought to measure the extent of the variance by measuring five key variables, which were used to create the sub-index shown in Figure 4, after standardizing the responses to a ten-point scale. Three of these indicators are based on perceptions data from the mail-out survey, while two of the indicators use data derived from the Ministry of Planning and Investment (MPI) registration records of Post-Enterprise Law Registration.

12. See Doing Business in 2004: Understanding Regulation at http//rru.worldbank.org/Doing Business/ for more information on the survey and data set.
13. See The Business Environment and Enterprise Performance Survey (BEEPs) at http//info.worlldbank.org/governance/beeps/
14. 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), 'One Year Enforcement of the Enterprise Law: Results and Remaining Problems', unpublished mimeo, 2001; 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, International Finance Corporation, and Ministry of Planning and Investment, June.

Firm Perceptions Indicators

- *Percentage of firms waiting over a month to complete all steps necessary to start their business.* The Central Institute for Economic Management (CIEM) has reported that, even after the introduction of the Enterprise Law, firms must engage in three steps: business registration, having a chop carved for their official business seal and tax registration combined with the purchases of VAT invoices. They estimate that such procedures may take as long as 45 days before firms can begin business after registering[15]. In addition, one must add the time necessary for the additional ('conditional') business licenses, which exist for particular industries for public interest considerations (such as to regulate national security and environmental protection, or to ensure health and safety standards). An attempt was made to gauge these 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. Scores ranged from a low of

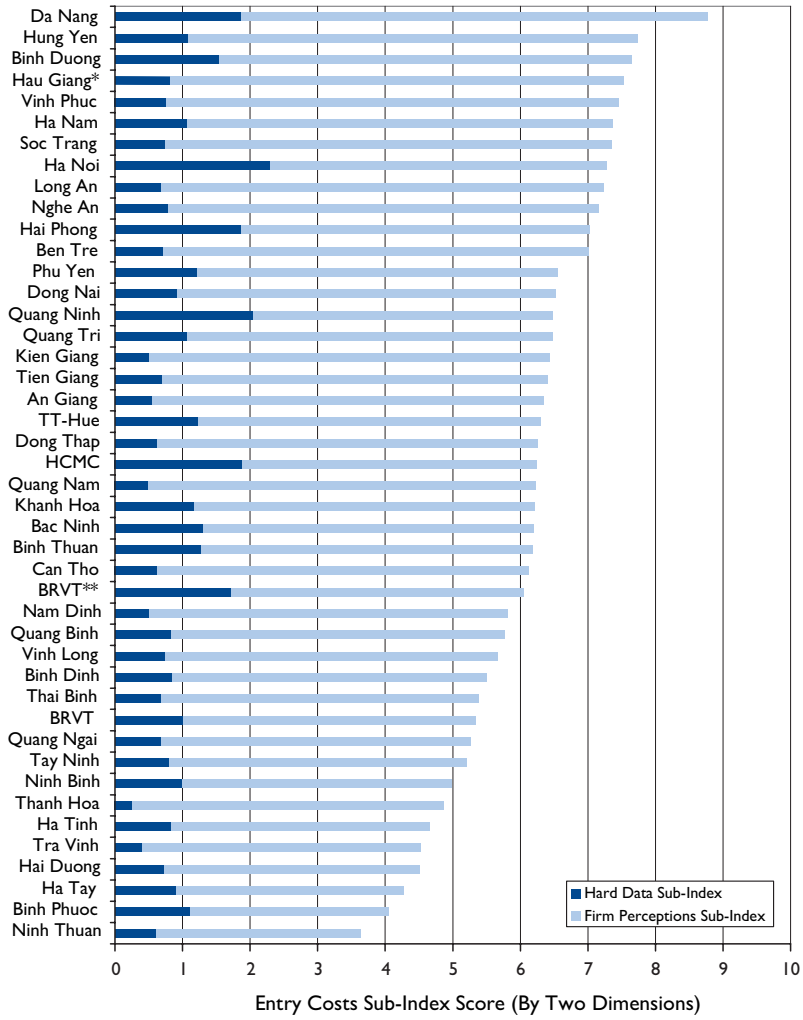
15. CIEM, 2003. They also estimate that completing all three steps will cost about 1.5 million VND even before the expense of announcing the registration in three continuous newspapers at 750,000 VND, and a license tax of 3 million VND.

9.76% in Nghe An to a high of 63% in Binh Phuoc, with a median score of 33% across provinces.

- *Percentage of firms waiting over three months to complete all steps necessary to start their business.* This indicator sought to capture provinces with particularly slow environments where firms' plans were held up for an entire fiscal quarter waiting for required licenses and permits. Eight provinces had no firms waiting three months, but one province (Binh Phuoc) was particularly problematic, with almost 20% of surveyed firms waiting this excessively long time.

- *Effective wait for land to begin business activities.* Here, the team sought to measure how long firms had to wait for their business premises (if they did not start their business on household land) in the post-Enterprise Law environment. To create this indicator, the average land use wait was divided by the number of private firms per capita, as a measure of the demand for land in the province. This quantity was then multiplied by the ratio of land in the province presently zoned for business purposes in order to gauge supply[16]. This formula gave the wait for land in a province relative to the demand for the marginal piece and the supply of land available.

Figure 4: Entry Costs Sub-Index



Hard Indicators

- *Firms per 1,000 citizens registered at the Provincial DPI after the Enterprise Law.* This data, made available by the Agency for Small to Medium Enterprise Development (ASMED) of the MPI, was used as a hard anchor for the perceptions data above. While the value of this indicator as a measure of the actual size of the private sector is suspect (due to the large number of firms that register but do not begin business activities), it does serve as a useful indicator of the efficiency of the registration process over a very short period of time[17]. Scores ranged from close to 50 firms per 1,000 citizens in Ha Noi and HCMC to less than one firm per 1,000 citizens in Thanh Hoa.

- *Registered Capital 2000-2003 as a percentage of provincial GDP in*

16. **Effective land use wait** = (Land Wait/Enterprises per 1,000)*(Percentage of Business Land/100).

17. A number of reasons for the existence of so-called "ghost firms" – those that register but do not commence business activities – have been proffered. While much attention has been paid to illegal motivations, knowledgeable observers have concluded that the majority of "ghost firms" are simply entrepreneurs hedging their bets by taking care of the relatively easy registration procedures while they evaluate their business prospects or shore up financing. Markus Taussig and Pham Thi Thu Hang, Formality, *Formalization, and the Role of Local Government in Vietnam's Private Sector Development,* (Ha Noi, Vietnam: Vietnam Chamber of Commerce and Industry and the Asian Development Bank, 2004).

2003. The second piece of hard data in the Entry Cost Index is the size of registered capital at DPI compared to the overall size of the economy. Once again, this capital is not yet implemented. It is simply a measure of how much firms declared they would invest when they filled out their paperwork at DPI. It helps augment the anchoring effect of the number of firms by benefiting provinces that registered several large investors, despite smaller absolute number of firms. Quang Ninh had the highest score on this measure at almost 94% of provincial GDP in 2003, while Thanh Hoa at 3.6% once again demonstrated a very limited ability to register firms effectively[18].

In order to avoid a possible problem with endogeneity in the final weighting exercise, the combined hard data indicators only account for 25% of the final index, rather than the 40% that would have been the case if each indicator was weighted equally[19]. This decision is critically important because the index will be weighted to private sector performance indicators, including the number of private enterprises per capita and investment per capita of firms that began operation[20].

Access to Land

Another issue often cited by analysts of Vietnam, and private firms themselves, is the wide variance in possession of LURCs across Vietnamese provinces. Limited access to useful land not only reduces opportunities for investment in a new business, but also limits access to capital, as firms cannot use land use rights as collateral for bank loans. Moreover, many firms unable to obtain their own land must rent from SOEs or the provincial agencies, limiting their opportunities for expansion and often exposing themselves to new sets of transactions costs[21]. On average, Southern provinces seem to outperform their Northern peers in access to land. Six indicators comprise the sub-index of land policy.

- *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 years but up to 70 years) and to transfer, exchange, lease, inherit and mortgage the land use right. Particularly important is the ability to use formal LURCs as collateral in accessing bank loans. One problem, which varies considerably across provinces, is the percentage of private firms that possess secure land use rights. Many provinces have large numbers of firms with informal land rights inherited from previous generations or purchased through informal exchange. The more diligent a province is at allocating formal LURCs to those who either bought or inherited the property, the more secure investors will feel about investment in their property and the greater the opportunities for expanding their business. Scores ranged from a low of 18% of firms to almost perfect scores for Binh Duong, Binh Thuan and BRVT.
- *The percentage of firms without LURCs that rent land from State Sector Bias.* Firms that do not have their own LURCs must either rent land from family, friends or – in strikingly high numbers – from SOEs or local agencies[22]. While it is a legal arrangement, renting land from SOEs is, in effect, a short-term lease with monthly or yearly payments, rather than the quasi-property right that is offered by the LURC. In such an

18. Because of its high GDP from oil exporting, BRVT is unfairly punished by this final indicator. Provincial leaders should be aware that their entry costs score would be about three tenths of a point higher if it were possible to assess the size of the economy unrelated to oil-related business. In Figure 4, "BRVT**" denotes where the province would be if private sector capital/GDP is not included in its hard indicators.
19. In statistics, endogeneity refers to a circular situation where one cannot be certain whether the value an explanatory variable takes is a cause, rather than a consequence, of the dependent variable.
20. Despite the fact that wide gaps exist between the number of registered firms and those that actually began business operations, there is reason to believe they are theoretically correlated. To deal with this dilemma, enough of the hard data were used to correct anchoring problems in the survey data, but limit the weight so that the sub-index is not overly-determined by the hard indicators. As a result, the perceptions indicators have a bivariate correlation with the final Entry Costs Sub-Index of 0.90, but the hard indicators only correlate at 0.42.
21. Nguyen Dinh Cung, Pham Anh Tuan, Bui Van, and David Dapice, 2004. *Why Don't Northern Provinces Grow Faster?* Ha Noi, Vietnam: Central Institute for Economic Management and United Nations Development Program; Do Quy Toan and Lakshmi Iyer, 2003, 'Land Rights and Economic Development: Evidence from Vietnam'. World Bank Working Paper, July.
22. Malesky, Edmund, 2004, 'Entrepreneurs on the Periphery: A study of Private Sector Development in Beyond the High Performing Cities and Provinces of Vietnam'.

arrangement, firms suffer from an additional set of costs over time, both in terms of regular rent and in opportunities foregone due to their inability to access bank capital. Moreover, the fortunes of private firms are inextricably tied to the fortunes of the SOE. Firms renting land from SOEs ranged from a low of 0% in BRVT to a high of 22.9% in Nam Dinh.

- *Percentage of firms that feel land availability constrains their business expansion.* The third indicator is a direct question about whether investment has been sacrificed due to the lack of available land, by asking firms whether they have limited their expansion plans due to problems with land access. Unsurprisingly, this is a nation-wide problem; about 70% of firms in the sample believe land access constrains their expansion. Firms in Tra Vinh (48%) were the least concerned with land constraining their expansion.
- *Provincial land conversion policies.* A number of provinces have worked hard to convert agricultural land to manufacturing usage in order to increase the supply of land, thereby lowering waiting periods and prices[23]. The PCI survey therefore asked firms to rate their provincial land conversion policies on a one to five scale. Provincial scores ranged from 4.3 in Da Nang and Vinh Long, reflecting the most extensive conversion, to a low of 2.48 in Ninh Binh.
- *Effective land prices.* One complicating factor is how much firms' worries about high land prices are subsumed in their responses to the expansion questions. Land availability may have been interpreted by some firms as a prohibitive cost. Land prices were therefore collected from local business associations and real estate agencies. Specifically, the price of land from the main road in the provincial capital was collected[24]. Because land prices are also a function of the number of firms and available space, effective land prices were calculated using a similar formula to land wait above[25]. Scores were highest in the North Central Coast, particularly Nghe An, which had an effective land price of over 13,000 VND per hectare. The actual price of land in Nghe An is 10,000 VND per hectare but the relatively small number of private firms and the large amount of available space in the province mean that land is over-priced. Land in Binh Duong is already very cheap at 1,800 VND per hectare, but its large number of firms and relatively constrained space mean that land there is a great deal under-priced relative to the rest of the country. As a result, Binh Duong receives an effective land price of only 53 VND. The average effective price of land for the entire sample is about 2,000 VND.
- *Quality of Industrial Zone (IZ) Policy.* Provinces with very little available land must find alternative strategies for allocating business premises to firms. These provinces have turned to alternative initiatives. This final measure is intended to gauge how well firms have managed this alternative of clearing land for IZs or industrial concentrations (which do not require the Prime Minister's approval) when land in the province is constrained. Simply creating an IZ is not enough; many provinces have a large number of IZs but very few firms located within them. One must therefore take into account the occupancy rate of the IZs. Moreover, many IZs are ill-suited to the needs of the private sector and were designed instead to accommodate foreign firms or SOEs. Therefore, an IZ measure must take into account their suitability for private sector development. This quality measure attempts to account for all three factors.

  First, the number of IZs is determined, including any planned IZs. The number of planned IZs is used because many present IZs originally began as industrial concentrations until they received Prime Ministerial approval. These concentrations are often denoted as "planned" in provincial planning documents while they await PM approval, even though they already function as unofficial IZs. Planned IZs serve as a useful, albeit imperfect, proxy for industrial concentrations. Next, the number of IZs is then multiplied by the occupancy rate in the province, which has been divided by 100 to create a number between 0 and 1[26]. Finally, this number is multiplied by the

23. Cung, et al.

24. Seven provinces were missing land price information. Therefore, the price of land was imputed from other prices and the price of land in the 35 provinces using data imputation software known as NORM. For more information, please see 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#aut

25. **Effective price** = (Land Prices/Enterprises per 1,000)*(Percentage of Business Land/100)

26. *Vietnam Economic Times*, February 2004

percentage of firms that believe that the province's policy on industrial zones or industrial concentration for private firms was good or very good (divided by 100 to create another number between 0 and 1).

Quality of IZ policy = (IZs +Planned IZs)*(Occupancy Rate/100)*(Firm IZ Evaluation/100)

Provinces without any formal IZs received only the final component of the quality measure as their total score. HCMC had the best IZ quality score at 2.83, followed by Binh Duong at 1.76. Binh Dinh, Ninh Binh, Tay Ninh and Tien Giang all had scores of less than 0.10.

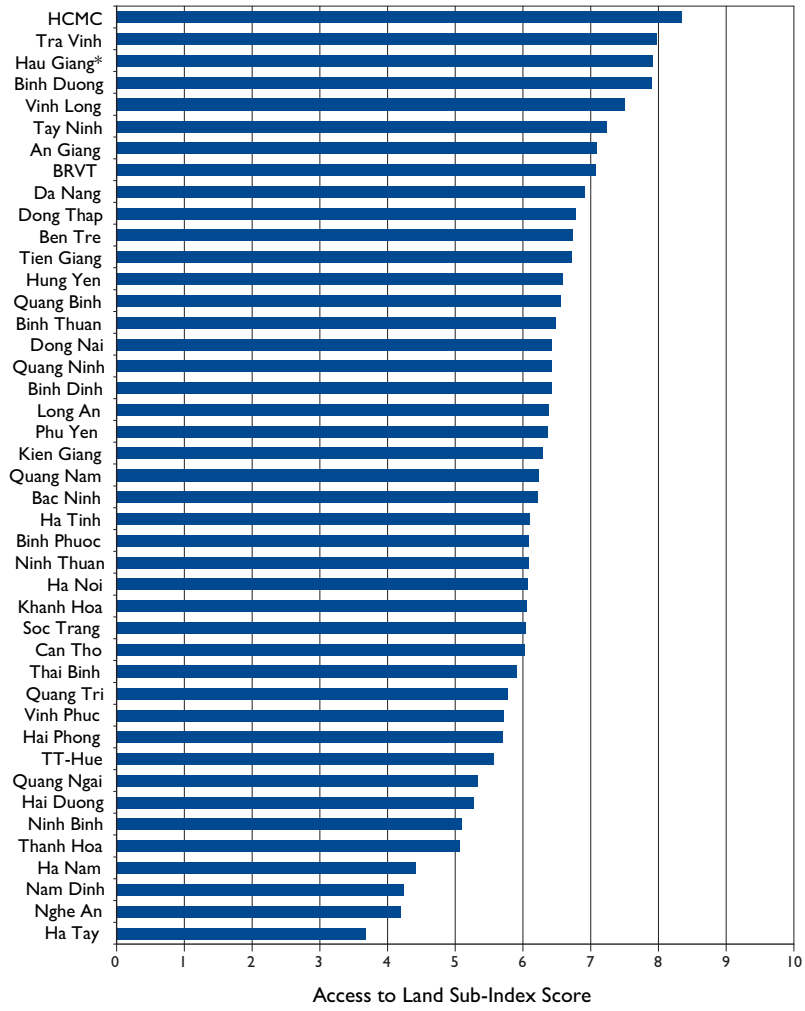
Transparency and Access to Information

Transparency is one of the most crucial factors highlighted by academics and development practitioners in distinguishing between environments conducive to private sector business[27]. Tara Vishwanath and Daniel Kaufman of the World Bank define transparency as:

> *the 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[28].*

In order to capture the multiple aspects of transparency discussed above, the research team concluded that a working measure of transparency should encompass the following five attributes: access, equity, consistency, predictability and openness. The research team attempted to measure transparency according to these attributes by using the nine different indicators discussed below[29].

Figure 5: Access to Land Sub-Index



Access

The first attribute of transparency is access, defined as the timely dissemination of information. While

27. Kaufman, Daniel et al, 2002, 'Governance Matters', World Bank Policy Research Working Paper No. 2772, February, p. 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.

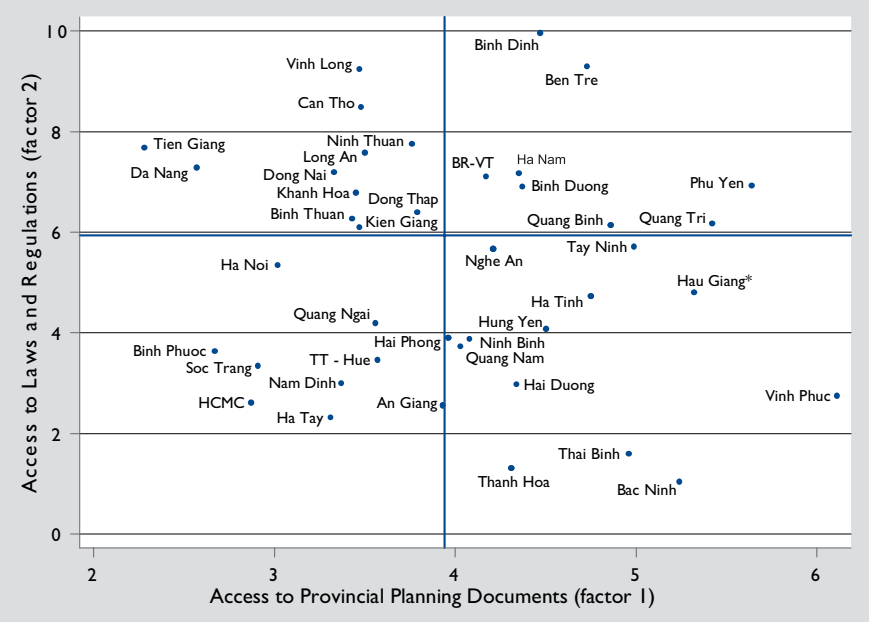
28. Vishwanath, Tara and Daniel Kaufmann, 1999, 'Towards Transparency and Finance and Governance', World Bank Mimeo, found at www.worldbank.org/wbi/governance/pdf/tara wish.pdf.

29. 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 bạch) is not obvious to many respondents. It can take on different meanings across geographical boundaries and across firms with different relations to the provincial government. Misunderstanding of the term is not systematic across provinces but varies according to firms' interactions with Western donors and investors.

legally, information on land and provincial planning may be available to all, accessing that information can often be problematic. In the Vietnamese context, this can have a detrimental effect on the growth of the private sector because firms are not positioned to take advantage of expensive provincial initiatives. Access also includes the availability of information on new laws, implementing documents or provincial decisions. When changes in the legal regime are not readily accessible, a firm may operate successfully 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 possibility that an unscrupulous government official might try 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.

Following the economic governance work of TAF-VCCI, the PCI research team took a unique approach to measuring access to information across the surveyed provinces. A list of the 12 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. Using factor analysis, the research team was able to develop two groups of documents:[30]

Figure 6: Ease of Access to Planning and Legal Documents
(Lines denote median scores)



- *Access to Provincial Planning Documents (Factor 1)* which included a firm's evaluation of their access to the Provincial Budget, 10-Year Master Plans, Five-Year Plans, Annual Socio-Economic Plans and infrastructure development plans.
- *Access to Laws and Regulations (Factor 2)* which included a firm's evaluation of their access to central decisions and resolutions, decisions of the Provincial People's Committee, plans for central investment, land use maps, applications for registration and land use, and changes in tax information.

Figure 6 graphically illustrates the two factors. Only one province was exceedingly transparent in both dimensions – Quang Ninh – but several others had above average scores in both dimensions[31]. These can be seen in the top right hand corner of Figure 6. Provinces with the worst access to legal documents are shown in the bottom left hand corner.

Equity

While the above two dimensions capture access to the documents, they do not necessarily capture 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 (Figure 7). Take, for instance, the example of provincial planning. The impact of infrastructure and land conversion plans is limited if the details are available only to a select few

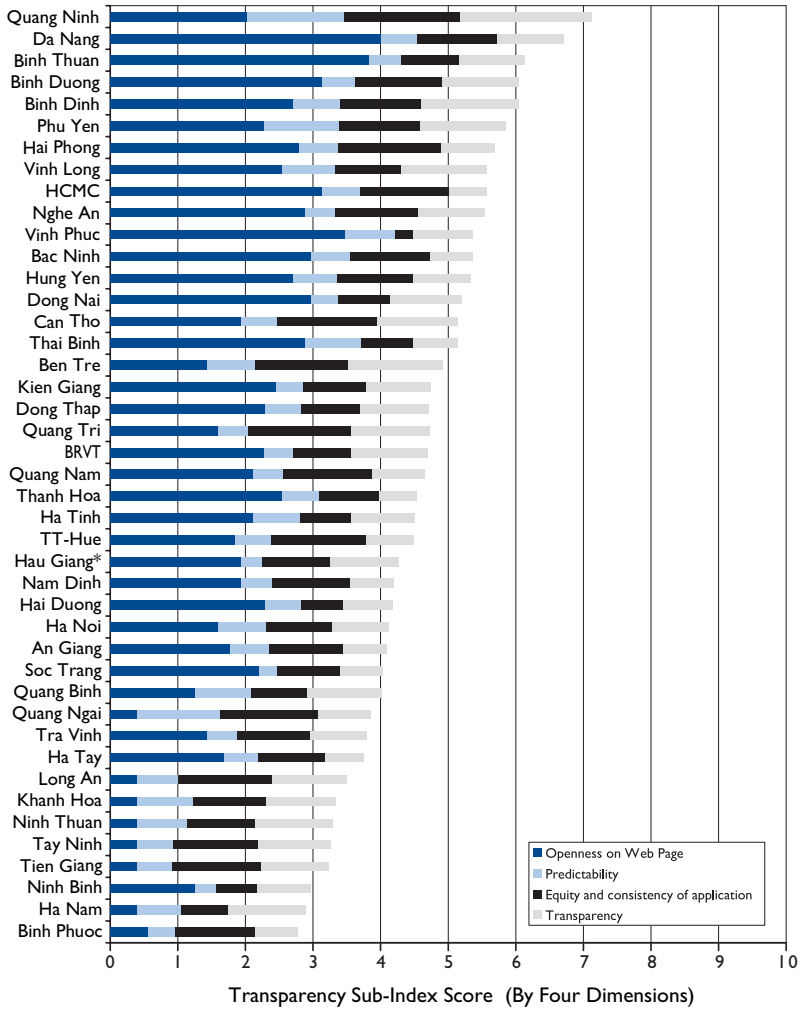
30. Factor analysis is a statistical technique that reduces a data set from a group of interrelated variables into a smaller set of uncorrelated (i.e unrelated) factors. It is a useful technique that allows for the explanation of something using the smallest number of uncorrelated explanatory variables.

31. Quang Ninh has been dropped from Figure 6 because its high scores of 9.9 and 9.45 place it far outside the range occupied by other provinces. Tra Vinh with scores of 1.02 and 7.61 on these measures was also dropped for similar reasons.

insiders[32]. One of the reasons this impact may be limited – besides profitable land speculation and the damaging real estate bubble that has occurred in many provinces – is because transparency in the real estate market is inadequate. 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 leading to an *irrational exuberance* that could sustain a land bubble. Similarly, opportunities for corruption are rife when the provincial budget is not available to firms, as actual expenditures cannot be compared to planned outlays. Firms might only be able to access provincial documents because they are able to exploit favored connections to provincial government officials. A follow-up question therefore sought to measure different aspects of equitable access in the transparency sub-index. Three variables were used:

- *Access dependent on the relationship **(quan hệ)** with the provincial government.* This indicator measures the percentage of firms that felt a relationship with someone in the provincial government was important or very important for facilitating access to the above documents. Scores ranged from a low of 50% in Hai Phong to a high of 100% in Vinh Phuc.
- *Friends/family are 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 agreed or strongly agreed with the sentence: "friends and family are important for negotiations with provincial officials". The role of friends/family in negotiating on a firm's behalf is most important in Ha Tinh (80%) and least important in Quanh Ninh (34%).
- *The percentage of firms that agreed or strongly agreed that negotiations on tax payments with the tax authority were an essential part of doing business.* This indicator captures how consistently tax rules were applied across firms in the province. 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. Nevertheless, an astonishingly high 77% of firms in the entire sample still feel

Figure 7: Transparency Sub-Index



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

obligated to negotiate with local tax authorities. Quang Tri had the least firms engaged in negotiation at 52%, while Ninh Binh recorded the highest level (over 96% of firms).

Consistency and Predictability

The third attribute of transparency is consistency, or the notion that provincial laws and regulations are implemented in a fair manner across the province. In this context it was 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. Consistency and predictability were both 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 which materially affect your business at the provincial level?
- How often do provincial leaders discuss changes in laws with your firm?

After standardizing both questions to a ten-point scale and taking the average, Quang Ninh was rated as having the most consistent and predictable policy environment (7.35) and Soc Trang the least (1.35) (see Figure 7).

Openness

A measure of openness was created by looking at the provincial web-pages of every province to assess the business information available to the firms (Figure 7). A scale was constructed to assess the utility of the site. Provinces were assessed based on specific criteria, yielding a maximum score of 22 points (see Table 3). Da Nang received the highest score (21), closely followed by HCMC, Binh Thuan, Dong Nai, Binh Dong, Vinh Phuc and Bac Ninh, all with scores above 15. As the only piece of hard data in the index, openness is weighted to be 40% of the final index.

Table 3: Criteria to Assess Openness within Provinces

Criteria	Points
Province has website	Yes = 1, No=0
Provincial initiative for openness: *Who designed the website?*	Provincial Agency or People's Committee =3 Contracted to company in Ha Noi or HCMC =2 Central agency or international donor =1
In how many languages can website be read?	1 for each language up to 3 points
Is map of province with industrial zones and major roads available?	1 point
Citizens and firms actively access information on website. *Number of hits on site*	500,000+ = 5 250,000-500,000 = 4 100,000-250,000 = 3 25,000-100,000 = 2 1-25,000= 1 No record = 0
Information on provincial policies, incentive programs, land availability, industrial zones and other relevant business information.	All relevant business information = 10 Most relevant information with only a few missing items = 7.5 Only basic business information = 5 Limited tourist information not relevant to business = 2.5 No useful information for private businesses = 0

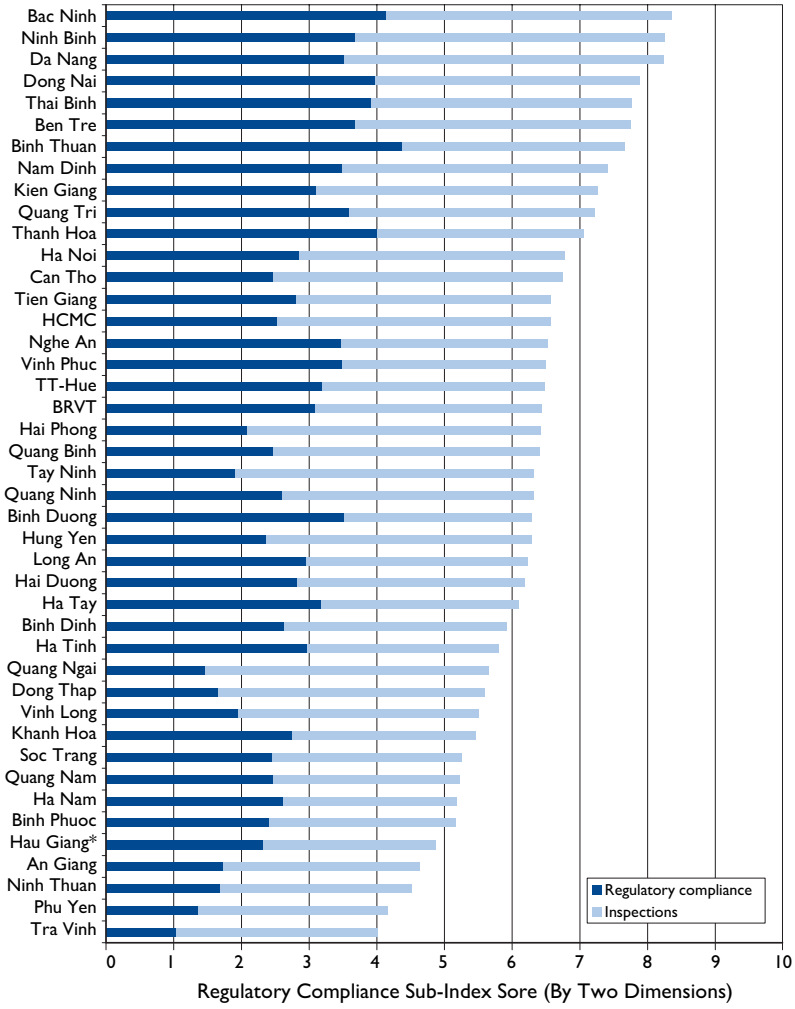
Time Costs of Regulatory Compliance

The study of transaction costs in time has been an important element of the economic transition literature[33]. 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

33. European Bank of Reconstruction and Development, EBRD Transition Report 1999, London: 1999, p. 120-128. World Bank, 2002, Transition: The First Ten Years: Analysis for Eastern Europe and the Former Soviet Union, Washington D.C., 2002, p. 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, p. 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, Washington, D.C.: World Bank Institute, April.

operations of the company is lost. The survey considered two dimensions of time costs, which are weighted equally: Bureaucratic Procedures and Time Lost to Inspections (Figure 8).

Figure 8: Time Costs of Regulatory Compliance Sub-Index



Bureaucratic Procedures

Two indicators were selected:

- *What percentage of management's time is spent dealing with bureaucratic procedures and paperwork?* This question was 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 that spend over 10% of their time dealing with government required paperwork. Quang Ngai had the highest paper work burden (34.3% of firms), while Thanh Hoa (3.64%) had the least.
- *Have the above "time taxes" been reduced since the Enterprise Law?* This indicator measures the progress provinces have made since the year 2000. Firms in Binh Thuan have seen the greatest improvement (78.57%); firms in An Giang (18%) and the newly-created Hau Giang (15%) the least.

Analysis of Inspections Policy

A common gripe from private firms in the post-Enterprise Law environment is that inspection practices remain a burden. According to the business community, local agencies inspect too often and their inspections last too long[34]. To some extent, inspections are a necessary evil, especially as Vietnam moves to a fully regulatory system[35]. 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 met by private firms. Nevertheless, the difficult 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. Using the median number of inspections, only Binh Phuoc exceeds this magic number.
- *Firms believing inspection policy has improved since the passage of the Enterprise Law.* The second indicator for inspection captures the percentage of firms that felt inspection practices have improved since the passage of the Enterprise Law. While new implementing documents potentially lowered the number

34. Central Institute for Economic Management, 2003, 'The Enterprise Law's Enforcement: Achievements, Challenges, and Solutions', unpublished mimeo to inform government policy.

35. Though Vietnamese authorities often distinguish between "kiểm 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 report considers them together.

of inspections, new burdens placed on regulatory agencies create additional incentives to ramp up inspections. 70% of firms in Kien Giang believed that there was a significant reduction in the number of inspections, while only 17% of firms in Khanh Hoa saw improvement.

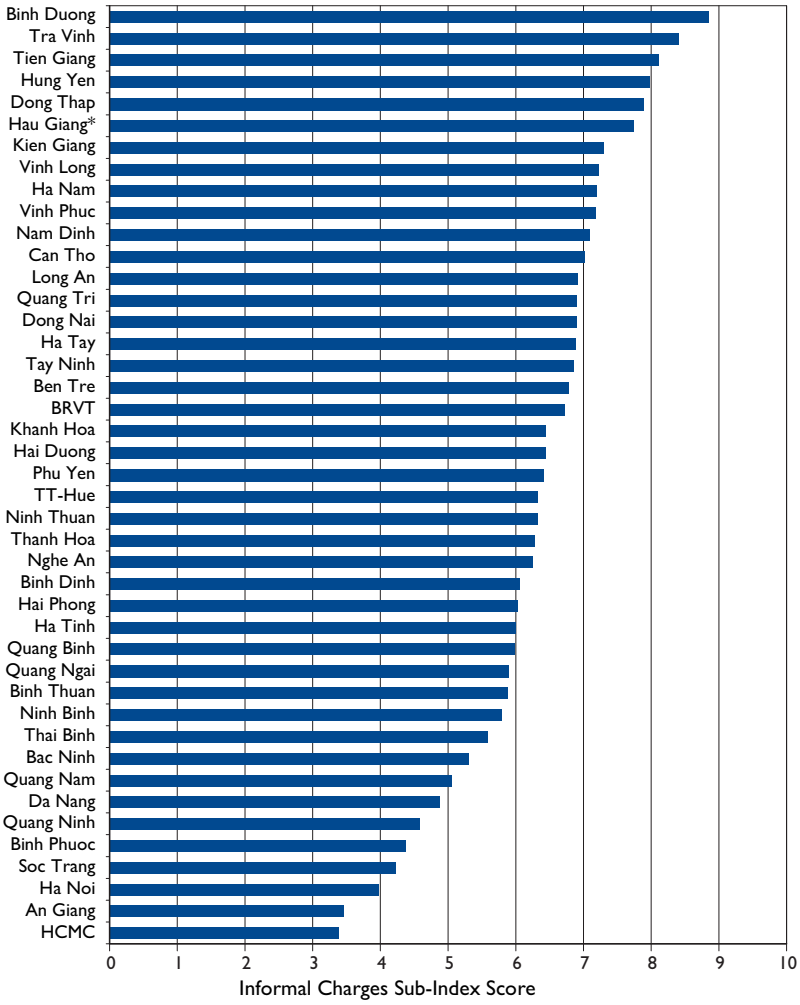
- *Median length of tax inspections.* Some provinces have begun to make up for the lower absolute number of inspections by increasing their duration. Therefore, the third indicator records the total number of hours it took to complete tax inspections. Indeed, seven provinces had median tax inspections lasting over 16 hours. Firms universally considered tax inspections to be the most burdensome, with many firms only filling out answers related to tax inspections[36]. Tax inspections were the shortest in Tra Vinh, lasting only one hour.

Informal Charges

This section analyses the amount that firms pay in informal fees, fines and other extraordinary payments as they attempt to engage in the normal course of business. 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. Scores ranged from 5% in Tra Vinh to 60% in HCMC.

Figure 9: Informal Charges Sub-Index



- *The percentage of firms that felt that enterprises in their line of business were subject to bribes from provincial authorities,* ranging from 7% in Tien Giang to 48% in An Giang. 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.
- *The percentage of firms paying over 10% of their revenue in extra payments* is used to measure the scale of extra payments. Tra Vinh was once again the best performer with 0%, while Ha Noi had the sample maximum of 29%[37].
- *Macro-corruption: Are commissions paid to provincial officials as a*

36. There is some confusion about the role of the tax authority, as a number of firms considered their visits to be beneficial. Apparently in some provinces, officers of the tax authority are sent to small businesses to take a cursory look at their books and to offer assistance with new tax policies. These visits are not technically 'inspections', but firms often had trouble distinguishing them from true inspections.

37. To make sure this result was not an artifact of the 442 firms that did not answer the question, two diagnostic checks were performed. First, a test was undertaken to ensure that the percentage of non-responses to that question was unrelated to firm scores. The percentage of missing data in each province correlates with the provincial median results of the size of extra payments at -0.06, which is not significantly different from 0. Second, missing data were imputed using a program known as NORM. 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 2%, but no provinces were affected dramatically by the operations. As a result, the researchers felt comfortable using the non-imputed data in the analysis.

normal activity in bidding for government contracts? More pernicious than flat extra fees is when firms bidding on government procurement contracts (ranging from construction to providing refreshments at local government functions) must provide a percentage of their fees to the official who hired them. Scores had little to do with the sophistication of the economy, as is evidenced by the fact that Ha Noi (nearly 77%) has the highest percentage of commissions and the lowest were recorded in Binh Duong (12%). Once again, scores were also not related to the 428 non-responses, which were distributed randomly across the sample.

- *Extra fees to tax inspectors as a percentage of annual revenue.* As a direct measure of extra payments, the median fees paid by firms to the tax authority during an inspection were considered. This value was divided by the average firm revenue in order to ensure that high scores reflected relative burden to a firm rather than a high absolute number. Only three provinces – Soc Trang, Quang Ninh and HCMC – had ratios higher than 0.1%. Ten provinces had ratios barely distinguishable from zero[38]. Due

Table 4: Changes in Ranking Dependant on Whether Extra Fees to Tax Authority are Included

Province	Informal Charges Index including Fees to Tax Authority	Rank 1	Informal Charges Index excluding Fees to Tax Authority	Rank 2
Binh Duong	8.85	1	8.56	1
Tra Vinh	8.39	2	8.02	3
Tien Giang	8.10	3	8.07	2
Hung Yen	7.96	4	7.45	6
Dong Thap	7.87	5	7.62	4
Hau Giang*	7.73	6	7.16	7
Kien Giang	7.28	7	7.50	5
Vinh Long	7.21	8	6.97	8
Ha Nam	7.18	9	6.48	12
Vinh Phuc	7.17	10	6.47	13
Nam Dinh	7.08	11	6.45	14
Can Tho	7.01	12	6.53	10
Long An	6.91	13	6.92	9
Quang Tri	6.89	14	6.49	11
Dong Nai	6.88	15	6.31	15
Ha Tay	6.87	16	6.21	16
Tay Ninh	6.85	17	6.06	17
Ben Tre	6.77	18	6.06	18
BRVT	6.70	19	5.88	21
Khanh Hoa	6.43	20	5.56	25
Hai Duong	6.43	21	5.53	26
Phu Yen	6.40	22	5.67	23
TT-Hue	6.32	23	5.40	29
Ninh Thuan	6.31	24	5.88	20
Thanh Hoa	6.27	25	5.76	22
Nghe An	6.25	26	5.65	24
Binh Dinh	6.04	27	5.92	19
Hai Phong	6.01	28	5.07	33
Ha Tinh	5.98	29	4.97	34
Quang Binh	5.97	30	4.96	36
Quang Ngai	5.88	31	5.52	27
Binh Thuan	5.86	32	4.89	37
Ninh Binh	5.78	33	5.16	32
Thai Binh	5.57	34	4.57	39
Bac Ninh	5.29	35	4.64	38
Quang Nam	5.04	36	5.42	28
Da Nang	4.87	37	5.19	31
Quang Ninh	4.58	38	5.29	30
Binh Phuoc	4.37	39	4.51	40
Soc Trang	4.21	40	4.97	35
Ha Noi	3.97	41	2.55	43
An Giang	3.44	42	3.20	42
HCMC	3.38	43	3.83	41

38. While the percentage of missing data did not correlate with answers to this question, there was some concern that the large number of firms that either did not answer this question or recorded a zero may have biased the results. As a result, a decision was made to impute missing data in order to include this measure. Researchers assured themselves of the internal validity of this imputed indicator by checking the bivariate correlation with other indicators already in the index, determining that there was a significant and positive correlation between extra fees paid to the tax authority and extra fees as a percentage of revenue (0.33). Positive though non-significant relationships with other measures of informal charges assured the research team that, though data were somewhat suspect, this was an important indicator that deserved attention. This was especially true because it was the only indicator that actually demonstrated a Vietnam-specific mechanism by which informal charges were paid and where policy solutions could be identified.

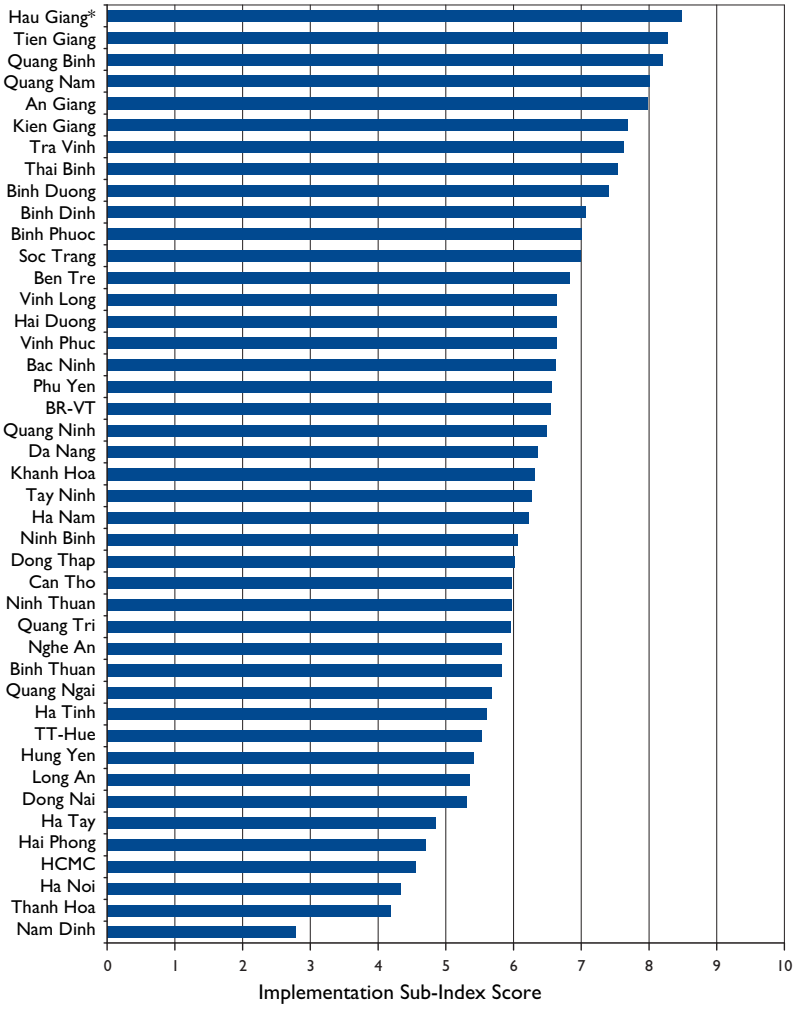
to the strong correlation between this variable and other indicators in the Informal Charges sub-index, including the measure had only a small impact on overall sub-index scores. As a result, the research team made the difficult decision to include the measure. Readers wishing to assure themselves that the inclusion has little impact on overall scores should refer to Table 4.

Implementation and Consistency of Policies

In the wake of the Enterprise Law, a great deal of thought has gone in to assessing whether provinces are adequately implementing economic reforms devised at the central-level in Ha Noi. Many provinces have been chastised by the Enterprise Law Implementation Committee for either ignoring central regulations, or actively thwarting central laws with subtle barriers or contradictory provincial regulations. Researchers sought to capture this measure of the coordination between central and provincial governments, as well as the consistent application of central policies across provincial sub-agencies, with three measures:

- *The percentage of firms that agreed that coordination between the provincial and central government was good.* This is a simple measure used to evaluate whether firms believed that provincial governments were on the same page as central leaders in regard to national policies; specifically, how well were national laws and regulations being implemented. An Giang, Bac Ninh and Phu Yen all scored above 90% on this indicator. On the other hand, in Ha Tay, Binh Thuan and Nam Dinh only about half of the firms evaluated coordination highly.
- *Implementation of provincial initiatives.* Second, firms were asked whether they agreed with the notion that the provincial People's Committee had good initiatives but that those initiatives were frustrated by obstreperous departments that either had their own ideas about provincial policy or were following contradictory directions from higher authorities. This indicator gives some insight into the problem of dual subordination at the provincial level, where ministerial departments like the DPI effectively serve two masters - the People's Committee and their Line Ministry (in the case of the DPI, this is the Ministry of Planning and Investment). One of the keys to high performing provinces is that the People's Committee and Departments agree with one another and are working toward similar goals. Where Departments have torn allegiances, they may often obstruct provincial initiatives while they wait for confirmation

Figure 10: Implementation and Consistency of Policies Sub-Index



from Central Ministries. An Giang province proved to be one of the most united provinces, with only 39% of firms believing that departments impeded provincial projects. By contrast, 90% of the firms in Hung Yen and 82% in Thanh Hoa and Vinh Phuc felt that provinces and departments were not on the same page.

- *Implementation of good plans.* After a series of questions about whether firms felt positively about social welfare, infrastructure and private sector planning, firms were asked to respond to a question about whether they felt provincial officials implemented those plans sufficiently well for an impact to be felt. The third and final indicator of the implementation section was created by taking the percentage of firms that felt that the three baskets of plans implemented were either good or very good, but only if they had responded previously that the plans themselves were good or very good[39]. Eight provinces, predominantly in the Red River Delta, had perfect scores of 100%, while Nam Dinh (33%) and Ha Noi (34%) had the lowest implementation scores.

State Sector Bias

This sub-index measures the bias of provincial governments toward State Sector Bias in terms of incentives, policy and access to capital. In essence, do private firms feel that they face a fair and balanced environment or must they overcome a subtle bias toward the state in the form of special advantages or soft budget constraints? State sector bias does not necessarily include direct competition in the same product or service; it may also include 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 serve only as a supplier of intermediate goods and services to the state sector[40]. Others may not have such an explicit bias, but instead have an institutional incentive to promote State Sector Bias, because of the high employment or revenue they generate for the province. In other cases, it is the rents they can generate and the resources they control that incentivize local officials to maintain state-control of State Sector Bias.

In any case promoting State Sector Bias is not a long-term strategy for provincial economic success because these privileged companies will need to eventually compete in the international market or in an expanded Vietnamese market. Without the special privileges to which State Sector Bias have grown accustomed, they will find it very difficult to succeed against more efficient privately owned domestic and international firms.

Just as for the Entry Costs Sub-Index, State Sector Bias indicators are divided into a Firms' Perceptions Dimension that includes five indicators and a Dimension including three hard indicators.

Firms' Perceptions Indicators

- *State Sector Bias* 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. Bac Ninh has the highest percentage of firms agreeing or strongly agreeing that there is favoritism toward State Sector Bias at 79%, while Dong Nai has the lowest at 33%.
- *Attitude toward private sector* captures the percentage of firms that agree that the attitude of their provincial government toward the private sector is positive. 78% and 74% of firms in Vinh Phuc and Binh Duong respectively felt their province had a positive attitude toward the private sector. Firms in Nam Dinh were the most disenchanted with their provincial leadership (21% agreeing).
- *Attitude has improved since the Enterprise Law* is a more dynamic question, measuring whether firms agree that the attitude has improved since 2000. The largest improvement since the Enterprise Law was recorded in Vinh Phuc with almost 96% of firms agreeing. The smallest improvement was in Dong Thap (54% agreeing).
- *Attitude depends on contribution* investigates whether firms feel that biases in provincial policies are determined not by ownership but instead by the ability to provide revenue or

39. Using this metric allowed the research team to eliminate the inclusion of firms that felt bad plans were implemented to the letter.

40. 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.

Figure 11: Example of State Sector Bias Sub-Index Creation Using Perceptions and Published Data

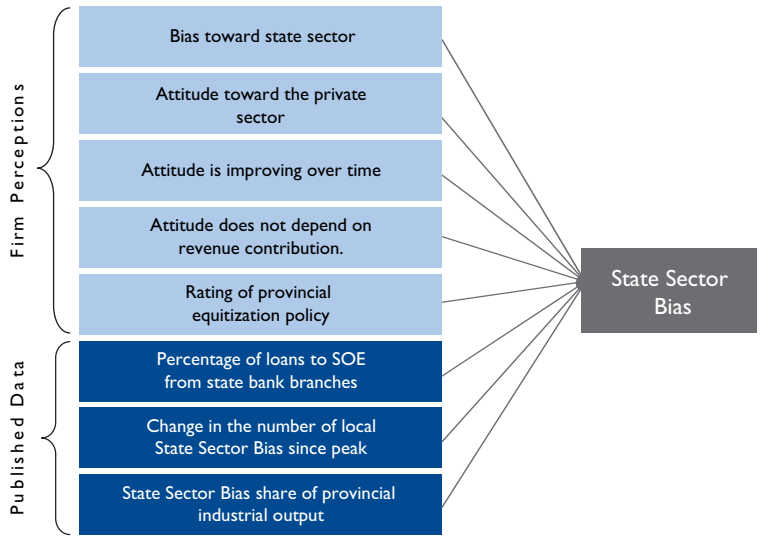
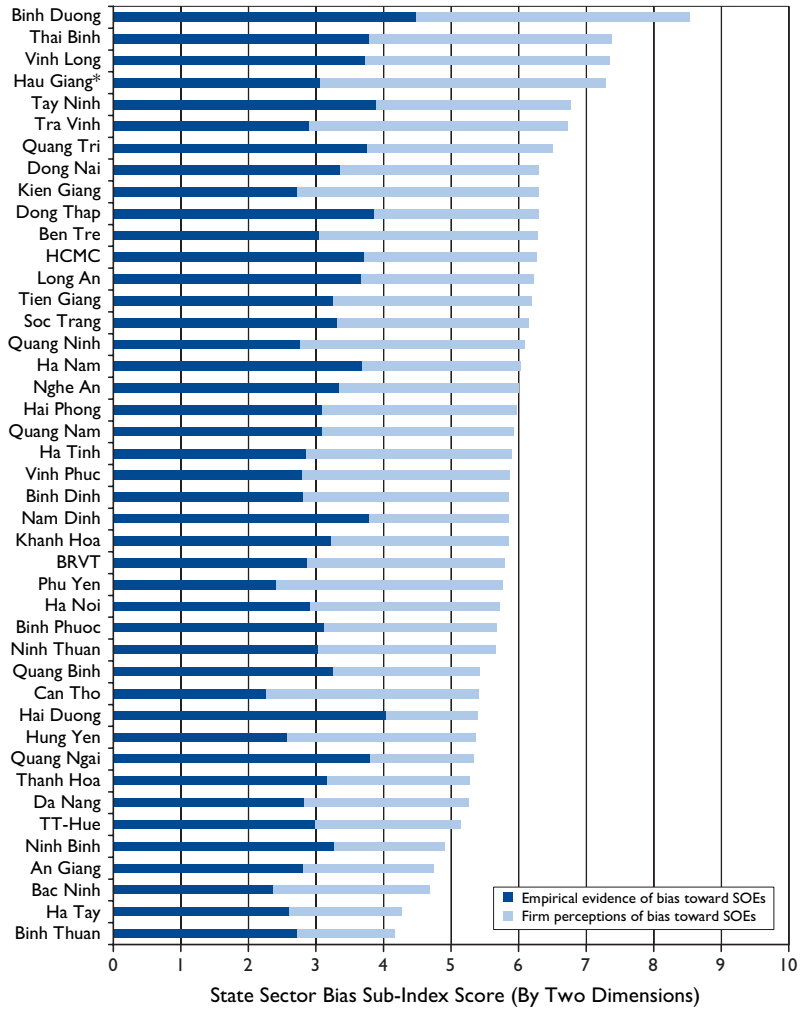


Figure 12: State Sector Bias Sub-Index



generate employment. This variable is intended to capture whether administrations are biasing the playing field in favor of provincial champions and raising entry barriers to possible competitors. Contributions were seen as the least important in Dong Nai, BRVT and Vinh Phuc (only 30% of firms felt these were important), while contributions to revenue were considered of greatest importance in Ha Nam (79%) and Kien Giang (72%).

- *Equitization policy.* Firms were asked to rank their perception of provincial equitization (the Vietnamese form of privatization) of locally managed SOEs on a five-point scale. The mean score was used to reflect whether the leadership has made a concerted effort to reduce the number of local State Sector Bias, thereby promoting private sector competition. Firms in Soc Trang (4.27) and Binh Duong (4.18) gave their province the highest mean scores on equitization policy, while the lowest scores were recorded in Ha Tay (2.68), Binh Thuan (2.79) and Binh Phuoc (2.80).
- *Bias toward equitized firms* takes the previous equitization question one step further by asking whether, despite wide-ranging equitization, state favoritism persists by provincial officials, allowing special privileges to continue for equitized firms. Recent anecdotal evidence has suggested that connections between former general managers of local State Sector Bias and provincial leaders led to equitized companies being favored in public procurement

contracts. Favoritism toward equitized firms was the smallest problem in Kien Giang (18.2%) and Binh Duong (18.5%). Firms in Quang Ngai and Binh Thuan recorded the highest degree of favoritism, with over half of the firms in their sample agreeing or strongly agreeing.

Hard Indicators

- *Average proportion of bank loans to the State Sector Bias.* An important constraint on private business performance in the provinces has been the individual subsidies given to the state-owned sector over time through the banking system. A provincial bias in favor of the state sector not only limits private capital access but also leads to a crowding-out of private firms in areas where they must compete directly against the state sector. Originally, one of the key sources of state sector bias was a collateral requirement on loans to the private sector, whereas no collateral was required to loan to the state sector. Decree 73 changed this requirement in 1999 by allowing banks to lend to the private sector without collateral. In addition, Decree 178 removed the rule that private clients could only borrow up to a ceiling of 70% of their collateral. Nevertheless, there continues to be somewhat of an institutional bias to grant loans to the state sector. Bankers in state banks especially often believe that lending to the state sector is a safer bet. A default from a private sector client can cost a state banker his career (or even criminal prosecution); while a state sector default can be excused as a service to the country or province. Over time, however, the banking environment has improved for private sector clients in many provinces, while in others there continues to be a significant disparity.

  To measure whether both central and local State Sector Bias were privileged with soft budget constraints at the provincial level, the research team collected quarterly lending data from three state-owned commercial banks: Vietcombank, The Industrial and Commercial Bank (INCOMBANK), and The Bank for Investment and Development (BIDV). The data covered the period between 2003 and the fourth quarter of 2004[41]. As Standard and Poor pointed out in a recent study of Vietnam's banking sector, such lending is highly risky and ineffective, as State Sector Bias are provided with soft loans without any guarantee. As a result, these loans can be considered an implicit subsidy to State Sector Bias in the province. Loans to firms in IZs within the province were considered along with the loans to firms outside the zones[42]. The average percentage across all banks over the considered time period was taken as the indicator. State sector lending was determined to be the lowest in Ninh Thuan (6%) and Binh Duong (17%); it was highest in Quang Ninh (87%), Da Nang (84%) and Ha Tay (83%).

- *Change in the number of local SOEs.* The Statistical Handbook of the GSO reveals that, despite the earlier State Owned Enterprise Reforms Initiatives in 1995, equitization did not begin in earnest in all provinces until 1997. As a result, the research team calculated the decline in locally managed State Sector Bias between 1997 and 2003 from GSO data. A decision to use this number (rather than the simple number of equitizations) was made because the decline also captured the number of firms that were liquidated, closed due to poor performance or were merged with other enterprises. The largest decline of 62% was recorded in Quang Tri and Ha Nam. Some provinces – especially newly-formed entities such as Hung Yen, Vinh Phuc, BRVT and Quang Nam – actually recorded gains in the number of State Sector Bias since 1997, leading the research team to conclude that some of the new State Sector Bias may have been construction firms hired to construct administrative buildings and infrastructure in the new provincial capitals.
- *State Sector Bias industrial output as a percentage of total provincial industrial output in 2003.* The final State Sector Bias indicator was a measure of the importance of State Sector Bias in the provincial economy as measured by their contribution to total provincial industrial and

41. This data remains somewhat incomplete for three reasons. First, a fourth commercial bank, the Bank for Agriculture and Rural Development, did not provide provincial-level data. Second, not all quarters were available for every commercial bank. INCOMBANK provided the most complete sequence of data, but Vietcombank provided only four quarters and BIDV two quarters. Third, INCOMBANK does not have operations in four of the PCI provinces (Ha Tinh, Ninh Thuan, Quang Tri and Soc Trang).
42. Mai Anh. 2005. Vietnam's Banking Sector Remains Weak on a Global Scale: Standard and Poor. Vietnam Business Forum. June 21.

manufacturing output. Industrial output was chosen when the State Sector Bias agricultural output proved to be unreliable on a cross-provincial basis. From a substantive perspective, the soft budget constraints and privileged procurement of State Sector Bias are more likely to manifest themselves in the manufacturing sector. State Sector Bias provide the bulk of industrial output in Ninh Thuan (66%) and Can Tho (54%). They are of least importance in Quang Ngai (4%), Binh Phuoc (4%), Ha Nam (7.8%) and Binh Duong (8.4%).

Figure 11 demonstrates how State Sector Bias data were combined into a single index. It also provides a template for how the process of integrating perception and hard data were combined in other indices. The combined index scores are shown in Figure 12.

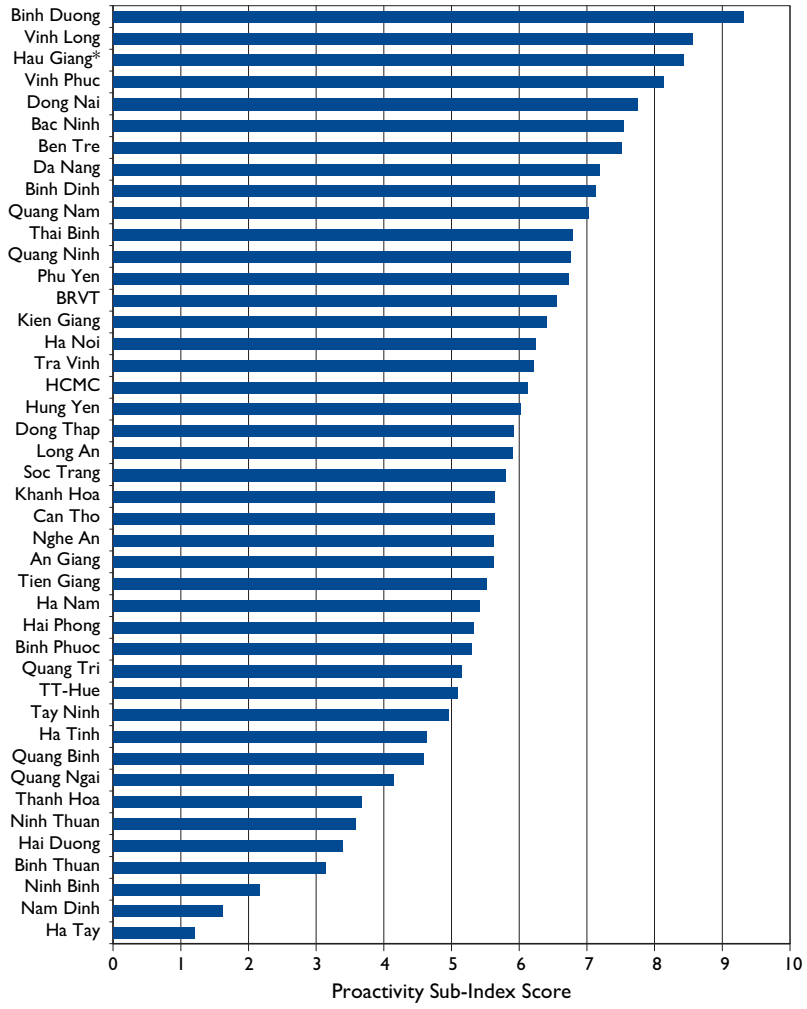
Proactivity of Provincial Leadership

As indicated in the TAF-VCCI governance study, ambiguity is a standard part of doing business in Vietnam. This is often the result of unclear wording in legal documents, long delays in implementing documents being promulgated for central laws or decrees, 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 may cost businesses considerable time and money by forcing them to wait until the ambiguity is cleared up by subsequently implemented documents or by an appeal to central authorities. A few provinces even use these uncertainties as an entry barrier to firms that might offer competition to their local champions. In these cases, provinces which are creative and clever about working within the confines of central law can be of major assistance to private sector firms. Similarly, provinces which have a knack for crafting proactive provincial initiatives to solve the problems of private firms can have a major impact on private sector development.

Four indicators determined the extent of provincial dynamism, and these are measured by the percentage of firms that agree or strongly agree with the following statements:

- *Provincial officials are knowledgeable enough about present national law to find opportunities within existing law to solve firm problems.* This indicator captures how well the provincial leadership operates within the existing legal framework. In Binh Duong, Dong Nai, Vinh Long, Vinh Phuc and Hau Giang, 90% of firms agreed with this statement. Ha Tay (43%) and Ninh Thuan, Ninh Binh and Thanh Hoa (51%) were the lowest performing provinces.
- *Provincial officials are creative and clever about working within the national law to solve the problems of private sector firms.* This measure records whether the provincial leadership is capable of seeking opportunities or loopholes in the present central law that may aid firm performance. In Vinh Phuc, Quang Nam, Vinh Long and Binh Duong, 83% of firms agreed, while only 31% agreed in Binh Thuan and Ha Tay.
- *All good initiatives come from the provincial government, but the center frustrates 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. Binh Duong (60%) and Vinh Long (55%) ranked highest again with Long An (56%), while Ninh Binh (4.6%) and Ha Tay (9%) brought up the rear.
- *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 which aid the private sector: all important policies are the result of central policy. Binh Duong once again scored the highest on this measure of proactivity, with only 8% of its firms agreeing with the statement. The next best province was Thai Binh at 18%. Provinces most likely to believe central policy was most influential were Ha Tay (60%) and Ninh Binh (59%). The province rated most influenced by central policy outside the Red River Delta was Tay Ninh (58%).

Figure 13: Proactivity of Provincial Leadership Sub-Index Score



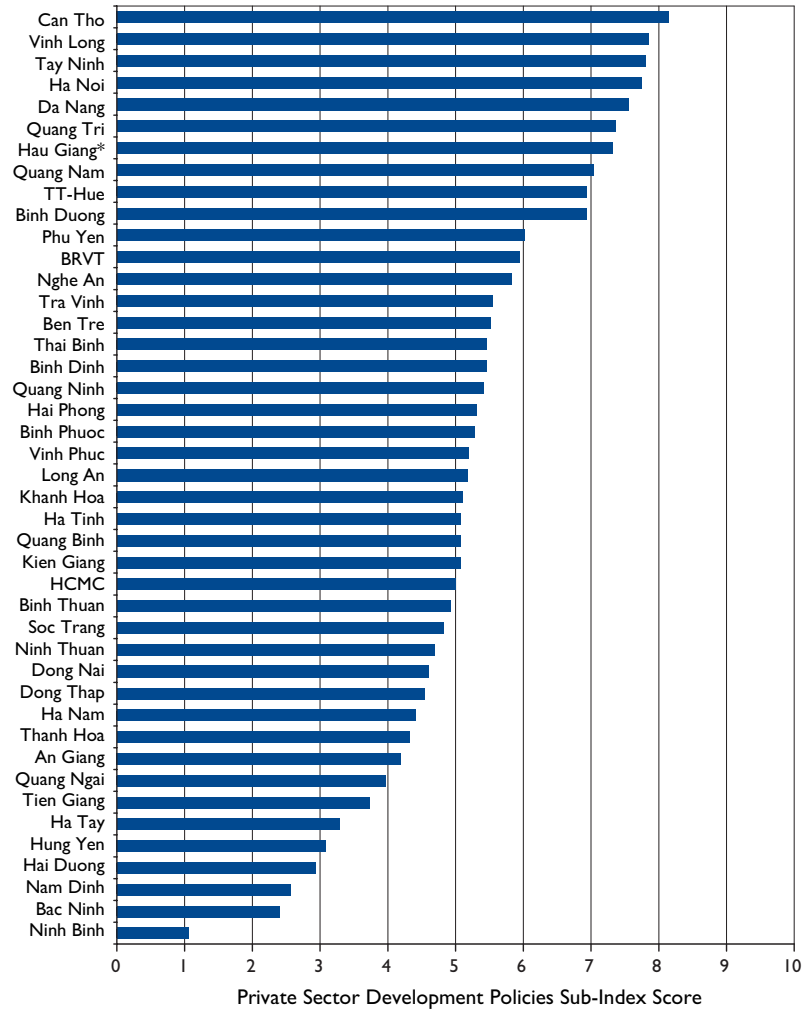
Private Sector Development Policies

The final sub-index goes one step further than the Proactivity Sub-Index by asking how specific provincial initiatives promote private sector development. In previous surveys of the private sector in Vietnam, firms have 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 which attempt to measure how well provincial officials are performing in resolving these problems on behalf of firms. Firms were asked to rank their provinces on a five-point scale to gauge how effective they thought their province's policies were in the following four areas:

- *Provision of Market Information* through the hosting of trade promotion fairs in major cities abroad and in Vietnam, along with the publication of local pamphlets listing major domestic and overseas buyers for key provincial products.
- *Matchmaking for business partners* through such activities as the introduction of international exporters to local firms, the identification of suppliers for intermediate goods and business services for firms unable to locate business partners on their own initiative.
- *Business Consulting* on changes in regulation. High-scoring provinces offer assistance to firms to better understand changes in regulations and laws as well as planning documents. Some provinces, such as Binh Duong, offer a floppy disk with all new tax regulations; others, such as Binh Dinh, offer assistance in the form of consultants from the provincial People's Committee or tax authority to work directly with firms on-site on compliance with new laws; and still others, such as Da Nang, offer workshops on new laws involving large numbers of firms.
- *Labor Training* has become very important as many firms hope to compete internationally but lack the requisite talent pool to manufacture products efficiently. In-house training can be expensive and risky as trained workers may find themselves to be suddenly more valuable and leave for employment in higher-paying foreign firms. Provinces that can step into the breach by providing quality training in areas ranging from literacy to mechanics or sewing can provide a tremendous service to private firms by up-grading the labor pool generally.

Overall, the highest scoring provinces were the Southern provinces of Can Tho, Vinh Long

Figure 14: Private Sector Development Policies Sub-Index



and Tay Ninh. Da Nang and Ha Noi also ranked quite highly among the major cities. Interestingly, the six lowest scoring provinces were all in the Red River Delta. This may signal a lack of understanding about the importance of these policies among Northern provinces.

Construction of the Sub-Indices

Each individual indicator was standardized to a ten-point scale in order to ensure that relative differences, and not the magnitudes of scores, were responsible for differences in the scores. The following formula was used if a high score on an indicator meant good governance:

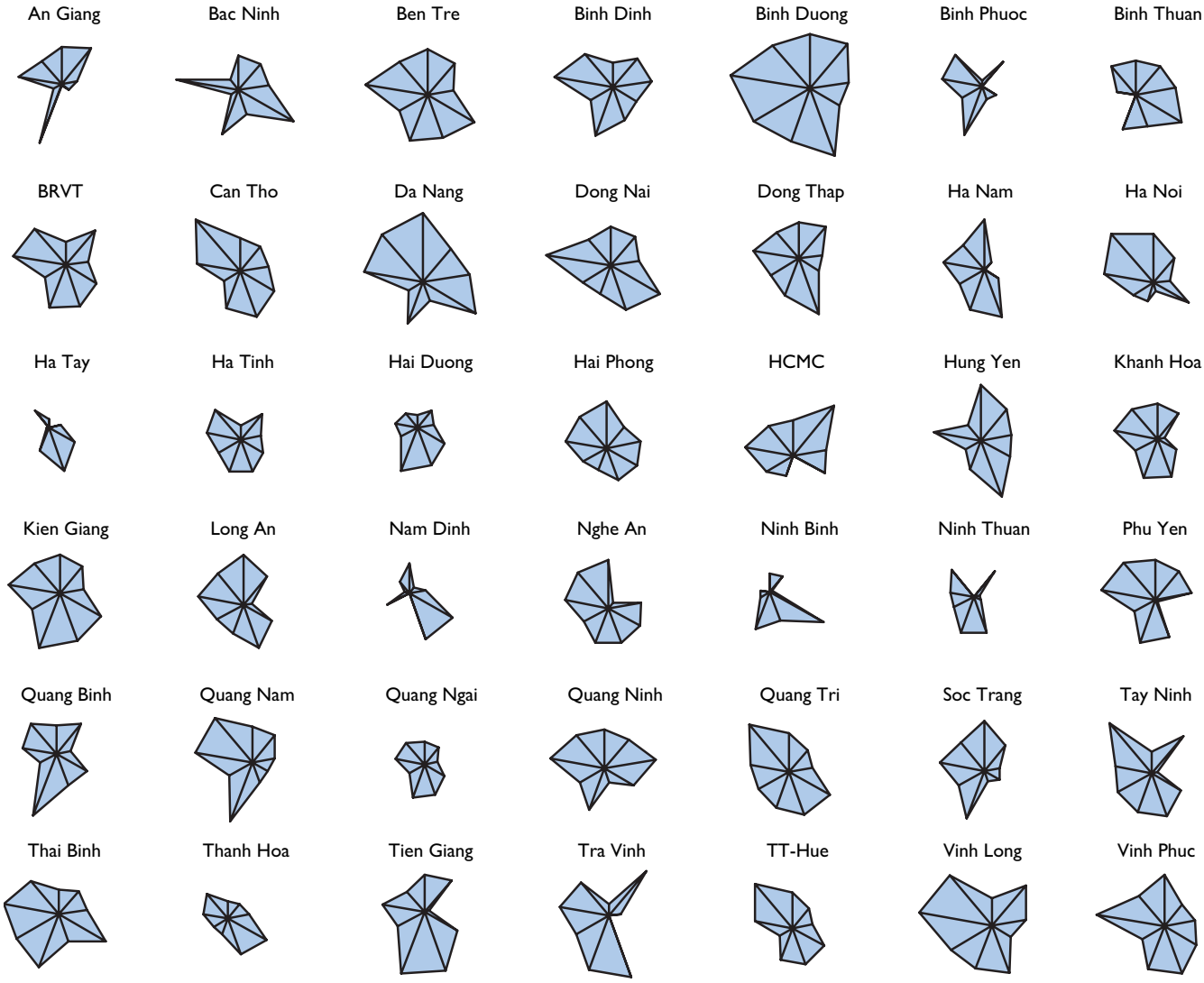
{9((Provincial Score - Sample Minimum)/(Sample Maximum-Sample Minimum))+1}.*

If a high score on an indicator meant poor performance the above formula was subtracted from 11.

11-[9((Provincial Score - Sample Minimum)/(Sample Maximum-Sample Minimum))+1].*

Next, all indicators within a sub-index were averaged to create the final score. This process was reiterated for all nine indices. Figure 15 illustrates individual performance on all nine sub-indices for the 42 sample provinces. The length of each vein of the star represents the score on the sub-index up to a perfect score of 10. Binh Duong displays well-rounded performance on all sub-indices; Ha Tay illustrates universally unsatisfactory performance; and other provinces, such as Bac Ninh and An Giang, demonstrate remarkable imbalance across sub-indices.

Figure 15: Star Graph of Provincial Performance on Sub-Indices
(Perfect Score = 10 on every sub-index)



CONCLUSION

Implications of the PCI

What are the overall implications of the PCI for welfare in Vietnamese provinces? This question serves as the launching pad for this concluding section. In short, if provincial leaders improve their index scores, what sort of impact can be expected to be seen over the next few years on their provinces' overall economic performance indicators? Because the final index is weighted to private sector development scores, one cannot assess its income on those same outcomes. After all, these variables should be highly correlated by definition. Instead, the impact of improvement on the non-weighted PCI must be assessed.

Using regression analysis (displayed in Tables 15 - 20) to control for structural endowments, the impact of a one-point improvement in the PCI can be assessed, meaning that a province would just need to improve its score by one point on any one sub-index[43]. Just a simple one-point improvement from the mean non-weighted score of 52.4, would yield a 2.8% increase in average private sector investment per capita, a 3.2 million VND increase in profits per firm, an extra two enterprises for every 100,000 citizens, 92 million VND for every 1,000 citizens in registered investment after the Enterprise Law (52 million VND of which would be implemented), and an extra 11 bowls of Pho per year for every citizen in their standard of living, measured in Purchasing Power Parity (PPP)[44].

To make the exercise more tangible, imagine Long An could improve just one point on every sub-index for a total increase of nine points, essentially improving from its present non-weighted score of 52.88 compared to its Mekong neighbor Vinh Long's non-weighted score of 61.83 (a score which situates this province among the very top provinces). This nine-point increase would likely generate 200 active enterprises for every 1,000 citizens, a 28% increase in average investment per capita, and a 31.8 million VND increase in profits per firm! Post-Enterprise Law registered capital per 1,000 citizens would increase by 822 million VND, 458 million VND of which would be implemented. Finally, welfare measured in Purchasing Power Parity (PPP) per capita would increase by 94 bowls of Pho per person per year.

Impact of the PCI on GDP per Capita 2003

Taking a step further in this multivariate analysis, researchers chose to explore the implications of the PCI on provincial welfare, using PPP measured in bowls of Pho. The assumption behind this metric was that private sector growth provides an independent source of income for provinces that, due to poor geography and infrastructure, are unlikely to attract foreign direct investment[45]. However, as a measure of welfare, GDP per capita must be adjusted by the cost of living in the province. HCMC may be a richer province in aggregate than Da Nang but, due to high land and food costs, the dong may simply not go as far. Researchers collected a wide variety of utility and land costs across provinces in order to create a basket of goods which could be used to adjust differences in the cost of living.

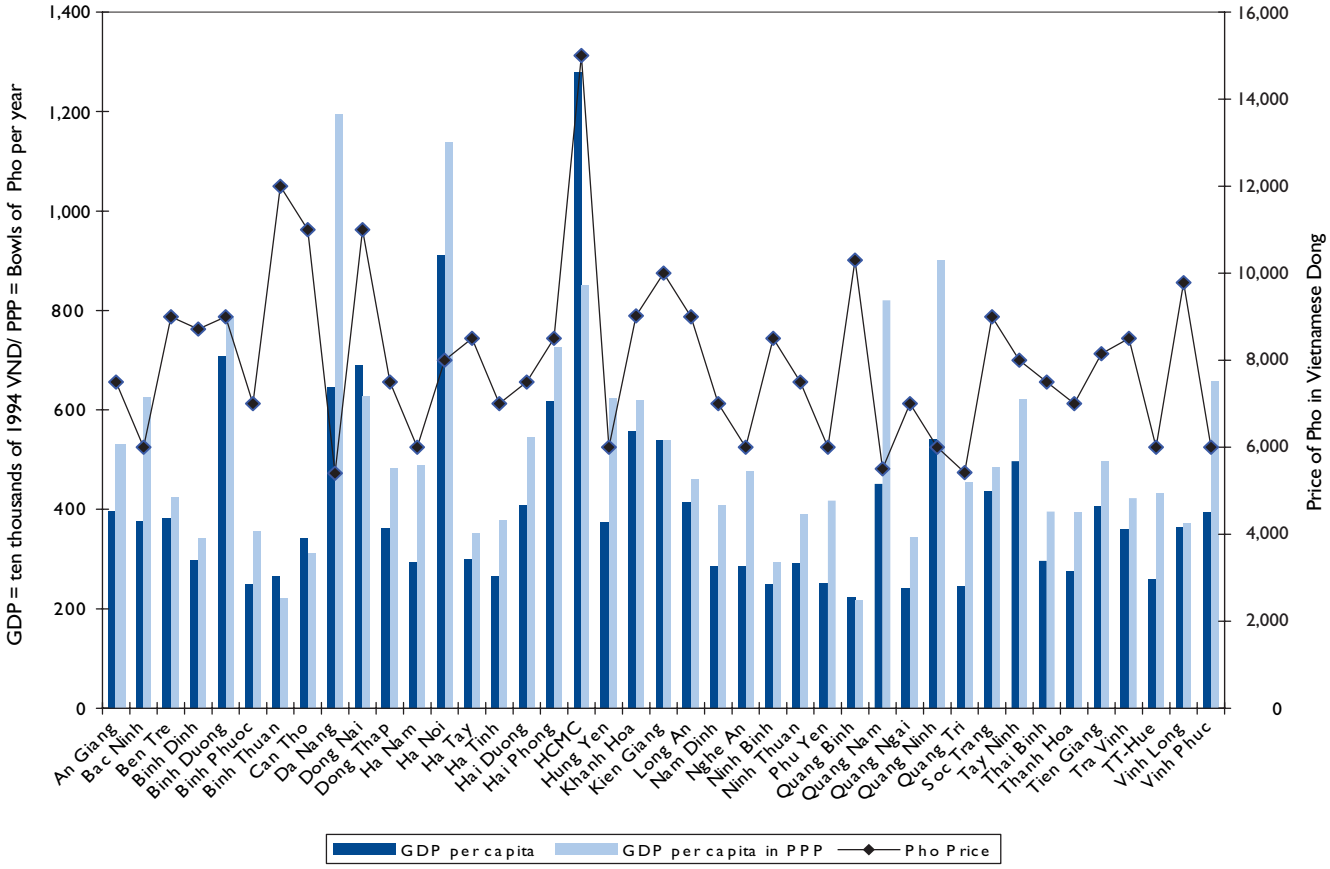
Analysis of these prices, however, soon revealed that one particular measure offered an ideal proxy for costs of living – this was the average cost of a bowl of Pho on the main road in the provincial capital. Like the Big Mac Index of The Economist fame, the universality of the measure allows us to more adequately compare

43. This analysis is performed using Model 5 in each of the tables, which controls for the three measures of initial conditions and in some cases specific provincial dummies. A HCMC and Ha Noi Dummy is used in the analysis of number of enterprises, because of the special benefits these province receive from urbanization and a BRVT dummy is used in assessing purchasing power parity, because of that province's large oil revenue.

44. These numbers would be even greater if the results from Model 4 were used, which performs the same analysis but uses initial conditions from 1995 to avoid the problem of endogeneity.

45. Dapice, David. 2003. Viet Nam's Economy: Success Story or Weird Dualism? A SWOT Analysis. In *United Nations Development Program and Prime Minister's Research Commission.* Ha Noi, Vietnam.

Figure 16: Comparing GDP per capita to Purchasing Power Parity (PPP) per capita using average Pho Price



costs of living across provinces[46]. As cooked Pho is a non-tradable good, it is likely to be more expensive in areas where land price, rental rates, construction costs, utility prices, wages and the costs of raw materials are higher and must therefore be factored into the price. Dividing GDP per capita by the price of a bowl of Pho creates a reasonable measure of how far the dong goes in each province. Figure 16 compares PPP (measured in bowls of Pho per person per year) against GDP per capita (measured in constant 1994 VND) on the left horizontal axis. On the right horizontal axis, it measures the cost of Pho in each province.

Controlling for the cost of living reveals that many provinces thought to be relatively poor can be considered to be much better off when the average citizen's purchasing power is taken into consideration. BRVT has the largest PPP per capita by quite some margin due to oil revenues. Dropping this province from the analysis means that the highest standard of living can be found in Da Nang, with 1,200 bowls of Pho per year. Quang Binh is the poorest with only 216 bowls per year.

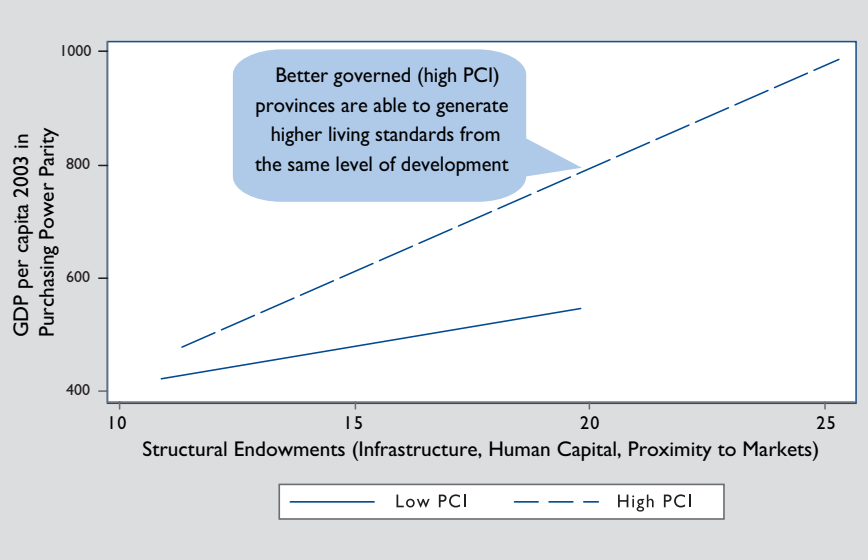
In terms of policies to improve national welfare, the PCI offers helpful guidance. While improving structural conditions, such as building new roads or improving education, always has a positive effect on provincial economic welfare, its impact is most pronounced in provinces with above average competitiveness. This is illustrated by the much higher slope for provinces with high PCI scores in Figure 17[47]. The horizontal axis is a measure of GDP per capita in PPP, calculated by dividing GDP per capita by the average price of Pho on the main road in the provincial capital.

At low levels of competitiveness, improvements in structural conditions have only a marginal effect on welfare. Provinces with

46. The Economist. 2003.' McCurrencies: Hamburgers should be an essential part of every economist's diet.' April 24.

47. Ordinary Least Squares (OLS) regression on PPP per capita using a dummy for BRVT

Figure 17: Impact of the Interaction between Competitiveness and Structural Conditions on GDP per Capita measures in Purchasing Power Parity (PPP)
(PPP calculated from the average Pho price on major road in Provincial Capital)



high competitiveness generate higher welfare than provinces with low competitiveness at every level of structural conditions. Put simply, better governed (i.e. high PCI) provinces are able to generate higher living standards from the same level of development. Figure 17 clearly demonstrates the primacy of improving economic governance over other aspects of the development agenda, such as large-scale government investments in infrastructure. Successful provinces should then be able to enhance their own structural conditions over the long-term using revenue garnered from enhanced private sector performance.

Next Steps for the PCI

Because of the clear effects that provincial economic governance have on both private sector development and provincial welfare, both VNCI and VCCI intend to continue the PCI on an annual basis, tracking the improvement of provinces over time on the key sub-indices and measuring the payoffs from those improvements.

Certainly, some of the indicators will become less relevant over time, as convergence in provincial improvements leads to a lack of variance. Other key indicators may also be obviated by central-level policy changes, such as the forthcoming Unified Enterprise and Common Investment Laws. However, new indicators may need to be added as new and more complex issues arise in the Vietnamese economy. One critical example is the importance of legal development and the confidence that private companies have in provincial legal institutions. More refined and better-nuanced questions regarding access to land and the development of property rights may also be required.

Even more immediately, several spin-off research projects from the present PCI have been initiated, using the rich sources of perception and hard data at hand. One of the most promising research endeavors is by VNCI consultant Nguyen Van Thang, who is investigating how SOE dominance, in terms of contributions to revenue and employment, crowds out private sector development by motivating provincial leaders to favor initiatives which benefit the state sector at the expense of private entrepreneurs. Others, such as Edmund Malesky and Markus Taussig, have also used the PCI data to test a hierarchical linear model (HLM) of the impact of access to capital on firm-level investment growth. There are also many possibilities for future research that would combine the PCI with other data sets, such as research on the link between PCI performance and the promotion of provincial officials, research on how fiscal decentralization efforts affect the PCI, and possibly an assessment of current efforts to reduce corruption using PCI data.

For provincial leaders, the PCI should be considered a rich opportunity. Data is available for officials to diagnose their own provincial development obstacles and design strategies to overcome them. Provinces may even want to take advantage of the PCI measures of initial endowments that benchmark provinces at similar levels of development and of initial

conditions that have higher governance scores. For instance, Quang Ngai officials would be well-served by a short drive to neighboring Binh Dinh to learn how that province has designed policies appropriate to its initial endowments. A VNCI team is also available for a tailored, provincial diagnostic at the request of provincial leaders.

Already, several provinces deserve special commendation for their diligence at responding to the preliminary release of the PCI with forthright and proactive initiatives. The People's Committees of An Giang, Tien Giang, Vinh Long and Bac Ninh have held diagnostic workshops with the PCI research team (VNCI staff), where PCI scores were discussed and programs devised for raising scores in future iterations. As discussed in greater length below, Ha Tay even issued a striking resolution, offering clear details of the province's intention to achieve its promise of a better environment for private sector investors. Inspiring such effort in all provinces was always the ultimate goal of the research team and the team has certainly been heartened by the immediate responses.

Two final developments have also been noted by researchers in the wake of the PCI's May launch, and their continuation will undoubtedly improve the index in future iterations. The first is the important role of the Vietnamese media in publicizing results, offering constructive criticism on omissions in the selection of indicators, and providing follow-up articles on policy differences between provinces with differing scores. The coverage has been remarkable (see media report list in Appendix 2.). By September 2005, the research team had found over 80 reports in the media, including long feature articles in magazines and newspapers, various television news reports, and even the front-page of the respected *Saigon Times*[48]. It has become common-place when the media is reporting about a particular province that its PCI ranking is mentioned and used as a yardstick of performance. When the media plays such a watchdog role – carefully studying how provincial business environments vary and where firms have been injured by particular provincial activities, as well as where other provinces have successfully improved the private business environment – it clearly enhances the impact of the PCI research. It also assists PCI researchers to improve their understanding of private business issues and select more refined and appropriate indicators.

The second development has been the generally positive attitude of entrepreneurs and business associations towards the PCI survey itself. In the post-result discussions, business entrepreneurs have offered new ideas for indicators they would like to see covered in the future. The willingness of entrepreneurs to bravely offer opinions on sensitive questions about their businesses and the provincial leadership is the only reason the PCI is possible. The research team is quite confident that the attention that entrepreneurs have paid to the survey will provide even better response rates in the future and consequently more exact measurements than could be provided in the 2006 version.

48. As the research team is based in Ha Noi with limited ability to monitor all provincial papers, it would be expected that there were, in fact, many more media reports than the 80 reported here.

Impact of the PCI: The Ha Tay Story

In any ranking of this sort, the unfortunate reality is that some provinces must occupy the lower rankings, and one province must have the dubious honor of coming last. Whilst Ha Tay is not known as having a progressive business environment, it was a surprise to see this province at the bottom of the provincial rankings. The province lies immediately to the south of Ha Noi and, while the province is overwhelmingly rural (94% of the population), these figures belie its entrepreneurial dynamism. Ha Tay's concentration of more than 200 trade villages (***làng nghề truyền thống***) suggests an unusual and dynamic structure of activity, confirmed by a 17% jump in real gross revenues in these communities in 2004.

But the PCI is an index for gauging whether provincial governments enable a full utilization of the assets available within their boundaries. There are things that provincial governments can do well in order to make their environments more dynamic; there are things that provincial governments can do poorly that erode the attractiveness of their region to

business activity. In this context, the PCI revealed that Ha Tay was performing the most poorly within the context of the resources found within its borders.

Ha Tay's PCI Score

PCI data reveal that all provinces do certain things well and all have weaknesses. Ha Tay earned its rank by scoring poorly in almost every dimension. Of the nine sub-indices, Ha Tay ranked above the median (16th) on only one – informal charges. By contrast, Ha Tay ranked in the bottom quintile (34th or worse) in seven sub-indices, including the five with the largest weights, accounting for almost 75% of the final score. Indeed, Ha Tay recorded the absolute lowest score on two sub-indices (proactivity and access to land) and was among the bottom three provinces on two more (entry costs and SOE bias). While most PCI rankings come with caveats about the danger of reading too much into small differences in rankings, Ha Tay's poor performance is so consistent across such a broad range of indicators that the data leave few doubts about the overall state of economic governance in the province.

Ha Tay Responds

While Ha Tay's past performance as measured by the PCI is notable in itself, the official response to the research results has been far more remarkable. In Vietnam, the Party provides leadership on the direction of policy, while the State (represented by People's Committees) implements new policy directives. The reaction to the PCI in Ha Tay provides an excellent example of governance reform at work.

On June 4, only 10 days after the PCI results were made public, the Ha Tay Party branch passed Resolution 14-NQ/TU that referred specifically to the PCI research conducted by VCCI and VNCI and cited its last-place ranking. The resolution went on to announce the Party branch's decision:

> "*to carry out, at all levels of the People's Committee and across all sectoral departments, an evaluation of management weaknesses and a review of regulations and procedures that… jeopardiz[e] the local investment and business environment.*"

Four days later, the People's Committee of Ha Tay responded to the challenge issued by the Party. The June 8 meeting sketched out a roadmap for relevant provincial agencies, including the DPI, the Department of Natural Resources and Environment (DONRE), the Department of Finance and the Department of Construction, as well as the lower-level People's Committees from the district and commune levels. While the resolution of June 4 was a public statement of intent, the June 8 meeting was the equivalent of a formal task order issued to each implementing agency, and the official request quickly generated results.

Less than two months after being challenged to review existing policies, regulations and practices in light of the PCI data, the People's Committee of Ha Tay hosted a public conference, attended by approximately 200 local representatives of the business community, government agencies and the media. The conference made public a report put together by the People's Committee that identified specific weaknesses, proposed solutions and detailed the timetable to implement reforms.

The report was specific with respect to the shortcomings, and many related to the operation of industrial zones and conduct of land recovery and leasing activities. This specificity will allow close monitoring of planned improvements. Moreover, some of the changes had already been instituted and could be announced at the conference:

- The Chairman of Ha Tay's People's Committee had regularized weekly meetings with local business leaders.
- New public feedback mechanisms were already operational, including telephone hotlines to the Office of the People's Committee and a dedicated mailbox at the premise of the People's Committee.
- New rules had been promulgated requiring that all investment-related information be made public.
- Regular bi-annual meetings with investors were formally scheduled.

But while these initial actions served as an important reflection of the People's Committee's ability to act, the more impressive message, delivered at the August 5 conference, was a clear

commitment to undertake a series of serious reforms, including:

- implementation of a one-door policy for investors;
- organization of an investment promotion conference no later than the first quarter of 2006; and, most importantly,
- an ongoing regulatory review process to abolish or reform existing policies and issue new rules, as necessary, with an explicit commitment to report to the Standing Committee of Ha Tay's Party branch in December 2005.

Conclusions

The actions taken by Ha Tay since the release of the PCI have two important dimensions. The first, and most obvious, is the direct and public connection that government officials and agencies have made between the new information provided by this research and the agenda for change. Many of the initial responses are clearly linked to specific problems identified by the PCI research, and the work plan that is going forward clearly embraces the PCI as a useful diagnostic tool.

The second noteworthy dimension is the broader acceptance of the need to change attitudes throughout the relevant agencies. The PCI suggests a range of technical changes that, if done reluctantly, will have no effect on the business environment. For example, one-door policies often accomplish little more than establishing "one more door" for businesses. In Ha Tay, the positive reaction to the PCI and the public embrace of its findings provide a clear articulation of the intention to change rules and behavior from the top level. While implementation of reforms can always be problematic at lower levels of government, the formal, regular and public reviews initiated since the PCI results were announced provide new mechanisms to overseeing the implementation of desired reforms. These mechanisms do not guarantee that all necessary changes will be successfully implemented, but they do suggest that top leaders in Ha Tay will not be surprised when the results of the next round of the PCI are announced.

Section 2:

DETAILED RESEARCH METHODOLOGY

DATA COLLECTION

Research Methods

Two primary research methods were chosen to assemble the Provincial Competitiveness Index. First, researchers surveyed 15,400 firms in 42 provinces in North, South and Central Vietnam to collect what is termed "perceptions" data. Second, the research team engaged in a wide-scale collection of published resources and price data, and interviewed third parties (notably logistics companies and state-owned commercial banks), in order to assemble "hard" data that would be used alongside the perceptions of firms in the assembly of the index.

Collection and Processing of Perceptions Data

The Survey Instrument

The survey instrument was an updated version of the TAF-VCCI economic governance survey used in 14 provinces in the spring of 2003. This survey asked questions about basic business performance data as well as covering twelve separate dimensions of economic governance within 22 pages and 71 questions. Some of the questions were modified from the World Bank's Business Environment and Enterprise Performance Survey (BEEPS), but most questions were written specifically for the Vietnamese context[49]. After the survey was written, it was translated into Vietnamese and then circularly translated into English to make sure the original meaning of the questions was retained. The instrument was field-tested in Vinh Phuc province on ten firms and then modified to correct or alter questions that had proved troublesome or were deemed unnecessary.

Survey Approach

Once the survey instrument was finalized, the research team had a difficult decision to make. While a door-to-door survey would have led to a higher response rate than a mail-out survey, it had several disadvantages that would have undermined the overall goals of the project. First, sending complete research teams to all 42 provinces would have been prohibitively expensive, limiting the amount of provinces which could be covered and eliminating the ease of surveying smaller firms based in rural localities. Second, door-to-door surveys would have eliminated the anonymity of respondents and reduced their openness. In most provinces, the research goals of the team would need to be articulated to provincial officials in a letter of introduction prior to the onset of the research. While they may not attend the interview and directly influence answers (though this has been known to happen on occasion), firms would still worry that they could be identified and punished for critical answers. Finally, a project of this scale would have required hiring dozens of different interviewers, who even with excellent training may introduce new "treatment effects" through their interview techniques or personalities. These treatment effects would have been non-systematic across provinces and therefore difficult to account for. Moreover, it was not clear that response rates actually differed very much between the two techniques when researchers properly accounted for non-responses in the door-to-door survey from incorrect addresses and entry refusals. For these reasons, the research team chose to use a mail-out survey, but introduced several precautions to limit the impact of non-response bias. These precautions are discussed below.

Stratified Sampling

Researchers began their study by obtaining a list of tax-paying firms in every province from the National Tax Authority. This list was considered preferable to similar lists from the provincial DPI for two reasons. First, most observers

49. See The Business Environment and Enterprise Performance Survey (BEEPs) at http//info.worlldbank.org/governance/beeps/

Table 5: Stratification of Firm Populations within 42 Provinces by Type, Sector, and Age

Ownership Type	Joint Stock								Limited Liability								Private								Total
Economic Segment	Manufacturing		Natural Resources		Service/Commerce		Agriculture		Manufacturing		Natural Resources		Service/Commerce		Agriculture		Manufacturing		Natural Res.		Service/Commerce		Agriculture		
Before or After Enterprise Law	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	
Firm Category	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	
An Giang	0,1%	0,5%	0,1%	0,0%	0,3%	0,5%	0,0%	0,0%	0,8%	7,0%	0,1%	0,1%	2,0%	6,1%	0,0%	0,2%	12,9%	9,9%	0,4%	0,0%	31,5%	26,9%	0,5%	0,1%	100%
Bac Ninh	0,0%	1,6%	0,0%	0,0%	0,2%	1,4%	0,0%	0,0%	9,3%	36,3%	0,0%	0,0%	4,3%	15,8%	0,0%	0,6%	3,4%	14,4%	0,0%	0,0%	2,4%	8,7%	0,8%	0,6%	100%
Ben Tre	0,1%	0,8%	0,0%	0,0%	0,0%	0,5%	0,0%	0,0%	0,4%	2,5%	0,0%	0,0%	0,3%	3,0%	0,0%	0,2%	5,1%	7,7%	0,0%	0,1%	24,5%	22,3%	28,4%	4,1%	100%
Binh Dinh	0,5%	2,2%	0,2%	0,3%	0,3%	0,8%	0,1%	0,2%	4,5%	17,2%	0,3%	2,4%	2,4%	10,1%	0,2%	0,4%	4,0%	14,7%	0,1%	1,2%	13,8%	23,5%	0,1%	0,5%	100%
Binh Duong	0,6%	2,0%	0,0%	0,1%	0,1%	0,9%	0,0%	0,1%	7,8%	18,9%	0,1%	0,8%	4,2%	13,4%	0,0%	0,4%	5,4%	0,0%	0,2%	0,0%	18,1%	27,0%	0,1%	0,0%	100%
Binh Phuoc	0,0%	1,6%	0,0%	0,2%	0,2%	0,0%	0,0%	0,2%	2,1%	12,8%	0,2%	0,8%	0,6%	9,7%	0,6%	1,0%	5,5%	7,0%	1,0%	1,9%	20,3%	33,0%	0,0%	1,3%	100%
Binh Thuan	0,1%	0,3%	0,0%	0,0%	0,1%	0,5%	0,0%	0,0%	3,3%	3,9%	0,0%	0,2%	0,2%	4,9%	0,1%	0,7%	10,4%	10,5%	0,0%	0,1%	12,1%	16,1%	34,9%	1,7%	100%
BRVT	0,3%	2,2%	0,0%	0,1%	0,5%	1,0%	0,0%	0,1%	8,7%	17,4%	0,3%	0,4%	2,1%	12,9%	0,0%	0,3%	4,7%	9,0%	0,4%	1,0%	18,7%	19,4%	0,1%	0,4%	100%
Can Tho	0,1%	3,6%	0,0%	0,0%	0,4%	1,9%	0,1%	0,1%	1,8%	13,1%	0,0%	0,0%	1,8%	13,8%	0,0%	0,1%	8,5%	13,4%	0,0%	0,0%	11,0%	30,1%	0,0%	0,2%	100%
Da Nang	0,2%	2,9%	0,0%	0,1%	0,2%	3,0%	0,0%	0,2%	2,9%	13,9%	0,0%	0,3%	5,5%	31,3%	0,1%	0,3%	1,6%	5,8%	0,0%	0,2%	9,9%	21,5%	0,0%	0,1%	100%
Dong Nai	0,2%	1,1%	0,0%	0,1%	0,4%	0,6%	0,0%	0,0%	4,9%	11,5%	0,3%	0,4%	3,5%	12,8%	0,0%	0,4%	13,1%	9,2%	0,3%	0,8%	20,9%	19,0%	0,1%	0,3%	100%
Dong Thap	0,0%	0,8%	0,0%	0,0%	0,2%	0,2%	0,0%	0,1%	1,7%	5,4%	0,0%	0,0%	1,0%	2,8%	0,1%	0,4%	23,5%	18,7%	0,0%	0,0%	24,5%	19,8%	0,2%	0,6%	100%
Ha Nam	1,6%	3,9%	0,0%	1,3%	0,3%	3,6%	0,0%	0,6%	7,4%	40,5%	0,3%	7,8%	1,3%	16,2%	0,0%	0,0%	0,0%	2,3%	0,3%	0,0%	6,8%	5,8%	0,0%	0,0%	100%
Ha Noi	0,3%	8,2%	0,0%	0,0%	0,4%	14,2%	0,0%	0,1%	3,0%	12,0%	0,0%	0,1%	10,6%	44,6%	0,0%	0,1%	0,3%	1,0%	0,0%	0,0%	1,7%	3,3%	0,0%	0,0%	100%
Ha Tay	0,2%	4,1%	0,0%	0,1%	0,7%	3,1%	0,0%	0,1%	6,5%	31,4%	0,0%	0,0%	4,1%	19,5%	0,1%	0,7%	5,2%	5,9%	0,0%	0,1%	9,5%	8,4%	0,1%	0,1%	100%
Ha Tinh	0,2%	15,3%	0,0%	0,3%	0,0%	3,1%	0,0%	0,7%	1,4%	13,7%	0,0%	0,2%	0,7%	7,1%	0,5%	0,7%	5,0%	28,1%	0,0%	1,6%	4,5%	16,7%	0,2%	0,0%	100%
Hai Duong	2,7%	3,3%	0,0%	0,3%	0,6%	2,4%	0,0%	0,6%	9,4%	19,3%	0,0%	0,2%	8,8%	16,5%	0,2%	0,2%	4,1%	10,1%	0,0%	0,0%	7,2%	14,2%	0,0%	0,0%	100%
Hai Phong	0,4%	10,0%	0,0%	0,1%	0,7%	15,0%	0,0%	0,2%	1,6%	13,3%	0,0%	0,1%	6,0%	39,3%	0,2%	0,6%	0,8%	2,8%	0,0%	0,0%	1,3%	7,6%	0,0%	0,1%	100%
HCMC	0,1%	2,3%	0,0%	0,0%	0,3%	3,4%	0,0%	0,1%	4,1%	14,8%	0,0%	0,1%	8,2%	37,8%	0,1%	0,4%	1,2%	4,4%	0,0%	0,0%	8,1%	14,4%	0,0%	0,1%	100%
Hung Yen	0,0%	6,0%	0,0%	0,0%	0,0%	1,0%	0,0%	0,0%	9,8%	33,0%	0,0%	0,0%	1,9%	11,7%	0,0%	1,0%	4,4%	7,9%	0,0%	0,0%	7,9%	13,7%	0,0%	1,6%	100%
Khanh Hoa	0,4%	2,3%	0,0%	0,2%	0,2%	2,7%	0,0%	0,0%	2,9%	10,1%	0,4%	0,7%	2,8%	18,1%	0,1%	0,5%	2,9%	7,1%	0,1%	1,0%	15,4%	27,2%	4,5%	0,4%	100%
Kien Giang	0,1%	0,7%	0,0%	0,0%	0,2%	0,4%	0,0%	0,0%	1,4%	4,8%	0,0%	0,1%	0,4%	4,3%	0,1%	0,1%	11,5%	12,4%	0,0%	0,3%	18,0%	20,5%	19,3%	5,5%	100%
Long An	0,0%	2,6%	0,0%	0,0%	0,1%	0,6%	0,0%	0,0%	0,8%	14,4%	0,1%	0,0%	0,5%	6,0%	0,1%	0,2%	5,7%	27,3%	0,0%	0,1%	12,7%	28,5%	0,1%	0,3%	100%
Nam Dinh	0,6%	12,0%	0,0%	0,0%	0,3%	4,5%	0,2%	0,9%	7,2%	25,9%	0,0%	0,2%	3,8%	17,5%	0,3%	0,5%	1,3%	10,9%	0,0%	0,0%	5,2%	8,8%	0,0%	0,0%	100%
Nghe An	0,1%	11,1%	0,0%	0,4%	0,4%	6,6%	0,0%	0,6%	2,4%	18,7%	0,0%	1,1%	1,7%	22,9%	0,0%	0,2%	1,1%	4,5%	0,0%	0,6%	5,1%	22,4%	0,0%	0,3%	100%
Ninh Binh	0,8%	2,0%	0,2%	0,2%	0,0%	1,8%	0,0%	0,2%	1,8%	6,7%	0,4%	0,2%	2,0%	9,0%	0,2%	0,0%	14,7%	30,7%	0,6%	0,8%	11,7%	14,7%	0,0%	1,0%	100%
Ninh Thuan	0,0%	0,9%	0,0%	0,3%	0,0%	2,5%	0,3%	0,0%	2,8%	8,5%	0,0%	0,3%	1,6%	9,7%	0,3%	0,3%	4,4%	10,4%	0,0%	0,6%	17,9%	21,4%	11,6%	6,0%	100%
Phu Yen	0,2%	3,0%	0,0%	0,3%	0,0%	0,9%	0,0%	0,0%	2,5%	12,5%	0,0%	0,2%	0,5%	6,4%	0,0%	0,9%	4,2%	16,2%	0,0%	0,0%	26,5%	25,3%	0,0%	0,5%	100%
Quang Binh	0,0%	1,9%	0,0%	0,0%	0,2%	0,8%	0,0%	0,3%	0,8%	35,2%	0,2%	0,5%	0,8%	18,3%	0,0%	0,8%	0,8%	11,2%	0,0%	0,3%	6,7%	20,9%	0,0%	0,2%	100%
Quang Nam	0,1%	5,6%	0,0%	0,3%	0,1%	2,5%	0,0%	0,3%	2,3%	26,3%	0,4%	2,5%	1,9%	1,6%	0,0%	0,7%	2,6%	11,6%	0,0%	0,1%	14,6%	26,3%	0,0%	0,3%	100%
Quang Ngai	0,3%	2,6%	0,0%	0,2%	0,0%	1,1%	0,0%	0,0%	1,6%	20,8%	0,0%	0,3%	1,4%	13,4%	0,0%	1,9%	6,4%	20,7%	0,0%	0,8%	6,2%	21,7%	0,2%	0,6%	100%
Quang Ninh	0,1%	7,6%	0,1%	0,6%	0,3%	9,4%	0,0%	0,8%	1,0%	10,8%	0,1%	0,4%	2,9%	26,9%	0,3%	2,3%	2,5%	5,6%	0,3%	0,6%	7,9%	17,7%	0,3%	1,5%	100%
Quang Tri	0,2%	2,6%	0,0%	0,2%	0,0%	3,0%	0,0%	0,2%	3,8%	31,7%	0,2%	0,4%	1,0%	13,5%	0,4%	0,2%	3,4%	15,9%	0,0%	0,0%	5,6%	16,9%	0,6%	0,4%	100%
Soc Trang	0,0%	1,4%	0,0%	0,0%	0,1%	0,9%	0,0%	0,0%	1,3%	4,5%	0,0%	0,0%	0,9%	3,7%	0,0%	0,8%	17,8%	12,3%	0,0%	0,0%	25,8%	27,5%	0,0%	3,0%	100%
Tay Ninh	0,0%	1,1%	0,0%	0,1%	0,0%	0,9%	0,0%	0,1%	1,2%	9,0%	0,0%	0,2%	1,0%	10,3%	0,1%	0,8%	6,5%	21,1%	0,2%	0,7%	21,1%	25,2%	0,1%	0,4%	100%
Thai Binh	0,2%	7,2%	0,0%	0,0%	0,5%	3,5%	0,2%	0,9%	9,2%	20,2%	0,0%	0,2%	6,0%	17,6%	0,6%	0,5%	7,2%	10,4%	0,0%	0,0%	6,9%	7,4%	0,5%	1,2%	100%
Thanh Hoa	0,6%	7,9%	0,0%	0,4%	0,2%	4,2%	0,0%	0,6%	2,8%	25,9%	0,0%	0,4%	5,1%	28,4%	0,0%	0,6%	1,2%	9,2%	0,0%	0,5%	3,0%	8,6%	0,1%	0,1%	100%
Tien Giang	0,0%	0,6%	0,0%	0,0%	0,0%	0,6%	0,0%	0,0%	0,7%	1,9%	0,0%	0,0%	0,5%	2,5%	0,0%	0,1%	20,1%	11,9%	0,0%	0,0%	26,0%	22,7%	11,5%	0,7%	100%
Tra Vinh	0,0%	1,3%	0,0%	0,0%	0,0%	0,8%	0,0%	0,0%	0,8%	6,8%	0,0%	0,0%	0,0%	4,2%	0,0%	0,0%	14,5%	8,5%	0,0%	0,0%	19,8%	39,8%	3,2%	0,4%	100%
TT - Hue	0,2%	2,4%	0,1%	0,0%	0,2%	2,0%	0,1%	0,6%	0,9%	9,7%	0,2%	0,2%	0,9%	10,4%	0,2%	0,7%	6,5%	18,6%	0,1%	0,3%	14,9%	30,0%	0,2%	0,6%	100%
Vinh Long	0,0%	0,6%	0,0%	0,0%	0,0%	0,8%	0,0%	0,0%	1,3%	8,2%	0,0%	0,0%	0,4%	4,8%	0,0%	0,2%	18,8%	11,3%	0,1%	0,0%	29,1%	23,7%	0,4%	0,2%	100%
Vinh Phuc	0,0%	2,9%	0,0%	0,0%	0,4%	1,3%	0,0%	0,2%	4,7%	35,9%	0,2%	0,7%	2,2%	20,8%	0,4%	0,2%	7,5%	8,6%	0,0%	0,0%	5,8%	8,4%	0,0%	0,0%	100%
Y-Hau Giang	0,0%	2,3%	0,0%	0,0%	0,0%	0,3%	0,0%	0,3%	0,0%	7,5%	0,0%	0,0%	0,0%	3,3%	0,0%	0,0%	8,8%	31,3%	0,0%	0,0%	16,6%	29,0%	0,0%	0,7%	100%
Z_Bac Lieu	0,0%	0,7%	0,0%	0,0%	0,0%	0,3%	0,0%	0,0%	1,4%	1,8%	0,0%	0,0%	0,3%	2,0%	0,1%	0,1%	21,8%	8,6%	0,0%	0,0%	23,2%	31,1%	7,5%	1,2%	100%
Z_Ca Mau	0,1%	1,0%	0,0%	0,0%	0,0%	0,5%	0,0%	0,1%	0,6%	3,1%	0,0%	0,0%	0,3%	3,2%	0,0%	0,1%	7,4%	8,5%	0,0%	0,0%	20,4%	48,5%	2,3%	4,0%	100%

tend to believe that the DPI lists are inflated. Because recent donor and media attention has been focused on the absolute number of registrations, provincial officials have had an incentive to bolster scores by including as many firms as possible on their rolls, and not dropping them after they are no longer active. Moreover, firms themselves have an incentive to register without actually beginning operations. While some commentators have focused on the so-called "ghost firms" that registered in order to engage in illicit activities such as VAT receipt processing, the majority of the gap between registrations and activities consists of firms that simply took care of the paperwork early while they went about preparing more difficult preliminary business activities such as obtaining necessary licenses and business premises, and researching potential suppliers and customers. Second, addresses and phone numbers obtained from the Tax Authority were deemed to be more reliable as these came from the same data used by provincial tax officers to contact firms regarding payment.

The Tax Authority supplied a list of 108,287 firms for the 44 provinces in which the research team originally expected to conduct the survey. A minimum threshold of twenty-five firms in each province was set to ensure a significant within-province sample. Two provinces – Bac Lieu and Ca Mau – were dropped because they did not reach this threshold. Population sizes ranged from 38,427 firms in HCMC to 309 and 307 in Ha Nam and the newly-formed province of Hau Giang, respectively, with a median value of 1,116. Addresses and telephone numbers of all firms were verified by VCCI's branch offices. Because researchers wanted to compare provinces, it was necessary to construct 42 separate provincial-level stratifications rather than one large national-level survey which would have sampled most heavily in HCMC and Ha Noi.

To construct province-level stratifications, researchers used the Tax Authority lists to group firms by type of enterprise (Sole Proprietorship, LLC and Joint-Stock Company), economic segment (manufacturing, natural resource exploitation, service and commerce, and agriculture) and firm age (measured by whether the firm was registered before or after the Enterprise Law). Firm size was not used in the stratification, because it correlated too closely with type of firm. After verifying phone numbers and addresses, mail-out surveys were sent to firms based on their proportional representation in the 24 categories listed in Table 5. Firms were selected randomly within each category.

Response Rates and Non-Response Bias

Depending on the total number of firms in the province, between 300 and 500 surveys were mailed-out – enough to ensure at least 25 responses and assume a 90% confidence interval around response[50]. Overall, 15,400 surveys were mailed out from the VCCI office in Ha Noi. In many cases, the number of forms sent to each province represented quite large over-sampling, in some cases covering the entire population of firms. Such conservatism was necessary, however, because researchers expected a very low return rate on the mail-out survey. Even in the United States, low response rates on business surveys are considered to be the norm due to the time commitments of entrepreneurs and business policies prohibiting the release of proprietary company information. A statistical study of norms in response rate reporting in business journals put it this way:

> *The case is different when questionnaires are submitted to representatives of organizations such as the Chief Executive Officer (CEO), managing director, Human Resource (HR) director, etc. Direct approaches such as this are typically characterized by a lower response rate compared to populations of individuals. Denison and Mishra (1995)*

50. The actual minimum number of responses depends on the population of firms. Twenty-five was used as simple rule of thumb, as it would be required for provinces with the lowest firm populations based on our calculations. Confidence intervals and minimum response can be calculated by using the random survey calculator at Custom Insight.com(http://www.custominsight.com/articles/random-sample-calculator.asp). The calculator is based on the following algorithm to determine the minimum responses (x) needed:

$$x = Z(c/100)^2 r(100-r)$$

$$n = Nx/((N-1)E^2 + x)$$

$$E = \mathrm{Sqrt}[(N-n)x/n(N-1)]$$

N is the population size, r is the fraction of responses that researchers are interested in, and Z(c/100) is the critical value for the confidence level c. Numbers varied more in the Red River Delta and North Southeast, because they were part of the original 14 provinces.

justified their 21% response rate for CEO level response by citing Henderson (1990) who argued that a response rate of 20-30% is fairly typical for a mail-out survey to a large sample of firms[51].

The PCI Research team was concerned that due to the newness of governance surveys in many parts of Vietnam, the large number of topics which needed to be covered (the survey took approximately 45 minutes to fully fill out) and the sensitivity of many questions, the response rate would be around 10%. Two other surveys of Vietnam conducted by the World Bank/MPDF and the Japanese Bank for International Cooperation (JBIC), which covered a more limited set of governance questions, had response rates of just about 15%, despite the fact that the majority of respondents for both of these surveys were in the most developed areas of Vietnam[52]. In many of the provinces the PCI was trying to cover, firms had never been surveyed, leading to even more trepidation among respondents.

Because a low response-rate was expected, the research team took two precautions to ensure that the non-response bias did not damage the external validity of the results. First, members of the team were dispatched to six provinces from the TAF-VCCI governance study to interview a random sample of 100 firms not covered in the original study. By comparing surveyed firms with responses of firms that did not receive the survey, it could be determined whether the data were biased by firms that chose not to respond.

Two high-performing (Binh Duong and Vinh Phuc), two medium- (BRVT and Binh Thuan) and two low-performing (Nam Dinh and Ninh Binh) provinces were chosen in order to maximize variance in both performance and geography. Researchers wanted to ensure that responses to key questions which would be employed in the PCI were comparable between the mail-out survey and these door-to-door follow up interviews. Results from the follow-up interviews were compared with results from the mail-out, in addition to more open-ended questions probing into whether firms agreed or disagreed with findings from the mail-out. The exercise convinced the team that the mail-out survey did indeed offer a valid measure of firm performance.

A portion of this analysis is revealed in Table 6, where firms were asked to rank their provincial administrative institutions on a six-point scale and the ease of access to documents on a five-point scale. Note how close both the mean response and standard deviations are for each of the provinces. An analysis of the variance test between the mail-out and the follow-up revealed that there is no statistically significant difference and thus no non-response bias in the mail-out. Even more important is that the slight differences between the mail-out and the follow-up are non-systematic within every province. The mean mail-out responses are sometimes above and sometimes below the mean response from the mail-out in every province. This should lead to the conclusion that the non-response bias had little impact on lowering any one province's score on the final index.

The second precaution was a vigorous attempt to increase the response systematically across all provinces. To this end, the VCCI included a letter explaining in detail the importance of this survey for improving the business environment and enhancing the VCCI's ability to promote positive changes in the business environment. Respondents also had the option of receiving a free selection from VCCI's list of publications. This list included such popular volumes as *100 Questions and Answers Regarding the Enterprise Law* and *Uncle Ho with Enterprises and Business People*, a book explaining Ho Chi Minh's positive views of the non-state sector. Finally, phone calls were made to a random sample of firms in every province that had not yet responded to the mailed survey. A prepared narrative was read during the phone call once again detailing the importance of the survey and reminding firms to complete and return the volume to

51. Baruch, Yahuda. 1999. 'Response Rate in Academic Studies: A Comparative Analysis.' Human Relations, Vol. 52. No. 4, p. 3. Also see Denison, D. R. and Mishra, A. K. 1995. 'Toward a theory of organizational culture and effectiveness' Organization Science. Vol. 6 No. 2, p. 204-223.
52. Stoyan Tenev, Amanda Carlier, Omar Chaudry, and Quynh-Trang Nguyen, *Informality and the Playing Field in Vietnam's Business Sector* (Washington, D.C: International Finance Corporation, 2003); Edmund Malesky, 'Entrepreneurs on the Periphery: A Study of Private Sector Development Beyond the High Performing Cities and Provinces of Vietnam', *Mekong Private Sector Development Facility*, Private Sector Discussion Series No. 18, Ha Noi, November 2004; Japanese Bank of International Cooperation. *Survey of Vietnamese Enterprises* (Ha Noi, 2002).

Table 6: External Validity Test of Mail-Out Survey: Comparison of Answers to Follow-Up Survey in Six Provinces

Ranking of Provincial Institutions on Six-Point Scale (1. Very Poor to 6. Very Good)

Province	Operation	Provincial People's Committee		Department of Planning and Investment		Department of Agricultural and Rural Development		Department of Industry		Tax Authority	
		Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up
Binh Duong	Mean	5.26	5.02	5.26	5.04	4.37	4.58	4.93	4.90	4.84	4.52
	Std. Deviation	0.56	0.61	0.56	0.68	0.96	0.71	0.83	0.62	0.50	0.71
Binh Thuan	Mean	4.64	4.39	4.87	4.82	3.75	4.27	4.33	4.40	4.60	4.41
	Std. Deviation	1.34	1.33	1.30	0.88	1.36	1.01	1.12	1.17	1.24	1.12
Ba Ria - Vung Tau	Mean	3.83	4.78	3.93	4.74	3.29	4.67	3.10	4.62	3.92	4.55
	Std. Deviation	1.27	0.84	1.71	0.77	1.27	0.82	1.45	0.82	1.08	0.81
Nam Dinh	Mean	4.42	4.10	4.73	4.41	4.00	4.25	4.18	4.23	4.21	4.52
	Std. Deviation	1.38	1.21	0.88	0.93	1.63	0.93	0.75	1.19	0.89	0.72
Ninh Binh	Mean	4.29	4.27	4.64	4.59	3.86	3.94	3.77	3.89	4.64	4.04
	Std. Deviation	1.20	1.32	0.93	1.05	1.35	1.06	1.54	1.45	1.01	1.02
Vinh Phuc	Mean	5.16	4.79	5.21	4.78	4.81	4.41	4.33	4.35	4.80	4.42
	Std. Deviation	0.60	0.63	0.54	0.65	0.83	0.87	0.90	0.79	0.70	0.69

Ranking of Access to Important Business Document (1. Very Difficult to 6. Very Easy)

Province	Operation	Access to Provincial Budget		Access to 5-Year Plans		Access to Decisions of the People's Committee		Access to Plans for Infrastructure Development		Access to Changes in Tax Information	
		Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up	Mail-Out	Follow-Up
Binh Duong	Mean	2.42	2.38	2.62	2.69	3.29	3.56	2.78	2.56	3.28	3.80
	Std. Deviation	0.98	1.36	0.89	1.20	0.84	1.10	0.85	1.31	0.83	0.77
Binh Thuan	Mean	2.24	2.70	2.44	2.50	3.24	3.55	2.76	2.71	3.27	3.64
	Std. Deviation	1.03	1.16	1.15	1.07	1.15	0.69	1.15	0.76	1.16	1.15
Ba Ria - Vung Tau	Mean	2.26	1.69	2.40	2.36	3.38	2.86	2.67	2.18	3.36	3.58
	Std. Deviation	0.81	1.03	0.75	1.12	0.99	1.17	0.99	1.17	0.91	1.31
Nam Dinh	Mean	2.00	2.27	2.23	2.33	2.83	2.85	2.26	2.77	3.13	3.64
	Std. Deviation	0.89	1.19	0.77	1.07	0.83	0.90	0.82	1.01	0.85	1.01
Ninh Binh	Mean	2.30	2.67	0.99	2.67	2.67	2.79	2.30	2.27	3.17	3.20
	Std. Deviation	0.82	1.07	2.43	1.07	1.11	1.12	0.98	1.01	0.87	0.86
Vinh Phuc	Mean	2.75	2.94	3.00	2.94	3.24	3.41	2.76	2.88	3.19	3.71
	Std. Deviation	0.79	1.12	0.89	0.85	0.77	0.71	0.77	1.02	0.75	0.69

the Ha Noi office of VCCI. Firms that had trouble responding to specific questions on the survey could also receive assistance if they requested it.

Unfortunately, the survey did not include a blank for firms to respond that they had received the telephone call treatment. Nevertheless, it was possible to compare responses received at the VCCI office in Ha Noi before the phone call to those received after the phone calls began. Answers tended to be slightly more positive for firms that responded after the telephone treatment. For instance, 28% of firms that responded before the phone call believed extra payments were an obstacle or major obstacle to their business, while only 17% of firms that responded after the phone call held such an opinion. Other questions had opposite results, such as the percentage of firms believing the People's Committee had a positive attitude toward the private sector (15.4% in early respondents and 4.2% after the telephone treatment). Nevertheless, on the whole post-telephone treatment respondents would have given their provinces slightly higher scores on the PCI.

Researchers concluded that this upward bias resulted from the fact that early respondents had more complaints with their province, while the more satisfied firms tended to remain silent. Further testing, however, demonstrated that this enhancement in scores from the telephone treatment did not vary significantly across provinces. All provinces benefited similarly from the random phone calls.

With the success of the random phone calls, the overall return rate was raised to 13%, slightly higher than researchers anticipated and close to other surveys performed in Vietnam. Response rates varied from a low of 6.5% in Soc Trang to a high of 26% in Quang Binh. Response rates were particularly low in the Mekong Delta, where only one province – the newly created Hau Giang – was above average. The two Mekong Delta provinces which had to be dropped – Bac Lieu and Ca Mau – had a number of respondents that was too low to allow for statistical analysis. Low response rates among Mekong Delta firms may result from the fact that surveys were released in the fall of 2004 when many entrepreneurs may have been away from their residential addresses on boats or in shrimp farms. Because shrimp farms do not have a postal service, many of the surveys may not have been seen by respondents.

Sampling Bias

Low response rates forced a difficult trade-off on the research team. Ideally, the team would have dropped firms in over-represented categories so that the stratification of the population matched the stratification of the sample. However, doing so would have meant throwing out valuable data from under-represented provinces. As a result, a decision was made to maintain all respondents, even though doing so would lead to over-representation of some types of firms in some provincial categories. The results of the sampling stratification can be seen in Table 8. It is structured exactly the same as Table 5, but represents the breakdown of firms based on the returned responses instead of the existing populations[53].

How well does the sampling match with that of the general population? Figure 18 illustrates the answer with three tests comparing the proportion of firms from the general population to firms from the sample in three of the most common types of firms: LLCs in manufacturing; Sole Proprietorships in services and commerce; and Joint-Stock Companies in manufacturing. For ease of comparison, all categories were drawn from firms registered after the Enterprise Law. The bivariate correlations between sample and population in these three categories were 0.60, 0.70, and 0.68 respectively, indicating that there are very strong and statistically significant relationships between the sample and populations – though none of the relationships are perfect. Each scatter-plot reveals some evidence of sampling bias. For instance, in Validity Test 1, only 18.9% of firms in Binh Duong were manufacturing LLCs, while the survey sample had a proportion of 32.7%. By contrast, Validity Test 3 reveals an under-sampling of manufacturing Joint Stock Companies in Hung Yen, where the proportion of firms at the Tax Authority was 6%, but not a single firm in this category

53. One interesting general finding was the discovery of a few partnerships. The low level of partnerships in Tax Authority data had convinced the research team to eliminate this category from stratification, but the discovery of partnerships indicates that firms may have been mislabeled in their applications for tax codes.

responded to our survey despite receiving 6% of the total surveys in the province.

Measuring the Impact of Sampling Bias

While sampling bias was discovered in a few cases it had very little impact on overall scores. This can be seen in Table 7 where only the sampling bias for LLCs in manufacturing had a significant correlation with Land Access, State Sector Bias, Private Sector Development Policies and, as a result, the Non-Weighted Index. Over-sampling in other economic segments and ownership had no significant relationship with scores. The strongest substantive correlation between over-sampling in manufacturing LLCs is with Land Access. Further analysis of the indicators comprising the sub-indices indicates that the correlation is driven by two factors – the percentage of firms with LURCs (0.53) and the percentage of firms that would expand their operations if they could receive more land (-0.52).

Over-sampling in manufacturing LLCs appeared to improve these scores. The bias is specifically related to manufacturing LLCs, as LLCs in general do not have higher scores than ownership types on these two questions. For example, 82.5% of LLCs have LURCs, but 82.7% of sole proprietorships do as well. However, when viewing firms in manufacturing, it can be found that 82.9% of LLCs have LURCs, while only 77% of sole proprietorships do. Because manufacturing LLCs tend to give their provinces higher scores in Access to Land than other ownership types, over-sampling in these areas may have raised scores slightly. Indeed, further multivariate analysis – controlling for other factors important to access to land – reveals that every percentage point of over-sampling that was likely did raise the percentage of firms answering that they had land use rights by about 1.38% and reduced the percentage of firms that thought land was easier to access by about .05%. While interesting, these improvements would have only a marginal impact on the overall PCI.

Table 7: Impact of Response Rate and Sample Bias on PCI Results
(Bivariate Correlation between Sample Biases and Sub-Index Scores)

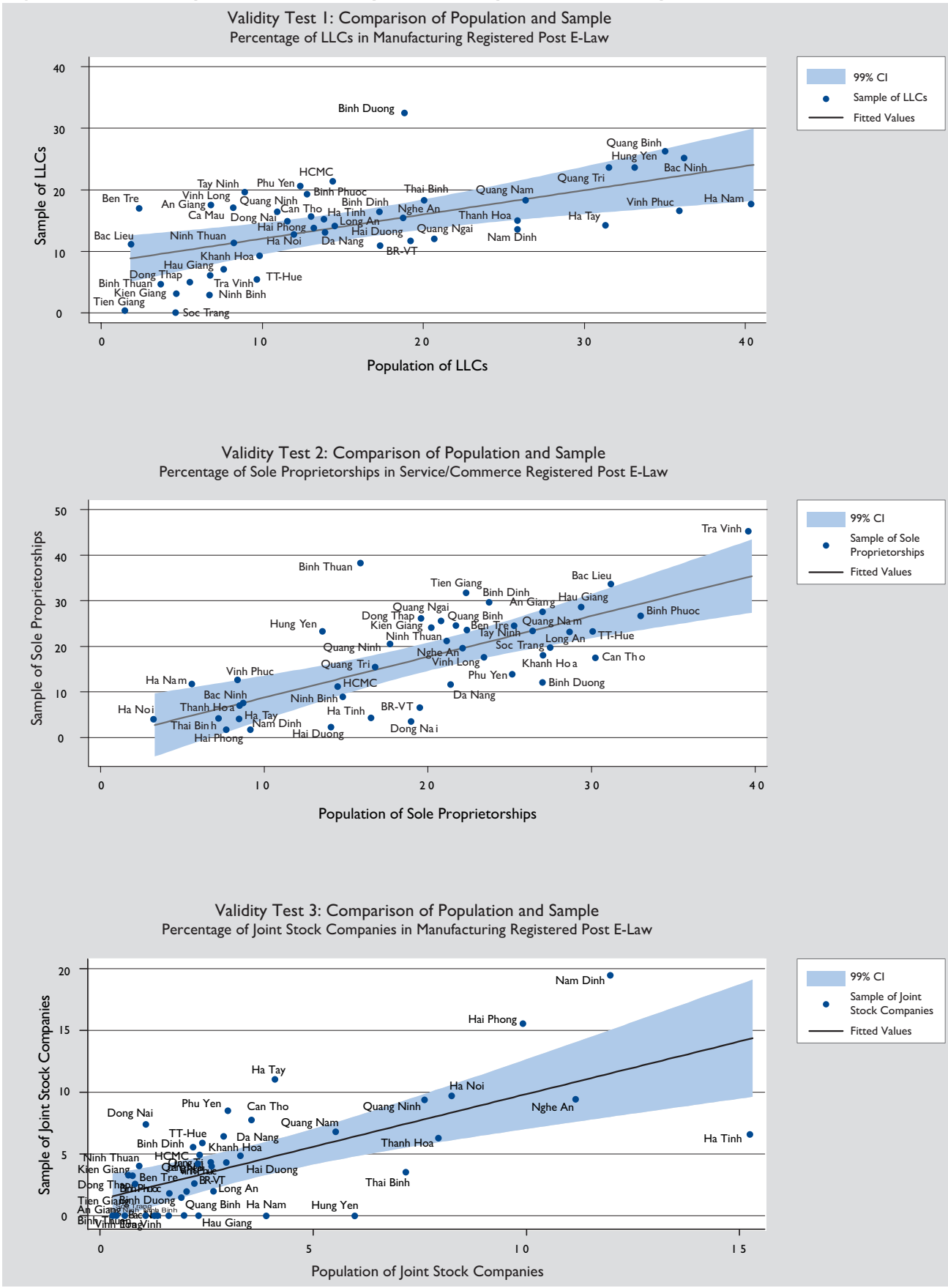
Variable	Response Rate	Sample Bias for Limited Liability Companies	Sample Bias for Sole Proprietorships	Sample Bias for Joint Stock Companies
1. Response Rate	1.00			
2. Sample Bias - LLCs	-0.37	1.00		
3. Sample Bias - Sole Prop.	-0.09	-0.20	1.00	
4. Sample Bias - Joint Stock	-0.05	0.07	-0.24	1.00
5. Entry Costs	-0.21	0.01	0.06	0.02
6. Land Access	-0.21	0.64*	0.05	-0.18
7. Transparency	0.06	0.22	-0.01	0.19
8. Time Costs	0.02	-0.11	-0.02	0.10
9. Informal Charges	0.00	-0.13	0.09	-0.03
10. Implementation	0.03	0.20	0.16	-0.31
11. State Sector Bias	-0.13	0.39*	-0.21	-0.16
12. Proactivity	-0.15	0.36	-0.12	-0.12
13. Private Sector Dev.	0.04	0.40*	-0.20	0.08
14. Non-Weighted PCI	-0.10	0.40*	-0.05	-0.08
15. Weighted PCI	-0.12	0.38	-0.10	-0.02

** Significant at the 0.05 level; Sample biases are calculated from subtracting the sample proportion from the population proportion.*

Table 8: Breakdown of Firm Respondents to Surveys within 42 Provinces by Type, Sector and Age

Ownership Type	Joint Stock								Limited Liability								Private								Partnership				Total
Economic Segment	Manufacturing		Natural Resources		Service/Commerce		Agriculture		Manufacturing		Natural Resources		Service/Commerce		Agriculture		Manufacturing		Natural Resources		Service/Commerce		Agriculture		Manufacturing		Service/Commerce		
Before or After Enterprise Law	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	Before 1/1/00	After 1/1/00	
Firm Category	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*17*	*18*	*21*	*22*	
An Giang	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	17,2%	0,0%	0,0%	6,9%	10,3%	0,0%	3,4%	3,4%	10,3%	0,0%	0,0%	13,8%	27,6%	3,4%	0,0%	3,4%	0,0%	0,0%	0,0%	100,0%
Bac Ninh	0,0%	0,0%	0,0%	0,0%	0,0%	14,3%	0,0%	0,0%	3,6%	25,0%	0,0%	0,0%	3,6%	17,9%	10,7%	10,7%	3,6%	3,6%	0,0%	0,0%	0,0%	7,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Ben Tre	3,3%	3,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,3%	16,7%	0,0%	0,0%	0,0%	6,7%	0,0%	6,7%	6,7%	6,7%	0,0%	0,0%	16,7%	23,3%	3,3%	3,3%	0,0%	0,0%	0,0%	0,0%	100,0%
Binh Dinh	1,4%	5,4%	0,0%	0,0%	0,0%	2,7%	0,0%	0,0%	5,4%	16,2%	0,0%	1,4%	0,0%	16,2%	0,0%	0,0%	4,1%	13,5%	1,4%	0,0%	2,7%	29,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Binh Duong	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	18,2%	32,7%	0,0%	0,0%	10,9%	5,5%	1,8%	3,6%	0,0%	7,3%	0,0%	0,0%	1,8%	12,7%	0,0%	3,6%	0,0%	0,0%	0,0%	0,0%	100,0%
Binh Phuoc	0,0%	1,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	5,3%	19,3%	0,0%	0,0%	1,8%	8,8%	0,0%	1,8%	3,5%	12,3%	1,8%	1,8%	12,3%	26,3%	0,0%	3,5%	0,0%	0,0%	0,0%	0,0%	100,0%
Binh Thuan	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	9,5%	4,8%	0,0%	0,0%	0,0%	23,8%	0,0%	0,0%	0,0%	9,5%	0,0%	0,0%	14,3%	38,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
BRVT	0,0%	2,7%	0,0%	0,0%	1,3%	6,7%	1,3%	1,3%	2,7%	10,7%	0,0%	0,0%	8,0%	37,3%	6,7%	5,3%	2,7%	2,7%	0,0%	0,0%	1,3%	5,3%	0,0%	0,0%	0,0%	0,0%	2,7%	1,39%	100,0%
Can Tho	3,8%	7,7%	0,0%	0,0%	1,9%	5,8%	0,0%	0,0%	1,9%	15,4%	0,0%	0,0%	5,8%	21,2%	0,0%	0,0%	3,8%	7,7%	0,0%	0,0%	5,8%	17,3%	0,0%	1,9%	0,0%	0,0%	0,0%	0,0%	100,0%
Da Nang	0,0%	6,5%	0,0%	0,0%	0,0%	6,5%	1,6%	0,0%	1,6%	12,9%	0,0%	1,6%	6,5%	40,3%	0,0%	1,6%	0,0%	4,8%	0,0%	0,0%	4,8%	11,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Dong Nai	3,7%	7,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,7%	14,8%	0,0%	0,0%	0,0%	7,4%	7,4%	7,4%	11,1%	11,1%	0,0%	0,0%	14,8%	3,7%	0,0%	3,7%	0,0%	3,7%	0,0%	0,0%	100,0%
Dong Thap	0,0%	2,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	5,1%	5,1%	0,0%	0,0%	2,6%	2,6%	0,0%	0,0%	10,3%	17,9%	0,0%	2,6%	12,8%	25,6%	2,6%	7,7%	0,0%	0,0%	0,0%	0,0%	100,0%
Ha Nam	0,0%	0,0%	0,0%	0,0%	0,0%	5,9%	0,0%	5,9%	5,9%	17,6%	0,0%	0,0%	0,0%	11,8%	5,9%	35,3%	0,0%	0,0%	0,0%	0,0%	0,0%	11,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Ha Noi	3,2%	9,7%	0,0%	0,0%	1,6%	12,9%	0,0%	0,0%	1,6%	12,9%	0,0%	0,0%	4,8%	45,2%	0,0%	3,2%	0,0%	0,0%	0,0%	0,0%	0,0%	3,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Ha Tay	0,0%	10,9%	0,0%	0,0%	0,0%	1,8%	0,0%	1,8%	5,5%	14,5%	0,0%	0,0%	9,1%	14,5%	5,5%	12,7%	5,5%	5,5%	0,0%	0,0%	5,5%	3,6%	0,0%	3,6%	0,0%	0,0%	0,0%	0,0%	100,0%
Ha Tinh	0,0%	6,5%	0,0%	0,0%	2,2%	6,5%	0,0%	2,2%	0,0%	15,2%	0,0%	0,0%	2,2%	10,9%	0,0%	0,0%	6,5%	30,4%	0,0%	2,2%	8,7%	4,3%	2,2%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Hai Duong	4,8%	4,8%	0,0%	0,0%	2,4%	2,4%	0,0%	9,5%	4,8%	11,9%	0,0%	0,0%	7,1%	21,4%	4,8%	11,9%	2,4%	7,1%	0,0%	0,0%	0,0%	2,4%	2,4%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Hai Phong	1,7%	15,5%	0,0%	1,7%	3,4%	24,1%	0,0%	0,0%	3,4%	13,8%	0,0%	1,7%	3,4%	21,1%	1,7%	0,0%	0,0%	3,4%	0,0%	0,0%	0,0%	1,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
HCMC	0,0%	4,3%	0,0%	0,0%	6,4%	4,3%	0,0%	0,0%	17,0%	21,3%	0,0%	0,0%	8,5%	17,0%	2,1%	0,0%	0,0%	2,1%	0,0%	2,1%	4,3%	10,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Hung Yen	0,0%	0,0%	0,0%	0,0%	0,0%	4,8%	0,0%	4,8%	4,8%	23,8%	0,0%	0,0%	14,2%	0,0%	0,0%	0,0%	9,5%	4,8%	0,0%	0,0%	0,0%	23,8%	4,8%	4,8%	0,0%	0,0%	0,0%	0,0%	100,0%
Khanh Hoa	0,0%	4,9%	0,0%	0,0%	0,0%	3,3%	3,3%	0,0%	3,3%	9,8%	0,0%	0,0%	1,6%	14,8%	3,3%	6,6%	1,6%	16,4%	0,0%	0,0%	1,6%	18,0%	6,6%	3,3%	0,0%	0,0%	0,0%	1,6%	100,0%
Kien Giang	0,0%	3,4%	0,0%	3,4%	3,4%	0,0%	0,0%	0,0%	6,9%	3,4%	0,0%	0,0%	3,4%	6,9%	0,0%	3,4%	6,9%	3,4%	0,0%	0,0%	6,9%	24,1%	6,9%	13,8%	3,4%	0,0%	0,0%	0,0%	100,0%
Long An	0,0%	2,1%	0,0%	0,0%	0,0%	4,2%	0,0%	0,0%	6,3%	14,6%	0,0%	0,0%	4,2%	6,3%	0,0%	0,0%	6,3%	16,7%	0,0%	2,1%	10,4%	22,9%	0,0%	2,1%	2,1%	0,0%	0,0%	0,0%	100,0%
Nam Dinh	5,6%	19,4%	0,0%	0,0%	2,8%	5,6%	0,0%	5,6%	0,0%	13,9%	0,0%	0,0%	0,0%	22,2%	2,8%	11,1%	2,8%	5,6%	0,0%	0,0%	0,0%	2,8%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Nghe An	0,0%	9,6%	0,0%	3,8%	0,0%	9,6%	1,9%	0,0%	7,7%	15,4%	0,0%	0,0%	0,0%	17,3%	0,0%	0,0%	0,0%	5,8%	0,0%	1,9%	7,7%	19,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Ninh Binh	0,0%	0,0%	0,0%	0,0%	3,3%	3,3%	0,0%	0,0%	3,3%	3,3%	0,0%	0,0%	3,3%	16,7%	6,7%	6,7%	3,3%	13,3%	0,0%	0,0%	6,7%	10,0%	3,3%	16,7%	0,0%	0,0%	0,0%	0,0%	100,0%
Ninh Thuan	0,0%	3,8%	0,0%	0,0%	0,0%	5,8%	0,0%	0,0%	0,0%	11,5%	0,0%	0,0%	0,0%	5,8%	0,0%	1,9%	7,7%	15,4%	0,0%	0,0%	11,5%	21,2%	1,9%	11,5%	0,0%	1,9%	0,0%	0,0%	100,0%
Phu Yen	0,0%	8,6%	0,0%	0,0%	0,0%	5,7%	0,0%	0,0%	2,9%	20,0%	0,0%	0,0%	0,0%	17,1%	0,0%	0,0%	0,0%	11,4%	0,0%	0,0%	11,4%	14,3%	0,0%	8,6%	0,0%	0,0%	0,0%	0,0%	100,0%
Quang Binh	0,0%	1,4%	0,0%	0,0%	1,4%	0,0%	0,0%	1,4%	0,0%	26,0%	0,0%	0,0%	0,0%	16,4%	0,0%	2,7%	1,4%	13,7%	0,0%	0,0%	11,0%	24,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Quang Nam	0,0%	6,7%	0,0%	0,0%	1,7%	0,0%	0,0%	0,0%	1,7%	18,3%	0,0%	0,0%	3,3%	8,3%	1,7%	1,7%	0,0%	20,0%	0,0%	1,7%	10,0%	23,3%	0,0%	1,7%	0,0%	0,0%	0,0%	0,0%	100,0%
Quang Ngai	0,0%	4,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	8,0%	12,0%	0,0%	0,0%	2,0%	18,0%	2,0%	4,0%	6,0%	14,0%	0,0%	0,0%	2,0%	24,0%	0,0%	4,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Quang Ninh	0,0%	9,6%	0,0%	0,0%	0,0%	11,0%	0,0%	2,7%	0,0%	16,4%	0,0%	0,0%	4,1%	20,5%	1,4%	0,0%	1,4%	6,8%	0,0%	0,0%	5,5%	20,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Quang Tri	0,0%	4,2%	0,0%	0,0%	2,8%	1,4%	0,0%	0,0%	8,3%	23,6%	0,0%	0,0%	2,8%	19,4%	0,0%	4,2%	2,8%	9,7%	0,0%	0,0%	2,8%	15,3%	0,0%	2,8%	0,0%	0,0%	0,0%	0,0%	100,0%
Soc Trang	0,0%	0,0%	0,0%	0,0%	0,0%	15,4%	0,0%	3,8%	3,8%	0,0%	0,0%	3,8%	0,0%	3,8%	0,0%	0,0%	3,8%	23,1%	0,0%	0,0%	15,4%	19,2%	3,8%	0,0%	3,8%	0,0%	0,0%	0,0%	100,0%
Tay Ninh	0,0%	0,0%	0,0%	0,0%	0,0%	2,4%	0,0%	2,4%	0,0%	19,5%	0,0%	0,0%	0,0%	9,8%	0,0%	2,4%	7,3%	12,2%	0,0%	0,0%	12,2%	24,4%	0,0%	7,3%	0,0%	0,0%	0,0%	0,0%	100,0%
Thai Binh	3,7%	3,7%	0,0%	0,0%	0,0%	7,4%	0,0%	11,1%	11,1%	18,5%	0,0%	0,0%	7,4%	3,7%	3,7%	3,7%	3,7%	11,1%	0,0%	0,0%	0,0%	3,7%	7,4%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Thanh Hoa	3,2%	6,5%	0,0%	0,0%	0,0%	9,7%	0,0%	3,2%	1,6%	14,5%	3,2%	0,0%	3,2%	35,5%	0,0%	3,2%	0,0%	3,2%	0,0%	0,0%	6,5%	6,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Tien Giang	0,0%	0,0%	0,0%	0,0%	0,0%	2,3%	2,3%	0,0%	0,0%	0,0%	0,0%	0,0%	2,3%	2,3%	0,0%	0,0%	13,6%	11,4%	6,8%	0,0%	15,9%	31,8%	11,4%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Tra Vinh	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	6,1%	0,0%	3,0%	0,0%	12,1%	0,0%	0,0%	3,0%	9,1%	0,0%	3,0%	6,1%	45,5%	0,0%	9,1%	0,0%	3,0%	0,0%	0,0%	100,0%
TT - Hue	1,9%	5,8%	0,0%	0,0%	0,0%	9,6%	0,0%	0,0%	9,6%	5,8%	0,0%	0,0%	0,0%	11,5%	0,0%	1,9%	5,8%	19,2%	0,0%	0,0%	5,8%	23,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Vinh Long	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,4%	17,1%	0,0%	0,0%	0,0%	4,9%	0,0%	2,4%	17,1%	22,0%	0,0%	0,0%	14,6%	17,1%	0,0%	0,0%	2,4%	0,0%	0,0%	0,0%	100,0%
Vinh Phuc	0,0%	4,2%	0,0%	0,0%	4,2%	0,0%	0,0%	0,0%	8,3%	16,7%	0,0%	0,0%	8,3%	20,8%	4,2%	12,5%	0,0%	4,2%	0,0%	0,0%	0,0%	12,5%	0,0%	4,2%	0,0%	0,0%	0,0%	0,0%	100,0%
Y-Hau Giang	0,0%	0,0%	0,0%	2,2%	0,0%	2,2%	0,0%	0,0%	0,0%	6,7%	0,0%	0,0%	0,0%	0,0%	2,2%	2,2%	6,7%	31,1%	0,0%	2,2%	15,6%	28,9%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Z_Bac Lieu	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	11,1%	0,0%	0,0%	0,0%	11,1%	0,0%	11,1%	11,1%	0,0%	0,0%	0,0%	22,2%	33,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
Z_Ca Mau	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	0,0%	10,0%	0,0%	10,0%	0,0%	0,0%	0,0%	10,0%	10,0%	30,0%	0,0%	20,0%	0,0%	0,0%	0,0%	0,0%	100,0%

Figure 18: Relationship between Firm Proportions in Populations and Samples



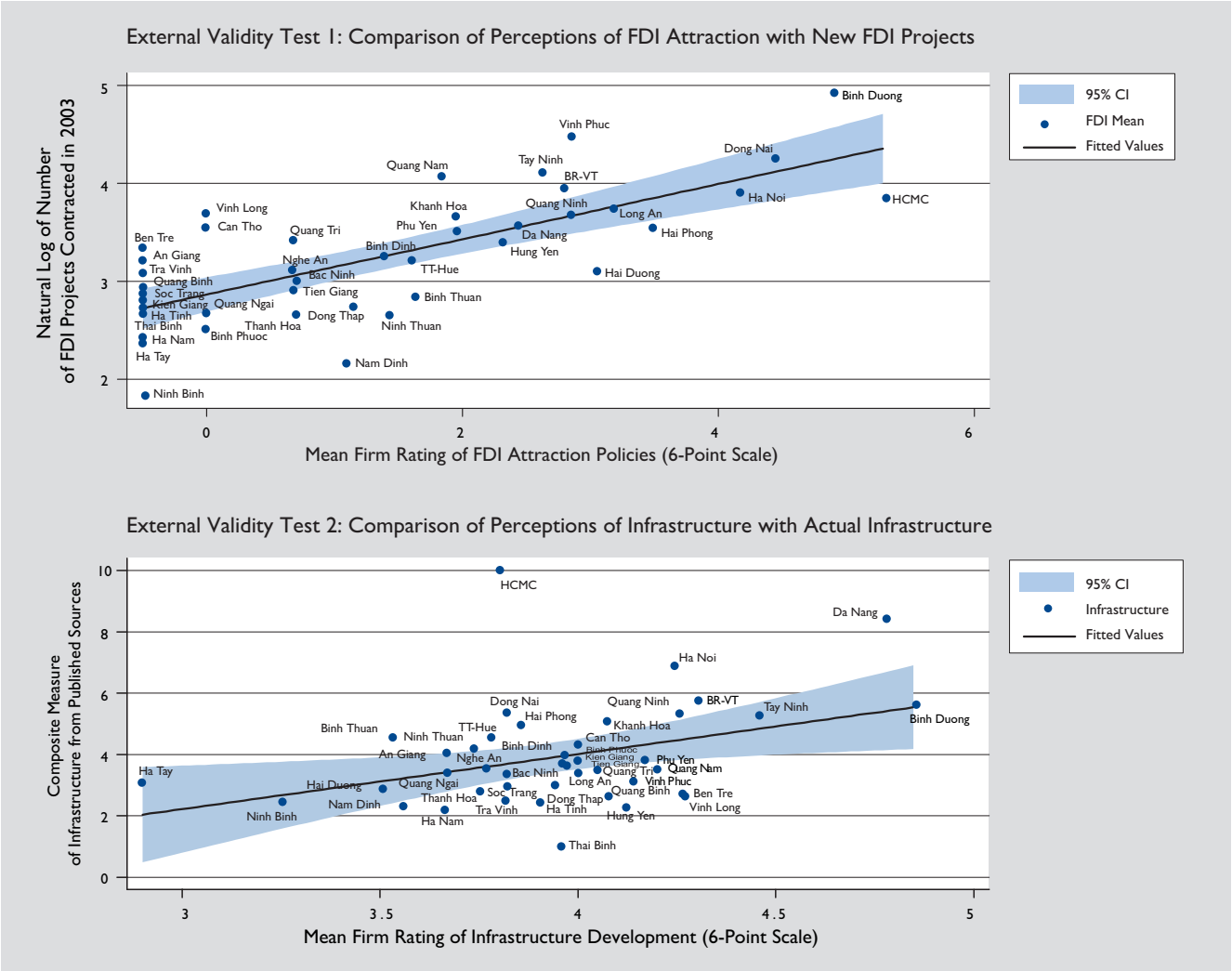
Causality may run in the opposite direction, as better Access to Land may improve the environment in order for manufacturing LLCs to prosper and survive, making the bias difficult to sort out. A second interesting result that begs an explanation is that there is a moderately strong, but slightly insignificant, relationship between the response rate and the sample bias for manufacturing LLCs of -0.37, meaning that as fewer firms responded there was more likely to be an over-sampling of LLCs in manufacturing. This result is due primarily to the fact that Mekong Delta firms had the lowest response rates as well as having far fewer LLCs.

External Validity

While the above diagnostic tests appear to show that non-response bias and sampling bias had very limited impact on scores, the final step is to compare the survey data to some objective number for which verifiable data were available. If the survey data and the objective measure match, it can be concluded that the instrument has strong external validity. In other words the results drawn from this sample of firms can be generalized to the wider population.

This is a very important diagnostic, because it allows researchers to feel comfortable in the assumption that firms can accurately assess their business environment, that the non-response bias did not impact on perceptions of specific provinces, and that the anchoring problems are minimal. This is exactly what External Validity Tests 1 and 2 in Figure 19 demonstrate. The first test compares firms' rating of their FDI attraction policies on a six-point scale in their province with the natural log of actual

Figure 19: External Validity Tests of Survey Data – Comparing Firm Perceptions to Objective Measures



projects contracted in 2003 obtained from GSO's Statistical Handbook. Indeed, private firms have nearly a perfect assessment of how well their province has done at attracting foreign direct investment and they report those numbers very accurately in the survey. The new variables have a bivariate correlation of 0.71.

The second test involves firms' perceptions of infrastructure development in their province with the PCI research team's composite measure of infrastructure and urbanization detailed in the next chapter. While the correlation is not perfect (0.41), it is significant at the 0.5 level, indicating that firms can properly assess the quality of infrastructure in their province. Firms in three cities – Da Nang, HCMC and Ha Noi – tended to undervalue the level of infrastructure development in their province, which may result from the high population densities in these provinces putting a great deal of strain on existing infrastructure. On the other hand, firms in Thai Binh, Ha Tinh and Ha Nam tended to over-value their province's infrastructure development. More research will be necessary to understand the reasons behind these assessments. One possibility is that these provinces have experienced recent positive improvements, but are not properly assessing how these improvements have impacted on their overall level of infrastructure relative to other regions of the country.

Preliminary Data Analysis

After the returned survey data were entered into a database, preliminary analysis revealed that some questions from the survey-instrument could not be used for the index. The primary reasons for these omissions were a very large percentage of missing data due to firms skipping questions[54], lack of variance in responses across provinces and discoveries that variance in responses was driven not by differences among provinces but among types of firms. Other questions were dropped when it appeared that the interpretation of answers may have differed from the original intention of the survey. One important example was the decision not to use questions about how much influence firms had over provincial policy when it became clear that only large, powerful firms answered this question affirmatively, indicating that influence may have instead been interpreted as capture of the provincial leadership or undue influence through close relationships with provincial leaders[55]. A second example was the difficulty in ascertaining whether heavy reliance by the private sector on informal credit from friends and families should be considered a sign of good provincial leadership or the opposite. Still other questions were dropped when they correlated too closely with our measures of structural endowments (see next chapter). As these measures were to be used as control variables of regression analysis for weighting the index, collinearity with key components of the sub-indices would have reduced overall sub-index weights.

For these reasons, four planned sub-indices could not be created: Service Delivery, measuring firms' perceptions of public service; Access to Finance, gauging firms' ability to obtain additional capital for investment; Participation, which sought to account for firms' ability to influence provincial decision-making through meetings and public forums; and Predictability of Informal Charges, which was intended to measure whether the impact of informal charges was limited by its regularity and the ability of firms to accurately include it in their business models.

Hard Data Collection

Why Employ Hard Data in the Sub-Indices?

There were three primary reasons for the collection of hard data from published sources and third parties. First, researchers intended to use hard data to offset the anchoring problem in survey research. This issue, which is discussed in more depth in the TAF-VCCI Economic

54. In most cases, data were deemed too valuable to drop and missing data problems were limited. In these cases data were imputed using the software program known as NORM. For more information please see 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#aut. The PCI was constructed with both imputed and un-imputed data to ensure that the imputation process did not fundamentally alter the results. The final index includes predominately un-imputed data with only two exceptions: 'the effective price of land' and 'extra fees to the tax authority/ firm revenue'.
55. Joel Hellman, et al, 'Seize the State, Seize the Day: State Capture, Corruption, Influence in Transition', World Bank Policy Research Working Paper no. 2444, World Bank Institute (September 2000), p. 7-14; Joel Hellman, et al, '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 2000).

Governance Report Volume I[56], can pose dangers for an exercise like the PCI. Put simply, firms (often of small- or medium-scale) that have operations only in one province do not know much about the administrative quality of their neighbors, much less provinces on the far side of the country. Therefore, on questions where they must rank a policy of their province along a likert scale, they may rank their province lower or higher than an objective observer with knowledge of all provinces would. As their reference point is only one province over time, they do not know how a specific policy may differ slightly in another province. Moreover, researchers have no concept of the ideal model that is being used by these firms as their comparative reference point. To some extent, the low scores that the major cities gave to infrastructure in Figure 19 offer evidence of this problem.

Three possibilities existed for researchers to resolve the issue of multiple anchors of firms across provinces.

- *Expert Opinions:* Researchers could perform an expert survey of those knowledgeable about provincial governance in every province. These expert opinions would be used to correct misperceptions of firms in the final index assembly. The creators of the Global Competitiveness Index used just such an "Expert Opinion Survey" of foreign investors, which they included in their index[57]. An attempt was made at an expert survey of Vietnamese provinces, but this was discarded after too few respondents had the breadth to answer definitively about more than a handful of provinces.
- *Anchoring Questions:* Researchers could insert anchoring questions into the survey, asking firms to list which provinces they perceived to be the best and worst on a ten-point scale, inserting their own province somewhere on that scale. This was the method employed by the TAF-VCCI Economic Governance study, but it was more difficult to use in the PCI study as the geographic scope meant that many provinces had little familiarity with high and low performing provinces in other regions, especially in the North Central Coast and Mekong Delta. Furthermore, the TAF-VCCI research project found that anchoring questions took a great deal of time, which would have increased the non-response bias.
- *Hard Data:* The third alternative was the approach favored by the PCI research team. Collect as much data as possible from published sources and third parties and include these along with the perceptions data in the index under the assumption that the averaging of firms' perceptions with hard data will prove to be a more reliable score than perceptions alone.

The second reason for the hard data collection effort was to build measures of structural endowments to be used in weighting the index. Researchers wanted to disentangle private sector performance related to good governance from performance caused by infrastructure, proximity to markets and human capital. As the provincial competitiveness index seeks to inform policy, a narrow focus on initial structural conditions is problematic. Equalizing differences in structural conditions is at best a long-term project and at worst an impossible goal. No matter how creative and clever the leadership and no matter how innovative the policies, Quang Binh province is unlikely to move any closer to the large retail markets and foreign buyers of HCMC. Infrastructure projects are also expensive endeavors that must be carefully considered on a national basis. It makes little sense to build a port in each harbor, as international shipping companies are unlikely to make more than one or two calls in Vietnam on any trip. As a result, the national government must choose carefully the infrastructure projects that are likely to have the largest effect on the country as a whole, so an index that rewarded provinces for having more or higher quality ports is unfair and misleading.

The third reason for the hard data collection effort was to measure the relative contribution of sub-indices in order to weight the index (see the final chapter in this report for a detailed discussion of this process). The goal of the

56. The Asia Foundation and Vietnam Chamber of Commerce and Industry (forthcoming). Provincial Economic Governance in Vietnam Provincial Economic Governance in Vietnam, Volume 1, Ha Noi, Vietnam: The Asia Foundation, Appendix 2, p.39.

57. See Blanke, Jennifer, Fional Paua, and Xavier Sala-I-Martin, 'The Growth Competitiveness Index: Analyzing Key Underpinnings of Sustained Economic Growth', The Global Competitiveness Report (New York: Oxford University Press for the World Economic Forum, 2002 - 2003), p. 27.

research team was to weight the index by the impact each dimension of governance had on important private sector outcomes (i.e. number of active firms, investment and profit). These outcome variables (or "dependent variables" in statistics terminology) should be collected by a third party and therefore not subject to the same methodological process as the survey data.

Hard Data Collection Methods

Hard data collection involved a great deal of work on the part of the research team and a very resourceful and creative project intern. The first step was to collect as many published data sources as possible. These included not only large data compilations – such as *The Statistical Yearbook* of the GSO, *Labor Statistics* from the Ministry of Labor, Invalids and Social Affairs (MOLISA), and GSO's *Enterprise Census* – but also the World Bank's *The Quality of Education at the End of Primary School: Vietnam in 2002* and the United Nations Development Program's Millennium Development Goals. A final important source of published information was the provincial budget data and targets from the Ministry of Finance (MOF), which are available on the MOF website[58].

When published data still proved wanting, the research team engaged in third-party interviews in order to collect additional hard data. Logistics and freight forwarding companies were surveyed to collect price data on the cost of shipping a 40-square foot container from the provincial capital to Tokyo. Real estate firms and local business associations were interviewed regarding the price of land on a major street in the provincial capital and the average price of utilities in the province. State Commercial Banks were asked to provide their lending data to SOEs and private firms by province. These sources were forthcoming and helpful with information.

The measure of web page transparency was our own analysis of information provided on each provincial web page. The exact metric is explained in Table 3. This analysis can be replicated simply by typing "www.ProvinceName.gov.vn". Finally, data were collected on the price of Pho in every province by enlisting the help of hundreds of participants in several on-line forums. Participants were asked to give the price of Pho from shops on the major street in the provincial capital. Responses from this request were averaged to construct a final Pho index of Purchasing Power Parity.

Conclusion

In summary, the PCI research team was methodical and diligent in its data collection. Potential data problems, such as non-response bias and sampling bias, were carefully considered and their impact on the results tested through a battery of diagnostic tests. Internal validity and external validity tests proved that the data quite closely matched the data in the general population of firms and that firm perceptions corresponded with more objective measures of FDI attraction and infrastructure. Some sampling bias was discovered in one type of firm (manufacturing LLCs), but it had a marginal impact on the overall index scores. Of course, survey data has some limitations and responsible researchers must be transparent about these problems and how they were resolved – as transparent as the research team would expect provincial leaders to be about their own data.

The research team is already working to identify ways to further limit biases in the next iteration of the survey. On the whole, however, the PCI data is the best quality of any firm-level survey performed in Vietnam to date. The following chapter explains the next step: assembling perceptions and hard data into the final nine sub-indices.

58. www.mof.gov.vn

DISENTANGLING STRUCTURAL ENDOWMENTS FROM ECONOMIC GOVERNANCE

Introduction

From the outset of the project, the research team strove to construct an index that measured a province's competitiveness independent of its endowments. It is undisputed that many provinces had head starts in economic development due to better infrastructure, a more skilled and literate workforce and closer proximity to large markets either in Vietnam or abroad.

Moreover, the advantage of initial conditions granted to provinces can be reinforced due to a peculiarity of the Vietnamese financial system. Vietnam sets national taxes through the MOF but returns all revenue generated by provinces to the province above an annually negotiated target[59]. While only six provinces routinely bring in more revenue than expenditure, close to two-thirds meet their targets on a regular basis[60]. For the highest revenue earners, the central government negotiates percentage return rates. HCMC, for example, can keep 29% of its surplus revenue, while Binh Duong can keep 44%[61]. The return can be substantial in some cases and many recipient provinces have been able to retain a great deal of revenue. In fact, the gap between target and actual revenue in the highest income provinces on a per capita basis has been higher than the total planned expenditure per capita in low-income provinces[62]. This extra revenue can be pumped back into infrastructure spending and educational spending, so that provinces that began under initially auspicious conditions can continually expand their advantage over time.

As the philosophy of this index is to focus on what provincial leaders can do in the short-term to improve the business climate for private sector companies, the research team was primarily interested in the nine dimensions of the regulatory climate discussed in Section 1. Nevertheless, properly assessing the impact of good economic governance necessitates that the portion of the success in private sector development that can be attributed solely to the regulatory environment independent of initial structural conditions is first isolated and calculated independently.

Use of Factor Analysis

The research team collected data on twelve of the most commonly cited measures of structural conditions (listed in Table 9). Due to the high collinearity between these different measures of initial conditions, it was impossible to simply construct an additive measure without fear of double-counting. Success on clusters of these measures is likely to be caused by a small set of unobserved factors that, if identified, allow for sharpening the measures of the initial conditions. To solve this problem, a technique known as factor analysis was chosen to reduce the twelve measures to a smaller number of uncorrelated variables. The technique resulted in three derived factors, labeled Level of Development, Quality of Infrastructure and Distance from Markets. This greatly facilitated analysis because it was much easier to understand the impact of three uncorrelated variables than twelve that have a complicated pattern of interrelationships[63]. Of course, it would have been easier if the questions could be grouped ex ante and the mean response could

59. World Bank 1996; Vietnam is not the only country: Kazakhstan, Ukraine and China have all used this mechanism for periods of time (Norris, Martizes-Vazquez, and Norregard 2001).
60. Bird et al 1995; Rao, Bird and Litvack 2001; Vasavakul, 2002; Government of Vietnam-Donor Working Group, 2000.
61. Before its request was granted in 2001, HCMC was only able to keep 15% of its revenue.
62. World Bank 1996.
63. For information on how this operation works, please consult Bartholomew, David J., Fiona Steele, Irini Moustaki, and Jane I. Galbraith, 2002, The Analysis and Interpretation of Multivariate Data for Social Scientists, Boca Raton: Chapman and Hall CRC.

Table 9: Factor Analysis with Varimax Rotation of Structural Conditions for Reform

Variable	1. Level of Development (Emphasis on Human Capital)	2. Quality of Infrastructure /Urbanization	3. Distance from Large Markets
1. Labor Quality from MOLISA: Weighted score based on the percentage of provincial full-time laborers who are illiterate, literate, primary school graduates, and secondary school graduates (2002)	0.934	0.138	-0.087
2. Mean score on World Bank Achievement Test of 5th Graders in Math and Reading (2002)[64]	0.822	0.227	0.098
3. Percentage of communes with roads to provincial capital (VLSS 2002)	0.689	0.165	0.025
4. Percentage of communal roads that are paved (VLSS 2002)	0.468	-0.067	-0.431
5. Average percentage of population living in urban areas (1995-2002)	0.059	0.946	0.042
6. Millions of tons of freight transported on provincial roads per kilometer (1995-2002)	0.208	0.707	0.029
7. Average telephones per thousand people (1995-2002)	0.186	0.862	-0.187
8. National-level city in 2004 or shares border with national-level city (Dummy variable)	0.159	0.471	-0.366
9. Agricultural output/GDP 2002	0.585	-0.676	-0.086
10. Costs of shipping a 40-square foot container from provincial capital to Tokyo	0.096	0.417	-0.722
11. Distance in kilometers from Ha Noi or HCMC	-0.039	0.067	0.889
12. Average retail sales as a percentage of GDP (1995-2002)	-0.249	0.352	0.498
Eigenvalue	4.64	2.24	1.84
Cumulative variance explained	35.70%	53.00%	67.10%

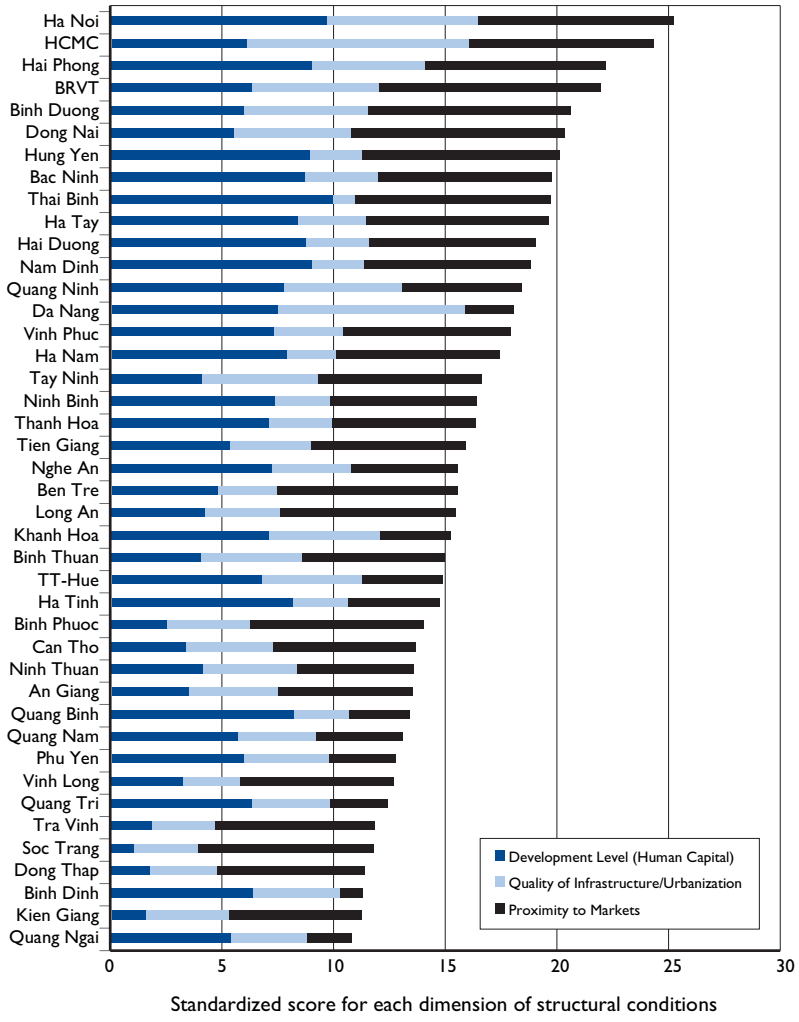
be simply taken, but often the grouped pattern of the data is not obvious at first glance.

The three factors are listed as column heads in Table 9. Together they explain about 67% of the variance between the different measures of structural conditions. The structural conditions that correlate strongest with the derived factors are shaded. Other factors contribute only marginally to the underlying factor.

Level of Development is composed primarily of the human capital indicators of labor quality and primary achievement test scores, but also includes measures of road quality and the percentage of paved roads in rural areas. *Quality of Infrastructure/Urbanization* is associated with the percentage of the population living in urban areas, the number of telephones per capita, the quality of transport measured by the millions of ton shipped per kilometer, the percentage of the economy devoted to agriculture and whether a province is or shares a border with one of the five national level cities (Ha Noi, HCMC, Hai Phong, Da Nang and Can Tho). This final measure picks up not only urbanization but also the benefits of the special infrastructure allotments that go along with the national-level city designation. The final measure, *Distance from Markets*, captures the distance that must be traversed for a private firm to sell its product. Average

64. World Bank. 2004. 'The Levels and Determinants of Grade 5 Reading and Mathematics Achievement Volume 1: Issues and Recommendations for Policy Discussion.' World Bank: Ha Noi, Vietnam, February, 2004.

Figure 20: Provincial Scores on Structural Conditions for Development



retail sales as a measure of GDP grants a view of the size of the intra-provincial market. Distance from Ha Noi or HCMC is a simple measure of how long it would take for a firm to tap into the lucrative markets in the two metropolises. Finally, the cost of shipping a 40-square foot container to Tokyo captures the costs of access to export markets[65].

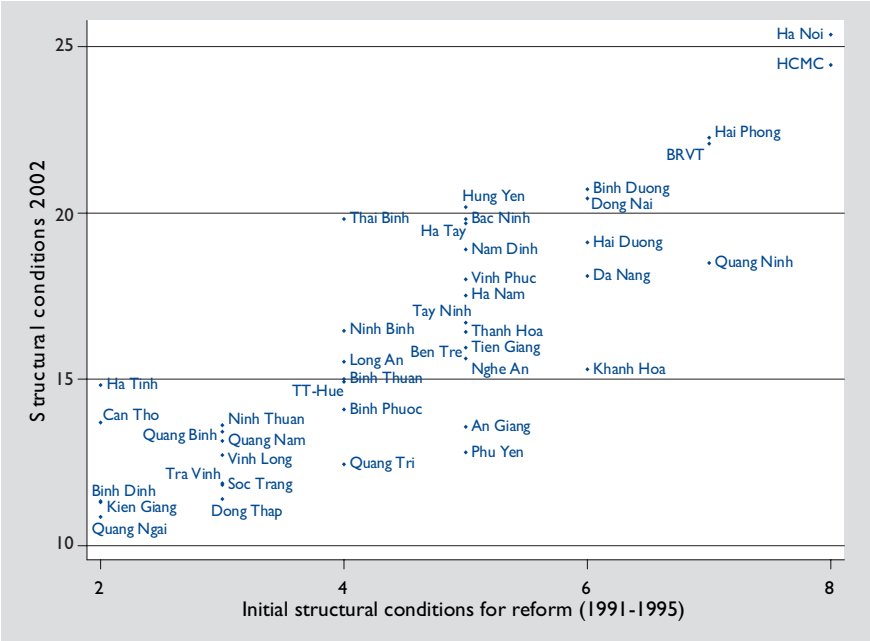
65. This measure was created by taking the best estimates of Viet Port and Evergreen shipping companies, firms that engage in this activity regularly. Mountainous regions and the Mekong River Delta were particularly expensive because containers needed to be unpacked and then re-stuffed.

For each of these three factors, a new variable was created with a standard deviation of 1. In Figure 20, these scores are standardized to a ten-point scale so that it is possible to visually identify which provinces had the most favorable structural legacies for economic growth. As is to be expected, Ha Noi and HCMC top the list followed by a number of Red River and North Southeast (NSE) provinces that benefit from their close proximity to those two cities. Red River Delta provinces have a slight advantage over the South in human capital scores, but this is equalized by higher quality of infrastructure in the NSE. The bottom of the chart is primarily composed of South Central Coast and Mekong Delta provinces. Mekong provinces scored especially poorly on human capital and quality of infrastructure.

Virtuous and Vicious Cycles of Structural Conditions

One potential problem with using these measures of structural conditions as determinants of development is that they are potentially endogenous to the measures of economic performance. Provinces may have begun with poor structural conditions, but rapid growth has allowed their leaders to channel more money into infrastructure and human capital. The financial system described above certainly facilitates such a decision. High telephone penetration rates and road transport scores may be the result of previous economic performance. If the rapid growth is the result of good regulatory practices, but manifests itself as measures of infrastructure, there is a risk of undervaluing good governance. To make sure this was not the case; the measure of structural conditions was compared to a measure capturing initial conditions for development based on many of the same indicators that were in turn based on the earliest data available on

Figure 21: Scatter of initial structural conditions (1991-1995) with structural conditions in 2002



these same indicators[66]. Figure 21 reveals that the two correlate strongly at 0.85, demonstrating poignantly the tyranny of initial conditions. Provinces that were bequeathed an initial advantage have managed to maintain that advantage over time. Poorly endowed provinces do little to narrow their structural disadvantage over time[67]. Those with a more technical bent should study the regression analyses in Tables 15 - 20 in the following chapter, which reveal that results do not vary significantly whether one uses the earlier measure of initial conditions (Models 3 and 4) or the 2003 data structural endowments data (Models 2 and 5). In fact, using the earlier data actually adds a slight increase to the substantive effect of the PCI measures, revealing that, if anything, the research team has been quite conservative in their assessment of the impact of improved governance on private sector outcomes.

Predicted Outcomes Using Structural Conditions

The next step was to analyze the impact of structural conditions on economic growth in order to derive baseline models by which to compare governance measures. The evidence is mixed depending on which outcome variable researchers choose to highlight (Model 1 of Tables 15 - 20). Structural conditions alone account for 64% of the variance in average private investment per capita (2000-2003) but only 14% of the variance in average profit per firm (2000-2003). These results are graphically illustrated in Figures 22 and 23, where predicted investment and profit based on structural conditions are displayed on the horizontal axis, with actual investment and profit on the vertical axis. In both cases, provinces above the line are out-performing their structural conditions, while those below the line are under-performing. The shaded gray area allows for a 5% margin of error due to measurement problems. Despite the tighter fit of investment, in both cases there are a quite a large number of provinces which diverge from their structural legacies.

Remarks on Structural Conditions

It is the above divergence from the advantage or tyranny (as the case may be) of structural conditions that the PCI attempts to explain. In essence, this is an attempt to capture the impact of improvements in the regulatory environment, given a set legacy of structural conditions. More importantly, the PCI hopes to identify the provinces that have made the most progress in private sector development at all levels of

66. Scores are based on contribution of agriculture to GDP 1991, telephones per capita 1991, percentage population rural 1991, communes with roads to the provincial capital 1995, tons of local freight transported per kilometer of road 1991 and distance from Ha Noi or HCMC. Scores range from a low of 1 to a perfect score of 8, shared only by Ha Noi and HCMC. For more details, see Malesky, Edmund. 2004. 'Leveled Mountains and Broken Fences: Measuring and Analyzing de facto Decentralization in Vietnam'. European Journal of South East Asian Studies 3 (2), December: 326-328.

67. Ha Tinh and Thai Binh are notable exceptions. Their improvement, however, is more likely the result of the inclusion of human capital scores in the most recent calculations, an area where the two provinces excel. Can Tho's improvement results from preparation for its national-level city status.

initial structural conditions. Once these benchmark provinces are determined, they can be used to identify what policies and initiatives are conducive to inspiring private sector growth in provinces with high, low and medium scores on initial conditions. One policy certainly does not fit all and the PCI allows us to find the tailored policy that is most likely to be effective in a particular setting.

Figure 24 is helpful in this process by displaying the PCI and structural conditions on the same 200-point scale, with both factors counting for half the final score.

Figure 22: Predicted natural log of average investment per capita (2000-2003) using structural conditions

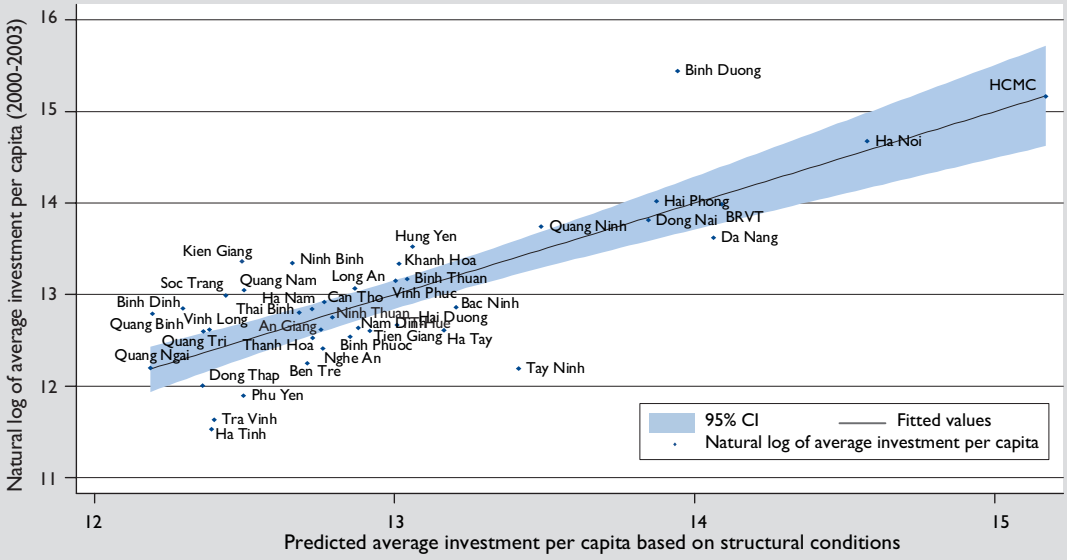


Figure 23: Predicted average profit per enterprise (2000-2003) based on structural conditions

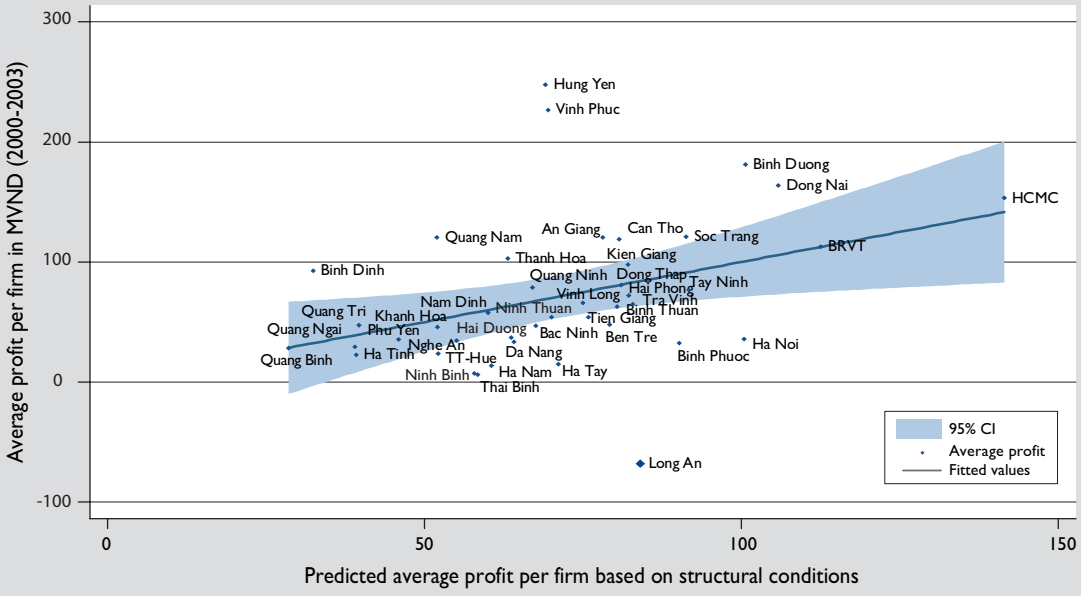
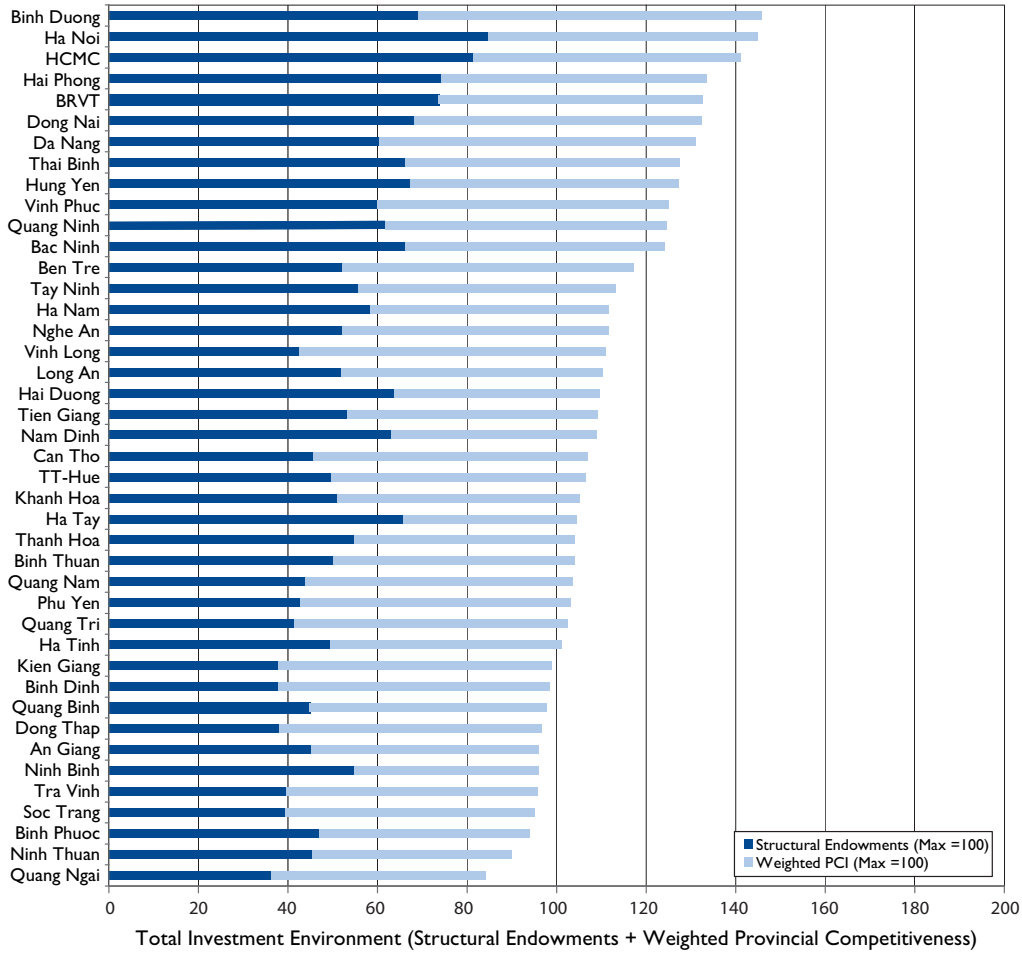


Figure 24: Total Business Environment *(Structural Conditions +Weighted Provincial Competitiveness)*



CONSTRUCTING A WEIGHTED COMPOSITE INDEX

Use of Weights

Once all nine indicators were constructed and standardized to a ten-point scale, the research team set about constructing the final composite index. While a simple additive index was clearly the easiest method, it would be inappropriate as a policy tool. This is because some sub-indices are more important than others in explaining private sector development.

Controlling for structural endowments in a multivariate regression, a one-point improvement on Entry Costs will lead to an increase in private sector investment per capita of 15% and a similar shift in Transparency will yield a 10% increase. By contrast, one-point increases in Land Access and Informal Charges will lead to only 6% and 2% more investment respectively, while an improvement on Implementation yields a score that is not statistically different from 0. From this exercise, researchers were able to conclude that Entry Costs and Transparency play a larger role in the divergence of private sector investment performance than other factors.

One should not interpret the above finding as a declaration that Land Access, Informal Charges and Implementation are unimportant in a general sense. Who can deny that improving property rights, limiting the amount of bribes paid to local government officials, or implementing the Enterprise Law would not improve private sector development? While all are certainly helpful for overall development in Vietnam, these factors are simply less relevant in explaining the differences in investment across provinces. There are three reasons for their lower stature.

First, sub-indices are not independent of one another. The interaction between sub-indices has substantive implications for performance. This is clearly shown in Table 10 where an improvement in informal charges has mixed-effects depending on whether the province is characterized as having low or high transparency. In a province with high transparency, shifting from below average (problematic) to an above average (unproblematic) score on Informal Charges will increase the number of private firms per 10,000 citizens from 5.92 to 7.91. On the other hand, improving Informal Charges in a province with below average Transparency will actually reduce the number of private enterprises from 7.13 to 6.15.

The mixed effect of reducing informal charges reveals the ability of a certain type of entrepreneur to thrive in non-transparent provinces. They are able to do this because they excel at the skills necessary to survive in markets characterized by informal payments – "rent-seeking environments". These firms are likely to have close connections with local officials and

Table 10: Interaction between Transparency and Informal Charges[68]
(Impact on Predicted Number of Enterprises per 10,000 Citizens)

	Below average score on Transparency Sub-Index	Above average score on Transparency Sub-Index
Below average score on Informal Charges Sub-Index	7.13 firms	5.92 firms
Above average score on Informal Charges Sub-Index	6.15 firms	7.91 firms

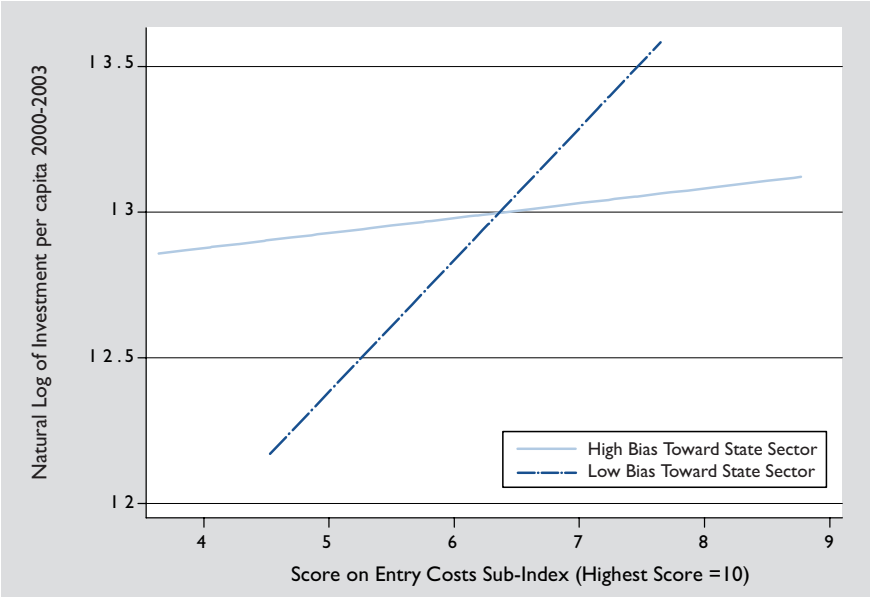
68. Results are from multivariate regression holding structural conditions, GDP in 2000 and a dummy variable for Ha Noi and HCMC constant at their means. The trend holds, with slightly different substantive effects, whether or not a dummy variable for Ha Noi and HCMC is added. See Tables 15 - 20 for actual regression results.

are perfectly aware of how much they should pay in informal charges and to whom. They are able to exploit their connections to receive, for example, insider information about where new infrastructure projects are to be built and are often offered the first bids at local government procurement. Such entrepreneurs are usually not concerned with legal obstacles because they believe they can bribe their way around them. In non-transparent provinces, these types of business have thrived. That is why the number of private enterprises is highest when scores on informal charges are the worst. Improving transparency toward all private enterprises limits the benefits of entrepreneurs with high rent-seeking skills and their success drops precipitously.

By contrast, in transparent environments, improving scores on informal charges has an immediate benefit to investment and robust private sector activity. From a practitioner's stand-point, the lesson should be that attempts that are made to improve transparency must be made hand-in-hand with improvements in transaction costs. The two problems are inextricably linked with one another and cannot be dealt with independently. In terms of weighting the PCI, the mixed effect of informal charges illustrates that it should have a lower weight in the final index.

Figure 25 demonstrates a different but equally important interaction effect that shows that improving entry costs has little effect in provinces which demonstrate a heavy bias in favor of the state sector. Firms may be able to register and receive licenses more quickly but, looking toward the future, they realize they are likely to compete on a highly unequal playing field with the state sector.

Figure 25: Interaction between Entry Costs and State Sector Bias
(Dependent Variable = Natural Log of Average Investment per capita 2000-2003)



Entrepreneurs in this environment hedge their bets by investing less. In provinces which score highly on the State Sector Bias index (indicating they have low State Sector Bias) improving entry costs has a very steep slope. This means that reducing barriers translates quite rapidly into higher investment. Entrepreneurs believe they can compete against the state sector and are willing to assume higher risks.

A second reason for the lower impact of some sub-indices is that some, such as Access to Land, demonstrate a great deal of convergence across provinces. For example, the standard deviation of Proactivity is almost twice that of Access to Land. Problems with land are felt throughout the country, with very few provinces demonstrating extremely high performance. Most likely, it is central policy toward land which is the barrier, while individual provincial policies are helpful only at the margins. On the other hand, the wide divergence in Proactivity scores indicates that some provinces are excelling in this arena, while others lag behind. Where there is high variance in scores, lower-performing provinces can benefit tremendously by narrowing the gap.

A third reason for the lower impact of certain sub-indices is that much of their explanatory power may already be subsumed in other indices. This is most clear in the case of the Implementation sub-index, which attempts to gauge firm perceptions of the implementation of central policy in

the province and across local sub-agencies within the province. Much of the effect of Implementation is likely to have already been captured by scores on Entry Costs (which reflects implementation of the 2000 Enterprise Law), Access to Land (which records implementation of the various iterations of the Land Law) and Time Costs (which records implementation of the Decree on Inspections). Because these are the most important of central policies, implementation of other central policies plays little role in explaining provincial economic performance.

Assessing the Relative Importance of Sub-indices

Every analyst and practitioner in Vietnam has a favorite measure of private sector development and recent data improvements have facilitated collection efforts on a wide variety of these measures. After careful consideration, VNCI selected three dimensions of competitiveness (outcome variables) that it believed provided the widest and deepest insights into private sector development at the provincial level. These include:

- *The ratio of private enterprises (including Sole Proprietorships, Partnerships, LLCs and Joint-Stock Companies) actively operating in the provinces to the number of citizens in the province.* Researchers believed that this data obtained from the GSO's Enterprise Census offered a far better picture of the robustness of private sector growth post-Enterprise Law than the number of registered private firms available at the provincial DPIs. Registered data simply records the number of entrepreneurs who filled-out the paperwork to start a business, but does not subtract the number of entrepreneurs who did not actually commence business activities or who began but were forced to close to due poor performance or regulatory restrictions a few years later. The GSO's number of active enterprises effectively captures the number of firms that completed registration procedures and that have been successful enough to continue business operations beyond simply the entry stage. The total number of firms in 2003 was divided by thousands of provincial citizens to account for the fact that larger population centers may simply have a larger absolute number of firms. The number of private enterprises ranged from a low of 0.19 for every thousand citizens in Thanh Hoa to a high of 3.4 firms in Ha Noi with a mean score of 0.67.
- *Average private sector long-term investment per capita (2000 - 2003)* was chosen to gauge the size of the risk entrepreneurs were willing to make. The assumption is that private entrepreneurs will be more willing to make sizable investments in more conducive regulatory environments where they can more accurately assess the long-term potential benefits and costs of their enterprise. Investments should remain small in areas where firms face a high risk of expropriation or corruption, or where subtle barriers are erected to prohibit their success. By controlling for structural conditions, such as infrastructure and proximity to markets in multivariate regressions, researchers could accurately determine how many of the risks entrepreneurs are willing to endure can be attributed to their faith in the regulatory environment. Average private investment per capita varied quite widely from a minimum of 102,000 VND in Ha Tinh to a maximum of 5.1 million VND in Binh Duong. Because of the large spread, the natural log of this variable is most appropriate for analysis.
- *Average profit per firm in millions of VND (2000-20003)* was selected as a measure of the success of individual firms over the Post-Enterprise Law period. Firm profitability in one specific time period is a very good predictor of the potential for more investment in subsequent periods. High PCI performers are more likely to create an environment in which entrepreneurialism is encouraged and rewarded by business profits rather than by public largesse. Average profit had a mean of 71 million VND and varied between net losses of 67 million VND in Long An to profits of over 200 million VND in Hung Yen and Vinh Phuc.

Calculating the Impact of Sub-Indices on Outcomes

Ideally, determination of sub-index weights would involve simply regressing all nine sub-indices on the three dimensions of competitiveness controlling for the structural conditions discussed in the previous chapter. Weights could

Table 11: Bivariate Correlation Between Sub-Indices

Sub-Index	1	2	3	4	5	6	7	8	9
1. Entry Costs	1.000								
2. Access to Land	0.143	1.000							
3. Transparency	0.458*	0.276	1.000						
4. Time/Inspections	0.263	-0.149	0.301	1.000					
5. Informal Charges	0.007	-0.010	-0.078	-0.029	1.000				
6. Implementation	0.004	0.419	-0.031	-0.255	0.051	1.000			
7. State Sector Bias	0.175	0.439*	0.123	-0.127	0.369	0.238	1.000		
8. Proactivity	0.528*	0.613*	0.500	-0.024	0.064	0.448*	0.582*	1.000	
9. Private Sector Development Policy	0.271	0.389	0.307	-0.136	-0.017	0.150	0.437*	0.508*	1.00

simply be read directly from the coefficients of the regression output, which records the substantive impact of a one-point change in the sub-index. For instance, if a one-point increase in PSD Policies led to an additional four enterprises per capita, while a one-point change in the Implementation sub-index led to only an additional two enterprises, then the weight of the PSD would be twice the weight of Implementation in the final index.

After creating the sub-indices, researchers encountered one large problem in this ideal: multi-collinearity among the sub-indices. As Table 11 illustrates, several of the sub-indices are highly correlated, particularly Property Rights, Transparency, State Sector Bias, Proactivity and Private Sector Development Policy. Provinces which excel at one of these activities also tend to excel at the other five. Running highly correlated sub-indices in the same regression will lead to imprecise measures of their respective substantive effects[69]. In practice, running two correlated sub-indices together will lead to a statistical output that shows one of the indices as highly significant and the other insignificant (or worse, significant in a negative direction).

Deriving Three Uncorrelated Factors From the Nine Sub-indices

Researchers chose to solve the problems of multi-collinearity by relying on the same factor analysis technique described earlier. Table 12 reveals the factor loadings and scores resulting from this exercise. Factor loadings are essentially the bivariate correlation with the underlying factor, while factor scores are the percent contribution of each sub-index to the factor score. Adding up all factor scores on a given factor is equal to 1. Three factors were delineated from the varimax rotation procedure. Together the three factors account for about 70% of the variance among sub-indicators:

- *Attitude:* The first factor is composed of Proactivity, PSD, Implementation, Property Rights and State Sector Bias. These are all indices that result from the overall attitude of the province toward private sector development.
- *Time-Savings:* Transparency, Entry Costs, and Time Costs are all closely associated with the second factor. These sub-indices are related by the fact that improvements on them usually involve a reduction in wasted time for private entrepreneurs. Entry Costs and Time Costs measure time directly of course, but Transparency is a very good gauge of time lost to information gathering among private firms as they attempt to procure all the legal and planning documents

69. Statistically, the size of the coefficient of any one sub-index is likely to be highly dependent on which other sub-indices are included.

Table 12: Results of Factor Analysis on Sub-Indices with Varimax Rotation

- Factor loadings are the bivariate correlation of each sub-index with the underlying factor
- Factor scores are the contribution of each sub-index to variance in the underlying factor (shown in parentheses)

Indicator	1. Attitude	2. Time Savings	3. Limited Rent-Seeking
8. Proactivity	0.846 (0.279)	0.303 (0.125)	0.051 (0.013)
2. Access to Land	0.806 (0.291)	-0.051 (-0.075)	-0.099 (-0.122)
6. Implementation	0.647 (0.252)	-0.387 (-0.253)	-0.089 (-0.119)
9. Private Sector Development Policy	0.654 (0.279)	0.156 (0.125)	-0.010 (-0.013)
7. State Sector Bias	0.618 (0.191)	-0.003 (-0.014)	0.555 (0.428)
5. Informal Charges	-0.027 (-0.051)	-0.057 (0.005)	0.932 (0.767)
3. Transparency	0.337 (0.087)	0.721 (0.377)	-0.160 (-0.121)
1. Entry Costs	0.292 (0.063)	0.710 (0.380)	0.026 (0.034)
4. Time Costs	-0.339 (-0.160)	0.730 (0.426)	0.042 (0.079)
Eigenvalues	3.13	1.73	1.16
Cumulate Variance	35%	54%	67%

necessary to run their businesses.

- Limited Rent-Seeking: The third factor is almost entirely composed of scores on the Informal Charges indicator, but includes some contribution from SOE Bias. This derived factor has therefore been labeled Limited Rent-Seeking to describe provinces with low informal costs and bias toward the state sector.

Weighting the Sub-Indices

Each of the new derived factors were run in a series of three regressions on the three outcome variables of investment, profit and number of enterprises, and the provincial PPP described earlier. The regression results, controlling for structural conditions and starting points are shown in Model 2 of Tables 15 - 20. By adding up the positive coefficients, the total impact of our competitiveness indicators on improvements in the dependent variables was determined. For instance, a standard deviation (one point) increase in Attitude would lead to a 16.03 million VND increase in profits; a similar shift in Time Savings would increase profits 13.41 million VND; and a one-point increase in Limited Rent-Seeking would result in 570,000 VND in profits. Taken together there is a 30.01 million VND cumulative shift in profits, with Attitude, Time Savings and Limited Rent-Seeking accounting for 53.41%, 44.69% and 1.9% of that increase respectively. If profit was the only outcome variable, these percentages would be the respective weights for these factors in the PCI. This procedure was repeated for all three outcome variables, deriving the outcomes displayed in Table 13 below. The final row reveals that the final weights will be Attitude 46.94%, Time Savings 39.56% and Limited Rent-Seeking 13.5%.

Once the ultimate weight of each of the derived factors is known, the individual weights for each of the nine sub-indices can be derived by working backwards. This can be done because the factor score is known; in other words its contribution to the underlying factor that is shown in parentheses in Table 13. Now, the overall factor weights are simply multiplied with the statistically derived factor scores and summed up. The result is the weight for that sub-index in the PCI. Table 14 demonstrates this procedure; final weights are listed in Column five. Figure 26 summarizes this set of procedures. In the weighted index, Entry Costs will have the largest weight comprising 17.1% of the final index, followed

Table 13: Weighting Step 1 - Results of Multivariate Regressions
(α: Impact of a one-point shift in derived factors on key outcome variables)

Outcome Variables	Attitude	Time Savings	Less Rent-Seeking	Total
Profit per enterprise	16.03 MVND	13.41 MVND	0.57 MVND	30.01 MVND
Wgt1: Contribution to profit per enterprise (%)	53.41	44.69	1.90	100.00
Number of Enterprises per 100,000 people in 2003	9 enterprises	5 enterprises	7 enterprises	21 enterprises
Wgt2: Contribution to number of enterprises per 1,000,000 people in 2003 (%)	43.53	24.8	31.6	100.00
Natural log of total average private sector investment 2000-2003 per capita (percent increase in investment)[a]	12.07%	13.52%	1.91%	27.49%
Wgt3: Contribution to average private sector investment per capita (%)	43.89	49.18	6.93	100.00
Total Factor Contribution (%)	46.94	39.56	13.50	100.00

*a. Natural logarithms can be converted to percentages by using the following formula (e^b- 1)*100, where b is the coefficient from the regression.*

Table 14: Weighting Step 2
Multiply Derived Factor Scores (in Table 12) with Total Factor Contribution (Table 13) to Generate Final Weight for each Sub-Index (46.94*Attitude Score)+ (39.56*Time Saving Score)+(13.50*Limited Rent-Seeking Score)=Final Weight

Outcome Variables	Attitude	Time Savings	Less Rent-Seeking	Weight in Final Index[70]
Multiply by Factor Contribution	*(46.94)*	*(39.56)*	*(13.50)*	*(100)*
1. Entry Costs	0.063	0.380	0.034	17.1
2. Access to Land	0.291	-0.075	-0.122	8.4
3. Transparency	0.087	0.377	-0.121	16.1
4. Time Costs	-0.160	0.426	0.079	9.6
5. Informal Charges	-0.051	0.005	0.767	7.6
6. Implementation	0.252	-0.253	-0.119	0.2
7. State Sector Bias	0.191	-0.014	0.428	13.1
8. Proactivity	0.279	0.125	0.013	16.8
9. Private Sector Development Policy	0.222	0.052	-0.034	11.1

by Transparency (16.8%) and Proactivity (16.1%). Implementation and Property Rights plays very little role in the selected dependent variables and therefore account for very small portions of 0.2%.

70. The actual result of the quantity [(49.64*Attitude Score)+ (39.56*Time Saving Score)+(13.50*Limited Rent-Seeking Score)] is 108.11. To be able to put all factors on the 100-point scale necessary for weighting, each final factor contribution was divided by 108.11.

Figure 26: Graphic Depiction of Weighting Technique

α_{fo}= Regression coefficient of derived factor (f) on dimensions of competitiveness (o) in multivariate regression with structural controls

α_{sf} = Factor score of sub-index (s) on derived factor (f) from varimax factor analysis procedure

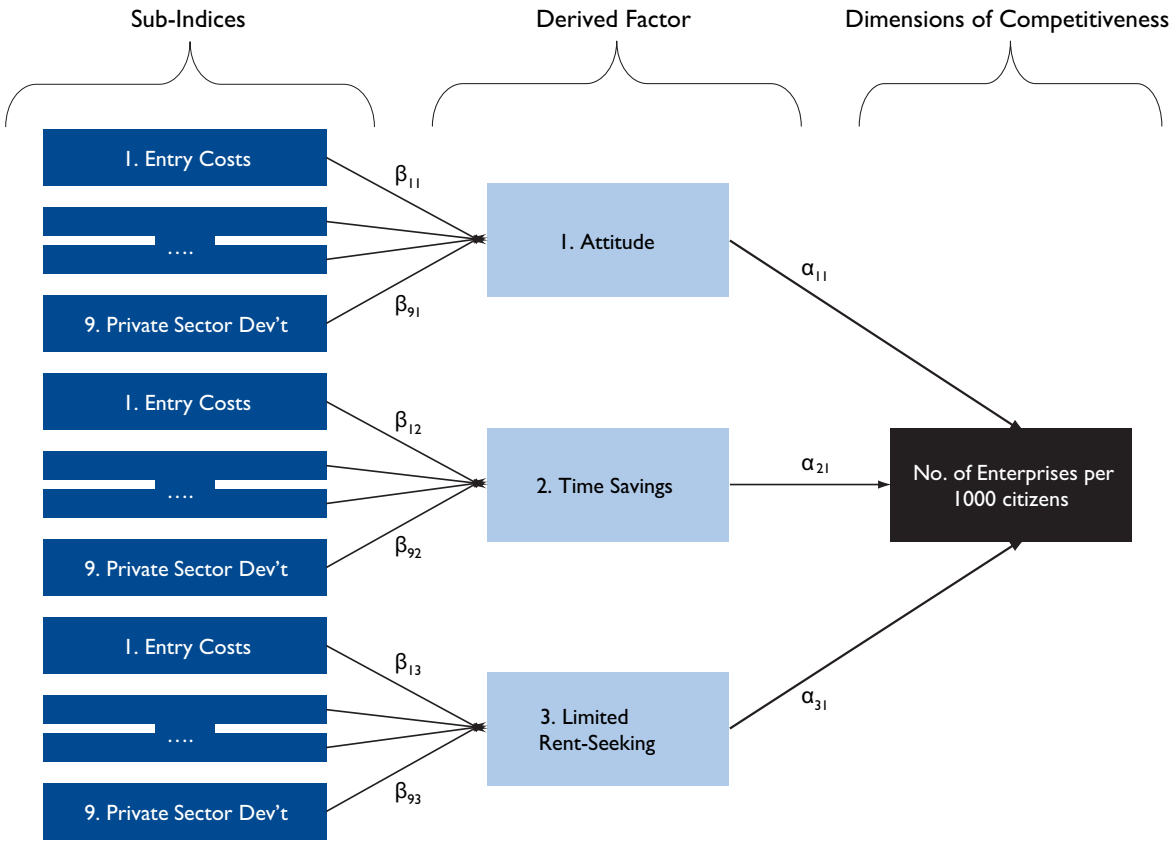


Table 15: Log Linear Regression on Average Private Investment per Capita (2000-2003)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Baseline)	Model 2 (Factors)	Model 3 (Initial)	Model 4 (PCI w/initial)	Model 5 (PCI)
Model 5 (PCI)	-3.04E-06 (-0.21)	3.04E-060.000 (0.21)	3.13E-05 (2.44)**	3.24E-05 (2.64)***	3.69E-06 (0.26)
Development Level with Emphasis on Human K	0.20 (2.49)**	0.198 (2.04)**			0.230 (2.86)*
Infrastructure	0.57 (4.87)***	0.459 (3.51)***			0.482 (4.02)***
Distance from Market	-0.32 (-3.50)***	-0.287 (-3.02)***			-0.292 (-3.31)**
Initial Conditions (91-95)			0.182 (2.57)***	0.221 (3.36)***	
Attitude		0.115 (1.22)	0.133 (1.45)		
Time Savings		0.130 (1.33)	0.227 (2.30)**		
Non-Rent Seeking		0.022 (0.24)	0.027 (0.28)		
Non-Weighted PCI				0.039 (2.56)**	0.028 (1.94)*
Constant	13.00 (113.42)***	12.969 (112.93)***	11.981 (39.15)***	9.776 (11.95)***	11.507 (14.77)***
N	42	42	42	42	42
R^2	.64	.57	.68	.55	.673

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

Table 16: Linear Regression on Average Profit per Enterprise (2000-2003)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Baseline)	Model 2 (Factors)	Model 3 (Initial)	Model 4 (PCI w/initial)	Model 5 (PCI)
Provincial GDP 2000				0.002 (1.37)	
Development Level with Emphasis on Human K	-7.30 (-0.80)	-6.03 (-0.56)			-3.935 (-0.44)
Infrastructure	12.55 (1.37)	3.42 (0.76)			7.495 (0.82)
Distance from Market	-17.13 (-1.87)*	-16.39 (-1.76)*			-16.456 (-1.87)*
Initial Conditions (91-95)			3.59 (0.58)	0.222 (0.03)	
Attitude		16.03 (1.53)	18.62 (2.03)**		
Time Savings		13.41 (1.26)	11.32 (1.13)		
Non-Rent Seeking		0.57 (0.06)	4.36 (0.47)		
Non-Weighted PCI				3.670 (2.47)**	3.183 (2.05)**
Constant	71.3 (7.89)***	71.30 (8.08)***	54.97 (1.85)*	-131.462 (-1.63)	-95.510 (-1.17)
N	42	42	42	42	42
R^2	.14	.24		.24	.23

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

Table 17: Linear Regression on Number of Active Private Enterprises per 1,000 people (2003)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Baseline)	Model 2 (Factors)	Model 3 (Initial)	Model 4 (PCI w/initial)	Model 5 (PCI)
HCMC and Ha Noi Dummy	1.64 (6.52)***	1.80 (7.59)***	2.20 (8.94)***	2.293 (10.32)***	1.811 (8.11)***
Development Level with Emphasis on Human K	0.03 (.73)	0.04 (.95)			0.048 (1.32)
Infrastructure	0.31 (5.98)***	0.27 (4.98)***			0.252 (5.26)***
Distance from Market	-0.03 (-.79)	-0.01 (.84)			-0.020 (-0.56)
Initial Conditions (91-95)			0.07 (2.19)**	0.080 (2.69)***	
Attitude		0.09 (2.10)**	0.15 (3.28)***		
Time Savings		0.05 (1.16)	0.10 (2.03)**		
Non-Rent Seeking		0.07 (1.53)	0.01 (.24)		
Non-Weighted PCI				0.031 (4.45)**	0.023 (3.62)***
Constant	0.60 (14.45)***	0.59 (15.71)***	0.24 (1.57)	-1.435 (-3.77)***	-0.606 (-1.81)*
N	42	42	42	42	42
R2	0.86	0.89	0.91	0.70	0.90

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

Table 18: Enterprise Law Registrations and Implementation (2000-2004)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Registered-Initial)	Model 2 (Registered- Full)	Model 3 (Implemented-Initial)	Model 4 (Implemented Full)
HCMC and Ha Noi Dummy	9254.332 (7.94)***	6909.315 (5.65)***	4116.072 (6.7)***	3258.042 (4.67)***
Development Level with Emphasis on Human K		816.093 (4.11)***		146.997 (1.3)
Infrastructure		1340.041 (5.1)***		358.203 (2.39)**
Distance from Market		-463.243 (-2.31)**		-261.111 (-2.28)**
Initial Conditions (91-95)	709.926 (4.54)***		148.696 (1.8)*	
Non-Weighted PCI	115.915 (3.15)***	91.792 (2.65)***	62.376 (3.21)***	52.047 (2.64)**
Constant	-7236.245 (-3.62)***	-2631.789 (-1.43)	-3369.640 (-3.2)***	-2111.204 (-2.01)*
N	42	42	42	42
R2	0.82	0.87	0.70	0.75

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

Table 19: GDP 2003 per capita in Purchasing Power Parity (Bowls of Pho)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Baseline)	Model 2 (Factors)	Model 3 (Dummy)	Model 4 (Interaction)	Model 5 (Non-Weighted PCI)	Model 6 (Weighted PCI)
Ba Ria-Vung Tau Dummy	2348.72 (15.18)***	2347.37 (16.47)***	2331.94 (13.39)***	2302.12 (13.26)***	2340.82 (16.56)***	2362.11 (16.91)***
Development Level with Emphasis on Human K	57.95 (2.55)**	77.09 (3.10)***			69.21 (3.28)***	63.60 (3.09)***
Infrastructure	155.67 (6.74)***	122.26 (4.74)***			139.02 (6.36)***	131.75 (5.92)***
Distance from Market	-37.55(-1.60)*	-41.30 (-1.85)**			-35.61 (-1.66)*	-33.17 (-1.56)
Sum of scores on structural conditions 2002			30.62 (4.19)***	13.85 (0.97)		
Attitude		73.65 (3.04)***				
Time Savings		23.33 (0.93)				
Non-Rent Seeking		-12.25 (-0.52)				
Non-Weighted PCI					10.62 (2.9)**	
Weighted Provincial Competitiveness Index						8.81 (3.08)***
Dummy variable for provinces with above median score on PCI			151.87 (2.88)***	-204.97 (-0.76)		
Interaction between sum of structural conditions and high PCI				22.51 (1.36)		
Constant	533.31 (23.43)***	533.34 (25.86)***	-41.98 (118.98)	217.82 (.97)	-22.90 (-0.12)	31.37 (0.19)
N	42	42	42	42	42	42
R2	0.91	0.93	0.88	0.91	0.92	0.93

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

Table 20: Dummy Interaction (Transparency and Informal Charges)Linear Regression on Number of Active Private Enterprises per 1,000 people (2003)
(Coefficients with t-score in Parentheses)

Variable	Model 1 (Baseline)	Model 2 (Dummies)	Model 3 (Dummy Interaction)
GDP 2000	-2.76E-05 (-3.22)***	-2.95E-05 (-3.32)***	-2.68E-05 (-3.09)***
HCMC and Ha Noi Dummy	2.46 (7.61)***	2.43 (7.36)***	2.26 (6.84)***
Development Level with Emphasis on Human K	0.02 (0.56)	0.02 (0.54)	0.05 (1.27)
Infrastructure	0.38 (6.99)***	0.37 (7.03)***	0.40 (7.53)***
Distance from Market	-0.06 (-1.54)	-0.07 (-1.64)*	-0.06 (-1.58)
Informal Charges	0.05 (1.50)		
Transparency	0.01 (.32)		
Dummy for provinces with above average score on informal charges		0.05 (0.66)	-0.10 (-0.88)
Dummy for provinces with above average score on transparency		0.07 (0.86)	-0.12 (-0.98)
Interaction between dummy variable			0.30 (1.91)**
Constant	0.35 (1.24)	0.67	0.76
N	42	42	42
R2	0.90	0.87	0.90

** Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level*

APPENDICES

Appendix 1. Non-Weighted Structural Conditions and PCI Sub-Indices by Provincial Clusters

		Structural Endowments			Provincial Competitiveness Sub-Indices							
Province	Cluster	Development Level (Human Capital)	Quality of Infrastructure/ Urbanization	Proximity to Markets	Entry Costs	Access to Land	Trans-parency	Time Costs	Informal Charges	Implemen-tation	State Sector Bias	Pro-activity	Private Sector Dev. Policies
Can Tho	1. Metro	3.35	3.91	6.44	6.13	6.01	5.15	6.75	7.01	5.97	5.40	5.62	8.14
Da Nang	1. Metro	7.52	8.42	2.17	8.77	6.90	6.72	8.24	4.87	6.35	5.26	7.18	7.54
Ha Noi	1. Metro	9.73	6.82	8.81	7.28	6.05	4.12	6.78	3.97	4.32	5.72	6.23	7.73
Hai Phong	1. Metro	9.05	5.07	8.14	7.02	5.68	5.69	6.42	6.01	4.69	5.98	5.32	5.29
HCMC	1. Metro	6.13	10.00	8.31	6.23	8.32	5.57	6.56	3.38	4.55	6.28	6.11	4.99
Bac Ninh	2. Red River	8.76	3.26	7.81	6.19	6.21	5.37	8.35	5.29	6.62	4.68	7.53	2.39
Ha Nam	2. Red River	7.93	2.22	7.36	7.37	4.40	2.90	5.17	7.18	6.21	6.04	5.40	4.40
Ha Tay	2. Red River	8.44	3.04	8.21	4.27	3.67	3.75	6.10	6.87	4.84	4.27	1.20	3.27
Hai Duong	2. Red River	8.79	2.80	7.52	4.50	5.26	4.18	6.18	6.43	6.62	5.39	3.39	2.93
Hung Yen	2. Red River	8.96	2.34	8.89	7.73	6.57	5.34	6.28	7.96	5.40	5.37	6.01	3.08
Nam Dinh	2. Red River	9.03	2.36	7.50	5.82	4.23	4.19	7.41	7.08	2.77	5.85	1.60	2.56
Ninh Binh	2. Red River	7.39	2.47	6.60	4.99	5.08	2.97	8.25	5.78	6.05	4.92	2.15	1.05
Quang Ninh	2. Red River	7.77	5.34	5.39	6.49	6.41	7.12	6.32	4.58	6.47	6.09	6.74	5.41
Thai Binh	2. Red River	10.00	0.99	8.83	5.39	5.90	5.13	7.77	5.57	7.53	7.38	6.78	5.45
Vinh Phuc	2. Red River	7.35	3.12	7.54	7.46	5.71	5.37	6.50	7.17	6.62	5.87	8.12	5.18
Binh Dinh	3. Central Coast	6.39	3.94	1.01	5.50	6.40	6.04	5.92	6.04	7.05	5.85	7.11	5.45
Ha Tinh	3. Central Coast	8.21	2.48	4.14	4.66	6.09	4.52	5.80	5.98	5.60	5.90	4.62	5.06
Khanh Hoa	3. Central Coast	7.10	5.01	3.19	6.22	6.05	3.33	5.46	6.43	6.30	5.85	5.62	5.09
Nghe An	3. Central Coast	7.23	3.58	4.81	7.15	4.18	5.55	6.52	6.25	5.82	6.01	5.61	5.82
Phu Yen	3. Central Coast	5.99	3.81	3.00	6.56	6.35	5.84	4.17	6.40	6.56	5.76	6.72	6.00
Quang Binh	3. Central Coast	8.26	2.44	2.72	5.77	6.54	4.01	6.41	5.97	8.20	5.42	4.58	5.06
Quang Nam	3. Central Coast	5.71	3.52	3.91	6.23	6.22	4.65	5.23	5.04	8.00	5.92	7.01	7.03
Quang Ngai	3. Central Coast	5.40	3.44	2.01	5.27	5.32	3.85	5.65	5.88	5.67	5.33	4.13	3.96
Quang Tri	3. Central Coast	6.38	3.48	2.59	6.48	5.76	4.72	7.22	6.89	5.95	6.51	5.13	7.35
Thanh Hoa	3. Central Coast	7.11	2.85	6.48	4.86	5.05	4.54	7.06	6.27	4.17	5.27	3.65	4.30
TT-Hue	3. Central Coast	6.81	4.50	3.62	6.31	5.56	4.49	6.48	6.32	5.52	5.15	5.07	6.93
Binh Duong	4. North Southeast	5.96	5.62	9.14	7.65	7.88	6.05	6.29	8.85	7.39	8.53	9.30	6.92
Binh Phuoc	4. North Southeast	2.50	3.78	7.82	4.05	6.08	2.78	5.16	4.37	6.99	5.67	5.28	5.27
Binh Thuan	4. North Southeast	4.06	4.52	6.42	6.18	6.48	6.14	7.66	5.86	5.81	4.17	3.13	4.91
BRVT	4. North Southeast	6.34	5.75	10.00	5.33	7.06	4.69	6.43	6.70	6.54	5.80	6.54	5.93
Dong Nai	4. North Southeast	5.53	5.30	9.62	6.52	6.42	5.19	7.88	6.88	5.30	6.30	7.74	4.58
Long An	4. North Southeast	4.25	3.38	7.89	7.24	6.37	3.51	6.23	6.91	5.34	6.22	5.89	5.17
Ninh Thuan	4. North Southeast	4.13	4.23	5.26	3.64	6.08	3.29	4.52	6.31	5.96	5.66	3.57	4.67
Tay Ninh	4. North Southeast	4.09	5.23	7.38	5.21	7.22	3.25	6.32	6.85	6.26	6.78	4.95	7.80
An Giang	5. Mekong	3.52	4.00	6.05	6.36	7.07	4.10	4.64	3.44	7.96	4.75	5.61	4.18
Ben Tre	5. Mekong	4.82	2.67	8.12	7.02	6.73	4.92	7.75	6.77	6.83	6.29	7.50	5.50
Dong Thap	5. Mekong	1.74	3.03	6.64	6.27	6.76	4.72	5.60	7.87	6.01	6.29	5.91	4.53
Kien Giang	5. Mekong	1.58	3.73	6.00	6.44	6.28	4.74	7.26	7.28	7.68	6.29	6.39	5.05
Soc Trang	5. Mekong	1.00	2.92	7.91	7.35	6.03	4.03	5.26	4.21	6.97	6.15	5.79	4.80
Tien Giang	5. Mekong	5.35	3.64	6.96	6.40	6.71	3.23	6.58	8.10	8.27	6.19	5.51	3.72
Tra Vinh	5. Mekong	1.81	2.88	7.18	4.53	7.96	3.80	4.01	8.39	7.61	6.72	6.20	5.54
Vinh Long	5. Mekong	3.22	2.59	6.91	5.66	7.50	5.58	5.52	7.21	6.62	7.35	8.56	7.84

Appendix 2. Media Reporting of the PCI

The following list contains known media reports regarding the PCI. Full texts of most of these reports can be found on the VNCI website, by clicking on the title of the report.

NATIONAL MEDIA

1. Chỉ số Năng lực Cạnh tranh cấp tỉnh: "Lời nói thật" của DN, Nguyễn Hương, Báo Diễn đàn Doanh nghiệp điện tử (electronic), Friday 27 May 2005
   http://www.dddn.com.vn/webplus/viewer.print.asp?aid=10140&l=VN
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2. Đánh giá chỉ số năng lực cạnh tranh cấp tỉnh về môi trường kinh doanh: DN "chấm điểm" lãnh đạo tỉnh, Bản tin của VCCI, 26 May 2005
   http://www.vcci.com.vn/thongtin_kinhte/tinvcci/Multilingual_News.2005-05-26.1624/chitiet_tinnong
   [The provincial competitiveness index on the business environment: Businesses gave scores to their provincial leaders, VCCI News Bulletin]

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4. Năng lực cạnh tranh từ đâu ra?, Thời báo Kinh tế Sài gòn, No. 22-2005 (754), 26 May 2005, p.1.
   [Where does competitiveness come from?, The Saigon Economic Times]

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   [Less known but business environment found good, The Saigon Economic Times]

8. Look To Business Environment, Hoang Lang, The Saigon Economic Times Weekly, No 22-05 (713), May 28, 2005, pp.20-23.

9. Finding Gold in Research Diggings, Tran Le Thuy, The Saigon Economic Times Weekly, No 22-05 (713), May 28, 2005, p.24.

10. Bình Dương đứng đầu về năng lực cạnh tranh, Hà Vy, VN Express, Thursday 26 May 2005.
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    [Binh Duong ranks the top on the competitiveness, VN Express]

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    [Provincial competitiveness index on the busisness environment released: Who stands where?, The Youth Online]

12. Hà Nội và Tp. Hồ Chí Minh không hấp dẫn các nhà đầu tư?, Nguyên Phong, VietnamNet, 27 May 2005
http://www.vnn.vn/service/printversion?article_id=650336
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http://www.sgtt.com.vn/cacsobaotruoc/518_20/p01_haidautau.htm
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16. Không ngạc nhiên khi thấy các "đại gia" tụt hạng, Lương Bích Ngọc, Vietnam Net, 27 May 2005
[No surpise that the "giants" ranked low, Vietnam Net]

17. Cạnh tranh cấp tỉnh: Cần minh bạch, không cần "xé rào", Tô Hà, Người Lao động (Online), 26 May 2005
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18. Xếp hạng năng lực cạnh tranh: Hà Nội, TP. Hồ Chí Minh thấp!, Thu Huyền, Tiền Phong Online, Friday 27 May 2005
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[Transparency Index, The Labor (online)]

23. Sức cạnh tranh của Hà Nội, TP. HCM, Hải Phòng chỉ đạt loại khá, Dân Hùng, Thanh Niên Online, Friday 27 May 2005.
http://www.thanhnien.com.vn/Xahoi/2005/5/17/111014.tno
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[Be calm and be brave!, Tuoi tre Online]

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[Hanoi and HCMC: rankings dropped because of low transparency, Tien Phong]

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35. "Xé rào" – công và tội, Đình Chúc, Mục sự kiện và bình luận, Lao động No. 150/2005, 1 June, 2005 (có trích dẫn kết quả PCI) and Laodong online
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36. Đằng sau những thông số gây "sốc", Minh Hà, Báo Người lao động, 31 May 2005 and Online
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Appendix 3. Firm Questionnaire

Vietnam Competitiveness Initiative and Vietnam Chamber of Commerce and Industry

Provincial Competitiveness Index

Firm-Level Survey Questionnaire

Background information[71]

1. Name of firm .....
2. Address .....
3. Phone number .....
4. Fax .....
5. E-mail .....
6. Name of interviewee .....
7. Position .....

A. Basic business information

1. What year was the firm originally founded? .....

   What year was the firm registered as a legal private company at the Department of Planning and Investment (DPI)? .....

   If the registration at DPI was a re-registration, what year did you originally register the firm? .....

2. Where are your principal operating facilities located? .....
3. What is this company's current legal form?
   - Private
   - Limited liability
   - Shareholding company
   - Other
4. What is the ownership history of this enterprise?
   - 100% privately-owned and independent since start-up
   - 100% private now, but previously fully/partly owned by or legally connected to public sector/government
   - 100% private now, but previously owned or legally connected to a larger private company at start-up
   - 100% private now, but has joint venture with government agency or SOE.
   - Currently majority-private, but some shares held by government agency or SOE.
   - Other
5. What is the principal sector in which your firm operates?
   - Industry/Manufacturing
   - Construction
   - Service
   - Trade
   - Agriculture/Forestry/Aquaculture

71 All the information provided in this questionnaire is to be solely used for empirical study. We are committed to keep all the information that you provide us private and confidential.

6. What are the firm's main product lines or service activities? .....

7. What was the registered capital of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

8. What was the actual owner's equity capital of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

9. What were the liabilities (borrowings and accounts payable) of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

10. What was the total number of employees of your firm?
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

11. What were the gross revenue of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

12. What percentage of your sales results from exports? .....%

13. What were the profits of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

14. What was the value of fixed assets of your firm:
   - At the time of establishment .....
   - In 2002 .....
   - In 2003 .....

15. By your best estimates, what percentage of your sales was reinvested in 2003:
   - Less than 5%
   - 5-10%
   - 10-15%
   - 15-20%
   - 20-25%
   - Greater than 25%

16. Who are your main customers?
    - Foreign individuals
    - Foreign companies (including representative offices and branches)
    - Vietnamese individuals
    - Private Vietnamese firms
    - Vietnamese cooperatives
    - Vietnamese SOEs
    - Central Vietnamese government agencies
    - Local/Provincial authorities
    - Other .....

17. From whom do you purchase your inputs?
    - Foreign individuals
    - Foreign companies (including representative offices and branches)
    - Vietnamese individuals
    - Private Vietnamese firms
    - Vietnamese cooperatives
    - Vietnamese SOEs
    - Central Vietnamese government agencies
    - Local/Provincial authorities
    - Other .....

18. What percentage of your inputs do you import from abroad? .....%

B. Basic Implementation of the Enterprise Law

B1. Land Issues

1. Where is the location of your main facilities or office?
    - Business property
    - Part of my household property
    - Inside the compound of a state-owned enterprise
    - Household property of a business partner, friend, or relative.
    - In an industrial estate (industrial zone or industrial concentration)
    - Other
2. How did you obtain the land that your business sits on?
    - I purchased the land (Go to question 2.1).
    - I inherited the land (Go to question 2.2).
    - I am renting the land (Go to question 2.3).
    - I have an informal arrangement to use the land of another party (Go to question 3).
    - Other (Please describe) .....(Go to question 3).

2.1. If you purchased the land:

2.1.1. What year did you purchase the land? . . . . . .

2.1.2. From whom did you purchase the land?

- Vietnamese individuals
- Private Vietnamese firms
- Vietnamese cooperatives
- Vietnamese SOEs
- Local/Provincial authorities
- Other……..

2.1.3. Does the land that your firm currently sits on have any legal documentation?

- Red book or official certificate of land use rights (CLUR)
- Presently applying for a red book
- No official CLUR, but not applying for red book
- Other . . . . . .

2.1.4. From the time of application to the receipt of the CLUR, how many days did you have to wait or how long have you waited thus far? . . . . . .

(Please go to question 3)

2.2. If you inherited the land:

2.2.1. Did the land have a formal land use right certificate when you inherited it?

- Yes
- No

2.2.2. If you did not have a formal land use rights certificate after inheriting it, how long did it take provincial officials to grant you a CLUR? . . . . . days. What year did you received the formal CLUR? . . . . . .

(Please go to question 3)

2.3. If you are leasing the land:

2.3.1. From whom are you leasing?

- Vietnamese individuals
- Private Vietnamese firms
- Vietnamese cooperatives
- Vietnamese SOEs
- Local/Provincial authorities
- Other . . . . . .

(Please go to question 3)

3. How would your business change if land was easier to obtain?

- We would expand plan size
- We would diversify into new activities requiring more land
- Our dependence on SOEs would be reduced
- Other, please explain . . . . . .

B2. Licenses and Permits

4. Currently, how many registrations, licenses (environmental, labor, natural resource exploitation, etc.), and permits does your firm have (Please count all the licenses, permits, etc, issued by different agencies, even if they deal with the same type of activity)? . . . . . .

5. What are the three most important licenses, registration, and permits for your business? How long did it take you to receive them?

License/Permit	Days to receive
1.	
2.	
3.	

6. If you registered before the Enterprise Law of 2000, how long did it take you to register your business? . . . . . (days)?

7. If you registered after the Enterprise Law of 2000, how long did it take you to register your business at the Department of Planning and Investment (DPI). . . . . (days)?

8. How long did it take you to get all the relevant documents necessary to be a fully legal business in your province?
   - Same day
   - Within one week
   - Less than a month
   - 1-3 months
   - 3-6 months
   - More than 6 months
   - Other……

9. Did you have trouble obtaining licenses and permits that you have?
   - Yes
   - Somewhat
   - No

10. If so, with which documents and what kinds of problems did you encounter . . . . . .

B3. Inspections and examination visits

11. How many total times was your business inspected/examined in 2003? …… (times).

12. How did the number of inspections/examination compare to the period prior to the 2000 Enterprise Law?
   - Decreased
   - No Change
   - Increased

13. On average, how many hours did the inspection last, and what were the costs of it?

Agency	No. of visits per year	Average hour per visit	Cost of fines or seized goods (VND)	Informal costs (VND)
Tax Inspectors				
Customs Agency				
Fire and Safety				
Sanitation				
Local Police				
Construction				
Market Regulator				
Traffic Police				
Other				

14. How many times tax inspections were voluntary visits of the tax authority to assist your preparation rather than inspections of problems or investigations? .....

C. Planning and Policies

1. Could you please rate the overall quality and efficiency of services delivered by the following central public agencies as they apply to your business? Please check only one box per agency.

Agency	Very good	Good	Slightly good	Slightly bad	Bad	Very bad
1. National Assembly						
2. Prime Minister's Office						
3. Ministry of Planning and Investment						
4. Ministry of Industry						
5. Ministry of Finance						
6. Ministry of Natural Resources and Environment (National Land Authority)						

2. Could you please rate the overall quality and efficiency of services delivered by the following local public agencies as they apply to your business? Please check only one box per agency.

Agency	Very good	Good	Slightly good	Slightly bad	Bad	Very bad
1. Provincial People's Committee						
2. Department of Planning and Investment						
3. Department of Finance						
4. Department of Industry						
5. Department of Natural Resources and Environment (Land Authority)						
6. Tax Authority						
7. Provincial People's Court						
8. Provincial Union of Cooperatives						
9. District People's Court						
10. Branches of the State Bank of Vietnam in your province						

3. Could you please rate the overall quality and efficiency of these services delivered by provincial public agencies as they apply to your business? Please check only one box per agency.

Regulation	Very good	Good	Slightly good	Slightly bad	Bad	Very bad
1. Roads quality						
2. Port quality						
3. Telephone						
4. Electricity						
5. Water						
6. Public health care						
7. Education						
8. Business information						
9. Business consulting						
10. Labor training						

4. Could you please rate the overall quality and efficiency of these services delivered by provincial public agencies as they apply to your business? Please check only one box per agency.

5. According to your best estimate, how much progress has been made in implementing the above provincial plans?

Plan	Very good	Good	Slightly good	Slightly bad	Poor	Very poor
1. Infrastructure development						
2. Industrial concentrations for SMEs						
3. Conversion of agricultural land for business development						
4. Equitization of local SOEs						
5. Business partner match-making						
6. Attraction of FDI						
7. Development Assistance Fund						
8. Improving access to capital						
9. Labor capacity training						
10. Export promotion						

- Positive improvement in all areas
- Generally positive, but with slow growth in some areas
- Mixed results.
- Generally negative, but with some highlights.
- No improvement in all areas.

D. Transparency and Accountability

1. Could you have access to these provincial documents?

Plan	Very easy	Easy	Possible	Possible, but difficult	Impossible
Provincial budget					
Ten-year master plan					
Five-year master plan					
Yearly planning documents					
Private sector action plans					
Central government decisions and decrees					
People's committee decisions and circulars					
Plans for new infrastructure projects					
Central investment plans					
Land use allocation plans and maps					
Applications for business registration and land use.					
Information on changes in tax laws					

2. How important is having a relationship in government for receiving access to these documents?
   - Very important
   - Often
   - Sometimes
   - Seldom
   - Never
3. How often do representatives from the provincial People's Committee or provincial departments meet with you and other private domestic businesses to discuss changes in laws or polices?
   - Very often
   - Often
   - Sometimes
   - Seldom
   - Never
4. How predictable are changes in the central government's rules, laws, and regulations about economics and finance which materially affect your business?
   - Always
   - Usually
   - Sometimes
   - Seldom
   - Never
5. How predictable is the implementation of these rules, laws, and regulations at the provincial level?
   - Usually

- Frequently
- Sometimes
- Seldom
- Never

6. Do you agree with the following statements? Please check only one box per statement.

Statement	Strongly agree	Agree	Disagree	Strongly disagree
1. The attitude of the provincial government does not depend on contribution to local development (i.e. labor or revenue)				
2. Provincial government officials use compliance with local regulations to extract rents				
3. I have noticed that it becomes more difficult to interact with provincial government officials when important party/government events (such as Party Congresses) are approaching.				
4. Negotiations with provincial tax authorities are a necessary part of doing business.				

7. How important are your family and friends in dealing with the following:

Problem	Very important	Important	Somewhat important	Not at all
1. Infrastructure problems				
2. Bargaining with government officials				
3. Source of capital				
4. Dealing with company's internal problems				
5. Bargaining with banks				
6. Sales				
7. Business service provision				

E. Transaction costs

1. How many days per year does the firm's senior management spend dealing with requirements imposed by government regulations (For example: taxes, customs fees, labor regulations, licensing and registration)? ……. (days).
2. Since the enactment of the Enterprise Law in 2000, the amount of time that senior management deals with government regulations has:
   - Increased
   - Stayed the same
   - Decreased
   - Not applicable to my business

3. What percentage of senior management's time per year is spent meeting with government officials in order to correctly interpret and better apply laws and regulations?
   - Up to 1%
   - 1 to 5%
   - 6 to 10%
   - 11 to 15 %
   - 15 to 50%
   - More than 50%

4. If you import, what was the longest number of days in 2003 that it took import to from the time your goods arrived at the port of entry (e.g. port, airport) until the time you could claim them from customs? ……..(days).

5. If you export, what was the longest number of days in 2003 that it took to export from the time your goods arrived at the port of exit (e.g. port, airport) until the time they cleared customs? …….(days).

6. Would you pay additional taxes to raise the salaries of local officials and thereby eliminate incentives for corruption, crime, and excessive regulations?
   - Yes
   - No

7. Do you agree with this statement? "It is common for firms in my line of business to have to pay some irregular 'additional payments.'
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

8. What is the most likely reason for such payments?
   - To speed up the services needed
   - To avoid bottlenecks in administrative procedures.
   - It was requested by an official
   - Other (Please specify) . . . . . .

9. On average, what percent of revenues do firms in your line of business typically pay per annum in unofficial payments to public officials?
   - 0%
   - Less than 1%
   - 1-1.99%
   - 2-9.99%
   - 10-12%
   - 13-25%
   - Over 25%

10. Firms in my line of business, usually know in advance how much this 'additional payment' is?
   - Yes
   - No

11. Once other government agencies have heard that a firm has paid such an additional fee, are they more likely to ask for 'additional payments' themselves?
    - Yes
    - No
12. If a firm pays the required 'additional payment' how often is the service is usually also delivered as the firm expected?
    - Always
    - Usually
    - Sometimes
    - Seldom
    - Never
13. In your opinion, bribes to public officials to avoid taxes and regulations are a….
    - Major obstacle
    - Moderate obstacle
    - Minor obstacle
    - No obstacle
14. When firms in your industry do business with government, do they generally pay commissions?
    - Yes
    - No
15. How often is the following statement true? "If a government agent acts against the rules I can usually go to another official or to his superior and get the correct treatment with recourse to unofficial payments."
    - Always
    - Usually
    - Sometimes
    - Seldom
    - Never
16. When a new law, rule, regulation or decree is being discussed that could have a substantial impact on your business, how much influence does your firm typically have at the provincial level of government to try to inform (advise) the implementation or content of the legal document?
    - None
    - Very little
    - Some
    - Influential
    - Very influential
17. What channel do you most often use to comment on the implementation or content of legal documents?
    - Speak directly with the People's Committee office
    - Speak directly with officials of the relevant provincial department
    - Participation at business forums hosted by the provincial government

- Speak to a representative of my business association who related my comments to government officials
- Other .....

F. Provincial proactivity and dynamism toward the private sector

1. What do you think is the attitude of provincial government officials toward private business?
   - Negative
   - Somewhat negative
   - Neutral
   - Somewhat positive
   - Positive
2. What do you think is the attitude of the central government toward private business?
   - Negative
   - Somewhat negative
   - Neutral
   - Somewhat positive
   - Positive
3. From your point of view, the attitude of the provincial government toward private business is .....
   - Improving
   - No major change
   - Deteriorating
4. From your point of view, the attitude of the central government toward private business is .....
   - Improving
   - No major change
   - Deteriorating
5. If there is a lack of clarity on certain central regulations, the provincial People's Committee tends to:
   - Interpret it in our favor
   - Postpone decision and consult the relevant central authority
   - Interpret it against us
6. If there is a lack of clarity on certain central regulations, the provincial departments tend to:
   - Interpret it in our favor
   - Postpone decision and consult the relevant central authority
   - Interpret it against us
7. How helpful is the provincial government toward a business of your type and scale?
   - Very unhelpful
   - Mildly unhelpful
   - Neutral
   - Mildly helpful
   - Very helpful

8. Do you agree with the following statements? *Please check only one box per statement.*

Statement	Strongly agree	Agree	Disagree	Strongly disagree
1. Policies are applied consistently by the different government agencies at all levels				
2. Coordination between the central government and my province's People's Committee is good.				
3. My provincial People's Committee is very good at working within central laws to create a profitable private business environment				
4. My provincial People's Committee is creative and clever about solving new business problems.				
5. My provincial People's Committees is willing to risk punishment from the central government to pass decisions that may aid my business.				
6. There are good initiatives at the provincial level, but central laws and regulations frustrate their impact.				
7. There are good policies at the central level, but provincial officials frustrate implementation				
8. There are good initiatives at the provincial level, but implementation by departments of line ministries in the province is problematic.				
9. There are not initiatives at the provincial level, all policies come from the center				
10. I am confident that the provincial legal system will uphold my contract and property rights in business disputes				
11. Disputes with customer and suppliers within my province are easier to resolve than disputes outside my province.				

9. Do you agree with the following statements? Please check only one box per statement.

Statement	Strongly agree	Agree	Disagree	Strongly disagree
1. Favoritism toward the state sector is an obstacle to my business				
2. Favoritism toward foreign investors is an obstacle to my business				
3. Favoritism toward equitized companies is an obstacle to my business				

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development alternatives, inc.

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U.S. Agency for International Development
Regional Development Mission - Asia
USAID/Vietnam Program Office
Tung Shing Square Tower Building, 15th Floor, 2 Ngo Quyen Street
Hanoi, Vietnam
Tel : (84-4) 935-1260
Fax: (84-4) 935-1176
www.usaid.gov