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THE VIETNAM PROVINCIAL COMPETITIVENESS INDEX 2009

MEASURING ECONOMIC GOVERNANCE FOR PRIVATE SECTOR DEVELOPMENT

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THE VIETNAM PROVINCIAL COMPETITIVENESS INDEX 2009

MEASURING ECONOMIC GOVERNANCE FOR PRIVATE SECTOR DEVELOPMENT

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FOREWORD

The Provincial Competitiveness Index (PCI) 2009 report represents the views of 9,890 Vietnamese enterprises and provides a rigorous analysis of economic governance and the regulatory environment in Vietnam. Our objective since the first PCI report in 2005 has been to overcome the enormous problems facing enterprises in fully understanding the government's regulations and requirements and, more importantly, to identify areas for improvement that will increase investment, jobs, enterprise performance, and economic growth. By the latest count, the People's Committees of more than 40 provinces have used the PCI to conduct diagnostics, formulate action plans and decisions to improve performance, adopt best practices of high-performing provinces, and monitor progress in key areas. The consistency achieved by provinces such as Binh Duong and Da Nang in maintaining excellent overall governance, and by Lao Cai and Ben Tre in excelling in specific areas such as transparency and reducing informal charges during the last five years of PCI surveys highlights the importance of leadership in making a dedicated commitment to improving economic governance and business environment. This year's report also emphasizes the increasing importance that economic governance plays in investors' decision making.

The PCI 2009 survey provides valuable information about the impact of policy reform initiatives at the central and local levels, of which the Prime Minister's Master Plan to Simplify Administration Procedures in State Management (known as Project 30) is the breakthrough regulatory reform effort in Vietnam. Its purpose is to simplify a minimum of 30 percent of all administrative procedures at central, provincial, district, and commune levels to meet international business standards. Forty-two percent of our nationally weighted sample of businesses are familiar with Project 30, which bodes well for widespread use of the first-ever Project 30 National Database of Administrative Procedures, a searchable, online database of more than 5,700 procedures and 9,500 legal documents. The PCI metrics will identify problematic areas to complement Project 30's regulatory streamlining of the irrelevant and harmful procedures and serve as a tool to monitor progress.

PCI also supports the decentralization process by informing policy makers about gaps in policy implementation between the national and local level and provincial leaders about how they can enhance their capacity and performance, and deliver better services. Many provinces, for example, have improved transparency in access to legal documents and information in compliance with the country's World Trade Organization and Bilateral Trade Agreement with the United States commitments. However, this year, firms report that access to planning documents, such as provincial budgets, socioeconomic plans, infrastructure plans, and land-use and zoning maps, has declined to 2006 levels. This dangerous finding deserves the immediate attention of policy makers.

The tremendous progress, in terms of economic growth and poverty alleviation, that Vietnam has made over the past two decades has been remarkable. But Vietnam faces an important crossroads in its economic development. To make the best possible decisions so that the country can maintain the positive momentum of its past performance requires that policy makers and investors have the best available information. Our goal is to provide that information through our PCI research project, a new series of policy papers on critical issues, datasets, and policy advice for the challenges ahead.

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This report is dedicated to the memory of Susan Adams, a dear friend and mentor to all of us.

The Provincial Competitiveness Index (PCI) 2009 is the result of a major, ongoing collaborative effort between the Vietnam Chamber of Commerce and Industry (VCCI) and the U.S. Agency for International Development's Vietnam Competitiveness Initiative (USAID/VNCI), managed by DAI.

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

Professor Malesky was supported by a PCI research team that included Tran Huu Huynh, Deputy Secretary General and Director of the Legal Department at VCCI; Dau Anh Tuan and Le Thanh Ha of VCCI; Le Thu Hien and Nguyen Ngoc Lan of USAID/VNCI; and Natasha Hanshaw of the University of California–San Diego. The translation and administration team included Nguyen Le Ha of VCCI; Tran Minh Thu, Nguyen Thi Thu Hang, Do Hai Ha, Trinh Thi Hong Hanh, Trinh Thi Hang and Le Thanh Giang of USAID/VNCI. The PCI was developed under the overall leadership of Vu Tien Loc, Chairman of VCCI, James Packard Winkler, USAID/VNCI Project Director, and benefited from valuable support and inputs provided by Do Hoang Anh, USAID/VNCI Deputy Project Director; Geoffrey Parrish and David Brunell, Directors of Economic Growth for USAID.

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

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ABBREVIATIONS AND ACRONYMS

AP	Administrative Procedure
BRVT	Ba Ria-Vung Tau province
CSOE	Central state-owned enterprise
GDP	Gross domestic product
GSO	General Statistics Office
HCMC	Ho Chi Minh City
IZ	Industrial zone
LND	Legal normative document
LSOE	Local state-owned enterprise
LURC	Land use rights certificate
PAR	Public administration reform
PCI	Provincial Competitiveness Index
PSM	Propensity score matching
SOE	State-owned enterprise
VCCI	Vietnam Chamber of Commerce and Industry
VNCI	Vietnam Competitiveness Initiative

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Provincial Competitiveness Index (PCI) was developed in 2005 by the Vietnamese Chamber of Commerce and Industry and the U.S. Agency for International Development-funded Vietnam Competitiveness Initiative. Since that time, the PCI has come to be seen as a critical tool for measuring and assessing the standards of economic governance in Vietnam's 63 provinces from the perspective of private sector businesses.

The year 2009, which marks the fifth iteration of the PCI analysis, is especially important because it takes place during a period of declining private sector optimism. Only 65 percent of private operations in Vietnam intend to expand their businesses over the next two years, compared with 78 percent in 2008 and 77 percent in 2007. Small firms have been more severely traumatized by the current global economic crisis than others; only 47 percent claim they plan to expand.

It is in these periods of declining business confidence that economic governance becomes most important to entrepreneurial decision making. Business owners are concerned about their prospects for the future because they are uncertain both about economic events outside of the control of Vietnamese policy makers and about the policy decisions of Vietnamese officials themselves. In such an environment, clear, transparent, and fair regulatory rules and policies become paramount for assuaging firms' fears and helping them make accurate predictions about future business prospects.

Thus, the 2009 PCI can be a helpful signpost to help provincial policy makers address weaknesses, and thereby help private entrepreneurs overcome the current economic hardships.

Overall rankings and scores

Just as in 2008, Da Nang is the number one ranked province in the country, followed closely by Binh Duong. Once again, the two provinces are statistically indistinguishable. Lao Cai, Dong Thap, Vinh Long and Vinh Phuc round out the tier of excellent performers. Cao Bang, Dak Nong, and Bac Kan—at the bottom of the rankings—still require the most improvement in provincial governance.

Association of governance and economic outcomes

Once again, governance scores are highly correlated with the size of the private sector, individual enterprise performance, and overall provincial economic growth[1]. To determine this, we regressed these outcome variables on the unweighted PCI, controlling for measures of infrastructure (road quality and telecommunications), structural endowments (population size, density, and distance from major markets), and regional fixed effect (dichotomous variables for each region, which allow us to hold constant regionally specific history and sociocultural factors).

In each regression, the unweighted PCI score proves statistically significant and substantively large. In short, better governed provinces have larger and more successful private sectors, as well as higher levels of economic welfare.

Association of governance and prospective investment

This year, our analysis of the importance of economic governance added an additional feature. We asked businesses to record to which provinces, outside of their home province, they would likely expand if given the opportunity. The variable gave us a measure of prospective investment potential for the next two years. Once again, governance was highly important

1. See Chapter Four for tables of regression results.

in the selections, even after controlling for infrastructure and structural endowments.

For each one point improvement in the unweighted PCI score of a province, three more investors were likely to choose it as an investment location. This is a sizable effect. By way of comparison, a 10 percentage point improvement in the amount of asphalted road would yield about the same number of selections by potential investors.

Most critical PCI sub-indices for economic development

Regression analysis on private sector development outcomes (number of enterprises, size of investment, and profitability) revealed that two most important sub-indices for generating private sector growth are *Transparency* and *Labor Quality.* Consequently, these two sub-indices receive the highest weight—20 percent—in the PCI index.

There are important reasons why transparency of business information has critical implications for the success of entrepreneurs. When entrepreneurs have adequate information about a province's initiatives regarding regulatory changes, infrastructure roll-outs, or land use planning, they can forecast their investment prospects deep into the future. The more comfortable they feel about long-term business prospects, the more willing they will be to risk their hard-earned capital today. When entrepreneurs are worried about sudden changes in regulation, infrastructure, or land, they will hold back from large-scale projects, investing incrementally as they test the water. Regression analysis confirms these hypotheses: a one point improvement in transparency is associated with a 13 percent improvement in enterprises per capita, a 17 percent improvement in investment per capita, and a 62 million VND increase in firm profitability.[2]

Labor quality is also very important. A key business complaint in multiple surveys is that there is not enough skilled and semi-skilled labor to handle and maintain equipment or manage complex business and financial processes. Firms are finding it very hard to upgrade technology and expand operations when they are handicapped by an insufficient talent pool. General education, vocational education, and labor exchange bureaus in many provinces have lagged behind the business needs of many firms. Other provinces have made significant investments in improving their labor pool. Correspondingly, a one point improvement in the Labor sub-index is associated with an estimated 30 percent improvement in enterprises per capita, a 47 percent enhancement in investment per capita, and a statistically insignificant but sizable 58 million VND increase in profitability.

Two indicators receive quite low weights of 5 percent (Land Access and Legal Institutions), but not because they are unimportant; rather, they are generally problematic across the entire country. Very few provinces excel on these dimensions, leading to low variance across the country and, consequently, a low correlation with private sector outcomes. The weights on the issues hint that moving forward on both these dimensions requires national-level policy reform in addition to provincial initiatives, which have been insufficient.

Trends in provincial governance over time

This year's report tracks changes in provincial governance over time by using changes in the median provincial score for each indicator. Sustained increase in the median province's score is evidence of improvement in the indicator throughout the country as a whole. Measures of *Entry Costs, Access and Security of Land, Time Costs, Labor Quality,* and *Confidence in Legal Institutions* show signs of definitive improvement over the past year. Policy makers should be proud of these accomplishments. Worrisome declines, however, are evident in terms of *Transparency, Informal Charges,* and the *Proactivity* of local leaders.

For the median province, *Time Costs of Regulatory* Compliance improved the most, after several years

2. See Chapter Four for full regression results.

of stagnation. The total amount of time that managers spend on bureaucratic procedures has declined from 22 percent to 15 percent, while the number of hours for the tax inspection declined from 8 to 5 hours. In addition, 47 percent of respondents report that the government-required paperwork has declined in the past two years, and 44 percent of firms acknowledge that civil servants have become more effective at dealing with bureaucratic procedures. These numbers indicate that some headway is finally being made on the goals of public administration reform. But there is still room for improvement. Only 30 percent of respondents noted a decline in the time necessary to receive required stamps and signatures from provincial bureaucrats and only 24 percent observed a reduction in official fees for these services.

Transparency, an area of tremendous achievement in the country in the past years, shows remarkable decline in 2009. Access to provincial planning documents and the percentage of firms that believe relationships are necessary to receive business documentation (61.3 percent) are back to 2006 levels after consistent improvement over time. Similarly, the percentage of firms claiming that implementation of central laws is predictable (8.4 percent) and the share of businesses negotiating with the local tax authority (41 percent) are back to 2007 levels.[3]

Interestingly, transparency of legal documents has improved over the same period, leading to a fascinating puzzle. Why have planning documents become more difficult to obtain while legal normal documents (laws, decrees, implementing ordinances, and provincial decisions) have become easier to access?

We theorize that the dichotomy results from the fact that commitments made under the World Trade Organization and the Bilateral Trade Agreement with the United States have compelled policy makers to improve access to legislation through such advances as the Law on Laws (2008) and Decree 136/2005/ND-CP, which mandated that provinces publish all legal normative documents passed at the provincial level in a provincial gazette (*Công Báo*).

Because these achievements have impaired the flexibility of individual policy makers, some officials have found a loophole in the issuance of official letters, which do not require public distribution. During 2005–2008, Vietnam issued 9,470 official letters containing legal norms, which is more than three times higher than the number issued in the previous 18 years (1987–2004). As Phan Vinh Quang and John Bentley have argued, the use of non-transparent official letters has created a legal jungle of complex and contradictory rules that only officials and connected entrepreneurs have the ability to safely navigate. Further research is necessary, but the more planning decisions that are articulated through officials letters, the more important political relationships become and the more insiders benefit at the expense of economic productivity.

Infrastructure index

This year continues our supplemental Infrastructure Index begun in 2008. Problems with Vietnam's infrastructure are harming its competitive advantage internationally. Although infrastructure quality cannot be attributed directly to provincial officials, increased fiscal decentralization has, in theory, increased the opportunities for provinces to raise their own resources for infrastructure improvements.

The Infrastructure Index ranks provinces along four dimensions: 1) industrial zone quality and capacity; 2) road quality and transportation costs; 3) telecommunications and energy costs and stability; and 4) information and communications technology. Binh Duong, Dong Nai, Ho Chi Minh City, Binh Dinh, Da Nang and Hanoi emerge as having the best overall infrastructure in the country; the rural Northwestern Uplands score the worst.

Firm perceptions of infrastructure quality have improved substantially since the 2008 financial crisis.

3. These worrisome results are supported by our analysis of a separate panel dataset of 2,500 firms answering in multiple years.

Hard data measures of infrastructure demonstrate slightly slower improvement, indicating that firms are responding positively to these initial forays into infrastructure improvements.

Analyzing the Ha Noi expansion

The annexation of Ha Tay province, Me Linh district of Vinh Phuc, and the Luong Son of Hoa Binh by the Hanoi city government created an interesting opportunity to observe how an exogenous change in borders affects the quality of governance, as well as business performance and prospects.

Treating the new parts of Hanoi as separate provinces finds that Hanoi would actually rank slightly behind Me Linh and Ha Tay. In other words, the addition of these provinces actually raised Hanoi's final PCI scores slightly, although the changes are minor. For firms in Ha Tay and Luong Son, the merger into Hanoi did not lead to worse governance. Businesses in these provinces may have been affected by the shock of transition and the difficulties of learning the locations of new agencies. Nevertheless, we can expect that their business prospects will not be greatly altered in the long term.

For businesses located in Me Linh district, however, there is more reason for concern. Comparing similar groups of firms in Me Linh and Vinh Phuc suggests that firms in Me Linh are significantly more negative about a range of governance indicators than their counterparts in Vinh Phuc. If governance matters for economic performance, and we certainly believe it does, there is reason to worry that the merge may have negative long-term implications for Me Linh businesses and the welfare of citizens in that district.

Changes in PCI methodology

One challenge that the PCI faces is the difficulty of keeping pace with the dynamism of the Vietnamese economy and changes in the country's regulatory environment. To ensure that the PCI is relevant to current needs of Vietnamese policy makers, the 2009 PCI has been altered slightly. Indicators and sub-indices whose utility had become obviated by changes in the Vietnamese economy were dropped, appropriate new indicators were added, and weighting of sub-indices was re-calibrated to reflect the changing importance of different aspects of governance.

These changes are documented in Chapter Three of this report. By far this most important change was the decision to drop the index measuring bias toward local state-owned enterprises (LSOEs). Massive equitization of LSOEs means that, in most provinces, biased incentives toward LSOEs no longer pose an obstacle to private sector performance. While we recognize that there are still significant issues with centrally managed enterprises (CSOEs), particularly in terms of access to bank capital and land, these are central-level policy discussions that cannot be appropriately measured by surveys of businesses located in Vietnamese provinces. Analysis of biases toward CSOEs requires an empirical approach beyond the scope of the PCI.

The methodological changes had very little impact on the overall ranking of provinces. There is a strong statistical correlation (0.84) between the 2009 and 2008 rankings. This is roughly the same as previous years, indicating that the ranking of governance is quite stable, but provinces do have opportunities to make improvements that can raise their scores.

As an additional test, we also re-created the 2009 index without dropping the state-owned enterprise bias index. The correlation between the final PCI and the index containing the state-owned enterprise bias is 0.93, indicating that the changes did not have a strong impact on firm rankings.

CHAPTER ONE

BACKGROUND AND KEY FINDINGS

BACKGROUND AND KEY FINDINGS

Each year, the Provincial Competitiveness Index (PCI) research team asks respondents about their business plans for the next two years. The question is such an excellent gauge of future growth and economic development in Vietnam that we have dubbed it the "Business Thermometer." This year, Business Thermometer answers carry an ominous message. Despite macroeconomic figures indicating that Vietnam has escaped the worst of the 2009 global financial crisis, the optimism that characterized entrepreneurs a few years ago has declined over time. Far fewer businesses plan to expand their operations over the next two years.

Figure 1.1 depicts the trends in the business thermometer. Responses for 2008 and 2009 are sub-divided by the date that the entrepreneur filled out the survey, so that we can track the nuanced changes in business responses as Vietnam's economic stimulus was implemented. Results for 2009 indicate that business confidence actually declined over the summer.[4] In addition, results are sub-divided by the legal form of enterprises. Declines for sole proprietorships are greater for the larger and more sophisticated legal forms, but a declining trend is clear for all types of companies. Should this current prediction prove accurate, it could have long-term negative implications for Vietnam's economy because less business expansion implies less job creation and less taxable revenue.

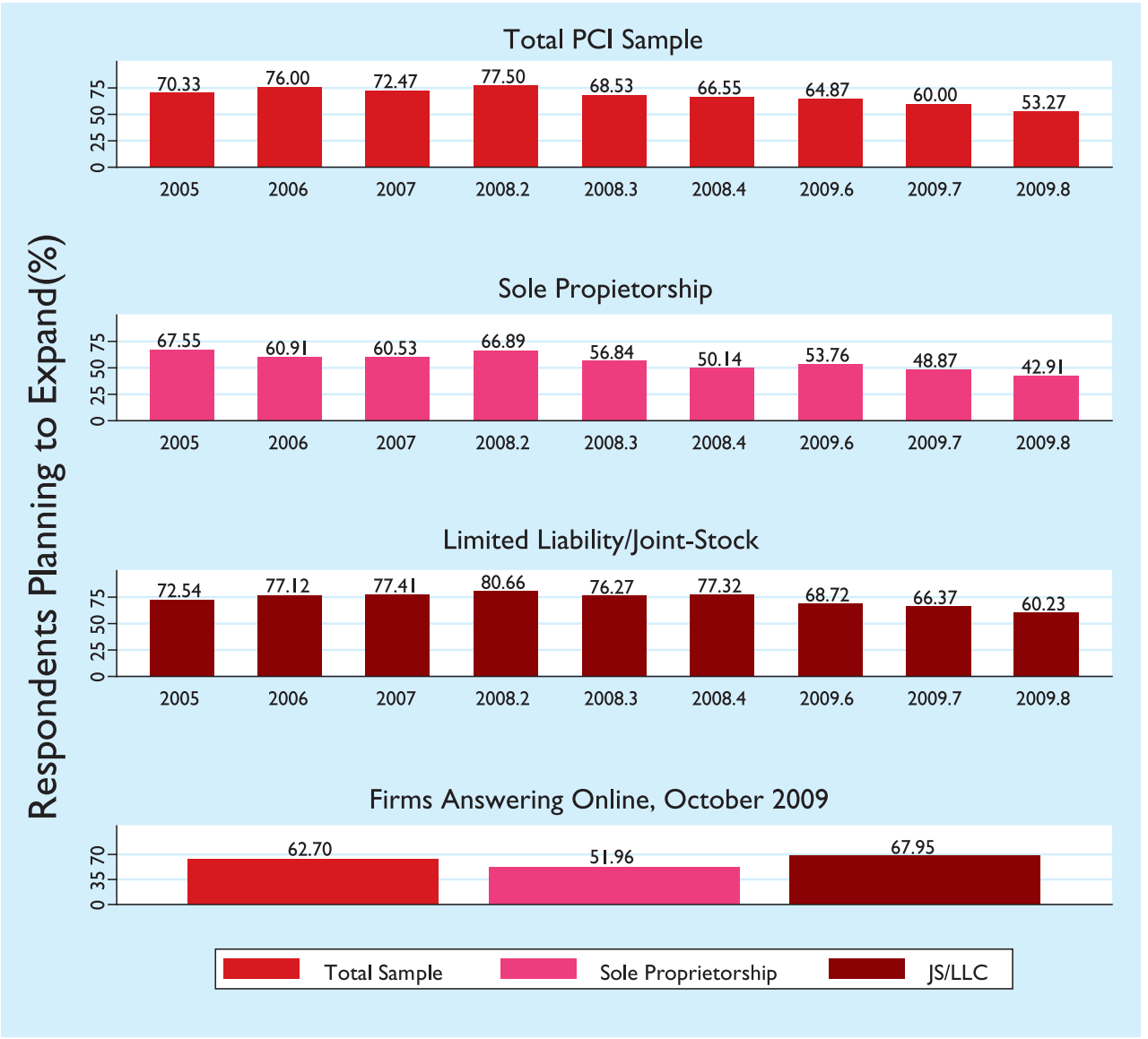
It is in these periods of declining business optimism that economic governance becomes most important for the decisions of entrepreneurs. Business owners are concerned about their prospects for the future because they are uncertain both about economic events outside of the control of Vietnamese policy makers and about the policy decisions of Vietnamese officials themselves. In such an environment, clear, transparent, and fair regulatory rules and policies become paramount. The 2009 PCI is a useful tool for assessing how the quality of governance is affecting firm decisions.

At its root, the PCI is the voice of 9,890 domestic private firms, collected in a survey of the opinions of private entrepreneurs regarding economic governance in their provinces. After some adjustments on the basis of published data to address perception biases, the survey responses are aggregated into provincial-level scores. The final outcome is a composite index ranking Vietnam's 63 provinces according to their performance on nine aspects of governance that are critical for private sector development.[5] As a result, the PCI provides the most objective metric available for gauging the impact of economic and administrative reforms at provincial and national levels.

4. There is a small uptick in October 2009, but we should be cautious about interpreting too much from this information. The October respondents are composed of a small group of firms who responded to the survey using our online platform. They tend to be bigger and more sophisticated and are predominantly in Hanoi and Ho Chi Minh City. Thus, it is not clear whether opinions are improving or this group is systematically different from earlier respondents.

5. Previous iterations of the PCI had 10 sub-indices, but the sub-index measuring bias toward local state-owned enterprises was dropped this year. See Chapter Three for more details.

Figure 1.1: Business thermometer (percentage of respondents planning to expand business over the next two years)



Notes: Figures are derived from question A9 on the PCI survey. For 2008 and 2009, responses were disaggregated by the month the respondent filled out the survey. Months are depicted with decimal after the year. For instance 2008.4 means April 2008.

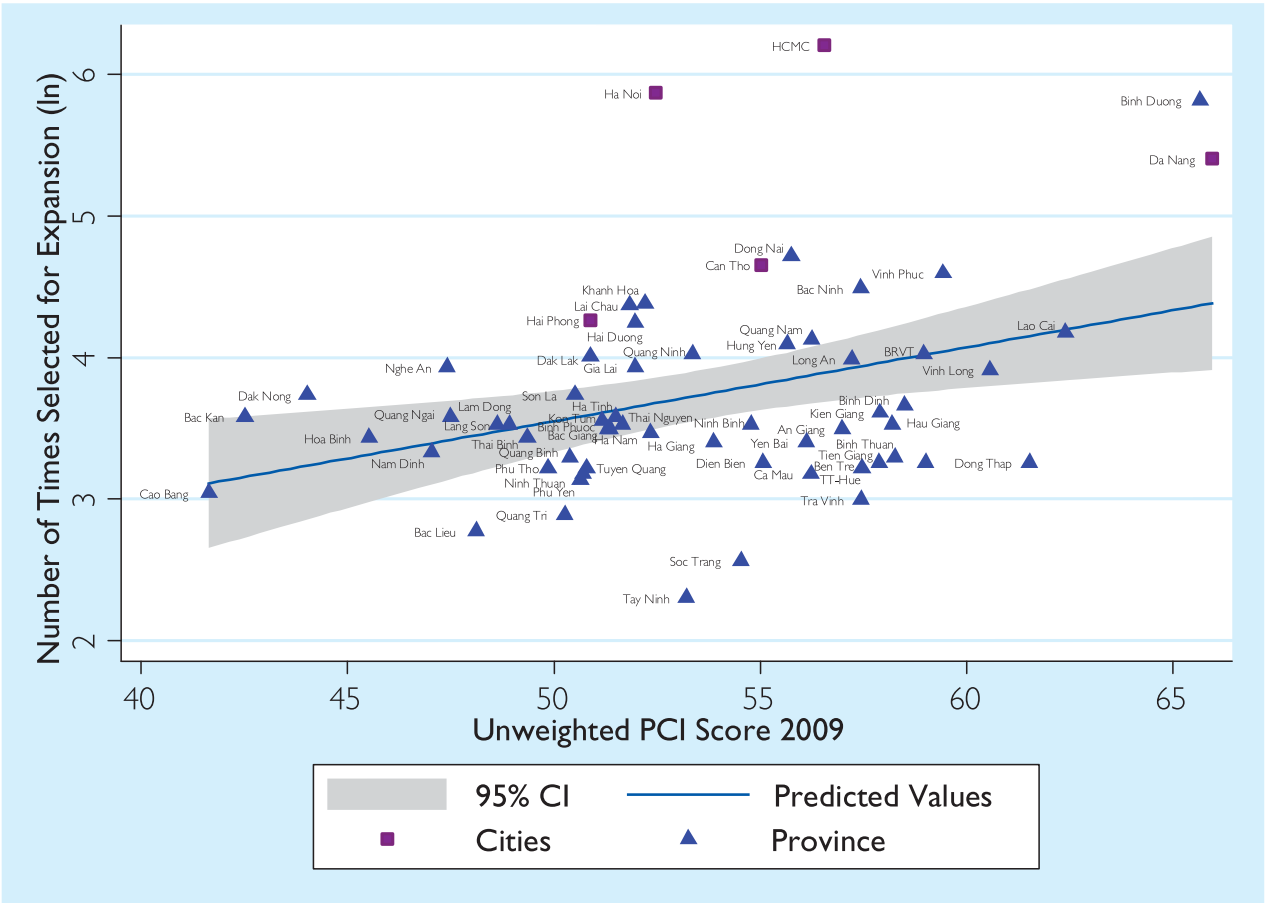
More detail is provided on specific indicators in Chapter Two, but a province that performs well on all nine PCI sub-indices is one that has: 1) low entry costs for business start-up; 2) uncomplicated access to land and security of business premises; 3) transparent and equitable legal and business information; 4) limited time wasted on bureaucratic procedures and inspections; 5) minimal informal charges; 6) a proactive and creative leadership; 7) business support services, provided by state or private actors; 8) well-trained labor; and 9) fair and effective legal procedures for dispute resolution.

A follow-up question to the Business Thermometer crystallizes the importance of governance for business expansion under poor economic conditions. For firms that were intending to expand

their businesses, we further queried which provinces, outside of their own, they envisioned as the most attractive places for business expansion. Figure 1.2 depicts the results of this query. The number of times a province was selected as an investment location is shown on the vertical axis, while the 2009 PCI score is shown on the horizontal axis.[6] A large number of firms selected the urban centers of Hanoi (352), Ho Chi Minh City (HCMC) (493), and Da Nang (221), which, because of their large, middle-class populations, offer attractive markets for domestic sales. Setting aside these choices, however, we can see that the number of times a particular province was selected is strongly associated with provincial economic governance, as measured by the PCI. For instance, Binh Duong received 335 selections, Vinh Phuc received 98, and the correlation between these two variables is statistically significant 0.40. In these uncertain times, it appears that ambitious investors are using governance as a focal point for their business decisions.

6. The natural log of number of selections is taken to address outliers and allow for easier graphical depiction.

Figure 1.2: Relationship between governance and selection as location



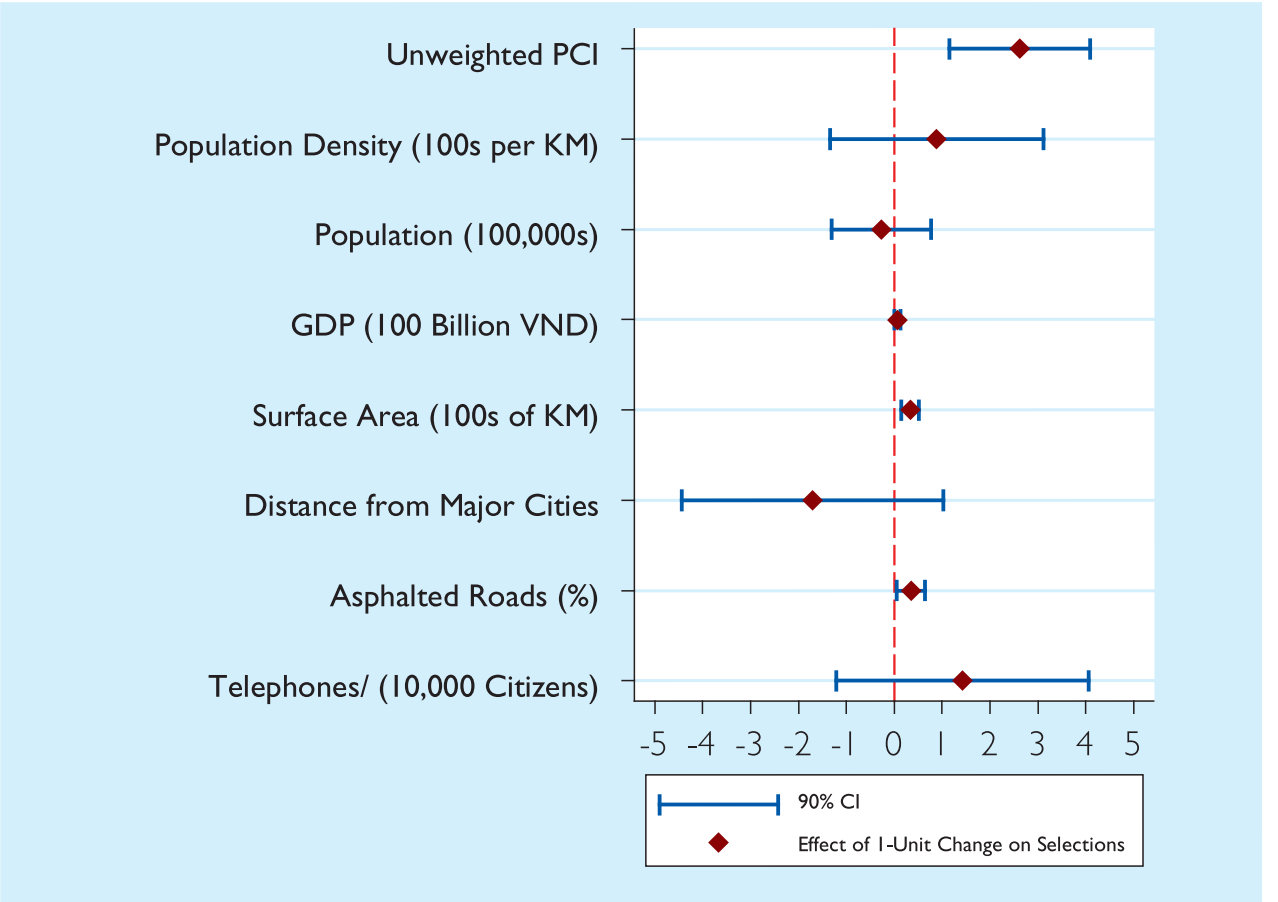
Notes: Vertical axis displays the natural log of the number of times entrepreneurs from other provinces selected province as possible location for expansion. ln indicates natural log of variable taken. The natural log of number of selections is taken to address outliers and allow for easier graphical depiction.

One might imagine that governance is just a proxy for other attractive factors for investors, such as infrastructure or population size. Figure 1.3 tackles this issue by presenting the results of regression analysis of number of selections as investment location on provincial PCI scores, controlling for a range of other factors. The marginal effect of each variable is depicted with a diamond between range bars illustrating 90 percent confidence intervals around the estimate. Variables where range bars cross over zero are considered not statistically significant because we cannot be certain that in repeated iterations of the survey the variable will continue to have a positive relationship with locational choices.

The analysis reveals that four variables are significantly associated with the selection of a province for new investment: 1) governance, as measured by the PCI; 2) wealth, measured by GDP; 3) surface area, indicating that geographically dispersed provinces tend to attract investors, perhaps because of easier access to land or resources; and 4) road quality measured by the percentage of asphalted roads. Distance from the major cities of Hanoi and HCMC is negative, but just shy of statistical significance -the farther a province is from these locations, the less likely it is to be chosen as an investment location.

We can interpret the substantive implication of the red diamonds directly off the figure. For each one point improvement in the unweighted PCI score of a province, three more investors were likely to choose it as an investment location. This is a sizable effect. By way of comparison, a 10 percentage point improvement in the amount of asphalted road would yield about the same number of selections by potential investors.

Figure 1.3: Drivers of locational choice



Notes: Results of multiple regression analyzing number of companies wishing to expand to new province. Results are from a negative binomial regression with robust standard errors. Dependent variable is the number of times a province was selected as the site of future investment. Non-displayed controls include dummy variable for city and geographic region. The Pseudo R-Squared for the regression is 0.799 and the Log Likelihood is -276.76 and significant at the .001 level.

In years past, the PCI report has demonstrated a retrospective correlation between governance and investment-PCI scores were strongly correlated with previous investment in the province.[7] This year's result is more important for policy makers because it is prospective-PCI scores are correlated with future investment.

The bottom line is that in difficult economic times, good economic governance is critical for raising the confidence of investors. Entrepreneurs will vote with their feet, choosing the locations where public transparency allows for better forecasting of business prospects and where equitable and fair procedures lower undue risk. The PCI provides an important measure of these factors.

A picture of the PCI respondents

The claim that the PCI represents the collective voice of the private sector is an ambitious one. Who are these entrepreneurs who are selected to speak for the entire business community? After all, any bias in the selection of operations affects the value of the information that can be gleaned from the survey.

By delineating the PCI sample according to key factors, Table 1.1 shows that firms answering the PCI survey look much like the business community as a whole, representing all sizes and flavors of entrepreneurial activity in Vietnam. This, of course, is by design. Respondents are randomly selected from a list of registered private firms that is supplied by the National Tax Authority, stratified by business age, sector, and legal form. The process ensures a highly representative sample.[8]

7. This finding remains true. Multiple regressions of enterprises per capita, investment per capita, average profitability and GDP on the PCI scores, controlling for infrastructure and endowments, reveals that governance is still strongly correlated with business performance and welfare in 2009. See Chapter Four for regression results.

8. Results are based on a stratified random sample and mail-out survey in each province, yielding a national response rate of 25 percent, about the same as in 2008. Response rates are similar throughout the country, so non-response bias is likely systematic across jurisdictions. Last year, we followed up with non-responders in our survey, finding that 21 percent of our mail-out went to firms that were no longer in existence or had moved their operations, or where the Tax Authority had incorrect contact information. Taking these into account, our true response rate is 31.7 percent.

Table 1.1: Who answers the PCI survey?
Composition of the 9,890 total respondents

Characteristic	Provincial Sample		National Sample	
Legal Form	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Sole Proprietorship	35.5%	27.2%	19.5%	22.1%
Limited Liability	45.3%	46.0%	57.1%	57.5%
Joint Stock	18.6%	10.6%	22.9%	20.4%
Joint Stock with Shared Listed on Stock Exchange	0.2%	NA	0.2%	NA
Partnership and Other	0.4%	0	0.3%	0
Sector with Majority Output	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Manufacturing/Construction	32.7%	42.0%	29.6%	34.5%
Service/Commerce	56.9%	52.6%	64.9%	62.2%

Characteristic	Provincial Sample		National Sample	
Agriculture/Aquaculture	7.6%	2.4%	4.6%	1.9%
Natural Resources	2.8%	2.3%	0.9%	1.4%
Age of Firm	**PCI**	**Median Tax Authority**	**Weighted PCI**	**Total Tax Authority**
Registered Before Enterprise Law	14.2%	4.2%	13.3%	5.96%
Registered After Enterprise Law	85.8%	95.8%	86.7%	94.04%
Size of Operations (Employees)	**PCI**	**Median GSO**	**Weighted PCI**	**GSO Census**
Under 5	15.0%	13.60%	14.2%	13.5%
5–9	21.6%	35.72%	22.5%	46.8%
10–49	41.8%	36.65%	41.6%	30.4%
50–200	15.9%	10.21%	16.0%	7.3%
Over 200	5.7%	3.8%	5.7%	2.1%
Size of Operations (Total Assets, Billions of VND)	**PCI**	**Median GSO**	**Weighted PCI**	**GSO Census**
Under 0.5	12.2%	15.5%	12.3%	12.1%
From 0.5 to under 1	17.1%	18.2%	16.4%	16.6%
From 1 to under 5	43.1%	42.7%	42.3%	48.8%
From 5 to under 10	14.2%	7.8%	14.2%	9.5%
From 10 to under 50	10.3%	7.6%	10.2%	8.8%
Over 50	3.3%	8.2%	4.5%	4.2%
History of Company	**PCI**		**Weighted PCI**	
Greenfield Private Company	29.4%		33.5%	
Began Operation as Household Enterprise	63.5%		60.3%	
Former Local State-Owned Enterprise (SOE)	5.8%		4.5%	
Former Central SOE	1.3%		1.6%	

Characteristic	Provincial Sample	National Sample
Owner Background	**PCI**	**Weighted PCI**
University Degree	42.1%	58.4%
MBA	1.5%	4.0%
Leader of State Agency	5.1%	4.6%
Military Officer	7.0%	6.5%
Former Manager of SOE	14.9%	14.2%
Former SOE Employee (Never Manager)	19.6%	15.8%
Primary Customers	**PCI**	**Weighted PCI**
Vietnamese Individuals and Companies	58.3%	58.1%
State-Owned Companies	14.9%	15.0%
State Agencies	16.8%	11.4%
Export Directly or Indirectly	7.0%	8.6%
Foreign Individuals or Companies in Vietnam	3.1%	6.9%

Notes: PCI is the PCI survey sample, stratified at the provincial level. Median Tax Authority provides the values in the median province. Total Tax Authority shows the national-level aggregate scores. GSO Census is the 2008 Enterprise Census of the General Statistical Office (http://www.gso.gov.vn/default_en.aspx?tabid=479&idmid=4&ItemID=7184).

Thirty-five percent of respondent firms are sole proprietorships, 45 percent are limited liability companies, and 18 percent are registered as joint-stock companies. By design, these proportions reflect the average provincial patterns. Thus, our sample is perfectly adjusted to each province.

Because the PCI sampling strategy is intended to mirror provinces, it requires that we sample a larger portion of businesses in small provinces than would be necessary if we were taking a nationally representative sample. As a result, larger cities such as Hanoi and HCMC represent a smaller share of the PCI sample than they do national-level private sector activity. This can be misleading for the diagnosis of national-level trends, because larger and economically important provinces are under-represented among PCI respondents. For example, according to the GSO Enterprise Census, the five national-level cities plus Binh Duong, Dong Nai, and Ba Ria-Vung Tau (BRVT) account for 59 percent of total private operations in the country, but only 22 percent of the business operation in the PCI sample. Table 1.2. shows the mismatch between the goals of provincially representative samples in the PCI and national representation for these eight important provinces. As a result, trying to infer national-level policy decisions from unweighted PCI descriptive statistics would be biased toward smaller provinces.

Table 1.2: PCI Sample versus National Representative Sample

Province	PCI Sample		National Representation	
	Number	**Proportion**	**Number**	**Proportion**
HCMC	435	4.4%	43,116	29.3%
Ha Noi	508	5.1%	25,628	17.4%
Hai Phong	207	2.1%	4,193	2.8%
Da Nang	263	2.7%	3,899	2.6%
Dong Nai	253	2.6%	3,418	2.3%
Binh Duong	204	2.1%	3,311	2.2%
Can Tho	144	1.5%	2,016	1.4%
BRVT	165	1.7%	1,457	0.9%
8 Provinces	2,179	22.0%	78,852	59.0%
National	**9,890**	**100.0%**	**147,314**	**100.0%**

Notes: Data taken from 2008 GSO Enterprise Census.

To capture national-level trends, it is necessary to adjust answers slightly, so provinces with large populations of private sector operations are not under-represented. To do this, we re-weight answers by the proportion of total businesses contained in a single province. After this adjustment, firms located in more populous areas receive a slightly higher weight, so their locations receive the equivalent weight to the one they would have in a nationally representative sample. These nationally weighted responses are shown in column 3 of Table 1.2.

Nineteen of the joint-stock companies in the sample are traded on either the Hanoi or Saigon stock exchanges. These enterprises included in the survey account for about 7 percent of all listed firms and include some of the most important operations in the country.

Over half of the respondents are engaged in the service or commerce sectors, and about 32 percent are involved in manufacturing or construction. By way of comparison, according to the Tax Authority data, 62 percent of registered firms are involved in service and commerce and 35 percent in manufacturing and construction nationally. Eighty-six percent of PCI respondents registered after the 2000 Enterprise Law; 14 percent precede that law and, therefore, registered under older, less efficient procedures.

Forty-three percent of firms have between 1 billion VND ($56,000) and 5 billion VND ($282,500) in total assets. Twenty-nine percent of firms have less than 1 billion VND in assets and 27 percent have over 5 billion VND. Three percent of firms have over 50 billion VND ($2.8 million) in assets. This is not a dramatic share of large firms, but it does mirror national-level data. Over 41 percent of firms have between 10 and 50 employees. Six percent of respondents have more than 200 employees and 50 companies have more than 1,000.

Sixty-three percent of PCI respondents began operations as household firms before they decided

to formalize their activities by registering at provincial Departments of Planning and Investment. This is a critical statistic because it demonstrates that some provincial business environments are conducive to formalization.[9] A total of 693 (7 percent) enterprises resulted from equitizations (the Vietnamese form of privatization) of local or central SOEs. An additional 14.9 percent of companies have owners who formerly managed SOEs, and 19.6 percent have owners who worked in some capacity for an SOE. Finally, about 30 percent of firms are greenfield entities, meaning that their owners established and registered the firms at roughly the same time.

With respect to nationally representative data, most companies concentrate their business activity on the domestic market, selling either to Vietnamese individuals and private companies (58 percent) or to SOEs or state agencies (26 percent). About 9 percent are actively engaged in exporting, either directly or indirectly through trading companies. This is a relatively small number given the importance of exports for the Vietnamese economy. Nevertheless, it reflects the fact that exports tend to be dominated by large businesses (especially foreign and state companies), and that enormous export potential among smaller private entities remains untapped. An additional 7 percent of companies sell primarily to foreign companies or individuals based in Vietnam. It is remarkable that sales to SOEs and state agencies are roughly four times those to the foreign sector: the tremendous growth of foreign direct investment in Vietnam has not created substantial opportunities for private producers.[10]

Finally, and quite importantly for the purposes of the PCI, all of Vietnam's 63 provinces are represented in the Index. The average number of responses per province was 157, with only one province (Lai Chau) having fewer than 75 respondents. Nevertheless, the 63 firms that did answer in Lai Chau account for about one-third of all operations in the rural, Northwestern locality.

The final 2009 Provincial competitiveness ranking

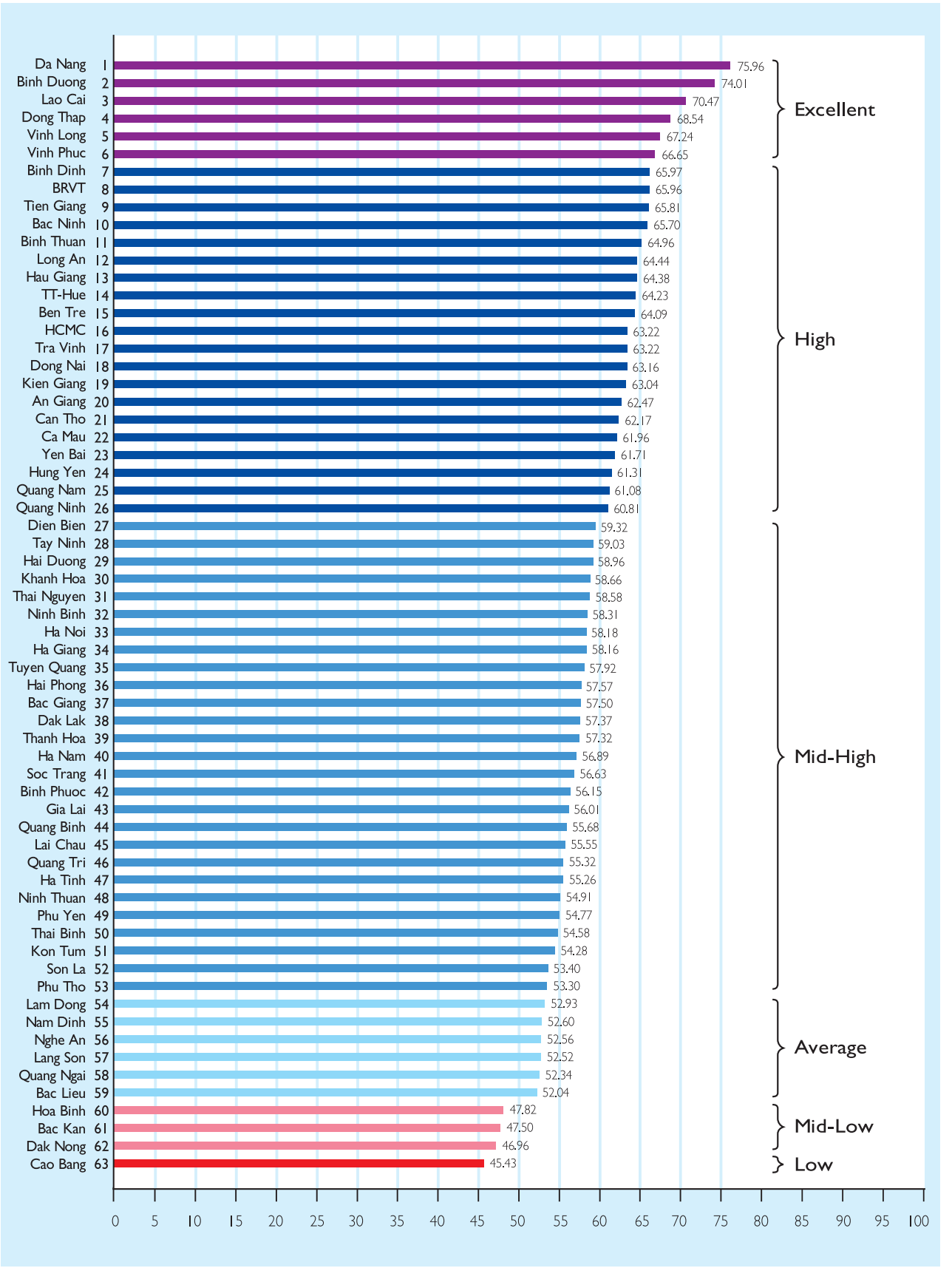
Weights

The weighted 2009 PCI ranking is shown in Figure 1.4. Each province is ranked on a 100-point scale. As in 2008, Da Nang (75.96) remains slightly ahead of the perennially excellent Binh Duong (74.01). Also reaching the excellent tier this year are Lao Cai (70.47), Dong Thap (68.54), Vinh Long (67.24), and Vinh Phuc (66.65).

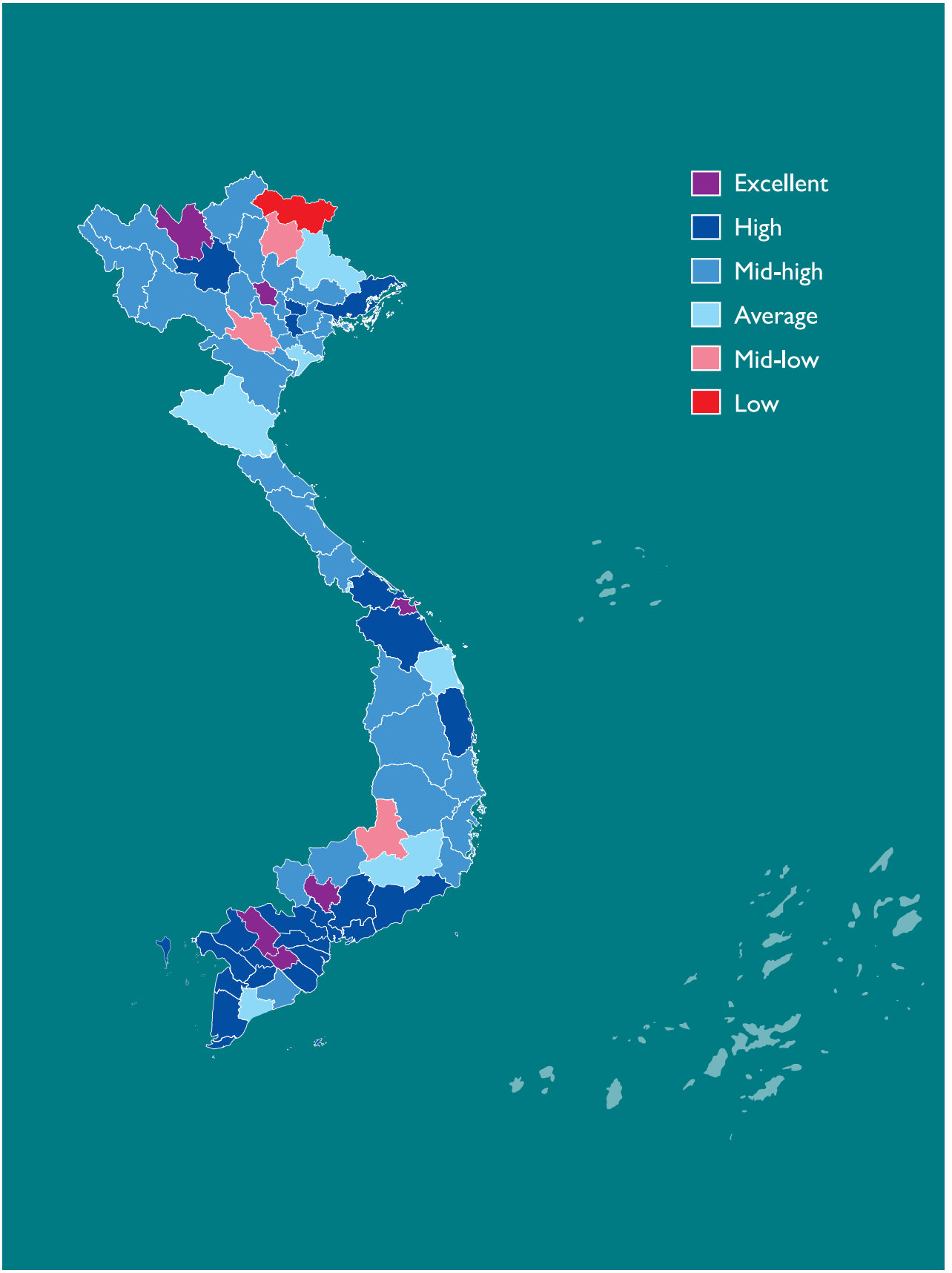
9. For a more detailed discussion of the formalization in Vietnam, see Malesky, Edmund, and Markus Taussig. 2009. "Out of the Gray: The Impact of Institutions on Business Formalization." Journal of East Asian Studies. 9.2: 249–79.

10. For a deeper analysis of the domestic opportunities and spillover created by the foreign sector, see Nguyen, N.A., T. Nguyen, D.T. Le, Q.N. Pham, D.C. Nguyen, and D.N. Nguyen. 2008. "Foreign Direct Investment in Vietnam: Is There Any Evidence of Spillover Effects." DEPOCEN Working Paper, Hanoi, Vietnam.

Figure 1.4: Weighted Provincial Competitiveness Index 2009



PCI 2009 Map of Vietnam



The ranking represents the weighted sum of the scores of the nine sub-indices, based on the weights shown in Table 1.3. These weights were re-calibrated in 2009 to ensure that the PCI reflects the changes in the Vietnamese economy and regulatory environment. Weights were calculated using a three-step statistical procedure that is discussed in the final section of Chapter Three. The ultimate goal of weighting is to ensure that PCI scores are calibrated to private sector performance and, therefore, that the PCI relates the most relevant information to provincial officials regarding the impact of their policies on private sector activity. Sub-indices that were shown to have the largest association with private sector growth, investment, and profitability received the highest weight class of 20 percent. Correspondingly, those that are not strongly correlated with private sector development outcomes received the lowest weight class of 5 percent. Medium weight classes of 10 and 15 percent were reserved for average correlations across the three outcome variables or a large substantive effect on one outcome (e.g., profitability), but a minimal relationship with the other two.

Table 1.3: Sub-Index Weighting

Sub-Index		Enterprises per Capita (ln)	Investment per Capita (ln)	Profit per Enterprise	Weights	
					True Weight	Rounded
		(1)	(2)	(3)	(4)	(5)
1	Entry Costs	0.186*	0.282**	12.585	9.61%	10%
		(0.104)	(0.132)	(36.023)		
2	Land Access and Security of Tenure	-0.001	0.058	31.242	2.37%	5%
		(0.091)	(0.147)	(48.948)		
3	Transparency and Access to Information	0.134***	0.167*	62.440***	19.77%	20%
		(0.045)	(0.086)	(20.663)		
4	Time Costs of Regulatory Compliance	0.089	0.199***	55.032**	14.12%	15%
		(0.068)	(0.068)	(27.379)		
5	Informal Charges	0.044	0.212*	90.308*	9.00%	10%
		(0.089)	(0.126)	(51.523)		
6	Proactivity of Provincial Leadership	0.014	0.137**	54.368***	12.36%	10%
		(0.045)	(0.059)	(19.770)		
7	Business Support Services	0.215**	0.251**	-58.121	6.71%	5%
		(0.092)	(0.112)	(42.919)		
8	Labor and Training	0.297***	0.468***	58.876	20.03%	20%
		(0.086)	(0.115)	(47.141)		
9	Legal Institutions	-0.041	0.122	87.193**	6.04%	5%
		(0.072)	(0.098)	(43.391)		
Total					100%	100%

Notes: Columns 1, 2, and 3 report the coefficients and standard errors (in parentheses) of the regressions of the three outcome variables (Enterprises per Capita, Investment per Capita, and Profit per Enterprise) on each sub-index, controlling for structural factors (population density, surface area, distance from Hanoi or HCMC in kilometers), infrastructure (measured by the percentage of paved road in the province), and dummy variables for the seven regions of Vietnam (known as regional fixed effects). Column 4 reflects the true weight that would be assigned to this variable given the cumulative variance it explains in the three outcome variables. Column 5 reports rounded weights that will be used for the next five years.

Because weights are calibrated to reflect the importance of sub-indices for private sector development, they reveal important information. Most importantly, we learn that the single biggest factors in improving PCI scores and thereby economic development are *Transparency* and *Labor Quality.*

The Sub-Indices of the PCI

As in early reports, the PCI 2009 uses a range of indicators that are grouped into nine composite sub-indices:

1. *Entry Costs:* A measure of 1) the time it takes a firm to register and acquire land; 2) the time to receive all the necessary licenses needed to start a business; 3) the number of licenses required to operate a business; and 4) the perceived degree of difficulty to obtain all licenses/permits.
2. *Land Access and Security of Tenure:* A measure combining two dimensions of the land problems confronting entrepreneurs: how easy it is to access land and the security of tenure once land is acquired.
3. *Transparency and Access to Information:* A measure of whether firms have access to the proper planning and legal documents necessary to run their businesses, whether those documents are equitably available, whether new policies and laws are communicated to firms and predictably implemented, and the business utility of the provincial webpage.
4. *Time Costs 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 their operations down for inspections by local regulatory agencies. This year, the index also includes a battery of indicators measuring progress on public administration reform (PAR).
5. *Informal Charges:* A measure of how much firms pay in informal charges, how much of an obstacle those extra fees pose for business operations, whether payment of those extra fees results in expected results or "services," and whether provincial officials use compliance with local regulations to extract rents.
6. *Proactivity of Provincial Leadership:* A measure of the overall attitude of provincial officials as well as their creativity and cleverness in implementing central policy, designing their own initiatives for private sector development, and working within sometimes unclear national regulatory frameworks to assist and interpret in favor of local private firms.
7. *Business Support Services:* A measure of the availability of business services, such as private sector trade promotion, provision of regulatory information to firms, business partner matchmaking, and technological services for firms; the number of private providers of these services; and the quality of these services.
8. *Labor and Training:* A measure of the efforts by provincial authorities to promote vocational training and skills development for local industries and to assist in the placement of local labor.
9. *Legal Institutions:* A measure of the private sector's confidence in provincial legal institutions; whether firms regard provincial legal institutions as an effective vehicle for dispute resolution or as an avenue for lodging appeals against corrupt official behavior.

Importance of transparency for private sector development

This is the fifth year that transparency has received the highest weight in the PCI, despite alterations in methodology and economic crises in 2008 and 2009. There are important reasons why transparency of business information has critical implications for the success of entrepreneurs. When entrepreneurs have adequate information about a province's initiatives regarding regulatory changes, infrastructure roll-outs, or land-use planning, they can forecast their investment prospects deep into the future. The more comfortable they feel about long-term business prospects, the more willing they will be to risk their hard-earned capital today. When entrepreneurs are worried about sudden changes in regulation, infrastructure, or land, they will hold back from large-scale projects, investing incrementally as they test the waters.

Transparency also allows entrepreneurs to shield themselves against potential abuses by unscrupulous officials, if they exist. The more information that businesses have about the law, the less likely they will fall prey to officials using compliance regulations as means of attracting rents. Businesses can learn about these regulations ahead of time and make necessary adjustments. Far too often in Vietnam, businesses are blind-sided when they learn that they are in violation of government regulations that they had never heard about. When they are presented with this information by government inspectors, they find that they must pay expensive fines, engage in time-consuming adjustments, or resolve the problem through more surreptitious means involving informal payments. If the business manager is able to access the regulations ahead of time, these episodes could be avoided.

Similarly, more information about infrastructure will ensure that capable firms can turn premier business land into productive business operations. Currently, the most valuable land, such as premises adjacent to new roads or near industrial zones, often ends up in the hands of those with better access to information about new land conversions or road improvements. Individuals with insider information are not necessarily those who could make the best use of those assets. As a result, key business locations in many Vietnamese provinces are inefficiently deployed. Transparency and a fair auction of these valuable assets would lead to far more productive investments, benefitting business operators and the welfare of province. Reading directly off the regression coefficients, we can see that a one point improvement in transparency yields a 13 percent improvement in enterprises per capita, a 17 percent improvement in investment per capita, and a 62 million VND increase in firm profitability. [11]

Importance of labor quality for private sector development

Labor quality is also very important. A key business complaint in multiple surveys is that there is not enough semi-skilled and skilled labor to handle and maintain equipment or manage complex business and financial processes. Firms are finding it difficult to upgrade technology and expand operations when they are handicapped by an insufficient talent pool. General education, vocational education, and labor exchange bureaus in provinces have lagged behind the business needs of many firms.

As we discuss in Chapter Three, this year's PCI offers a more thorough metric of labor quality that takes into account the participation of private training providers. Figure 1.5 shows that our measure of labor quality is strongly associated with other measures of general education. Provinces that received the highest average scores on college admission exams in 2009 are the same ones where respondents are most satisfied with the labor talent pool. This finding may indicate that general education is a critical way to improve labor quality. Although a small portion of secondary education recipients may migrate to urban centers for college, investment in high-quality teachers and training will have long-term implications for the skill-sets of individuals remain in the province as well.[12] Of the four different types of college entrance exams, Type B shows the strongest correlation (0.59) with Labor

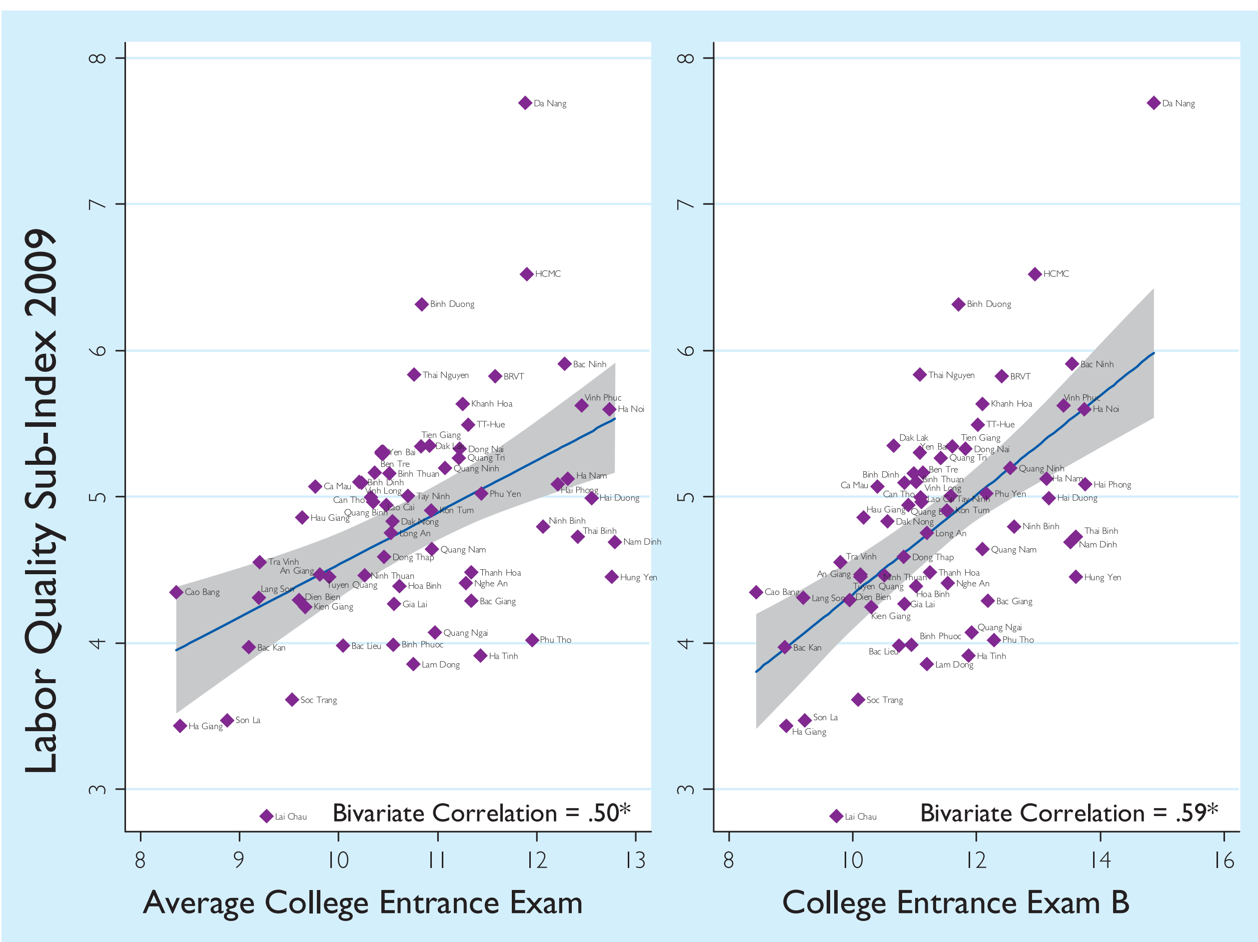
11. See Chapter Four for full regression results.
12. Thanh, Nguyen Duc. 2005. *Heterogeneous Talent and Optimal Emigration: A Contribution to the New Economics of Brain Drain.* Presented at the Vietnam Economic Research Conference, Hanoi: April 29.

Quality.[13] Not surprisingly, this is the test geared for students who want to study business and evaluates training in math, chemistry, and biology. Correlations are statistically significant but lower for the Type A test for science education (0.49), Type C for social science education (0.28), and Type D for the humanities (0.34).

13. Entrance exams are divided into four categories according to the fields of study the student plans to pursue and the university offering that subject. The categories of exams and the subjects tested follow: **Type A:** tests knowledge of math, physics and chemistry (for students of engineering, computer science, physics, etc.); **Type B:** tests knowledge of math, chemistry and biology (for students of natural sciences and business); **Type C:** tests knowledge of literature, history and biology (for students of social sciences and humanities) ; **Type D:** tests knowledge of literature, math and foreign language (for students of foreign languages, either in education or translation/interpretation tracks). See Kelly, Kristy. 2009. "The Higher Education System in Vietnam." World Education News and Reviews < http://www.wes.org/ewenr/00May/feature.htm> for more detail.

These skill-sets will pay dividends in terms of private sector performance. We find that this new measure is strongly associated with private sector development outcomes. Other provinces have made significant investments in improving their labor pool. Correspondingly, a one point improvement in the Labor sub-index is correlated with a 30 percent improvement in enterprises per capita, a 47 percent enhancement in investment per capita, and a statistically insignificant but sizable 58 million VND increase in profitability.

Figure 1.5: College entrance exams and assessment of labor quality



Lower-weighted indicators

Two indicators receive quite low weights (Land Access and Legal Institutions), but not because they are unimportant; rather, they are generally problematic across the entire country. Very few provinces excel on these dimensions, leading to low variance across the country and, consequently, a low correlation with private sector outcomes. The weights on the issues hint that moving forward on both of these dimensions will require national-level policy reform in addition to provincial initiatives, which have been insufficient. Figure 1.6 shows the performance of each Vietnamese province vis-a-vis the nine sub-indices.

Figure 1.6: Province Performance By Sub-Index

Robustness of the rankings

Robustness of performance tiers

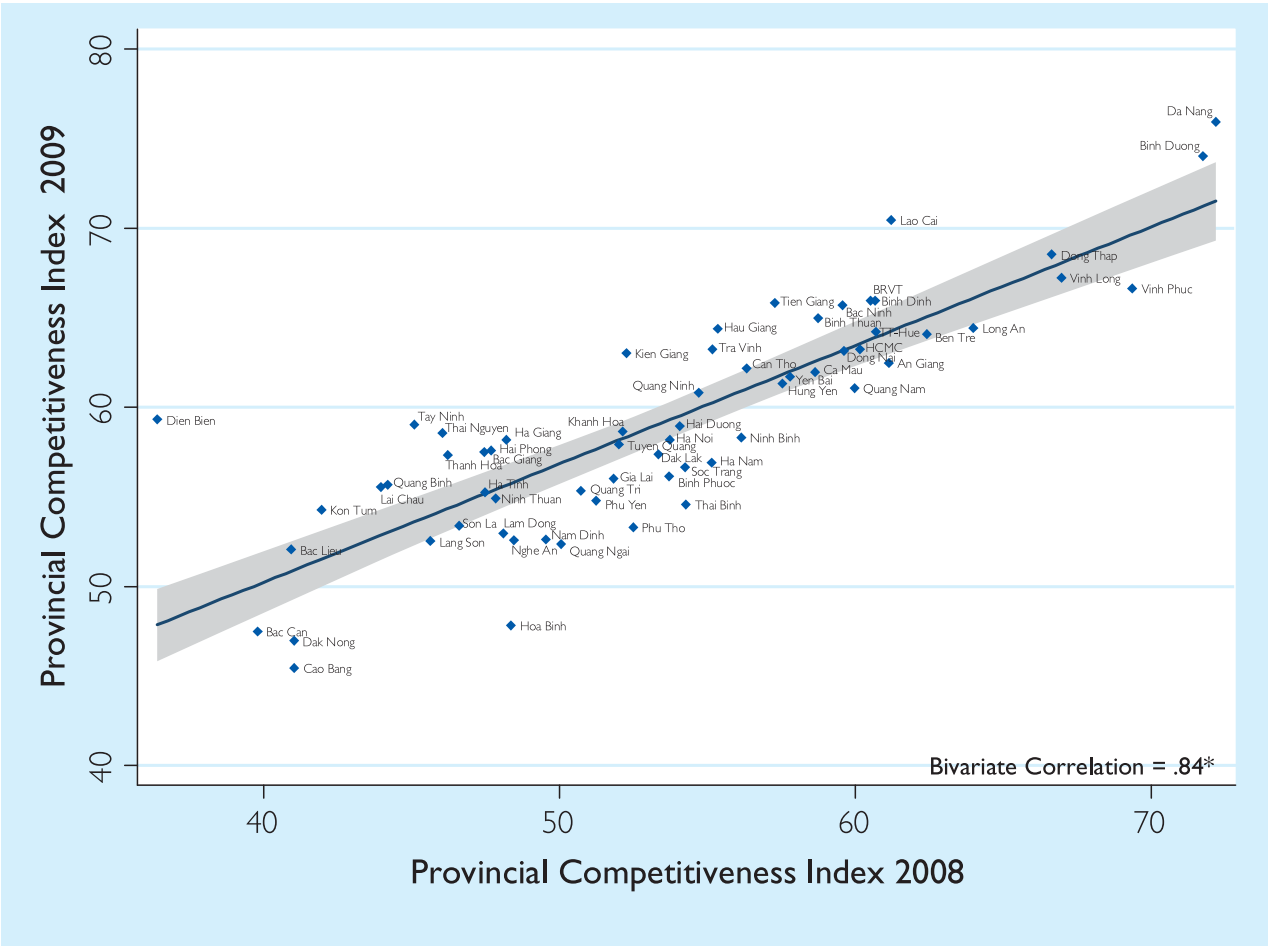
Once again, to facilitate comparisons with previous years, we pegged the six performance tiers (Excellent, High, Mid-High, Average, Mid-Low, and Low) to the break-points in the rankings. These tiers are robust to different weighting and index construction approaches and, therefore, are more valuable for benchmarking relative performance. Individual rankings within tiers can change quite a bit, depending on small changes in index construction.

Robustness over time

The change in the ranking methodology cited above had a systematic impact across the country. No region or particular group of provinces was affected disproportionately. As a result, the 2009 rankings look remarkably similar to those from previous years. Da Nang, Binh Duong, Lao Cai, Dong Thap, Vinh Long and Vinh Phuc remain among the very best performers in the country. Furthermore, the bivariate correlation between 2008 and 2009 final scores is 0.84 (see Figure 1.7).[14] By way of comparison, bivariate correlations between the 2008 and 2007 indices with previous years were 0.90 and 0.85, respectively.

14. We use the term bivariate to indicate that the result is simply the correlation coefficient, rather than the partial correlation resulting from multiple regression analysis.

Figure 1.7: Stability of PCI Ranking Over Time



The figure shows that governance depends significantly on historical governance. Governance practices cannot change overnight. It takes time to plan and implement new initiatives, and there is even a longer lag between implementation and firms experiencing their effects.

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

Largest improvements in provincial PCI scores

"Stability," however, should not be confused with "static". Over the past two years, a number of provinces have gradually climbed up the PCI ladder. Figure 1.8 shows the average annual change in PCI scores since 2006.

Ca Mau, Dien Bien and Long An deserve special recognition for having made the greatest average annual leaps in the PCI rankings. Interestingly, these provinces raised their scores in very different arenas. Dien Bien made substantial improvements in reducing informal costs, increasing the proactivity of leadership, and enhancing the quality of the labor force. Ca Mau found ways to reduce entry costs and informal charges. Long An's leaps were propelled by increases in transparency, exemplified by a computer monitor outside Long An's Department of Natural Resources and the Environment where individuals can access land-use plans, legal documents, and application materials.

Summary of nationwide trends in provincial governance

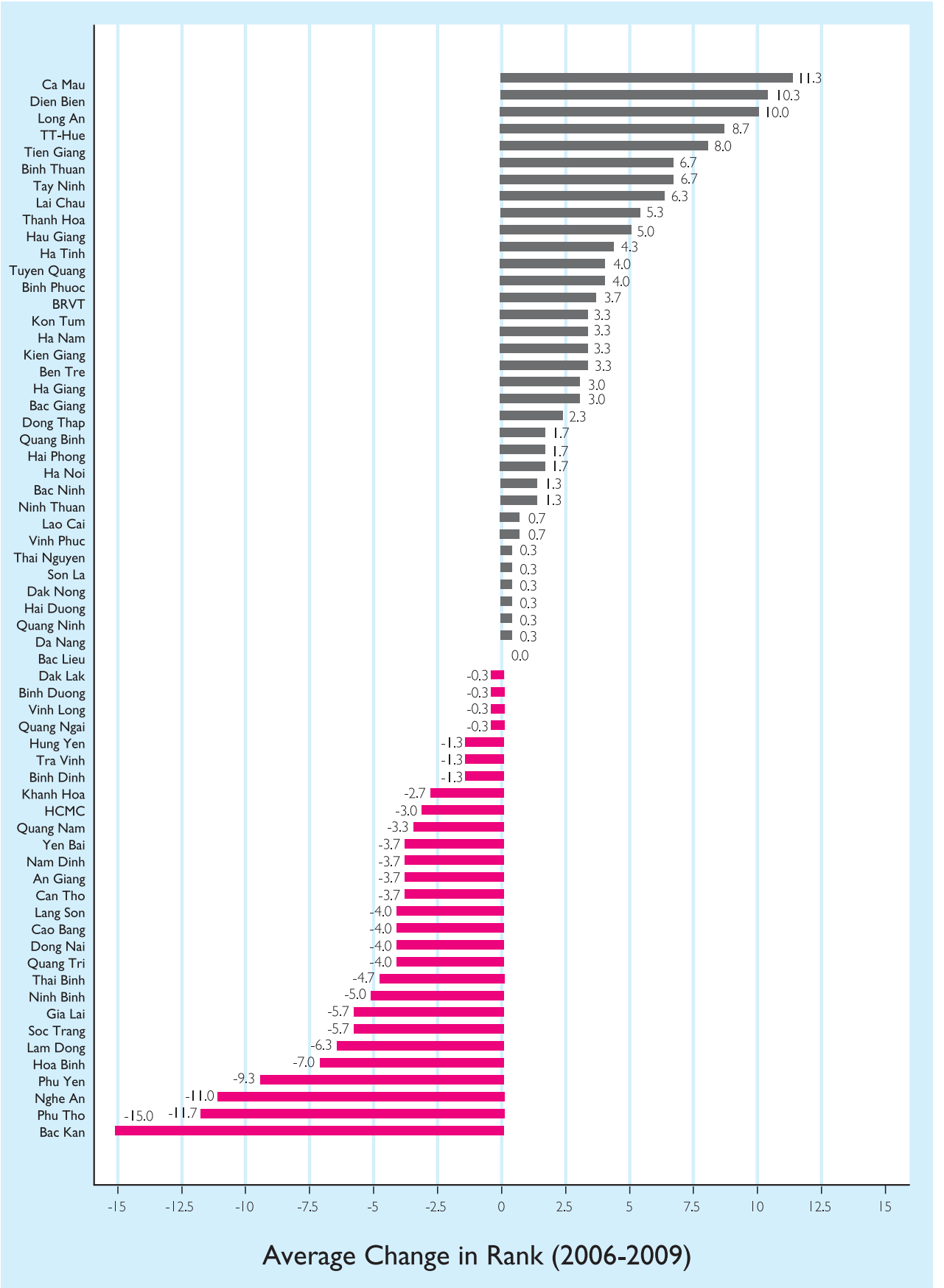
Although the re-calibration of the PCI makes it difficult to compare the weighted PCI ranking over time, we can get a sense of trends in governance from observing the changes in individual indicators over time. Changes in scores for the median province provide a useful measure of trends in national-level performance. Increases in the median province therefore indicate improvements in the indicator throughout the country as a whole. In general, measures of Entry Costs, Access and Security of Land, Time Costs, Labor Quality, and Confidence in Legal Institutions show signs of definitive improvement over the past year. Policy makers should be proud of these accomplishments. On the other hand, worrisome declines are evident in terms of Transparency, Informal Charges, and the Proactivity of local leaders.

Tables tracking changes in the median province over time for each indicator are reported in Chapter Three.

Improvements

Entry Costs: Once again, Vietnam continues to reduce the barriers to starting a business. One-stop shops are now widespread throughout the country and burdensome regulations, such as the need for a business chop, have been eased. As a result, days for business registration in the median province are down to 10 from 12.25. Correspondingly, the number of firms waiting over a month to be fully legal has declined from 21 percent to 19 percent. The percentage of firms waiting over three months is now less than 5 percent.

Figure 1.8: Improvement in PCI ranking between 2006 and 2009



Access and Security of Land: This indicator has improved marginally. Worries about expropriation have subsided, improving from 2.0 to 2.55 on a five-point scale. Moreover, 40 percent of businesses (up from 38 percent in 2008) believe that they receive fair compensation if their land is expropriated. One worrying trend is that the number of firms operating on purchased or household land with a formal land use right certificate (LURC) has actually declined by 8 percentage points. Our research has indicated that the new requirement of unifying two certifications of land-use rights and house ownership under the recent omnibus law amendment might be reason for the decline. The regulation came into effect on August 1, 2009, yet implementing documents were not made available, causing thousands of land applications to be put on hold in all provinces.[15] To ease the complication for provincial land bureaucrats, a month later, the Prime Minister issued a decision to allow the use of old LURCs. This interruption coincided with the PCI survey going out and, thus, could be captured in our firm responses.

Time Costs of Regulatory Compliance: This indicator shows signs of improvement, after several years of stagnation. The total amount of time that managers spend on bureaucratic procedures has declined from 22 percent to 15 percent, while the number of hours for the median tax inspection declined from 8 to 5 hours. In addition, 47 percent of respondents in the median province claim that the government-required paperwork has declined in the past two years, and 44 percent of firms acknowledge that civil servants have become more effective at dealing with bureaucratic procedures.

One motivation for improvement on this index may be the extensive standardization efforts that took place as a result of the government's Master Plan for Administration Procedure Simplification (known as Project 30) to create a database of all administrative procedures (APs), standardize them, and trim away damaging, contradictory, or irrelevant documents. Although the database was launched after the PCI survey was administered, extensive provincial-level standardization efforts took place in order to comply with the collection of APs. Separate procedures created by the thousands of communes and hundreds of districts were standardized so that each of the 63 provinces now has only a single AP for each issue area that applies to every geographic jurisdiction within the province. Anecdotally, this has led to a reduction in bureaucratic complexity for private entrepreneurs. Khanh Hoa province, for instance, apparently reduced the total number of binding APs by 30 percent simply through jurisdictional standardization.[16]

These numbers indicate that some headway is finally being made on Project 30 and PAR goals, but there is still room for improvement. Only 30 percent of respondents noted a decline in the time necessary to receive required stamps and signatures from provincial bureaucrats and only 24 percent observed a reduction in official fees for these services.

Labor Quality: Firms' assessments of labor quality and educational training in the country were at historic lows last year. Scores have improved this year, but much work remains to be done. Forty-five percent of respondents rank general educational as good or very good, compared with 35 percent in 2008. Similarly, assessments of vocational training as good have increased from 20 percent in 2008 to 28 percent this year. Given the importance of labor quality in firm investment decisions, these developments bode well for the future but the low absolute scores are worrisome.

Le Duy Binh, in a forthcoming PCI Policy Research Paper, chronicles several troublesome indicators.[17]

15. For more information, see http://tintuc.xalo.vn/001103972509/cap_giay_chung_nhan_nha_dat_tiep_tuc_tam_ngung_nbsp.html, http://mobi.tuoitre.com.vn/Tianyon/Index.aspx?ArticleID=332323&ChannelID=204

16. **See Kết quả triển khai của TCTCT** < http://www.thutuchanhchinh.vn/index.php/introduction?id=5> for the explanation of standardization by the Project 30 task force.

17. Le Duy Binh. Forthcoming. "Formulation and implementation of labor and human resources development policies for enterprises at provincial level. Best Practices in Da Nang, Binh Duong, and Vinh Phuc." *PCI Policy Research Paper* 1. Ha Noi: Vietnam Competitiveness Initiative.

According to a recent Jetro Study, 70.4 percent of Japanese companies faced difficulty in recruiting engineers in Vietnam in 2007; 63 percent had problems recruiting middle-level management personnel (the ratio for all Association of Southeast Asian Nations countries is 39.1 percent).[18] According to aggregate statistics from job service centers across the country, 100,000 positions were advertised in 2009. However, the number of persons who asked for assistance from the centers accounted for only 17 percent of total employer demand. More worryingly still, only 6 percent of the job seekers met the qualifications and criteria set forth by recruiters.[19]

The need to renovate the education system, especially tertiary education and development of high-quality human resources for enterprises, has recently become a "burning" issue, discussed at varying levels of government and at citizen forums. Notable economists who visited Vietnam, such as Professor Paul Krugman and Professor Michael Porter, list it as a strategic priority. Vocational training is also critical, but challenging to improve. We detail best practices for vocational training to enhance labor upgrading in a forthcoming policy paper (See below for more details).

Legal Institutions: Confidence in legal institutions shows mixed results. The percentage of claims at Provincial People's Courts filed by private entities has increased from 65 percent to 72 percent of all cases. On the other hand, firms' confidence that they can use the legal system to appeal corrupt behavior (27 percent in 2008 and 25 percent in 2009) or protect their property rights (67 percent and 62 percent) declined slightly. These declines, however, are both close to the survey margin of error and should therefore be treated with caution. In the post-World Trade Organization business environment, legal institutions assume greater and greater importance. Ambitious managers must do business with partners outside of their social network, obviating traditional social enforcement of contracts. Belief that the legal system will treat one fairly facilitates contracting across borders, expanding the realm of opportunities and leading to greater investment.

Challenges

Transparency: An area of tremendous achievement in the country over the past years, transparency has deteriorated in 2009.[20] As mentioned above, transparency is critically important to the ability of businesses to adequately assess risk, so this finding is a major concern.

Access to provincial planning documents and the percentage of firms that believe relationships are necessary to receive business documentation (61.26 percent) are back to 2006 levels after consistent improvement over time. Similarly, the percentage of firms claiming that implementation of central laws is predictable (8.4 percent) and the share of businesses negotiating with the local tax authority (41 percent) are back to 2007 levels. These worrisome results are supported by analysis of a separate panel dataset of firms answering in multiple years. The cause of the decline, however, is unclear.

It is worth noting, however, that one area of transparency improvement is access to legal documentation (laws, decrees, and implementing documents), where firms now report the highest levels of access in the history of the PCI. Certainly, improvement on this score has benefitted from the promulgation of the Law on Laws (2008) and Decree 136/2005/ND-CP that mandated that provinces publish all legal normative documents (LNDs) passed at the provincial level in a provincial gazette (Công Báo). Better access to LNDs may

18. Survey on business environment presented by JETRO at the Vietnam Business Forum in Ha Noi in June 2008.
19. "Demand and Supply of Labor: Status and Solution", MOLISA, December 2009.
20. See, for instance, Joint-Donor Report. 2009. Vietnam Development Report 2010: Modern Institutions. Ha Noi, December 3–4: 62

also result from commitments made under the World Trade Organization and U.S. Bilateral Trade Agreement to create a transparent, predictable, and equitable legal system where rules are "no more burdensome than necessary to serve a legitimate regulatory interest." A final factor may have been the provincial preparations for the launch of the online database of administrative procedures under the Prime Minister's Project 30 discussed above. Provincial leaders may have been spurred to action by the launch of the Project 30 program by the beginning of the inventory analysis, which began on April 9, 2009, and the first official launch of a ministerial database on July 6, 2009.[21]

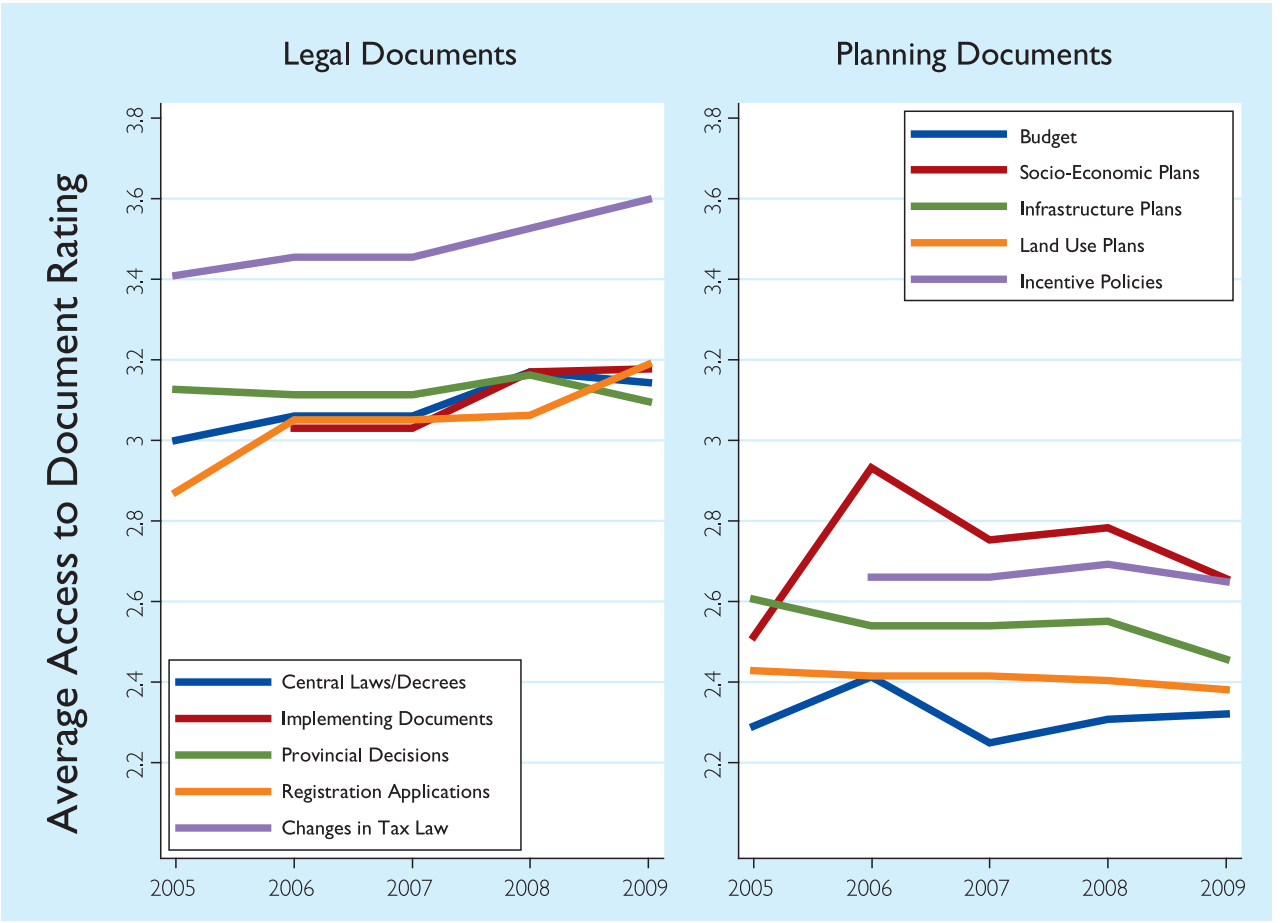
Figure 1.9 explores the divergent trends of planning and legal documents over time. The first panel depicts access to the five most important LNDs for private businesses (laws, implementing documents, provincial decisions, applications for business registration and land, and notification about changes in tax law). The second panel illustrates access to five key planning documents for domestic businesses (provincial budgets, socioeconomic plans like the provincial 10-Year Master Plan, plans for the roll-out of new infrastructure, land-use and zoning plans, and provincial incentive policies). The X-axis records the average level of access recorded by firms on a five-point scale, ranging from impossible to very easy. The Y-axis simply depicts the year of the PCI survey, going back to the first iteration in 2005.

The trend is unmistakable: access to planning documents has declined or stagnated over time, while access to legal documents has shown a steady increase since 2006. In general, provincial budgets and land-use plans are considered to be the most difficult to access, while infrastructure and socioeconomic plans show sharp declines in access since 2008. Among the legal documents, provincial decisions are the only item demonstrating a slight downward slide in the past year. This slide, however, is minor compared to the downward trajectory in some planning documents.

Why has access to legal documents improved, while planning documents are more difficult to obtain? Further, why do firms believe that the need for relationships has increased? These are important mysteries that we will explore in more depth in a stand-alone research paper later this quarter as part of the new PCI policy research series (see below for more details on this and other projects).

21. Though the national database was not launched until October 26, 2010, after respondents had filled out the PCI questionnaire, many provinces had already published their administrative procedures either on their own websites or in hard copy well before that date. In fact, 41 percent of PCI respondents said that they knew about Project 30 in a question on the survey, indicating a notable level of awareness before the final launch.

Figure 1.9: Changes In Access To Documentation Since 2005



Notes: 1 = impossible; 5 = very easy.

One hint, however, was recently put forward by Phan Vinh Quang and John Bentley in a recent note on legal codification.[22] The authors note that Vietnamese authorities have begun to favor the use of official letters over the promulgation of LNDs, issuing issued 9,470 official letters containing legal norms during 2005–2008-more than 3 times the number issued in the previous 18 years (1987–2004). Before 2004, on average, there were 19 official letters to 81 LNDs. This ratio has increased to 55 official letters to 45 LNDs. The pervasive use of non-transparent official letters has created a "jungle of legal documents" where "even the experts get lost, let alone people and investors." In this jungle, connections become especially important-only a few privileged individuals know how to navigate the undergrowth.[23] Since a great deal of planning takes places through official letters, the proliferation of this form of communication helps explain both the decline in the access to planning documents and the increasing importance of relationships to access them.

Informal Charges: Trends in informal charges show mixed results. There have been some marginal improvements: the percentage of firms that felt that bribes were a normal part of doing business declined slightly from 65 percent of respondents in the median province to 59 percent. Similarly, the size of bribe payments also dropped marginally

22. Quang, Phan Vinh, and John Bentley. 2009. "Codification: A New Approach to Reforming Vietnam's Legal Syetm." Ha Noi: STAR-Vietnam.

23. Thanh, Dan. "Lost … in the Jungle of Law." An Ninh Thu Do, 27 May 2008; accessed on August 18 at http://www.antd.vn/Tianyon/Index.aspx?ArticleID=24726 & ChannelID=103.

- 9 percent of respondents in the median province spend over 10 percent of their revenue on informal charges—down from 10 percent last year.

On the other hand, there are some very problematic patterns evident in other realms of informal charges. Fifty-two percent of respondents in the median province believe that local government officials use compliance with local regulation to extract rents, up from 37 percent in 2008 and 2007. This finding unfortunately dovetails with our findings about declining transparency above. The less transparent local regulations are, the more loopholes are available for opportunistic behavior by a few unscrupulous officials.

In addition, 53 percent of firms believe that commissions are required for bidding on government procurement contracts, which is a troublesome sign of macro-level corruption. These results appear to indicate a transition in the Vietnamese business environment. Petty corruption—small bribes to facilitate transactions at lower levels of the bureaucratic chain—has become less frequent and more predictable in terms of size. On the other hand, macro corruption has worsened. Small firms feel disadvantaged in their competition for government procurement. If this trend increases, it could lead to declining productivity as inefficient (but high-paying contractors) are the most likely to receive contracts for important infrastructure development projects and technological upgrading.

Proactivity: Firm perceptions of proactivity have also declined back to 2007 levels. Only 43 percent of respondents believe that provincial officials have a positive attitude toward private entrepreneurs, down 10 percentage points from the 2008 level. Firms are also less likely to believe their provincial officials demonstrate creativity about solving problems faced by firms within the parameters of national law. This finding is puzzling; one would have expected more dynamic behavior from local officials as decentralization and PAR progressed and their authority increased, not less.

Assessment of infrastructure

This year, the research team continued our tracking on the quality of infrastructure at the provincial level as business owners and policy makers continue to cite it as one of the most critical barriers to investment and growth in the country. The PCI Infrastructure Index is divided into four sub-indices:

- Industrial zones and small and medium-sized enterprise concentrations: measuring the capacity and quality of local industrial zones;
- Road and transport: gauging the coverage of roads in Vietnam and the indirect and direct costs of transport that result from them;
- Utilities: measuring the costs and reliability of telecommunications and energy delivery in the province; and
- Information and communications technology: Measuring access to and usage of information and communications technology. [24]

As in the PCI, each Infrastructure Index sub-index is a combination of hard data from published sources and perceptions data gleaned from the 9,890 PCI respondents. Figure 1.10 details the final scores on the Infrastructure Index. Table 1.4 provides source of data and summary statistics on the indicators used in each sub-index.

Binh Duong, Dong Nai, and HCMC—the three powerhouse industrial provinces of the North Southeast, which alone account for a quarter of the non-oil GDP in the country—receive the three highest scores. Binh Dinh, Ha Noi, and Hai Phong round out the top performers. Unsurprisingly, the lowest infrastructure scores are in the rural, Northern Uplands of the country, including Bac Kan, Lai Chau, Cao Bang, and Lang Son.

24. This year's report drops major infrastructure (ports and airports) from the index because their quality is difficult to assess from the small portion of firms in the PCI survey that export. Moreover, assessment and planning for these large-scale investments should be at the central level.

Figure 1.10: Infrastructure Quality Index

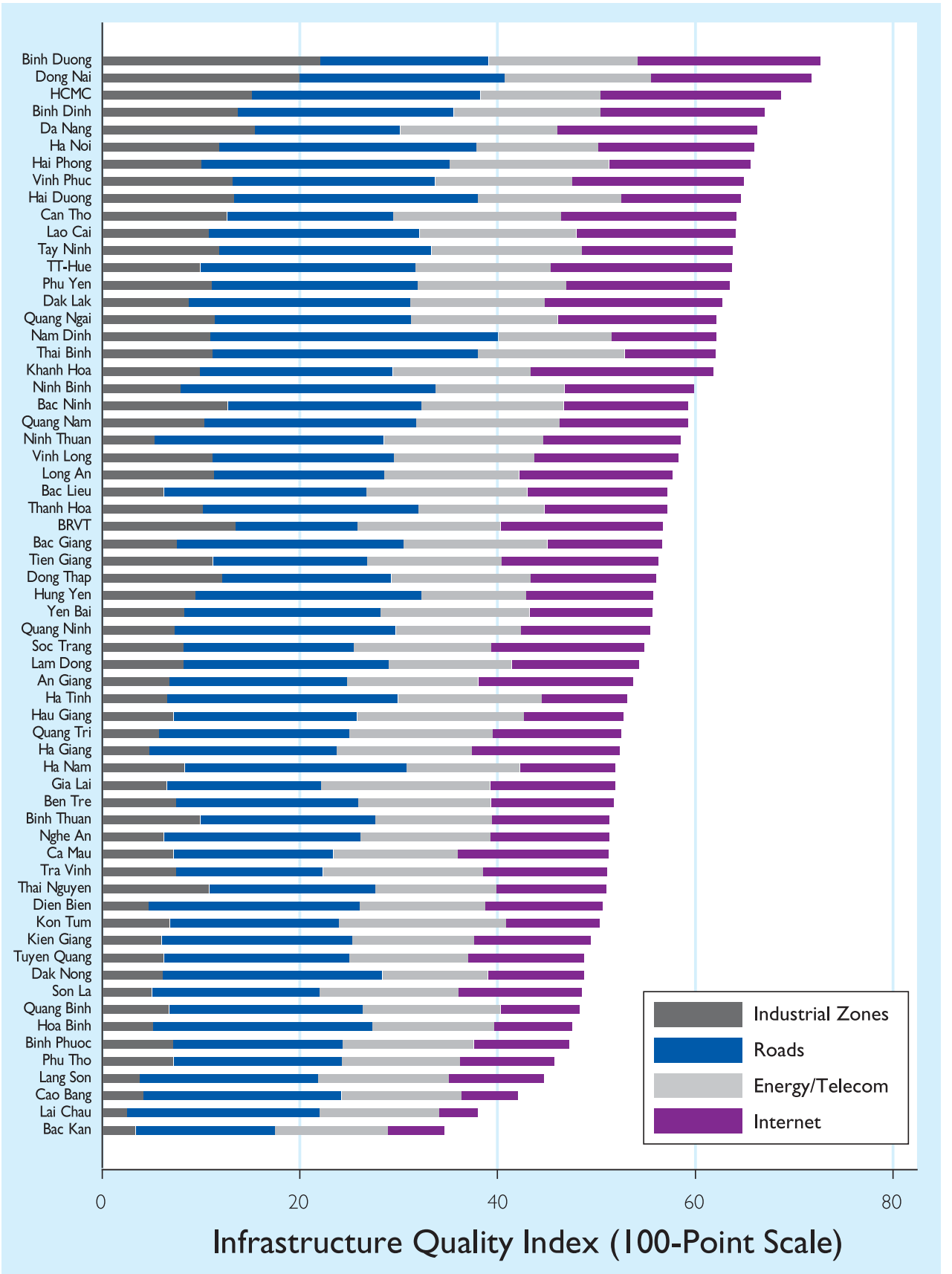


Table 1.4: Indicators Used in Infrastructure Index

Sub-Index	Indicator	Source	Measures	2008	2009
Industrial Zone Quality and Coverage	Number of industrial zones (IZs) and concentrations in province.	Ministry of Planning and Investment (MPI) (August 2007)	Min	0	0
			Median	1	1
			Max	23	23
			Correlation	NA	0.95*
	Percentage of total IZ surface area that currently has occupants.	MPI (August 2007)	Min	0.00	0.00
			Median	30.13	30.84
			Max	93.55	93.55
			Correlation	NA	0.97*
	Firm rating of provincial IZ quality. (% very good or good)	PCI Survey Question E1.5	Min	3.07	0.00%
			Median	23.87	24.07%
			Max	72.89	79.17%
			Correlation	NA	0.75*
Road Quality and Transport Costs	Assessment of road quality. (% good or very good) NEW INDICATOR	PCI Survey Question E1.1	Min	0.00%	7.95%
			Median	5.45%	28.80%
			Max	38.90%	80.82%
			Correlation	NA	0.84*
	Percentage of roads in province (national, provincial, or district) that are paved with asphalt.	GSO	Min	1.98	4.82
			Median	51.28	51.44
			Max	100.00	100.00
			Correlation		0.75*
	Percentage of provincially managed roads that are paved with asphalt.	GSO	Min		3.00
			Median		69.65
			Max		100.00
			Correlation		NA
	Number of days annually that roads are impassable due to rainfall.*	PCI Survey Question E2	Min	3	0
			Median	7	3
			Max	19	10
			Correlation	NA	DROPPED
	Monetary loss annually from spoiled and damaged products in the past year (millions of VND).*	PCI Survey Question E43	Min	14.6	0.0
			Median	31.9	22.2
			Max	83.1	166.2
			Correlation	NA	DROPPED

Sub-Index	Indicator	Source	Measures	2008	2009
	Transport costs of a 40-foot container from provincial capital to nearest major ports (Hai Phong, HCMC, Da Nang) in millions of VND.*	Average estimates by three local transport companies	Min	2.1	DROPPED
			Median	6.5	
			Max	16.0	
			Correlation	NA	
Utilities (Energy and Telecommunications)	Hours of telecommunications outages per month.*	PCI Survey Question E6	Min	7	0
			Median	13	3
			Max	50	8
			Correlation	NA	0.25
	Assessment of telecommunications quality. (% good or very good)	PCI Survey Question E1.2	Min	8.57	35.59
			Median	25.00	67.50
			Max	53.65	84.93
			Correlation	NA	70.3*
	Telephones (land and cellular) per 1,000 citizens.	Ministry of Post and Telecommunications	Min	0.7	0.4
			Median	1.3	1.9
			Max	5.8	20.8
			Correlation	NA	0.12*
	Average cost per kilowatt of energy in province (VND).	Electricity Vietnam	Min	595.51	142.24
			Median	776.17	796.24
			Max	1068.09	1231.13
			Correlation	NA	0.44*
	Hours of electricity outages in the last month.*	PCI Survey Question E4	Min	27.00	46.00
			Median	44.00	50.00
			Max	101.00	58.00
			Correlation	NA	−0.36
	Firms informed in advance about power cuts (% of time).* NEW INDICATOR	PCI Survey Question E5	Min		45.78
			Median		50.00
			Max		58.38
			Correlation	NA	NA

Sub-Index	Indicator	Source	Measures	2008	2009
Internet	Respondent possesses email address (%). NEW INDICATOR	PCI Survey Question E7	Min		9.6%
			Median		27.3%
			Max		69.7%
			Correlation	NA	NA
	Assessment of internet quality (% good or very good). NEW INDICATOR	PCI Survey Question E1.6	Min		19.2%
			Median		46.4%
			Max		67.4%
			Correlation	NA	NA
	Respondent answered using online platform (%). NEW INDICATOR	Ministry of Post and Telecommunications	Min		0.7%
			Median		5.0%
			Max		12.0%
			Correlation	NA	NA

Notes: * Missing data were imputed to address item nonresponse.

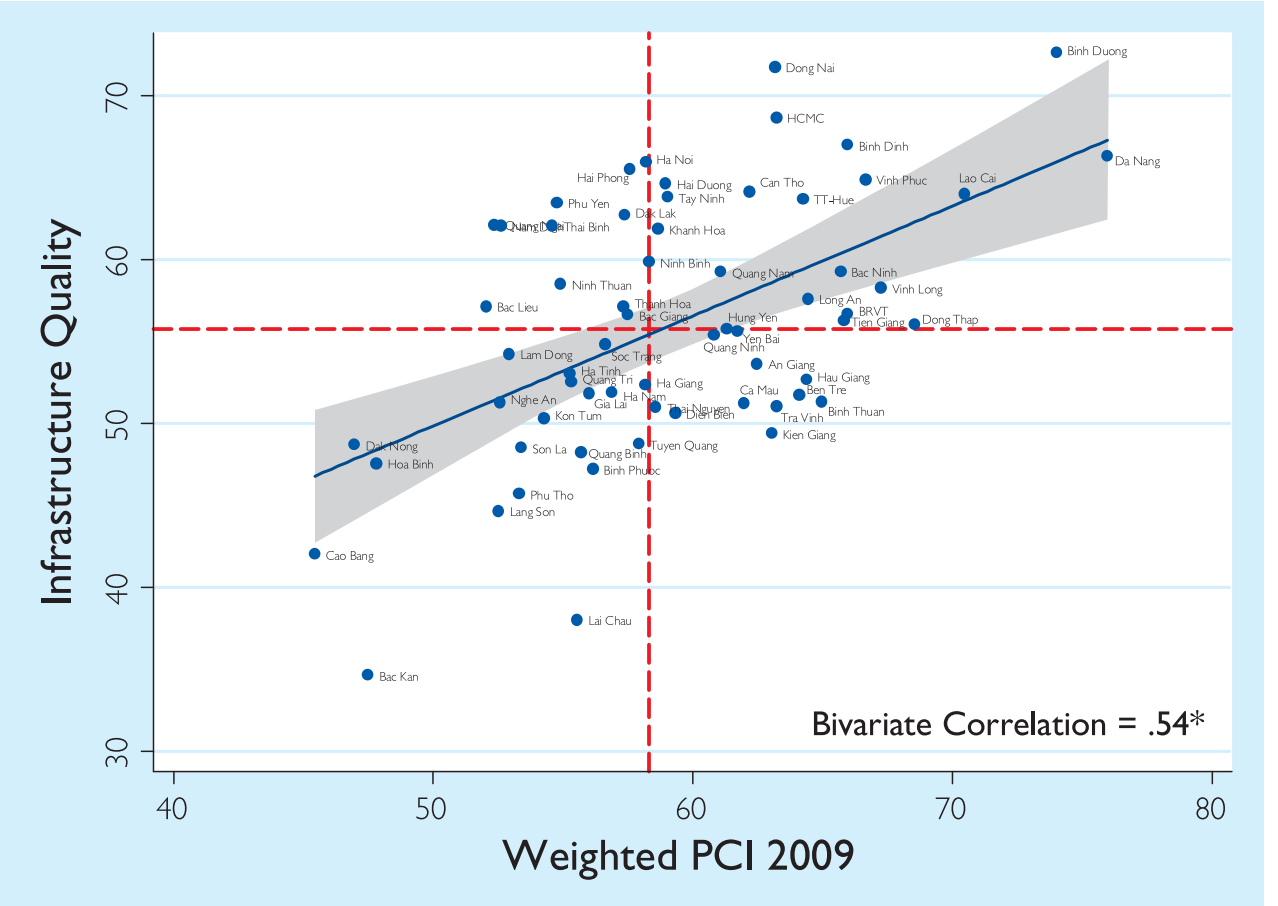
Relationship between governance and infrastructure

Figure 1.11 shows the relationship between governance and infrastructure quality, with the dashed red lines depicting the median scores on both indices. The northwest corner of the scatter plot shows the provinces that comprise the best total investment environments in the country. These are the provinces that combine above-average governance with above-average infrastructure. Provinces with the best total investment environments include Binh Duong, Da Nang, Dong Nai, HCMC, Vinh Phuc, Binh Dinh, and Lao Cai.

Figure 1.11 also reveals that the Infrastructure Index is positively, but imperfectly, correlated with good governance (the bivariate correlation is 0.54). There are a number of possible explanations for this correlation that are difficult to disentangle in this report but are worthy of further research. First, it is possible that well-governed provinces are also the provinces that are willing and able to invest resources in high-quality public services, such as infrastructure. Second, there may be wealth effect at work, whereby richer provinces are better endowed with high-quality infrastructure and civil servants. This second factor could result from the long-term benefits of auspicious endowments at the beginning of the reform period, or because of a virtuous circle where governance and infrastructure attract investment that creates revenue for future governance and infrastructure improvements.

The scatter plot does reveal, however, that there are provinces, such as Hung Yen, Quang Nam, An Giang, and Ben Tre (in the southwest corner), that score below average in infrastructure (denoted by the dashed red line) but compensate with above-average governance. Since both governance and infrastructure are strongly associated with private sector growth and economic development, these provinces reveal that there are alternative routes to development for poorly endowed provinces.

Figure 1.11: Relationship Between The PCI and Infrastructure Quality



One-year changes in infrastructure indicators

It can take a very long time to build infrastructure, so changes in this index should not be as frequent as changes in the governance measures. Comparing indicators between the inaugural infrastructure in 2008 and this year, however, we do note some interesting changes.

First, perception data on infrastructure quality is up. In 2008, businesses ranked infrastructure very low throughout the country; this year, perceptions have improved somewhat. Assessments of road quality, telecommunications, energy, and internet provision are up substantially. However, we should be cautious about these improvements. In 2008, businesses were suffering from an economic slowdown, and their frustration with the slow pace of change in the economy was growing. This year, Vietnam is beginning its recovery and firms are generally more positive. Thus, there is a bit of halo effect influencing business assessments of quality.

Thankfully, we also have a range of hard data to anchor the more malleable perceptions data. Hard data reveal small changes in the percentage of asphalted roads (currently about 50 percent of roads are paved in the median province), but nothing to justify the large swings in public perceptions about road quality.

Telecommunications infrastructure shows greater year-on-year improvement. Firms experienced substantially fewer telecommunication outages in the month prior to the survey, dropping from 13 to three in the median province. Access is also up, growing from 1.3 phones per 1,000 citizens to 1.9 phones in 2009.

Access to and stability of energy account for the greatest worries for current businesses. Average energy costs have risen somewhat in the median province to about 770 VND/kilowatt, while service delivery has declined. In the month prior to the PCI survey, the median province suffered 50 power cuts as opposed to 44 in the previous year; these outages were highly unpredictable and firms received notice only 50 percent of the time.

Caution about attribution about infrastructure quality

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

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

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

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

Finally, linkages of infrastructure across provincial borders affect firm perceptions in ways that are difficult to disentangle using provincial-level survey data. It would be unfair to rank province A below its neighbor, province B, simply because central authorities selected B as the sight of the national highway. Alternatively, a province that has done a good job of marshalling local resources for new roads and maintenance may be downgraded by firms that are forced to ship products outside those provincial borders over the roads of neighbors that may not have been so diligent about infrastructure development and upkeep. Consequently, the Infrastructure Index is simply an assessment of total infrastructure quality. We make no assumptions about credit or culpability and present it simply as a tool to inform the investment decisions of local entrepreneurs and the policy priorities of central and local officials.

Future questions for research using PCI data

Each year, the creation of the PCI highlights a number of research questions that are beyond the scope of the PCI endeavor-creating an objective ranking of provincial economic governance - but are answerable using the wealth of information available in PCI data.[25] Such questions require separate research and analysis of their own and deserve more careful treatment than the space limitations of the PCI report allow. In 2009, three such questions arose. These will be addressed in a series of follow-on VNCI Policy Reports released in winter and fall of 2009.

25. Such data include 1) the 2009 survey of 9,890 domestic private businesses; 2) panel data of 2,500 respondents, who have answered the survey every year going back to 2006; 3) time-series data on provincial aggregate governance from 2005 onward. These data have never been fully exploited by researchers.

The impact of the economic stimulus on domestic, private investment

In the midst of the global financial crisis, the Vietnamese Government put forward an ambitious economic stimulus, which included public expenditure programs, tax incentives, and a unique government interest rate of 4 percent designed to encourage small businesses to take advantage of cheap credit on short to medium-term loans to buy machinery and equipment and thereby further stimulate domestic demand. Estimates of the total size of the stimulus are as large as US$8 billion (about 9 percent of GDP at official exchange rates) and opinions about its success vary dramatically, especially with regard to the subsidized loan program that cost about 2.5 trillion VND ($1.3 billion). Some analysts have given the government credit for a rapid and wise response that averted economic disaster, while others have charged that the money primarily ended up fuelling the stock market and real estate bubble and did little to achieve its ultimate goal of stimulating productive new investments.[26]

The 2009 PCI is ideally positioned to analyze this question. We have already shown that confidence in the Vietnamese economy according to the Business Thermometer is down this year across the country, but that there is tremendous local variation in responses across provinces and individual respondents. In addition, 3,225 of the 9,890 PCI respondents received the special government 4 percent rate of interest, allowing us to adjudicate clearly the impact of this specific stimulus program.

Though findings remain tentative, contingent on future analysis, preliminary evidence seems encouraging. First, reception of a stimulus loan appears to be associated with business expansion. Stimulus recipients were more likely to hire new employees over the past year, more likely to purchase additional land for their business premises, and much more likely to have plans to expand their businesses over the next two years.

In addition, contrary to conventional wisdom, preliminary analysis appears to reveal that the stimulus was fairly evenly received across different parts of the country and not concentrated only in Vietnam's major economic centers. In fact, rural and smaller firms were slightly more likely to receive the loan than larger, more sophisticated operations (including equitized SOEs).

More work is needed to confirm these findings. Most importantly, to understand the impact of the subsidized loan program, we must first understand who received it and why. Any bias in access to the loan will affect our ability to estimate its effectiveness. For instance, if the primary recipients were businesses that would have expanded even in absence of the loan, the net effect of the stimulus is actually somewhat less than simple correlations may reveal. Once we address these selection effects, we will be able to offer the first micro-analysis of the government stimulus package.

Improvements in vocational training

We have shown above that the quality of labor significantly affects the business prospects of domestic investors. A shallow talent pool limits plans for technological upgrading or business expansion requiring sophisticated financial or strategic management skills. What can provincial leaders do to improve the educational skill-sets of their populations in order to meet the needs of local companies? Vocational training is a useful strategy, but it can easily be done badly. In the second policy research paper, Le Duy Binh and the research team study vocational training in three of the top-ranked provinces for labor quality (Da Nang, Vinh Phuc, and Binh Duong), identifying best practices for erecting schools, devising curriculums, and incorporating private sector participation.

The selection of the three provinces is particularly propitious because, although they all excel in labor training, they face different sets of labor challenges in addition to the general problems faced throughout the country. Da Nang is an urban center that attracts migrant labor, but also has a relatively large and sophisticated service sector with specific

26. Vietnam Financial Review. 2009. "Economic Stimulus Package: Stimulating Enough for SMEs." December 2; accessed December 27 at http://www.vfr.vn/focus/economic-stimulus-package-stimulating-enough-for-smes.html.

requirements for its labor force. Binh Duong faces a different problem as a manufacturing center for the country. Its challenges include a shortage of unskilled laborers, a strained social security system due to large number of immigrant laborers, and relatively frequent labor disputes and strikes. The Vinh Phuc leadership is primarily concerned with addressing labor dislocation for farmers who have lost their land due to re-zoning and industrialization.

The study identifies a number of important policies practiced by these provinces that could be implemented generally across the country. Key among them are 1) the attraction of private investment into vocational training programs; 2) encouragement of talented trainers and teachers to work for vocational training institutions; 3) demand-based vocational training and human resource development to ensure that schools meet the needs of students and potential employers; and 4) the establishment of vocational institutions as part of the industrial zone development, such as the Vietnam-Singapore Vocational College in Binh Duong.

In addition, the report identified special practices by these provinces to meet their unique challenges. These include 1) the development of clear policies for job change and job creation in land clearance and re-zoning that are responsive to the demands of people who have been displayed; 2) well-implemented surveys on the needs for vocational training and job change to ensure evidence-based decision making; 3) formulation of specific projects in support of job change and job creation in strategic economic sectors; 4) provision of free training for laborers who must change their jobs as a result of technical obsolescence and economic transition; and 5) diversification of vocational training and priorities to help create jobs for over-age laborers.

Transparency of processes and documentation

The third policy paper furthers our analysis of access to business documentation. What factors account for the declining business perceptions of access to planning documents and the increasing belief that relationships are necessary for access? These findings fly in the face of a great deal of work to enhance transparency over the past few years. We provided one tentative hypothesis that part of the diminished transparency results from the proliferation of official letters over LND. Nevertheless, more testing is necessary to confirm this conclusion.

Once we discover the root of the problem, however, more work is needed to understand what can be done about it. Examining the wide variation in transparency across provinces should be helpful in pinning down the answer. Each year, a few provinces, such as Lao Cai, Binh Duong, Da Nang, and Binh Dinh, consistently rank atop the transparency rankings. Other provinces, such as Long An, have recently completed local policy improvements that raised their transparency scores markedly. In the third PCI policy paper, we tackle the question of transparency in Vietnam, exploring the best practices of the high transparency achievers and demonstrating how these approaches can be easily adapted to other parts of the country.

In conclusion

The PCI is a composite index ranking Vietnam's 63 provinces according to their performance on nine aspects of governance that are critical for private sector development. The index is based on the perceptions of 9,890 respondents, but small adjustments are made using publicly available data to address perception biases. As a result, the PCI provides the most objective metric available for gauging the impact of economic and administrative reforms at provincial and national levels.

Key findings from this year's report are:

- Da Nang and Binh Duong continue to demonstrate the highest levels of good economic governance in the country.
- PCI rankings are highly correlated not only with retrospective investment in province, but also with prospects for future investment based on where PCI respondents intend to expand.
- Transparency and Labor Quality are the governance factors with the greatest

influence on private sector performance and economic welfare.

- Entry Costs, Access and Security of Land, Time Costs, Labor Quality, and Confidence in Legal Institutions show signs of definitive improvement over the past year. Policy makers should be proud of these accomplishments.
- Worrisome declines are evident in terms of Transparency, Informal Charges, and the Proactivity of local leaders. Unless important changes are made, private sector performance could be negatively affected.
- Some small improvements in infrastructure quality are evident. These small changes in actual infrastructure quality, however, had a huge impact on private sector perceptions.
- Infrastructure and governance are positively correlated, indicating a potential causal relationship. Nevertheless, further analysis reveals that some provinces have been able to compensate for the negative influence of poor infrastructure on investment by concentrating on governance improvements.

CHAPTER TWO

GOVERNANCE IMPACT OF HA NOI'S GEOGRAPHIC EXPANSION

GOVERNANCE IMPACT OF HA NOI'S GEOGRAPHIC EXPANSION

This year, policy developments in Vietnam threw a fascinating wrench in the PCI analysis.[27] The annexation of Ha Tay province and two surrounding districts in other provinces created an interesting opportunity to observe how an exogenous change in the quality of governance affects business performance and prospects. In this chapter, we take advantage of this unique natural experiment, demonstrating how the merger significantly altered governance in the affected locations.

Anticipating our findings, treating the new parts of Ha Noi as separate provinces reveals that Ha Noi would rank slightly behind Me Linh and Ha Tay. In other words, the addition of these provinces actually raised Ha Noi's final PCI scores slightly, although the changes are minor. For firms in Ha Tay and Luong Son, the merger into Ha Noi did not lead to worse governance. Businesses in these provinces may have been affected by the shock of transition and the difficulties of learning the locations of new agencies. Nevertheless, we can expect that their business prospects will not be greatly altered in the long term.

For businesses located in Me Linh district, however, there is more reason for concern. Comparing similar groups of firms in Me Linh and Vinh Phuc suggests that firms in Me Linh are significantly more negative about a range of governance indicators than their counterparts in Vinh Phuc. If governance matters for economic performance, and we certainly believe it does, there is reason to worry that the merger may have negative long-term implications for Me Linh businesses and the welfare of citizens in that district. At present, however, the changes in governance do not appear to have damaged business performance. Time will reveal whether this is a temporary phenomenon or not.

Background

On May 29, 2008, the National Assembly decided by a vote of 92 percent to allow Ha Noi to annex the entire province of Ha Tay, as well as the Me Linh district of Vinh Phuc province and the Luong Son district of Hoa Binh province. The stated goal of the measure was to facilitate the creation of an international-caliber city in the capital. By expanding the borders of Ha Noi, the initiative's designers hoped to ease the policy-making apparatus for infrastructure development and land planning by reducing the number of bureaucratic layers involved in the approval process.

It was also argued that urban sprawl between Ha Noi and its surrounding areas had effectively reduced the significance of borders between the areas anyway. A substantial number of Ha Tay residents (especially those in the neighboring Ha Dong district) commuted to Ha Noi for work on a regular basis, while many Ha Noi residents owned land and operated businesses on the other side of the border. Eradicating a border that existed only on paper would reduce bureaucratic hassles for these individuals in terms of dealing with two

27. Nam, Minh. "Nhà sử học Dương Trung Quốc: Đề án mở rộng Hà Nội không mang tính khoa học." CAND Online. http://www.cand.com.vn/vi-VN/thoisu/2008/5/90725.cand.

provincial administrations for residency permits, business registration, and land acquisition.

The decision was quite controversial. Beyond the stated goals, some analysts argued that the merger was designed to benefit vested interests close to Ha Noi policy makers rather than the citizens of the annexed locations. These critics cite evidence of speculation in land prior to the merger in the targeted districts, as well as damaging over-staffing of key provincial offices at the onset of the transition, as evidence that more pernicious goals were are work in the merger plans.

For the PCI endeavor, the merger created both methodological challenges and interesting research opportunities. Methodologically, the annexation essentially means that Ha Noi, Vinh Phuc, and Hoa Binh are no longer the same geographic units that were previously measured. This complicated analysis of changes in PCI scores over time. Did a province's scores rise or fall because of changes in governance, or simply because it inherited a large group of new business operations as a result of changing borders? In a related vein, it is conceivable that Ha Noi's governance scores will suffer as businesses adjust their practices to the new regime. Businesses have to learn new locations of local agencies and adjust to new personalities in key offices associated with government-business interface as civil servants in those offices are transitioning to their own new set of responsibilities.

Alternatively, annexation by Ha Noi may represent a real and important change in governance quality that will affect firm operations in important ways. Glancing at the 2008 PCI scores, we can see that the four impacted provinces received vastly different final rankings. Vinh Phuc province ranked third overall and was the sole Northern province in the exclusive group of excellent performers.[28] Ha Noi and Hoa Binh both ranked among the average provinces, with Ha Noi receiving a moderately higher ranking than the rural and mountainous Hoa Binh. Ha Tay, on the other hand, was ranked among the lowest quartile of performers. Although it had shown a significant trajectory of improvement over time (see the 2007 PCI report), it had a long way to go to catch up with the governance improvements achieved by its Red River Delta neighbors. Thus, for businesses operating in Me Linh, annexation to Ha Noi represents a significant downgrade in the quality of governance. We can expect that entrepreneurs may respond negatively to the transition. By contrast, the Ha Noi merger should serve as a net benefit for businesses in Luong Son and especially Ha Tay. These hypotheses are testable using the PCI dataset.

However, Vinh Phuc and Hoa Binh might be negatively affected by the merger. Both provinces lost one of their most economically advanced and largest revenue-producing districts. Me Linh district was the most auspiciously endowed location in Vinh Phuc province, just off the road linking Ha Noi and Noi Bai airport. As a result, its Quang Minh industrial zone was filled with 138 small and medium-sized private Vietnamese establishments and 22 foreign-invested projects. Before the merger, Vinh Phuc officials worried that the merger would cost them significant revenue that they could use for development and social welfare spending in the province.[29] Hoa Binh province was even more worried. The four communes of Luong Son province that Ha Noi annexed represented the most important economic producing areas in the province, including a number of scenic areas that Hoa Binh was developing into golf courses and ecotourism destinations.

28. In 2004, one entrepreneur commented on the differences between operating in Vinh Phuc and Ha Noi, claiming how happy he was to find a province with reasonable bureaucratic procedures and fees. Pham Ngoc Phuong. 2004. . **"Ước gì cũng như thế này!"** [Dreaming that Everywhere Was Like This], **Tuổi Trẻ** (Youth) Online, August 13.

29. **Mét Vuông** 2008 "Ha Noi Expansion: Officials of Related Provinces Say…" http://en.metvuong.com/group_news.php?news_id=605.

Analysis

Our first step in analyzing the impact of the merger was to re-calculate separate PCI scores for each of the new pieces of Ha Noi. Essentially, we treated Ha Tay and Me Linh as if they were separate provinces and re-calculated their scores. This allows us to determine what portion of the current Ha Noi PCI score is accounted for by the districts of the old Ha Noi and what portion results from the merger.

There are two limitations to this approach. First, there were two few respondents from Luong Son to create a valid PCI score. Second, this re-analysis of the PCI had to be created primarily from survey responses and could only include a limited set of hard data. Many of our indicators for LURCs, labor quality, and legal institutions are only recorded at the provincial level and do not provide separate district-level disaggregations. Any approach used to impute missing hard data for Ha Tay and Me Linh could have potentially biased scores.

Figure 2.1 records the results of this analysis, portraying the different units of Ha Noi alongside the remaining portions of Vinh Phuc and Hoa Binh provinces. The three different components of Ha Noi rank similarly across almost all of the sub-indices.

The original Ha Noi ranks marginally better in two areas (Entry Costs and Business Support Services), while Me Linh significantly outperforms its peers on the Informal Charges sub-index. Otherwise, however, the different units of the expanded Ha Noi are statistically indistinguishable.

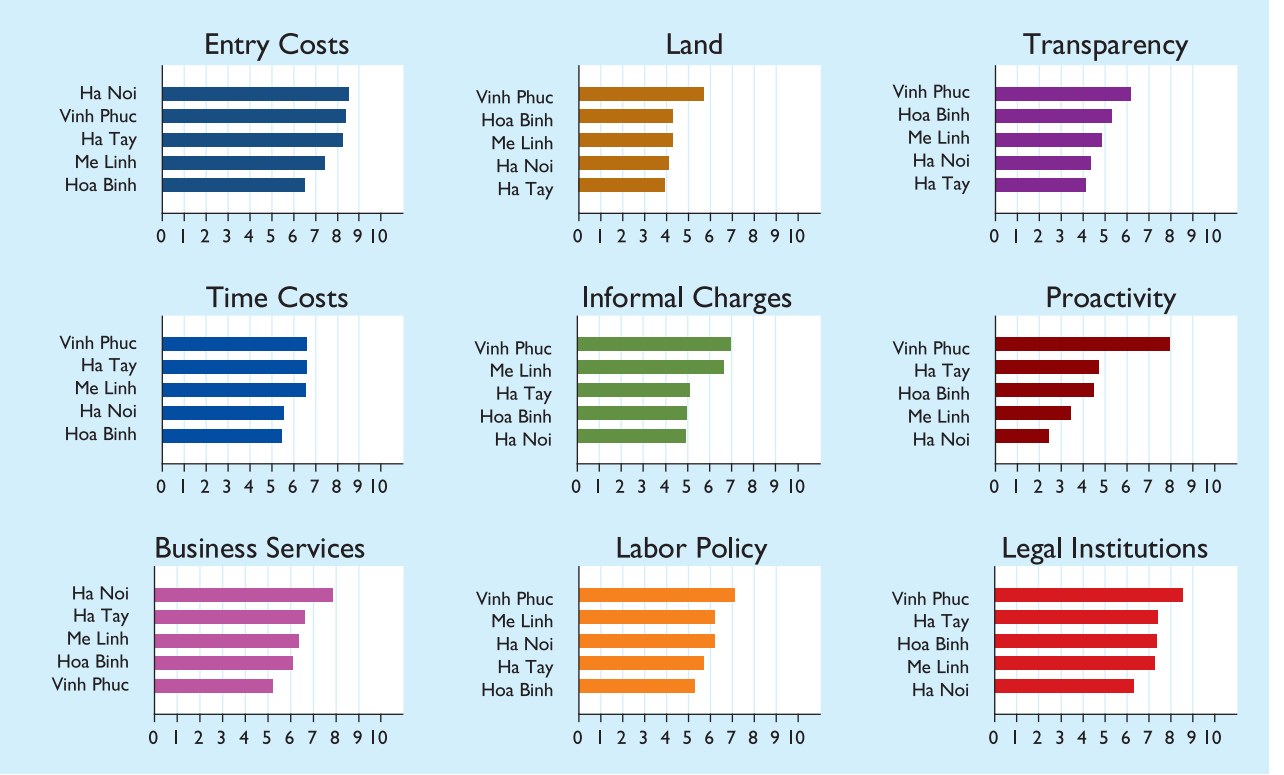
In fact, as Table 2.1 shows, if we were to recreate the entire weighted PCI, treating the new parts of Ha Noi as separate provinces, Ha Noi would actually rank slightly behind the other two. In other words, the addition of these provinces actually raised Ha Noi's overall PCI scores slightly. These changes are minor. For firms in Ha Tay and Luong Son, the bottom line is that merger into Ha Noi did not lead to demonstrably worse governance. Businesses in these provinces may have been affected by the shock of transition and the difficulties of learning the locations of new agencies. Nevertheless, we can expect that, in the long term, their business prospects will not be greatly altered.

Table 2.1: Re-calculated PCI for the Areas Comprising The New Hanoi

Province	PCI 2009
Vinh Phuc	65.97
Me Linh	58.51
Ha Tay	56.83
Ha Noi	54.54
Hoa Binh	47.82

The second thing to notice about Figure 2.1 is the stellar performance of Vinh Phuc relative to the other areas and its former district of Me Linh. Vinh Phuc received the top score on seven of the nine sub-indices, and finished second in Entry Costs. Thus, it demonstrates tentatively that the Ha Noi merger led to worsened governance for the businesses of Me Linh district.

Figure 2.1: Re-calculated PCI Sub-indices for the Areas Comprising the new Ha Noi



Notes: In this exercise, Me Linh and Ha Tay were treated as separate provinces to re-create the PCI. Unfortunately, hard data for many indicators were not available at the district level, so the measures rely primarily on perception data.

Analysis of the PCI panel set of firms responding every year confirms these findings. Sixty of the 163 firms in Ha Tay and nine of the 50 respondents in Me Linh responded to the PCI survey in 2008. Their assessments mirror these results. Firms in Me Linh recorded substantially worse assessments of governance, while firms in Ha Tay score Ha Noi as only marginally worse than their previous province.

Matching analysis for Me Linh and Vinh Phuc

The above analysis presents only a broad picture of the governance impact of the merger. The annexation of Me Linh did not randomly sample firms from Vinh Phuc to be included in Ha Noi; it grabbed a small portion of the provinces that particular firms had chosen due to its industrial zones and proximity to the airport, major thoroughfares, and the Ha Noi city center. As a result, the firms located in Me Linh were potentially different from those in the rest of Vinh Phuc in terms of their size, sector, customer base, and legal form. In assessing the impact of the merger, it is important to ensure that the specific type of firm in Me Linh is not driving the assessment of governance in the province.

We resolve this problem through a process known as propensity score matching (PSM). In short, PSM is a process that uses observable characteristics of particular observations (in this case businesses) to determine that probability of selection into a treatment group (in this case location in Me Linh and consequently annexation into Ha Noi).[30] Using these probabilities, we return to our control group (provinces located in the rest of Vinh Phuc) and

30. Propensity scores were calculated using Daniel E. Ho, Kosuke Imai, Gary King, Elizabeth A. Stuart. 2009. "MatchIt: Nonparametric Preprocessing for Parametric Causal Inference." Journal of Statistical Software, Forthcoming. http://www.jstatsoft.org/.

identify a matching group of firms that are like the treatment group in every observable way, except for the fact that they are not located in Me Linh. PSM provides confidence that we are isolating the impact of the incorporation of Me Linh into Ha Noi from the characteristics of the firms themselves, which may also influence assessments of governance.

In our sample, we have 50 respondents from Me Linh and 158 from Vinh Phuc province.[31] The goal of the matching operation will be to trim back the respondents of Vinh Phuc to a control group of 50 that resembles as closely as possible the characteristics of Me Linh province. The first step is to regress a dichotomous province for location in Me Linh on a set of firm and owner characteristics using a modified form logistic regression. The results of this operation are shown in Table 2.2. The table reveals that businesses in Me Linh are not statistically different in the employment size of the enterprise or the sector in which they operate, but they do tend to be significantly younger (each year of establishment age is associated with a 1 percent decline in the probability a firm is located in Me Linh), 30 percent more likely to be registered as joint-stock companies, and 42 percent more likely to be an equitized local SOE.

31. Of the 50 firms in Me Linh, nine are in the PCI panel dataset, meaning they answered the survey in 2007 and 2008. Ideally, the changes in these panel firms' responses would be the best test, but there are simply too few to allow for valid analysis.

Table 2.2: Propensity Score Matching Exercise for Location in Me Linh Province

Independent Variable	Marginal Probability of Location in Me Linh
Limited Liability Company	0.0532 (0.0884)
Joint-Stock Company	0.303*** (0.109)
Services/Commerce	-0.0452 (0.0661)
Agriculture/Forestry/Aquaculture	-0.0609 (0.132)
Natural Resources	-0.235 (0.297)
Size	0.0124 (0.0286)
Year of Establishment	0.0105* (0.00559)
Equitized Local SOE	0.424** (0.165)

Independent Variable	Marginal Probability of Location in Me Linh
Equitized Central SOE	0.564
	(0.438)
Partially State-Owned Enterprise	-0.264
	(0.200)
Formerly Household Business	0.0250
	(0.0683)
Listed Enterprise	0
	(0)
Owner Used to Be an SOE Manager	-0.233**
	(0.106)
Constant	-21.89*
	(11.18)
Observations	190
Pseudo R-Squared	0.148
Log Likelihood	¬108.5*
ll	-93.34
Root Mean Squared Error	0.411

Notes: Coefficients represent marginal probabilities of location in Me Linh province as opposed to Vinh Phuc. Table reports marginal probabilities with robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Using the propensity scores generated by this operation, we identify 50 firms in Vinh Phuc that have similar characteristics to those exemplified by operations in Me Linh. The results of this approach are shown in Table 2.3. Note that the 50 firms selected in each province now share similar distribution on age, size of enterprise, sector, legal form, and customer base. Because they are so similar, we can now safely assume that the differences that we uncover in estimations of governance result from the treatment—annexation into Ha Noi.

Table 2.3: Stratification Matching on PCI Firm Sample of Me Linh and Vinh Phuc

Key Variables	Comparison Group Vinh Phuc	Treatment Group Me Linh
Total Firms	*50*	*50*
Age		
Year Established	2004	2004
Year Registered	2007	2007
Sector		
Industry/Manufacturing	22	21
Services/Commerce	27	26
Agriculture/Forestry/Aquaculture	1	2
Natural Resources	0	1
Legal Type		
Sole Proprietorship	2	4
Limited Liability	31	29
Joint Stock	17	17
Equity Capital		
Less than 0.5 billion VND	2	2
0.5–1 billion VND	6	4
1–5 billion VND	23	21
5–10 billion VND	8	7
10–50 billion VND	7	9
50–200 billion VND	3	2
Labor Size		
Less than 5 people	2	8
5–9 people	11	9
10–49 people	28	20
50–199 people	4	5
200–299 people	2	3
Greater than 300 people	3	3

Key Variables	Comparison Group Vinh Phuc	Treatment Group Me Linh
Share of sales to each sector (%)		
State Agencies or SOEs	26.04	21.84
Domestic Private	49.87	59.12
Foreign Firms or Individuals	4.25	1.34
Exports	3.42	9.70

Notes: Composition of the 50 respondents in the two locations. Selection of respondents was based on propensity matching exercise in Table 2.2.

Table 2.4 demonstrates this analysis by systematically recording the differences between the indicators of governance used in the PCI between Me Linh and Vinh Phuc province. Ninety-five percent confidence intervals are reported in the table to demonstrate whether the impact of the border can be treated as statistically significant.

Table 2.4: How is The Business Environment in Me Linh (part of new Ha Noi) different from Vinh Phuc?

Sub-Index	Indicator	Province	Mean	Low CI	High CI	T-Value
Entry	Firms waiting over a month to be fully legal (only businesses registered after 2007)	Vinh Phuc	19.05%	3.90%	34.19%	1.72 *
		Me Linh	42.31%	25.43%	59.19%	
Entry	Days to register (only businesses registered after 2007)	Vinh Phuc	10	6.18	13.82	-0.86
		Me Linh	15	8.71	21.29	
Entry	Days to re-register (only businesses registered after 2007)	Vinh Phuc	7	4.17	9.83	-1.16
		Me Linh	15	12.81	17.19	
Entry	Number of licenses (only businesses registered after 2007)	Vinh Phuc	1	0.63	1.37	-1.96 *
		Me Linh	2	1.33	2.67	
Entry	Wait for LURC (only businesses registered after 2007)	Vinh Phuc	30	-10.58	70.58	0.87
		Me Linh	24	-17.31	65.31	
Land	Firms operating on purchased land with LURCs	Vinh Phuc	73.91%	57.84%	89.99%	1.57
		Me Linh	52.00%	34.55%	69.45%	
Land	Firms responding that there is a risk of expropriation	Vinh Phuc	40.00%	26.78%	53.22%	0.78
		Me Linh	31.82%	19.88%	43.76%	
Land	Fair compensation after expropriation	Vinh Phuc	50.00%	34.22%	65.78%	2.18 **
		Me Linh	25.58%	14.26%	36.91%	
Land	Changes in government land prices reflect changes in market price	Vinh Phuc	85.37%	75.96%	94.78%	1.95 **
		Me Linh	67.44%	55.28%	79.60%	

Sub-Index	Indicator	Province	Mean	Low CI	High CI	T-Value
Transparency	Transparency of planning documents	Vinh Phuc	3.17	2.86	3.48	-0.22
		Me Linh	3.22	2.96	3.49	
Transparency	Transparency of legal decisions and decrees	Vinh Phuc	3.88	3.54	4.21	0.42
		Me Linh	3.77	3.52	4.02	
Transparency	Relationship important or very important to get access to provincial documents	Vinh Phuc	51.28%	37.61%	64.95%	-0.92
		Me Linh	61.36%	48.88%	73.85%	
Transparency	Negotiations with tax authority are an essential part of doing business	Vinh Phuc	32.56%	20.40%	44.72%	-0.15
		Me Linh	34.04%	22.31%	45.77%	
Time Costs	Number of inspections	Vinh Phuc	1.00	0.34	1.66	-0.25
		Me Linh	1.00	0.36	1.64	
Time Costs	Length of tax inspections	Vinh Phuc	8.00	0.90	15.10	0.42
		Me Linh	2.00	-5.98	9.98	
Time Costs	Over 10 percent of their time dealing with bureaucracy	Vinh Phuc	11.76%	0.12	0.12	-0.98
		Me Linh	20.59%	8.68%	32.50%	
Time Costs	Government officials have become more effective under PAR	Vinh Phuc	34.00%	22.65%	45.35%	-0.82
		Me Linh	42.00%	30.18%	53.82%	
Time Costs	Trip to obtain stamps and signatures reduced under PAR	Vinh Phuc	28.00%	17.25%	38.75%	0.69
		Me Linh	22.00%	12.08%	31.92%	
Time Costs	Paperwork reduced under PAR	Vinh Phuc	52.00%	40.03%	63.97%	-0.20
		Me Linh	54.00%	42.06%	65.94%	
Time Costs	Fees reduced under PAR	Vinh Phuc	34.00%	22.65%	45.35%	
		Me Linh	14.00%	5.69%	22.31%	2.38 ***
Informal Charges	Firms subject to bribe requests from provincial authorities	Vinh Phuc	52.27%	39.47%	65.08%	-0.45
		Me Linh	57.14%	44.14%	70.15%	
Informal Charges	Firms paying over 10 percent of their revenue in extra payments	Vinh Phuc	16.67%	3.35%	29.98%	0.57
		Me Linh	11.11%	0.60%	21.62%	
Informal Charges	Government uses compliance with local regulations to extract rents	Vinh Phuc	51.28%	37.61%	64.95%	-0.89
		Me Linh	61.76%	47.45%	76.08%	
Informal Charges	Informal charges delivered expected result	Vinh Phuc	36.84%	23.46%	50.22%	-1.62
		Me Linh	55.26%	41.47%	69.05%	
Informal Charges	Firms pay commissions on government contracts	Vinh Phuc	42.86%	29.85%	55.86%	0.31
		Me Linh	39.53%	26.85%	52.22%	

Sub-Index	Indicator	Province	Mean	Low CI	High CI	T-Value	
Proactivity	Perceived attitude of provincial government toward private sector	Vinh Phuc	62.79%	50.25%	75.34%		
		Me Linh	37.78%	25.50%	50.06%	2.40	***
Proactivity	Provincial officials find opportunities within existing law to solve firm problems	Vinh Phuc	88.10%	79.58%	96.61%		
		Me Linh	65.85%	53.23%	78.48%	2.47	***
Proactivity	Provincial officials work within the national law to solve the problems of private sector firms	Vinh Phuc	71.05%	58.47%	83.63%		
		Me Linh	34.15%	21.52%	46.77%	3.48	***
Business Support Services	Firm used business services	Vinh Phuc	68.24%	56.77%	79.72%		
		Me Linh	51.06%	39.10%	63.01%	1.74	*
Business Support Services	Firm used private providers	Vinh Phuc	37.47%	23.58%	51.36%		
		Me Linh	35.06%	21.48%	48.65%	0.21	
Business Support Services	Firm will use again	Vinh Phuc	8.00%	3.21%	12.79%		
		Me Linh	18.00%	10.32%	25.68%	-1.85	*
Labor Policy	Rating of general education in province	Vinh Phuc	67.39%	55.66%	79.13%		
		Me Linh	28.89%	17.41%	40.37%	3.94	***
Labor Policy	Rating of vocational training	Vinh Phuc	48.89%	36.23%	61.55%		
		Me Linh	25.58%	14.26%	36.91%	2.30	**
Labor Policy	Amount spent on labor recruitment	Vinh Phuc	4.81	2.88	6.73		
		Me Linh	4.78	2.46	7.11	0.01	
Labor Policy	Amount spent on labor training	Vinh Phuc	2.58	1.22	3.94		
		Me Linh	3.18	1.39	4.97	-0.45	
Legal	Mechanism for firms to appeal officials' corrupt behavior	Vinh Phuc	44.00%	32.11%	55.89%		
		Me Linh	12.00%	4.22%	19.78%	3.78	***
Legal	Confidence that legal system will uphold property rights	Vinh Phuc	74.00%	63.49%	84.51%		
		Me Linh	66.00%	54.65%	77.35%	0.87	

Notes: Low CI and High CI indicate critical values of the 95% confidence interval in which 0.95 probability containing the mean value. *** p<0.01, ** p<0.05, * p<0.1.

The table reveals that the merger into Me Linh significantly affected the quality of governance experienced by private businesses in:

- Entry Costs: Firms that registered after the annexation in Me Linh experienced longer waiting periods and required a greater amount of business documentation. Forty-two percent of businesses in Me Linh waited over one month to be fully legal, as opposed to 20 percent in Vinh Phuc.
- Land Policy: Firms in Me Linh considered land expropriation to be a greater risk and were more concerned that official government prices did not reflect changes in the market.
- Time Costs: Businesses in Vinh Phuc were more likely to respond that official fees for basic bureaucratic activities have been reduced (34 percent to 14 percent).
- Proactivity: The differences in proactivity were the starkest of all indicators. Businesses in Vinh Phuc were far more likely to believe their provincial officials had a positive attitude toward the private sector (63 percent to 38 percent) and were more likely to find creative ways to assist their business activities (71 percent to 34 percent).
- Labor Policy: Firms in Vinh Phuc provided greater general assessments of general (67 percent to 28 percent) and vocational education (49 percent to 26 percent) in their province.
- Legal Institutions: Forty-four percent of firms in Vinh Phuc believed there was a mechanism to appeal the corrupt behavior of officials, while only 12 percent of Me Linh firms were aware of such a process.
- Business Support Services: This sub-index provided the one positive aspect of the Ha Noi merger. While firms in Vinh Phuc were more likely than those in Me Linh to use business support services, firms in Me Linh were significantly more likely to continue usage, demonstrating that they had more faith in their quality.

These differences are quite dramatic and occurred immediately after the merger. The PCI survey was administered only a year after the merger was completed. Nevertheless, because these analyses compare matched groups of firms, we can feel quite confident about the results. The bottom line is that the merger into Ha Noi had a significantly negative effect on the quality of governance experienced by business operations in Me Linh. These results hint at serious concerns to which government officials should pay attention.

The economic impact of exogenous governance change

So governance differs dramatically between the two provinces, but does it matter? To test this question, we once again use our matched sample of 50 firms in Vietnamese provinces. We study the differences between the provinces on four dependent variables of interest: 1) the percentage of firms that were profitable in 2009; 2) the percentage of firms that increased investment in their business in 2009; 3) the net number of employees hired or fired by businesses in 2009; and 4) the percentage of businesses that plan to increase operations over the next two years.

Figure 2.2 displays the average results among the 50 firms in each province along with the 95 percent confidence intervals around those averages. The results show that firms in Vinh Phuc were marginally more profitable, while firms in Me Linh increased employment by a larger margin. Nevertheless, the confidence intervals indicate that these differences are statistically indistinguishable. In short, there is no difference in performance among operations in the two locations.

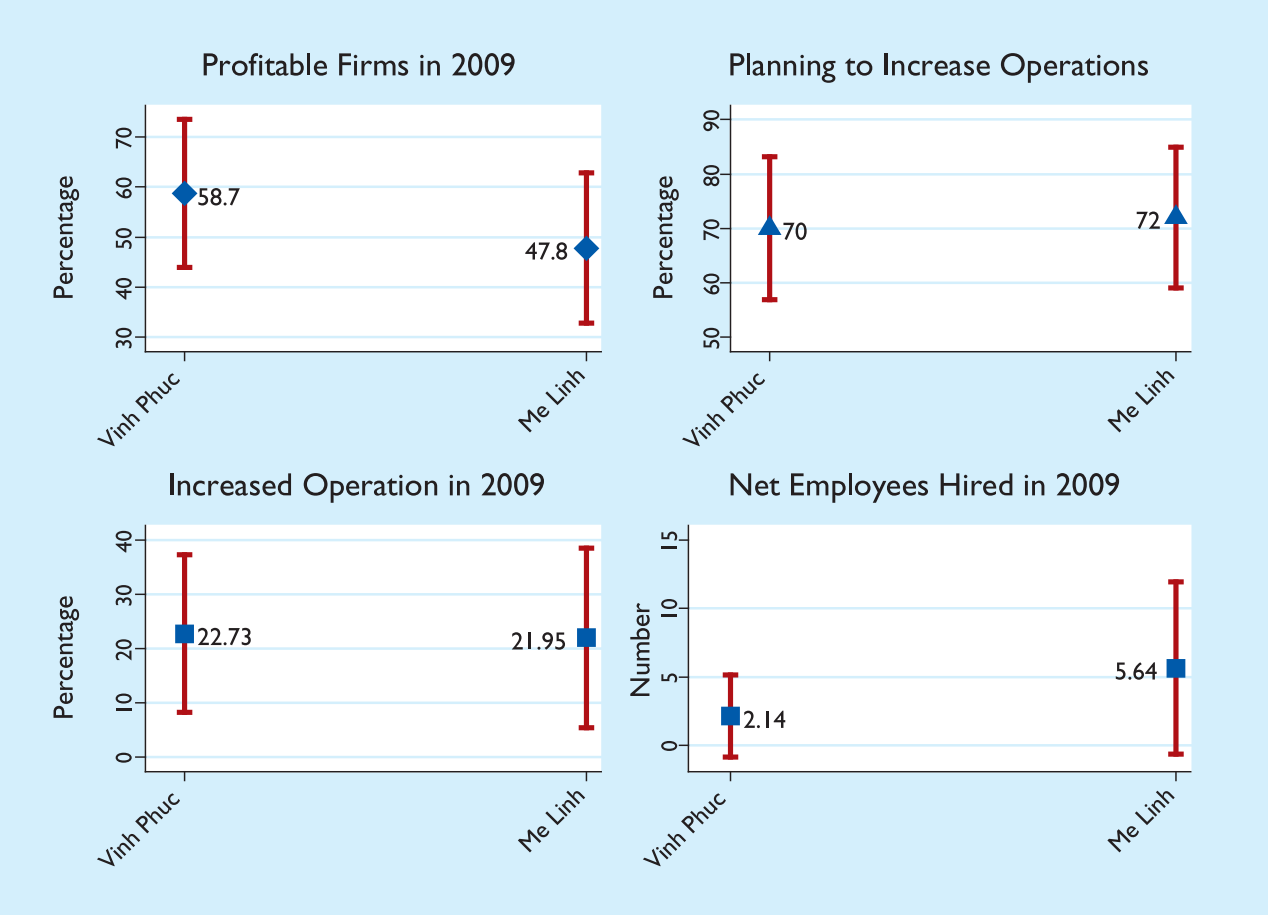
Thus, while the merger dramatically increased governance between the two locations, it has yet to affect individual business performance. A number of explanations are possible for this fascinating result.

First, it may simply be too early to judge business performance. The merger took place only a year before the survey, and firms have yet to adjust to

the new environment. If this is the case, it will be important to watch developments in the two locations over the next few years. Believing, as we do, that governance has an important influence, our prediction is that business performance should also start to diverge over time, but is simply lagging the initial shock to governance quality.

A second hypothesis is that the negative impact of governance on firms in Me Linh was mediated by the increasing opportunities brought by inclusion in the capital. Although the infrastructure and location of the businesses remain the same, the firms now have easier access to the vast potential of the Ha Noi market. They no longer need to pay the extra costs of shipping products across provincial borders. In addition, firms may be anticipating improvements in infrastructure as Ha Noi follows through on its mandate to develop an international capital. Because they sit on the main airport road and across from a massive trade center, businesses in Me Linh may believe that they will be the primary beneficiaries of such expenditures.

Figure 2.2: Relative Business Performance of Matched Enterprises



Notes: Bars represent 95% confidence intervals; Symbols represent mean scores for each location.

Conclusion

The full economic impact of the Ha Noi expansion has yet to be determined. At this time, firm performance has not been dramatically affected by the changes. On the other hand, there is reason for concern. Firms in Me Linh are significantly more negative about governance than their counterparts in Vinh Phuc. If governance matters for economic performance, and we certainly have shown that it does in annual PCI analyses, there is reason to worry that the merger may have negative long-term implications for Me Linh businesses.

CHAPTER THREE

CHANGES IN THE PCI METHODOLOGY

CHANGES IN THE PCI METHODOLOGY

Since the original PCI report in 2005, we have repeatedly emphasized that the indicators, sub-indices, and weighting of the index would eventually need to change to reflect reforms and new challenges in the Vietnamese economy. Unlike well-known indices of economic governance-such as the *Global Competitiveness Index* or Transparency International's *Corruption Perceptions Index*-that operate at some level of abstraction, the PCI was designed with the explicit intention of providing actionable policy advice to provincial officials; it therefore provides very detailed and explicit measures. From the outset, we expected that a recalibration would be necessary every five years to catch the index up with changes in the Vietnamese economy. We fulfill that commitment in this year's iteration of the report.

Recalibrating the index also gave us the opportunity to improve the tool based on advice from our stakeholders. Each year, the PCI research team visits dozens of provinces to present tailored PCI results to provincial leaders and engage in dialogue about the reform challenges faced by officials on the frontline of policy implementation. These conversations have offered insights into the shortcomings of particular PCI indicators. We have also benefitted from the diligent advice of our advisory board of top Vietnamese researchers, policy advocates, and business leaders, who critique the index and offer insights based on their expertise and experiences. While the advice we garnered from these sessions was invaluable, our focus on providing comparable measures over time limited our ability to fully implement their suggestions. We could tweak the measures at the margins, but fundamental alterations in methodology threatened over-time comparisons.

Because this is the fifth iteration of the PCI since its debut in 2005, we decided it was time to implement these broad changes. Changes fell into three broad categories. First and most importantly, we dropped a sub-index, the measure of bias toward the local state-owned sector. Second, we altered the mix of indicators within individual sub-indices—dropping obviated measures, adding new indicators, and, in a very few cases, changing coding in indicators to enhance the comprehension of policy makers. Third, we recalibrated the sub-index weights so that the final ranking accounted for the new indicators but also changes in the challenges faced by Vietnamese private entrepreneurs.

The first thing to note is that even after these changes, sub-indices in 2009 are still strongly correlated with sub-indices from previous years (see Table 3.1). Thus, while we have refined our measurement, we can be confident that we are still tapping into the same underlying governance concepts that we studied in previous years. Provinces that excelled in transparency in previous years once again rank highly on that aspect of governance today.

Table 3.1: Scores and Correlation of PCI Sub-Indices Over Time (2006–2009)

Index	Measure	2006		2007		2008		2009	
		Score	Province	Score	Province	Score	Province	Score	Province
Final Weighted Provincial Competitive-ness Index	Min	36.07	Lai Chau	37.96	Dak Nong	36.39	Dien Bien	45.43	Cao Bang
	Median	52.41	Lam Dong/Thai Nguyen	55.56	Bac Giang/Phu Tho	53.17	Dak Lak/Binh Phuoc	58.31	Ninh Binh
	Max	77.61	Binh Duong	77.2	Binh Duong	72.18	Da Nang	75.95	Da Nang
	Correlation w/ Previous Year	NA		0.85*		0.90*		0.84*	
Unweighted Total Index	Min	42.51	Lai Chau	43.93	Dak Nong	45.29	Dien Bien	41.64	Cao Bang
	Median	55.23	Hoa Binh/Lam Dong	58.49	Thai Binh/Ha Giang	58.17	Phu Tho/Kien Giang	52.96	Thanh Hoa
	Max	74.87	Binh Duong	76.02	Binh Duong	72.87	Binh Duong	65.93	Da Nang
	Correlation w/ Previous Year	NA		0.82*		0.88*		0.83*	
Entry Costs	Min	4.96	Binh Phuoc	6.23	Hau Giang	6.31	Bac Giang	6.53	Hoa Binh
	Median	7.4	Ha Tinh/BRVT	7.87	Hai Duong/Lam Dong	8.25	Nam Dinh/Khanh Hoa	8.35	Ha Noi
	Max	9.17	Da Nang	9.49	Quang Tri	9.36	Da Nang	9.52	Da Nang
	Correlation w/ Previous Year	NA		0.33*		0.25*		0.19	
Land Access and Security of Tenure	Min	3.84	Lai Chau	4.32	Ha Noi	4.73	Ha Noi	4.28	Bac Kan
	Median	6	Quang Ngai/Bac Kan	6.27	Lao Cai/Thai Nguyen	6.68	Thanh Hoa/Hoa Binh	6.45	Bac Ninh
	Max	7.98	Soc Trang	7.71	Long An	8.05	Dong Thap	8.84	Tien Giang
	Correlation w/ Previous Year	NA		0.68*		0.73*		0.55*	

Index	Measure	2006		2007		2008		2009	
		Score	Province	Score	Province	Score	Province	Score	Province
Transparency	Min	2.15	Dak Nong	2.24	Dak Nong	2.99	Dak Nong	2.92	Dak Nong
	Median	5.43	TT-Hue/BRVT	5.83	Ha Tinh/Phu Tho	6.32	Hai Phong/Dak Lak	5.29	Kon Tum
	Max	8.5	Binh Duong	8.56	Lao Cai	7.92	Da Nang	8.85	Lao Cai
	Correlation w/ Previous Year	NA		0.6*		0.74*		0.48*	
Time Costs of Regulatory Compliance	Min	2.64	Phu Yen	2.99	Lai Chau	2.85	Dien Bien	3.68	Kon Tum
	Median	4.42	Quang Ngai/Kien Giang	6.21	Vinh Long/Phu Tho	5.38	Tuyen Quang/TT-Hue	6.49	An Giang
	Max	7.12	Binh Duong	8.18	Ha Tay	6.52	Binh Phuoc	8.93	Ninh Binh
	Correlation w/ Previous Year	NA		0.36*		0.62*		0.48*	
Informal Charges	Min	5.05	Ha Tinh	5.35	Ha Noi	5.7	Bac Kan	4.63	Nghe An
	Median	6.33	Bac Kan/Bac Lieu	6.58	An Giang/Ha Giang	6.65	Ninh Thuan/An Giang	6.02	Kon Tum
	Max	8.35	Ben Tre	7.71	Hung Yen	8.3	Hung Yen	8.15	Ben Tre
	Correlation w/ Previous Year			0.33*		0.50*		0.44*	
Proactivity	Min	1.54	Quang Ngai	2.3	Cao Bang	2.32	Bac Kan	1.87	Cao Bang
	Median	4.83	Tuyen Quang/Thai Binh	4.95	Phu Tho/Thai Binh	5.56	Lai Chau/Phu Tho	4.91	Dong Nai
	Max	10	Binh Duong	9.2	Binh Duong	8.45	Binh Duong	9.39	Binh Duong
	Correlation w/ Previous Year	NA		0.79*		0.78*		0.74*	

Index	Measure	2006		2007		2008		2009	
		Score	Province	Score	Province	Score	Province	Score	Province
Business Suport Services (Private Sector Development Policies)	Min	2.4	Dak Nong	2.26	Bac Lieu	1.4	Bac Lieu	2.84	Tra Vinh
	Median	4.88	Ha Giang/Kien Giang	4.71	Ben Tre/Tuyen Quang	3.35	NamDinh/Tuyen Quang	5.20	Lam Dong
	Max	9.62	Da Nang	8.73	HCMC	6.35	HCMC	8.55	HCMC
	Correlation w/ Previous Year	NA		0.79*		0.86*		0.17	
Labor Policies	Min	1.99	Lai Chau	1.92	Lai Chau	1.84	Dien Bien	2.82	Lai Chau
	Median	5.1	Lang Son/Quang Nam	5.02	Quang Nam/Quang Ngai	4.25	Thai Binh/Bac Kan	4.83	Dak Nong
	Max	9.6	Da Nang	8.34	Da Nang	8.4	Da Nang	7.69	Da Nang
	Correlation w/ Previous Year	NA		0.81*		0.85*		0.65*	
Legal Institutions	Min	2.13	Quang Ngai	2.24	Ha Tinh	2.5	Cao Bang	3.51	Bac Kan
	Median	3.63	Son La/Ninh Binh	4.33	Phu Tho/Vinh Phuc	4.66	Son La/Hai Duong	5.35	Long An
	Max	6.55	Bac Giang	6.56	Bac Kan	6.7	Gia Lai	7.34	BRVT
	Correlation w/ Previous Year			0.37*		0.33*		0.45*	
Infrastructure (no ports or airports)	Min					2.92	Son La	3.35	Bac Kan
	Median					5.5	Lam Dong	4.95	Dong Thap
	Max					7.75	Binh Duong	8.26	Binh Duong
	Correlation w/ Previous Year					NA		0.74*	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. Data include only firms registered within two calendar years preceding the survey. 2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years, reflecting changes in survey questions and ordering in 2006.

Nevertheless, we recognize that these changes damage longitudinal analysis, impeding the ability of provincial officials to gauge their reform progress with a constant measure of economic governance over time. As a result, we have created a Mini-PCI that tracks changes in PCI progress using a streamlined set of indicators that are available in all iterations of the PCI reports.[32]

Dropping the SOE bias sub-index

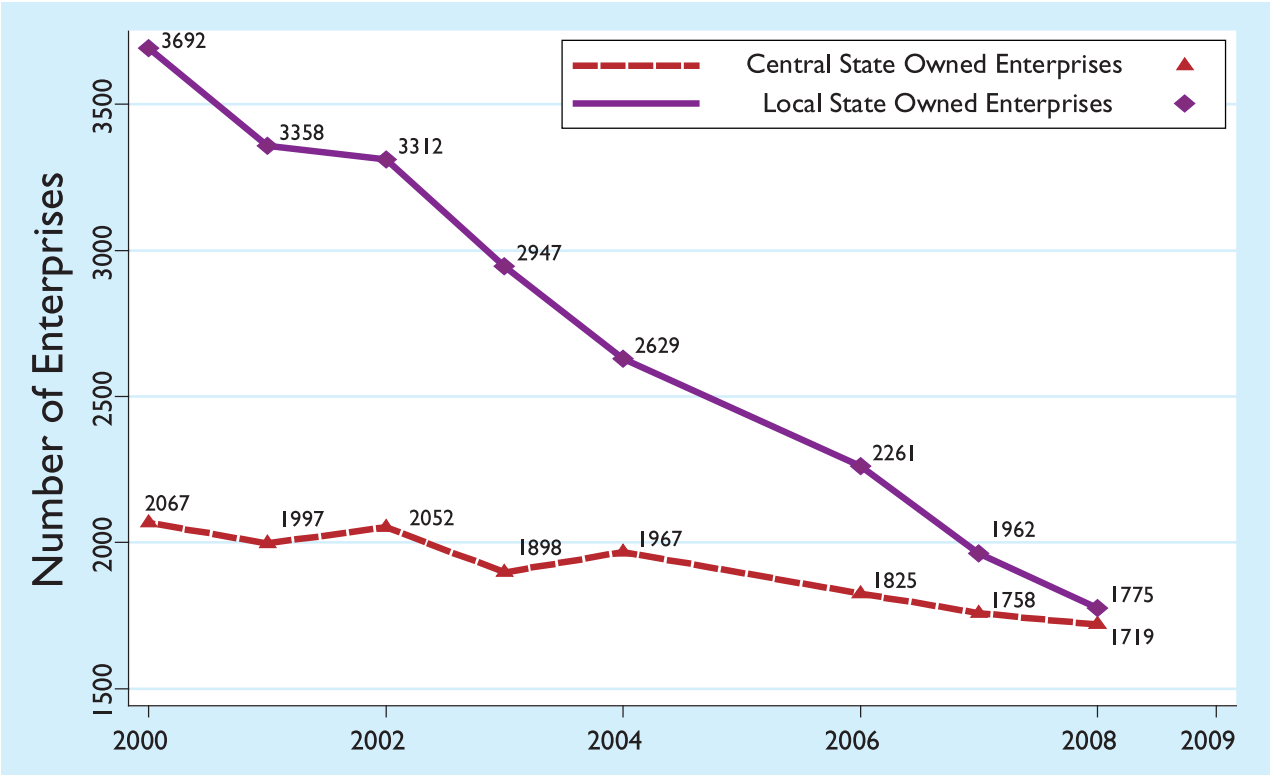
Undoubtedly the biggest change in 2009 is the dropping of the Bias toward Local SOEs sub-index. Insights provided by stakeholders provided the main motivation for the change. The key problem was that the provincially managed SOEs (often referred to as local state-owned enterprises-LSOES) have been equitized on a massive scale and no longer pose a significant obstacle for private sector development and growth.[33] Our data support this conclusion; the median province in Vietnam has reduced the number of LSOEs within its borders by 65 percent since 2000. Thirty provinces now have fewer than 20 LSOEs, and nine provinces have fewer than 10.

Figure 3.1 makes this point more clearly by showing the relative decline in the local state sector since the year 2000. According to the 2009 enterprises census, there are now only 1,654 LSOEs operating in Vietnam. In fact, the figure actually underestimates the reduction in influence because the peak of LSOE growth was in 1997. According to Futaba Ishizuka, the LSOEs that remain are primarily public goods providers, such as water sanitation, electricity, or postal services, that play important roles that are not performed by private providers in rural areas of Vietnam. The exceptions to the decline in the number of LSOEs are HCMC and Ha Noi, which have 230 and 140 LSOEs, respectively, in a range of activities outside of utilities.

32. We do not publish the Mini-PCI in this volume to limit confusion with the core PCI, but the Mini-PCI and the indicators comprising it are available upon request.

32. Ishizuka, Futaba. 2009. "Vietnamese Local State-owned Enterprises (SOEs) at the Crossroads: Implications of SOE Restructuring at the Local Level"; Nguyen Thi Tue Anh, Trinh Duc Chieu, and Le Huong Quynh. 2009. "Reforms and Renovations of State-owned Enterprises in Vietnam." Presented at the Economic and Development for Vietnam and Mozambique Conference.

Figure 3.1: Decline in Local State-owned sector over time



Source: General Statistical Office, Enterprise Census 2009

Before the most recent equitization campaign, when LSOEs were highly active in provinces, the bias they received was obvious and tangible to small-scale private entrepreneurs. Often, LSOEs competed directly against private companies in both the manufacturing and service sectors. Most of the time, the competition took place outside of the core competency of the LSOE. For instance, a provincially managed state mining company may have used its monopoly position to cross-subsidize other business ventures in hotels, supermarkets, or small-scale manufacturing where the private sector was most active. This competition was heavily tilted in favor of LSOEs because of their favored access to land, credit, labor, and implicit credit guarantees. As a result, the private sector was crowded out of key economic sectors by state companies operating with soft budget constraints. In other cases, private firms were not competing directly against LSOEs in a particular product line, but instead felt that they were disadvantaged in terms of competition for critical factors of production (land, labor, capital).

When the PCI survey asked respondents about bias toward the state sector, these were the types of incidents they recalled. We could feel certain that their responses were highly accurate because they experienced the biases directly and could recount how such biases injured their own businesses. As the economic activities of LSOEs have declined, firms have much less experiential basis for their answers.

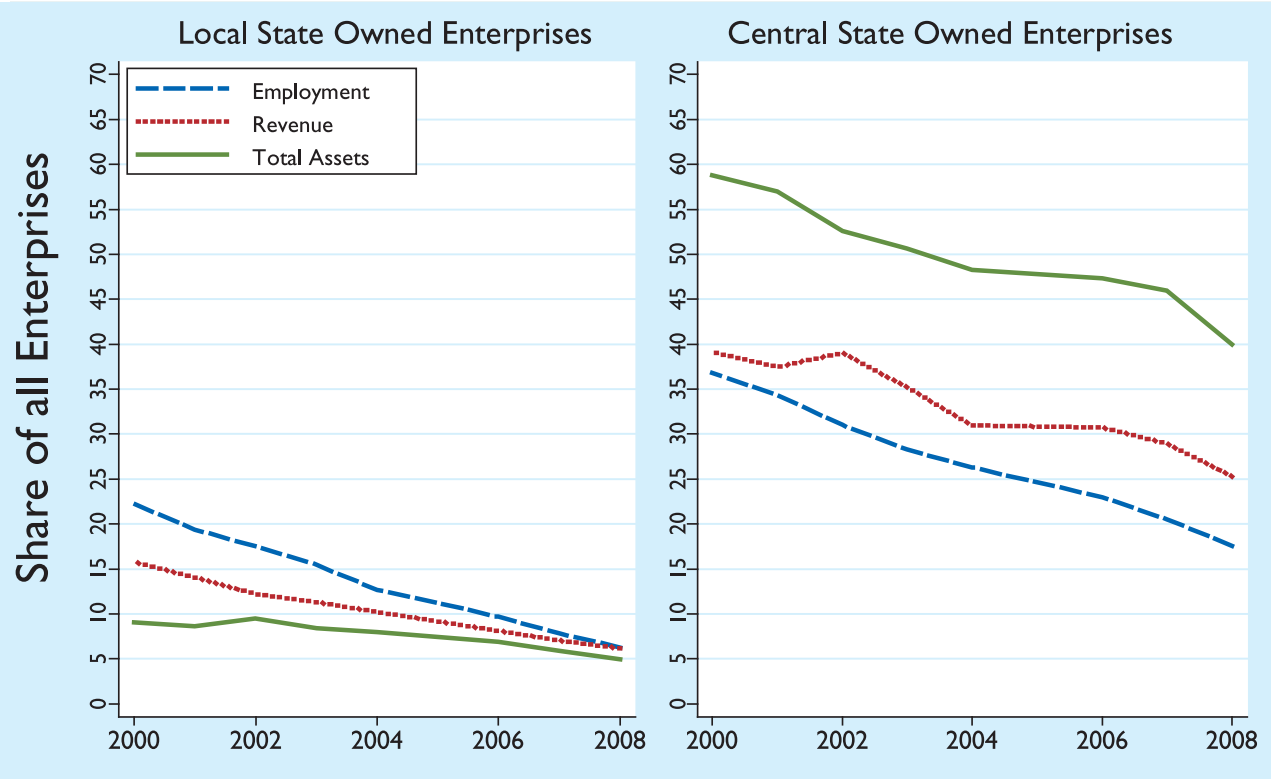
This is not to say that Vietnam in general, and specific Vietnamese provinces in particular, do not face problems with biases toward the state sector. The real problem, however, lies with branches of centrally managed state-owned enterprises (CSOEs), particularly the large state conglomerates (Tap Doan) such as Petro Vietnam or Vinashin.[34] Figure 3.2 explores this phenomenon by mapping out the relative share of total business employment, assets and revenue accounted for by LSOEs and CSOEs over time in the GSO's Enterprise Census. The local state sector now accounts for about 6 percent of total revenue produced, 6 percent of total fixed assets, and 5 percent of employment among business operations in Vietnamese provinces. By contrast, CSOEs have always been more important economically and continue to account for 17 percent of employment among all firms, 25 percent of revenue, and over 40 percent of total fixed assets. Moreover, CSOEs remain advantaged in terms of their access to state financing, accounting for 46 percent of all liabilities held by enterprises in the census. According to the census data, these liabilities were even higher in 2007, which some have noted as a potential factor in Vietnam's financial crisis in the spring of 2008.

Thus, it is clear that the CSOEs do play a prominent role in the economy and appear to receive benefits unavailable to other business types. In fact, this is probably the most important political-economic issue facing Vietnam today. CSOEs are enormously powerful economically; they contribute greatly to employment, investment, and national welfare; and yet their presence potentially distorts the Vietnamese economy.

The key question for the PCI research team was whether a firm-level survey is the appropriate tool for analyzing this problem. First, many of the decisions about the future investment locations for CSOEs, the land and the special investment incentives they receive, and the non-economic social goals of a CSOE project take place among central SOE managers and, sometimes, high-ranking policy makers. In many cases, provincial officials are not involved in these discussions directly. Although there have been cases of provincial officials lobbying for greater state investment, it is not clear that private firms have very much information about these interactions. Their answers on surveys are highly speculative, based on hearsay and rumor, but in most cases they do not have direct experiential observations of the biases. Second, private companies rarely compete directly against the CSOEs, which are often ensconced in protected monopolies. Competition for land, labor, and capital is more likely, but, once again, it is not clear that private firms understand the full-scope of the biases, especially when CSOEs are able to access credit from state banks located outside the province.

34. Pincus, Jonathan, and Vu Thanh Tu Anh. 2008. "Vietnam Feels the Heat." Far Eastern Economic Review 171.4: 28–34; Ủy Ban Thường Vụ Quốc Hội (Standing Committee of the National Assembly). 2009. "Báo Cáo Tóm Tắt Kết Quả Giám Sát Việc Thực Hiện Chính Sách, Pháp Luật Về Quản Lý, Sử Dụng Vốn, Tài Sản Nhà Nước Tại Các Tập Đoàn, Tổng Công Ty Nhà Nước" [Summary Report on Surveillance of the Performance of State Assets and Capital in the Management of Conglomerates and General State Corporations], November 14.

Figure 3.2: Comparative Importance of Local and Central State owned sectors



Source: Enterprise Census 2008.

Analysis of the results of the PCI survey each year shows that private sector assessments of SOE bias were becoming noisier over time. Within-province variation was growing dramatically as opinions of bias differed wildly within the same investment locations. This high variance around average provincial scores can be problematic for an indexing approach such as the PCI, because it becomes difficult to observe statistically significant differences among provinces.

Therefore, we decided that although bias to CSOEs is still an important issue for policy makers, the PCI is not the proper tool for measuring it. We decided to drop the sub-index measuring bias toward the state sector. As with infrastructure and other structural endowments, it is important that the index focus on factors that provincial officials have the ability to influence

We experimented with replacements, such as an index measuring balance in the competitive playing field. After all, private firms are just as likely to complain about provincial officials biasing land, capital, and procurement in favor of foreign firms, equitized firms with deep relationships in the provincial government, or simply large private companies that are considered to be local champions. The problem was that this index unfairly punished firms with large foreign sectors and large private companies. In many small, rural provinces, such as Dien Bien and Lai Chau, perceived bias to the foreign sector is very low. But this lack of bias is an artifact of the lack of foreign direct investment in these provinces; it says little about fairness. In the perceptions data, firms honestly report that they experience no bias, because they do not see any evidence of it. Sixty-five percent of businesses in Lai Chau report that there is no bias toward foreign companies, compared to 38 percent in Hai Duong and 33 percent in Hung Yen, both of which have sizable foreign invested sectors.

In the end, we decided that a PCI with only nine sub-indices was superior to 10, when the tenth index offered potentially misleading policy advice.

Changing Indicators Within Sub-Indices

In addition to the major change of dropping a sub-index, we also made several minor changes to indicators within the PCI for a variety of reasons. Most commonly, the changes simply mirror changes in the Vietnamese business environment. Issues that were of exceeding importance in 2004, when the PCI was envisioned, have simply lost their relevance. We took advantage of this year's recalibration to make those small changes. In some cases, we dropped the indicator entirely. In other cases, we replaced it with better measures of the same concept.

Following discussion of each sub-index, we present a chart illustrating the results of the 2009 PCI for that index and a list of all indicators included in its construction.

Entry Costs

As Table 3.2 shows, only one change was made to the Entry Costs index: a question asking firms about perceived difficulty in business registration was dropped because we had more direct measures of the true costs in terms of time and money of problematic procedures.

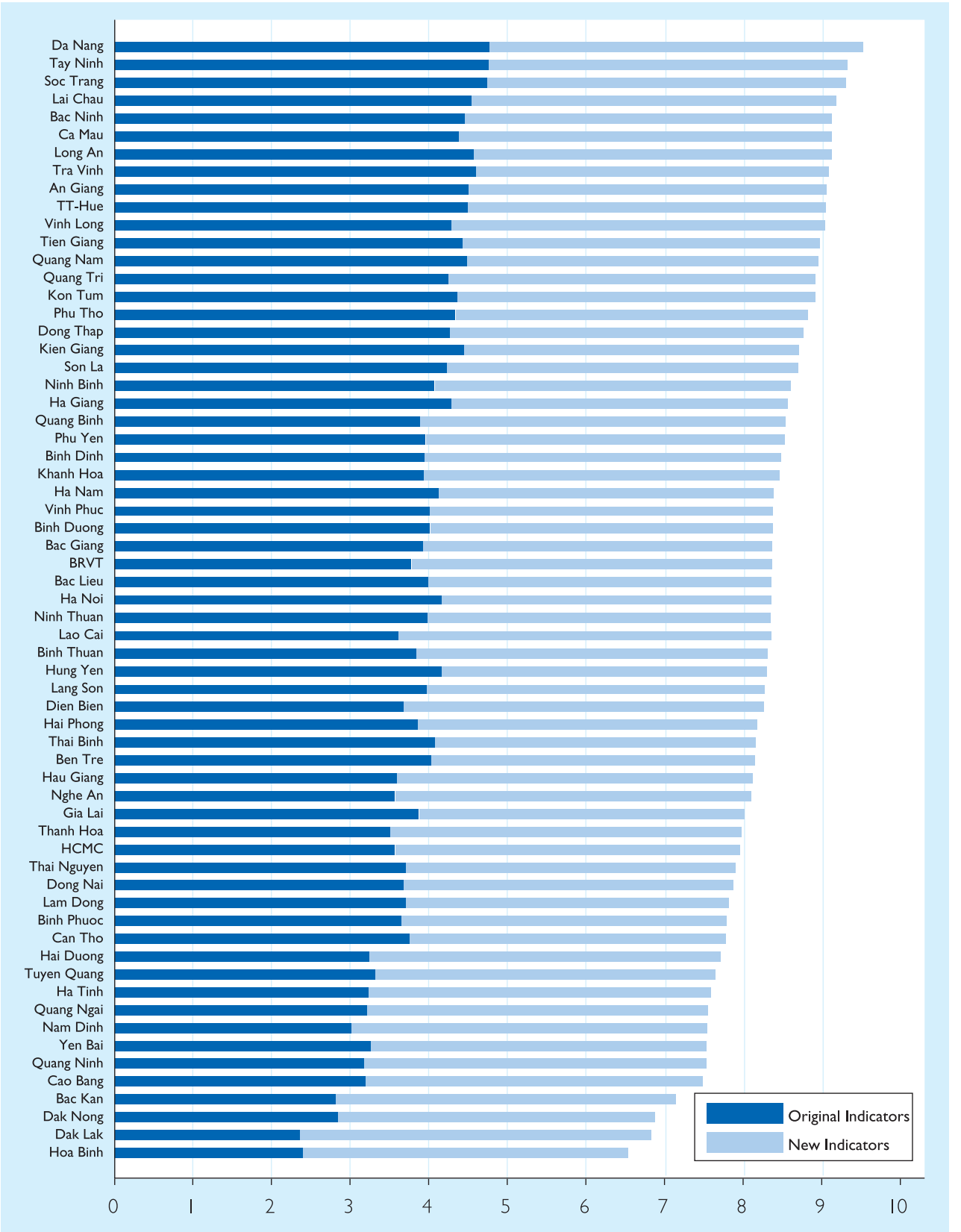
Table 3.2: Comparison of Entry Costs Sub-index (2005–2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Length of business registration in days (Median).	PCI Survey Question: C1	Min		12	7	5	6.5
		Median		20	15	12.25	10
		Max		58	22.5	15	15
		Correlation w/Previous Year		NA	0.27*	0.46*	0.56*
Length of business re-registration in days (Median).	PCI Survey Question: C2	Min		6	3	3	3
		Median		10	7	7	7
		Max		35	15	10	10
		Correlation w/Previous Year		NA	0.24*	0.53*	0.67*
Number of licenses and permits necessary to start operations (Median).	PCI Survey Question: C4	Min		2	1	1	0
		Median		4	2.5	2	1
		Max		7.5	5	4	3
		Correlation w/Previous Year		NA	0.15	0.31	0.32*
Wait for Land Use Rights Certificate (Median).	PCI Survey Question: B4.2	Min		40	30	30	15
		Median		121	60	38.5	32.5
		Max		338	180	105	180
		Correlation w/Previous Year		NA	0.16	0.43*	0.23*
Percentage of firms waiting more than a month to complete all steps necessary to start operations.	PCI Survey Question: C5	Min	9.76	3.23	5.18	6.67	3.84
		Median	33.33	25.81	27.21	21.91	19.35
		Max	63.41	44	53.8	39.13	38.46
		Correlation w/Previous Year	NA	0.24	0.26*	0.15	0.09

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Percentage of firms waiting more than three months to complete all steps necessary to start operations.	PCI Survey Question: C5	Min	0	0	0	0	0
		Median	5.9	5.78	6.78	5.72	4.44
		Max	21.95	25.64	27.27	16	20.72
		Correlation w/Previous Year		0.02	0.15	0.18	0.02
Percentage of firms having difficulty obtaining all licenses and permits necessary to do business.	PCI Survey 2008 Question: C6	Min		0	0	2.08	DROPPED
		Median		12.4	11.1	10.05	
		Max		27.27	36.8	26.92	
		Correlation w/Previous Year		NA	0.30*	0.1	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. Data include only firms registered within two calendar years preceding the survey. 2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years, reflecting changes in survey questions and ordering in 2006.

Figure 3.3: Entry Costs Sub-index 2009



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

Land access and security of tenure

The Land sub-index was updated to reflect the current issues with business premises in the Vietnamese economy. Issues with security of leasing contracts are still important, but do not fairly reflect provincial governance anymore. Provincial agencies and LSOEs are much less likely to be involved in leasing space to private businesses. If disputes over land rental do arise, the involved parties are most likely to be private individuals. In some cases, one of the disputants may be a government official, but s/he is renting land in a private capacity and not as part of an official responsibility. Although dispute adjudication over business contracts is still a major issue, especially when one of the parties is a government official, these problems should more properly be considered under the Legal Institutions sub-index.

We also substituted some more general measures of land access for a series of specific questions about the current problems faced by businesses with regard to business premises. These questions reflect issues that were not considered important five years ago. The new questions asked firms to reflect on a battery of potential land problems in their province, asking if they had experienced any of them in their attempts to acquire or expand business premises. These problems included 1) unreasonable land-use planning, 2) lack of clean land reserve, 3) high prices of land, 4) slow land clearance, and 5) complicated land acquisition procedures. We took share of firms that experienced no problems at all as a new indicator.

In addition, we created an indicator gauging whether government prices for land compensation accurately reflected changes in the market prices. A number of firms mentioned that they had suffered damage when they received compensation for land that was far below what they could have received for the property on the private market. Others mentioned that they slowed business expansion as they waited for government prices to catch up with the market. Overall, the general impression of survey respondents was more positive than the above anecdotes revealed. Seventy percent of respondents in the median province believe that government prices accurately reflect market prices in their locations. Businesses in Cao Bang (53 percent), Can Tho (56 percent), and Khanh Hoa (58 percent) were more concerned than other provinces.

Table 3.3: Comparison of Land Access and Tenure Security Sub-index (2005–2009)

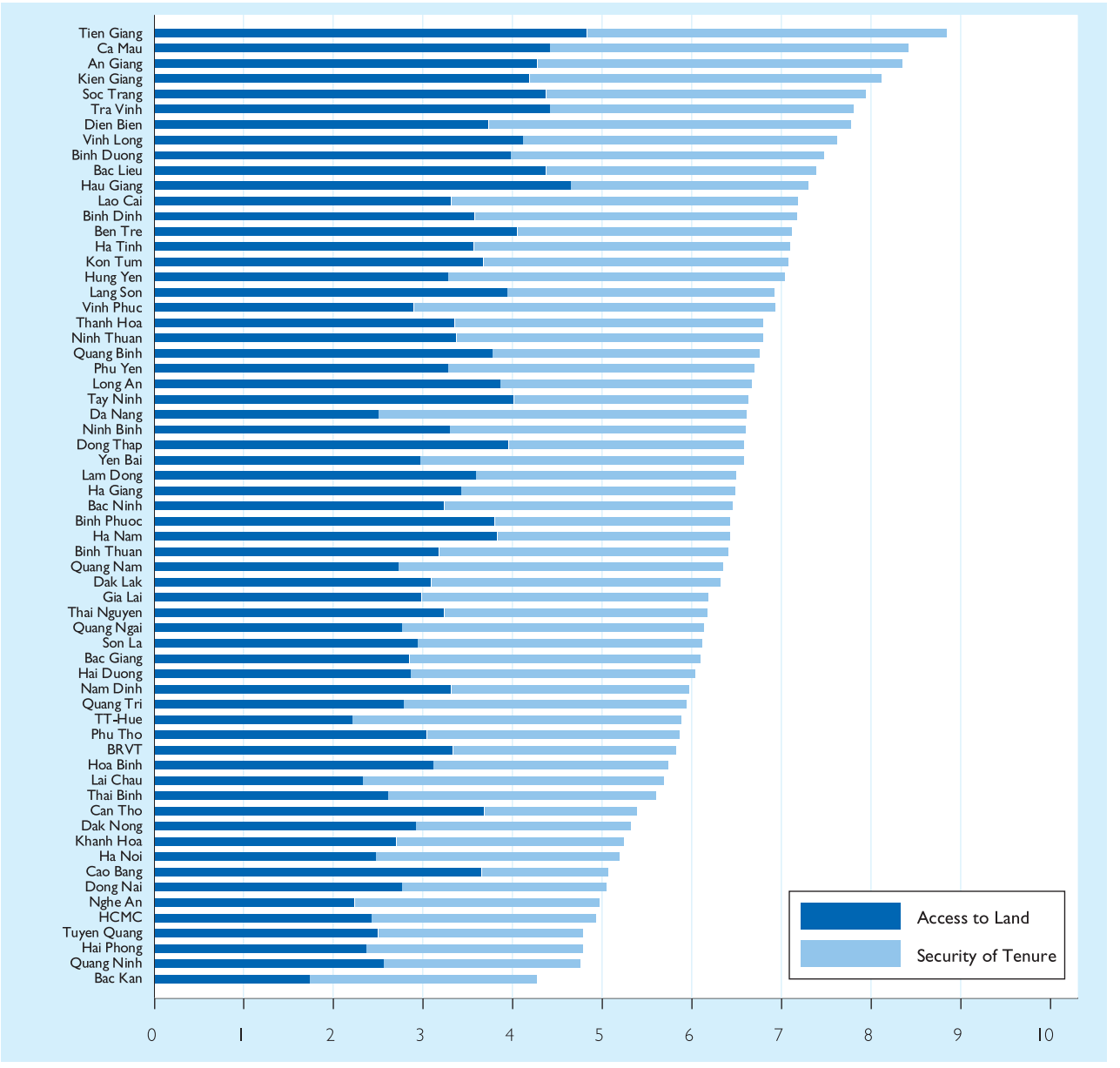
Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Percentage of firms in possession of a LURC.	PCI Survey Question: B4	Min		23.29	51.35	38.36	46.82
		Median		55.28	75.57	81.16	73.68
		Max		77.78	92.45	94.74	94.51
		Correlation w/Previous Year			0.76*	0.70*	0.77*
Total land in province with official LURCs.	Ministry of Natural Resources and the Environment Datasets†	Min		11.3	13.28	19.52	23.52
		Median		69.2	63.13	77.56	77.89
		Max		96.5	97.46	98.75	98.56
		Correlation w/Previous Year			0.85*	0.78*	0.87*

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Firm rating of expropriation risk. (1: Very High to 5: Very Low)	PCI Survey Question: B4.3	Min		1.95	1.74	1.63	2.11
		Median		2.49	2.24	2.04	2.55
		Max		3.05	2.57	2.49	3.05
		Correlation w/Previous Year			0.28*	0.95*	0.29*
If land expropriated, firms receive fair compensation. (% Always or Usually)	PCI Survey Question: B4.4	Min		21.43	22.22	21.25	16.9
		Median		40	40.76	38.82	40.54
		Max		58.33	57.14	52.75	55.17
		Correlation w/Previous Year			0.37*	0.34*	0.42*
Changes in government land prices reflect changes in market prices. (% Agree) NEW INDICATOR	PCI Survey Question: B5	Min					53.33
		Median					69.75
		Max					81.11
		Correlation w/Previous Year					NA
Firm checked no land problems after list of possible problems. NEW INDICATOR	PCI Survey Question: B7	Min					11.02
		Median					30.72
		Max					52.32
		Correlation w/Previous Year					NA
Firm rating of changes in lease contracts. (1: Very High to 5: Very Low)	PCI Survey 2008 Question: B5.2	Min		2.55	2.59	2.63	DROPPED
		Median		3.09	3.1	3.12	
		Max		4	3.59	3.54	
		Correlation w/Previous Year			0.15	0.25*	
Percentage of firms that feel land availability constrains their business expansion.	PCI Survey 2008 Question: B3.1	Min	48.48	48.57	47.06	49.56	DROPPED
		Median	71.31	64.27	64.77	65.37	
		Max	81.08	78.38	81.16	77.06	
		Correlation w/Previous Year	NA	0.28	0.51*	0.52*	
Percentage of firms rating provincial land conversion policies as good or very good.	PCI Survey 2008 Question: E1.8	Min		33.73	23.53	1.17	DROPPED
		Median		52.45	56.83	21.51	
		Max		82.14	81.25	59.4	
		Correlation w/Previous Year			0.78*	0.48*	

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
If changes in leases contracts, is there a fair process for disputing them (% Always or Usually).	PCI Survey 2008 Question: B5.3	Min		0	17.65	20.69	DROPPED
		Median		44.44	40	39.09	
		Max		69.7	60.71	60	
		Correlation w/Previous Year			0.24	0.27*	

*Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. 2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years, reflecting changes in survey questions and ordering in 2006. † The Ministry of Natural Resources and the Environment changed the calculation of LURCs between 2003 and 2007 in the five national-level cities, leading to major reductions. To address this, the old calculation was applied to cities.*

Figure 3.4: Land Access Sub-index 2009



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

Transparency

Three indicators were dropped from the Transparency sub-index as no longer relevant. The question asking whether provincial officials discussed changes in laws or local regulations with private businesses was dropped because there appeared to be a bias toward large firms in some provinces developing. This indicated that the question may not be capturing general participation, but instead measuring relationships between important businesses and provincial officials. These relationships can be positive, but they may also lead to favoritism and potential for abuse of power. Because the question could not disentangle positive from negative participation in the legal process, we dropped it as an indicator. We did, however, keep the question in the PCI survey so that researchers could further look at the measure. Measurement of the information service provided by provincial agencies was moved to the Business Support Services sub-index where it was a better fit

A new indicator was added to better measure the increasing importance of business associations in advocating on behalf of the private sector in some provinces. This asked whether business associations were important actors in government debates over local initiatives. Binh Duong (57 percent) and Vinh Phuc (53 percent) topped the list, while the mountainous provinces of Phu Tho (21 percent) and Lang Son (18 percent) exhibited little influence of associations.

Finally, a small change was made in the way access to planning and legal documents was calculated. In the past, we used factor analysis to reduce the long list of 13 documents into baskets of documents that could more easily be analyzed. This method of streamlining data has a long history in survey analysis and is very useful for identifying patterns in data documentation. The problem from the perspective of policy makers was that the "factor scores" that resulted from the procedure were hard to interpret and, therefore, not actionable. Although we still use factor analysis to identify groups of highly correlated documents, and once again learned that access generally falls into two distinct groups (planning documents and LNDs), instead of using the factor scores directly we went back and took the average access (across a six-point likert scale) for each of the different documents sets. The provinces with greatest access to documentation in both groups were the same regardless of the procedure. Lao Cai, for instance, records average access to planning and legal documents of 3.96 and 4.54, respectively. As a result, we felt comfortable reporting the average score, which provincial officials may find easier to work with.

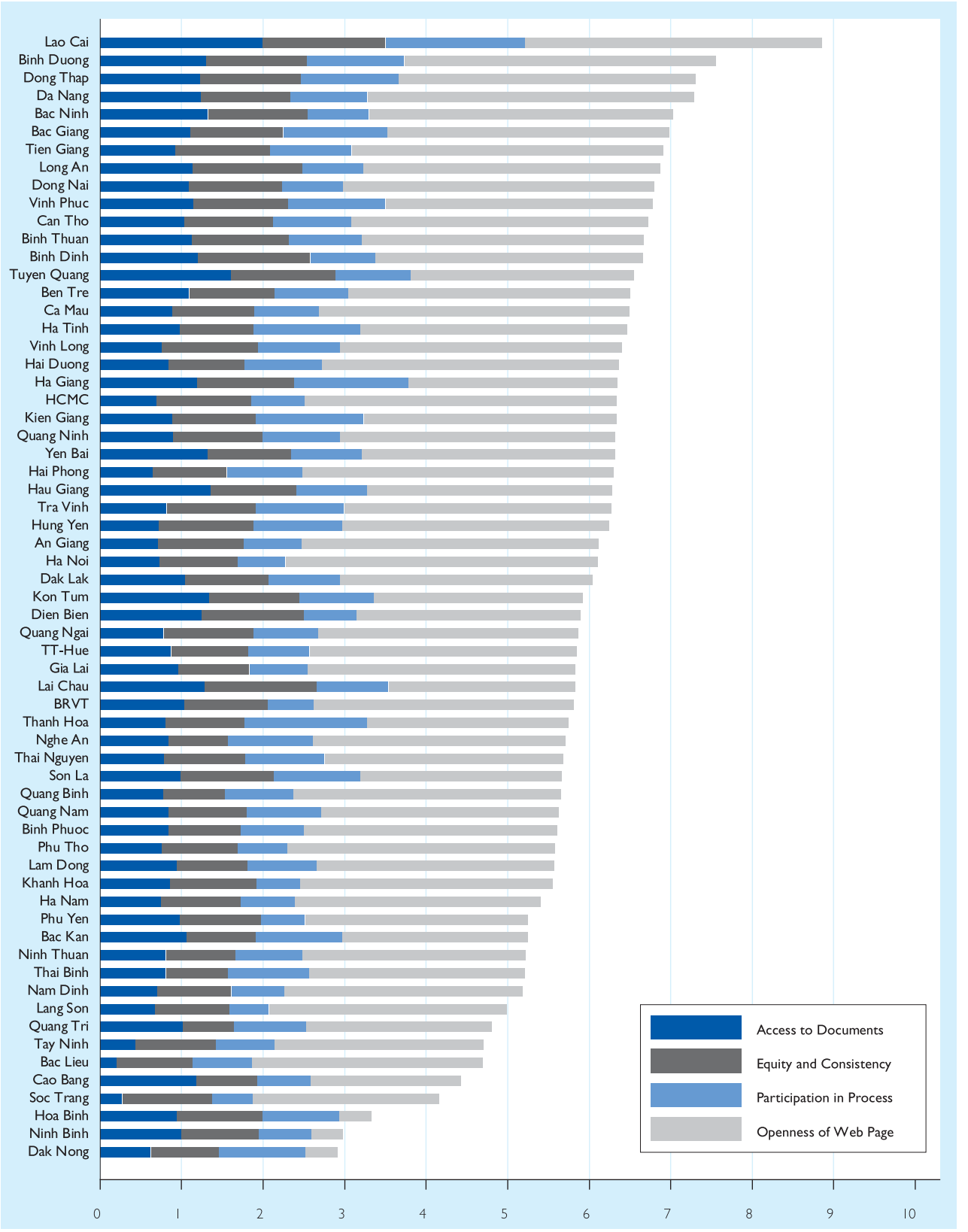
Table 3.4: Comparison of Transparency Sub-index (2005-2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009	New Scale
Transparency of planning documents.	PCI Survey Question: F1.1-F1.13†	Min	-0.79	-0.4	-0.39	-0.41	-0.39	2.69
		Median	-0.04	-0.02	-0.002	0.008	-0.006	3.16
		Max	1.49	0.68	0.57	0.48	0.69	3.97
		Correlation w/Previous Year	NA	0.40*	0.63*	0.62*	0.45*	0.48*
Transparency of legal decisions and decrees.	PCI Survey Question: F1.1-F1.13†	Min	-0.49	-0.45	-0.4	-0.35	-0.56	3.32
		Median	0.04	0.01	0.02	0.02	0.04	3.89
		Max	0.48	0.35	0.34	0.4	0.56	4.54
		Correlation w/Previous Year	NA	0.46*	0.55*	0.59*	0.12	0.17
Relationship important or very important to get access to provincial documents. (% Important or Very Important)	PCI Survey Question: F2	Min	50	31.48	38.4	33.57	45.57	
		Median	72.11	62.5	56.6	49.82	61.26	
		Max	100	77.14	73.4	67.9	78.26	
		Correlation w/Previous Year	NA	0.27	0.38*	0.55*	0.37*	
Negotiations with tax authority are an essential part of doing business. (% Agree or Strongly Agree)	PCI Survey Question: D14.3	Min	52.17	47.17	24.1	17.39	29.69	
		Median	75.22	61.05	44.7	36.71	41.32	
		Max	96.15	86.96	73.2	54,25	62.4	
		Correlation w/Previous Year	NA	-0.16	0.52*	0.73*	0.36*	
Predictability of implementation of central laws at the provincial level. (% Usually or Always)	PCI Survey Question: F8	Min	4.35	2.76	1.89	1.03	3.57	
		Median	14.91	9.49	7.96	6.94	8.4	
		Max	60.38	37.88	18.3	15.69	22.22	
		Correlation w/Previous Year	NA	0.38*	0.46*	0.3*	0.50*	

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009	New Scale
Openness of provincial webpage score.	Analysis by VNCI Research Team (For Scorecard See Section)[Ψ]	Min	0	0	0	0	0	
		Median	10	9	13.75	14.25	15	
		Max	21	18	20	20	20	
		Correlation w/Previous Year	NA	0.36*	0.51*	0.70*	0.74*	
Business associations play an important role in advising and countering provincial polices. (% Important or Very Important)** NEW INDICATOR	PCI Survey Question: F5.1	Min					18.64	
		Median					35.71	
		Max					57.32	
		Correlation w/Previous Year					NA	
Province discussed changes in laws with you. (% Usually or Always)	PCI Survey 2008 Question: F3	Min	0	0	0.9	1.21	DROPPED	
		Median	12.16	8.84	7.57	8.57		
		Max	61.54	20.9	21.62	18.6		
		Correlation w/Previous Year	NA	-0.29	0.45*	0.52*		
Services provided by provincial agencies: consulting on national and provincial regulations. (% Very Good or Good).	PCI Survey 2008 Question: E.15	Min		24.49	30.3	6.67	DROPPED	
		Median		48.05	48.28	20.08		
		Max		60.94	72.84	33.77		
		Correlation w/Previous Year		NA	0.63*	0.53*		
Friends important for negotiating with government. (% Important or Very Important)	PCI Survey 2008 Question: F7	Min	34.35	37.74	38.7	40	DROPPED	
		Median	56.07	57.21	54.7	53.04		
		Max	80	82.35	65.1	67.47		
		Correlation w/Previous Year	NA	0.22	0.45*	0.55*		

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. 2005 data only include 42 provinces. [†] Indicators result from factor analysis of 13 documents. In 2009, the scale was simplified to reflect the average access on a five-point scale (1 = very difficult to 5 = very easy). [Ψ] In 2007 and 2008, 0.5 values were allowed to denote provinces that provided the relevant information, but not in a sufficient manner to be useful. ** Only business association members respond

Figure 3.5: Transparency Sub-index 2009



Notes: Access to Documents measures the availability of 13 different legal and planning documents. Equity and Consistency gauges whether those documents and other services are universally available. Participation is the engagement of private businesses in provincial policy discussions. Each of first three dimensions are drawn from survey data and are weighted at 20% of the final index. Openness of Web Page is an accounting of business information and services on provincial webpages. It accounts for 40% of the final index.

Time Costs of Regulatory Compliance

The most important change to Time Costs was a battery of questions measuring progress on achieving commitments under PAR. The survey asks firms to comment on whether provincial officials have successfully implemented changes in four areas over the past two years. We chose these changes to reflect the current goals articulated by the Ministry of Home Affairs for Public Administration Reform.[35]

35. For an excellent overview of PAR goals and accomplishments in Vietnam, see Acuna-Alfaro, Jairo. 2009. "Addressing Governance and Public Administration Reforms Effectively in Vietnam." In *Reforming Public Administration in Vietnam: Current Situation and Recommendations*, ed. Acuna-Alfaro. Ha Noi: National Political Publishing, p. 13-21.

The new indicators are 1) effectiveness of local bureaucrats in processing business-related documentation; 2) reduction in waiting periods for stamps and signatures; 3) reduction in overall bureaucratic paperwork; and 4) cutbacks in formal fees for the processing of local administrative procedures. Although firms were somewhat positive about observing improved effectiveness of bureaucrats (44 percent responded yes in the median province) and reduction in paperwork (47 percent responded yes in the median province), they were more negative about waiting periods and formal fees (only 30 percent and 24 percent, respectively, responded that they had observed such changes in the median province).

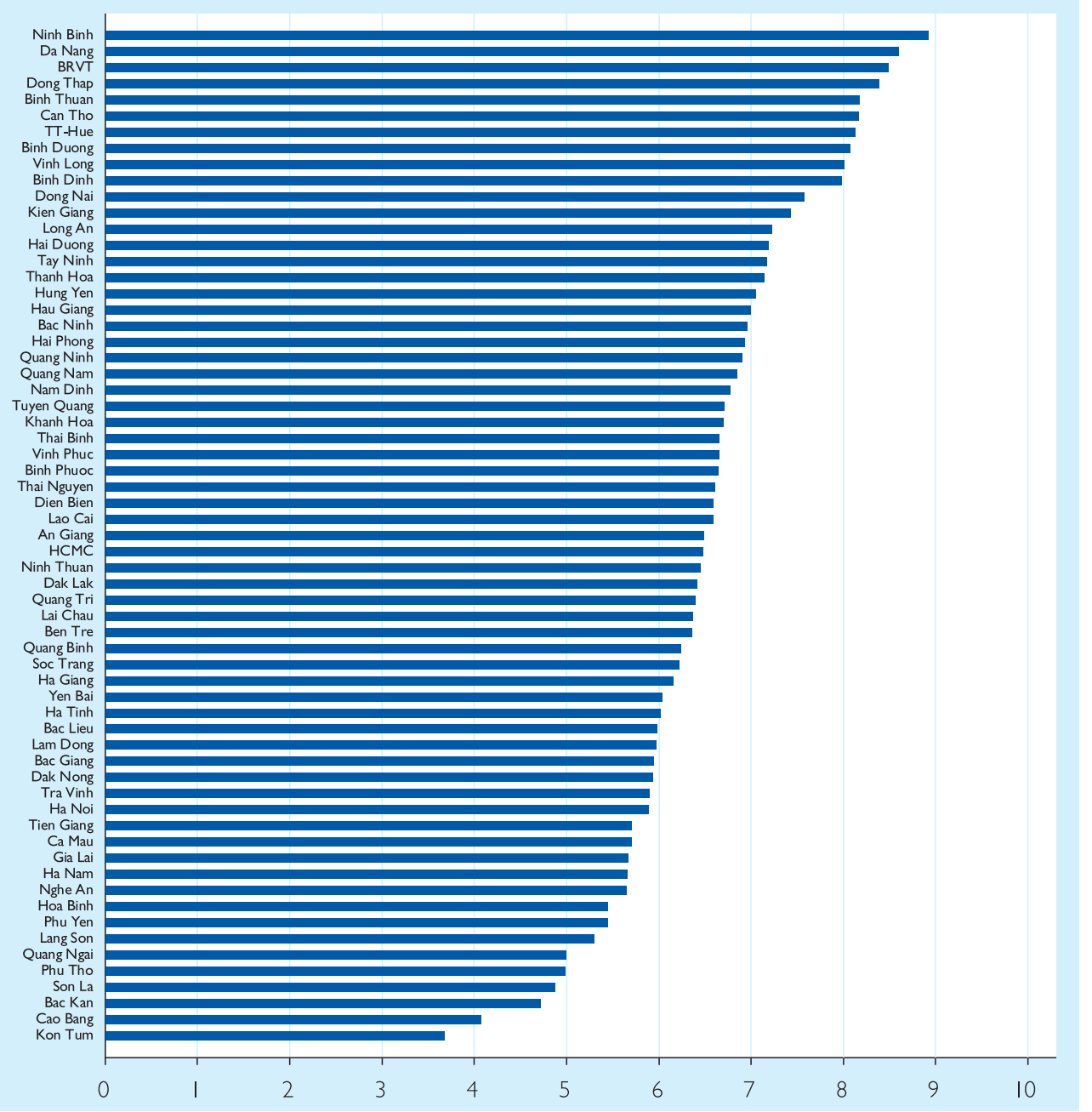
Table 3.5: Comparison of Time Costs of Regulatory Compliance (2005–2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Percentage of firms spending over 10 percent of their time dealing with bureaucracy or bureaucratic regulations.	PCI Survey Question: D6	Min	3.64	6.52	10.94	13.83	7.27
		Median	13.67	21.24	21.87	22.99	15.38
		Max	30.43	39.39	43.75	42.55	30.36
		Correlation w/Previous Year	NA	0.44*	0.62*	0.67*	0.44*
Median number of inspections. (all agencies)	PCI Survey Question: D1	Min	1	0	1	1	1
		Median	1	1	1	1	1
		Max	3	2	2	2	2
		Correlation w/Previous Year	NA	0.35*	0.30*	0.46*	0.34*
Median tax inspection hours.	PCI Survey Question: D4	Min	1	1	2	1	1
		Median	7.5	8	8	8	5
		Max	24	40	40	32	40
		Correlation w/Previous Year	NA	0.62*	0.86*	0.88*	0.75*
Government officials have become more effective. (% Yes) NEW INDICATOR	PCI Survey Question: D9.1	Min					28.68
		Median					44.09
		Max					55.26
		Correlation w/Previous Year					NA

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Trips to obtain stamps and signatures reduced. (% Yes) NEW INDICATOR	PCI Survey Question: D9.2	Min					17.69
		Median					30.23
		Max					45.95
		Correlation w/Previous Year					NA
Paperwork reduced. (% Yes) NEW INDICATOR	PCI Survey Question: D9.3	Min					24.2
		Median					47.89
		Max					63.16
		Correlation w/Previous Year					
Fees reduced. (% Yes) NEW INDICATOR	PCI Survey Question: D9.4	Min					11.38
		Median					24.18
		Max					34.04
		Correlation w/Previous Year					NA
Inspections have decreased in past two years. (%)	PCI Survey Question: D2	Min	12.5	28.07	11.9	11.54	DROPPED
		Median	42.12	45.52	24.36	24.51	
		Max	70	73.91	36.92	37.59	
		Correlation w/Previous Year	NA	0.26	0.30*	0.51*	
Days spent on bureaucracy reduced in past two years. (%)	PCI Survey Question: G2	Min	18.18	23.94	13.75	12.78	DROPPED
		Median	40	41.72	22.86	23.85	
		Max	78.57	60.87	35.04	34.86	
		Correlation w/Previous Year	NA	0.18	0.21	0.31*	

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

Figure 3.6: Time Costs of Regulatory Compliance Sub-Index 2009



Notes: Regulatory Compliance is a measure of the wait and costliness of bureaucratic procedures.

Informal charges

One new indicator was added to the informal charges index to gauge whether firms bidding for government contracts were subject to commission requests on a portion of the contract. This type of macro-corruption—kick-backs—is extremely important for economic development. It is costly to firms and often leads to less-than-optimum providers of government services. Some officials have been known to favor bidders who offer larger commissions, as opposed to the most cost-effective or highest-quality provider.

When commissions drive the selection of producers, society as a whole loses by paying too much for sub-standard services. Because of macro-corruption's critical importance in the Vietnamese economy today, the PCI research team believed that it should be considered along with petty or micro-corruption (informal charges in interactions with local provincial agencies) in the Informal Charges sub-index.

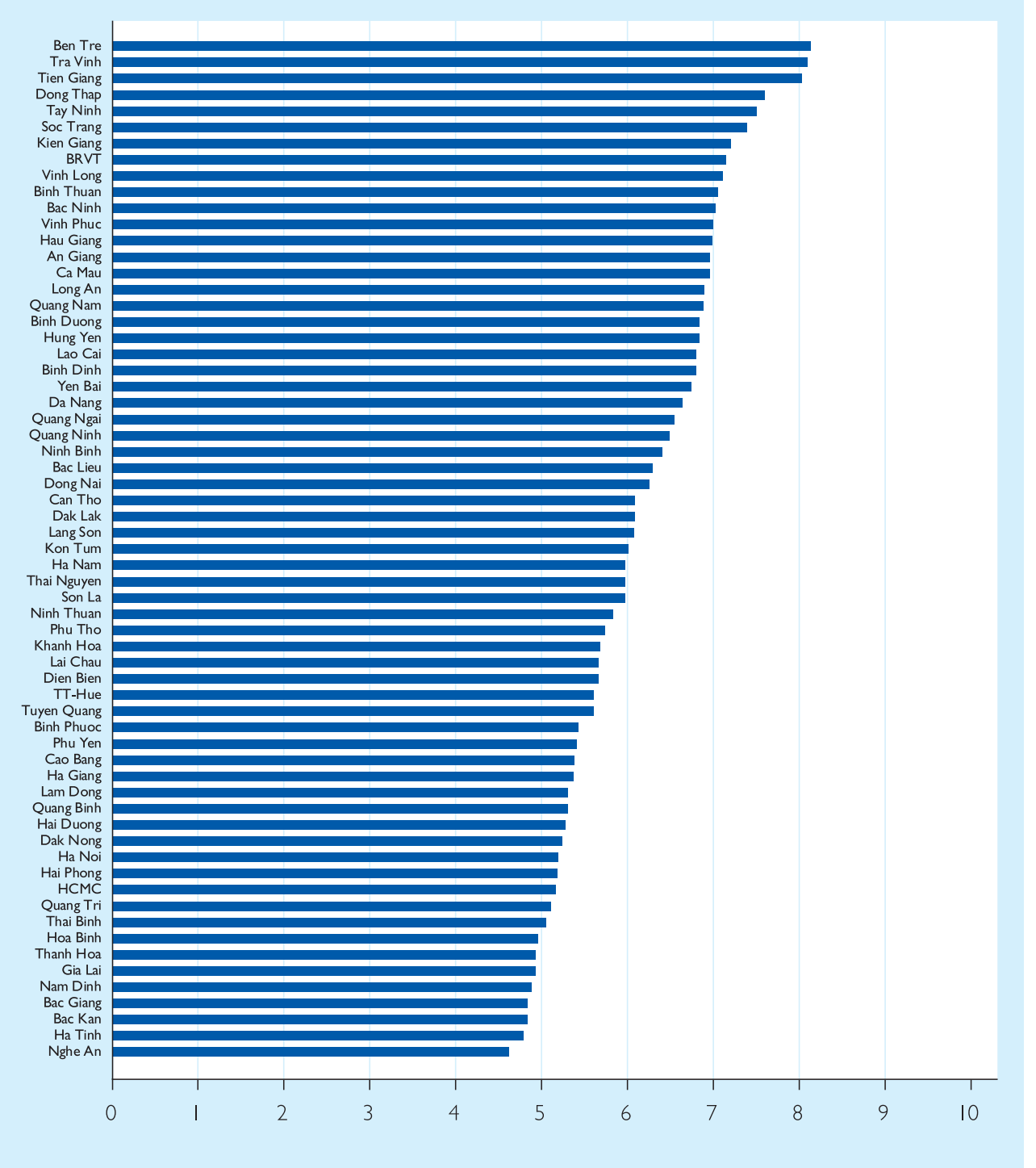
In addition, an indicator measuring firm rating of corruption as an obstacle to development was dropped because it was duplicative.

Table 3.6: Comparison of Informal Charges (2005–2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Percentage of firms that felt that enterprises in their line of business were subject to bribe requests from provincial authorities.	PCI Survey Question: D10	Min	6.67	53.57	40	45.54	35.38
		Median	26.57	70	68.25	65.93	59.4
		Max	48.28	84.62	82.72	83.59	77.47
		Correlation w/Previous Year	NA	0.05	0.56*	0.64*	0.66*
Percentage of firms paying over 10 percent of their revenue in extra payments.	PCI Survey Question: D11	Min	0	4.35	1.39	2.13	2.61
		Median	9.6	12.99	11.54	9.89	8.75
		Max	29.41	34.38	26.19	22.08	20.78
		Correlation w/Previous Year	NA	0.21	0.45*	0.55*	0.60*
Government uses compliance with local regulations to extract rents. (% Strongly Agree or Agree)	PCI Survey Question: D14.2	Min		22.86	17.44	20	23.93
		Median		39.76	38.21	37.12	50.35
		Max		76.74	79.41	64.54	71.64
		Correlation w/Previous Year		NA	0.78*	0.68*	0.66*
Informal charges delivered expected result. (% Usually or Always)	PCI Survey Question: D12	Min		20.83	29.03	27.94	35.42
		Median		47.89	48.28	48.99	51.51
		Max		65.93	59.8	62.91	69.01
		Correlation w/Previous Year		NA	0.2	0.50*	0.50*
Firms pay commissions on government contracts. (Yes) NEW INDICATOR	PCI Survey Question: D13	Min					22.89
		Median					53.47
		Max					74.81
		Correlation w/Previous Year					NA
Percentage of firms that believe that extra payments are a major obstacle to doing business.	PCI Survey 2008 Question: G6	Min	5	22.73	13.95	18.75	DROPPED
		Median	26.42	42.59	26.03	27.71	
		Max	60.61	65.09	44.4	55	
		Correlation w/Previous Year	NA	-0.48*	0.47*	0.46*	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. 2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years.

Figure 3.7: Informal Charges Sub-Index 2009



Notes: Informal Charges measure the amount of extra fees, fines, and other payments outside of regulations when doing business.

Proactivity

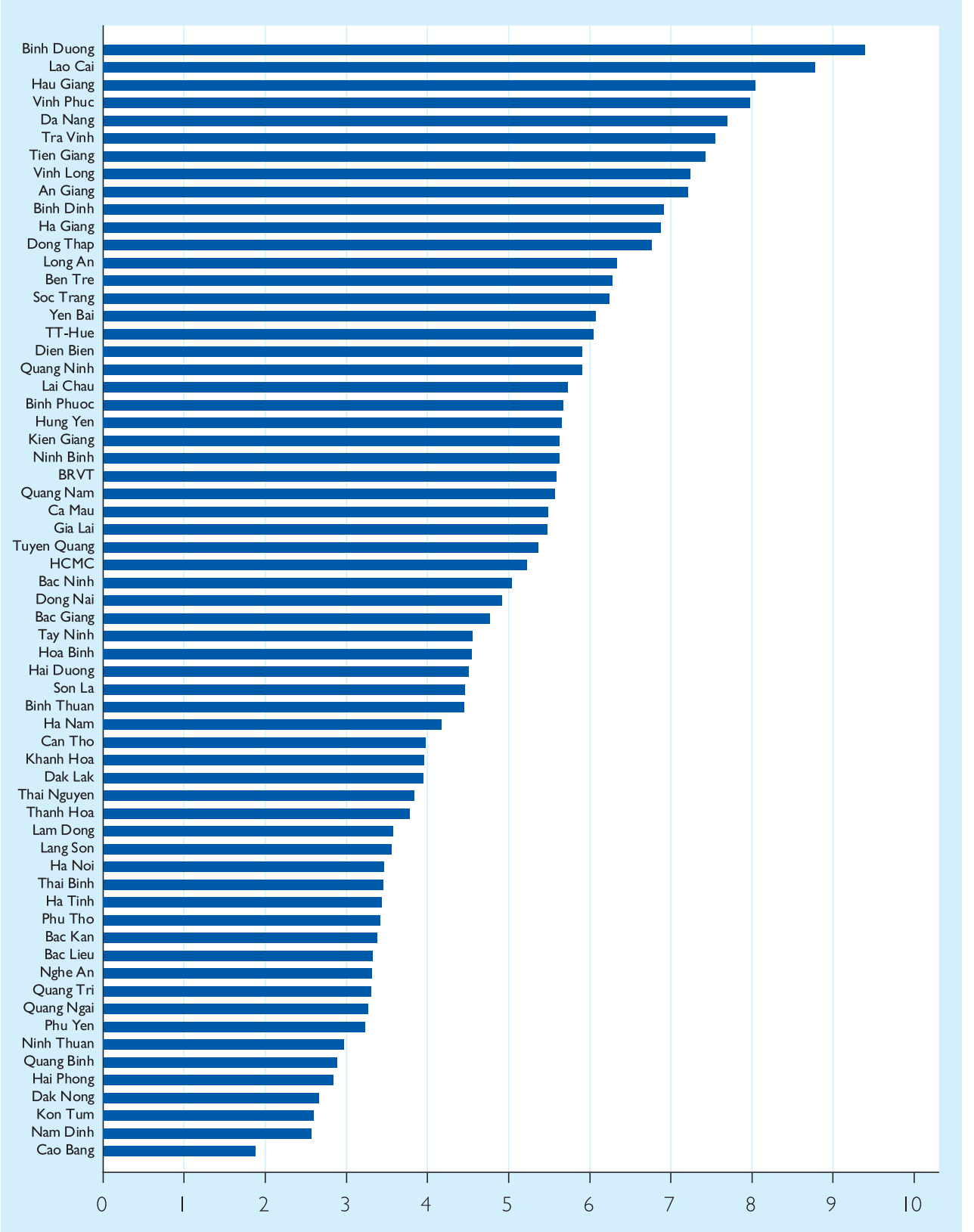
Only minor changes were made to the Proactivity sub-index. An indicator of general attitude of the provincial government toward the private sector was shifted over from the old SOE Bias sub-index because of its strong theoretical and empirical correlation with other proactivity measures.

Table 3.7: Comparison of Proactivity (2005–2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Provincial officials are knowledgeable enough about present national law to find opportunities within existing law to solve firm problems. (% Strongly Agree or Agree)	PCI Survey Question: H7.2	Min	43.75	51.61	53.68	57.35	54.67
		Median	76.93	74.44	71.74	77.28	72.65
		Max	94.29	93.48	92.47	91.41	91.72
		Correlation w/Previous Year	NA	0.60*	0.68*	0.68*	0.70*
Provincial officials are creative and clever about working within the national law to solve the problems of private sector firms. (% Strongly Agree or Agree).	PCI Survey Question: H7.3	Min	31.25	40	40.22	40.9	23.94
		Median	63.27	61.88	58.12	61.5	42.46
		Max	85.71	88.64	87.91	85.05	72.59
		Correlation w/Previous Year	NA	0.69*	0.76*	0.75*	0.75*
Perceived attitude of provincial government toward private sector. (% Very Positive or Positive).	PCI Survey Question: H1	Min	20.59	30.21	24.5	32.71	28.42
		Median	47.83	48.28	44.97	53.4	43.75
		Max	78.26	71.56	67.37	72.22	71.96
		Correlation w/Previous Year	NA	0.63*	0.67*	0.53*	0.56*
All good initiatives come from the provincial government, but the center frustrates them. (% Strongly Agree or Agree).	PCI Survey Question: H7.5	Min	4.76	16.04	16.67	10.84	DROPPED
		Median	31.35	29.07	30.95	20.99	
		Max	60	61.54	56.63	55.17	
		Correlation w/Previous Year	NA	0.40*	0.47*	0.63*	
There are no good initiatives at the provincial level; all important policy comes from the central government. (% Strongly Agree or Agree).	PCI Survey Question: H7.8	Min	7.89	14.63	12.2	17.95	DROPPED
		Median	33.33	32.88	33.33	32.99	
		Max	60.42	48.84	58.33	66.25	
		Correlation w/Previous Year	NA	0.59*	0.55*	0.53*	

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

Figure 3.8: Proactivity Sub-Index 2009



Business Support Services

Our conversations with provincial leaders, entrepreneurs, heads of business associations, and researchers led us to believe that this sub-index required the most drastic alterations.

Although all experts agree that business support services are critical for the success of business operations, our index inadvertently gave an advantage to support services that were provided by provincial authorities as opposed to those that were supplied by private and nongovernment actors. When the PCI was first conceptualized at the beginning of the decade, this decision made sense. Private providers of business services, such as consultancies, accounting firms, strategic advisors, and lawyers, were only in their infancy, operating primarily in the country's two biggest cities. There was little evidence that businesses in provinces outside of Ha Noi and HCMC had access to business services. The paucity represented a market failure that we deemed could be filled by provincial agencies. [36]

There was always some risk to the incentive created by this index, but the current business climate is dramatically different now. Nearly 4,000 private business service providers, including consulting firms, accountants, and law firms, operate throughout the country. They are still predominantly concentrated in large cities, but nearly every province now has some local operations and providers from Ha Noi and HCMC offer services across provincial borders.

Because of the vast array of opportunities for access to private service, it no longer makes sense to focus on government provision of services. In fact, such a focus may even be damaging, as government services may crowd out the opportunities for private vendors. Private providers can simply not compete against free services offered by local agencies. A number of very successful provinces, such as Binh Duong, no longer provide state-funded services but have instead focused on creating a hospitable environment for private service providers to operate. In past iterations of the PCI, this very positive development was not appropriately rewarded. Active private sector participation in business services and robust competition among these providers will lead to higher-quality products that will be sustainable over the long term.

A second issue with our previous assessment of business services was a minor methodological refinement. Our primary indicators in this sub-index were derived from a question asking business managers to rank the quality of various business services in their province on a five-point likert scale. At the time, we chose not to discriminate between businesses that had used the services and those that had not. Our reasoning behind this choice was that perceptions of service quality may have actually contributed to a firm's decision not to use the local services.

Thus, our measures of business services were not actually capturing perceptions of particular service, but instead capturing a general feeling about overall encouragement of the private sector in the province. This is a very interesting aspect of governance and is certainly important for business success, but does not provide the type of actionable policy information that provincial leaders need.

This year we replaced the general perceptions questions with a series of three questions for five separate business services: 1) business information search services; 2) consulting on regulatory information; 3) business match-making; 4) trade promotion; and 5) technology information and training. The three questions were:

- In the last year, did you use a particular business service?
- If so, was the provider a public agency or a private operator?
- Do you intend to use this service again in the future?

35. Nguyen Van Lan and Nguyen Phuong Quynh Trang. 2004. *Management Consulting: An Emerging Business Service for the Private Sector in Vietnam.* Private Sector Development Papers No. 15. Ha Noi: International Financial Corporation.

Together, the three questions give us more reliable information than in previous services. The first question lets us know how many operations are actually taking advantage of business services. Second, we know whether the service was provided by a private operation—a development that should be encouraged. Finally and most importantly, the third question provides a measure of quality that is based not on an abstract assessment. Instead it offers a concrete assessment of the firm's revealed preference for the quality of the service based on its actions. The saying goes, "Actions speak louder than words." Thus, an owner's decision to re-use a business service is a far stronger indicator of its quality than a ranking on a five-point scale.

In the newest iteration of this sub-index, we use these three measures along with hard data on trade fairs and numbers of private service providers to create our three dimensions of Business Support Services: 1) usage; 2) private provision; 3) quality.

Table 3.8: Comparison of Business Support Services (2006–2009)

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Trade fairs held by province in previous year and registered for present year.**	Data provided by Viet Trade of the Ministry of Trade	Min		0	0	0	0
		Median		0	0	2.25	6
		Max		6	12	80	20
		Correlation w/Previous Year		NA	0.18	0.62*	0.42*
Number of private providers of business services in province.**	Tax Authority 2009 (Author's Calculation)	Min				0	0
		Median				1	5
		Max				3529	3114
		Correlation w/Previous Year				NA	0.87*
Firm has used business information search services. (%) NEW INDICATOR	PCI Survey Question: E7.11	Min					29.90%
		Median					60.36%
		Max					79.81%
		Correlation w/Previous Year					NA
Firm used private provider for above business information search services. (%) NEW INDICATOR	PCI Survey Question: E7.12	Min					20.59%
		Median					38.81%
		Max					58.82%
		Correlation w/Previous Year					NA
Firm intends to use above service provider again for business information search services. (%) NEW INDICATOR	PCI Survey Question: E7.13	Min					5.56%
		Median					16.44%
		Max					24.81%
		Correlation w/Previous Year					NA

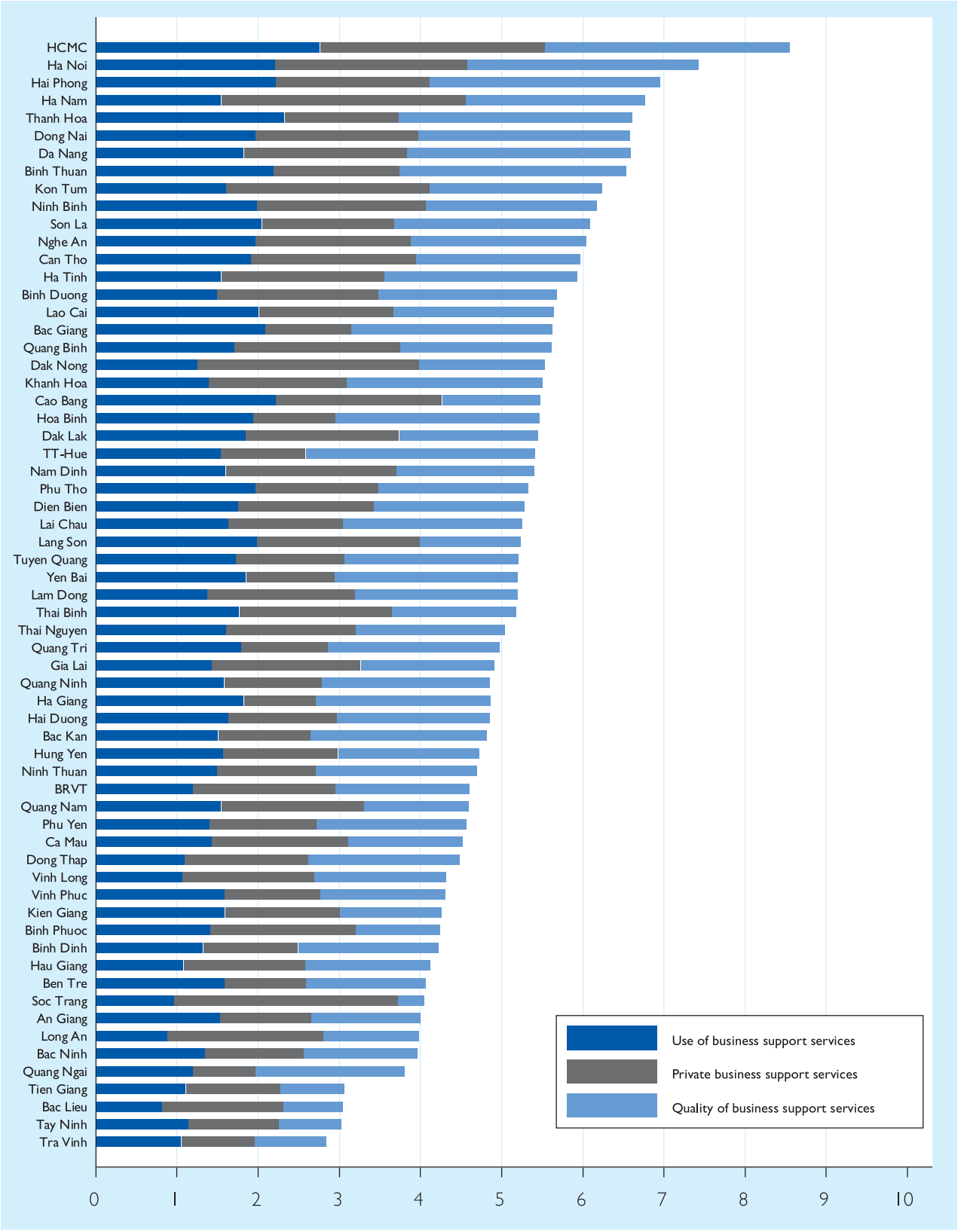
Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Firm has used consulting on regulatory information. (%) NEW INDICATOR	PCI Survey Question: E7.21	Min					30.34%
		Median					62.50%
		Max					77.42%
		Correlation w/Previous Year					NA
Firm used private provider for consulting on regulatory information. (%) NEW INDICATOR	PCI Survey Question: E7.32	Min					3.03%
		Median					16.95%
		Max					43.18%
		Correlation w/Previous Year					NA
Firm intends to use above service provider again for consulting on regulatory information. (%) NEW INDICATOR	PCI Survey Question: E7.23	Min					3.17%
		Median					14.38%
		Max					22.31%
		Correlation w/Previous Year					NA
Firm has used business match-making services. (%) NEW INDICATOR	PCI Survey Question: E7.41	Min					25.29%
		Median					53.40%
		Max					73.12%
		Correlation w/Previous Year					NA
Firm used private provider for business match-making services. (%) NEW INDICATOR	PCI Survey Question: E7.42	Min					25.00%
		Median					44.12%
		Max					70.21%
		Correlation w/Previous Year					NA
Firm intends to use above service provider again for business match-making services. (%) NEW INDICATOR	PCI Survey Question: E7.43	Min					4.76%
		Median					12.68%
		Max					21.64%
		Correlation w/Previous Year					NA
Firm has used trade promotion services. (%) NEW INDICATOR	PCI Survey Question: E7.51	Min					19.48%
		Median					45.45%
		Max					72.62%
		Correlation w/Previous Year					NA

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Firm used private provider for trade promotion services. (%) NEW INDICATOR	PCI Survey Question: E7.52	Min					4.44%
		Median					18.00%
		Max					38.42%
		Correlation w/Previous Year					NA
Firm intends to use above service provider again for trade promotion services. (%) NEW INDICATOR	PCI Survey Question: E7.53	Min					1.59%
		Median					7.89%
		Max					17.46%
		Correlation w/Previous Year					NA
Firm has used technology-related services. (%) NEW INDICATOR	PCI Survey Question: E7.61	Min					25.33%
		Median					50.00%
		Max					73.49%
		Correlation w/Previous Year					NA
Firm used private provider for technology-related services. (%) NEW INDICATOR	PCI Survey Question: E7.62	Min					17.65%
		Median					38.60%
		Max					65.85%
		Correlation w/Previous Year					NA
Firm intends to use above service provider again for technology related services. (%) NEW INDICATOR	PCI Survey Question: E7.63	Min					3.17%
		Median					10.71%
		Max					17.46%
		Correlation w/Previous Year					NA
Services provided by provincial agencies: provision of market information. (% Very Good or Good)	PCI Survey Question: E1.4	Min	0	30.43	23.52	8.16	DROPPED
		Median	21.99	49.72	44.19	20	
		Max	41.54	64.89	66.93	34.86	
		Correlation w/Previous Year		0.17	0.18	0.67*	
Services provided by provincial agencies: match-making for business partners. (% Very Good or Good).	PCI Survey Question: E1.10	Min	0	24.49	15	1.4	DROPPED
		Median	13.36	48.05	31.52	11.59	
		Max	26.19	60.94	62.96	30	
		Correlation w/Previous Year		0.18	0.46*	0.69*	

Indicator	Source (2009 Survey)	Measure	2005	2006	2007	2008	2009
Services provided by provincial agencies: export promotion and trade fairs. (% Very Good or Good).	PCI Survey Question: E1.14	Min		27.03	29.17	1.37	DROPPED
		Median		50.68	56.22	20.69	
		Max		79.03	79.55	48.84	
		Correlation w/Previous Year		NA	0.76*		
Services provided by provincial agencies: industrial zones and small and medium-sized enterprise concentrations. (% Very Good or Good).	PCI Survey Question: E1.17	Min		11.91	6.67	3.07	DROPPED
		Median		45.8	50.84	23.87	
		Max		81.36	83.48	72.89	
		Correlation w/Previous Year		NA	0.84*	0.84*	
Services provided by provincial agencies: technology and technology-related services. (% Very Good or Good).	PCI Survey Question: E.15	Min		18.92	14.29	4.28	DROPPED
		Median		41.73	43.88	15.87	
		Max		72.34	79.55	48.76	
		Correlation w/Previous Year		NA	0.32*	0.82*	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. 2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years. Because the maximum value recorded in HCMC is an outlier on both of these variables (over two standard deviations greater than the mean value), lower values of 10 and 100, the number scored by the second highest province, were used to standardize the sub-index scores.

Figure 3.9: Business Support Services Sub-Index 2009



Notes: Use of business support services measures access to services in the province; private business support services measures the participation of private providers; quality measures whether firms will use the services again. All three receive equal weight in the final index.

Labor Policy

Labor policy also underwent a number of alterations this year. As with Business Support Services, we replaced general perceptions of labor exchange services with our three-question series on usage, private provision, and quality (intention to re-use).

We also added a measure of the costs that individual businesses spend on labor training as a percentage of annual revenue. This provides a measure of the direct costs imposed on local operators by having to supplement training of workers due to an insufficient general skill-base. Different sectors, levels of sophistication, size, competition for labor, and average provincial wages also drive labor training costs, so we regressed the training costs reported by firms on these on these variables and saved the regression's residual. The residual represents the cost of labor training not explained by these baseline determinants.

More importantly, however, we drastically improved our use of hard data in this index. Over the years, many provinces have complained that simply counting the number of vocational training schools in a province was misleading, privileging the quantity of training buildings over the actual quality of training provided. Other provinces (particularly HCMC and Dong Nai) argued that only counting vocational training schools under-estimated the value of education provided by their universities and colleges, which also offered training in a range of applications that were useful to businesses, particularly in the skill-sets that were most valued by entrepreneurs (engineering, finance, and management).

This year, thanks to a range of new data available on educational quality in Vietnam, we have drastically supplemented our measures. First, we added an indicator of the scope of labor training facilities in the province. This included the total number of post-secondary educational establishments (university, college, vocation) per capita and a measure of the percentage of districts in the province with local vocal training facilities for their constituencies. Second, we assessed overall labor quality with two variables drawn directly from recent labor force services: 1) the percentage of secondary school graduates, and 2) the ratio of vocational training school graduates to laborers with no formal education after primary school. HCMC and Danang topped this second list with ratios of 0.29 and 0.17 respectively. Finally, we anchored the survey information on private provision of vocational training with a hard data measure of private providers in the province drawn from the General Department of Vocational Training. BRVT (71 percent) and Dong Nai (66 percent) topped this final list. Many provinces, however, did not have a single private vocational school.

Table 3.9: Comparison of Labor Policy (2006–2009)

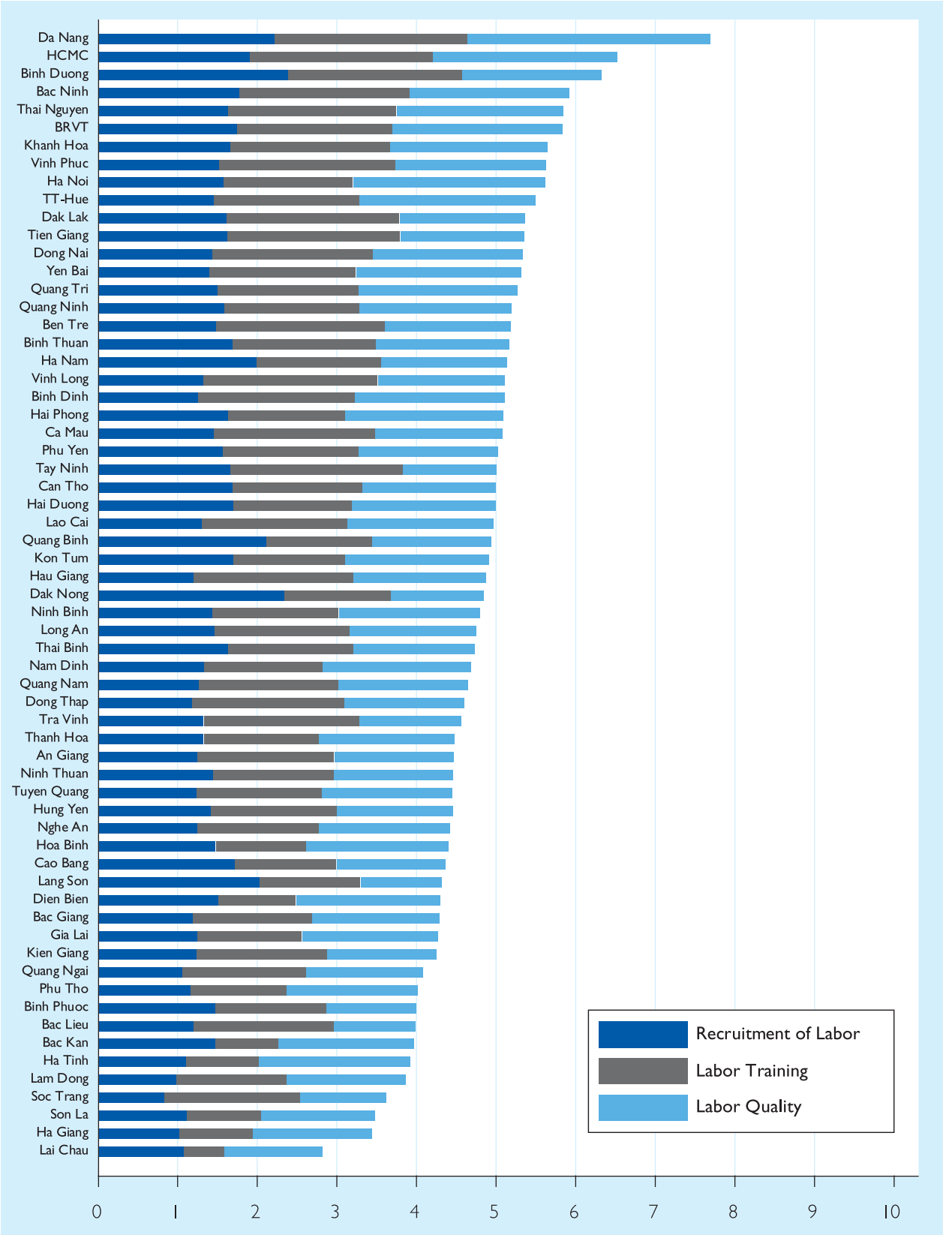
Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009
Services provided by provincial agencies: general education. (% Very Good or Good)	PCI Survey Question: E1.7	Min	7.43	51.51	17.71	22.08
		Median	19.16	73.29	35.20	45.45
		Max	35.52	87.34	58.90	68.93
		Correlation w/Previous Year	NA	0.21	0.61*	0.76*
Services provided by provincial agencies: labor vocational training. (% Very Good or Good)	PCI Survey Question: E1.8	Min	31.25	24	6.25	10.25
		Median	55.43	55.9	19.81	27.11
		Max	73.17	79.49	46.28	48.51
		Correlation w/Previous Year	NA	0.66*	0.78*	0.57*

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009
Number of labor exchange bureaus per 100,000 citizens.	Ministry of Labor, Invalids and Social Affairs: General Labor Department	Min		0	0.00	0.00
		Median		0.136	0.17	0.17
		Max		0.683	0.62	0.70
		Correlation w/Previous Year		NA	0.39*	0.87*
Firm has used labor exchange services. (%) NEW INDICATOR	PCI Survey Question: E7.31	Min				15.65%
		Median				33.33%
		Max				47.13%
		Correlation w/Previous Year				NA
Firm used private provider for above labor exchange services. (%) NEW INDICATOR	PCI Survey Question: E7.32	Min				25.53%
		Median				40.43%
		Max				75.61%
		Correlation w/Previous Year				NA
Firm intends to use above service provider again for labor exchange services. (%) NEW INDICATOR	PCI Survey Question: E7.33	Min				8.51%
		Median				27.78%
		Max				42.86%
		Correlation w/Previous Year				NA
Percentage of total business costs spent on labor training. NEW INDICATOR	PCI Survey Question: E9 (Data is the residual after regressing labor costs on firm type, sector, size, number of enterprises in province, average industrial wage in province.)	Min				0.00
		Median				1
		Max				2.5
		Correlation w/Previous Year				NA
Total training institutions (universities, secondary schools, vocational training centers) per 100,000 citizens. NEW INDICATOR	Ministry of Labor, Invalids and Social Affairs: General Labor Department	Min				0.76
		Median				1.97
		Max				5.99
		Correlation w/Previous Year				NA
Number of district-level vocational training centers per district in province. NEW INDICATOR	General Department of Vocational Training	Min				0.00
		Median				0.36
		Max				1.17
		Correlation w/Previous Year				NA

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009
Percentage of vocational training institutes in province that are run by private entities. NEW INDICATOR	General Department of Vocational Training	Min				0.00%
		Median				16.67%
		Max				62.50%
		Correlation w/Previous Year				NA
Vocational training school graduates/untrained laborers. NEW INDICATOR	Ministry of Labor, Invalids and Social Affairs: General Labor Department	Min				1.42%
		Median				5.45%
		Max				29.02%
		Correlation w/Previous Year				NA
Secondary school graduates. (% of workforce) NEW INDICATOR	General Statistical Office	Min				4.4%
		Median				10.3%
		Max				30.2%
		Correlation w/Previous Year				NA
Number of locally managed vocational schools per 100,000 citizens.	General Department of Vocational Training	Min	0.103	0.14	0.09	DROPPED
		Median	0.705	0.81	0.79	
		Max	2.09	2.19	2.05	
		Correlation w/Previous Year	NA	0.92*	0.87*	
Services provided by provincial agencies: labor exchange services. (% Very Good or Good)	PCI Survey Question: E1.13	Min	16.67	21.88	4.84	DROPPED
		Median	48.62	49.43	16.56	
		Max	74.68	78.05	41.79	
		Correlation w/Previous Year	NA	0.76*	0.78*	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. Labor sub-index did not exist in 2005.

Figure 3.10: Labor Policy Sub-Index 2009



Recruitment of labor measures the difficulties and costs of finding new employees; labor training gauges the quality of labor training facilities in the province (both general and vocational); labor quality measures the quality of individual employees. All three receive equal weight in the final index.

Legal Institutions

The Legal Institutions sub-index was enhanced to capture the process of actually filing a case at a Provincial People's Court. In the past, we measured respondents' faith in the judicial system, but did not possess very useful metrics on the actual process of filing a court case. From a province's perspective, improving process is a more reasonable first step for improving legal institutions than trying to instill general confidence, which could be a longer-term endeavor. In fact, improving the process of judicial proceeding may actually be a useful first step at enhancing long-term confidence. The less expensive and cumbersome it is to file a case, the more likely it is that firms will do so when faced with difficult contract disputes. This year, we added three new measures to provide insight into the comparative logistics of filing cases across provinces.

First, we asked firms whether they had used courts to resolve a contractual dispute. If they had, we then asked how long it took to resolve their case and how expensive the procedures were in terms of formal and informal fees.[37] These new indicators were compiled into a new dimension of legal institutions called Process of Legal Cases.

Because we already have a measure of how often firms used provincial courts, we were able to drop our more complicated measure of "use of legal institutions as a mode of dispute resolution."

37. We also asked about whether the court's decision was enforced, but too few firms responded to allow for valid analysis.

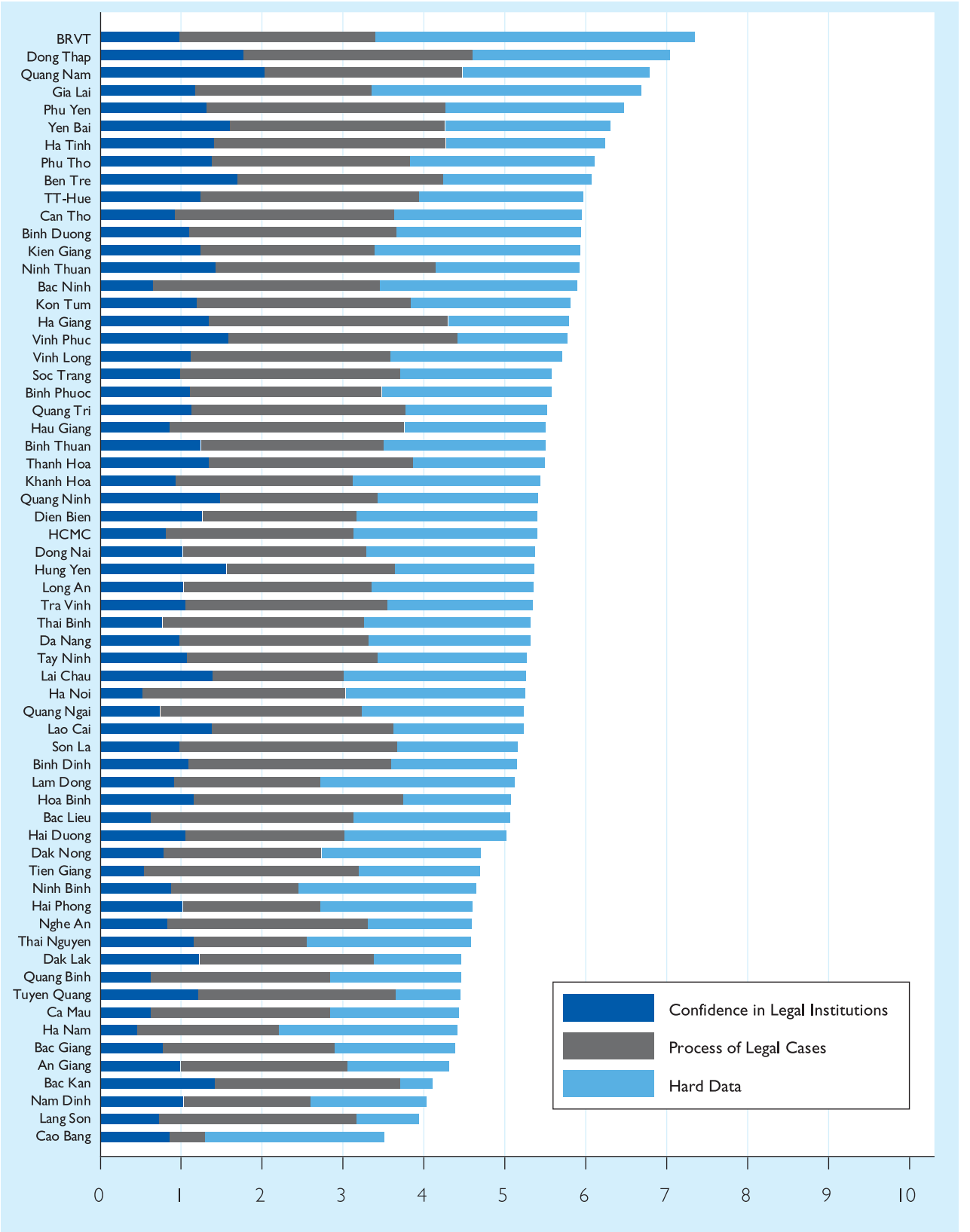
Table 3.10: Comparison of Legal Institutions (2006–2009)

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009
Legal system provided mechanism for firms to appeal officials' corrupt behavior. (% Always or Usually)	PCI Survey Question: G6	Min	7.44%	17.70%	17.22%	13.04%
		Median	19.16%	28.80%	27.31%	25.17%
		Max	35.53%	41.41%	42.53%	43.94%
		Correlation w/Previous Year	NA	-0.24	0.48*	0.38*
Firm confident that legal system will uphold property rights and contracts. (%Strongly Agree or Agree)	PCI Survey Question: G5	Min	50.00%	53.57%	55.05%	45.63%
		Median	69.42%	66.11%	67.00%	62.32%
		Max	82.14%	77.55%	78.23%	75.76%
		Correlation w/Previous Year	NA	0.50*	0.40*	0.29*
Cases filed by non-state entities at Provincial Economic Court per 100 firms.	People's Supreme Court	Min	0	0	0	0
		Median	0.41	0.58	1.29	3.05
		Max	9.49	8.12	6.97	35.64
		Correlation w/Previous Year		0.66*	0.32*	0.84*
Non-state claimants as a percentage of claimants at Provincial Economic Court. NEW INDICATOR	People's Supreme Court	Min	0.00	0.00	0.00	0.00
		Median	50.00	50.00	65.48	72.41
		Max	100.00	100.00	100.00	100.00
		Correlation w/Previous Year	NA	0.38*	0.05	0.41*

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009
Business used courts or other legal institutions to resolve disputes. (%) NEW INDICATOR	General Department of Vocational Training	Min				4.76%
		Median				23.33%
		Max				44.83%
		Correlation w/Previous Year				NA
Median days to resolve court cases. NEW INDICATOR	Ministry of Labor, Invalids and Social Affairs: General Labor Department	Min				1.00
		Median				6.00
		Max				19.71
		Correlation w/Previous Year				NA
Median formal and informal costs as a percentage of case. NEW INDICATOR	General Statistical Office	Min				3.09
		Median				12.21
		Max				60.00
		Correlation w/Previous Year				NA
Use of legal institutions as primary modes of dispute resolution.	PCI Survey 2008: Questions F10: [6*F10.1(if Court) + 4*F10.2(if Court) + 2*F10.3(if Court) + 3*F10.1(if Provincial Gov.)+2*F10.2(if Provincial Gov.)+1*F10.3(if Provincial Gov.)]	Min	47.51	30.58	13.33	DROPPED
		Median	94.82	64.4	46.13	
		Max	208.87	138.89	82.88	
		Correlation w/Previous Year		0.56*	0.38*	

Notes: * Significant at 5% level; NA = not applicable. All values are at the provincial level. Legal sub-index did not exist in 2005.

Figure 3.11: Legal Institutions Sub-Index 2009



Notes: Confidence in legal institutions measures firm perceptions of the level of protection afforded by provincial courts; process of legal cases probes the costs and waiting periods of actually filing a case; hard data measures the actual use of provincial courts by private businesses.

Changing the Weighting Strategy

Although we were satisfied from a technical standpoint with the use of factor analysis to derive the weights, a number of readers found the strategy opaque. Factor scores, unlike regression coefficients, cannot be directly interpreted and understood in units of the outcome variables that provincial officials care about.

This year we moved to a weighting strategy that is very similar in its motivation but uses an approach that is more intuitive. Once again, we selected three outcome variables that are critically important for monitoring private sector development (private enterprises per 1,000 citizens, investment per capita, and profit per enterprise). We regressed these on each sub-index, controlling for structural factors (population density, surface area, distance from Ha Noi or HCMC in kilometers), infrastructure (measured by the percentage of paved road in the province), and dummy (dichotomous) variables for the seven regions of Vietnam.

Using regional dummy variables enables us to hold cultural, socioeconomic, and structural factors that are region-specific constant, so we can focus just on the differences in governance among provinces. In essence, we are able to remove the variance in private sector outcomes accounted for by the unique difficulties faced by provinces in Northwest Vietnam and Mekong Delta, as well as the special advantages of provinces in the North Southeast. This allows us to isolate the size of the relationship we care about most—the direct association between each sub-index of governance quality and our outcome variables. The t-values from these regressions (see Table 1.3) were taken for each sub-index (Columns 1, 3, 5). Using the size of the t-value is an intuitive substitute for the factor scores because it includes the size of the substantive effect (measured by the regression coefficient) but standardized by the variance around that point prediction (as measured by the standard error). As a result, sub-indices that receive higher weights are those that have large and statistically significant correlations with the three outcome variables.

For instance, all else equal, a one-unit improvement in transparency is associated with a 13 percent improvement in the number of enterprises per 10,000 citizens, a 17 percent improvement in investment per capita, and a 62 million VND increase in profit per enterprise. All of these point predictions are statistically significant at the 0.1 level or above, indicating that the correlations are not spurious and that we can be fairly confident that if we were to repeat the PCI exercise again, we would receive very similar results. By contrast, the substantive impact in the improvement of land is not statistically different from zero, indicating that access to land, while important for national development, is not a significant determinant of the differential variance in business performance among provinces. It is important to note that a one-unit change in each sub-index is directly comparable, because all sub-indices are scaled from 1 to 10 and, therefore, a one-unit shift represents a 10 percent improvement in the score.

Using t-values in this manner eliminates one possible concern. It is possible that a particular sub-index may have a large coefficient that is not statistically significant because the standard error around the prediction is quite large. Large standard errors result from a variety of factors, including measurement error, outliers, and omitted variable bias. When a coefficient is big, but a standard error is also large, it is important to be careful about inferring too much from that regression result. The relationship may simply be accidental; repeated samples of businesses in Vietnam would reveal vastly different substantive effects. By using the t-value, we take the size of the coefficient net of the standard error and, therefore, eliminate the possibility that accidental correlations drive our weightings.

Table 3.11 demonstrates how we took the individual t-values for each sub-index, summed them up, and calculated the share of statistically significant variance in a particular outcome variables accounted for by a one-unit change in each sub-index. Because transparency and labor have the largest coefficients in the regressions for enterprises per capita, they account for the largest share. Columns 2, 4, and 6 show that different sub-indices are relatively more or less important for each outcome variable. Finally, we calculated the average share of t-values for each regression (Column 7). This number is rounded to serve as the weight in the final PCI.[38]

38. Before employing the new method, we replicated all findings with the old weighting method. After we were convinced that the approach did not significantly alter the final index, we decided to make the change.

Table 3.11: Expanation of Approach to Sub-Index Weighting

Response Date	Enterprises per Capita		Investment per Capita		Profit per Enterprise		Final Weight
	T-Value	Share	T-Value	Share	T-Value	Share	Average Share
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 Entry	1.80	14.79%	2.13	11.24%	0.35	2.81%	9.61%
2 Land	-0.01	-0.08%	0.39	2.06%	0.64	5.14%	2.37%
3 Transparency	3.01	24.78%	1.94	10.22%	3.02	24.32%	19.77%
4 Time	1.30	10.69%	2.94	15.49%	2.01	16.18%	14.12%
5 Informal Charges	0.49	4.02%	1.68	8.86%	1.75	14.11%	9.00%
7 Proactivity	0.31	2.59%	2.34	12.35%	2.75	22.13%	12.36%
8 BSS	2.33	19.21%	2.25	11.82%	-1.35	-10.90%	6.71%
9 Labor	3.48	28.61%	4.07	21.42%	1.25	10.05%	20.03%
10 Legal	-0.56	-4.61%	1.24	6.54%	2.01	16.17%	6.04%
	12.15	100%	18.99	100%	12.43	100%	100%

To calculate weights each outcome variable was regressed on each sub-index, controlling for structural factors (population density, surface area, distance from Hanoi or Ho Chi Minh CIty in kilometers), infrastructure (measured by the percentage of paved road in the province), and dummy variables for the 7 regions of Vietnam (known as regional fixed effects). The t-values from these regressions, which are calculated by dividing the coefficient by the standard error (see Table 1.2), were taken for each sub-index (Columns 1, 3, 5) . This table demonstrates how the sum of t-values from each sub-index were taken (bottom row of Columns 1, 3, and 5). Next, we calculated the relative share each sub-index accounted for in the sum of t-values (Colums 2, 4, 6). Finally, we calculated the average share of t-values for each regression (Column 7). This number became the true weight for the final PCI.

CHAPTER FOUR
APPENDICES

Multiple Regression Analysis of Governance and Key Private Sector Outcome Variables

Independent Variables/ Dependent Variables	Enterprises per 1,000 Citizens 2008 (ln)				Investment per Capita 2008 (ln)				Profit per Enterprise 2008			
	OLS	OLS	Robust	IV-2SLS	OLS	OLS	Robust	IV-2SLS	OLS	OLS	Robust	IV-2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Unweighted Provincial Competitiveness Index 2009	0.056***	0.041***	0.040**	0.028**	0.055***	0.045**	0.045**	0.066***	19.504***	19.374***	19.914***	17.900***
	(0.016)	(0.014)	(0.016)	(0.011)	(0.019)	(0.020)	(0.021)	(0.017)	(5.476)	(5.434)	(5.187)	(6.606)
Population Density (1,000s)		0.001***	0.001***	0.001***		0.001***	0.001***	0.001***		0.134*	0.161**	0.086
		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)		(0.069)	(0.072)	(0.052)
Surface Area of Province (square kilometer)		0.000**	0.000***	0.000***		0.000**	0.000**	0.000		0.007	0.006	0.007
		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)		(0.010)	(0.010)	(0.009)
Distance from Hanoi or HCMC (km)		-0.000	-0.000	-0.002***		-0.000	-0.000	-0.000		-0.109	-0.125	-0.050
		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.001)		(0.120)	(0.120)	(0.150)
% Asphalted Roads		0.312	0.230	0.339		0.411	0.425	-0.265		-125.482	-96.367	-204.003
		(0.319)	(0.331)	(0.386)		(0.421)	(0.466)	(0.417)		(101.669)	(108.180)	(140.800)
Telephones per 1,000 Citizens (2008)		-0.051	-0.034	0.103		0.356**	0.353**	0.419***		-7.006	-13.030	-14.416
		(0.229)	(0.207)	(0.196)		(0.159)	(0.153)	(0.148)		(63.349)	(70.357)	(63.244)
% Secondary School Graduates			0.013				-0.002				-4.570	
			(0.009)				(0.015)				(3.157)	
Regional Fixed Effects	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES
Constant	4.076***	3.708***	2.736***	4.156***	4.827***	4.312***	4.480***	4.052***	-818.370***	-815.805**	-472.705	-582.660*
	(0.876)	(0.821)	(0.864)	(0.665)	(0.957)	(1.067)	(1.024)	(0.978)	(278.913)	(310.377)	(321.144)	(337.867)
Observations	63	63	63	63	63	63	63	63	63	63	63	63
R-squared	0.095	0.591	0.600	0.770	0.110	0.493	0.493	0.658	0.182	0.270	0.287	0.355
Root Mean Square Error	0.868	0.609	0.608	0.483	0.791	0.623	0.629	0.541	209.0	206.0	205.4	204.9

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

Multiple Regression Analysis of Governance and Provincial GDP Growth

Independent Variables/ Dependent Variables	Average Growth of GDP per Capita 2007-2009				Growth of GDP per Capita 2008			
	OLS	OLS	OLS	FE	OLS	OLS	OLS	FE
	(1)	(3)	(4)	(5)	(1)	(3)	(4)	(5)
Unweighted Provincial Competitiveness Index 2009	0.057	0.153***	0.155***	0.184***	0.090	0.172***	0.169***	0.203***
	(0.075)	(0.057)	(0.057)	(0.066)	(0.067)	(0.062)	(0.061)	(0.064)
Population Density (1,000s)		-0.000	0.000	-0.001*		-0.000	-0.001	-0.002**
		(0.000)	(0.001)	(0.001)		(0.001)	(0.001)	(0.001)
Surface Area of Province (square kilometer)		0.000	0.000	0.000		0.000	0.000	0.000
		(0.000)	(0.000)	(0.000)		(0.000)	(0.000)	(0.000)
Distance from Hanoi or HCMC (km)		-0.002	-0.002	-0.001		-0.003*	-0.003	-0.001
		(0.002)	(0.002)	(0.002)		(0.002)	(0.002)	(0.002)
% Asphalted Roads		-0.968	-0.843	-3.570***		-0.938	-1.071	-3.882***
		(1.229)	(1.216)	(1.186)		(1.425)	(1.463)	(1.268)
Telephones per 1,000 Citizens (2008)		2.570***	2.539***	2.285**		2.615***	2.648***	2.270***
		(0.774)	(0.802)	(0.870)		(0.752)	(0.724)	(0.809)
Ba Ria - Vung Tau Dummy		-14.423***	-14.531***	-15.219***		-9.246***	-9.130***	-10.112***
		(0.567)	(0.584)	(0.782)		(0.599)	(0.646)	(0.718)
% Secondary School Graduates			-0.020				0.022	
			(0.033)				(0.040)	
Regional Fixed Effects	NO	NO	NO	YES	NO	NO	NO	YES
Constant	109.554***	104.465***	105.972***	107.493***	107.602***	103.554***	101.936***	107.171***
	(3.806)	(3.356)	(4.566)	(3.112)	(3.484)	(3.723)	(5.318)	(3.463)
Observations	63	63	63	63	63	63	63	63
R-squared	0.010	0.530	0.532	0.711	0.030	0.362	0.365	0.591
Root Mean Square Error	2.816	2.044	2.058	1.698	2.587	2.209	2.224	1.874

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

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