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Honduras

Constraints Analysis

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Acronyms

BCH	Banco Central de Honduras / Central Bank of Honduras
BTI	Bertelsmann Transformation Index
CA	Constraints to Growth Analysis
CAFTA-DR	Dominican Republic – Central America Free Trade Agreement
CBI	Caribbean Basin Initiative
CEPAL	Comisión Económica para América Latina y el Caribe / Economic Commission for Latin America and the Caribbean
CEPEJ	The European Commission for the Efficiency of Justice
CNA	Consejo Nacional Anticorrupción / National Anti-Corruption Commission
CNBS	Comisión Nacional de Bancos y Seguros / National Commission for Banks and Insurers
CNE	Comisión Nacional de Energía / National Energy Commission
COHEP	Consejo Hondureño de la Empresa Privada / Honduran Private Business Council
CONADEH	Comisionado Nacional de los Derechos Humanos / The National Commission for Human Rights
CPC	Civil Procedures Code
DB	World Bank Doing Business Indicators
DDI	Deficit Disaster Index
DEI	Dirección Ejecutiva de Ingresos del Gobierno / Government's Executive Revenue Agency
DGVU	Dirección General de Vivienda Y Urbanismo / Department of Housing and Urban Planning
ENEE	Empresa Nacional de Energía / National Electrical Energy Company
EPHPM	Encuesta Permanente de Hogares de Propósitos Múltiples / Multi-purpose Permanent Household Surveys
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FECOPRUCH	Federación de Colegios Profesionales Universitarios de Honduras/ Federation of Professional Associations of Honduras
FH	Freedom House
FONAC	Foro Nacional de Convergencia / National Convergence Forum
GATT	General Agreement on Tariffs and Trade
GCI	Global Competitiveness Index
GCR	Global Competitiveness Report
GDP	Gross Domestic Product
GOH	Government of Honduras
ha	Hectare
HIPC	Heavily Indebted Poor Countries
HRV	Hausmann, Rodrik, and Velasco
IBP	International Budget Project
IDB	Inter-American Development Bank
IEA	International Association for the Evaluation of Education Achievements
IMF	International Monetary Fund
INE	Instituto Nacional de Estadística de Honduras / National Institute of Statistics

INFOP	Instituto Nacional de Formación Profesional / National Vocational Training Institute
IPRI	International Property Right Index
km	Kilometers, also use kilometers squared (km ²) and kilometers cubed (km ³)
kWh	Kilowatt-hour
LAC	Latin American and Caribbean
LMIC	Lower Middle Income Countries
Lo-Lo	Lift on/lift off
LPR	Land and Property Rights
MCC	Millennium Challenge Corporation
MCCA	Mercado Común Centroamericano / Central American Common Market
MOH	Ministry of Health
MW	Megawatts
NGO	Non-Governmental Organization
OBI	Open Budget Index
OECD	Organisation for Economic Co-operation and Development
PAA	Prueba de Aptitud Académica / Academic Aptitude Tests
PATH	Programa de Administración de Tierras de Honduras / Honduras Land Administration Program
PEFA	Public Expenditure and Financial Accountability Assessment
PIP	Program to Improve Public Policy
PIRLS	Progress in International Reading Literacy Study
PPAs	Power Purchase Agreements
PPP	Private-Public Partnership
PVI	Prevalent Vulnerability Index
RIT	Régimen de Importación Temporal / Temporary Import System
SAG	Secretaría de Agricultura y Ganadería / Secretary of Agriculture and Livestock
SANAA	Servicio Autónomo Nacional de Acueductos y Alcantarillados / National Autonomous Water and Sewer Service
SAPP	Superintendencia de la Alianza Público-Privada / Superintendent of Public-Private Partnerships
SARAH	Sistema Automatizado de Rentas Aduaneras de Honduras / Honduras' Automated System of Customs Revenue
SBA	Stand-By Arrangement
SCF	Stand-By Credit Facility
SEFIN	Secretaría de Finanzas / Secretary of Finance
SENASA	Servicio Nacional de Sanidad Agropecuaria / National Agricultural Health Services
SERNA	Secretaría de Energía, Recursos Naturales y Ambiente / Ministry of Energy, Natural Resources and Environment
SINAP	Sistema Nacional de Administración de la Propiedad / National System for Property Administration
SINEIA	Sistema Nacional de Evaluación de Impacto Ambiental / National System of Environmental Impact Assessment
SMEs	Small and Medium Enterprises

SOPTRAVI	Secretaría de Obras Públicas, Transporte y Vivienda / The Ministry of Public Works, Transport and Housing
SURE	Sistema Unificado de Registros / Integrated Registry (for property)
TIMSS	Trends in Math and Science
TPS	Temporary Protected Status
TSE	Tribunal Supremo Electoral / Supreme Electoral Tribunal
TVET	Technical Vocational Education and Training
UNODC	UN Office on Drugs and Crime
USCVR	Unidad de Supervisión de Comisión de la Verdad y la Reconciliación / Monitoring Unit for the Truth and Reconciliation Commission
WBES	World Bank Enterprise Surveys
WDI	World Development Indicators, from World Bank
WEF	World Economic Forum
WGI	World Governance Indictors
WTO	World Trade Organization
ZIP	Zona Industrial de Procesamiento / Industrial Processing Zone
ZOLI	Zona Libre / Free (Trade) Zone
ZOLT	Zonas Libres Turísticas / Free (Trade) Zone for Tourism

1. Introduction

In December 2011 the Millennium Challenge Corporation (MCC) Board recognized the steps taken by the Government of Honduras (GOH) to address corruption through improved fiscal transparency, and believed that this provided an opportunity for MCC and Honduras to begin a Threshold partnership as the GOH continues its broader reform efforts. This new partnership between MCC and the GOH builds on a strong and productive relationship that has yielded important results over the last seven years including: the successful implementation of a five year US\$205 million Compact,¹ implementation of the Plan for the Improvement of the Management, Transparency and Oversight of Public Finances that addressed the findings of the MCC funded Public Expenditure and Financial Accountability Report (PEFA), and the implementation of the GOH Anti-Corruption Plan.

MCC and the Government of Honduras acknowledge that the private sector is the engine of job creation and economic growth that are necessary for poverty alleviation. The first step in MCC's engagement with partner countries, whether for a Compact or Threshold Program, is to do an analysis of the Constraints to Growth (CA) in partnership with the country in order to identify the two or three most binding constraints to private investment.

This CA builds on previous work including: Institutional and Governance Review (World Bank, 2009), Investment Climate Assessment (World Bank, 2004a), Competitiveness and Growth in Honduras (Auguste, 2010), and Main Constraints to Economic Growth in Honduras (*Secretaría Del Despacho Presidencial Gobierno de Honduras*, 2010). The team authoring this document benefited from many conversations with the staff of several ministries and government agencies and would like to thank all of them for their excellent cooperation and openness in sharing information that was vital to the drafting of this report.

2. Methodology and Key Findings

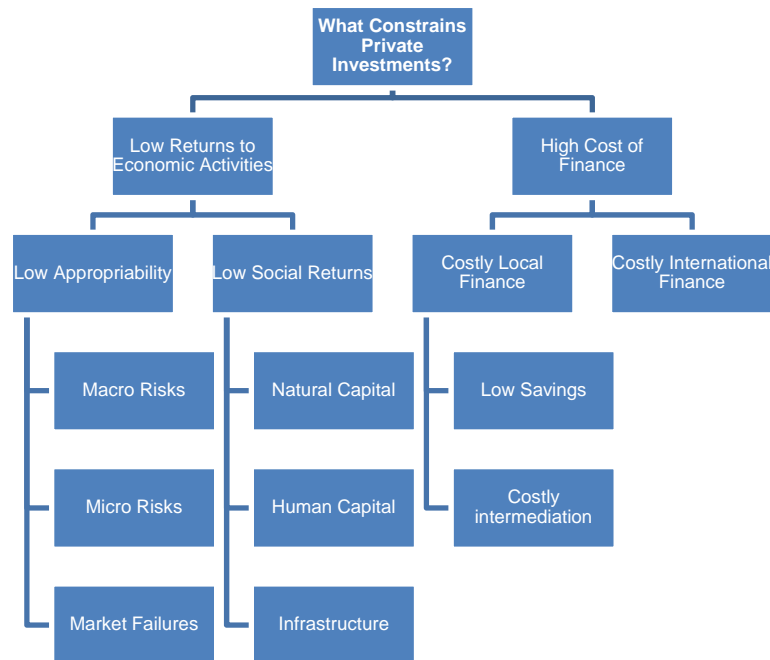
2.1. Methodology

The purpose of this Constraints Analysis is to identify key factors that prevent entrepreneurs and firms from investing their finances and time to expand production or increase productivity. It is not the purpose of the CA to name specific projects of interest, but rather to lay a preliminary base for project development. Undertaking a CA involves posing and answering a sequence of diagnostic questions that highlight the root causes of constraints to investment. Figure 1 below presents a hierarchy to organize and motivate the questions driving the CA based on the organizing framework originally presented in 2005 by Hausmann, Rodrik, and Velasco (HRV). Answering these questions involves (1) selecting and

¹ The Compact invested in a broad range of constraints to economic growth in the agriculture sector, including assisting farmers with technical training, providing farmers with access to credit, and building farm-to-market roads. The Compact also invested in rehabilitating the primary national highway (CA-5) that connects Honduras with international markets.

formulating the diagnostic questions in a sensible way for Honduras, (2) researching and marshaling key evidence and data that shed light on these questions, and (3) answering the questions given the balance of such evidence.²

Figure 1: Constraints Analysis Framework



Source: Hausmann, Rodrik, and Velasco (2005)

The Growth Diagnostics methodology used for the Constraints Analysis, described in the 2005 manuscript and more thoroughly developed in the 2008 “Mindbook” by Hausmann, Klinger, and Wagner, requires an evidentiary basis for conclusions based on these four tests:

1. The shadow price of a constraint to growth must be high;
2. Movement in the constraint should produce movements in the objective function (GDP, investment, etc.);
3. Agents in the economy should identify the constraint and be actively attempting to bypass it;
4. Agents that are less limited/dependent on a constraint should thrive in the economy.

These tests were applied to each sector and factor in the HRV constraints analysis tree (Figure 1), where feasible, in order to identify key constraints.

² Millennium Challenge Corporation, 2009.

2.2. Key Findings of the Constraints Analysis

2.2.1. Access to Finance

The first question addressed in the Constraints Analysis is whether the binding constraint is (i) access to finance, or (ii) the total economic returns of projects. While real interest rates for commercial loans are somewhat higher than the rest of Central America, medium and large firms report very little difficulty with access to finance in surveys and we do not find evidence that access to finance is a binding constraint for the Honduran economy. However, the data show that small firms face higher collateral requirements than in other countries and higher interest rates, and rank access to finance as their main constraint. Overall, while access to finance is difficult for small businesses, it is not likely the most binding constraint for the economy as a whole given the severity of other constraints.

2.2.2. Returns to Economic Activity

If the constraint to private investment in Honduras is not due to costly finance (except perhaps for small enterprises), then this suggests the problem lies on the left branch of the tree presented in Figure 1, meaning it must be because of low expected private returns to economic activities. This may be because the share of the returns that the firm can retain (appropriability) is low or because the total social returns to projects are low. Each of these two possibilities is discussed below.

i. Low Appropriability

To determine if appropriability in Honduras is low we consider a number of macroeconomic risks and microeconomic risks (governance). Each of these elements explores risks to investors in which they will not capture a portion of the return to their investment.

Macroeconomic Stability:

An unstable or uncertain macroeconomic environment can restrict investment for several reasons, including, but not limited to:

- Excessive price volatility, making cost and income streams less predictable;
- A fragile fiscal situation limiting the government's capacity to conduct countercyclical policies, and making it difficult for the government to properly provide public services; or
- Exchange rate volatility can create risk, especially for firms tied to the global economy through trade or capital flows.

Based on the evidence on hand (modest expected inflation of 6.4% for 2013, debt to GDP ratio of about 31%, short-term external debt to reserves ratio of 13.6%, and a sound banking system),³ macroeconomic instability is not a binding constraint to growth. However, to prevent this from

³ IMF First Review under Standby, April 2011.

becoming a constraint in the future, Honduras will need to restore fiscal discipline, reduce the floating debt by paying vendors on time, and avoid real exchange rate overvaluation.

Tax Policy: Tax rates are not high in Honduras and therefore do not cause an appropriability problem or indicate that this factor is a binding constraint. Tax revenues in Honduras (about 15% of GDP) are similar to the Central American average, but less than the average of Latin American countries with similar GDP per capita and well below more developed countries. Central government spending as a percent of GDP in Honduras is estimated at 26.3% (IMF, 2012). Again, this is close to the Central American average (24.7%), but well below Latin American (30.7%) and OECD (34.2% - 56.1%) country averages. This begs the question as to whether revenues are sufficient to fund needed infrastructure and human capital investments that could increase productivity and stimulate economic growth. Recent efforts to improve the efficiency of the tax administration show the Honduran government's commitment to providing a more efficient and effective tax system, but additional work is required to effectively reduce tax evasion. Also, the Honduran tax system has numerous special tax treatments that seek to incentivize the economic development in exports and tourism in particular. While many of these have economic merit, a careful review of these exemptions could help identify those that have not been effective.

Micro Risks/Governance includes a broad number of elements that can lead to problems of appropriability for investors and also affect the provision of factors of production. Many of the elements of governance interact in complex and difficult to measure ways. In most cases, we are not able to estimate a shadow price and must proceed in a more informal but still data-driven methodology.

- **Voice and Accountability:** Provided that the *Tribunal Supremo Electoral* (TSE) and other GOH entities are able to follow through on the commitments outlined in the joint declaration of GOH and G-16,⁴ the electoral processes should not be a binding constraint to growth. The continued violence against members of the media, including murders, have motivated the GOH to request technical assistance from the governments of the United States, Spain, and Colombia for further investigation of these cases. Several arrest warrants have been issued related to the death of journalists, followed by the apprehension and prosecution of persons found responsible for some of the cases, but most cases remain unresolved. Additionally, given the number of journalists killed relative to the population, it is likely that some of these killings have been motivated by their profession. This is a symptom of the *Crime and Security* constraint identified later in the paper.
- **Political Stability:** More work remains to be done in the implementation of the recommendations of the Truth Commission (*Comisión de la Verdad*) to further minimize the risk of political instability, but this does not appear to be a binding constraint. Less than 1% of

⁴ Joint Declaration of the Government of Honduras and the G-16 International Donor Group. August 29, 2012.

executives surveyed by the World Economic Forum (WEF) cited government instability/coups as the most problematic factor for business.

- **Regulatory Quality:** The World Governance Indicators (WGI) for Honduras indicate that regulatory quality has improved in recent years and is about average for Central America. In both interviews and surveys, firms complain about the inconsistency and inefficiency of business regulation, but this seems to be a problem of the implementation of the laws and not with the laws themselves. A relatively high minimum wage and rigid labor regulations likely impede investment and induce informality. Honduras has a high rate of informal employment, as does all of Central America— informal employment reached 77% of total nonfarm employment in 2009. This high level of informality indicates that many firms believe that the benefits associated with registration fall short of the costs and may signal problems associated with regulatory burdens on businesses or overly tight labor market regulations.⁵ However, firms rate rigid labor regulations as only 8 of 16 potential constraints and competition from the informal sector as 5 of 16. The high minimum wage probably increases informality and reduces formal sector employment, but is not the binding constraint for most investments.
- **Government Effectiveness:** Compared to all countries, the WGI government effectiveness indicator for 2011 places Honduras at the 34th percentile while the Latin American average is the 58th percentile.⁶ Also of concern, the “State of State Reform in Latin America” by Eduardo Lora (2006) reports that the World Bank ranks Honduras as having the lowest government functional capacity score in Latin America.⁷ In the consultations with the private sector, government efficiency and policy certainty (*seguridad jurídica*) were cited as severe constraints to increased investment.
- **Rule of Law:** Honduras ranks at the 21st percentile globally on the WGI Rule of Law indicator, well below the Latin American average of the 51st percentile. We looked at three separate areas of rule of law: Commercial Legal Environment, Property Rights, and Crime. Contract enforcement is slow and expensive in Honduras but arbitration seems to be working adequately. Property rights are a major constraint for large agricultural investments but not otherwise. Crime imposes a high cost on business, is rated by businesses as a main constraint, and businesses are actively trying to bypass the constraint.
- **Control of Corruption:** In July 2011, with the participation of civil society organizations, the GOH approved a comprehensive Anti-Corruption Plan. The GOH and MCC also initiated a program to improve public policy (PIP) in 2011 for controlling corruption and increasing

⁵ The benefits may include better access to credit, access to social security benefits for workers, increased market access and reduced risk of fines for not being registered. The costs include, but are not limited to, payment of taxes, and complying with wage and other labor and government regulations.

⁶ The WGI data is reported in terms of percentile rank, ranging from 0 (lowest rank) to 100 (highest rank).

⁷ <http://idbgroupp.org/WMSfiles/products/research/books/b-616/files/cap4.pdf>

transparency through reforms in the administration of national finances. The International Budget Partnership recognizes in the Open Budget Index that GOH budget transparency increased significantly during the Lobo Administration. Despite having implemented a series of anti-corruption actions, Honduras ranks at the 22nd percentile globally on the WGI Control of Corruption indicator. Both the WEF and World Bank Enterprise Surveys (WBES) show that firms consider corruption to be one of the main obstacles to economic growth. The total cost of corruption includes both (i) direct costs to firms of time and money to navigate regulatory requirements (and in the case of vendors, to obtain contracts and be paid), and (ii) indirect costs of suffering from poorer infrastructure and a less educated workforce than would otherwise be possible.

ii. Social Returns

Returning to Figure 1 to frame our findings: we did not find Access to Finance to be a binding constraint, but with respect to appropriability, we found Crime to be a binding constraint and have concerns with Government Efficiency and Control of Corruption. The final area to explore is social returns, which looks at the necessary factors of economic production that are state provided or regulated: Infrastructure, Human Capital, and Geography.

Infrastructure

- **Telecommunication:** Telecommunication services (internet and phone) are offered at competitive international rates and subscription rates are average for the region. The cost of a three minute call to the US fell from US\$ 0.39 in 2007 to US\$ 0.30 in 2012.⁸ As the rates and access are both competitive, telecommunication infrastructure is not seen as a constraint in Honduras.
- **Energy:** Current electricity prices are high relative to historical norms, but not relative to other Central American countries.⁹ However, there are serious challenges in the energy sector. The state owned National Electrical Energy Company's (ENEE) high non-technical losses in distribution, subsidies to residential and commercial users, and poor collection rates all contributed to the deficit of US\$ 234 million for 2012.¹⁰ Energy prices have been kept at a competitive level through significant subsidies and government debt accrual. If the sources of ENEE's financial losses and its dependence on thermal power are not addressed, the resulting government debt or increase in electricity prices could constrain growth.
- **Transportation:** Transportation is seen as a constraint by 15% of businesses in Honduras, lower than any comparator country apart from Panama, and only 3.5% see transportation as

⁸ La Comisión Nacional de Telecomunicaciones, National Telecommunications Commission

⁹ Electricity rates average 17 cents per kWh for industrial use and 10 cents per kWh for residential use.

¹⁰ Honduran Secretary of Finance (SEFIN)

the primary constraint.¹¹ The Honduran road network is 14,238 km long, 22% of which is paved. Road maintenance is provided to 95% of the road network as of 2010, and losses due to breakage/spillage are very low for the region. Honduras has access to the only deep water port in Central America (Puerto Cortès), which manages the majority of Honduran exports and imports. In order to reduce shipping delays and expand capacity, the GOH has approved an Inter-American Development Bank (IDB) loan and two Private-Public Partnerships (PPPs) to expand the port's infrastructure and improve management of the port. Provided that the recently signed highway PPPs and the planned improvements in physical capacity and operational efficiency to Puerto Cortès (both through PPPs and IDB financing) are properly implemented, transportation should not be a binding constraint to growth in the medium term. However, given the lack of experience in implementing PPPs, particularly in line ministries and the Superintendent of Public-Private Partnerships (SAPP), further actions are needed to mitigate this risk.

- **Water and Sanitation:** Access to improved water sources is available for 87% of the population in Honduras, with a 97% access rate in urban areas and a 77% access rate in rural areas.¹² Available freshwater in the country is well above demand, and at 90,000 hectares irrigated per year Honduras ranks 3rd in Central America for irrigated land. Sanitation and the quality of water are slightly worse than the Central American average, with over 140,000m³ of sewage being discharged into rivers per year. As a result of water pollution, diarrhea treatment costs have reached US\$ 80 million per year as of 2008. While these costs are higher than the average for Central America, Water and Sanitation is not seen as a binding constraint to growth in Honduras.

Human Capital

- **Education:** The main results of the section on education clearly establish that there is a considerable gap to close in order to improve the system of formal and informal education in Honduras. Honduras has nearly universal primary education and has brought down illiteracy rates to 15%; however, enrollment in grade 9 is only 40%. Quality is also a challenge as indicated by Honduras's performance in 2011 international math and reading tests in which Honduras scored near the bottom of countries tested.

In addition, there are problems with the efficiency of the education system as teachers' wages are among the highest in the region and strikes have resulted in the loss of over 100 school days since 2006. The GOH has recently taken steps to reduce teacher strikes and purge the payroll of those not truly working for the ministry to address these problems.

¹¹ World Bank, 2010a

¹² Instituto Nacional de Estadísticas (INE), National Household Surveys, 2009.

The wage premium (limiting the sample to those employed) for secondary and tertiary education in Honduras range from 10% to 20% per year of education. However, a closer look at the effects on expected earnings (including those with and without income) shows that additional education has a strong impact for women but little impact for men. Likewise, only 28% of Honduran companies identified inadequate training of the labor force as an important restriction, compared to the regional average of 36%. This result could be indicating that companies in Honduras, due to their current productive structure, are demanding labor with relatively lower levels of education.

While educational attainment beyond primary is low and quality of education is poor, firms do not rank education as a binding constraint. This may be partly due to the severity of other constraints, but could also reflect that survey respondents were in industries not requiring a high level of educated labor. In the short run there is evidence that the supply of workers with the necessary education or skills to satisfy the demand of the enterprises is adequate. In particular, the high unemployment rates for workers with a secondary and higher education, suggests that the low growth rates of the Honduran economy are not generating sufficient demand for qualified labor that will absorb the supply available. As it takes a number of years to change the stock of human capital, efforts to improve the quality of education cannot be delayed until education is a binding constraint and improving the quality of education should continue to be a focus of the GOH.

- **Health:** A low incidence of death due to transmissible diseases of 16.1%, HIV prevalence of 0.68%, and successful vaccination programs lead us to conclude that health is not a constraint in Honduras. However, the high prevalence of stunting at 25% nationally (but as high as 50% in some rural areas) indicates a serious problem.¹³ This is not due to food shortages, but rather reflects nutrient deficiency, a result of consuming a diet that lacks sufficient quantities of certain nutrients needed for normal childhood development, particularly from conception to two years of age. This early life malnutrition not only causes stunting but also impairs cognitive development.¹⁴

Geography: Honduras has relatively abundant arable land and freshwater per capita, and its geography provides excellent access to global markets, demonstrating that geography is not a binding constraint to growth. However, there are a number of concerns that merit continued attention, in particular improving forestry management and natural disaster preparedness, mitigation, and prevention.

¹³ INE, National Demographic and Health Survey, 2006.

¹⁴ Victora, C.G., et al., 2008; Hoddinott, J., et al., 2008.

2.2.3. Conclusion

Weighing all of the evidence, we believe there are two main binding constraints to growth in Honduras:

Crime and Security: When asked the main obstacle to investment, firms ranked crime as 1st of 16 in the WEF executive opinion survey and 4th of 16 in the 2010 WBES. Honduras currently has one of the highest homicide rates in the world. The shadow price is high as the cost of security plus losses are estimated by the WBES to be 6% of sales, three times the Latin American average of 2%. Firms expend considerable amounts on security services trying to get around this constraint and many choose their location with crime as a consideration. Also, some foreign investors have simply decided to locate elsewhere, particularly with news stories putting Honduras as the most dangerous country in the world.

Government Efficiency and Transparency: The governance section of appropriability found serious concerns with control of corruption and government effectiveness. The last several Honduran governments have undertaken efforts to control corruption and have made some important progress. However, businesses still rank corruption and inefficient government bureaucracy as the 2nd and 3rd most problematic factors for doing business (behind crime, WEF). Relative to other countries Honduras scores poorly on measures of corruption (both WGI and Transparency International). In social returns, we do find some areas of concern with infrastructure and education, but further investigation into each of these areas shows that the root problem seems to lie with the institutional structure of government (not just the performance of the current administration) that leads to inefficient and inconsistent provision of government regulation and services.

One root cause may be weaknesses in the civil service regime that lead to very high turnover in staff and appointment of staff that are not experienced or properly trained, because they are selected based on party affiliation rather than merit. Another issue may be the transparency and efficiency of procurement within some government agencies.

3. Honduras Ratings in International Benchmarking Exercises

This section provides an overview of the findings of various international benchmarking studies. International comparisons of elements of the investment climate can provide a useful starting point for exploring constraints to growth, but care must be used in interpreting the results because ranking low on an international benchmark does not necessarily mean something is a constraint. Hausmann, Klinger and Wagner (2008) raise several concerns:

- The construction of the indices involves combining diverse elements, usually as a simple average, in a way that assumes one unit of element 'x' substitutes for one unit of element 'y'. "In real life, these elements are more likely to be complements than substitutes: one license can stop all investments in a sector; it is not compensated by performance along other dimensions."
- The indices often assume separability, which "means that the effect of improving things in one dimension is independent of the state of the other dimensions. The implicit assumption is that the mapping between each dimension and performance is monotonically increasing in all dimensions, all the time. This is highly unlikely to be the case. Second-best interactions are bound to be very important."
- "Poor performance of a country in an area can be an indication of an inadequate supply, and hence a problem, or just low demand for that particular factor given the country's structure."
- Opinion based indices have problems of respondents telling the truth as well as judging performance relative to their own frame of reference, which differ across respondents. For example, "what is outrageous corruption in Sweden may not raise too many eyebrows elsewhere."

However, they conclude that "Nevertheless, in spite of problems in the construction and use of international rankings, they are becoming a new and useful source of information that a good growth diagnostic exercise can make good use of, provided they are well used."

The international benchmarking studies used in this paper include World Economic Forum Global Competitiveness Index (GCI), World Bank Doing Business Indicators (DB), World Bank Enterprise Surveys (WBES), and World Governance Indicators (WGI, described in Governance and Institutions). While specific elements of the indices are used throughout the paper, this section presents an overview of their findings.

3.1. World Economic Forum Global Competitiveness Index (GCI)

The GCI considers three stages of development: factor driven, efficiency driven, and innovation driven, with Honduras being at a transition between factor driven and efficiency driven. The majority of information is drawn from the WEF Executive Opinion Survey that surveyed 96 Honduran businesses. The components of the index include sections on basic requirements, efficiency enhancers, and innovation and sophistication factors that correspond to the three stages of development (so the first two are the most important for Honduras). Among the components of the sections on basic requirements and efficiency enhancers, Honduras performs the lowest on labor market efficiency, higher education and training, and institutions (Table 1). Looking even deeper at the sub-analysis (Appendix 1: WEF Global

Competitiveness Indicators), we see the poorest performing areas are wastefulness of government spending, corruption, crime, strength of investor protection, quality of education, and rigidity of employment.

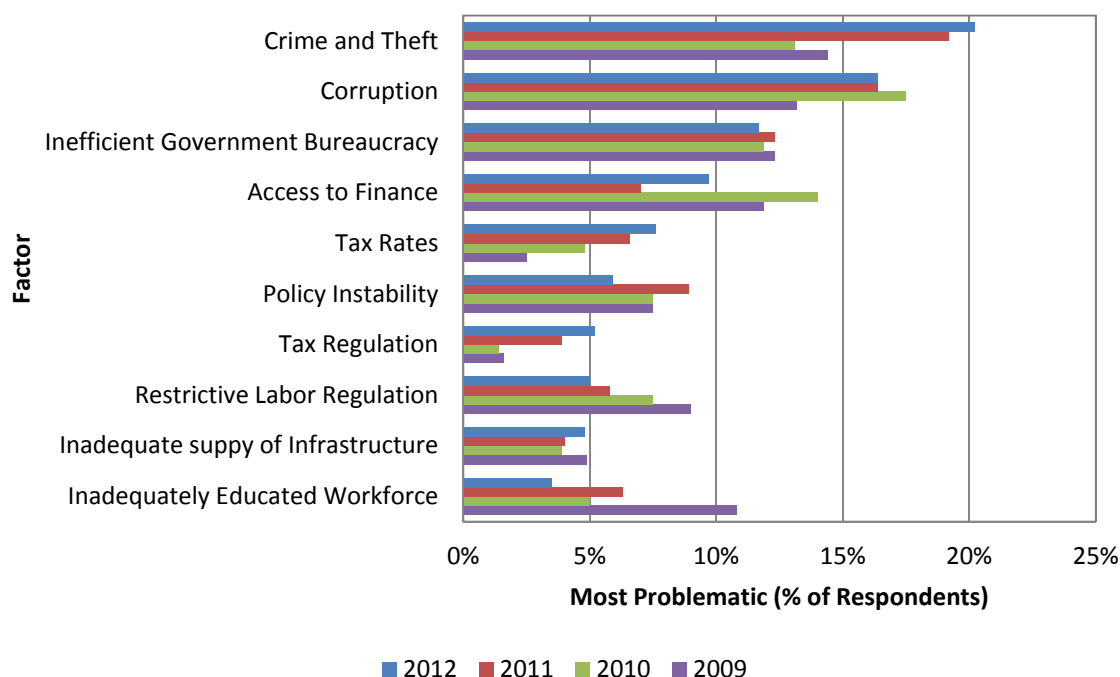
Table 1: Global Competitiveness Index

	Rank (of 142)	Score (1–7)
<i>Basic requirements</i>		
Institutions	118	3.3
Infrastructure	101	3.1
Macroeconomic environment	80	4.5
Health and primary education	96	5.3
<i>Efficiency enhancers</i>		
Higher education and training	106	3.4
Goods market efficiency	92	4.1
Labor market efficiency	134	3.5
Financial market development	51	4.4
Technological readiness	97	3.3
Market size	88	3.2

Source: World Economic Forum Global Competitiveness Report 2012-2013

The WEF Executive Opinion Survey asks respondents to select the five most problematic factors for doing business in their economy and rank those from 1 (most problematic) to 5. The results were then tabulated and weighted according to the ranking assigned by respondents. While the table above shows how Honduras ranks relative to other countries, Figure 2 specifically presents the most problematic factors reported by Honduran businesses. The top three factors (corruption, crime, and inefficient government bureaucracy) rank high for both indicators. However, quality of education and rigidity of employment both rank very poorly compared to other countries but are cited as the most problematic factor by only 3.5% and 5.0% respectively. Both quality of education and rigidity of employment have fallen in ranking as an obstacle from 2009 when they were 9.0% and 10.8%, but this is likely a result of other factors (crime) becoming more binding and not improvements in the quality of education or labor market regulations.

Figure 2: WEF Executive Opinion Survey Most Problematic Factors for Business, 2009 - 2012



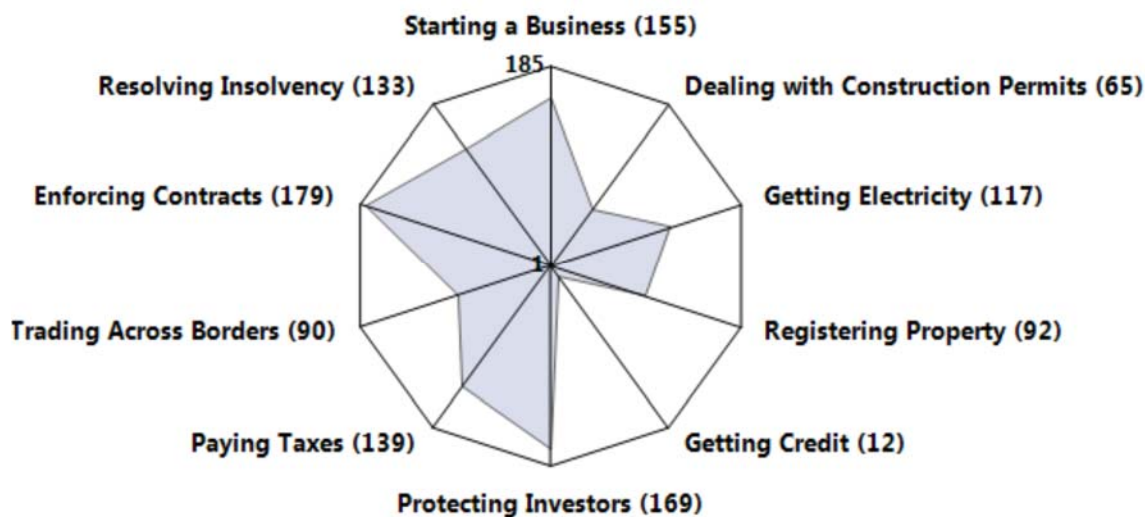
Source: World Economic Forum Global Competitiveness Report 2012-2013

3.2. World Bank Doing Business Indicators (DB)

As described in their report “Doing Business” sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations. It measures and tracks changes in regulations affecting 10 areas in the life cycle of a business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency.”¹⁵ Compared with 185 other countries, Honduras performs worst on Enforcing Contracts (179), Protecting Investors (169), Starting a Business (155), and Paying Taxes (139) and Honduras performs notably well on Access to Credit (12). We look in more detail at the underlying causes of the low performance in these areas in the Institutions section of the study.

¹⁵ Firms with 10-50 employees in the capital are surveyed to create the Doing Business rankings.

Figure 3: World Bank Doing Business Indicators



Source: World Bank (2013) Doing Business Indicators

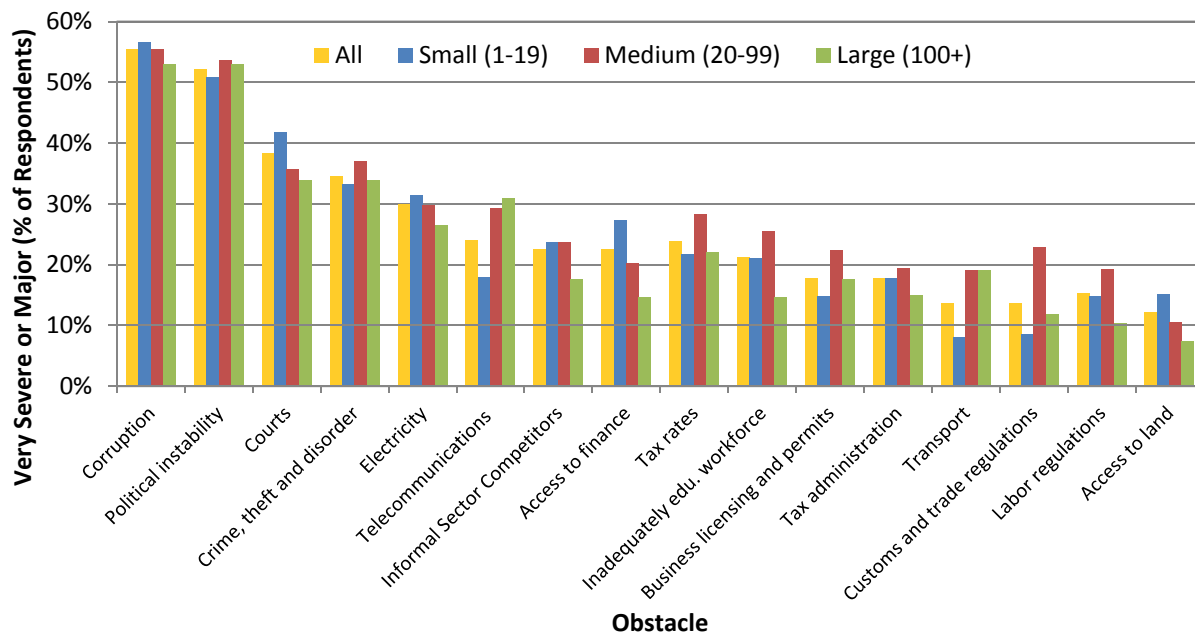
In addition, Doing Business presents data on employing workers, but does not present rankings of economies on the employing workers indicators or include the indicators in the aggregate ranking on the ease of doing business. In 2010, most recent data, Honduras ranked 168 of 183 in labor market regulations.

3.3. World Bank Enterprise Surveys (WBES)

As described in the 2010 WBES report “The Enterprise Surveys collect a wide array of qualitative and quantitative information through face to face interviews with firm managers and owners regarding the business environment in their countries and the productivity of their firms. The topics covered in Enterprise Surveys include infrastructure, trade, finance, regulations, taxes and business licensing, corruption, crime and informality, innovation, labor, and perceptions about obstacles to doing business.” A representative sample of 360 formal sector firms was interviewed between July 2010 and May 2011. It is important to note that this survey includes 190 manufacturing firms, 62 retail firms, and 108 firms from other services.

We begin by looking at responses to the set of questions about the degree to which various factors are obstacles to the operation of the enterprise (Very Severe Obstacle, Major Obstacle, Moderate Obstacle, Minor Obstacle, No Obstacle, Don't know) shown below in Figure 4 by firm size. The top four responses are Corruption, Political Instability, Courts, and Crime. We also looked at the results for the one-sixth of the sample that are exporters, and the ranking of the top four were the same; however, they did cite Transport (24%) and Customs (28%) more frequently as an obstacle than other firms.

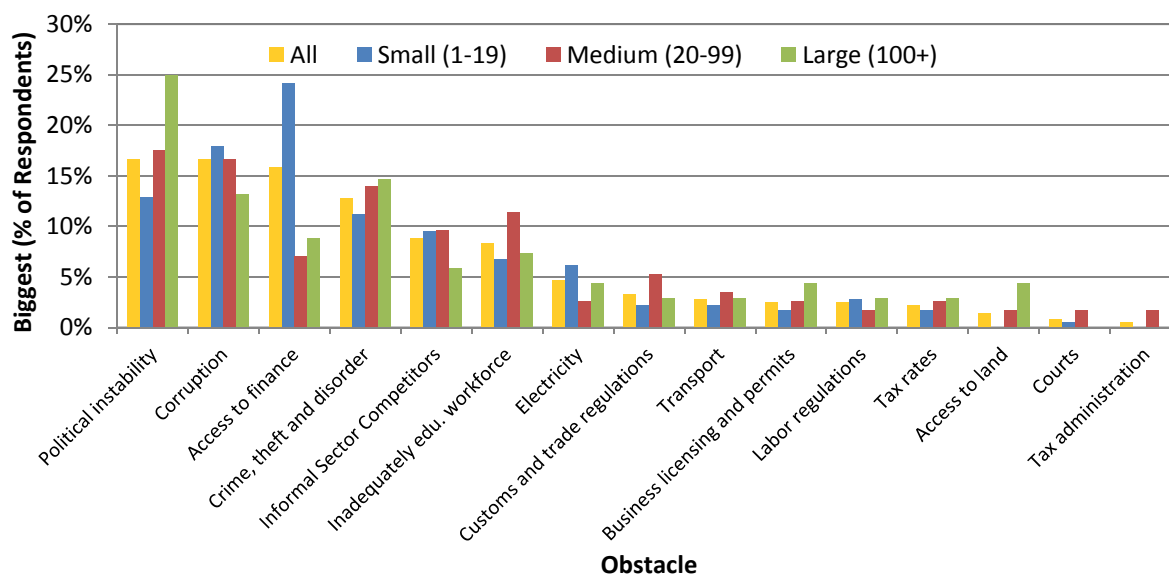
Figure 4: WBES Obstacles to Firms (% Very Severe or Major), by firm size



Source: World Bank Enterprise Surveys, 2010

The survey also asks “from the list of 16 what is the biggest obstacle affecting the operation of the establishment” shown below in Figure 5 by firm size. While Corruption, Political Instability and Crime remain highly ranked obstacles, Courts are ranked much lower and Access to Finance is the most frequent response for small businesses. Courts are cited as a severe or major obstacle by 38% of firms but as the main obstacle (when only allowed to choose one) by only 1% of firms. Given that only 20% of firms agreed that “the court system is fair, impartial and uncorrupted” and the Doing Business study ranked Honduras 179 of 185 in enforcing contracts, it would seem worth further investigation to determine what impact the courts have on the investment climate.

Figure 5: WBES Biggest Obstacle Affecting Operation of the Establishment, by firm size



Source: World Bank Enterprise Surveys, 2010

4. Consultations

A series of consultations were held with the private sector, public sector and civil society. The meetings served to inform participants of the Constraints Analysis and potential Threshold Program and also to solicit their views.

4.1. Private Sector Consultations

A critical component for the development of this study of constraints to private investment in Honduras is speaking with representatives from the private sector regarding their perception of the constraints they face in operating and expanding their businesses. The private sector is the main source of growth, employment and wealth within a country, so the Constraints Analysis would be incomplete without the views of this sector.

Interviews were conducted between July 9 – 13, 2012 in Tegucigalpa, Amarateca, Comayagua and San Pedro Sula with representatives from tourism, agricultural (small and large producers), agro industrial, manufacturing (textiles, dashboards, toys, furniture), call centers, transport/logistics, and small businesses from various sectors. Some of the concerns raised by the meeting participants (not necessarily the views of the authors) include:

- Infrastructure: Concerns about the management and infrastructure of Puerto Cortés, poor road quality, and expensive and inconsistent energy.
- Human Capital: Poor vocational education system and poor quality of basic education.
- Legal Certainty (*Seguridad Jurídica*): All sectors raised strong concerns about regulatory inconsistency citing specifically frequent changes to regulations and laws, land invasions and expropriations, inconsistent legal interpretations, transport law, and the political crisis of 2009.
- Access to Finance: This was only raised as an issue by SMEs and the agriculture sector.
- Government Efficiency: The private sector raised a number of concerns related to government efficiency including:
 - Changes to civil service personnel generate confusion and delay. The technical office workers (SENASA, customs, health, SERNA) are regularly dismissed; losses due to the learning curve affect the sector.
 - The system of customs administration SARAH (Automated Revenue Customs of Honduras) does not have adequate staff or enough equipment to do their jobs. The system does not work at times.
 - Transparency of government procurement, particularly excessive use of direct contracting.
- Crime/Security: This was raised as a concern by most sectors as it affects their costs through requiring security guards, theft, and worker transport costs, and it reduces FDI. They thought the international press coverage related to Honduras being “the most dangerous country in the world” was especially detrimental to FDI.

In addition, there were also some sector specific concerns raised including:

- Agriculture:
 - Land ownership is limited to 100-2000 hectares,¹⁶ depending on the region, unless an exemption is granted by Minister of Agriculture; some large producers cite this as a constraint to growth for agribusiness firms.
 - The National Agricultural Health Services Administration (SENASA) is believed to not have the technical capacity to perform many key tests, and as a result these need to be done out of the country, thereby constraining investment.
 - Lack of market research to identify potential crops to sell abroad and conduct studies to determine whether the country has the conditions for these crops.
 - Off-farm irrigation could benefit from improvements.
 - Technical support is needed to deal with extraordinary agricultural pests.
- Tourism: Need to improve road to Copan and construct an airport near Copan.

4.2. Civil Society Consultations

The team authoring the CA held a series of meetings with members of Honduran civil society. As with the private sector meetings, the purpose was twofold: to inform these groups of the CA and the potential Threshold Program as well as solicit their input on the constraints to investment in Honduras. The recurring concerns expressed by participants were:

- Personal Security is a growing problem. All thought impunity was a part of the problem and some participants expressed doubts as to whether “repressive policing” was effective.
- All participants thought corruption remains one of the main challenges to economic development for Honduras.
 - Agility in the anti-corruption prosecutor (*Fiscal Contra La Corrupción*) and judicial authorities is needed to effectively prosecute corruption cases and reduce the impunity that currently pervades Honduras.
 - The Public Ministry has not adequately used the information in the reports of the Supreme Audit Institution (*Tribunal Superior de Cuentas*) to prosecute corruption.
 - The Anti-Corruption Commission (CNA) should be given greater autonomy from government to ensure its independence and effectiveness.
 - Corruption and inefficiency is a problem in government procurement.

¹⁶ Agricultural Decree 170.

- In general, *Ley de Transparencia y Acceso a la Información Pública* is being implemented and is an effective means by which citizens can monitor the government's actions and improve accountability. However, these sites do not exist for all state entities and some do not provide complete information as required by the law.
- A number of concerns were raised related to the selection and management of government personnel. In particular, the selection of government personal is too politicized and should be more merit based.
- Delays in payments to government suppliers are discouraging participation in government tenders.
- The government is failing to provide public services efficiently including: education, health, social security, vocational training, and electricity.

5. Economic Overview

5.1. Introduction

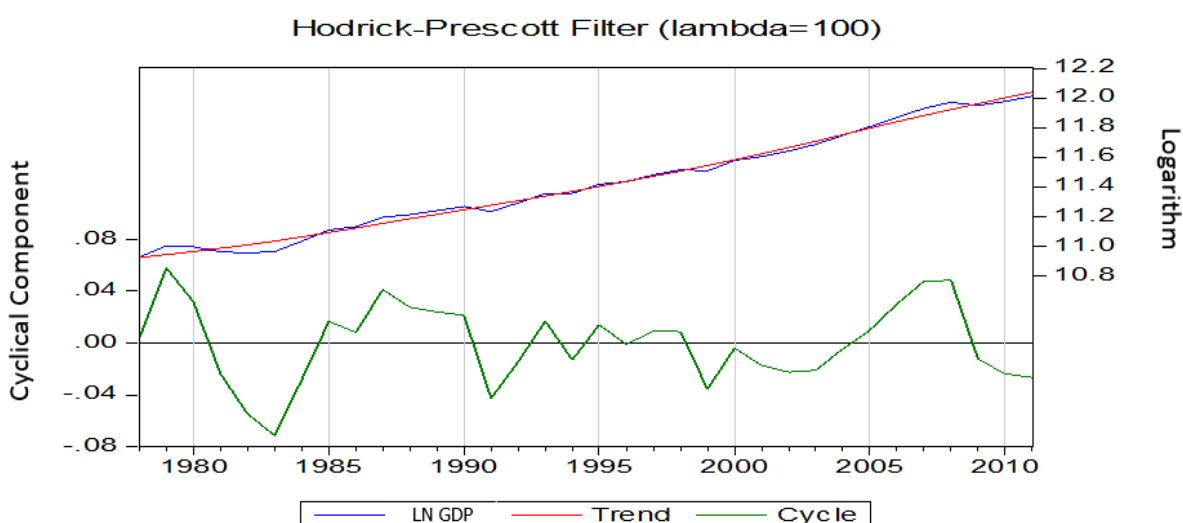
According to *Instituto Nacional de Estadísticas* (INE), in 2011 six out of every ten Honduran households lived in poverty and four in extreme poverty. Economic growth in Honduras, with a stable and predictable policy framework, is a requirement to advance the reduction of poverty. The purpose of this chapter is to illustrate the characteristics of the recent economic trends in Honduras, considering its long-term development potential.

The structure of this chapter is the following: Section 5.2 presents the main characteristics of the long term economic trend. Section 5.3 defines the behavior of the Honduran economy during the years 2000-2011. Section 5.4 describes the evolution of trade policy and trade expansion. Sections 5.5 and 5.6 summarize the behavior of remittances and foreign direct investment, respectively.

5.2. Long Term Context

During the period 1978-2011, the annual average growth of the real gross domestic product (GDP) of Honduras was 3.2%. However, as annual population growth over the same period was 2.5%, real per capita income only grew at 0.7% per year. In these years production experienced large variability. Figure 6 presents the results of breaking down the actual GDP logarithm series into a component of the long-term trend (stochastic) and a cyclical element, by definition a short-term trend. As shown in the bottom part of the graph, during the 1980s the fluctuations of production were quite significant. In addition, there was a strong fall in production after the 2009 political crisis. In general, production falls throughout the period of 1978-2011 can be associated with political instability or election cycles and devastating natural phenomena, in particular Hurricane Mitch (1998).

Figure 6: Break down of the actual GDP Logarithm of Honduras, 1978-2011 (2000 = 100)

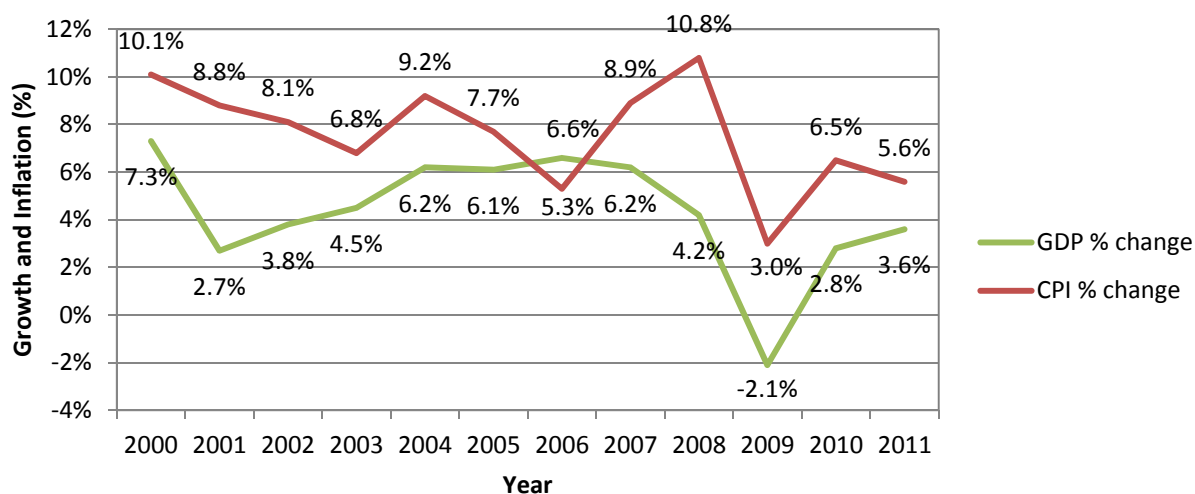


Source: Central Bank of Honduras, authors calculations

5.3. Recent Economic Evolution

During the period 2000-2011 the Honduran economy grew at an average rate of 4.4%, slightly above the long-term trend of 3.9%. After a 2.1% drop in GDP in 2009, as a result of the global economic crisis and the internal political standstill that year, the Honduran economy grew by 2.8% in 2010 and by 3.6% in 2011. In this period, economic performance was accompanied by a downward trend in inflation rates until 2006, reaching a maximum of 11.4% annual average in 2008 before decreasing again (Figure 7).

Figure 7: Honduras: Growth and Inflation, 2000-2011



Source: Central Bank of Honduras data, authors calculations

The composition of the Honduran economy is characterized by the relatively high participation of five sectors: manufacturing industry, agriculture,¹⁷ financial intermediation, trade and communications, which together account for 66% of GDP. In real terms, in the period 2000-2011 the most dynamic sectors were communications and financial intermediation, both of which grew at average annual rates above 15%. The most important sectors for exports were agriculture and industry, which account for approximately 33% of GDP and had growth rates below average at 3.1% and 3.8% respectively (Table 2). Another important sector for foreign trade is tourism, which accounts for 4% of GDP and 10% of exports.

Table 2: Honduras: GDP Growth Rates by Sector

Sector	2000-2011		2011	
	Growth Rate (%)	Standard Deviation	Growth Rate (%)	Relative Participation
Agriculture	3.1	11.4	5.6	13
Manufacturing Industries	3.8	14.3	4.2	20
Trade	2.4	9.5	4.0	10
Communications	15.1	51.1	10.7	10
Financial Intermediation	15.5	53.3	3.5	13

Source: Central Bank of Honduras data, estimations of authors

On the expenditure side, final consumption expenditures (private and public) accounted for 85.3% of GDP in 2011 and grew at an average annual rate of 4.5% during the period 2000-2011 (Table 3). Private investment expanded at a rate of 4.8%, supported by a higher foreign direct investment. On the contrary, public investment stagnated, growing by less than 1%, which reflects that during this period the slower pace of total public expenditure growth was accompanied by a reduction in increases to income, particularly the tax revenue.

The contribution of external demand is reflected in the relatively low growth of the exports of goods and services in real terms, only slightly above that of imports at 3.7%.

¹⁷ Agriculture includes livestock, hunting, forestry and fishing.

Table 3: Honduras: GDP Growth Rates by Expenditure

Concept	2000-2011		2011	
	Growth Rate (%)	Standard Deviation	Growth Rate (%)	Relative Participation
Final Consumption	4.5	16.4	2.1	85.3
Private sector	4.3	15.8	3.4	70.9
Public sector	5.5	19.9	-3.6	14.4
Investment	4.1	20.9	22.8	23.2
Private sector	4.8	23.7	14.2	19.5
Public sector	0.8	15.3	15.2	3.7
Exports of goods and services, fob¹⁸	3.7	15.8	6.0	53.8
Imports of goods and services, cif¹⁹	3.4	17.3	10.2	63.6
GDP	4.4	15.8	3.6	100.0

Source: Central Bank of Honduras data, estimates of authors

5.4. Trade Policy and Trade Expansion

Background: At the beginning of the 1990s, Honduras started to advance towards greater trade openness and integration into international markets. Consequently, the tariff and customs systems have been modernized, the tariff structure is more uniform, and non-tariff barriers have been significantly reduced. This process has been accompanied by important structural and economic policy measures. In addition, trade and investment-related national legislation has been adopted, while new laws have been approved or existing ones reformed. For example, the legal framework for the protection of intellectual property and copyright was strengthened. This effort has been successful in attracting investment, expanding the export base, and diversifying export markets.

In addition to unilateral measures, Honduras has actively participated in different trade negotiations to achieve greater access to international markets. In 1994, Honduras acceded to the General Agreement on Tariffs and Trade (GATT), and since 1995 has participated as a member of the WTO which has served as the main instrument to ensure access to markets in competitive and non-discriminatory conditions, and as the basis to consolidate trade policy regime. At the regional and bilateral levels, Honduras has participated in the Central American Integration process and has signed several bilateral agreements of reciprocal protection for investments and free trade. In April 2006, the United States, Dominican Republic and Central American countries signed a Free Trade Agreement, CAFTA-DR. Other treaties in force include: Mexico; Dominican Republic; Chile; Taiwan, Republic of China; Panama; and Columbia. In addition, a free trade agreement with Canada is pending. At the end of 2011, Guatemala, El Salvador and

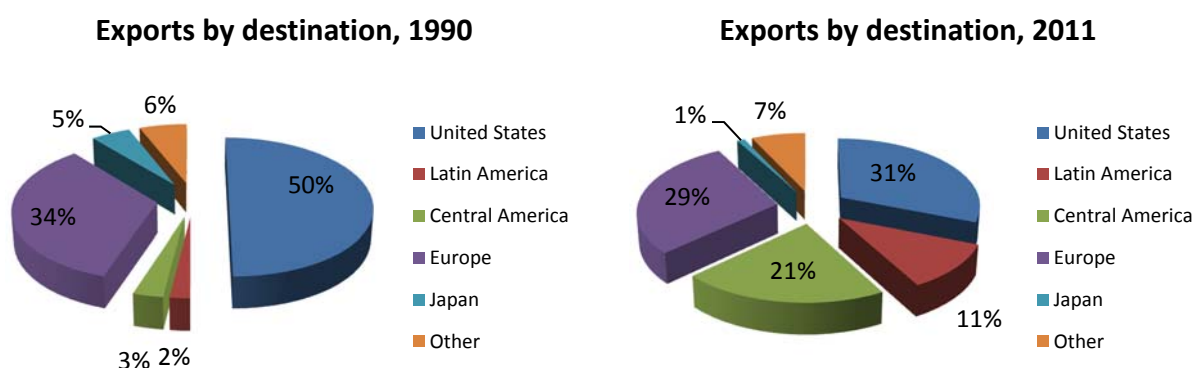
¹⁸ FOB or 'free on board' is a trade term that indicates that the seller has an obligation to deliver goods once they have reached the exporting country and this is when the merchandise should be valued.

¹⁹ CIF or 'Cost, Insurance, and Freight' is a trade term that indicates that the seller is responsible for carrying the goods by sea to the port of destination and providing the buyer with the required paper work to complete the transaction.

Honduras jointly adopted three different trade agreements with Mexico. In June 2012, the Central American countries signed an Association Agreement with the European Union.

In the last two decades, Honduras' export markets have diversified, while employment and investment (domestic and foreign) have increased, in particular for some non-traditional exports. Despite the fall in exports from 50% to 31%, the United States remains the principal market for Honduran exports and imports (Figure 8). Exports to Central American countries have increased from 3% to 21%, and are now the second most important market, particularly El Salvador and Guatemala. The European Union is the third largest trading partner, highlighting exports to Germany. In recent years, exports to Mexico and Canada have significantly increased.

Figure 8: Distribution of Exports by Destination, 1990 and 2011



Source: Central Bank of Honduras

During the period 1990-2011 the annual value in millions of current US\$ of general goods exports grew on average by 6.0%, increasing from US\$ 831.0 million to US\$ 3.803 billion. The value added of the *maquila* (assembly industry) grew 19.0%, jumping from US\$ 16.2 million to US\$ 1.25 billion. In recent years with the rise of international prices, bananas and coffee, in particular coffee, have represented an important percentage of exports. Exports of these two products rose from US\$ 486.7 million in 2000 to US\$ 1.775 billion in 2011. Other goods besides coffee and bananas also grew rapidly with an overall increase from US\$ 292.2 million in 1990 to US\$ 2.028 billion in 2011. Table 4 includes a sample of non-traditional goods and demonstrates the diversification of Honduras' exports.

Table 4: Exports of Select Non-Traditional Goods (Millions US\$)

Product	1990	2006	2011
Palm oil	1.7	66.2	251.1
Farm shrimps	36.1	180.5	161
Tilapia	*/	42.7	62.8
Cigars	*/	85.0	80.6
Melons and pineapples	18.8	53.4	42.9
Vegetables	*/	40.6	71.2
Plastics	*/	67.2	65.5
Manufactured goods and wood furniture	*/	68.7	20.4
TOTAL	56.6	604.3	755.5

Source: Prepared by the authors based on data from the Central Bank of Honduras

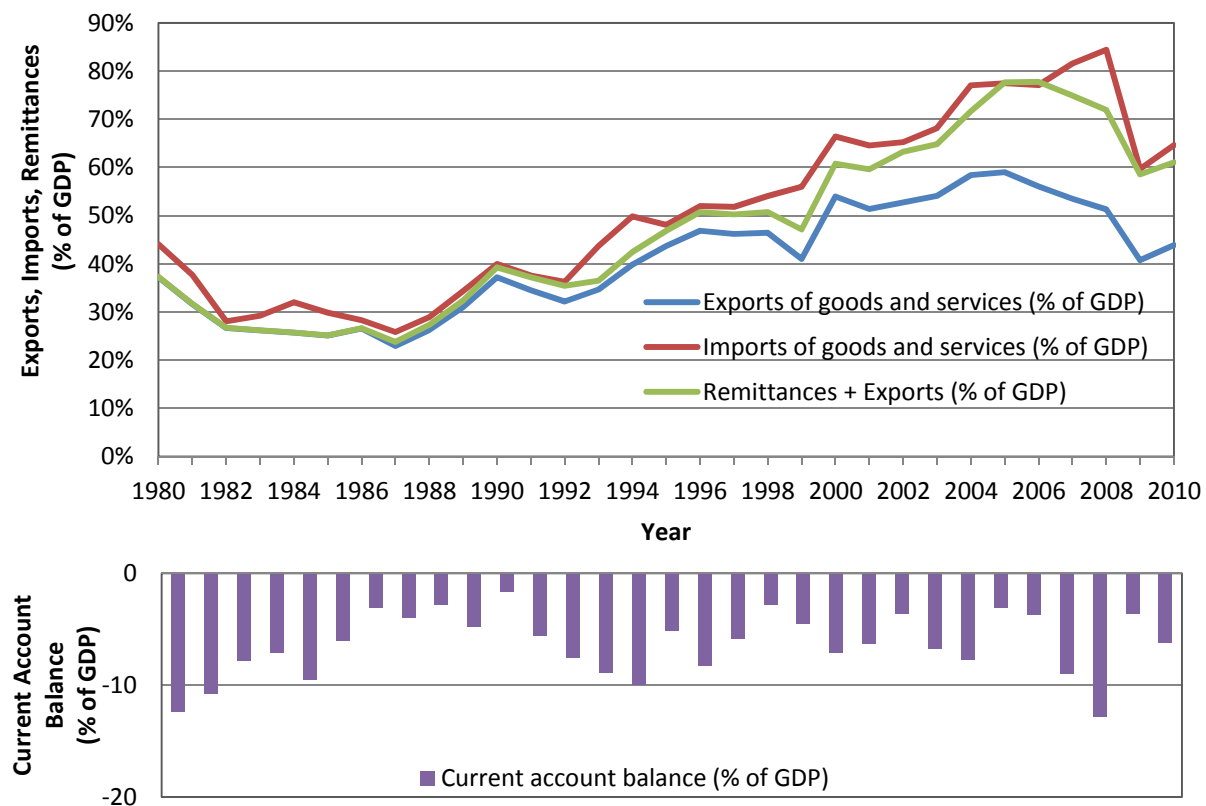
*/: Product was not exported or the exported value was too low.

During the period 1990-2011 the total value of goods imports increased by 10.9% from US\$ 907.0 million to US\$ 8.297 billion. Import trends have been relatively stable, but in recent years the value of fuel and lubricants imports have increased, and during the twenty year period increased from US\$ 383.6 million to US\$ 2.104 billion. In 2011, this sector grew by 19.5% compared to 2010 (US\$ 616.9 million), influenced not only by high international prices but also an increased volume.

Finally, in 2011 the current account deficit reached US\$ 1.503 billion (8.6% of GDP), explained mainly by the deficit in the trade balance. The growth of general commodities exports and net current transfers was not enough to offset the growth of imports.

Partly as a result of the increased openness of the Honduran economy, exports grew strongly from 30% of GDP in 1992 to 60% of GDP in 2005 (Figure 9). The decline in exports from 2005 to 2009 is marked and of great concern. Some of this drop reflected the global financial crisis, but the decline clearly began before the global economic downturn. The growing gap between exports and imports is largely explained by remittances, which is the focus of the next section.

Figure 9: Trade of Goods and Services



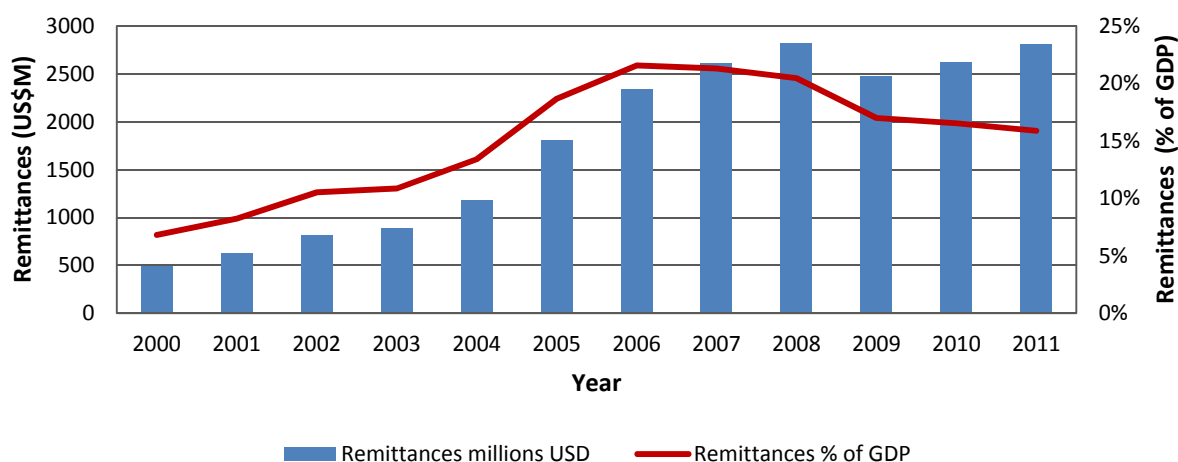
Source: World Bank, World Development Indicators, 2011

5.5. Remittances

Honduran emigration, particularly to the United States, increased after Hurricane Mitch, a storm that devastated the country in late 1998. In January 1999, the United States offered Temporary Protected Status (TPS) to about 100,000 Hondurans. This legislation allowed Hondurans to be legally employed in the US. In June 2011, the extension of the TPS was approved until July 2013. According to figures from the U.S. Census Bureau, in 2010 a total of 963,000 Hondurans were living in the United States.

As a result of increasing migration and reduced costs to transfer money, the flow of remittances to Honduras has increased rapidly. In 2011, remittances reached US\$ 2.8 billion per year, compared with about US\$ 484 million in 2000, growing at an average annual rate of 17.4% from 2000-2011 (Figure 10). The ratio of remittances to GDP increased from 2000 (6.8%) to 2006 when it reached a peak (21.6%) and since then has steadily declined to 15.9% in 2011. Honduras' level of remittances as a percent of GDP is the highest in Central America, similar to El Salvador (Figure 11). Additionally, the ratio of remittances to exports of goods and services increased from 2000 (12.6%) until it reached a peak in 2009 (42.9%) and then declined to about 31% in 2011.

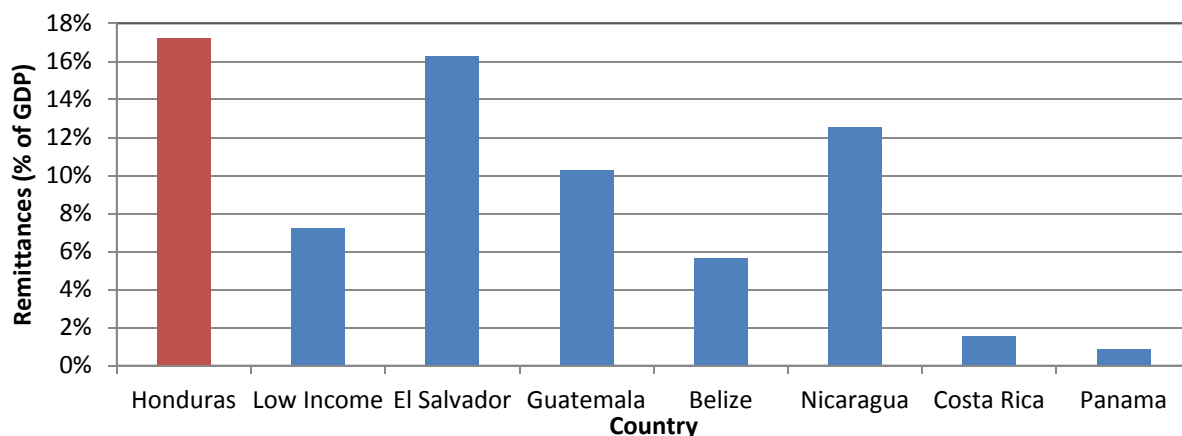
Figure 10: Honduras Remittances, 2000-2011



Source: World Bank, World Development Indicators, 2012

Higher revenues from remittances have underpinned the increase in disposable income of Honduran families. Official figures from INE show that national remittances represent slightly more than 10% of household income. According to figures from the Central Bank of Honduras, in 2011 Honduran workers sent their families about US\$ 303 million monthly. Of the amount received, households allocated 68.3% to basic needs (food, transportation and clothing), 11.5% to education, and 7.7% to health care. The difference (12.5%) was saved or invested.

Figure 11: Remittances (% of GDP), 2011

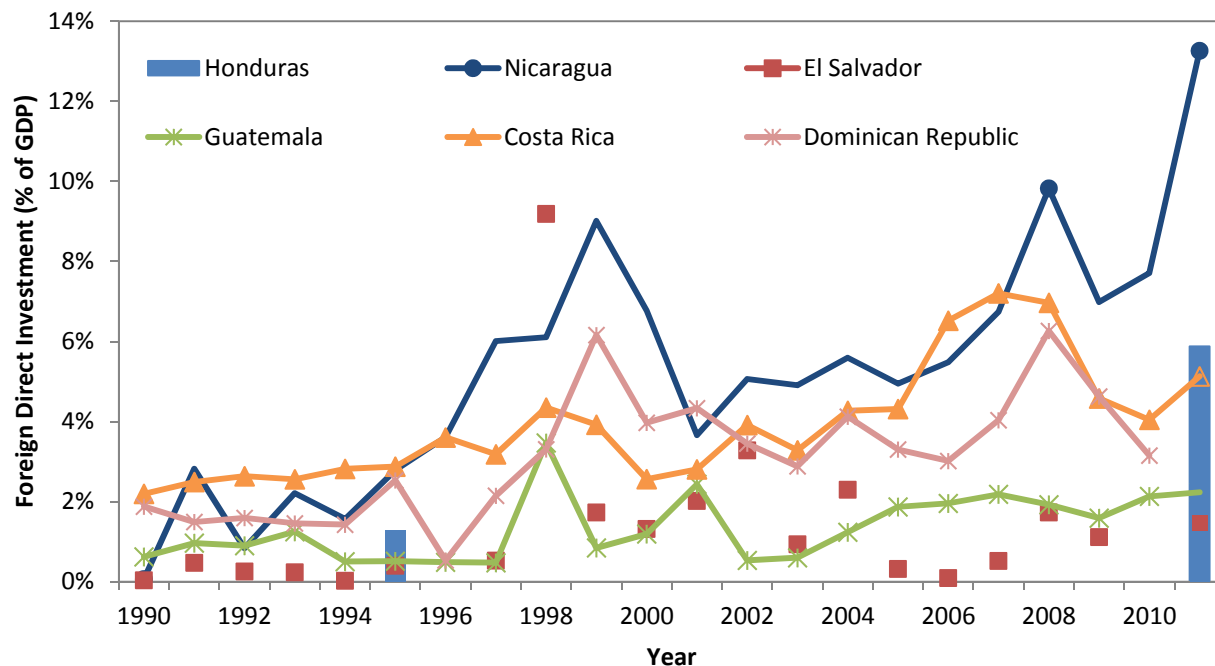


Source: World Bank, World Development Indicators, 2012

5.6. Foreign Direct Investment

In the period 2000-11 foreign direct investment (FDI) to Honduras recorded a positive trend, increasing from US\$ 381.7 million to US\$ 1,014.4 million (Figure 12). From 2010 to 2011 FDI increased by US\$ 217 million, growth of 0.68 percentage points. The investment framework has enabled this trend, through strengthening of national legislation, macro-economic stability and more open trade policy. Manufacturing, communications, mining and electricity were the main recipients of FDI, while FDI in the *maquila* sector contracted by US\$ 95.9 million. Excluding the *maquila*, during the period 2000-11, manufacturing received 23.3%; Transportation, Storage and Communications 22.3%; Restaurants and Hotels 16.5%; and Agriculture and Fisheries 14.7% of total FDI. On the investor side, traditionally the largest amount of FDI to Honduras comes from the United States, averaging 30% from 2000-11, followed by Europe (14.2%) and Central America (11.3%).

Figure 12: Foreign Direct Investment (Net Flows/GDP), 1990 – 2011



Source: World Bank, World Development Indicators, 2012

The *maquila* industry has been capturing an important part of total FDI. Initially, the unilateral trade preference offered by the United States, originally under the Caribbean Basin Initiative (CBI), several beneficial logistics features, low salaries, and special regimes supported Honduras in becoming one of the main exporters of textiles and apparel in the region. The entry into force (April 2006) of the Free Trade Agreement with the United States (CAFTA-DR) generated opportunities for the industry to continue growing. According to data from the Central Bank of Honduras (BCH), from 2006 to 2011 United States investors contributed 52% of the foreign investment in the *maquila* industry (Osorio, 2011). To a lesser extent, businessmen from Asia also invested in this sector (12.2%), namely from South Korea. In recent years, the *maquila* industry companies that captured the most FDI were those from the textile, services (call centers and back office support) and electronic parts and components sectors.

6. Cost of Finance

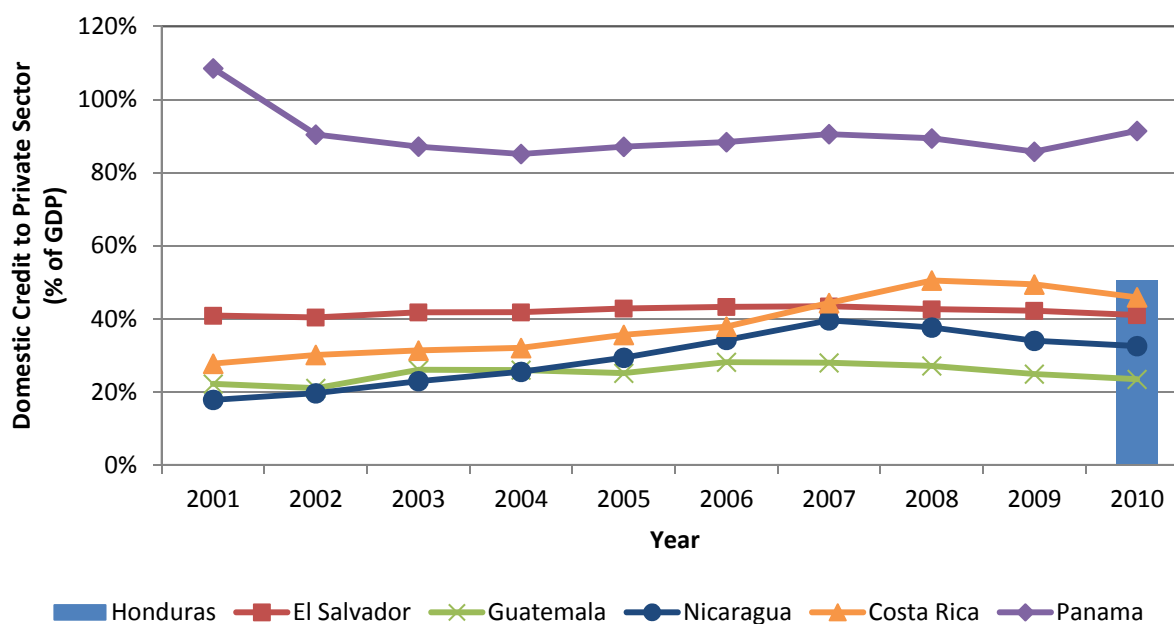
The cost of finance can pose a binding constraint to growth if it is costly enough to discourage potential investors from undertaking high-return investments that would otherwise be profitable. This constraint can arise either through inadequate access to domestic and foreign savings, or through inefficient financial intermediation that prevents the mobilization and efficient allocation of available financial resources. The cost of finance can differ significantly by firm size, so we will also consider this issue.

6.1. Overview of Honduran Banking Sector

Honduras's financial market has grown steadily more privatized in recent years, with the state banks playing less of a role in financing businesses. The Honduran financial system is composed primarily of banks with credit unions playing a relatively limited role. The financial sector has steadily become more concentrated in recent years: the top 10 banks held 80% of the market in 1996 and currently hold 90% of the market. Currently there are 16 commercial banks operating in Honduras, and 6 are domestically owned.

Domestic credit to the private sector (Figure 13) is slightly above average for the region at 52% of GDP, showing that the domestic savings are being made available to domestic enterprises.

Figure 13: Domestic Credit to Private Sector (% of GDP), 2001 – 2010



Source: World Bank, World Development Indicators, 2012

The Heritage Foundation Financial Freedom and Investment Freedom indices places Honduras at 60 of 100 and 65 of 100 respectively, indicating that government intervention in the financial sector, while still occurring, has not detracted significantly from access to finance (Table 5). The Heritage Foundation notes

that the recent reforms taken by the government have strengthened the financial sector, primarily the “Regulations for Credit Operations of Financial Institutions with Related Parts,”²⁰ a regulatory bill passed in 2005 along with 5 bills passed in 2004 that improved bank oversight and reduced the likelihood of bank fraud.

Table 5: Financial Freedom, Central America

Country	Financial Freedom	Investment Freedom
Honduras	60	65
El Salvador	75	70
Guatemala	50	60
Belize	50	50
Nicaragua	55	50
Costa Rica	50	70
Panama	70	65

Source: Heritage Foundation (2012) Index of Economic Freedom

In the World Bank Doing Business report, Honduras was given the highest rank (6 of 6) for the depth of credit information and an 8 of 10 for the strength of the legal sector in enforcing financial rights. Both of these ratings are well above the Central American average (3 and 6 respectively). Honduras ranks well due to a general legal description of collateral, allowing out-of-court enforcement, and ensuring that all credit information (good as well as bad) is distributed. However, the Honduran government enacted the ‘Special Economic Recovery Act’ by supporting micro, small and medium enterprises in September 2012, which removes 100,000 small and medium enterprises from the credit registry. While such an act was intended to be beneficial to the enterprises in question, it reduces the amount of information in the registry and makes it difficult for firms to show that they have a history of paying on time, and this may negatively impact SME access to finance. In addition, the banking sector has only 2.5% of loans recorded as nonperforming loans in 2012, down from 3.6% in 2011,²¹ which indicates a sound but possible overly conservative banking sector.

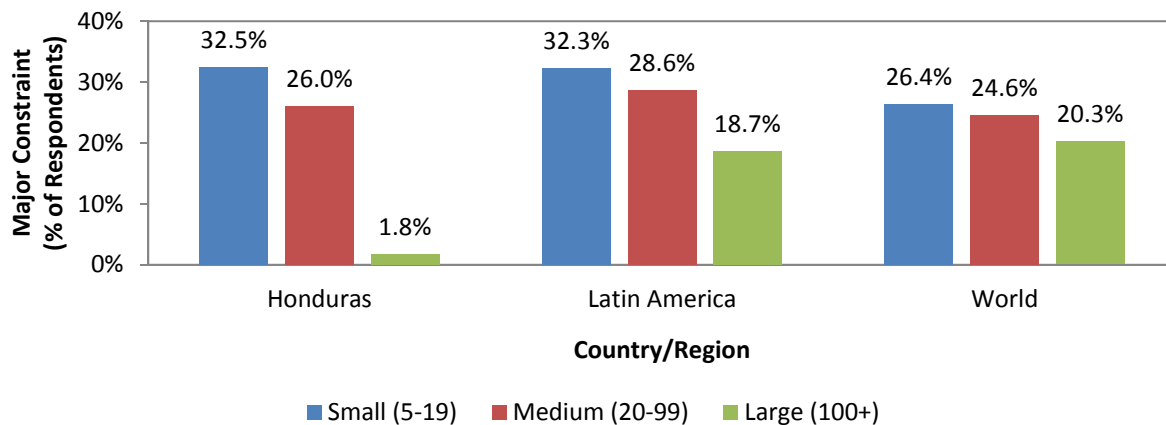
In the 2010 WBES 15% of firms identified access to finance as the most significant obstacle (3rd of 16 potential obstacles) and 27% cite it as a major or very severe obstacle (8th of 16). However, these overall statistics hide some important differences by firm size. Among small firms, 24% cite access to finance as the biggest obstacle (1st of 16) and 32.5% cite it as a major or severe obstacle (6th of 16). Among medium firms only 7% cite access to finance as the biggest obstacle (6th of 16) and 26% cite it as a major or severe obstacle (12th of 16). Among large firms only 9% cite access to finance as the biggest obstacle (4th of 16) and 1.8% cite it as a major or severe obstacle (12th of 16). This survey suggests that small enterprises find

²⁰ Resolution No. 233-7/2005.

²¹ Comisión Nacional de Bancos y Seguros (CNBS) monthly reports, 2012.

finance to be a constraint. Figure 14 below compares Honduras' responses to Latin America and world averages, which similarly suggests that access to finance is a more severe obstacle for small firms, and this appears to be the situation in most countries. Honduran firms identify finance as a severe or major constraint more frequently than the Latin American and global average, except in the case of large firms.

Figure 14: Percent of Respondents Identifying Finance as a Major Constraint

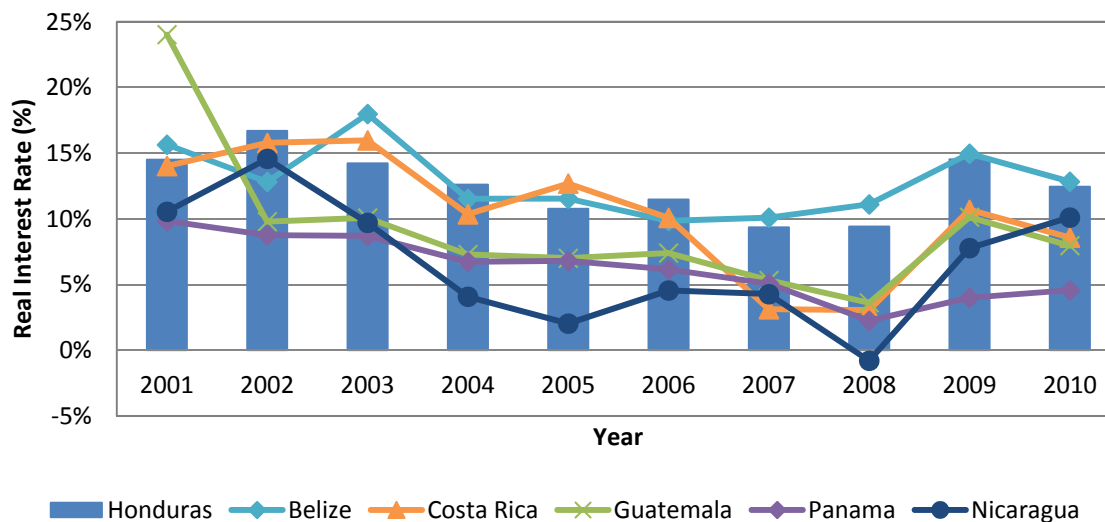


Source: World Bank Enterprise Surveys, 2010

6.2. Applying the HRV Tests

The first test looks at whether the shadow price for the factor is high. Figure 15 below shows that the real interest rates in Honduras have been consistently above other Central American countries'. The Central American average real interest rate in 2010 was 8.3%, about 4 percentage points lower than Honduras.

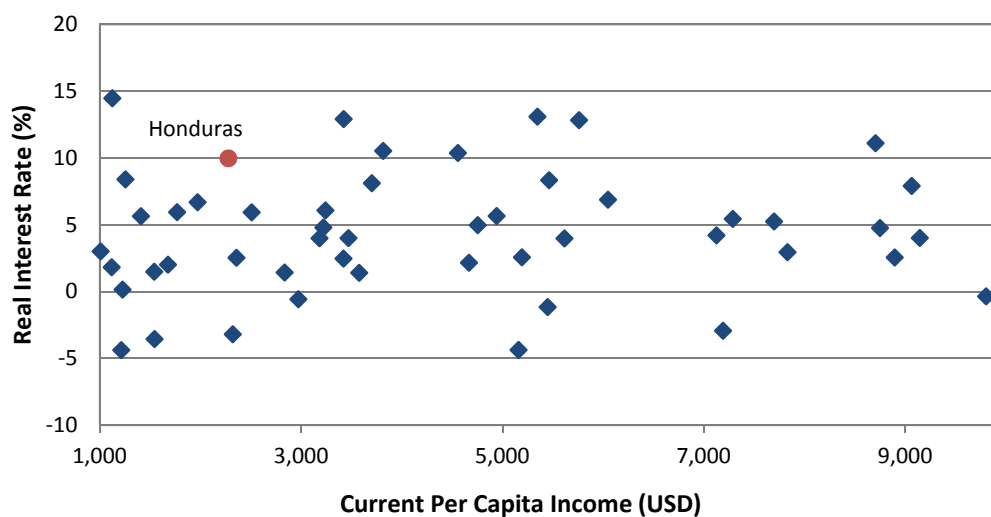
Figure 15: Real Interest Rates



Source: World Bank, World Development Indicators, 2012

Table 16Figure 16 shows how Honduras' real interest rate compares against all countries with populations above 1 million people and that have per capita incomes between US\$ 1,000 and US\$ 10,000. Among this group of 52 countries, Honduras has the 8th highest real interest rate.

Figure 16: Real Interest Rates and GDP per Capita, Select Countries

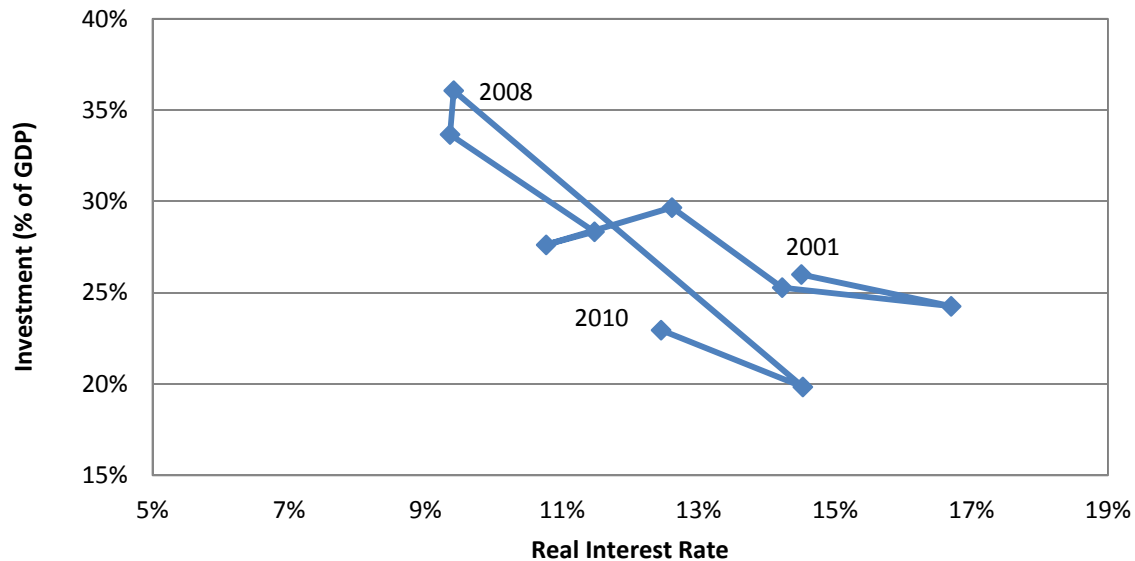


Source: World Bank, World Development Indicators, 2012

Under the methodology proposed by Hausmann et al. (2008), the second test looks at whether shifts in the factor's supply produce shifts in growth and private investment. Figure 17 shows that investment is negatively correlated with the interest rate. However, there is insufficient data to test for causality. The

2009 financial crisis, interest rates, or a drop in returns to investment may have caused the entirety of the change to investment, to what degree each variable impacted investment is not entirely certain.

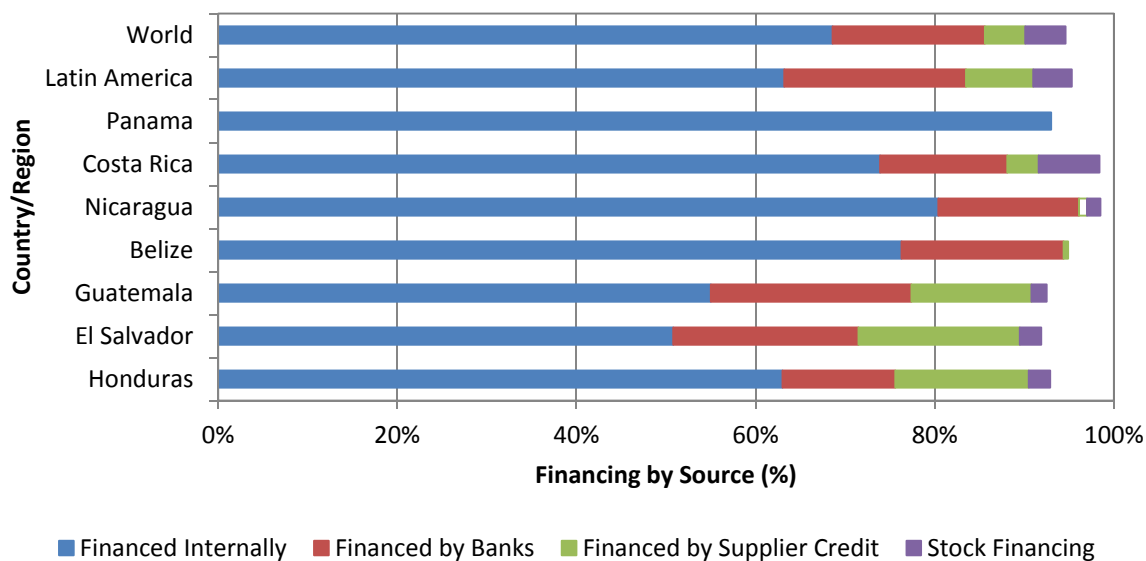
Figure 17: Investment and Interest Rates for Honduras, 2001 – 2010



Source: World Bank, World Development Indicators, 2012

The third test looks at whether firms are trying to circumvent the constraint while the fourth test considers whether firms dependent on finance do not thrive in the economy (the camels and hippos question). For finance, both these tests are usually measured by considering the level of bank financing relied upon by firms. If firms in Honduras are unusually dependent on self-financing this may indicate that external sources of financing are not readily available and companies are either failing to survive or adjusting by increasing use of retained earnings, equity, and supplier financing. As Figure 18 shows only 17% of firms in Honduras state they use banks for any investment finance, and bank financing averages only 12.6% of total financing, which is somewhat lower than regional competitors.

Figure 18: Financing by Source, 2010



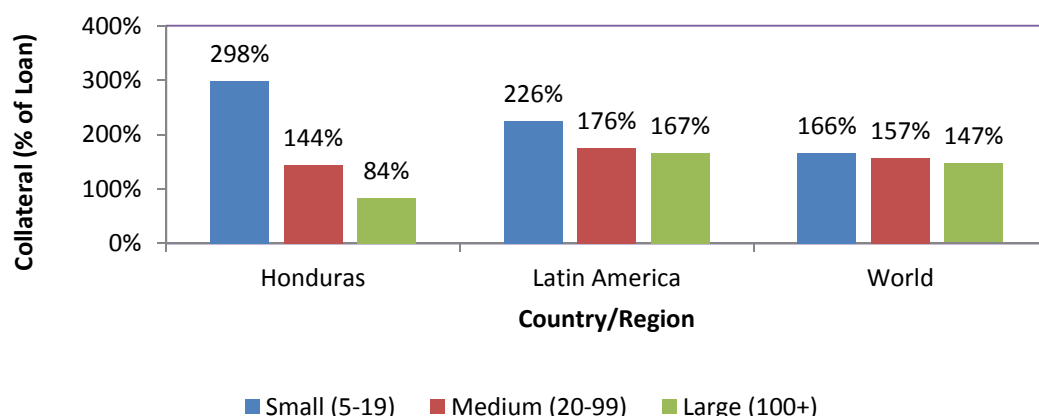
Source: World Bank Enterprise Surveys, 2010

6.3. Access to Credit for Small and Medium Enterprises (SMEs)

As access to credit may vary based on firm size, this section looks at whether small and medium sized enterprises face different borrowing conditions than large firms. As mentioned in the introduction to this section, the WBES shows a remarkable difference in the response of small and large firms in their ranking of access to finance as an obstacle. In Honduras, finance is noted as a major constraint by only 1.8% of large enterprises (Figure 14) but by 32.5% of small businesses.

Small enterprises around the world often have difficulty acquiring loans due to insufficient credit information and they tend to be higher-risk borrowers (Izquierdo, et. al., pp.189, 2005). For banks, the primary costs of providing loans are the costs of assessing the loan, monitoring the recipient, and recovering their investments once the loan is due for repayment. As these costs do not completely scale relative to the loan size, operational costs as a percent of the loan value tend to be larger for smaller loans (Izquierdo, et. al., pp.191, 2005). Banks often get around or lower these costs for small firms by raising collateral requirements for enterprises which they cannot reliably assess, and so Figure 19 below looks at collateral requirements by size of firm.

Figure 19: Collateral required for a Loan (% of loan amount)



Source: World Bank Enterprise Surveys, 2010

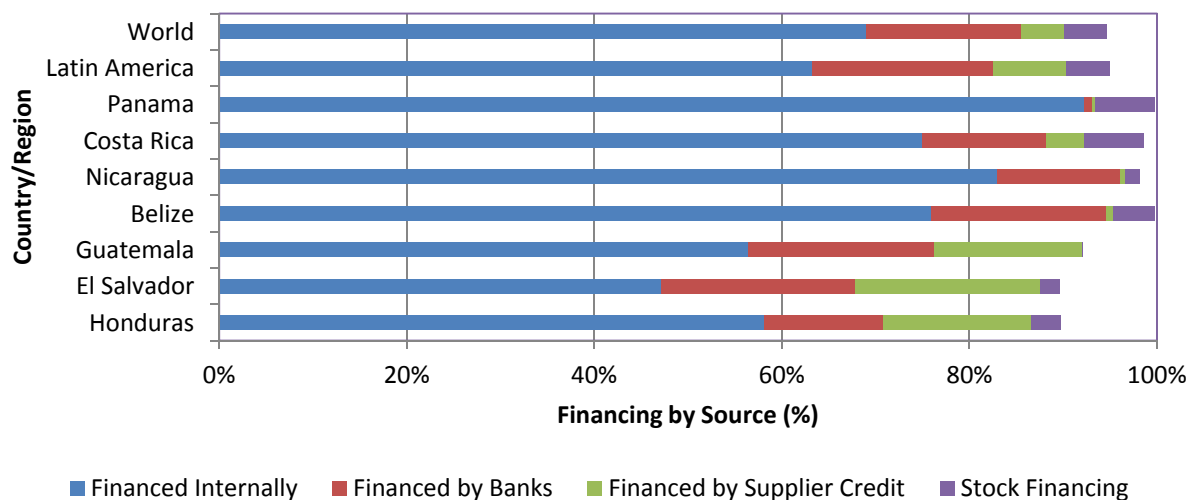
There are no collateral requirements imposed by the banking regulator (*Comisión Nacional de Bancos y Seguros*) for loans, therefore any collateral required for loan approval is imposed purely by the private banking sector. Average collateral as a percent of loan value by firm size is shown in Figure 19 above. Collateral requirements for small enterprises in particular are well above the regional average of 225.6%. Small businesses that cannot meet the collateral requirements for loans (or are otherwise denied loans) may borrow from microfinance or use personal unsecured loans (credit cards). Credit card interest rates in Honduras were 37% in August 2012,²² which while not unusual for the region, do result in high capital costs for some small businesses.

Another test of whether high financial costs are a constraint to growth is to consider whether agents in the economy are attempting to circumvent the constraint. In the financial sector, agents may avoid the constraint of high financial cost by relying to an unusual degree on stock financing, self-financing, and supplier credit financing. On average, Honduran SMEs finance 58% of investments from internal financing, 18.6% from supplier credit, and 12.6% from banks. Bank financing for SMEs in Honduras is below most comparator countries (Figure 20) and has dropped by a notable degree in recent years, previously at 25% in 2006.²³ As collateral requirements have increased, businesses have sought to overcome the constraint by increasing primarily internal financing and supplier financing (borrowing from suppliers/requesting delayed payment methods to finance costs). Working capital is financed by banks 16% of the time for SMEs, which is average for the region (Figure 21). The low bank investment finance rate by SMEs, along with the drop in bank finance in recent years, shows that firms are attempting to bypass the constraint by seeking alternative means of finance.

²² Comisión Nacional de Bancos y Seguros (CNBS) via Consejo Monetario Centroamericano, <http://www.secmca.org/EMFA.html>.

²³ World Bank Enterprise Surveys, 2006 and 2010.

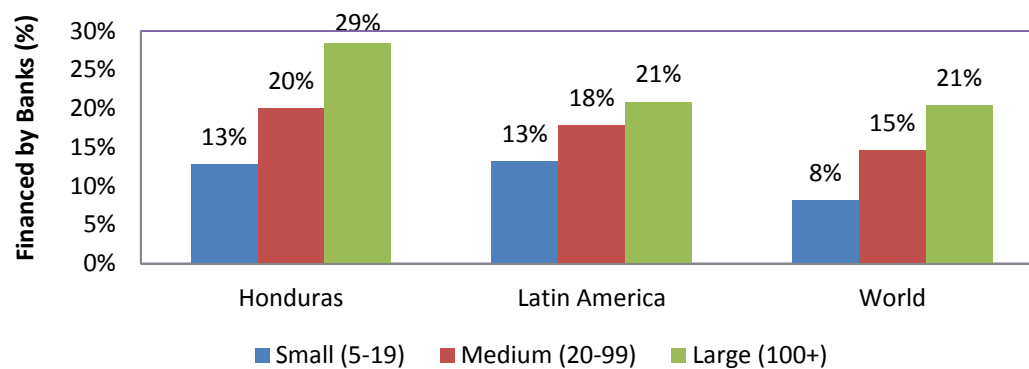
Figure 20: SMEs, Investment Finance, 2010



Source: World Bank Enterprise Surveys, 2010

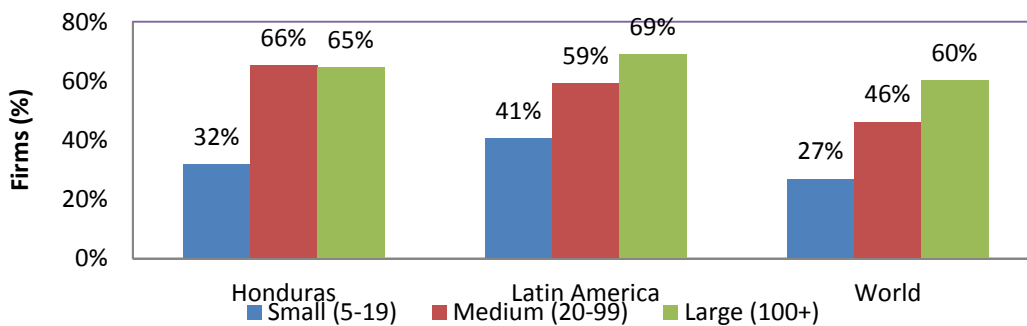
Working capital financed by banks is average for small enterprises at 12.8%. A useful measure to consider is the percent of firms that have access to bank financing, regardless of whether they are using that financing. In Honduras, while medium enterprises display an average level of access to bank credit, small enterprises are below comparator countries with 31.9% of firms having access to credit (Figure 22).

Figure 21: Percent of Working Capital Financed by Banks, 2010



Source: World Bank Enterprise Surveys, 2010

Figure 22: Firms with a Bank Line of Credit

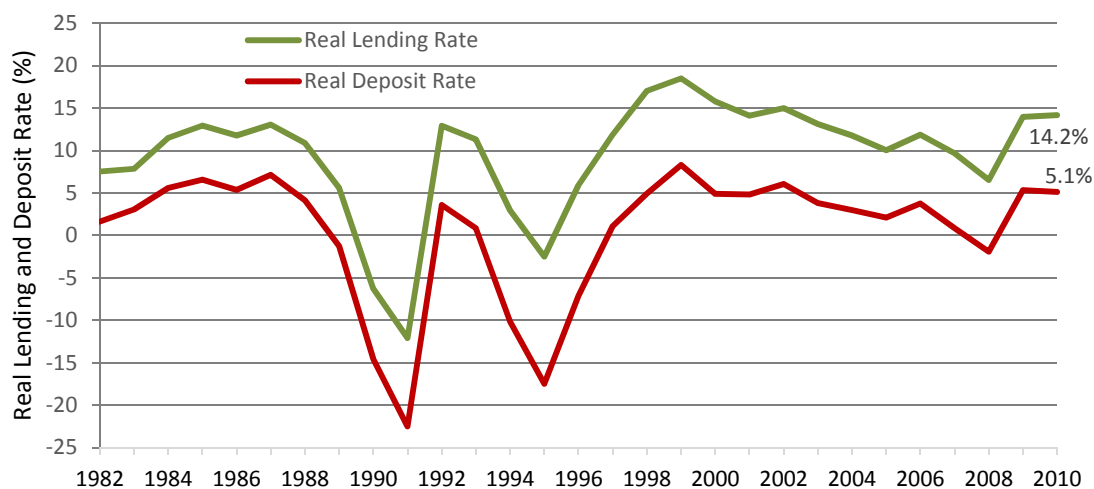


Source: World Bank Enterprise Surveys, 2010

6.4. Cost of Intermediation

As shown in Figure 23, real deposit and lending rates steadily trended downward from 1999 to 2008 as Honduras established credible price stability. The low rate in 2008 reflected an inflation shock, where inflation was 10.8% and exceeded the expectation of 9% embedded in nominal rates.²⁴ Inflation in 2009 was only 3% and much lower than the expected 8.4%.²⁵ So some of the drop in 2008 and sharp increase in 2009 reflect ex post real interest rates but not ex ante rates.

Figure 23: Real Lending and Deposit Rates, 1982 – 2010



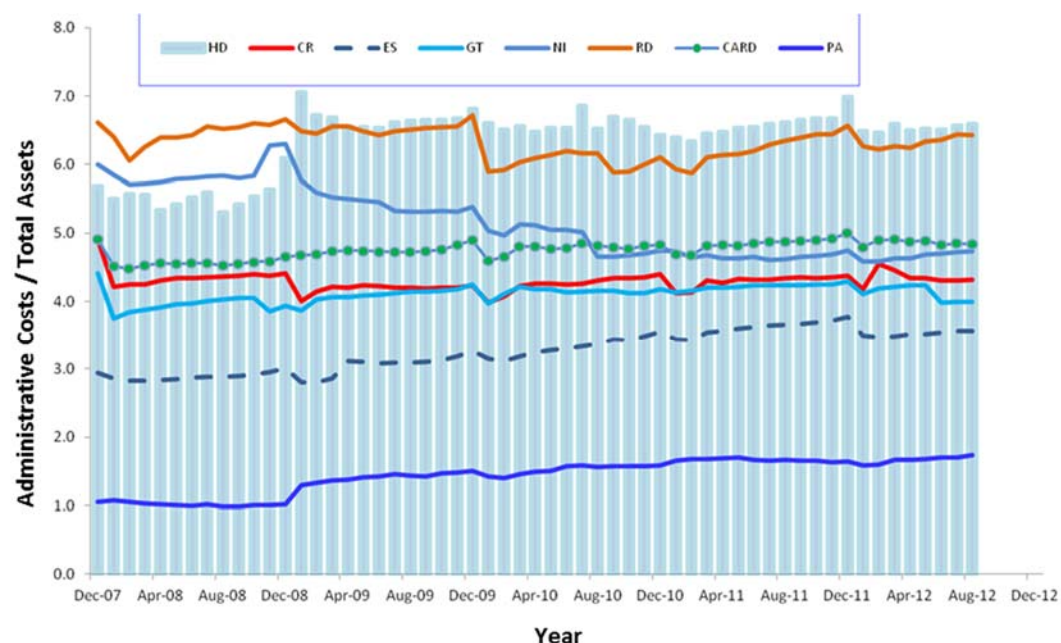
Source: World Bank, World Development Indicators, 2012

²⁴ IMF World Economic Outlook (WEO) Oct 2007 forecast for 2008 was 9%.

²⁵ IMF WEO Oct 2008 forecast for 2009 was 8.4%.

The relatively high intermediation spreads, about 9% in 2010, are mainly a result of high administrative costs as seen below in Figure 24. Honduras administrative costs have been about 6.5% of assets over the last four years. Panama has the lowest administrative costs in Central America, but has a much larger banking sector that is not comparable to Honduras. However, it is concerning to see that Honduras has costs so much higher than El Salvador (3.5%), Guatemala (4.1%), and Nicaragua (4.7%).

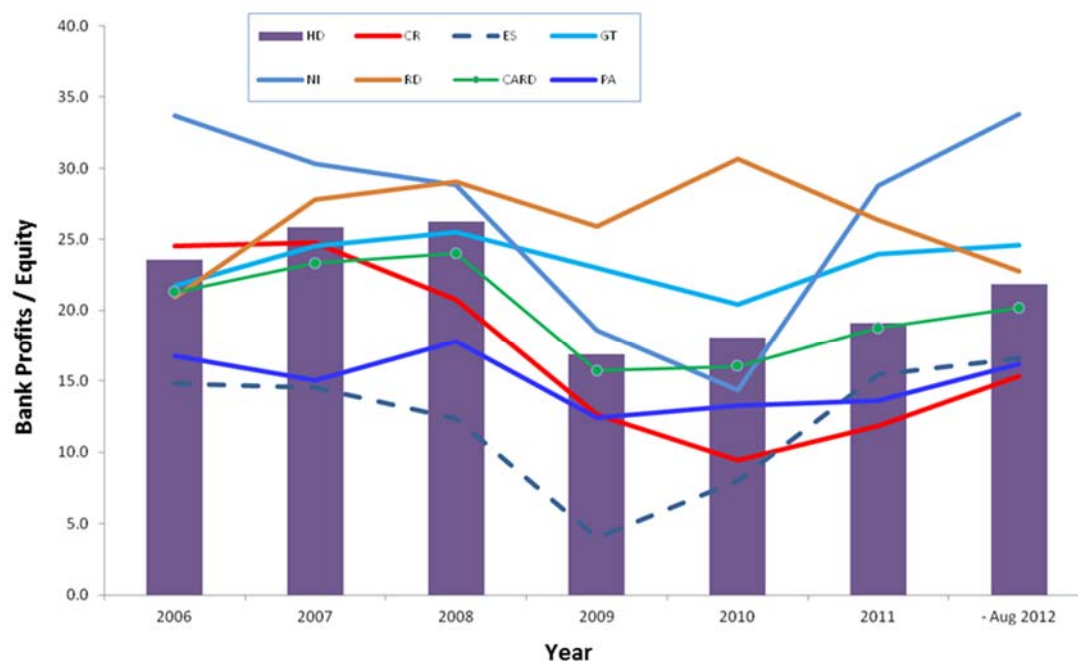
Figure 24: Administrative Costs/Total Assets, 2007 – 2012



Source: Central American Monetary Council (2012)

These higher operating costs from Honduran banks have not resulted in lower profits as Honduran bank profitability has tracked with the Central American average (Figure 25).

Figure 25: Bank Profits/Equity



Source: Central American Monetary Council (2012)

6.5. Conclusion

The shadow price of finance as measured by the real interest rate is high relative to the rest of Central America and spreads between borrowing and lending rates are also high at 9%. Over the last decade, interest rates and investment have shown a negative correlation, but it is not possible to establish causality. Nevertheless, domestic credit provided to the private sector is high for the region and numerous organizations measuring financial freedom have noted improved regulation and competition in the banking sector. In addition, the percent of large enterprises rating finance as a constraint is one of the lowest in the world at 1.8%, below even the average for OECD countries. While the interest rates are slightly above average for the region and compared to other countries at Honduras' income level, they are not unreasonably high and large enterprises note little difficulty in acquiring finance.

For small firms securing access to finance is far more difficult and small firms rank access to finance as their top obstacle in the WBES. Figure 22 shows that fewer Honduran small firms use bank financing relative to other Latin American countries, possibly due to high collateral requirements making bank financing difficult to acquire. So while access to finance is not a constraint for medium or large firms, it may be for many small firms.

7. Returns to Economic Activity

If the constraint to private investment in Honduras is not due to costly finance (as seems to be the case for all but small enterprises), then it must be because of low expected private returns to economic activities. This may be because the overall social returns to projects are low or because the share of the returns the firm can retain (appropriability) is low.

7.1. Low Appropriability

Low appropriability in the economy is the “lack of the firm’s ability to reliably capture for itself the benefits in the future of its own investments and initiatives today” (Pritchett, 2008). In order to test this hypothesis, this study employs the four tests outlined by Hausmann et al. (2008) in the “Mindbook” on growth diagnostics.²⁶ However, in certain nodes of the low appropriability branch these four tests are harder to employ since the branch deals with less measurable areas of interest and therefore shadow prices and measurable movements in a constraint are not possible to calculate. As a result, the branch is at risk of receiving superficial treatment despite its importance. In order to avoid that trap, this study employs the four tests where possible and supplements that focus with other relevant evidence, such as cross-country comparisons and perception surveys in order to draw conclusions.

7.1.1. Macroeconomic Stability

An unstable or uncertain macroeconomic environment can restrict investment for several reasons, including, but not limited to:

- Excessive price volatility, making cost and income streams less predictable;
- A fragile fiscal situation limiting the government’s capacity to conduct countercyclical policies, and making it difficult for the government to properly provide public services; or
- Exchange rate volatility creating risk, especially for firms tied to the global economy through trade or capital flows.

²⁶ We refer here to the same four tests discussed in the methodology section, namely:

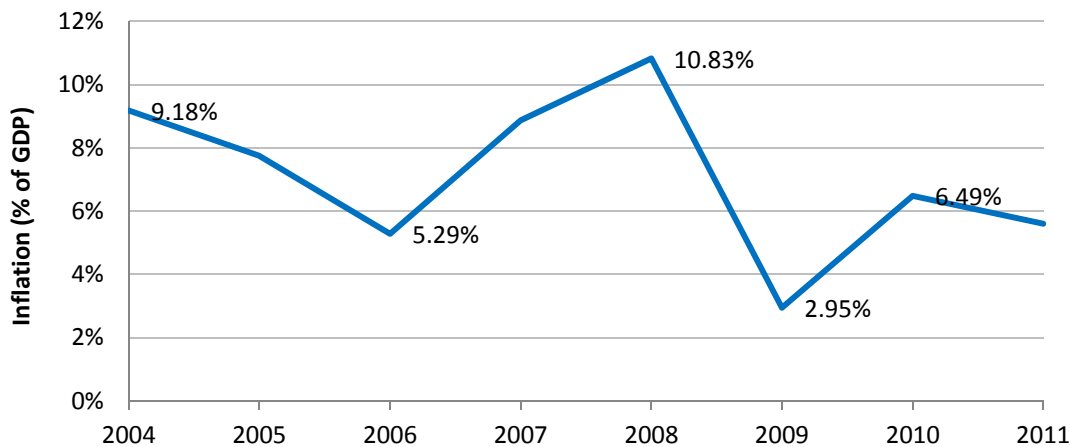
1. The (shadow) price of the constraint should be high
2. Movements in the constraint should produce significant movements in the objective function
3. Agents in the economy should be attempting to overcome or bypass the constraint
4. Agents less intensive in the constraint should be more likely to survive and thrive, and vice versa: we should observe few thriving firms that are intensive in the constraint.

7.1.1.1. Inflation

Inflation inhibits growth by distorting price signals between buyers and sellers in the economy. It can also lower the benefits of saving, thereby lowering the incentive to invest. Finally, inflation lowers the real value of collected revenue, decreasing the amount of money that can be spent on public investment.

In Honduras, inflation has remained stable in recent years, between 4% and 8%, and most recently was 6.7%. **Error! Reference source not found.** Figure 26 shows the recent inflation trends and IMF World Economic Outlook (WEO) forecasts, which predict inflation to settle at 6% of GDP for upcoming years. There does not seem to be any evidence of high or uncertain inflation that could be inhibiting investment.

Figure 26: Inflation Trends (% of GDP)



Source: World Bank, World Development Indicators, 2012

7.1.1.2. Fiscal Balance and Deficit

The fiscal balance can impact growth in a variety of ways. If there is a large deficit, then government borrowing can raise domestic interest rates and crowd out investment. However, this impact was considered in access to credit (which was not found to be a constraint) and here we are concerned with macroeconomic stability, and specifically the risk of a fiscal debt crisis.

Looking at international credit ratings gives an indication of the ratings agencies' views of the likelihood of a fiscal crisis. Honduras' international credit rating has been a B+ for the past seven years. A credit rating of 'B' means the obligor currently has the capacity to meet all its financial commitments; however, adverse business, economic, or political shocks will likely impair the obligor's ability or willingness to meet said commitments. In 2010, the outlook for Honduras' credit rating was updated to 'positive' by Standard and Poor's, making Honduras one of only three countries in the region with a positive credit outlook.

Table 6: Credit Rating by Country

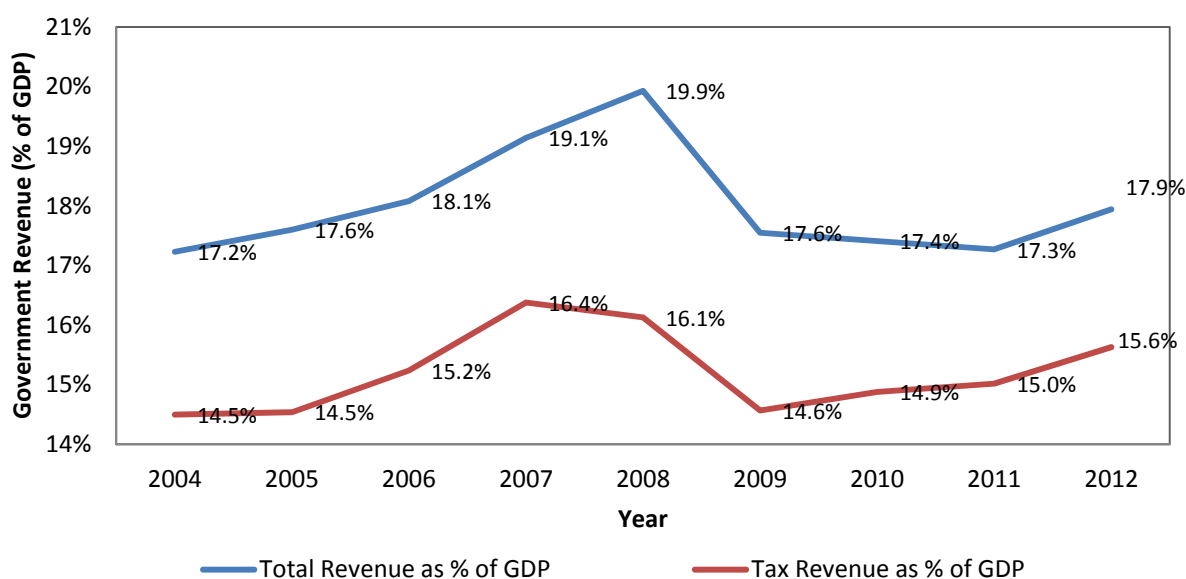
Country	Standard and Poor's			Moody's			Institutional Investor
	Rating	NB	Outlook	Rating	NB	Outlook	
Honduras	B+	13	+	B2	14	Stable	30.9
El Salvador	BB-	12	Stable	Ba2	11	Stable	45.5
Guatemala	BB	11	-	Ba1	10	Stable	45.3
Dom. Rep.	B+	13	+	B1	13	Stable	40.8
Costa Rica	BB	11	Stable	Baa3	9	Stable	55.1
Nicaragua				B3	15	Stable	23.9
Panama	BBB-	9	+	Baa2	8	Stable	

Source: Central American Monetary Council, 2012

Note: NB is a standardized rating number showing notches below the top rating: 9 is the lower end of investment grade, 10-13 is non-investment grade speculative and 14-16 is extremely speculative.

The political crisis of 2009 and global economic downturn led to a contraction of exports by 19%, and a drop in FDI by 3.6% of GDP, which led to real GDP contracting by 2.1% in 2009. The economy has since shown a modest recovery. The drop in GDP and decreased efficiency in tax collection led to a fall in tax revenues and total revenues in 2009 that is expected to leave government revenues at about 18% of GDP in 2012 (Figure 27).

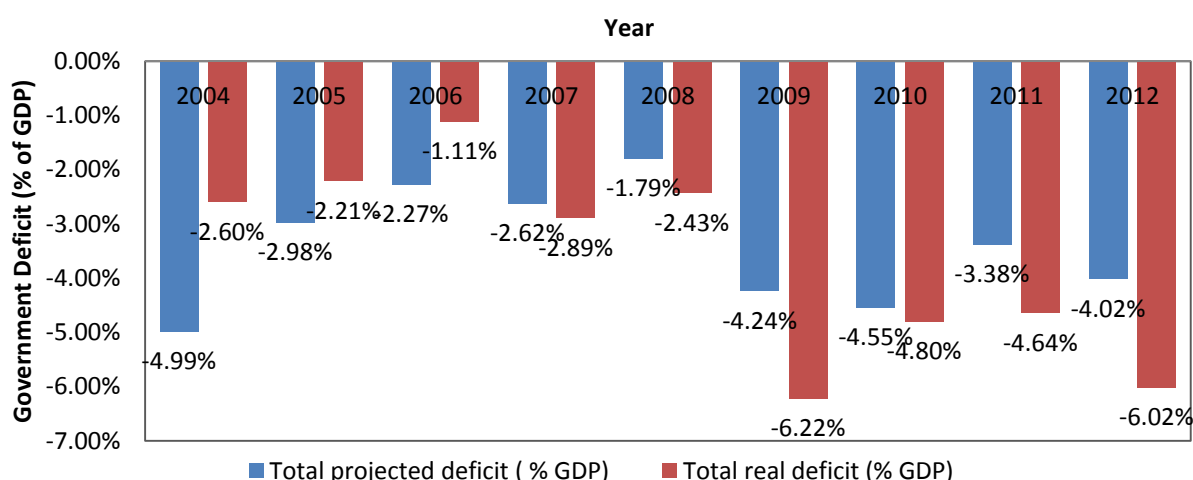
Figure 27: Government Revenue (% of GDP), 2004 – 2012



Source: GOH Ministry of Finance, 2013

At the same time as revenues were declining, the public sector wage bill increased from 9.3% of GDP in 2008 to 11.1% in 2009. Together, this produced a Central Government deficit of 6.2% of GDP in 2009 (up from 2.4% of GDP in 2008 (Figure 28). As the economy recovered, so did revenues to some extent and the Lobo government has brought the public sector wage bill down to 9.8% GDP in 2011 and 2012. In addition, losses from the electricity and telecom parastatals (ENEE and Hondutel) have increased in recent years, with total losses for these parastatals at US\$ 259 million in 2012, causing further fiscal deterioration. Overall, deficits remain somewhat higher than ideal at an estimated 6% in 2012.

Figure 28: Government Deficit (% of GDP)



Source: GOH Ministry of Finance, 2013

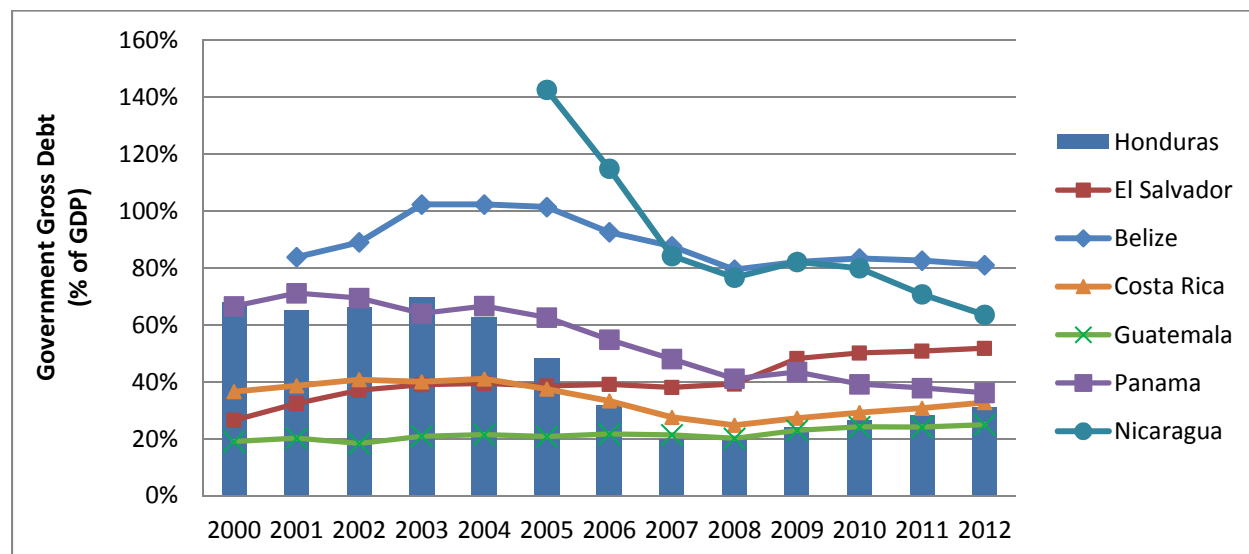
Note: 2012 is estimate

The IMF Executive Board approved a Stand-By Arrangement (SBA) and Stand-By Credit Facility (SCF) for Honduras in October 2010. The GOH considered the arrangements as precautionary and did not draw on Fund resources for the program that ended in March 2012. A February 2012 mission “confirmed that the target deficit of the combined public sector was achieved, but noted that the deficit of the central government was higher than expected. In addition, the mission observed that the monetary targets under the program (net international reserves and central bank domestic assets) were not met.” As a result, IMF staff chose not to bring a new SBA to the IMF Board and since the expiration of the IMF SBA in March 2012 there has been no IMF program in place which has precluded Honduras from receiving budget support and this has further complicated their fiscal position.

While deficits in excess of GDP growth have caused the debt to GDP ratio to increase from 2008 to 2012, the ratio remains relatively low. Figure 29 below shows that public debt decreased from 65% of GDP in

2001 to 20% in 2007 and remains at a modest level relative to the rest of Central America.²⁷ Despite the low level of debt, high fiscal deficits in recent years are of concern.

Figure 29: Government Gross Debt (% of GDP)



Source: International Monetary Fund, World Economic Outlook, 2012

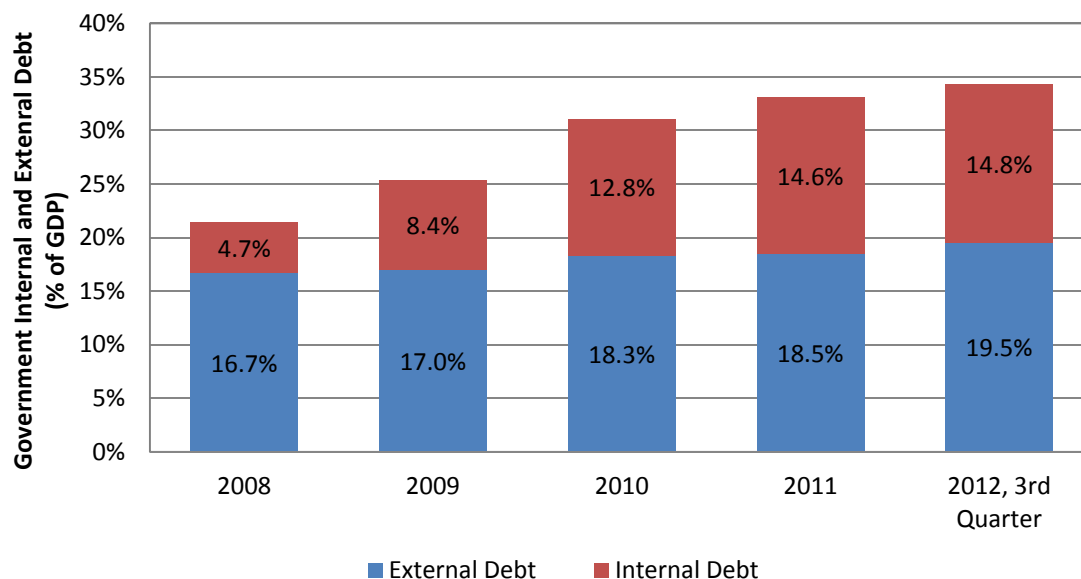
Of more concern than the level of debt or deficit is that the government has not been able to consistently pay vendors on time. The delay in payments to vendors of three months or more causes vendors to increase their prices, creates incentives for bribery to receive payments earlier, and discourages vendors from taking on government contracts.

While the debt to GDP ratio remains modest at 34.3% of GDP,²⁸ it is of concern that the internal debt has grown to 15% of GDP (Figure 30) because: i) internal debt carries a higher interest rate than the mostly concessional external debt, ii) it can crowd out private investment, and iii) it tends to have shorter maturities than external debt. The consistent deficit of the last several years and increased use of internal debt have pushed interest payments up to 10% of current expenditures in 2012 from 3.9% in 2009.

²⁷ While deficits were low in this period, this debt reduction was primarily due to Paris Club debt relief of US\$ 2.3 billion and heavily indebted poor countries (HIPC) debt relief of US\$ 800 million (IMF, 2009).

²⁸ SEFIN, *Report on the Situation and Evolution of the Public Debt of Honduras*, 3rd Quarter 2012. Reports a total debt of US\$ 6,167.5 million and a GDP of US\$ 17,992.5 million.

Figure 30: Government Internal and External Debt (% of GDP)



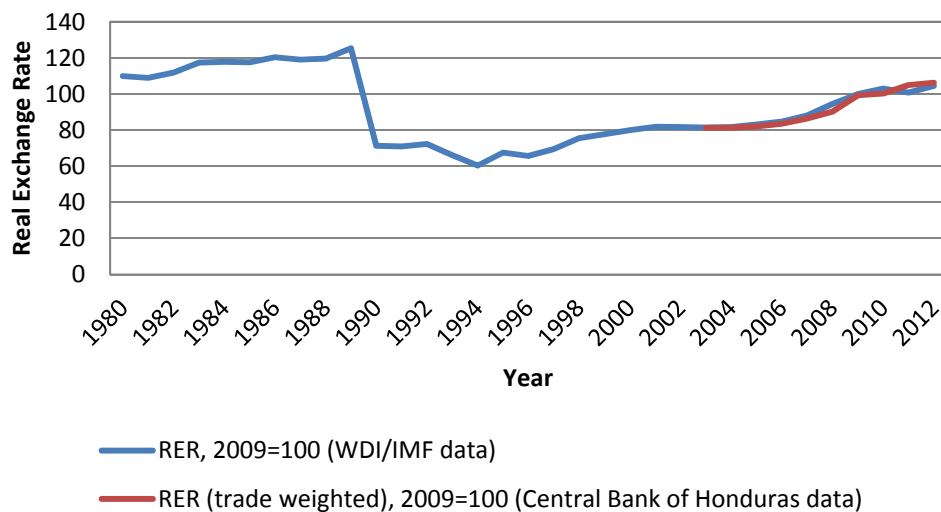
Source: SEFIN: *Report on the Situation and Evolution of the Public Debt of Honduras*, 3rd Quarter 2012

7.1.1.3. Exchange Rate Policy and Trends in Real Exchange Rates

We consider the potential effect of exchange rate policy on investment decisions through two channels. First, an overvalued currency reduces the profitability of exporting and import-competing firms, and thus the incentives for private production and investment in these sectors. Second, an increased risk of a currency crisis (i.e., Balance of Payments crisis) poses a risk for firms that have dollar liabilities.

The exchange rate policy of the GOH has generally been to have a crawling peg that depreciates the currency at about the difference in the inflation rate between Honduras and its trading partners in order to keep the real value of the currency stable. However, the nominal rate was fixed from late 2005 to late 2011, which caused substantial real exchange rate appreciation. Figure 31 below shows that the Honduras/US Bilateral Real Exchange Rate has appreciated substantially since the mid-1990s and about 30% in the last ten years. The high level of remittances and strong coffee exports in 2011 and 2012 likely caused the equilibrium real exchange rate to appreciate as well so it may not be the case that all of this appreciation reflects disequilibrium. Nonetheless, the competitiveness of exporters has been weakened.

Figure 31: Honduras/US Real Exchange Rate



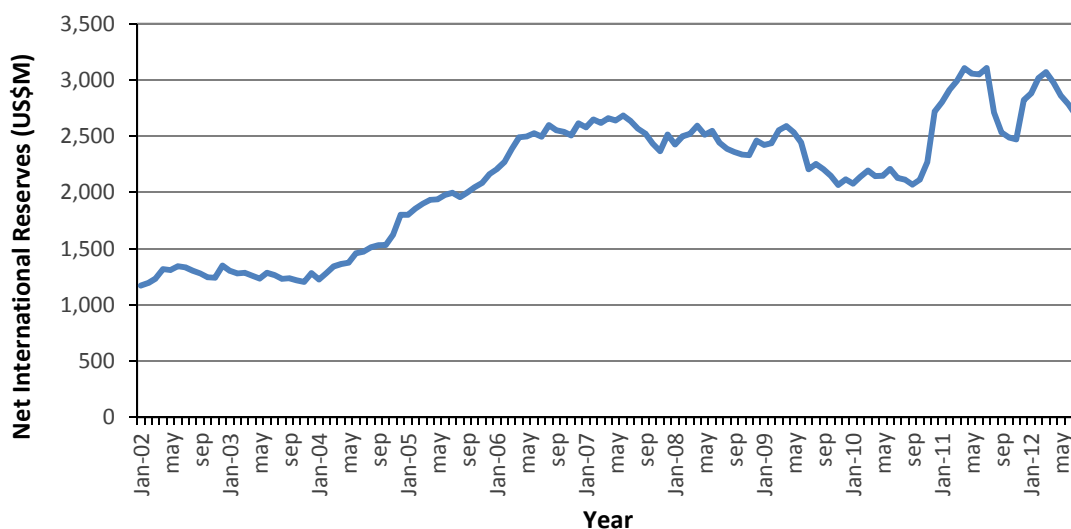
Source: World Bank World Development Indicators, 2011; Central Bank of Honduras

If an exchange rate is truly overvalued (and not just appreciating due to changes in economic fundamentals that determine the equilibrium real exchange rate), one would expect to see a loss of reserves.

Figure 32: Monthly Reserves

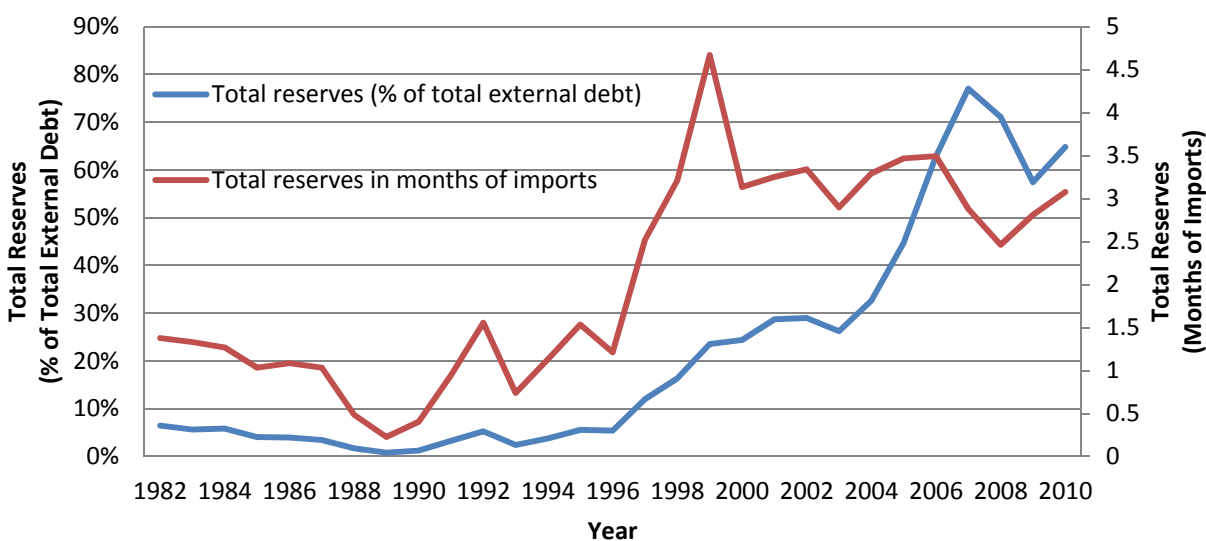
shows monthly data for reserves for the last 10 years. We observe a general increase in reserves in 2004 and 2005, flat reserves from 2006-2008, a modest decrease in 2009, and some relatively large increases and decreases in 2011 and 2012.

Figure 32: Monthly Reserves



Source: World Bank, World Development Indicators, 2012

Figure 33: Honduras Total Reserves



Source: World Bank, World Development Indicators, 2011

Besides monthly reserves, one can also examine reserves in months of imports, or as compared to GDP, total external debt, or short-term external debt. While the ratio of reserves to GDP generally has fallen since 2008, the US\$ 2.47 billion in total reserves reported in September 2012 by the Central Bank of Honduras remains relatively strong at above 13% of GDP. From a debt perspective, as shown in Figure 29 the level of external debt in Honduras as a percent of GDP has been reduced from 65.3% of GDP in 2001 to 24.2% of GDP in 2010, partially due to the Multilateral Debt Relief Initiative implemented in 2006. Figure 33 looks at total reserves as a percent of total external debt and total reserves in months of imports,

both showing an overall positive trend. When specifically considering short-term external debt, giving insight into the potential effects of high payment arrears, Honduras' reserves cover a significantly high proportion of short-term external debt (790%).²⁹ Otherwise stated, the short-term external debt to reserves ratio have gradually decreased since 2002 and in 2012 was under 13.6%.³⁰

7.1.1.4. Conclusion

Based on the evidence on hand (modest expected inflation of 6.4% for 2013, debt to GDP ratio of about 31%, short-term external debt to reserves ratio of 13.6%, and a sound banking system),³¹ macroeconomic instability is not a binding constraint to growth. However, to prevent this from becoming a constraint in the future, Honduras will need to restore fiscal discipline, reduce the floating debt by paying vendors on time, and avoid real exchange rate overvaluation.

7.1.2. Tax Policy

If tax rates are high enough they can limit economic growth. For example, taxes on investments may keep private returns on capital below the social return and deter private investment. Additionally, complex tax policies require more time and knowledge of the system, which increases costs for new competitors and may inhibit the creation of new businesses, both foreign and domestic. Beyond these direct impacts, high consumption tax rates decrease consumers' disposable income, reducing their demand for many goods and services and can produce a negative impact on the profits of the private sector, thereby indirectly reducing the incentives of certain private investments. On the other hand, if tax rates or tax collections are too low then there may be insufficient resources to adequately fund needed infrastructure and human capital investments that can stimulate economic growth.

This section begins by reviewing the recent trends of tax revenues as a percentage of GDP for Honduras and compares it to other countries within the region and internationally. Next, the sources of the tax revenues are described and put into context to understand how the tax burden is shared among households and businesses. The following section outlines who receives tax exemptions and their economic efficiency. Lastly, the overall efficiency and effectiveness of the tax system are examined by identifying challenges and recent improvements to the system. The conclusion provides a final statement on whether the tax policy system in Honduras appears to be a binding constraint.

7.1.2.1. Tax Revenue Structures

After the fall of government revenue in 2009, as a result of the economic and political crisis, Congress approved Law 17/2010 in April 2010 to strengthen revenues. This law was expected to increase government revenue by 1% to 1.5% annually over the following three years. As of 2011, tax revenues

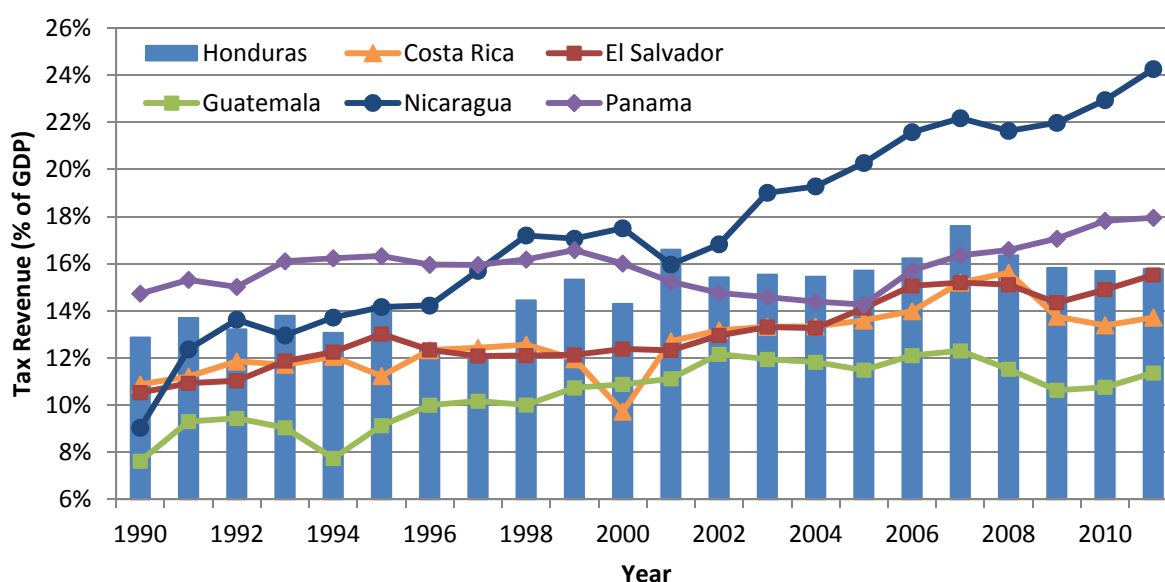
²⁹ IMF Staff Review May 2011, Table 7. Honduras: External Vulnerability Indicators.

³⁰ World Bank, World Development Indicators, 2012.

³¹ IMF First Review under Standby, April 2011.

remained nearly the same at about 16% of GDP (including social contributions). This rate is comparable to their average over the past decade. Since 1990 tax revenues (including social contributions) have ranged between 12% and 18% of GDP, hitting a low in 1997, and peaking in 2007 (see Figure 34). During this time, and particularly the last four years, the tax revenue as a percentage of GDP in Honduras has trended with Central American and Latin American averages and ranked slightly above the trends of Guatemala, Costa Rica and El Salvador.³² However, it is important to note the region's rates are well below those estimated for "developed countries." According to the Heritage Foundation, OECD countries have an average tax revenue as a percent of GDP of 35%, with a range from 20.9% to 48.2%. The only countries in the region that fall within this range are Belize, Argentina and Brazil (2012).

Figure 34: Tax Revenue (% of GDP), 1990 – 2011



Source: CEPAL, 2012

Tax revenues can be split into those from direct and indirect taxes. Direct taxes include income, profits, capital gains, and property taxes that are levied upon individuals and corporations/enterprises. Indirect taxes include a variety of sales taxes imposed upon individuals and corporations on both domestic and international goods and services.

As seen in Table 7 the main component of total tax revenues in Honduras comes from sales taxes, nearly 10% of GDP or two-thirds of total tax revenues. Similar to countries in the region (both Central and Latin America), since 1990 Honduras has steadily increased their proportion of tax revenues that come from general sales taxes. The country's sales tax policy demonstrates progressive effects as it imposes no taxes upon an extensive list of "necessity goods" while most other goods are associated with a 12% tax rate.

³² These calculations are based on data collected from CEPAL (Comisión Económica para América Latina y el Caribe) or ECLAC (Economic Commission for Latin America and the Caribbean) in English.

This rate is approximately the same as the Central American average (12.6%) and below the Latin American average (14.6%), with Panama having the lowest tax rate (7%) (KPMG International, 2011). The average rate for OECD countries, besides the United States where each state has its own sales tax policy, is even higher (18.7%) with several countries reporting rates at or above 25% (OECD).

In 2010, a new law in Honduras imposed a higher tax rate (15%) on certain goods that cause negative health externalities (e.g. cigarettes, alcohol) and an even higher rate (18%) on certain “luxury goods” (e.g. airline tickets in business or first class). The tax rate on cigarettes and various types of alcohol is similar to average rates among OECD countries (18% – 19%, on average). In addition to these specific goods, Honduras has a tax on the production and consumption of petroleum products, and related import duties established in 1998 and modified in 2003 and 2004. Honduras has consistently ranked above regional averages of tax revenue (as percent of GDP) collected from taxes levied on specific goods, with only Nicaragua having a larger percent of revenue from these taxes. However, beyond acknowledging that Honduras is within the average of its competitors, it is difficult to compare further since definitions of “specific goods” can differ greatly between countries.

Table 7: Tax Revenue in Honduras (% of GDP), 2006-11

	2006	2007	2008	2009	2010	2011
Tax revenue	15.06	16.29	15.19	14.60	14.58	14.96
Direct tax revenue	4.50	5.28	5.22	4.82	4.64	5.24
<i>Taxes on income, profits and capital gains</i>	4.32	5.08	5.02	4.67	4.44	5.06
<i>Individuals</i>	0.91	1.04	1.02	0.94	0.92	1.02
<i>Corporations and enterprises</i>	1.15	1.29	1.21	1.07	0.81	0.80
<i>Unallocable</i>	2.26	2.75	2.78	2.66	2.71	3.23
<i>Taxes on property</i>	0.17	0.19	0.21	0.15	0.20	0.18
<i>Other direct taxes</i>	0.00	0.00	0.00	0.00	0.00	0.00
Indirect tax revenues	10.56	11.01	9.96	9.78	9.94	9.72
<i>General taxes on goods and services</i>	5.59	6.08	6.27	5.37	5.46	5.74
<i>Taxes on specific goods and services</i>	3.83	3.69	2.55	3.63	3.64	3.18
<i>Taxes on international trade and transactions</i>	1.14	1.24	1.13	0.77	0.83	0.80
<i>Other indirect taxes</i>	0.00	0.00	0.00	0.00	0.00	0.00
Other taxes	0.00	0.01	0.01	0.00	0.00	0.00
Social contributions	1.17	1.31	1.17	1.22	1.11	0.81
Tax revenue (including social contributions)	16.23	17.60	16.35	15.82	15.70	15.78

Source: CEPAL, 2012

The third major indirect tax is that imposed on international trade and transactions. In the 1990s Honduras, along with the Dominican Republic, had the region’s highest rates of taxes on international trade and average tariff rates. The gradual process of dismantling the tariffs began in 1990 and was further accentuated later by the formation of the Central American Common Market (MCCA). The taxes on exporting traditional goods were repealed in 1990 and replaced with policies promoting nontraditional

exports. The Honduran government also adopted tax reforms to significantly decrease average tax rates and tariffs and these rates were similar to their regional competitors as of 2007.

Although their rates remain low, 2012 data from the Heritage Foundation indicate that with an average tariff rate of 6.5%, Honduras is just above the regional average of about 5%. This is due to reported rates as low as 2.2% to 2.4% in the neighboring countries of Mexico, Costa Rica, Nicaragua, and Guatemala, the last two having similar GDP per capita estimates. All of the rates within the region are above those found in OECD countries, which have an average of 1.5% and a small range of just 0% to 2.4%. Within the history of the country, Honduras continues to provide lower tax and tariff rates for primary materials and capital goods, while final products that compete with national production are higher but still appear competitive within the region. This and other related tax reforms have focused on providing incentives to businesses in order to increase private investment in the country. Additional incentive schemes are discussed below, after describing the share of direct taxes within the government's total tax revenue.

In Honduras, the greatest government revenue from direct taxes (about one-third of total tax revenues) appears to come from those imposed on incomes, profits and capital gains. Individual income taxes are based on a marginal tax rate with four income levels defined. Those in the lowest income bracket are exempt from paying income taxes and the rates are 15%, 20% and 25% for the three remaining groups as income levels increase. The highest possible income tax rate in Honduras (25%) is the same as most Central American countries and slightly below the average within Latin America, which has a large range from just 10% and 13% in Paraguay and Bolivia, to 40% and 50% for Chile and Cuba, respectively. The average among OECD countries is significantly higher (40%), but a large range also exists here with several Eastern European countries below 20% and another seven countries with rates at or above 50%. In 2010, the GOH imposed a 10% tax on all personal dividends and income from rent. Most countries in the region and the OECD also have capital gains taxes, excluding Argentina, Costa Rica, Ecuador and Switzerland. The capital gains tax in Honduras, which is fixed at 10%, is below the Central American average of 21%.

In general, businesses are required to pay a flat rate income tax of 25% (the same as the highest income earnings of individuals), as well as an additional tax levied on net taxable incomes greater than 1 million lempira. This "Temporary Solidarity Contribution" (*Aportación Solidaria Temporal*) tax began at 5% in 2003, increased to 10% in 2010 and 2011, and is now planned to continuously decline until it reaches 0% in 2015. The flat tax rate has created a situation where comparatively few large businesses complain of taxation – despite the "Temporary Solidarity Contribution". Although this could also be attributed to those who receive more tax incentives or have found ways to easily evade taxes.

In the World Bank Enterprise Surveys, businesses rank tax rates as the 12th of 15 constraints, with only 2.2% of businesses claiming this factor as the biggest obstacle to business (World Bank, 2010a). There are no significant differences in the report of taxation as a constraint, reporting a percentage similar to the Central American average.³³ Although tax rates are reported as the 5th most problematic factor for doing

³³ Tax rates reported as a very severe or major obstacle by firm size: 22.3% (small), 27.5% (medium), and 21.5% (large).

business (of 15 potential responses) in the WEF Executive Opinion Survey and it has been increasing in importance since 2009, responses selecting this factor remain relatively low (7.6%).³⁴

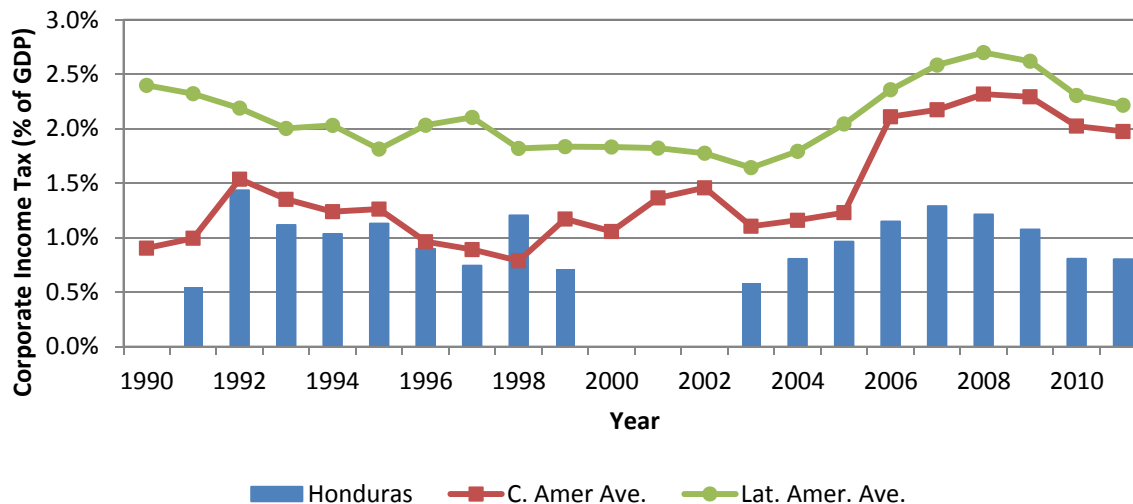
The corporate flat tax rate in Honduras is the lowest in Central America (along with Belize, El Salvador, and Panama) and only Chile, Ecuador and Paraguay report lower rates in Latin America. This imposed tax rate (25%) is just above the OECD average and the same as Austria, Denmark, Finland, Japan and the Netherlands. In addition to having a competitive corporate tax rate, according to CEPAL (*Comisión Económica para América Latina y el Caribe*) data it appears that in Honduras over the past six years individual tax payments on income, profits and capital gains are nearly the same, on average, as those payments made by corporations (see Table 7 above). These data and the graph below indicate that the tax burden does not appear to be disproportionately placed upon businesses.³⁵

Note that property taxes (average rate of 0.25%) are so low, similar to the regional trend, that their contribution to government revenues is negligible.

³⁴ In 2009 the WEF Executive Opinion Survey reported 2.5% indicating tax rates as the most problematic factor, 4.8% in 2010, and 6.6% in 2011.

³⁵ The data were not split into individual and corporate income taxes each year for all countries within the region. Therefore Central American averages include only Honduras, Panama, Guatemala (1999-2011), and Costa Rica (1997-2000, 2003-2011) – missing Nicaragua and El Salvador. For Latin American countries, we have those just mentioned along with Bolivia, Brazil (not 2011), Chile (1995-2010), Cuba (1998-2010), Mexico (1990-2002, 2005-2011), Paraguay, Peru, Haiti (2003-2011) and Uruguay – missing Argentina, Colombia and Ecuador.

Figure 35: Corporate Income Tax (% of GDP)



Source: World Bank Doing Business Indicators 2013

7.1.2.2. Incentives and Tax Expenditures

Similar to the other Central American and Caribbean nations, Honduras has sought to use tax policy as a tool for incentivizing market activities involving products intended for both external and domestic markets. Honduras has done so by creating several trade zones that receive exemptions from taxes associated with importing, sales and income. These zones are accessible only by exporters and are often restricted to specific export-reliant industries (i.e., *maquila*). The three main zones that receive substantial benefits include:

- *Temporary Import System (RIT)*: created nearly 30 years ago, this zone corresponds to textile manufacturing companies that produce for exportation and the national market.
- *Industrial Processing Zone (ZIP)*: created about 25 years ago, this zone is located in industrial parks that are leased to operating companies, along with services such as drinking water, electricity, telephone, etc.
- *Free Zone System (ZOLI)*: began over 35 years ago and exempts beneficiaries of all applicable taxes, including municipal, and since 1998 (Decree 131-98) extends coverage to all nationwide. In recent years the elevated operation costs of industrial parks has stimulated businesses to migrate from ZIP to ZOLI.

In addition to these special zones, several sectors within Honduras receive favorable tax treatment as a goal of attracting investment. The tourism sector is considered to be the sector most supported by tax incentives. In 1992, the government created the Free Zone for Tourism (ZOLT) to encourage investments in certain geographical areas. This and the revised law in 1998 provide ZOLT members with an income tax exemption for 10 years, as well as other tariff and indirect tax exemptions. These benefits are not extended to inputs for the construction of such facilities in an effort to encourage the use of local

resources and domestic production. In order to provide a flow of financial resources to tourism projects, the law also allows taxpayers to reduce their taxable income by 15% for the first 10 years when they invest in tourism related projects. Beyond the tourism sector, the mining and energy sectors have been provided substantial tax exemptions, with the latter also including incentives for improving pollution abatement techniques or shifting to alternative fuels. These tax expenditures (i.e., government spending through the tax code) in Honduras are estimated to be 30% of the actual tax revenue and account for nearly 5% of GDP. Although this sounds rather large, according to 2008 data, a 5% loss in GDP due to tax expenditures is not particularly high when compared to countries both within the region and internationally (Auguste & Cuesta, 2010).

Overall, there appear to be multiple and sufficient tax incentives to support private investment, particularly in the tourism sector. However, the efficiency, effectiveness and equal distribution of these incentives is less clear and merit further study.

7.1.2.3. Tax Efficiency and Effectiveness

The World Bank Doing Business project reports overall efficiency of completing tax payments based on (1) number of payments made per year; (2) total tax rate; and (3) hours spent per year to complete tax obligations. Corporations in Honduras pay 13 different taxes, of which the corporate income tax is quarterly and the employer, property, and value added taxes are monthly. The total tax rate estimated by the Doing Business indicators (Table 8) is 40.3%, below any regional competitor apart from El Salvador. In 2009, Honduras significantly decreased the amount of time required to complete taxes from 424 to 224 hours per year, making it the least time intensive tax process among the Central American countries and helping them improve their overall ranking during the past four years.

Table 8: Tax Policy, Select Countries

Country	Rank	Payments per Year	Time (Hours per Year)	Total Tax per Year (% of Profits)
Honduras	139	47	224	40.3%
El Salvador	153	53	320	35.0%
Guatemala	124	24	332	40.9%
Costa Rica	125	23	226	55.0%
Nicaragua	158	42	207	65.0%
Panama	172	60	431	42.0%

Source: World Bank Doing Business Indicators, 2013

Another issue related to the efficiency and effectiveness of the Honduras tax system is the ability to collect taxes and therefore necessarily reduce opportunities for evasion. Within the region, tax collection is

considered the main limiting factor of the tax policy system and demands greater fiscal controls.³⁶ One major difficulty in fully understanding the issue arises from insufficient and inconsistent data collection to accurately measure tax expenditures (to determine a country's differential tax treatment) and better estimate tax evasion.³⁷ Responses to several Latino Barometer survey questions can shed light on the severity of the issue. The most recent data from 2009 indicate that about 21% of respondents knew someone who avoided paying taxes. At the same time they believed that only about 53% of their countrymen pay their taxes. Both of these responses rank at about the average for Central American countries. When asked if this behavior was justifiable, ranking on a scale of 1-10 with 1 being unjustifiable and 10 being justifiable, respondents from Honduras reported an average of 3.4. This was the average among Central American countries and indicates an increase in the decade, believing it more justifiable.

Although it is difficult to measure this elusive behavior, some evasion could be related to the complexity of the tax system. Individual income taxes are not structured such that personal deductions can be provided and this may also decrease the desirability to complete taxes. Additionally, nearly 74% of the workforce is believed to have non-agriculture informal employment – over 58% are employed in the informal sector and another 17% are in informal employment outside of the informal sector (ILO, 2011). Since there are more opportunities for tax evasion in the informal than the formal sector and the informal sector is so large, this could also contribute to a loss in collected total revenues. Within the formal sector, the complexity of the system, a lack of serious anti-evasion mechanisms and various loopholes or variations of interpreting tax policy all create opportunities for evasion.

Despite these challenges, faced by all nations when constructing an efficient tax policy system, Honduras has shown efforts to create a more transparent and diversified tax system. In a meeting with the G-16 in August 2012 the government of Honduras identified “Fiscal Governance and Transparency in Public Administration” as one of five key priority areas for the current administration. The government stated that:

“Transparency is fundamental for the credibility of the fiscal system. People’s willingness to pay taxes is affected by their perception of whether the government uses resources fairly and effectively, and by their perception of corruption. Fairness in the distribution of the tax burden is also crucial, making it critical to eliminate unjustified exemptions.”

The GOH already has made general reforms to improve their basic functions (e.g., increased attention to tax payers, registration, collection, supervision, and coverage) by such efforts as assigning designated staff to focus on large tax payers and creating tax reference systems to simplify the process for completing taxes. Most recently, the adoption of a new electronic tax payment system is expected to increase the

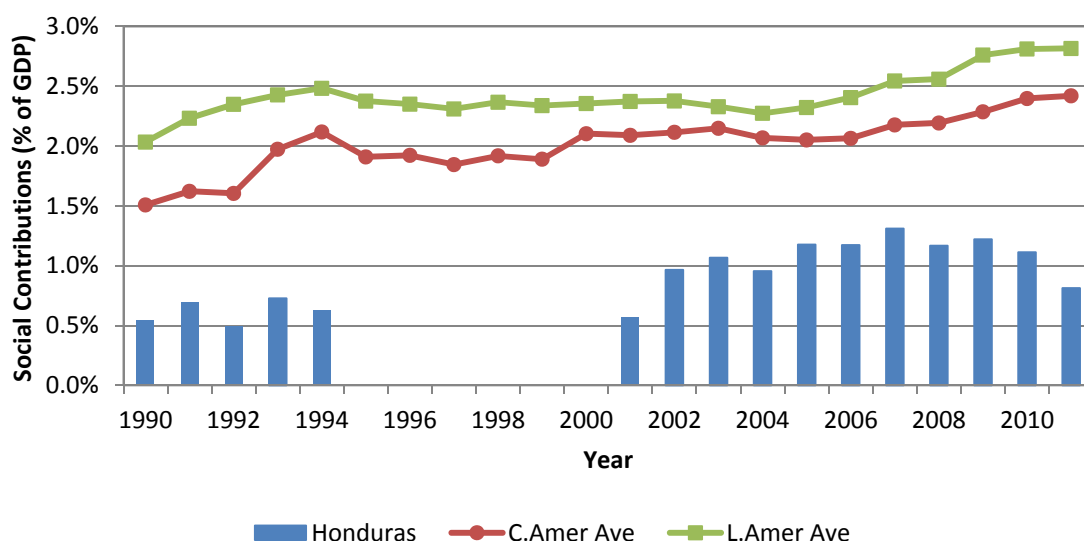
³⁶ However, the WBES results show that tax administration is reported as the 15th of 16 potential constraints with less than 1% reporting this factor as the greatest obstacle (0.6%).

³⁷ Given these issues, we note caution in relying too heavily upon the numbers provided above for exact calculations since there are weaknesses in the collection of credible data on such matters in many of the countries of the region.

number of electronic filings and reduce transaction costs for taxpayers and the Revenue Administration Agency (DEI)” (World Bank, 2012b).

Social contributions are relatively low in Honduras, partly due to high rates of informality. Over the last two decades Honduras has had a slight increase in their social contribution rate (as a percent of GDP) but continues to have a total contribution of about a third of the Central American average (1.5% - 2.5%) and even less of the Latin American average (2% - 3%).

Figure 36: Social Contributions (% of GDP)



Source: CEPAL, 2012

7.1.2.4. Conclusion

Evidence presented in this section demonstrates that tax rates are not high in Honduras and therefore do not cause an appropriability problem or indicate that this factor is a binding constraint. Tax revenues in Honduras (about 15% of GDP) are similar to the Central American average, but less than the average of Latin American countries with similar GDP per capita and well below more developed countries. Central government spending as a percent of GDP in Honduras is estimated at 26.3% (IMF, 2012). Again, this is close to the Central American average (24.7%), but well below Latin American (30.7%) and OECD (34.2% to 56.1%) country averages. This begs the question as to whether revenues are sufficient to fund needed infrastructure and human capital investments that could increase productivity and stimulate economic growth. Recent efforts to improve the efficiency of the tax administration show the Honduran government’s commitment to providing a more efficient and effective tax system, but additional work is required to effectively reduce tax evasion. Also, the Honduran tax system has numerous special tax treatments that seek to incentivize the economic development in exports and tourism in particular. While many of these have economic merit, a careful review of these exemptions could help identify those that have not been effective.

7.1.3. Governance and Institutions

The quality of governance via public institutions is important for economic growth. A government that efficiently provides public services and effectively establishes and enforces laws and regulations for business formation and operation can increase the private sector's confidence in the reliability of the government, attract investment (both domestic and foreign), and increase the size of the formal sector.

The view that institutions are required for and drive economic growth is associated with North (1990), Hall & Jones (1999), Acemoglu (2001), and Rodrik (2004). These institutions that drive growth are the rules and regulations that “structure incentives in human change, whether political, social, or economic” (North, 1990). Without these institutions, transactions (social, political, or economic) have no set method or rule. This disorder and uncertainty can increase the cost and time of transactions, increase risk, and lower transaction/contract reliability. Without these institutions good decisions such as privatization can actually damage growth as parties interested in profit cannot coordinate and function together (Rodrik, 2004). Finally Kaufmann, Kraay, & Mastruzzi (2010), the creators of the World Governance Indicators, define governance as “the traditions and institutions by which authority in a country is exercised”.

As reiterated throughout the document, we are limiting the scope of this paper to the influence of various factors on private sector investment. Many of the governance institutions discussed in this section have roles in protecting human rights, which are important as an end in and of itself. The more specific focus of the paper on the implications of governance for private sector investment is not intended to contest that well accepted principle.

The chart below shows Honduras' performance on the World Governance Indicators compared to other Lower Middle Income Countries.³⁸ We see that Honduras is significantly better than income peers in Regulatory Quality and rank lowest on Rule of Law and Control of Corruption. This section will generally follow the taxonomy of the World Governance Indicators (WGI) and will analyze: Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.³⁹ However, we also acknowledge that there are some overlaps and important interactions among these elements of governance.

³⁸ For FY2013, Honduras shifted from the Low Income Category (LIC) to the Low Middle Income Category (LMIC) ranking of countries due to an increase in its per capita income, as defined by the World Bank's International Development Association.

³⁹ Percentile rank indicates rank of a country among all countries in the world. 0 corresponds to the lowest rank and 100 corresponds to the highest rank.

Figure 37: Honduras World Governance Indicators vs. Lower Middle Income Average



Source: World Bank, World Governance Indicators, 2012

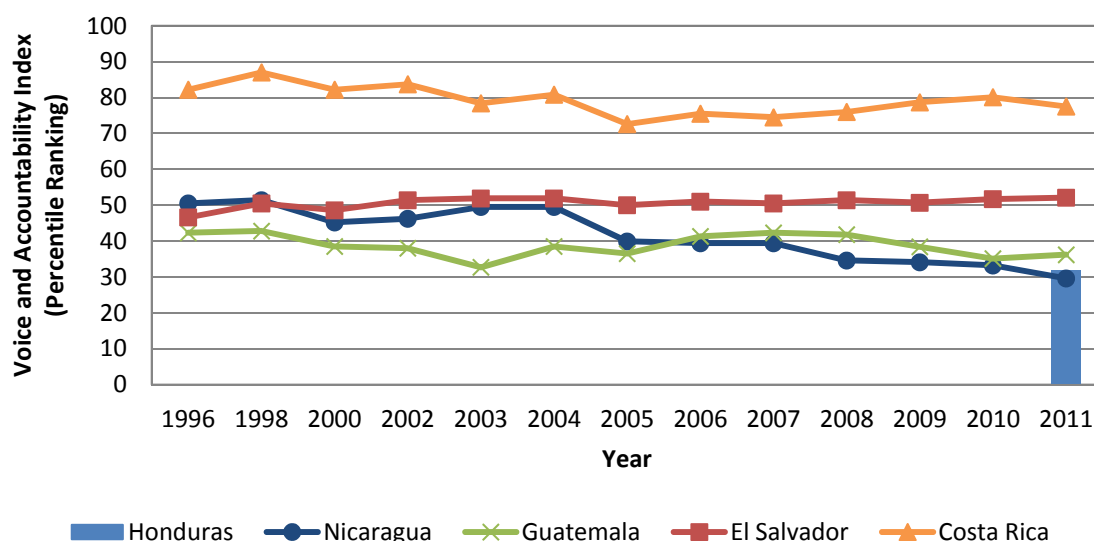
Note: Honduras represents the top bar and Lower Middle Income Country average is lower bar.

7.1.3.1. Voice and Accountability

The WGI defines this area as the “extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media” (Kaufmann, Kraay, & Mastruzzi, 2010). The manner in which citizens select their government affects the accountability of leaders. Freedom of information, expression and the media promote transparency and in turn accountability. While these freedoms are of fundamental importance for their own sake, business investments are sensitive to Voice and Accountability in part because the role of elections and the media in holding leaders accountable promotes better government performance.

The chart below shows that Honduras ranks relatively poorly on the WGI index for Voice and Accountability compared to other Central American countries.

Figure 38: Voice and Accountability, 1996 – 2011



Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators, 2012

The most heavily weighted components of the WGI Index for Voice and Accountability are Freedom House and the Bertelsmann Transformation Index report,⁴⁰ both raise concerns about the violations of human rights, including violent suppression of freedom of speech and assembly by the interim government in the lead up to the elections of November 2009. While acknowledging the concerns about the conditions in the lead up to the election, the international community considered the presidential election in November 2009 to be free and fair. Under the administration of President Lobo, Honduras embarked on a difficult process of national reconciliation that has led to a full re-integration of Honduras into the international community. The Government of Honduras has publically acknowledged that free, fair, and transparent elections are critical to ensure the legitimacy and define the mandate of Honduras' elected leaders. To that end, the current administration adopted the following objectives:⁴¹

- Guarantee that disbursements required for the electoral process are made according to the disbursement schedule;
- Support the Supreme Electoral Tribunal and the National Persons Registry in the National Census purge process;
- Facilitate civil society's efforts to monitor campaign expenditures;
- Ensure the safety and logistical needs of the electoral process; and

⁴⁰ Honduras has data for 15 sources of this index, but about 70% of the weighting for Honduras' score comes from Freedom House (FH) Countries at Crossroads, FH Freedom in the World, Economist Intelligence Unit and the Bertelsmann Transformation Index BTI.

⁴¹ Joint Declaration of the Government of Honduras and the G-16 International Donor Group. August 29, 2012.

- Encourage citizen participation and promote a climate of trust in the electoral process with the help of state media.

Voice and Accountability also looks at the freedom of the media. Both FH and BTI raise concerns that the Honduran state is not adequately guaranteeing the freedom of the press due to impunity in the murders of journalists. According to *Comisionado Nacional de los Derechos Humanos* (CONADEH – National Commissioner for Human Rights),⁴² three journalists were murdered from 2003 to 2008, four in 2009, twelve in 2010, six in 2011, and five in 2012 (through May).

The 2011 Department of State Human Rights Report finds that:

The constitution and laws provide for freedom of speech and press, and the government generally respected these rights in practice. In May the government repealed a state of siege law that permitted the suspension of civil liberties. However, the news media continued to suffer from vulnerability to special interests and weak professionalism in reporting and analyzing news. A small number of powerful business magnates with intersecting commercial, political, and family ties owned most of the news media and substantially influenced the political and factual content of reporting in their publications.

The preliminary report of Frank La Rue (2012), Special Rapporteur of the United Nations for the promotion and protection of the right to freedom of expression and opinion, found that:

*As I was informed by the Public Ministry and other agencies, the processing rate of cases involving violence is four percent or less, and of the 23 cases of killings of journalists since 2006, six have been prosecuted and only two have come to verdict. This situation is unacceptable if we are to end impunity.*⁴³

As discussed further in the Rule of Law section, impunity pervades the criminal justice system and is not unique to murders of journalists. In January 2011, the GOH established a Special Victims Task Force that has among its responsibilities the investigation of murders of journalists. The continued violence against members of the media, including murders, have motivated the GOH to request technical assistance from the governments of the United States, Spain and Colombia, for further investigation of these cases. Several arrest warrants have been issued related to the deaths of journalists, followed by the apprehension and prosecution of persons found responsible for some of the cases.

⁴² <http://www.conadeh.hn/index.php/7-conadeh/100-lista-de-periodista-ejecutados>

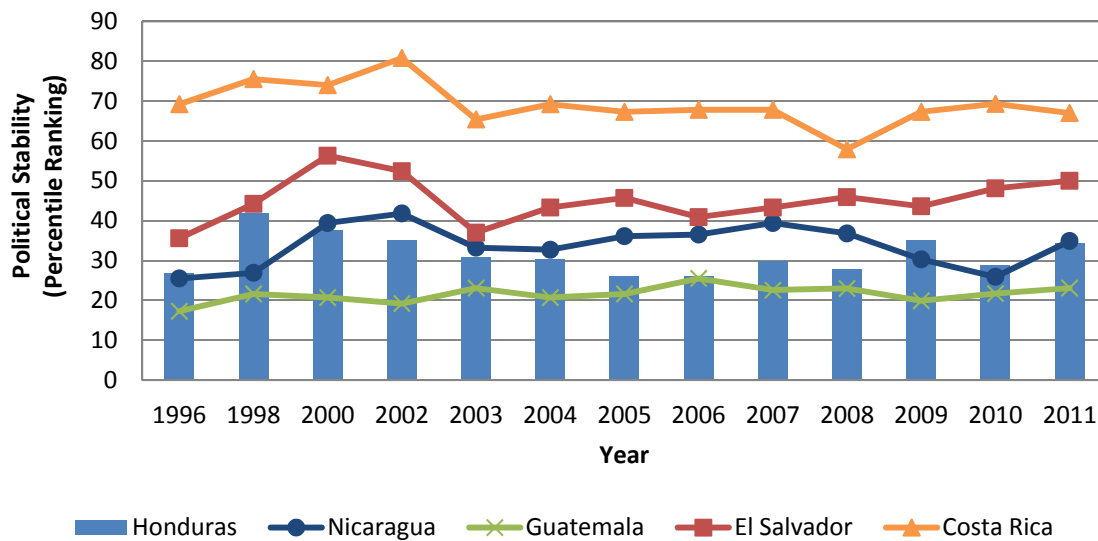
⁴³ Original Spanish: “Según me informó el Ministerio Público y otras dependencias, el índice de procesamiento de casos de violencia es de cuatro porcientos o menos, y de los 23 casos de asesinatos de periodistas desde el 2006 seis han sido judicializados y solo dos han llegado a sentencia. Esta realidad es inaceptable si se pretende terminar con la impunidad.”

7.1.3.2. Political Stability

The WGI defines Political Stability as capturing the perceptions of the likelihood that the government will be “destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism” (Kaufmann, Kraay, & Mastruzzi, 2010). A heightened risk of a nondemocratic change in government raises various appropriability risks and tends to lower investment. Honduras experienced a change in government outside of the electoral process with the removal of President Zelaya from office in June 2009, which dampened FDI and domestic investment that year.

In the WBES completed between July 2010 to May 2011, about 17% of firms cited Political Instability as the main obstacle (1st of 15 obstacles) and about half of firms said it was a major or severe obstacle (2nd of 16 obstacles). However, this seems to capture both perceptions that the government will be destabilized and policy uncertainty. In the WEF executive opinion survey, Policy Stability ranked sixth, but Government Stability/Coups ranked only 15th of 16. In 2011, Honduras ranked in the 34th percentile and poorly compared to its peers on the WGI Political Stability index as shown below.

Figure 39: Political Stability and Absence of Violence/Terrorism, 1996 – 2011



Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators, 2012

As cited above, the steps taken by the Lobo Administration have decreased the likelihood of a repeat of the events of 2009 or other forms of political instability. In July 2011, the Truth and Reconciliation Commission issued its report on the events before and after the crisis of June 2009 entitled “So that the events not be repeated”. The report contained 88 recommendations in 8 areas: constitutional, institutional, human rights, rule of law, electoral politics, fighting corruption, media, international

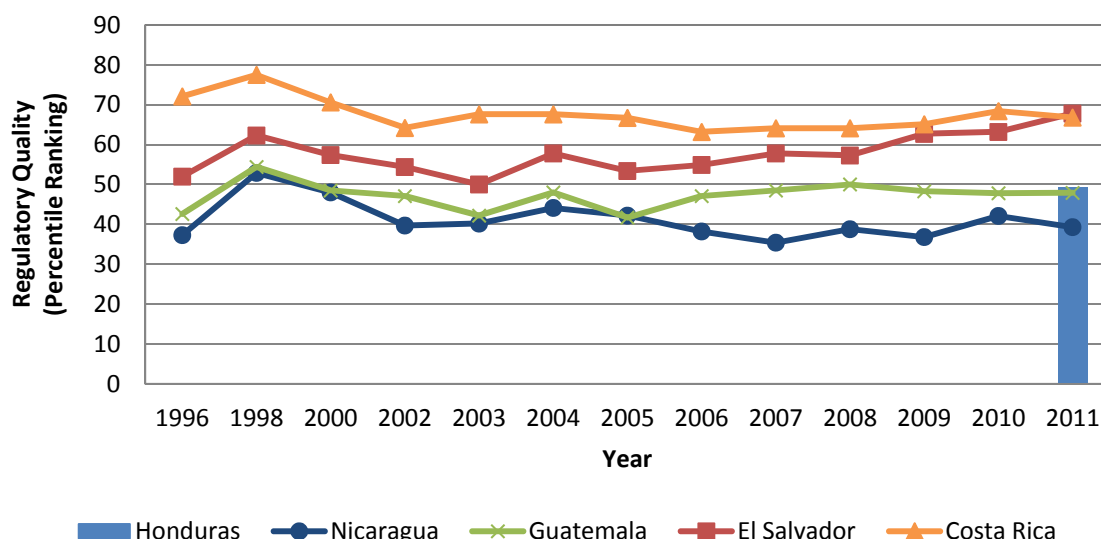
relations, and a policy on reporting.⁴⁴ The Lobo Administration also created a Monitoring Unit for the Truth and Reconciliation Commission (USCVR),⁴⁵ which published its first report in June 2012.

7.1.3.3. Regulatory Quality

The WGI defines Regulatory Quality as “capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development” (Kaufmann, Kraay, & Mastruzzi, 2010). In more detail regulatory quality measures the frequency of market-unfriendly policies such as price-controls, excessive regulation of foreign trade, business development, and investment.

According to the World Governance Indicators Regulatory Quality stands at 49th percentile, slightly below the regional average but a major improvement from the 30th percentile in 2005. It is the Governance Indicator that is greatest above the lower middle income country average. As shown in the chart below, from 1996-2006 regulatory quality in Honduras was lower than any comparator country in Central America, but it has since risen above Nicaragua and is about equal with the rankings for Guatemala.

Figure 40: Regulatory Quality, 1996 – 2011



Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators, 2012

To provide a more detailed assessment we look at: a) regulations of opening and operating a business, b) minimum wage and labor regulations, c) the informal sector, and d) competition policy.

⁴⁴ Original Spanish for last section of report is: “política de la memoria.”

⁴⁵ In Spanish: *Unidad de Seguimiento a las Recomendaciones de la Comisión de la Verdad y la Reconciliación*

a. Regulation of Business Registration and Operation

We discuss the broad findings of the Doing Business study in Section 3.2 of Honduras Ratings in International Benchmarking Exercises. Of the ten areas in the life cycle of a business covered in the Doing Business Report those that must directly relate to elements of Regulatory Quality are Starting a Business, Construction Permits, and Trading Across Borders.⁴⁶ Compared with 185 other countries, Honduras' performance is the following: Starting a Business (155), Construction Permits (65), and Trading Across Borders (90). As the performance for starting a business is among the lowest in Latin America, we look at that indicator in more detail.

The Doing Business Starting a Business indicator averages the procedures, time, cost and minimum capital requirements to obtain the permits necessary to operate legally in the country. In the past few years Honduras has been active in undertaking reforms to simplify the procedures to start a business. As a result, the Doing Business 2013 reported that it takes 14 days to start a business in Honduras, much better than the rest of Central America except Panama. However, the number of procedures, cost, and capital requirements account for Honduras' overall poor ranking. Although the latter two indicators have been gradually decreasing since the start of Doing Business reports in 2004. Honduras is currently undertaking further reforms that should be reflected in next year's report.

Table 9: Starting a Business

Indicator	Honduras	Colombia	Costa Rica	El Salvador	Guatemala	Mexico	Nicaragua
Starting a Business (rank)	155	61	128	139	172	36	131
Procedures (number)	13	8	12	8	12	6	8
Time (days)	14	13	60	17	40	9	39
Cost (% of income per capita)	45.9	7.3	11.4	46.7	48.1	10.1	100.6
Minimum Paid-in Capital (% of income per capita)	15.7	0.0	0.0	2.9	20.9	0.0	0.0

Source: World Bank, Doing Business Indicators, 2013

In addition to the Doing Business indicators that look at the rules, the World Bank Enterprise Surveys ask manufacturing firms their opinion on the extent to which 16 factors are an obstacle to doing business. The WBES show that 18% of firms cite business licensing and permits, and 14% cite customs and trade regulations as a major or very severe obstacle. It is interesting to note that 23% of medium sized firms cite customs and trade regulations as a problem, compared to 9% small firms and 12% of large firms. Nevertheless, when asked for the biggest obstacles to business licensing and permits ranked as 10th of 15

⁴⁶ Starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency

and customs and trade regulations were 8th. In conducting the private sector consultation for this study, we anecdotally found that large firms seem to be able to hire special facilitators and have established systems to deal with problems in customs and trade regulations.

In the private sector consultations we heard repeated concerns about the consistency of the application of regulations and changes to laws and regulations not being properly socialized. Despite CAFTA-DR requirements that any regulation impacting business be published for public comment prior to implementation, there is no formal system in Honduras to publish regulations. As a result non-government groups cannot comment on proposed regulation and often do not fully understand what is required by current regulation in Honduras.⁴⁷ Table 10 below summarizes the concerns raised by businesses about administrative procedures that impede investment.

Table 10: Administrative Procedures that are an Obstacle to Investment

Procedures (Institution)	Observations
Construction Permits (municipal offices)	<ul style="list-style-type: none"> Each municipal office has different procedures, highly discretionary and without any coordination with other institutions related to this construction item (SANAA, ENEE, SERNA, DGVU-SOPTRAVI). The municipal offices charge based on project amounts (making them extremely expensive) when Article 84 of the Law on Municipalities provides that the rate to be charged should only cover the service.
Environmental Authorizations (SERNA, some municipal offices on which specific authorization categories have been delegated)	<ul style="list-style-type: none"> Response times reported by the construction industry continue to be non-satisfactory, despite the new SINEIA regulation (published in 2009) that establishes simplified instruments and expedited timeframes (e.g., 15 business days for Category 1 authorizations).
Imports / Exports (Executive Revenue Directorate (Customs), National Port Company, SENASA)	<ul style="list-style-type: none"> As the foreign trade electronic window is not yet implemented, and the same is not incorporated to the permits obtained prior to the exports and imports (e.g., phytosanitary, zoosanitary certificates), all the procedures are carried out manually on paper, which means delays and high costs. There is no coordination among the institutions to achieve integrated risk management and thus to rationalize and focus on the time and costs devoted to inspection. Companies continue complaining about the problems with infrastructure of the National Port Company (e.g., cranes).

⁴⁷ USAID Investment Climate Assessment, 2012

Procedures (Institution)	Observations
Authorizations of Renewable Energy Projects (SERNA, ENEE, National Congress)	<ul style="list-style-type: none"> Extended response times and the number of steps required continue being reported by sector businessmen.
Sanitation Certificates (Ministry of Health)	<ul style="list-style-type: none"> The response time is still one of the main obstacles for businessmen, especially for exporters and importers of food and pharmaceutical products.
Authorization of Forest Management Plans (National Institute for Forest Conservation and Development)	<ul style="list-style-type: none"> Although Honduras is a country with important forestry resources, the procedures for the sustainable use of resources are extensive, discretionary and have high costs.

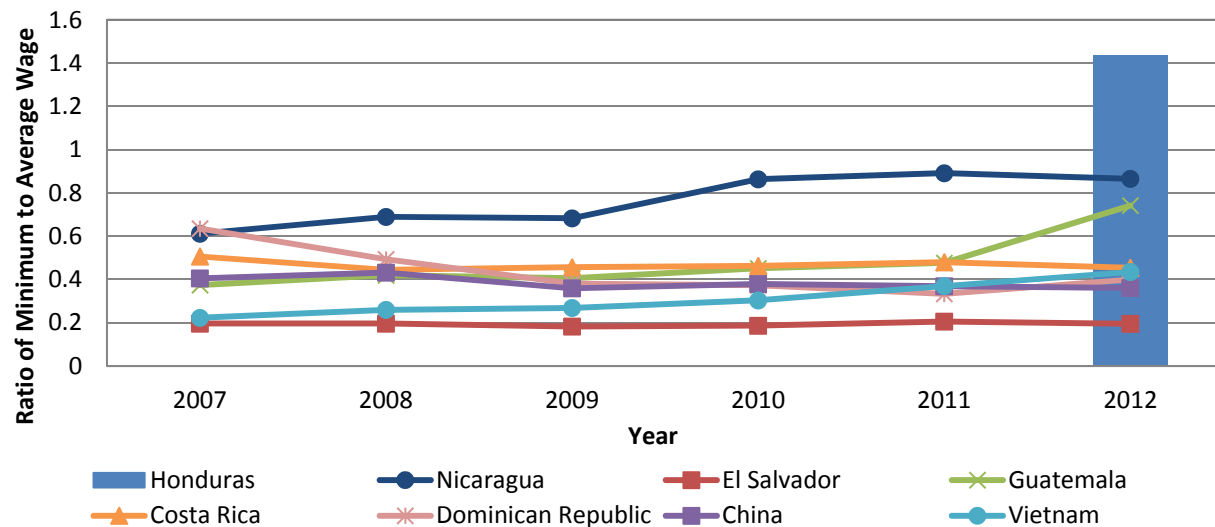
Source: Private sector consultations completed for this analysis

b. Minimum Wage and Labor Regulations

Every country in the world regulates some aspects of its labor market in an attempt to strike an appropriate balance between worker remuneration, workplace safety, and job security and the flexibility that employers need to operate efficiently and grow. From a potential investor's perspective, labor market regulations can increase production costs, reduce productivity, and increase risk. If such regulation is overly burdensome it would reduce the demand for labor in the economy generally. Reduced demand for labor pushes down wages, raises unemployment, and impedes investment and innovation which are essential for productivity growth. There is a growing body of rigorous empirical evidence from a variety of countries that labor market regulation tends to reduce productivity, growth, and employment (see, e.g. Besley & Burgess, 2004, Almeida & Carneiro, 2008, Poschke, 2006), as well as labor force participation (Botero et al., 2004).

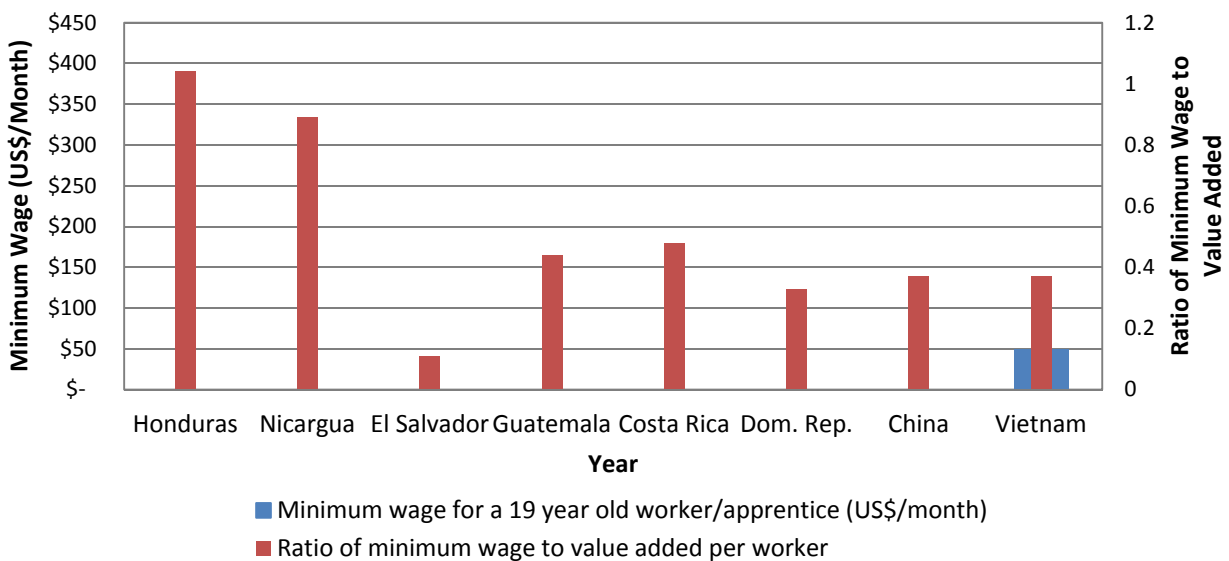
Gindling and Terrel (2010) use Honduran wage and employment data to explore the impact of minimum wage legislation. "The evidence suggests that minimum wages are effectively enforced only in medium and large scale firms, where a 1% increase in the minimum wage leads to an increase of 0.29% in the average wage and a reduction in employment of -0.46%." The figure below shows the ratio of minimum wages to average wages (Figure 41). It appears that Honduras has the highest minimum wage relative to average wages in the region. Additionally, Figure 41 and Figure 42 show that the minimum wage has increased substantially from 2007 to 2011 and Honduras now has a minimum wage higher than peers in absolute terms and particularly relative to its income level.

Figure 41: Ratio of Minimum to Average Wage (calendar year)



Source: World Bank Doing Business Indicators, 2012-2013

Figure 42: Minimum Wage Rates and Value Added (calendar year)



Source: World Bank Doing Business Indicators, 2012-2013

The impact of the minimum wage is further amplified by required bonuses. Employees with more than one year of work are entitled to a 13th and 14th month pay in December and June respectively, effectively increasing the minimum wage by 17%.⁴⁸ Furthermore, severance pay is not optional and is set at one

⁴⁸ Honduras Department of Labor and Honduras Guide to International Business, page 15.

month's pay per year of employment. Both of these factors provide a safety net for the employee; however, they can also encourage employers to favor short-term employment contracts and deliberate understaffing to avoid cost overruns. Lazear (1990) and Addison & Teixeira (2003), among others, have noted that employee protection policies, in particular severance pay, has a negative impact on employment. Addison's calculations show that for OECD countries every month of severance pay due to a 10 year employee raises unemployment by 0.17%. While the Honduran economy differs from that of OECD countries there is no evidence in the literature that the results should differ significantly (Addison & Texeira, 2003). These pay requirements, along with the minimum wage, suppress employment in low wage sectors of the economy. The World Bank, IMF, and the 2009 Honduran Constraints Analysis have noted that a concern for the *maquila* sector is increased competition from China,⁴⁹ which can offer lower prices due to lower wages. The labor regulations in Honduras no doubt add to this competition.

c. The Informal Sector

The informal economy can be defined broadly as “those economic activities and the income derived from them that circumvent or otherwise avoid government regulation, taxation or observation” (Dell'Anno, 2003, Dell'Anno and Schneider, 2003, Feld and Schneider, 2010, and Feige, 1989). The informal sector could be an obstacle to growth if companies that are escaping government regulation or taxation are outcompeting formal sector businesses and causing future businesses not to invest or to operate informally. If this is an obstacle, it would be an indication that government is failing to enforce its business regulations and eroding the competitive structure for businesses that do operate formally.

It should be noted here that this section investigates specifically if the existence of an informal sector is a binding constraint to growth for the formal sector, not if there are binding constraints to growth for those in the informal sector. This does not deny that there are concerns for workers in the informal sector. Informal employment is characterized by workers not being recognized or protected by the legal and regulatory framework. In addition, informal workers do not have social safety nets and labor rights, and contract enforcement often depend on informal institutions.

It is quite likely, as will be discussed here, that the existence of a large informal sector in Honduras is symptomatic of other problems in the economy related to government regulation and that significant gains in productivity and economic growth could be achieved if a proper avenue were established that would allow informal actors to pursue their businesses through formal economic means.

Current Situation

The literature highlights that high minimum wages, rigid labor laws, burdensome business regulations, and high taxes can all increase informal employment. Doing Business shows that Honduras has a high minimum wage relative to other Central American countries and that their labor market regulations are

⁴⁹ Competitividad de Crecimiento en Honduras

also rigid relative to international norms (168 of 183 countries in 2010).⁵⁰ The WEF GCI ranks Honduras 135 of 142 countries on Labor Market Efficiency.

Consistent with its high minimum wage, Honduras leads the informal market indicator among Central American countries. In 2009 informal employment reached 74% of total nonfarm employment, in contrast to those reported by Costa Rica and Panama of 44%, the lowest in Central America. Table 11 shows that of the total non-farm informal employment in Honduras the majority work in the informal sector while 13.5% work in the formal sector but as informal employees.

Table 11: Central America: Composition of Non-Farm Employment (%), 2009

	Costa Rica	El Salvador	Honduras	Nicaragua*	Panama
Total	43.8	65.6	73.9	65.7	43.8
Informal Sector	32.6	51.6	56.9	50.7	37.5
Formal Sector	6.7	8.1	13.5	8.1	11.4
Domestic Service	4.5	5.9	3.5	6.9	4.9

Source: ILO, 2011

*Nicaragua reflects 2008 data, the most recent year for which information is available.

From the above it is clear that rates of informality are high in all of Central America. Next, we look at how this impacts formal businesses. In the 2010 WBES, 23% of companies responded that Practices of Competitors in the Informal Sector are a very severe or major obstacle to their business (ranking it 7th in a list of 16 obstacles) and over 9% of firms thought this was the biggest obstacle, ranking it 5th of 15 potential obstacles. In both measures this was a more important issue for small and medium size businesses than large businesses, with large businesses almost half as likely to cite informality as an obstacle. This is lower than Latin America on average, in which 15% of firms rate it as the main obstacle (1st of 16 obstacles).

While it would seem that informality is high in Honduras but not a binding constraint, this high level of informality does indicate that many firms believe that the benefits associated with registration fall short of the costs. The benefits may include better access to credit, access to social security benefits for workers, increased market access and reduced risk of fines for not being registered. The costs include payment of taxes, following wage and other labor regulations, and complying with government regulations. So, this high level of informality may signal problems related to regulatory burdens on businesses or overly tight labor market regulations. In any case, it would be advantageous for Honduras to work to reduce informality as it has a number of negative consequences. The World Bank (2011c) finds that “these

⁵⁰ 2010 was the last year in which Doing Business aggregated and used labor market data in country rankings. This was done to strike a better balance between labor market flexibility and social protection. They continue to publish the labor market data as an annex.

include potentially negative consequences for competitiveness and growth, incomplete coverage of formal social programs, undermining social cohesion and law and order, and fiscal losses due to undeclared economic activity.” While we do not find informality to be a constraint, because of the important social consequences we look at the individual level determinants of the likelihood of being in the informal sector in Appendix 3.

d. Competition

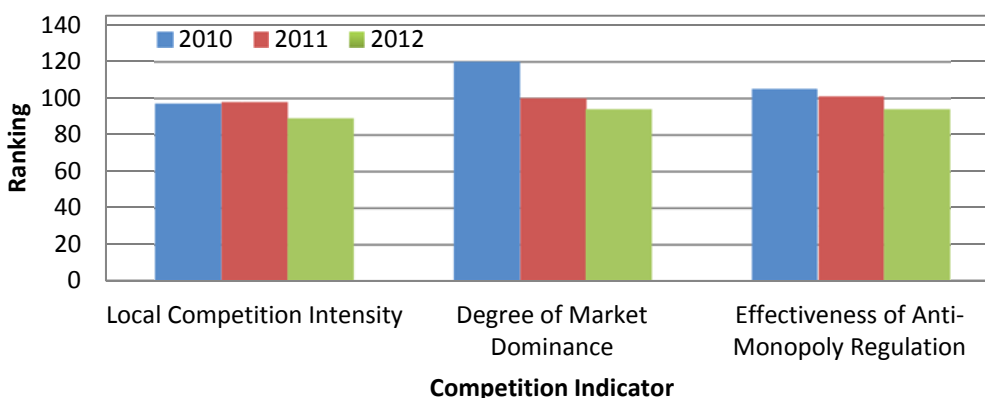
The technical definition of competition is defined as a situation in which economic agents are free to offer goods and services and to choose who purchases or acquires these goods and services. Generally, this translates into an environment where, for a given good, there are many suppliers and buyers in the market.

In practice, the law on Competition plays a very important role in the economy, establishing the interaction framework, the degree of participation of the government, and the rules among actors of a relevant market.⁵¹ The Competition defense policies play a very important role in developing countries, such as Honduras, both to promote a competitive environment and to build a sustainable government support aimed at generating a pro-competition posture. In time it has been proven that if the economic reforms geared to promoting a free market are not supported by an appropriate competition policy, the possibilities of fully achieving the goals of such reform are reduced. A well-designed law that regulates competition, as well as its implementation—for example in terms of anti-monopoly regulation—promotes an environment that spurs both domestic and foreign investment (FDI).

In recent years, Honduras has achieved significant advances in the defense of competition. Evidence of such progress is reflected on the World Economic Forum indicators (Global Competitiveness Report, GCR), which shows the improvement in the aspects evaluated (Figure 43). The intensity of local competition has remained stable with a slight increase towards more distribution among industries. The indicators on the Degree of Market Dominance and the Effectiveness of Anti-Monopoly Regulations show a trend towards a country less controlled by a few entrepreneurial groups, as well as greater effectiveness in competency promotion. In all the indicators, Honduras has shown a positive evolution in terms of Competition, but Degree of Market Dominance stands out as it has improved by 26 positions in the ranking in only three years. In terms of comparisons with other countries, Honduras performs significantly better on these indicators.

⁵¹ For example, from the point of view of the territorial enforcement, the Law on Defense and Promotion of Competition of Honduras does not only apply to natural and legal, public or private entities, domiciled in Honduras, but also to all those who conduct acts against free competition and have an effect on the country (OECD, 2011).

Figure 43: Evolution of Honduras' Competition Indicators



Source: World Economic Forum, Global Competitiveness Report, 2012-2013

Note: 2010 data is from the 2010-2011 report, 2011 from 2011-2012, etc. There were 139 countries being ranked in 2010, 142 in 2011, and 144 in 2012.

Evolution of Competition in Honduras

Before the Law on Competition, the State's participation in economic activity was characterized by the use of instruments such as price controls, quota systems, tariff protection for certain sectors, considerable public subsidies, fiscal credits and exemptions, and a large participation in productive activities of key sectors. The Law for the Defense and Promotion of Competition of Honduras was created as a result of structural reforms initiated in the 1990s, which had the goal of liberalizing the economy, deregulating markets, privatizing some public companies and opening the economy. This process has not been without problems, due to a tradition of state intervention in the economy (OECD, 2011).

An example of these reforms and initiatives is the Investment Law that regulates the investment regime in Honduras. The Law's basic objective is to provide guarantees to national and foreign investments in order to increase Honduras' competitiveness in the global market. Additionally, Article 2 of the Law guarantees the principle of "Economic Non-Discrimination", which establishes that all private companies operating in the country will receive the same treatment without distinction of the origin of their capital (national or foreign), thereby eliminating the entry barrier related with the origin of the investments.

As Tábor (2007) states, there are also other factors that have led governments, such as Honduras, to adopt policies directed to the promotion of free markets and economic development. Among these factors are the lack of infrastructure and the inefficiencies of the domestic market, which have caused the erosion of the competitive position of export sectors, thereby requiring more aggressive competition from countries in order to attract foreign investment and the promotion of a more business-friendly environment. Second, the increasing fiscal deficits of countries like Honduras limits the State's ability to invest in companies and forces them to reduce their state apparatus, to privatize, to promote the participation of the private sector in state companies, and to deregulate markets. Third, globalization of markets and its impact on international trade flows and investment have limited government actions.

Specifically, the Law for the Defense and Promotion of Competition was promoted with the Free Trade Agreement CAFTA-DR, which facilitated the approval of the Law in National Congress with support from the private sector. This law was approved at the end of 2005, and entered into force on February 6, 2006, creating the Commission for the Defense and Promotion of Competition as implementing authority.

Commission for the Defense and Promotion of Competition

The issue of competition entered into a new stage in Honduras with the creation of the Commission for the Defense and Promotion of Competition, which provides a specialized structure for the oversight and implementation of the Law. Regarding its independence, the Commission has implemented their work based on the strong independency provided in the Law. There are no politically natured interferences in the Commission's actions and, in general, the entities that interact with the Commission expressly value this attribute (the results of the Commission's work is outlined in Table 12).

The maximum authority of the Institution is the Board of the Commission, which is the competent authority to make decisions for the Institution and comprises three members, one of which is the President. Some of the requirements for the members of the Board are the following: they have to be attorneys, economists, or business professionals. The members are chosen by two-thirds of National Congress for a seven year term from a list of 15 candidates proposed by several institutions.⁵² The other members of the Commission include approximately 20 officers that work in technical areas of the Institution (conducting investigations and studies) or provide administrative support.

Regarding sanctions, Article 37 of the Law establishes that the Commission can impose a fine on an economic agent equivalent of up to three times the amount of the economic benefit obtained. If it were not possible to determine the amount of the benefit then the Commission would set a fine that cannot exceed 10% of the gross profits in the previous fiscal year. The Law also establishes sanctions for late notification of any competition-restricting measure or operation, not providing the information required by the Commission, repeating the offense or conducting practices prohibited by the Law.

Table 12: Results of the Commission's Work

Actions	2006	2007	2008	2009	2010
Sanction Resolutions	0	0	2	1	6
Absolutory Resolutions	-	-	-	-	-
Concentration Operations Decisions	1	14	11	5	3
Responses to Consultations	-	4	7	1	-
Total	1	18	20	7	9

Source: OECD (2011)

⁵² *El Consejo Hondureño de la Empresa Privada* (The Honduran Council for the Private Sector) (COHEP), *Foro Nacional de Convergencia* (The National Convergence Forum) (FONAC), The National Commission for Competitiveness, the Executive Branch and the Federation of Professional Associations of Honduras (FECOPRUCH).

From 2007 to 2011 the Commission has conducted several sector studies to promote the Law and Principles of Free Competition, as shown in Table 13 below. Through 2011 the Commission considered 13 cases of mergers and acquisitions under the mandatory notification procedure, none of which were prohibited (OECD, 2011).

Table 13: Sector Studies by Commission for the Defense and Promotion of Competition (2007 – 2011)

Sector Studies	Date
Pharmaceutical Products	May 2007
Oil Liquid Fuels	October 2007
Pasteurized Milk	August 2008
Payment Cards (Debit and Credit)	October 2008
Sugar	December 2008
Cement	March 2009
Iron Rods	March 2009
Agrochemicals and Fertilizers	August 2009
Electric Power	September 2009
Private Health Services	September 2009
Concentrated Feed	January 2010
Passengers Air Transportation	January 2010
Basic Grains	January 2010
Cargo and Passenger Land Transportation	February 2010
Wheat Flour	June 2010
Insurance Services	August 2010
School Materials	December 2010
Poultry Market	June 2011
Mobile Telephones	August 2011

Source: Commission for the Defense and Promotion of Competition, studies from 2007 – 2011

Conclusion

In recent years, Honduras has made significant efforts in competition policy. The local market evolution has allowed greater local competition and market control. Additionally, the advance in the perception of the effectiveness of the anti-monopoly rules as a way to promote competition is linked to the work conducted and the role played by the Commission for the Defense and Promotion of Competition. As the role of this Commission is strengthened and the vision of their new board members (to be selected for the period 2013-2019) continues in the current direction, the trust businessmen have in government institutions as supervising and implementing entities of the Competition Law will increase.

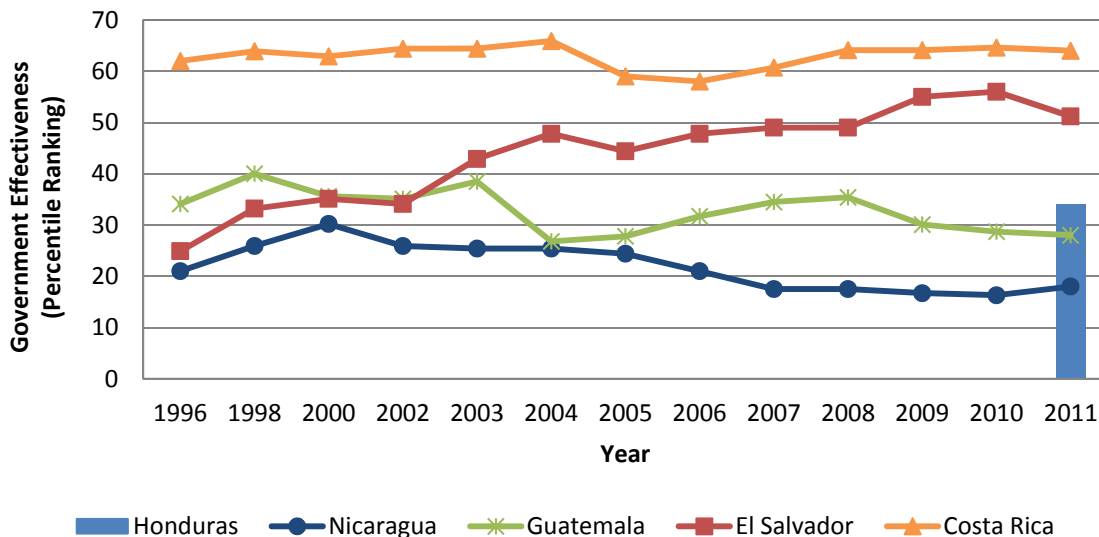
With the evidence presented, Competition is currently not considered a constraint to economic growth in Honduras.

7.1.3.4. Government Effectiveness

Government Effectiveness measures the quality of public service, quality of civil service and the degree of independence from political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.⁵³ Inefficient allocation of these institutions can increase business costs and uncertainty, increase household costs and uncertainty, and dissuade investment.

World Governance Indicators show that Honduras has a ranking of 34.1 for Government Effectiveness (Figure 44). This ranking, despite some fluctuation, has changed little in the past 15 years. The Latin American average for Government Effectiveness is 58.4. Central America as a whole is well below the world or Latin American average, and Honduras has held steady as a low performer in Government Effectiveness for Central America.

Figure 44: Government Effectiveness, 1996 – 2011



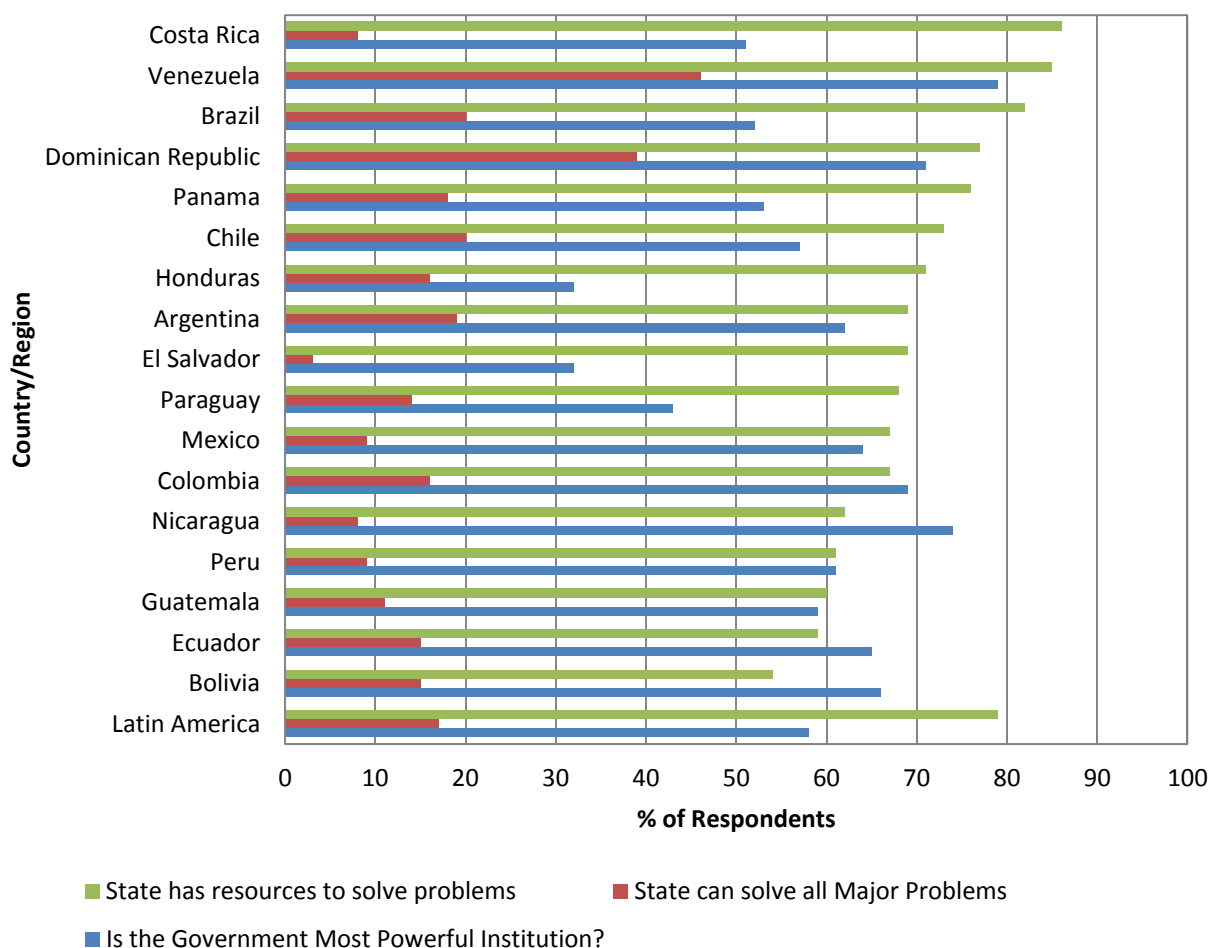
Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators, 2012

In the WEF executive opinion survey, executives have rated Inefficient Government Bureaucracy as the 3rd most problematic factor behind crime and corruption. Looking into more detailed reports further backs up the evidence that Honduras is lagging behind regional competitors in government effectiveness. The Latin Barometer Report (2010) shows that only 51% of the populace approves of the government's economic and institutional actions. Of even more interest, Figure 45 illustrates that 17% of the populace believes the government has the capabilities to solve all problems (equal to the Latin American average) and 71% believe the state has the resources needed to solve the major problems challenging the

⁵³ World Governance Indicators, Kauffman, Kraay, and Mastruzzi.

economy. However, when asked about what institution is the most powerful in the country Honduras rates the government at 32%, the lowest rating in all of Latin America.⁵⁴ These data indicate that while the government has the resources to run public institutions effectively it is not seen as powerful or effective when compared to regional competitors.

Figure 45: Government Effectiveness Opinion Poll



Source: Latin Barometer, 2010

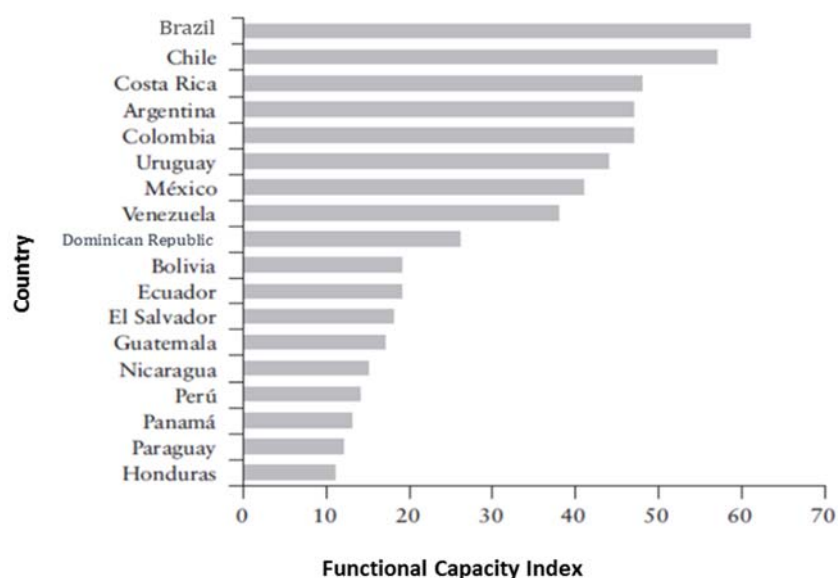
While it is now somewhat dated, the findings of “The State of Reforms in Latin America” are still informative.⁵⁵ To assess the quality of public administration, they use the results of work done in the context of the Regional Policy Dialogue on Transparency and Public Management by the Inter-American Development Bank. The study, conducted between 2002 and 2005, aimed to assess the quality of

⁵⁴ <http://www.latinobarometro.org>

⁵⁵ *El Estado de las Reformas del Estado en América Latina*. <http://idbgroup.org/WMSfiles/products/research/books/b-616/files/cap4.pdf>

government officials in 18 countries in Latin America under a common framework. They first look at the degree to which merit is used in hiring civil servants and find that all of Central America, except Costa Rica, scores poorly relative to the rest of Latin America. They also show the results of an assessment of government functional capability, in which Honduras ranks last among LAC countries included (Figure 46).

Figure 46: Functional Capacity Index



Source: Appears as Figure 4.6 in Lora (2006)

An important element of Government Effectiveness is ensuring policy certainty (*seguridad jurídica*).⁵⁶ Policy Certainty in this context refers to the concern that policies (regulations and laws) in Honduras change frequently or are not enforced consistently. To be clear, we are not concerned with changes in leadership or state fragility but in the predictability and stability of policies. Policy uncertainty creates a risk that business costs may increase, and in estimating their returns businesses will discount future cash flows more heavily if they believe there is a higher likelihood of a change in policy that would increase their cost. Foreign businesses that already operate in multiple countries may be more sensitive to this risk.

In the consultations with the private sector, this issue was raised in almost all meetings. Participants cited several cases of the government changing the rules or not enforcing them, and that this has led to investor uncertainty including:

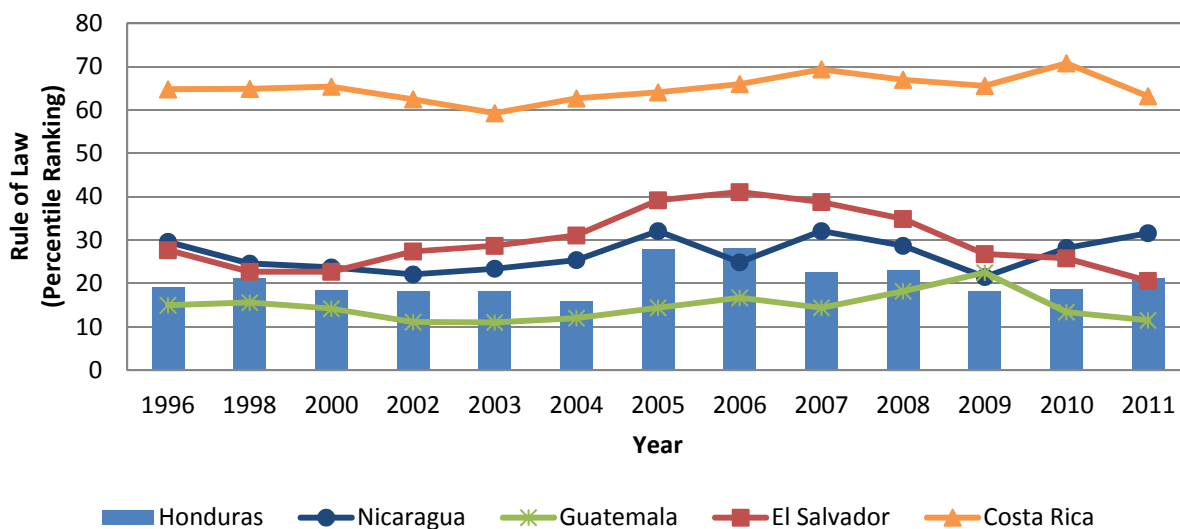
⁵⁶ A strict legal definition of *seguridad jurídica* is limited to legal certainty dealing with policies not being applied retroactively and enforcement being consistent with the law and does not include frequent changes to the law; however, its common use by the business community in Honduras generally includes frequent policy changes as well as the narrow legal definition.

1. land invasions, such as in the Aguan (without judging the merit of land claims there is clearly a dispute),
2. strikes that block roads,
3. tax policy, e.g., Decree 42-2011 prescribes a new minimum tax of 1% of gross income that will apply to firms with losses for the previous 5 years, and proposals in Congress about changing tax exemptions for *maquilas* selling in the domestic market,
4. minimum wage set annually by government (although the most recent year set the minimum wage for the next three years),
5. Decree 01417 that set a minimum price for overland freight and made companies apply this rate retroactively.

7.1.3.5. Rule of Law

The WGI define Rule of Law as “the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.”⁵⁷ Honduras ranks at 21.1 on the WGI Rule of Law indicator, well below the LAC average of 52. Central America as a whole scores particularly low in Rule of Law, and Honduras rates below the average of any region in the world. This rating has improved slightly since 2010, however over the past 15 years there has been little overall improvement.

Figure 47: Rule of Law



Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators

⁵⁷ World Governance Indicators, Kauffman, Kraay, and Mastruzzi (2010).

While the WGI's index shows that Rule of Law in Honduras is low by regional and international standards, we separately examine three of its principal elements: Commercial Legal system, Crime, and Property Rights.

a. Commercial Legal System

In this section we look at how the legal system, (laws and courts) support business transactions (e.g. contract enforcement) and corporate governance (e.g. investor rights).

In the WBES, only a very small number of firms cited the courts as the main obstacle, but 38% responded that courts are a very severe or major constraint. The WEF GCI suggests that Honduras' commercial legal system is somewhat better than the Central American average, although the efficiency of the legal framework in settling disputes is somewhat weaker than other areas and Honduras ranks 89 of 142 countries (Table 14).

Table 14: Global Competitiveness Index Components Related to Commercial Law

Institution Measure	World Average	CA Average	Honduras*
Intellectual Property Protection	3.7	3.1	3.3 (77)
Judicial Independence	3.9	3.0	3.6 (77)
Efficiency of Legal Framework in Settling Disputes	3.8	3.2	3.3 (89)
Protection of Minority Shareholder's Interests	4.3	3.9	4.1 (77)

Source: World Economic Forum Global Competitiveness Report, 2012-2013

*Note: Honduras' country rank is provided in parentheses

As previewed in Section 3, Honduras ranks poorly on the two Doing Business indicators related to Commercial Law; namely, Enforcing Contracts (179 of 185) and Protecting Investors (169 of 185) (Table 15).

Table 15: Doing Business Components Related to Commercial Law

	Honduras	Latin America and Caribbean	OECD High Income
Protecting Investors			
Extent of disclosure index (0-10)	0	4	6
Extent of director liability index (0-10)	5	5	5
Ease of shareholder suits index (0-10)	4	6	7
Strength of investor protection index (0-10)	3.0	5.1	6.0
Contract Enforcement			
Time (days)	920	707.78	518.03
Cost (% of claim)	35.2	31.21	19.71
Cost + 10%*Time/365	60.4	50.6	33.9

Source: World Economic Forum Global Competitiveness Report, 2012-2013

From the above, it appears that firms believe the courts are a problem and this seems in part due to contract enforcement. The shadow price of commercial legal system is difficult to estimate. The cost of contract enforcement in Honduras is higher than the LAC average and this is compounded by the time required (920 days) which has an implicit cost. If we include the time value of waiting for the settlement at 10% of the settlement per year and add this to the other costs we see the cost of enforcing a contract in Honduras is 60.4% vs. 50.6% for LAC on average. In addition, only about 20% of respondents in the WBES survey agreed that the “court system is fair, impartial and uncorrupted.”

Part of the problem with contract enforcement may be the efficiency of the judiciary in resolving commercial disputes. The WB Institutional and Governance Review finds that “Although the number of judges has doubled since 1986, output per judge has not increased and is among the region’s lowest.”⁵⁸

⁵⁸ World Bank, 2009.

Table 16: Judicial Workload, Selected Countries

Country	Incoming Cases per 100,000 Inhabitants	Judges per 100,000 Inhabitants	Incoming Cases per Judge
Honduras (2006)	1,089	10.1	108
Ecuador (2006)	1,802	6.7	269
El Salvador (2006)	2,375	9.2	258
Colombia (2006)	2,893	10.2	283
Peru (2006)	3,919	7.7	509
Argentina (2004)	10,225	11.0	930
Chile (2004)	12,305	5.0	2461
Costa Rica (2004)	22,911	17.4	1316
France (2004)	4,411	10.1	436
Italy (2004)	8,611	10.4	828
Spain (2004)	14,000	9.8	1428
USA (2004)	33,848	10.2	3351

Sources: *Unidos por la Justicia* (Garavano, 2006); CEPEJ (2006); and official country data.

A new Civil Procedures Code (CPC) entered into force in November of 2010, replacing a CPC that had been in effect since 1906.⁵⁹ This code requires open, oral, and recorded arguments for all adversary proceedings. It is hoped this new system will make the legal system more efficient and accessible, however no assessment of the legal system has been published since the implementation of the new CPC.

b. Property Rights

Secure, transferable, and well-understood rights to land and real property are among the essential foundations for economic transactions. When a well-functioning system protects these rights, individuals and firms can make investments that reap longer-term returns that outstrip those made with short-term opportunism in mind. An efficient, well-publicized system also helps markets allocate land to the individuals and firms who can garner the greatest rewards from them. In these and other ways, land and property rights may be essential inputs to modern economic growth. Economists have long described these conceptual links between land and property rights (LPR) and the magnitude and distribution of economic growth (Davis and North, 1971; North, 1990; de Soto 2000 & 2002).

We can think of two main types of constraints to investment that may arise as a result of poor LPR: (1) those that limit productivity from land and (2) those that impose a direct cost on these actors.

⁵⁹ US Department of State 2012 Investment Climate Statement - Honduras

Land productivity is shaped by a variety of factors, including weather, as well as by economic features, such as the extent of investment in or on it and the allocation of economic activities across different tracts of land. Both the extent of investment and the allocation of activities are joint outcomes of individual household and firms' benefit-cost decisions for particular investments, and they are shaped by:

1. *The household or firm's ability to realize the full stream of returns from the investment.* LPR that protect an actor's claim to the returns from a piece of property can improve his or her ability to appropriate this full stream of returns.
2. *The household or firm's ability to monetize the future income stream from an investment or improvement by selling the improved property to another household or firm.* LPR and efficiently operating property markets can thus provide households or firms with a higher option value from exiting the improved property.
3. *The household or firm's ability to obtain credit to finance investments and the cost of that credit.* LPR can allow households and firms to pledge property as collateral against loans that finance productive investments whose returns exceed the costs of those loans.
4. *The household or firm's ability to allocate land to different uses.* LPR which permit households and firms to pursue specific types of agricultural, manufacturing or services activities and which balance community and individual decision-making over appropriate uses can improve the productivity of individual decisions over enterprises and household pursuits.

Direct costs imposed on households and firms as a result of weak LPR include:

1. *Costs of transacting* with public agencies administering property and with other private parties when land or property is bought, sold, or pledged as collateral.
2. *Costs of conflict* over property when LPR do not clearly specify or protect the specific boundaries, uses, or other features of that property.
3. *Costs of environmental degradation* that occur as a result of coordination failures and weak protection of public interests.

The right to private property (land) is articulated in Articles 103 to 106 of the Honduran Constitution and the principles of possession, use and ownership of land are stated in the Civil Code and other subsidiary legislation, regulations and policies. Yet, the Heritage Foundation/Wall Street Journal Global Property Index, which measures protection of private property rights and the government's ability to enforce laws supporting private property rights, places Honduras as 14th of 19 countries in Latin America and the International Property Right Index (IPRI) places Honduras at 75 of 125 countries. The WEF GCI ranks property rights for Honduras as 3.7 on a scale of 1-7, lower than the Central American average of 3.9 and the global average of 4.3. Also, the World Bank's Doing Business ranks Honduras in the middle world-wide (92 of 185) for its indicator demonstrating the ease of registering a property. Within the Latin American region, Honduras ranks a commendable 9th position in ease of registration, yet the cost of 5.7% of the property value to register a property remains high and it should be noted that this indicator typically reports only the formal government fees and legal costs for transferring a property which is already formally registered. As has been shown elsewhere in the region and around the globe, moving individual

properties from informality to formality through existing processes undoubtedly requires much more in terms of time and cost than is captured by the Doing Business methodology. In the 2010 WBES, firms ranked access to land as the least binding of 16 obstacles; however, this survey mostly includes manufacturing firms (190 of 360), and the remainder are from retail (62) and other services (108).

Over the past 30 years the land tenure situation in Honduras has been the focus of many important academic studies and institutional reports. The studies describe a situation of high tenure informality, inequitable land distribution, weak government institutions and inaccessible systems and services. As a result of this international scrutiny and study, improving land tenure security and property rights systems through policy and legislative reforms, institutional strengthening and direct project-based investment has been a focus of the government over the past decade. Land property initiatives have been included in the long-term development strategies presented in the Country Vision 2010-2038 and the National Plan 2010-2022. Setting the foundation for this emphasis, a major legislative and institutional reform occurred in 2004 with the passage by the Honduras Congress of the Property Law. This legislation created the Honduras Property Institute to oversee the formation and maintenance of the property cadaster and the land registry, to develop and implement on a national scope the National System for Property Administration (SINAP) and to proactively regularize informal property rights and register these rights in the national land registry.

The main investment vehicle for reform in the land property sector and the full implementation of the SINAP has been a joint effort between the Government of Honduras and the World Bank to implement the Honduras Land Administration Project (PATH in Spanish). Started in 2004, the implementation of the PATH is currently in its second of four phases planned to cover 18 years and currently funded at approximately US\$ 72 million. According to the PATH2 Appraisal Report dated June 2011, *“land tenure security is central to economic growth and poverty reduction in Honduras.”* This report continues its justification of the continued direct investment in land tenure and land administration by stating that:

Weak property rights have discouraged investments and restricted access to credit; coupled with a highly skewed land distribution, land tenure insecurity has also contributed to social instability (often through illegal land occupation and violent disputes) and unsustainable land uses. In this context, strengthening property rights has the potential to stimulate economic growth and reduce poverty rates, especially in urban and rural areas critical for Honduras’ development.

In addition to the establishment of the Honduras Property Institute and the SINAP, principal achievements of the PATH to date include the surveying and physical definition of over 365,000 properties, the regularization and registration of 40,000 new property titles and the development of the Integrated Real Estate Registry (SURE) which links information on the physical aspects of the land holding (cadastre) with information on the personal and legal aspects (registry). The PATH2 intends to survey and title an additional 390,000 and 90,000 land parcels respectively. With an estimated 2.2 million land parcels in the country and a high degree of tenure informality, it is clear that the remaining years of the PATH initiative will be needed to shift the balance from a current state of ill-managed informal tenure to a national system

of secure, well-managed and efficiently transferable formal land rights. Phases 3 and 4 of the PATH are estimated to be an additional US\$ 30-50 million and plan to treat an additional 900,000 parcels.

Despite these policies, legislative and institutional reforms and direct operational investments to secure land rights, the scope of tenure informality and other significant challenges persist. And, as a result, while formal and informal land markets continue to function, weak institutions, the absence of clear property rights and lack of reliable and accessible land information increases both the cost and risk associated with land transactions. According to recent World Bank and USAID studies the key areas for continued effort are: (i) further institutional strengthening of land administration efforts especially at the municipal level; (ii) expansion of cadastre, land tenure regularization and registration efforts to other geographic areas of the country; (iii) promotion of a culture of formal registration of property rights; (iv) establishment of non-court, alternative mechanisms to resolve land disputes; and (v) the development and implementation of strategic approaches to secure the land rights of indigenous peoples.

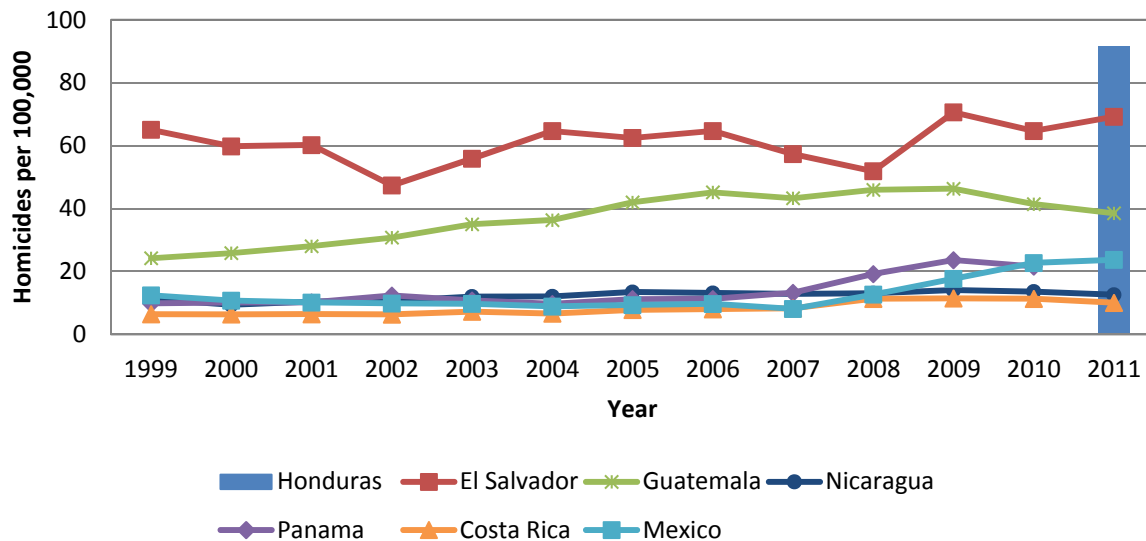
In conclusion, while it is clear that insecurity of land tenure, weak property rights and the limited capacity of government land institutions combine to both constrain economic growth and contribute to social instability, the Government of Honduras with the continued support of the World Bank is proactively filling this space with both direct investment and technical assistance. Furthermore, given the limited institutional capacity of the Honduras Property Institute, taking on additional large scale project-based efforts at this point would increase the risk of completion to both the on-going efforts and any additional assistance efforts.

c. Crime

Crime and violence impacts investment decisions by inducing additional costs to businesses, dissuading foreign entrepreneurs from residing in Honduras, and reducing tourism. We begin by comparing crime statistics across countries to determine if crime is prevalent in Honduras in comparison to other countries. We then look at business perceptions of the impact of crime and finally, data on the costs of crime and security.

In measuring the impact of crime on economic growth robberies would be an ideal measure, but robberies per 100,000 are not reliably reported for Honduras, and therefore the best substitute indicator that is collected is homicides per 100,000. Overall, Central America's crime statistics are high compared to other world regions and it is the most violent region of the world. Figure 48 below shows that Honduras has the highest intentional homicide rates per 100,000, and its current rate is higher than any rate of any country recorded in the last decade. Honduras' homicide rate per 100,000 is almost eight times that of the lowest country in the region, Costa Rica at 11 per 100,000. While these statistics are alarming, they do not necessarily mean that crime is a binding constraint to economic growth and investment in Honduras. It is necessary to analyze the effects of crime on the economy, economic growth and investment.

Figure 48: Homicides per 100,000, 1999-2011

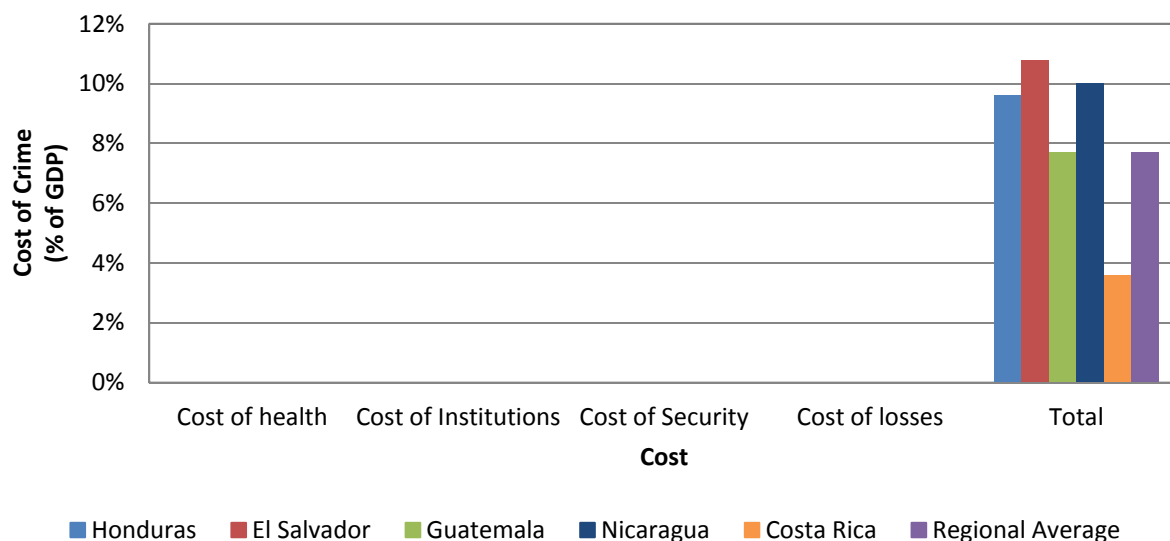


Source: UN Office on Drugs and Crime (UNODC), 2012

Responses to the 2012 WEF Executive Opinion Survey show that about 20% of businesses ranked crime and theft as the most problematic factor for doing business, making it the most frequent response (Section 3: Figure 2). The crime situation has also deteriorated in recent years, with only 10.8% of businesses cited crime as their primary constraint in 2008. In the 2010 World Bank Enterprise Surveys crime was the 4th most frequently cited main constraint after political stability, corruption, and access to finance. From these data the severity and persistence of crime is perceived to be a major problem and constraint by businesses.

Further evidence is provided by Acevedo (2008), who conducted an analysis of the costs of crime for various Central American countries, including Honduras. The costs are divided into health costs, institutional costs, cost of private security, and cost of lost material as a percentage of GDP. The results (Figure 49) indicate that crime costs 9.6% of GDP per year in Honduras, lower than only El Salvador and Nicaragua and well above the regional average.

Figure 49: Cost of Crime (% of GDP)

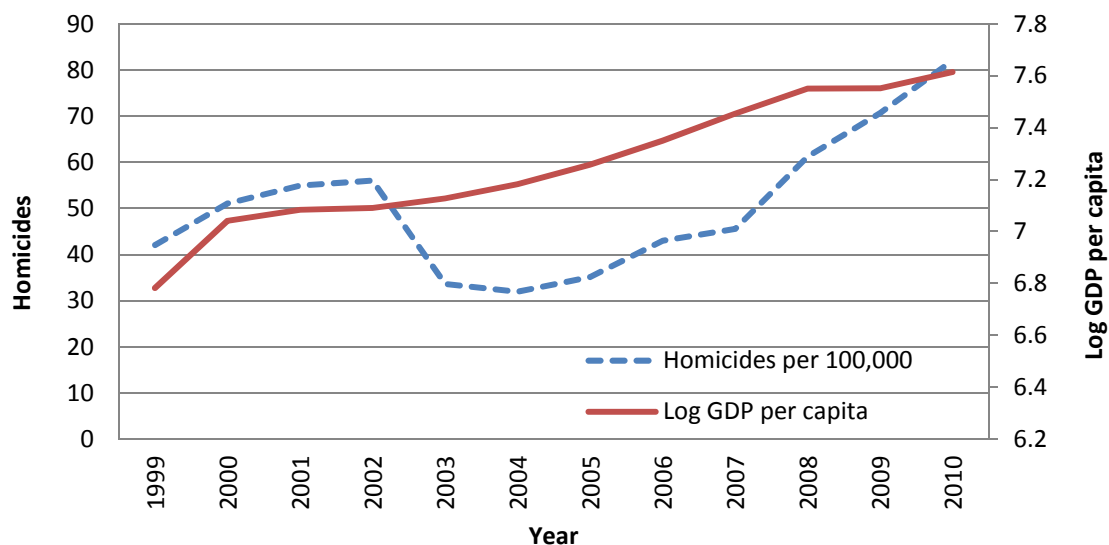


Source: Acevedo, 2008

While the cost of crime may not seem significant when compared to other Central American countries this is because crime statistics in Central America are notably higher than the rest of the world. When comparing Honduras to the only country in the region without a crime 'epidemic' (Costa Rica) we see that the difference in GDP cost is significant: a 6% higher GDP cost of crime.

We also wish to analyze whether fluctuations in crime cause fluctuations in the objective function of GDP growth. As can be seen from Figure 50 the results are inconclusive. Due to the fact that over the past 13 years, homicide rates in Honduras have yet to drop below 30 per 100,000 (an extraordinarily high rate) and any drop in crime would lead to a lagged increase in GDP and we cannot show a direct relationship between the two variables below.

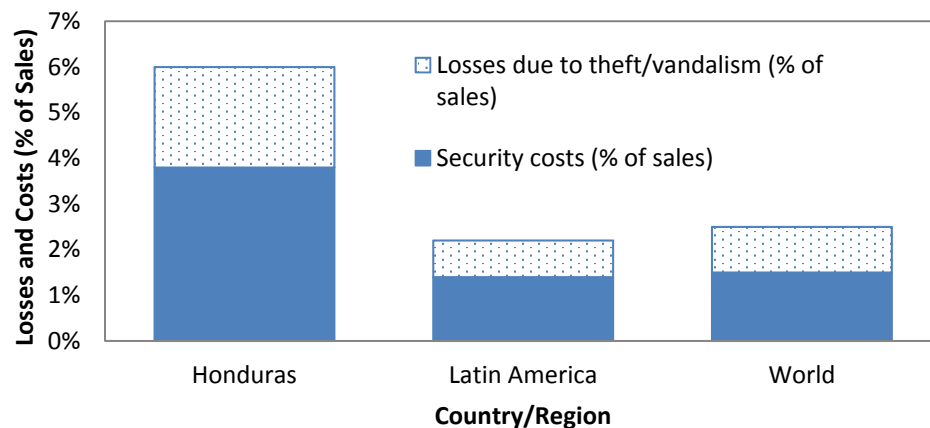
Figure 50: Comparison of GDP per Capita and Homicides



Source: UN Office on Drugs and Crime, 2012; World Bank, World Development Indicators, 2012

The 2010 World Bank Enterprise Surveys illustrate that crime is a major constraint and cost for business in Honduras. Honduran companies spend an average of 6% percent of sales, between security costs and losses due to theft and/or vandalism, this more than double the Latin American or global average (Figure 51).

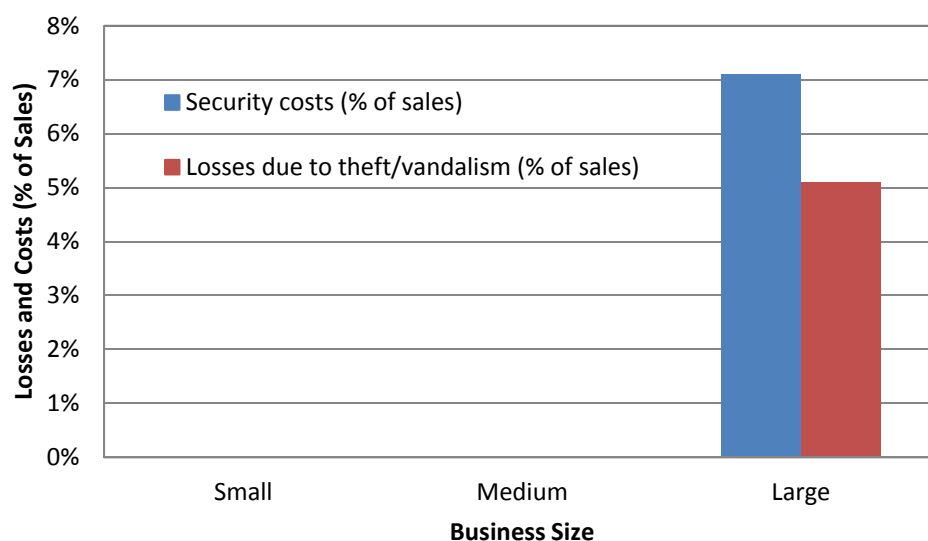
Figure 51: Crime in Honduras vs. Comparators



Source: World Bank Enterprise Surveys, 2010

The 2010 World Bank Enterprise Surveys also provide greater specificity regarding how these costs differentially affect businesses of varying sizes (Figure 52). Both security costs and losses as a percent of sales increase with firm size, but it is not clear why.

Figure 52: Crime Costs by Business Size



Source: World Bank Enterprise Surveys, 2010

Conclusion

The data on costs of security by Acevedo suggest a shadow price of crime of 9.6% of GDP. This cost is high even when compared to the Central American average, a region known for high crime rates, and is nearly three times the cost of crime for Costa Rica, the only country in the analysis without an epidemic crime rate. The WBES data on costs of security plus losses suggest that Honduras has a security cost more than double the regional or global average. There is not sufficient variation to conduct a causal test of crime and investment. Honduran companies are actively trying to bypass the constraint by adjusting the work schedule of employees and spending more than double the regional average on private security. Weighing this evidence, we believe that crime is a binding constraint to economic growth in Honduras.

7.1.3.6. Control of Corruption

The WGI define Control of Corruption as “capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.” Corruption, generally seen as the use of public resources for personal gain (World Bank, 2011), can impact investment and growth by increasing government costs, causing the misallocation of government resources, impeding business competition or introducing favoritism into market transactions, and adding the costs of bribery to the economic system.

The most commonly cited form of corruption in developing countries is bribery, when government officials demand an unofficial payment to do their duties. Bribery when demanded for services is a tax for existing businesses; however, it has a much higher cost for new businesses, both domestic and foreign. For existing businesses the cost of a government service is the official cost plus the cost of necessary bribes, the bribe does not add secondary costs to the firm. However for new firms unfamiliar with the

business environment in the country the costs are the official cost, the cost of necessary bribes, and any time and monetary costs incurred by the firm in figuring out a) whether a bribe is needed, b) who to provide the bribe to, and c) how much must be offered. Wei (1998) has noted that the costs of bribe seeking are significantly higher on FDI than on domestic investment.

The other form of bribery, apart from obtaining services, is when bribes are accepted to deny services. This is when businesses have the option to bribe officials into harming their competitors. This form of bribery is often seen in the judicial system, and significantly damages economic competitiveness and investment (Lambsdorff, 2003).

Apart from bribery, 'top down' corruption like embezzlement and fraud is the most common form. In these cases officials, usually in managerial positions, use their authority to award jobs and contracts based on personal ties or in exchange for a kick-back to the official or the official's political party. This can harm the government by increasing government costs, lowering government productivity, and inefficiently allocating government resources. Any form of favoritism lowers government efficiency and has impacts beyond any direct costs, and any form of embezzlement that adjusts the allocation of government resources between sectors has significant costs on investment and growth.

As corruption has long been recognized as a problem by Hondurans, a number of initiatives have been undertaken by recent governments including the September 2007 Executive Branch Plan Against Corruption that established 45 actions and presented a series of quarterly reports that documented significant implementation of this plan.⁶⁰ In the August 2010 Closure Report for the Executive Plan Against Corruption the GOH presented the results of efforts from 2006-2010 covering multiple administrations. They find that 40 of 45 actions of the 2007 plan had been completed and that of 44 additional actions committed to by the Lobo administration 40 had been completed. The 80 actions undertaken over the last several years include important achievements, but the measures of corruption remain high.⁶¹ Why is a very important question, which is outside the scope of this paper but should receive further study. The report does note a lack of action on implementation of civil service reform and campaign finance reform. In addition, the low rate of prosecution of corruption and the impunity that it fosters may explain why the control of corruption indicator has not improved more.

The price of corruption is by its nature difficult to measure. There are both the direct effects of increased time and money to go through permitting and other regulatory processes, and indirect costs of receiving a lower quality of public services (e.g., infrastructure and educational level of workforce). We begin the section by looking at broad measures of corruption.

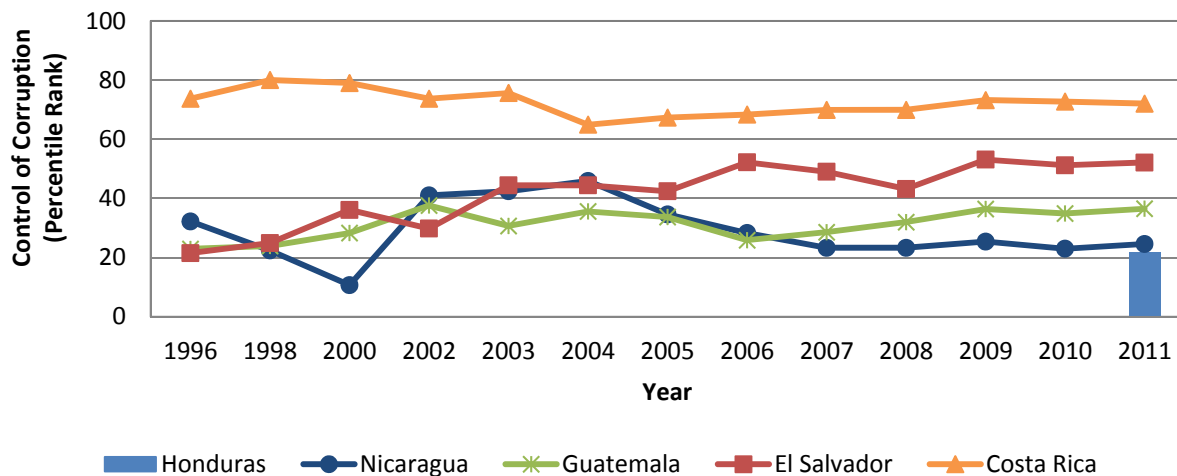
⁶⁰ Besides this recent plan (*Plan del Poder Ejecutivo Contra la Corrupción*), Honduras has had several initiatives to fight corruption including the OAS Convención Interamericana Contra la Corrupción 1998, Consejo Nacional Anticorrupción 2001, and Acuerdo Ejecutivo No. 064-2002 - Estrategia Anticorrupción para Honduras.

⁶¹ Note that the authors have not verified the evidence on the completion of these actions, and while some actions are marked as complete, we would characterize as in process; however, we agree that many actions have been accomplished.

a. Broad Measures of Corruption

Honduras has ranked toward the bottom of Latin American countries since the inception of the WGI Control of Corruption Indicator in 1996. In 2011, Honduras showed a slight increase in this Control of Corruption index, but remains the lowest in Central America, with a rank of 21.8 (Figure 53).

Figure 53: Control of Corruption



Source: Kaufmann, Kraay, & Mastruzzi (2010), World Governance Indicators

One of the most cited indicators on corruption is provided by Transparency International. Their Corruption Perception Index compiles survey data and ranks countries in terms of the “degree to which corruption is perceived to exist among public officials and politicians.”⁶² Honduras ranks 26th of 30 countries in Latin America and 133rd out of 176 globally (Table 17).

Table 17: Corruption Index Scores in Select Countries, 2012

Country	Score	Rank
Honduras	28	133
El Salvador	38	83
Guatemala	33	113
Costa Rica	54	48
Nicaragua	29	130
Panama	38	83

Source: Transparency International, 2012

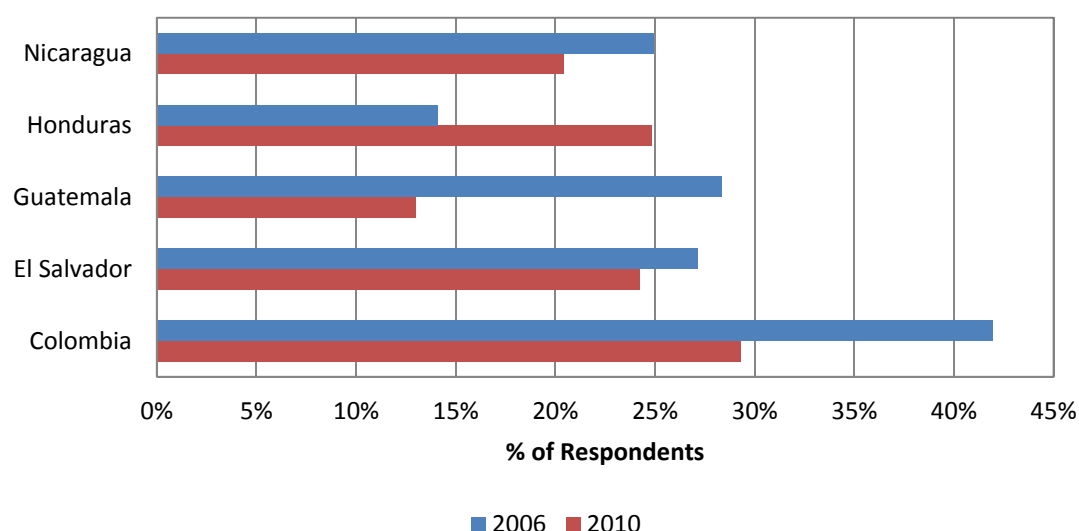
⁶² For more information, see the methodological note for the Corruption Perception Index from Transparency International ([http://www.transparency.hu/Corruption Perceptions Index](http://www.transparency.hu/Corruption%20Perceptions%20Index)).

In the WEF executive opinion survey, 16% responded that corruption is the main obstacle to growth, making it the second most common obstacle reported after crime. In the WBES survey, corruption is cited as a very severe or major obstacle by over half of firms (highest of 16 obstacles) and is considered the second biggest obstacle by small and medium sized businesses and the third biggest by large firms. It is clear that businesses perceive corruption to be a major constraint.

b. Judicial Corruption

Figure 54 below shows the agreement of citizens with the statement that the court system is fair, impartial and uncorrupted. A score of 0.5 would show that those that agree with the statement are equal to those that disagree, but none of the countries shown below have that much confidence in their judicial system. Honduras is the only country where the score improved from 2006 to 2010 going from 0.14 to 0.25, but this still means that 78% strongly disagree or tend to disagree that the court system is fair, impartial and uncorrupted and only 22% strongly agree or tend to agree.

Figure 54: Index of Respondents' Agreement that "court system is fair, impartial and uncorrupted"



Source: World Bank Enterprise Surveys, 2006 and 2010

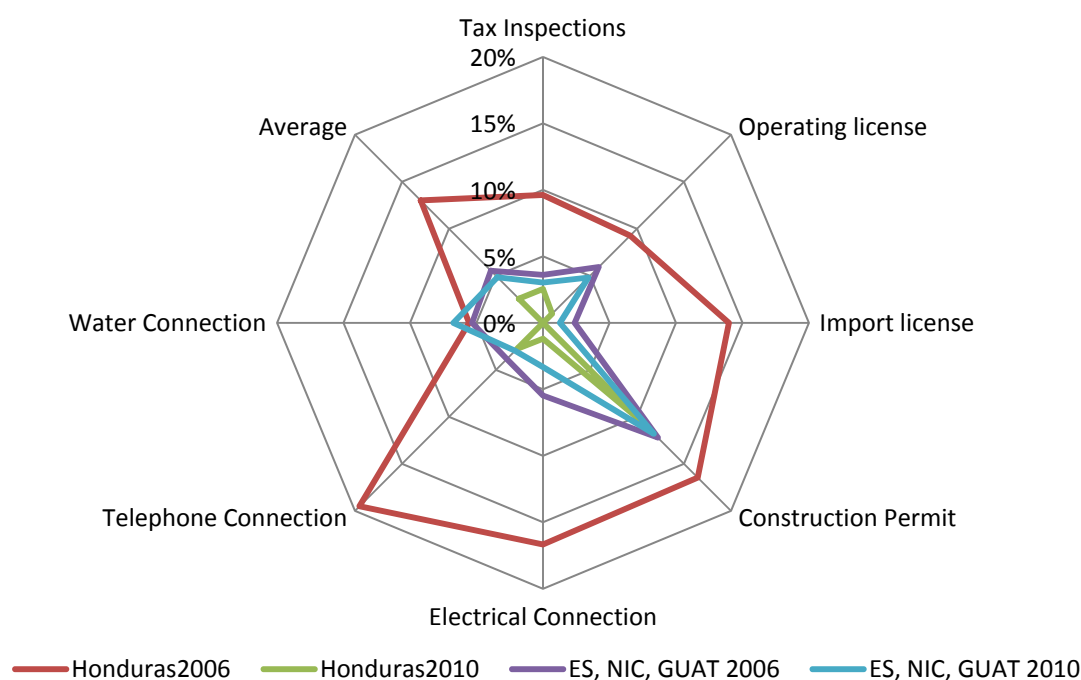
Note: Index is 0 – 100 where 0 all strongly disagree and 100 all strongly agree. It is calculated as $0.5 + 0.5 \times (\text{strongly agree} - \text{strongly disagree}) + 0.25 (\text{tend to agree} - \text{tend to disagree})$. Costa Rica does not have data for 2006 but scored 0.34 in 2010.

c. Bribery for Permits/Connections

The WBES ask about whether gifts or informal payments are requested for various licenses and permits. In 2006, Honduras was significantly above the norm for Central America (red, outside line in Figure 55)

and its average across seven questions was then the highest in Central America at 13%.⁶³ In 2010 (green, inside line), the average for the seven questions for Honduras dropped to 3%, the lowest level of Central America. Therefore, of the various types of corruption, bribes for permits seems to be less of a problem in Honduras as this type of corruption seems to have been reduced substantially from 2006 to 2010.

Figure 55: Percent of Respondents Requested to give a Gift or Informal Payment for...



Source: World Bank Enterprise Surveys, 2006 and 2010

d. Public Financial Management

Fiscal transparency is an important element of accountability and can also be an effective tool to control corruption. The Open Budget Index (OBI), constructed by the International Budget Project (IBP), is a biennial assessment of the level of transparency in national government budgets. In 2010, the Open Budget Index score for Honduras was 11 out of 100, ranking 80th among the 94 countries. Honduras' poor score was partly a result of the extraordinary political situation in the country in 2009. Normally the OBI is only done every other year, but in order to improve data available to MCC in relation to Honduras' performance in the areas measured by MCC's eligibility criteria MCC funded an assessment in 2011. This assessment was conducted by *Fundación Democracia sin Fronteras* with technical assistance from the IBP.⁶⁴ The report "found that the government published seven of the eight key budget reports, according

⁶³ Central American average includes estimates for El Salvador, Nicaragua and Guatemala for both 2006 and 2010.

⁶⁴ The report was not based on a full implementation of the Survey, rather the assessment was prepared in a six-week period between July and August 2011, made only partial use of Open Budget Survey methodology, and was not subject to peer review.

to the criteria used to assess the public availability of these reports in the Open Budget Survey ... By contrast, our previous assessment reported that the government had published only three of the eight key budget reports.”

In addition, the GOH has made improvements over the last several years in public financial management. In 2010, the European Union (EU) funded a Public Expenditure Financial Accountability Assessment (PEFA) and in response, the GOH formulated and implemented a plan to improve their performance on the PEFA. To measure the change in performance due to the action plan, MCC funded a PEFA in 2011. The 2011 study found improvements in (1) budget credibility, comprehensiveness and transparency; (2) budget execution; and (3) accounting. Following the 2011 PEFA, Honduras developed another action plan to further address public financial management challenges, and the 2012 PEFA found improved performance in (1) internal controls on expenditure; (2) reporting on extra-budgetary funds; and (3) congressional scrutiny of budget and audit reports. While significant improvements have been made, challenges remain in extra-budgetary controls and procurement. The GOH is now in the process of developing a plan to address the issues identified in the 2012 PEFA.

7.1.3.7. Conclusion

Governance includes a broad number of elements that can lead to problems of appropriability for investors and also affect the provision of factors of production considered in the next section. Many of the elements of governance interact in complex and difficult to measure ways. In most cases, we are not able to estimate a shadow price and must proceed in a more informal but still data-driven methodology. We use the taxonomy provided by the World Bank Institute’s Governance Indicators and where appropriate further sub-divide certain elements of governance.

We began by looking at the broad measures of governance provided by the WGI that show that Honduras ranks significantly below the regional average on Rule of Law and Control of Corruption. We then looked in more detail at each area of governance:

- Voice and Accountability: Provided that the TSE and other Honduran Government entities are able to follow through on the commitments highlighted above, the electoral processes should not be a binding constraint to growth. The continued violence against members of the media, including not only the killings, but also threats of violence, has led to self-censorship of the media. While we lack information on the motivation for all killings of journalists in Honduras, given the number relative to the population it is almost certain that some of these were motivated by their profession. This is considered a symptom of the *Crime and Security* constraint identified later in the paper. One could also argue that that the resulting self-censorship of the media contributes to the cause of the other constraint identified in the paper: lack of efficiency and transparency of the state.
- Political Stability: More work remains to implement the recommendations of the truth commission in order to further minimize the risk of political instability, but this factor does not

appear to be a binding constraint. Less than 1% of executives surveyed by the WEF cited government instability/coups as the most problematic factor for business.

- Regulatory Quality: Regulatory quality has improved in recent years and is about average for Central America. In both interviews and surveys firms complain about the inconsistency and inefficiency in regulating business, but this seems to be a problem of the implementation of the laws and not with the laws themselves, therefore a problem of government effectiveness. A relatively high minimum wage and rigid labor regulations likely impede investment. However, employers rate rigid labor regulations as only 8th of 16 constraints. The high minimum wage probably increases informality and reduces employment, but is likely not the binding constraint for most investments.
- Government Effectiveness: Compared to all countries, WGI places Honduras at the 34th percentile, well below the Latin American average of 58. Also of concern, the “State of State Reform in Latin America” by Eduardo Lora of the World Bank ranks Honduras as having the lowest government functional capacity score in Latin America.⁶⁵ In the consultations with the private sector, government efficiency and policy certainty (*seguridad jurídica*) were cited as severe constraints to increased investment.
- Rule of Law: Honduras ranks at the 21st percentile globally on the WGI Rule of Law indicator, well below the Latin American average of 52. We looked at three separate areas of Rule of Law: Commercial Legal Environment, Property Rights, and Crime. Contract enforcement is slow and expensive in Honduras but arbitration seems to be working adequately. Property rights are a major constraint for large agricultural investments but are not otherwise. Crime imposes a high cost on business, is rated by businesses as a main constraint, and businesses are actively trying to bypass the constraint.
- Control of Corruption: Despite having implemented a series of anti-corruption plans, Honduras ranks at the 22nd percentile globally on the WGI control of corruption indicator. Furthermore, both the WEF and WBES show that firms consider corruption to be one of the main obstacles to economic growth. The total cost of corruption includes both direct costs to firms of time and money to navigate regulatory requirements and, in the case of vendors, to obtain contracts and to be paid, as well as the indirect costs of obtaining poorer infrastructure and a less educated workforce than would be otherwise possible.

Weighing all of the evidence, we believe there are two binding constraints to growth:

1. Crime is a constraint because:
 - The current homicide rate in Honduras is the highest in the world.

⁶⁵ *El Estado de las Reformas del Estado en América Latina*. <http://idbgroup.org/WMSfiles/products/research/books/b-616/files/cap4.pdf>

- The shadow price is high as the cost of security plus losses are estimated by the WBES to be 6% of sales, three times the Latin American average of 2% of sales.
 - When asked the main obstacle to investment, firms ranked crime as 4th of 16 in the 2010 WBES and 1st of 16 in the recent WEF survey.
2. The efficiency, transparency and consistency of the government is a constraint because:
- Businesses rank corruption and inefficient government bureaucracy as the 2nd and 3rd most problematic factors for doing business (behind crime, WEF).
 - Many of the challenges in other areas (infrastructure and education) have their root cause in government efficiency.
 - Relative to other countries Honduras scores poorly on measures of corruption (both WGI and Transparency International).

7.2. Low Social Returns

7.2.1. Infrastructure

This analysis will consider infrastructure with respect to telecommunication, electricity, transportation, and water.

7.2.1.1. Telecommunication

Honduras has telecommunication infrastructure capable of providing landlines, mobile phones, and broad band internet. The two key factors for telecommunication are whether access to phones, either mobile or landline, constrain communication and whether the access and reliability of internet constrict the ability to research, analyze, and transfer data.

Mobile phone subscriptions in Honduras have been on the rise in recent years. The number of subscriptions per 100 citizens has more than doubled in the past three years. However the number of internet users per 100 have increased at a fairly slow rate for the region, reaching only 11.1% in 2010. Comparisons in mobile phone subscriptions and internet use are shown in Table 18.

Table 18: Cellular phone and Internet Subscriptions per 100 Population

Country/Region	Cellular Subscriptions		Internet Subscriptions	
	2007	2010	2007	2010
Honduras	58.5	125.1	9.4	11.1
Low Income	14.3	33.0	2.2	5.4
El Salvador	100.6	124.3	6.1	15.0
Guatemala	89.1	125.6	7.3	10.5
Belize	38.0	56.3	10.2	12.7
Nicaragua	45.0	65.1	3.9	10.0
Costa Rica	33.9	65.1	28.4	36.5
Panama	89.9	184.7	22.3	42.8
Ghana	33.5	71.5	3.9	9.6
Tanzania	20.1	46.8	7.2	11.0

Source: World Bank, World Development Indicators, 2011

Honduras has over 100 internet service providers, and both internet and phone subscriptions are provided at competitive rates: Broadband internet services are provided at a base rate of US\$ 15 per month and cellphone coverage at a base rate of US\$ 0.05 per minute.⁶⁶ International calls are controlled by the

⁶⁶ Hondutel Transparency Portal, 2012

government telecommunication agency, Hondutel. Sub-operators are currently required to operate as contractors of Hondutel, and efforts to liberalize the market through a telecommunication bill are ongoing as of December 2012.⁶⁷ Despite the power of the state-owned Hondutel neither international nor local firms identify telecommunication infrastructure as a constraint. Internet is prevalent in both Tegucigalpa and Pedro San Sula and widely used by large and medium sized firms.

Table 19: Firms' Internet Usage

Country/Region	% of Firms with Own Website	% of Firms Using Email to Advertise
Honduras	35.3	59
Latin America and Caribbean	44.8	82.9
El Salvador	51.9	88.1
Guatemala	49.9	82
Belize	27.8	85
Nicaragua	36.9	67.7
Costa Rica	54	88.6
Panama	40.5	67.7
Ghana	8.2	27.1
Tanzania	16.3	41.7

Source: World Bank, World Development Indicators, 2011

While phone subscriptions in Honduras are higher than most of Central America, internet usage within the population and internet usage for business purposes (advertising, communication, etc.) are lower than most regional competitors (Table 19). Access to all forms of telecommunication, however, is competitive. Telecommunication is not seen as a constraint on the Honduran economy.

7.2.1.2. Energy

The energy sector in Honduras is a vertically integrated sector run primarily by the government utility company, *Empresa Nacional de Energía* (ENEE – National Energy Company) with private participation only in generation. ENEE, along with being a major producer of energy, is the sole distributor as well. An attempt was made to increase competition in the energy sector in 1994, unbundling the distribution, transmission, and generation of energy. Some privatization for generation was done and currently 67% of generation is private, however transmission and distribution is still solely managed by ENEE. Even though a National Regulatory Commission (Comisión Nacional de Energía, CNE) was created in 1994 to

⁶⁷ WB Honduras Investment Climate Assessment, 2004

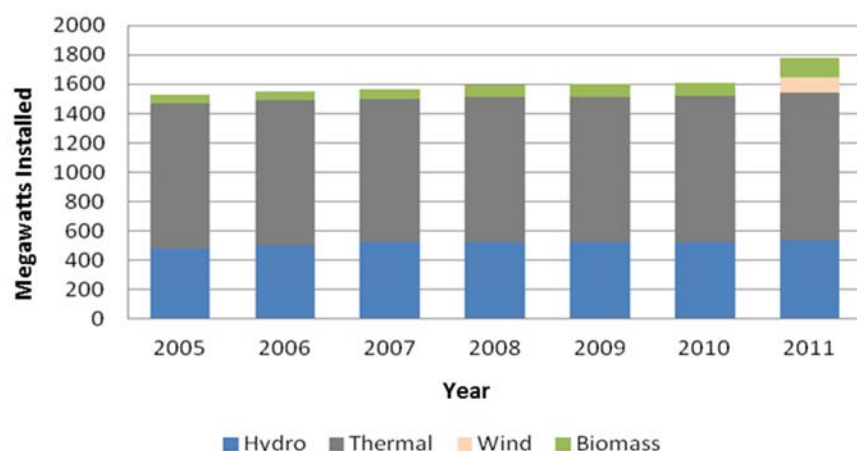
facilitate sector development, it was never strengthened to be able to accomplish all of its responsibilities according to the law, and by default ENEE plays a major role in setting energy policy.

Energy has become a growing concern for the Honduran government in the past decade with former President Manuel Zelaya declaring an energy emergency in 2007. Since then, the government has been looking for ways to promote renewable energy participation in the sector. In October 2007, the Law for the Promotion of Electrical Energy Generation with Renewable Resources (Decree 70-2007) was passed by Congress granting various benefits to renewables, including several tax exemptions. In 2010, the Country's Vision and National Plan Law was issued,⁶⁸ with one of its goals being to increase renewable energy participation to 80% by 2022. That same year, the government took a major stride when, for the first time, ENEE held a public bidding process to purchase electricity from renewables. As a result, 48 projects were awarded Power Purchase Agreements (PPAs) for a total of 708 megawatts (MW) of renewable energy and an estimated investment of about US\$ 2.5 billion.

a. Power Generation and Demand

The figure below (Figure 56) shows installed capacity in Honduras is thermal (57%), hydroelectric sources (35%) and 8% from wind and biomass.

Figure 56: Installed Generation Capacity by Type, 2005 – 2011



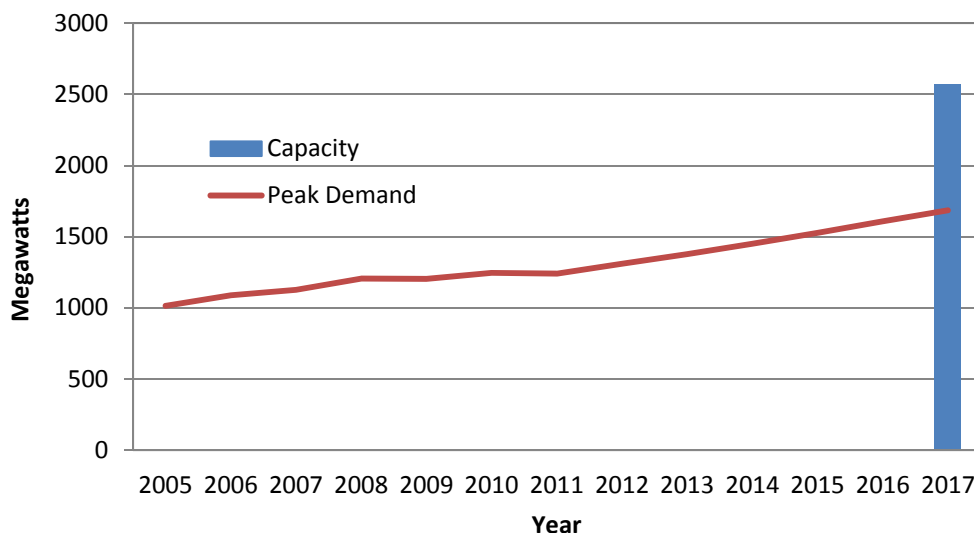
Source: National Energy Company (*Empresa Nacional de Energía*), 2012

Overall, power generation capacity has grown on average 5.6% per year since 2000 and its capacity in 2011 was 1780 MW (Figure 57). Honduras has been decreasing its dependence on thermal (primarily

⁶⁸ <http://www.hondurasemb.org/boletines-de-prensa/9-septiembre-2010/RESUMEN-DEL-VISION-DE-PAIS-Y-PLAN-DE-NACION,AGOSTO-2010.pdf>

imported) fuel sources in recent years by approving Public-Private Partnerships (PPPs) in biomass, wind, and hydro power.⁶⁹

Figure 57: Energy Supply and Demand (actual and projected), 2005 – 2017



Source: National Energy Company (*Empresa Nacional de Energía*), 2012

The supply of sustainable energy increased in 2011 with a 100 MW wind project and it is expected to grow with upcoming hydro and wind projects as indicated by ENEE's expansion plan. Total electricity supply in Honduras is expected to reach about 3000 MW by the year 2030, indicating an expected supply growth rate of 3.1% per year.⁷⁰ There is some concern that most of the new installed capacity will be renewable, which tends to be unstable as they are dependent on weather conditions to assure generation. For example, ENEE is predicting that there will not be enough rainfall in 2013 to fill up the reservoirs of the large hydro plants. Fortunately, ENEE recently signed three PPAs (all in wind generation) that will increase the installed capacity by roughly 90 MW and help compensate in case there is low rainfall.

There is a wide range of energy costs by plant and some have costs significantly higher than the tariff rates for energy, contributing to the current ENEE deficit (Table 20). The spread of costs is attributed largely to outdated plants, the reliance on imported energy sources, and direct purchases.

⁶⁹ Honduras Power Sector Issues and Options, 2010

⁷⁰ Ibid.

Table 20: Production Costs by Plant

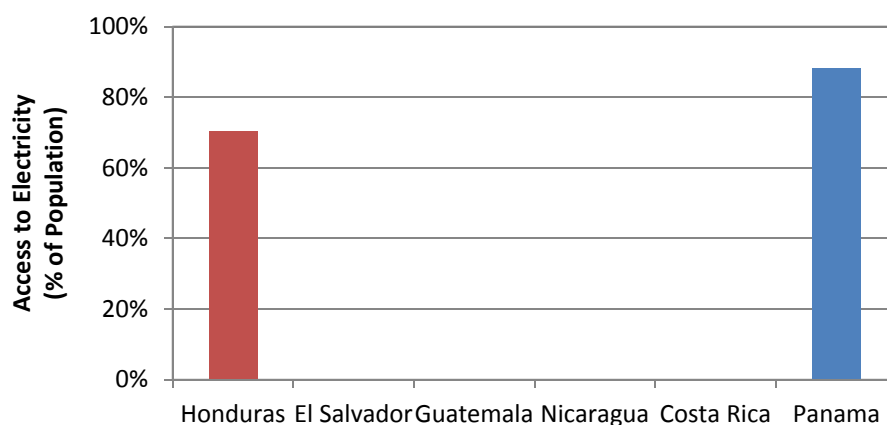
Plant	MW	Cost per Kilowatt Hour
Lufussa III		0.16
Coloma III (ENERSA)		0.16
Parkdale Mills NACO > 45% FP		0.20
Parkdale Mills NACO <45% FP		0.20
Plana Fuji La Ceiba, 50% FP		0.22
Lufussa 1 Excedente 30-50 table		0.22
Lufussa II		0.24
Choloma 1 EMCE		0.24
Choloma III (ENERSA) 30 MW Asociada		0.24
ELCOSA	80	0.24
Nacional de Ingenieros TC		0.29
Lufussa 1	38.6	0.30

Source: *Situación de la EERR* 2012

b. Transmission and Distribution

Access to electricity is nearly 95% in the major cities of Tegucigalpa and San Pedro Sula, but access becomes more difficult in rural areas where an average of 44.6% have access. Figure 58 shows a breakdown of access to electricity for Honduras and comparator countries. As can be seen, Honduras is the lowest performer in the region.

Figure 58: Access to Electricity (% of the Population)



Source: World Bank, World Development Indicators, 2012

Business power outages in Honduras occur at a rate of 2.3 per month, which is slightly below the regional average of 2.5. However, the duration of a typical power outage is 3.3 hours, which is above the Central American average of 2.5 hours. As a result the losses due to power outages are estimated at 2.3%, well above the 1.1% average for regional competitors. In 2011, localized energy shortages and inadequate transmission infrastructure led to rolling blackouts and power rationing. The blackouts are not due to inadequate generation, but result from inadequate maintenance in transmission lines and substations, vandalism on transmission towers (theft of materials to sell for money), and inadequate transmission infrastructure (e.g., low voltage problems in the western part of the country where transmission lines have been extended out west without proper planning).

c. Applying the HRV Tests

Electricity is identified as a major or severe constraint by roughly one-third of all businesses included in the World Bank Enterprise Surveys, but this ranks it as 5th of 16 obstacles and 7th of 16 for the main constraint. Also, as shown below, this is not particularly high response relative to other countries (Figure 59).

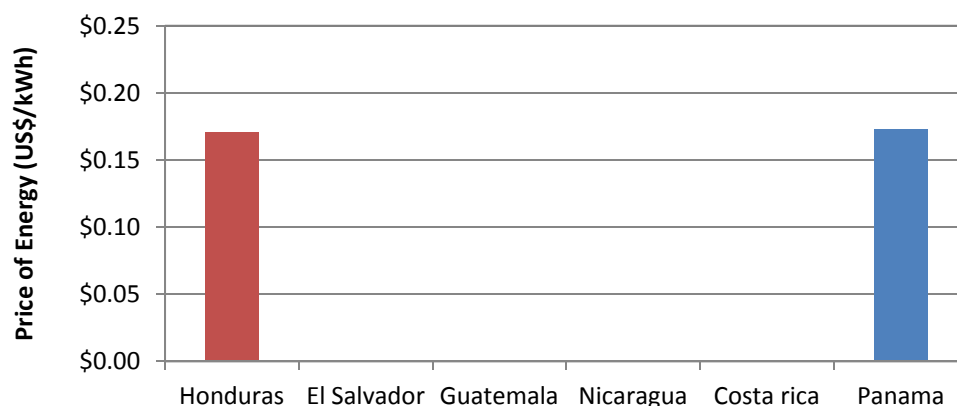
Figure 59: Percent of Respondents Identifying Electricity as a Major or Severe Limitation



Source: World Bank Enterprise Surveys, 2010

The first test looks at whether the shadow price for the factor is high. The cost of power in Honduras averages US\$ 0.17 per kWh for industrial purposes, which is within the range of regional competitors (Figure 60). For residential use, electricity costs US\$ 0.07 per kWh for the first 100 kWh and US\$ 0.136 per kWh after the first 100 kWh. To increase accessibility, families consuming less than 150 kWh per month pay nothing for electricity, hence the lower residential cost in Honduras. This subsidy, along with increasing international fuel prices, has led to steady and significant losses by the National Energy Company (ENEE). The financial loss for 2012 was US\$ 234 million, or about 1% of GDP.

Figure 60: Price of Energy (USD per kWh) for Industrial Use



Source: CEPAL (2011)

If reliability of electricity is a constraint to businesses in Honduras, we would expect many firms investing in private generators. Energy intensive industries are unlikely to remain profitable if they are run on private generators; however, generators can help avoid at least some losses caused by power outages. The World Enterprise Surveys estimate 26.3% of firms in Honduras own a private generator (Table 21). This is slightly below the regional average (28.1%) and below the average of any region apart from high income OECD countries and Eastern Europe. The amount of power derived from private generators is above most regional competitors, but it is still relatively small at 2.3% of total power.

Table 21: Private Generator Ownership and Use, select countries

	Percentage of Firms with Private Generator	Percentage of Power from Private Generator
Honduras	26.3%	2.3%
Latin America and Caribbean	28.1%	2.1%
El Salvador	24.5%	0.4%
Guatemala	16.0%	0.9%
Belize	15.4%	0.3%
Nicaragua	32.6%	3.5%
Costa Rica	24.2%	0.2%
Panama	12.9%	1.2%
Ghana	26.6%	7.8%
Tanzania	45.7%	16.8%

Source: World Bank Enterprise Surveys, 2010

As has been shown in the economic overview, the fastest growing sectors in the Honduran economy are manufacturing, *maquila*, communications, and finance, while agriculture has been one of the slowest growing sectors. The Honduran economy has been steadily transitioning to a manufacturing intensive

economy with a greater dependence on electricity. There has been no evidence of sluggish growth in sectors due to lack of electricity via high costs or unstable access.

d. Fiscal Costs of the Sector

As of 2011 27.2% of all energy production was lost in distribution, higher than any Central American country apart from Nicaragua and the only distribution loss rate that has been increasing in recent years.⁷¹ About 70% of these losses were due to theft and inaccurate meter measurements (non-technical losses), while the remainder were technical losses in the transmission system. Due to the high cost of energy and high losses (which are not fully transferred to rates) ENEE has been operating at a loss of about 2.2% of GDP in recent years. ENEE accounts for 7% of Honduras' total external debt. In 2011, net losses for ENEE were US\$ 180 million and they increased to US\$ 234 million in 2012.⁷² The ENEE strategic plan for 2012-2014 seeks to reduce ENEE dependence on government support and eventually lead to net profits by reducing distribution losses to 11.4% by 2015. As distribution losses have steadily increased in the past decade the success of the 2012-2014 strategic plan is uncertain.

e. Conclusion

Current electricity prices are high relative to historical norms but not relative to other Central American countries. However, there are serious challenges in the energy sector. The state owned National Electrical Energy Company's (ENEE) high non-technical losses in distribution, subsidies to residential and commercial users, and poor collection rates all contributed to the deficit of US\$ 234 million for 2012. Energy prices have been kept at a competitive level through significant subsidies and government debt accrual. If the sources of ENEE's financial losses and its dependence on thermal power are not addressed, the resulting government debt or increase in electricity prices could constrain growth.

7.2.1.3. Transportation

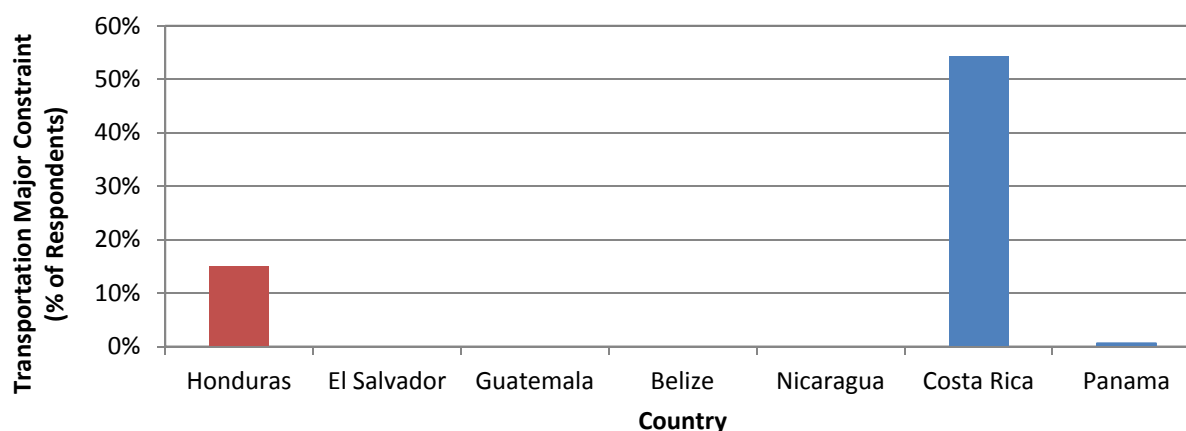
Transportation can act as a constraint by imposing high costs for the movement of goods, a high loss rate due to breakage and spillage, and by leaving some parts of the country inaccessible. This section will analyze how the quality of roads, ports, and air transportation affect growth.

The number of firms in the WBES that identify transportation as a severe or major constraint is low for the region at 14% (Figure 61), and less than 3% identify it as their greatest constraint. The average of the comparator countries below is 29%, for the former estimate. This could indicate that transportation is not a significant constraint; however it may also be the cause of transportation-intensive firms avoiding Honduras.

⁷¹ Energy Sector Management Assistance Program, 2010

⁷² SEFIN

Figure 61: Percent of Respondents Identifying Transportation as a Major Constraint



Source: World Bank Enterprise Surveys, 2010

a. Roads

The roads network in Honduras consists of 14,238 km of road, of which 22% is paved. The core (paved) network connects the north-south logistics corridor, connects Tegucigalpa, San Pedro Sula, and the main Atlantic port of Puerto Cortès. Nearly a quarter (22%) of Honduran exports are to Central American countries and are primarily exported by road,⁷³ while another 65% are exported to the United States, primarily via Puerto Cortès. The north-south road system and the main roads connecting San Pedro Sula, Tegucigalpa, and Puerto Cortès are essential for these trade routes.

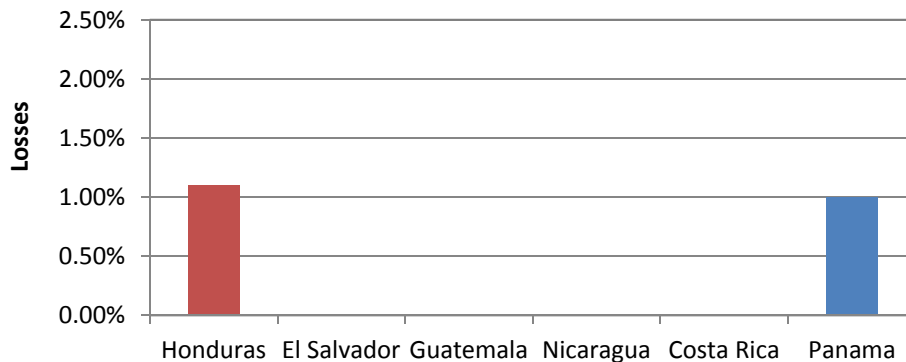
Total road density is 30.3 km of road per 1000 km² of land, compared to the Central American average of 55 km.⁷⁴ Maintenance of the road network is the responsibility of Fondo Vial. While 90% of paved roads are considered in good condition in Honduras, only 27.5% of the unpaved network is rated as in good condition as of 2008.

Data on the percentage of goods lost due to breakage/spillage in transit is shown in Figure 62. Honduras is average for the region in losses due to breakage/spillage during transportation. However, it should be noted that these data are taken only for manufacturing intensive firms. Therefore, the rural and agricultural sectors, which are the most likely to be affected by a poor rural network, are not considered.

⁷³ UN Comtrade, 2010

⁷⁴ IDB HO-L1089 project, 2012

Figure 62: Losses due to Breakage/Spillage



Source: World Bank Enterprise Surveys, 2010

In considering whether transportation is a constraint we must consider different sectors and regions. Transportation is often either a constraint for export and import intensive industries (high transportation losses and complaints in manufacturing city centers) or for rural regions that cannot attain access to markets due to low quality or lack of roads. Figure 63 shows how transportation is viewed by rural and urban sector, but is still limited to only manufacturing firms. Honduras is slightly above the rural average indicating a lower than average quality of secondary and tertiary rural roads. Only 12% of urban firms identify transportation as a constraint, the lowest of any comparator country apart from Panama. Sector data in Honduras show that in the past decade the manufacturing sector, and particularly those sectors that are export-based, have been thriving. The most successful urban firms are therefore heavily dependent on transportation, both between the cities of Tegucigalpa and San Pedro Sula and between trading countries, so it is unlikely that firms have said that transportation is not a constraint simply because they are not intensive users of transport.

Figure 63: Transportation as a Major Constraint, by region (urban/rural)



Source: World Bank Enterprise Surveys, 2010

Access to and quality of transportation for the central urban areas is not a binding constraint. However, the quality of the rural road network may constrain agriculture. A tight fiscal situation has reduced capital investment and has led the GOH to pursue PPPs to provide for the expansion and maintenance of some key parts of the national highway system.

b. Ports

Honduras has four ports which handle a total of 620,000 containers per annum.⁷⁵ One port, San Lorenzo, services the Pacific while three ports service the Atlantic, the largest being Puerto Cortès. Puerto Cortès is the only deep-water port in Central America and covers 90% of Honduran port traffic. As the only deep-water port in the region with easy access to the Caribbean and the US, Puerto Cortès is ideally placed and has grown to become the largest regional port. Honduras has regular service via ports to most of the Caribbean, Miami, New Orleans, and Europe.

Despite the high quality of Puerto Cortès, Honduras does not stand out among shipping indicators, as shown in Table 22. The costs of trade (both for exports and imports) are higher than any country in the region apart from Belize. Container traffic is more difficult to assess as Honduras is average among comparator countries, but this average is achieved by being far more successful than Nicaragua, El Salvador, and Belize in container traffic. When looking at port traffic per capita Honduras is behind only Costa Rica and Panama. In the World Economic Forum's Global Competitiveness Report Honduras ranks as 38 of 142 countries, showing Honduras' comparative advantage in ports.

Table 22: Shipping and Trade Costs

Country	LPI - Efficiency of Customs Procedures	LPI - Domestic Transport Costs	LPI - Timeliness of Shipments	DB - Cost to Export	DB - Cost to Import	LPI - Container Port Traffic (TEUs)
Panama	2.76	3.21	3.76	615	965	5,906,506
Guatemala	2.33	2.88	3.83	1,307	1,425	1,012,360
Costa Rica	2.61	3.08	3.71	1,000	1,020	875,687
Honduras	2.39	3.04	3.21	1,342	1,510	619,867
Nicaragua	2.24	2.94	3.63	1,140	1,245	68,492
El Salvador	2.48	3.00	3.52	1,025	1,025	145,774

Source: World Bank World Trade Indicators, 2009; World Bank Doing Business, 2012

Note: LPI stands for the Logistics Performance Index. TEU is a twenty-foot equivalent unit. Doing Business costs are in USD per container.

Puerto Cortès has long suffered from inadequate investment but will receive much needed investment from a US\$ 225 million modernization and renovation project with assistance from the International

⁷⁵ Empresa Nacional Portuaria (National Port Authority), <http://www.enp.hn/web/index.html>

Development Bank and the Central American Bank for Economic Integration.⁷⁶ “The average waiting time for Lo-Lo (lift on/lift off) container ships is 5.2 hours, or the equivalent of 35% of time in berth (15 hours), a high but still tolerable value. Bulk vessels must wait on average 42.1 hours, equivalent to 52% of average time in berth (81.3 hours), a very high value.”⁷⁷ While these data do not show significant problems with the port system, interviews with the private sector expressed increasing concern with port services.

Coalianza (Comisión para la Promoción de la Alianza Público-Privado) awarded numerous concessions for the improvement of Puerto Cortés, the largest of which being a US\$ 500 million concession for the construction and operation of a new container terminal to manage traffic in the port. An additional US\$ 125 million in concessions have been awarded to improve the road network connecting Pedro San Sula and Puerto Cortés and to manage and maintain the bulk solids terminal in the port. Business interviews have noted some concern in the capability of these PPPs to efficiently manage the port without additional oversight and assistance in the process.⁷⁸

c. Airports

Honduras has three international airports in San Pedro Sula, Tegucigalpa, and Roatán. These three airports are serviced by numerous international, US, and Spanish airlines including Delta, United, Spirit, and TACA. The quality of airports is important not only for freight traffic but as a facilitator of tourism, which plays a key role in the Honduran economy. According to WEF the quality of airports in Honduras is low compared to the region, ranking as 73 of 142 countries worldwide (Table 23**Error! Reference source not found.**), however this low rating is primarily due to the poor service of domestic flights. Domestic flights are primarily managed by local airlines which have frequent cancellations and delays. These domestic airlines are also not required to give warning of cancellations or refund said cancellations.

Table 23: Air Infrastructure

Country	Airport Infrastructure	Airport Infrastructure Ranking	Available Airline Seat Kilometers
Honduras	4.5	73	25.3
El Salvador	5.5	44	85.9
Guatemala	5.4	46	43.9
Nicaragua	4.3	82	17.5
Costa Rica	4.7	68	125.7
Panama	6.2	15	234.7

Source: World Economic Forum, Global Competitiveness Report, 2012-2013

⁷⁶ IDB: <http://www.iadb.org/en/news/news-releases/2010-12-02/idb-honduras-expand-port,8790.html>

⁷⁷ Puerto Cortés Expansion and Modernization Program (HO-L1037) Loan Proposal

⁷⁸ Coalianza concession reports, 2012

While the general infrastructure is sub-par for the region there have been no signs that tourism/civilian travel has been constrained by the airport quality, largely due to the high quality of international flights. Freight transportation is generally considered to be in short supply, hence the low airport infrastructure rankings. As ports, specifically Puerto Cortés, continue to act as the primary means of transportation for exports and imports the lower quality airport infrastructure is not deemed a constraint.

7.2.1.4. Water and Sanitation

Water is a critical renewable resource, an essential part of a country's infrastructure, and vital to economic growth. Adequate water resources are strategic inputs for a wide range of sectors including the commercial, industrial, tourism, agricultural, health and domestic household sectors. Water helps to improve companies' productivity and competitiveness. Proper investment in water resources can boost economic growth and can contribute to poverty reduction. For example, the World Health Organization found in 2004 that poor countries with improved access to clean water and sanitation services experienced an annual average growth rate of 3.7%, in contrast to only 0.1% annual per capita GDP growth among similar countries lacking improved access (Stockholm International Water Institute, 2004). In the case of Honduras, the World Bank determined that the economic costs associated with lack of water and sanitation facilities amount to nearly 2 billion lempiras (\$100 million) per year, or 1.1% of the country's GDP.⁷⁹

Although Honduras has improved its water and sanitation services, Honduras is still vulnerable to natural disasters which could derail Honduras' efforts. Bangladesh, Myanmar and Honduras were the three top countries most affected by extreme weather events from 1991 to 2010, according to the Germanwatch Global Climate Risk Index.⁸⁰ The recent experience of Hurricane Mitch in 1998 provides a clear reminder of these threats. Infrastructure losses were estimated at US\$ 344 million in direct costs and US\$ 322 million in indirect costs, with damages to water and sanitation infrastructure totaling some US\$ 28 million, or 4.2% of the total damage caused by the storm.⁸¹

a. Water Resource Wealth

Honduras is endowed with abundant water resources, with annual renewable water resources well above regional and world per capita averages. While it faces challenges in applying a more strategic approach to utilizing these resources and adopting sustainable management practices, a lack of water resources is not a binding constraint to Honduras' economic growth.

According to the World Business Council for Sustainable Development (2006), water stress applies to situations where there is not enough water for all uses (agricultural, industrial or household). When annual per capita renewable freshwater availability is less than 1,700 m³ countries begin to experience

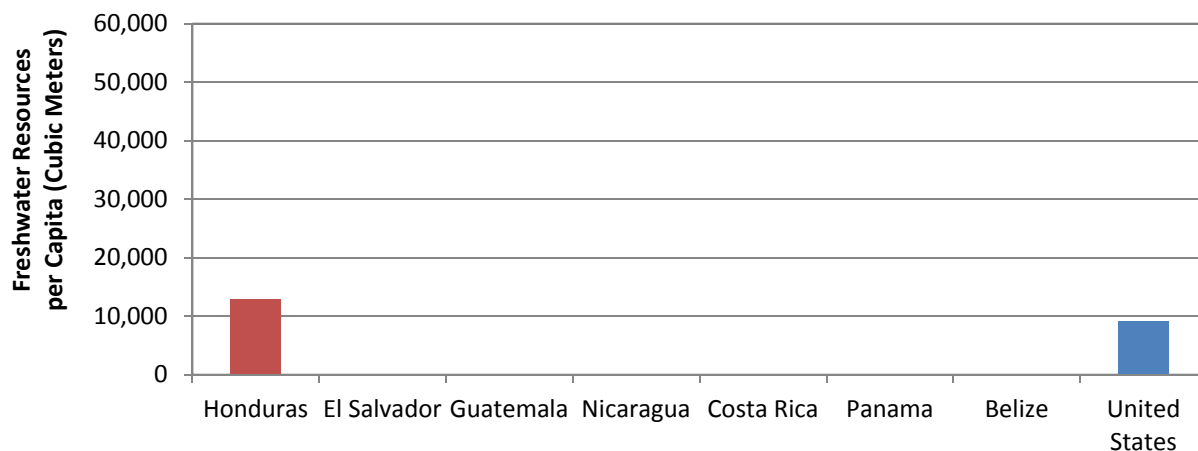
⁷⁹ "Republic of Honduras Country Environmental Analysis", World Bank, 2007, p. 31
<http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/HondurasCEAFINALDRAFT.pdf>

⁸⁰ Harmeling, 2012

⁸¹ World Bank, 2007, p. 50

periodic or regular water stress.⁸² Below 1,000 m³ water scarcity begins to hinder economic development. As shown in Figure 64 below, Honduras is clearly above the scarcity threshold with per capita water resources of 12,877 m³, and therefore, water resource availability is not presently a binding constraint to economic growth. Honduras also has more freshwater resources per capita than most of its neighbors, except Nicaragua, and retains more than 84% of its water resources within its borders.

Figure 64: Renewable Internal Freshwater Resources per Capita (cubic meters, m³), 2000

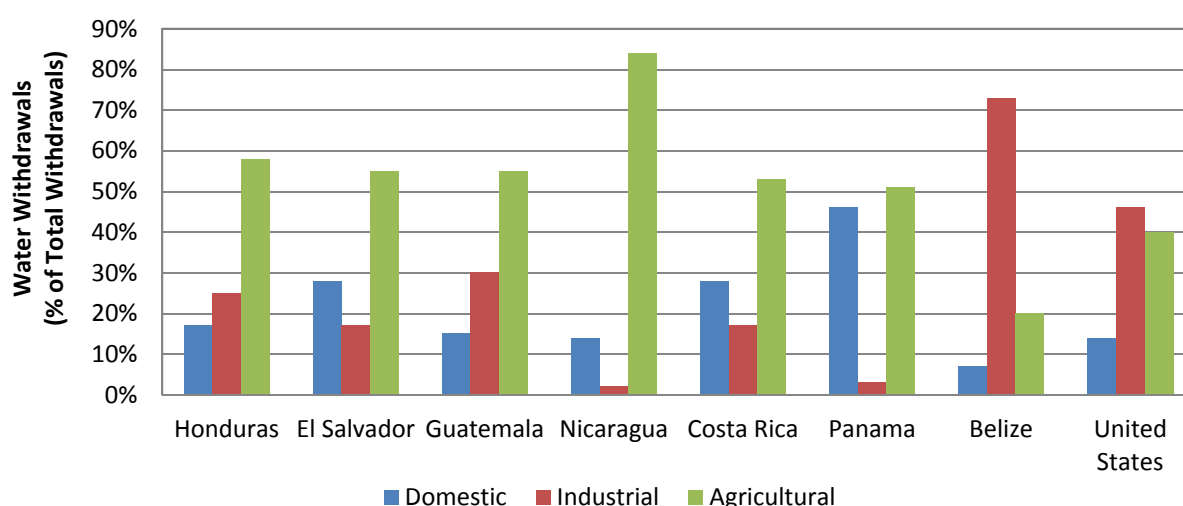


Source: World Bank, World Development Indicators 2012

Figure 65 compares the use of water for various sectors among Central American countries and the United States. This analysis helps to highlight where the greatest demands are on the country's water supply. Honduras exhibits a similar pattern of water use as Guatemala, and exceeds Costa Rica, El Salvador and Nicaragua in use of water for industrial purposes. Belize and Nicaragua exhibit the most extreme distribution, with an overwhelming focus on industry and agriculture, respectively.

⁸² As a means of providing context, according to the Water Research Foundation, the average US household uses 482m³ of water (both indoor and outdoor use).
<http://www.drinktap.org/consumerdnn/Home/WaterInformation/Conservation/WaterUseStatistics/tabid/85/Default.aspx>.

Figure 65: Water Withdrawals (% of total withdraw by sector), 2009



Source: World Bank, World Development Indicators, 2012

In contrast to countries in arid locations, Honduras benefits significantly from its frequent rainfall. The Food and Agriculture Organization (FAO) estimates that in 2000 Honduras annually withdrew only 1.2% from its total annual renewable internal freshwater resources, with over half (58%) devoted to agricultural uses (FAO, 2012). Honduras lies below the average for the Central American region (1.9%), ranking fourth behind Costa Rica (2.4%), Guatemala (2.6%) and El Salvador (5.5%). These percentages are still remarkably low in comparison to countries which face water constraints. For example, several Middle Eastern countries have percentages over 100%, such as Yemen with 168.6%. Honduras is fortunate to have a large source of renewable freshwater resources; however, the challenge for Honduras is its effective management and distribution of these resources.

b. Access to Water

Adequate access to potable water has strong links to the improvement of labor and business productivity. It also reduces business costs and expands market opportunities for companies, thereby increasing productivity and entrepreneurial competitiveness (Komives, et al., 2005).

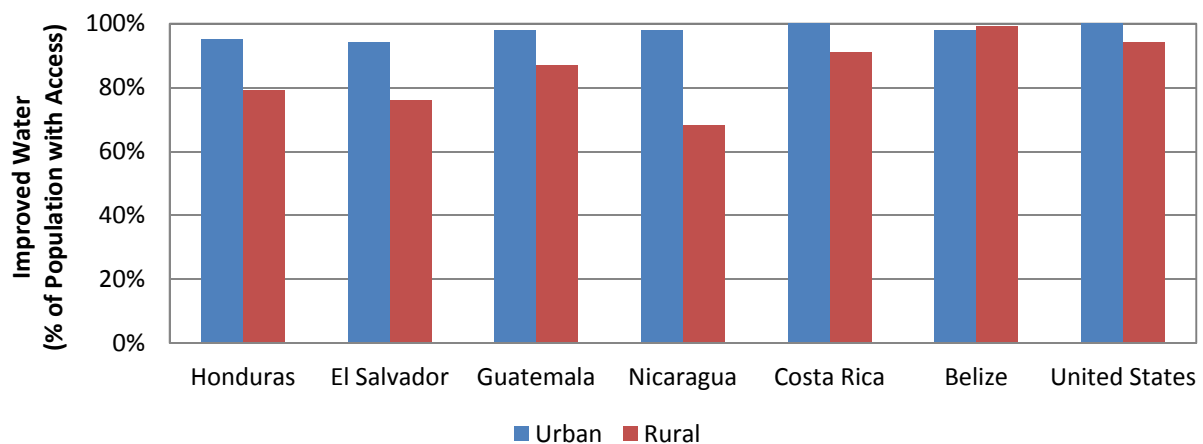
Honduras still has room for improvement in providing accessing to its water resources. As shown in Figure 66, Honduras ranks among the lowest in the Central American region with 87% access to an improved water source, and is below the average of 91% for the region. The considerable gap (16 percentage points) between access in urban (95%) versus rural (79%) settings accounts for Honduras' underperformance (Figure 67); only El Salvador and Nicaragua have larger gaps. Nicaragua's gap is especially severe, with a 30 percentage point difference. Honduras' sharp rural-urban divide reflects the wide difference in the level of quality and degree of investment in rural communities. This lack of proper infrastructure can limit potential investment in rural areas by increasing disease prevalence in the workforce and increasing firm water costs.

Figure 66: Improved Water (% of population with access), 2010



Source: World Bank, World Development Indicators, 2012

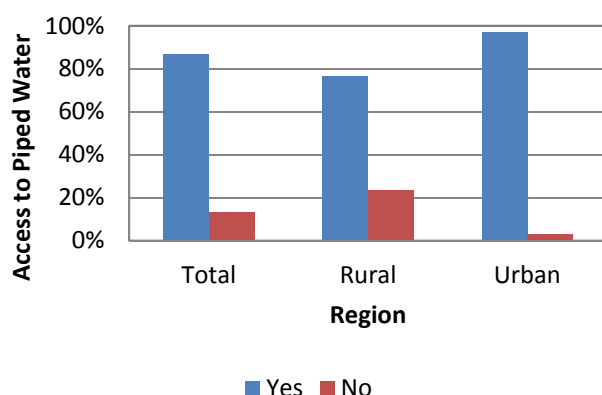
Figure 67: Improved Water (% of population with access), 2010 urban/rural



Source: World Bank, World Development Indicators, 2012

The *Instituto Nacional de Estadística de Honduras* (INE) 2009 Household Survey examined the degree of access to piped water among the 98,000 surveyed. As shown in Figure 68 total access was about 87%, which is in line with World Bank estimates. The disparity between urban and rural areas is captured as well, with only 77% access in rural areas versus 97% in urban areas.

Figure 68: Access to Piped Water



Source: INE, Household Survey, 2009

In contrast to the World Bank data, the INE Household Survey provides further insight about Honduras' water access. For example, as shown in Table 24 below, nationally-managed provision of water was available to over 62% of those in urban areas, and only 4% in rural areas. Locally-managed provision of water was more common in rural areas, comprising 69% of rural respondents versus 33% of urban respondents. This difference may reflect Honduras' efforts to decentralize water services in rural areas. Untreated water sources were naturally more common in rural areas, with 9% of respondents relying on rivers and aquifers.

Table 24: Water Delivery Services, Urban and Rural

Type of water delivery services	% of Rural	% of Urban
Nationally-managed service (piped water)	3.6	62.2
Locally-managed service (piped water)	69.2	32.9
River, stream, spring (natural sources)	9.0	0.2

Source: INE, Household Survey, 2009

The difference in the quality of water delivery is also striking when comparing rural and urban areas. As shown below in Table 25, more than two-thirds of rural survey participants described the water flow as "permanent" instead of "irregular." For urban areas, participants provided the opposite response, with more than 63% describing their service as irregular. The results suggest that there are considerable differences in water delivery through national versus locally-managed services. Rural responders reported a greater level of satisfaction in their access to piped water than those in urban areas. It's also important to factor in permanent water sources such as rivers which are not available to urban dwellers.

Table 25: Water Service

Reliability of water service	% of Rural	% of Urban
Permanent	67.3	36.8
Irregular	32.7	63.2

Source: INE, Household Survey, 2009

Honduras' tropical weather with its dry and wet seasons also impacts its water availability. In some regions of the country Honduras faces water shortages during its dry season from November through April. A 2002 World Bank study estimated that the average water availability deficit in the capital city of Tegucigalpa was approximately 18% in the wet season, and rose to 45% during the dry season.⁸³ Local news stories from the past ten years provide a rich coverage of forced rationing and shortages caused by seasonal drought, weather patterns, and natural disasters. Supply problems are further complicated by urban and agricultural contamination of watersheds and competition between agricultural and city uses.

Businesses in Honduras report that water shortages can be a hindrance to their operations. Table 26 below provides results from the 2010 World Bank Enterprise Surveys. Honduran enterprises report a higher incidence of water shortages in a typical month than other countries in the region (2.0 versus 0.7 in LAC). Outside of the region Honduras is slightly worse than the average for similar lower middle income countries. Nevertheless, in defining constraints to investment, Honduras does not exhibit shortages at considerably disruptive levels.

The WBES for Honduras also depict a wide variety of water delivery quality among manufacturing companies throughout Honduras. Medium-sized companies in particular face a significantly greater number of water shortages (5.5 events per month) than small (0.5 events) or large (0.2 events) companies. Finally, the number of monthly water shortages is more frequent in the capital, Tegucigalpa (3.0 events) versus those enterprises in the industrial capital, San Pedro Sula (1.1 events) and the rest of the country (0.6 events). This suggests a considerable difference in quality of water management throughout the country.

⁸³ World Bank, July 2002.

Table 26: Number of Water Shortages in a Typical Month

	Overall	Small (51% of Total)	Medium (31%)	Large (18%)
Honduras	2.0	0.5	5.5	0.2
Latin America and Caribbean	0.7	0.5	1.1	0.5
Lower Middle Income	1.8	1.8	2.0	1.8
Region (% of Total Surveyed)				
Tegucigalpa (53%)	3.0			
San Pedro Sula (31%)	1.1			
Rest of Country (16%)	0.6			

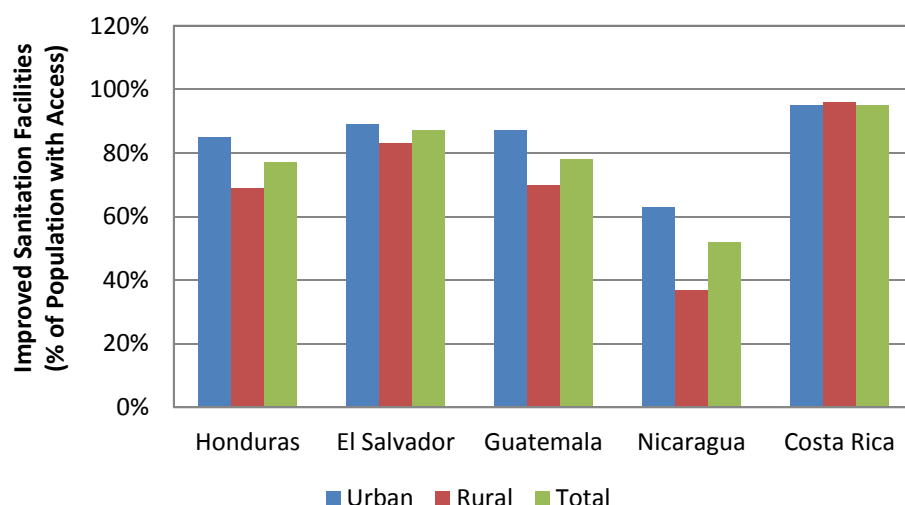
Source: World Bank Enterprise Surveys, 2010

c. Access to Sanitation Services

Lack of adequate sanitation services is a public health issue which can hinder Honduras' investment in human capital and limit long-term growth in labor productivity. Businesses are more productive when employees are able to avoid becoming ill from improper management of sanitation and its effect on water quality.

Honduras has room for improvement in its sanitation facilities, as shown below in Figure 69. Over 23% of the overall population lacks access to sewerage systems, the second worst in the region. Honduras' overall number is hampered by the significant difference between rural and urban areas. Honduras has a gap of 16 percentage points between rural (69%) and urban areas (85%). Nicaragua, the worst performer in the region in terms of access to sanitation facilities, also exhibits the sharpest contrast between its rural and urban population (37% access versus 63% access), a 26 percentage point difference. The lower percentages of the population that have access to sanitation facilities in rural areas are impacted by the scattered distribution of human settlements over mountainous terrain, and by the political and economic difficulties facing many communities in their quest to obtain public investment support from central government authorities. Honduras has made progress in providing better coverage of sanitation facilities. Honduras' urban and rural sanitation access rates each increased by 12 percentage points from 1997 to 2010.

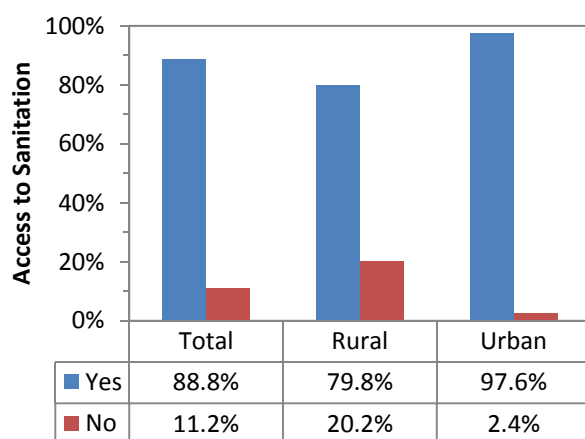
Figure 69: Improved Sanitation Facilities (% of population with access), 2010



Source: World Bank, World Development Indicators, 2012

The INE 2009 Household Survey provides a more positive picture of Honduras' access to sanitation services than the World Bank estimates. As shown in Figure 70, almost 80% of rural dwellers in the survey reported access to sanitation services, well above the 69% estimated by the World Bank. Urban access was equally higher at 98%, compared to 85% in the World Bank data. The gap between rural and urban areas (18%) was similar to World Bank estimates.

Figure 70: Access to Sanitation, INE HH surveys



Source: INE, Household Survey, 2009

The type of sanitation services differed considerably between rural versus urban areas. As shown in Table 27, over 66% of the urban survey respondents have toilets connected to a sewer system, whereas only 5% of rural respondents had a similar structure. Latrines with hydraulic seals (traps) were the most

common type of sanitation method in the survey for rural dwellers. Only 0.8% of rural and 1.2% of urban participants reported relying on using rivers, ponds or the sea as a source of sanitation removal.

Table 27: Sanitation Service Availability

Type of Sanitation Services	% of Rural	% of Urban
Sewer system	5.3	66.4
Toilet connected to septic tank	19.4	11.2
Latrine with hydraulic seal (traps)	44.3	7.6
Toilet or latrine connected to river, pond or sea	0.8	1.2

Source: Data from INE Honduras EPHPM 1990-2011

d. Irrigation

Honduras has substantial irrigation potential, yet only a fraction of the potentially irrigable land (around 490,000 ha) was irrigated in 2007 (FAO, 2012). According to the *Secretaría de Agricultura y Ganadería* (SAG – Secretary of Agriculture and Livestock), Honduras had irrigated only 90,000 ha, or about 18.4 percent, of the potential irrigable land in 2008. Since the 1990s, the Government of Honduras (GOH) has promoted the decentralization of irrigation systems to local boards, which has led to more than three-fourths (76.7%) of irrigated land being under local management (FAO, 2000).⁸⁴

Table 28: Irrigation Use and Potential – Regional Analysis

	Belize	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panama
Potential area for irrigation development (1000 ha), 2007	N/A	430	200	2,620	490	700	187
Area equipped for full control irrigation (1000 ha), 1997	3	103.1	44.9	129.8	90 (2008)	61.5	34.6
Percentage of area equipped for irrigation <i>actually</i> irrigated, 1997	N/A	100	N/A	100	90 (2008)	82.8	81
Percentage of irrigation potential area <i>equipped for</i> irrigation, 1997	N/A	24.0	22.5	5.0	18.4 (2008)	8.8	18.5

Source: FAO-AQUASTAT (2012); Honduras data is from the *Secretaría de Agricultura y Ganadería* (SAG)

⁸⁴ http://www.fao.org/nr/water/aquastat/countries_regions/honduras/indexsp.stm

According to Table 28, Honduras' use of irrigation compares favorably with its neighbors on most measures and does not reflect a country critically deficient in irrigation development. With 90,000 ha of irrigated lands in 2008, Honduras benefits from its large area and ranks third among the Central American countries. Historically, Honduras has improved upon its use of irrigation, increasing about 5,000 – 10,000 ha per decade. In 1961, Honduras had 50,000 ha of irrigated land, and has added another 40,000 over the next 47 years. With only 18.4% of potential irrigable land in use, Honduras needs further investment in irrigation, yet a lack of irrigation infrastructure is not a binding constraint on the overall Honduran economy.

e. Quality of Water

While not a major binding constraint, Honduras still faces challenges towards improving its economic competitiveness and citizen well-being due to existing river and ground water contamination. The World Bank estimates the annual costs of diarrheal mortality and morbidity attributed to inadequate water, sanitation and hygiene are estimated at 480 million lempiras (US\$ 24 million) in urban areas and 1,105 million lempiras (US \$55.25 million) in rural areas.⁸⁵

Urban surface water pollution is severe in the Choluteca River at Tegucigalpa and Choluteca. The World Bank reports that most industrial water effluents receive no treatment at all, and about 140,000 m³ of untreated sewerage water is annually discharged into streams and rivers.⁸⁶ In rural areas, water pollution to both surface and groundwater is primarily due to agricultural run-off and untreated effluents from mining activities. Agricultural pesticides contaminate rivers and seep into groundwater tables. Heavy metals that escape from mining operations and untreated wastewater originating from large towns and cities are often discharged into nearby waterways, including Honduras' largest natural lake, Lake Yojoa. This can adversely affect humans through the consumption of local fish such as tilapia. Furthermore, lack of proper sanitation services also affects water quality. The World Bank, for example, reports that more than 50% of rural water is contaminated with fecal matter.⁸⁷

Poor water quality and lack of proper sanitation can pose a problem to popular tourist areas such as Roatán. When trash is washed back onto local beaches, this can damage the reputation of the tourist locations, which through social networks can spread quickly worldwide.

f. Use and Administration of Water

Honduras has made substantial progress in moving toward decentralized water and sanitation management. Historically, *Servicio Autónomo Nacional de Acueductos y Alcantarillados* (SANAA) operated the majority of the urban water and sewer systems and accounted for 35% of urban connections, until the sector underwent reforms in the early 2000s that decentralized the provision of water and

⁸⁵ World Bank, 2007, p. 33.

⁸⁶ World Bank, 2007, p. 32

⁸⁷ World Bank, 2007, p.3

sanitation services to the municipal level.⁸⁸ The process of decentralization is still ongoing as major cities like Tegucigalpa are still under the control of SANAA. The 2003 Framework Law on Potable Water and Sanitation established the jurisdictional framework for planning and organizing the decentralization and integrated use of national water resources. It also led to changes in SANAA's role from being a service provider to being a technical advisor to national councils, municipalities and local service providers. The challenge has been to ensure that authorities at the municipal level have the planning capacity to handle decentralized service provision.

The GOH has made further modifications to the national water and sanitation management system, such as establishing a national water authority in 2009. While the authority has been mandated, the actual establishment of the authority has been delayed indefinitely due to conflicts with the public unions. According to the 1999 General Water Law passed and made official in legal newspaper *The Gaceta*, the independent National Water Authority (*Autoridad Nacional de Agua*) will replace the General Directorate of Water Resources and will oversee separate institutions responsible for the administration, regulation, distribution, conservation and maintenance of Honduras' water resources. One objective of the newly decentralized separation of institutions is to avoid administrative and sectorial conflicts among the institutions themselves.

Honduras could improve its pricing of water, which is currently heavily subsidized. Water subsidies promote the inefficient use of water resources and result in the under-investment of water infrastructure. The situation is particularly acute in publically managed water systems, such as in Tegucigalpa. SANAA provides water to 110,000 households, representing about 800,000 recipients. In late 2009 SANAA faced a 275 million lempira (US\$ 13.75 million) deficit and was forced to raise the cost of water service for the first time since October 2003.⁸⁹ SANAA reported that costs had increased by 400-500% since 2003 due to hikes in worldwide prices for purification chemicals and the effects from El Niño. SANAA also had an increase of 300,000 new recipients within the same time period.

To address the deficit SANAA employed a progressive tax structure in January 2010. SANAA has a four-tier cost structure based on the level of income of the community. Rates for the lowest and poorest segment was left unchanged, while the second and third segments bore about 25% of the rate increase. The wealthiest segment was impacted by the remaining 75% of the rate increase. After the rate increase about 54% of subscribers subsidize the remaining 46% of the population. As a result, SANAA has made substantial progress in closing its financing gap.

Despite these rate increases, about 100,000 people lack access to water because they reside illegally, which restricts SANAA's efforts to invest further. For families which lack piped water the cost of water

⁸⁸ Dickson, 2006.

⁸⁹ "Aumento a tarifas del SANAA es por sectores de la población", La Tribuna, January 6, 2010. <http://old.latribuna.hn/2010/01/06/aumento-a-tarifas-del-sanaa-es-por-sectores-de-la-poblacion/>.

supplied by tank trucks can account for between 11% and 20% of their monthly salary, and some seek solutions such as digging a well.⁹⁰

In conclusion, Honduras has the potential to make further investments and to improve water management practices in order to overcome water and sanitation challenges. While companies report that water shortages are an impediment to conducting business, water and sanitation services do not ultimately pose a binding constraint to investment and economic growth. Poor water quality and sanitation services – especially in rural areas – affect labor productivity and diminish long-term investments in human capital. Looking forward, Honduras needs to develop further its infrastructure in the sector, and through decentralized management, improve its service efficiency.

7.2.1.5. Infrastructure Conclusions

Based on the evidence provided in this section infrastructure does not appear to be a binding constraint, although there are clear weaknesses that are identified. The main findings for each elements of infrastructure explored in this section are summarized below.

- **Telecommunication:** Telecommunication services (internet and phone) are offered at competitive international rates and subscription rates are average for the region. The cost of a three minute call to the US fell from US\$ 0.39 in 2007 to US\$ 0.30 in 2012.⁹¹ As the rates and access are both competitive, telecommunication infrastructure is not seen as a constraint in Honduras.
- **Energy:** Current electricity prices are high relative to historical norms, but not relative to other Central American countries.⁹² However, there are serious challenges in the energy sector. The state owned National Electrical Energy Company's (ENEE) high non-technical losses in distribution, subsidies to residential and commercial users, and poor collection rates all contributed to the deficit of US\$ 234 million for 2012.⁹³ Energy prices have been kept at a competitive level through significant subsidies and government debt accrual. If the sources of ENEE's financial losses and its dependence on thermal power are not addressed, the resulting government debt or increase in electricity prices could constrain growth.
- **Transportation:** Transportation is seen as a constraint by 15% of businesses in Honduras, lower than any comparator country apart from Panama, and only 3.5% see transportation as the primary constraint.⁹⁴ The Honduran road network is 14,238 km long, 22% of which is paved. Road

⁹⁰ "Capitalinos 'solucionan' con pozos necesidad de agua", El Heraldo, June 7, 2012. <http://www.elheraldo.hn/Secciones-Principales/Metro/Capitalinos-solucionan-con-pozos-necesidad-de-agua>.

⁹¹ La Comisión Nacional de Telecomunicaciones, National Telecommunications Commission

⁹² Electricity rates average 17 cents per kWh for industrial use and 10 cents per kWh for residential use.

⁹³ SEFIN

⁹⁴ World Bank, 2010a

maintenance is provided to 95% of the road network as of 2010, and losses due to breakage/spillage are very low for the region. Honduras has access to the only deep water port in Central America (Puerto Cortés), which manages the majority of Honduran exports and imports. In order to reduce shipping delays and expand capacity, the GOH has approved an Inter-American Development Bank (IDB) loan and two Private-Public Partnerships (PPPs) to expand the port's infrastructure and improve management of the port. Provided that the recently signed highway PPPs and the planned improvements in physical capacity and operational efficiency to Puerto Cortés (both through PPPs and IDB financing) are properly implemented, transportation should not be a binding constraint to growth in the medium term. However, given the lack of experience in implementing PPPs, particularly in line ministries and the Superintendent of Public-Private Partnerships (SAPP), further actions are needed to mitigate this risk.

- **Water and Sanitation:** Access to improved water sources is available for 87% of the population in Honduras, with a 97% access rate in urban areas and a 77% access rate in rural areas.⁹⁵ Available freshwater in the country is well above demand, and at 90,000 hectares irrigated per year Honduras ranks 3rd in Central America for irrigated land. Sanitation and the quality of water are slightly worse than the Central American average, with over 140,000m³ of sewage being discharged into rivers per year. As a result of water pollution, diarrhea treatment costs have reached US\$ 80 million per year as of 2008. While these costs are higher than the average for Central America, Water and Sanitation is not seen as a binding constraint to growth in Honduras.

7.2.2. Human Capital

This section considers whether firms are choosing not to invest in Honduras due to an insufficient supply of adequate human capital. A country's stock of human capital is largely determined by the quality and quantity of health and educational services. While both health and education have important impacts on welfare beyond making human capital available to firms, the focus of this chapter is narrowly on the quality and price of labor. This section analyzes the current overview of formal and informal education and the relation of education with the labor market, in particular with employment and the returns to the labor force.

Honduran executives cited inadequate education of the labor force as the 11th most important obstacle out of a total of 16 in the Global Competitiveness Index (GCI) 2012-2013 of the World Economic Forum. This seems to indicate that among the priorities of executives, the quality of the education of workers does not appear to be one of the main obstacles. The breakdown of the indicators related to education, reflected in pillars 4 and 5 of the GCI, reflects the problems of the education system of Honduras compared to other Central American countries (Table 29). The quality of the education system and the

⁹⁵ Instituto Nacional de Estadísticas (INE), National Household Surveys, 2009.

quality of primary education rank 135 out of 144 economies. Another low indicator for Honduras is the quality of mathematics and science education which ranks 138 of 144.

Table 29: Education Rankings in select LAC Countries

	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Dom. Rep.	Chile	Mexico
Global Competitiveness Index	57	101	83	90	108	105	33	53
4th Pillar: Health and Primary Education	57	90	95	96	89	106	74	68
4.09 Quality of Primary Education	26	131	136	135	123	143	119	118
4.10 Primary Education Enrollment	n/a	69	41	57	79	92	71	29
5th pillar: Higher Education and Training	41	105	104	106	110	97	46	77
5.01 Secondary Education Enrollment	34	105	109	100	102	96	75	71
5.02 Tertiary Education Enrollment	81	84	97	92	94	72	38	78
5.03 Quality of the Education System	21	134	130	135	121	137	91	100
5.04 Quality of Math and Science	41	133	137	138	128	142	117	124
5.05 Quality of management Schools	19	99	43	109	98	88	14	51

Source: World Economic Forums Global Competitiveness Report 2012-2013

Note: All values are country ranks out of 144 total.

7.2.2.1. Formal Education

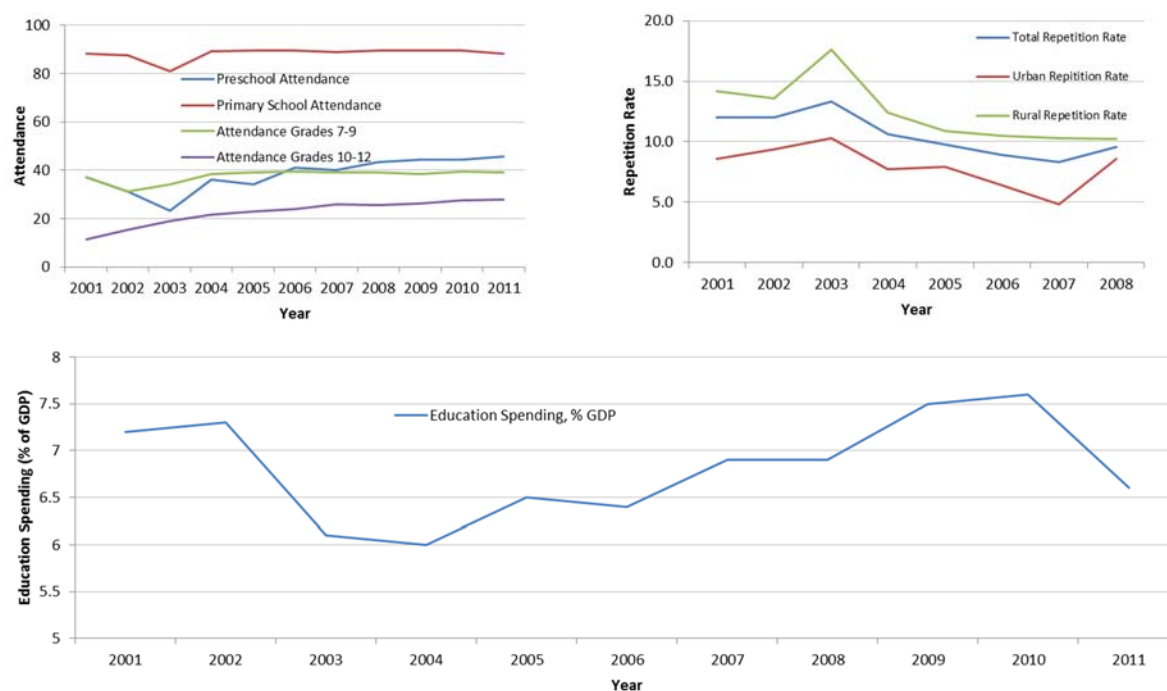
Access and Attainment. During the 1990s the Honduran education system advanced in a sustainable manner, however there are still huge inequalities between the education of the urban and rural areas. Illiteracy rates were reduced from 27.3% in 1990 to 18.5% in 2004 and 14.9% in 2011.⁹⁶ In 2011, the net enrollment rate for the primary level was 96.6%, surpassing universal coverage; for the secondary level, rates in *ciclo comun* (middle school) and *diversificado* (high school) are 39.5% and 27.6%, respectively; and in the higher education level it is 17.1%. In addition, the national grade repetition rate for the primary level (1st to 6th grade) is 5.0%, while the completion rate in primary school is about 90%. However, and despite these advances, 22% of the national population over ten years old has no education; 52.3% know how to read and write, but did not complete primary education; 20.6% have a secondary education and only 5% have a higher education.⁹⁷ Additionally, not shown here, considering the high rates of school drop outs in the secondary level, the low rate of secondary education completion is a problem that other

⁹⁶ 'Adult' in this paragraph refers to age 15 and older.

⁹⁷ Primary Education is considered to be the first 6 years of education, secondary education includes grades 6-12, and tertiary is beyond grade 12.

countries in the region also share (Bashir, Gindling, & Oviedo, 2012). The average schooling level for the adult population is only 7 years.

Figure 71: Education Overview, 2001-2011



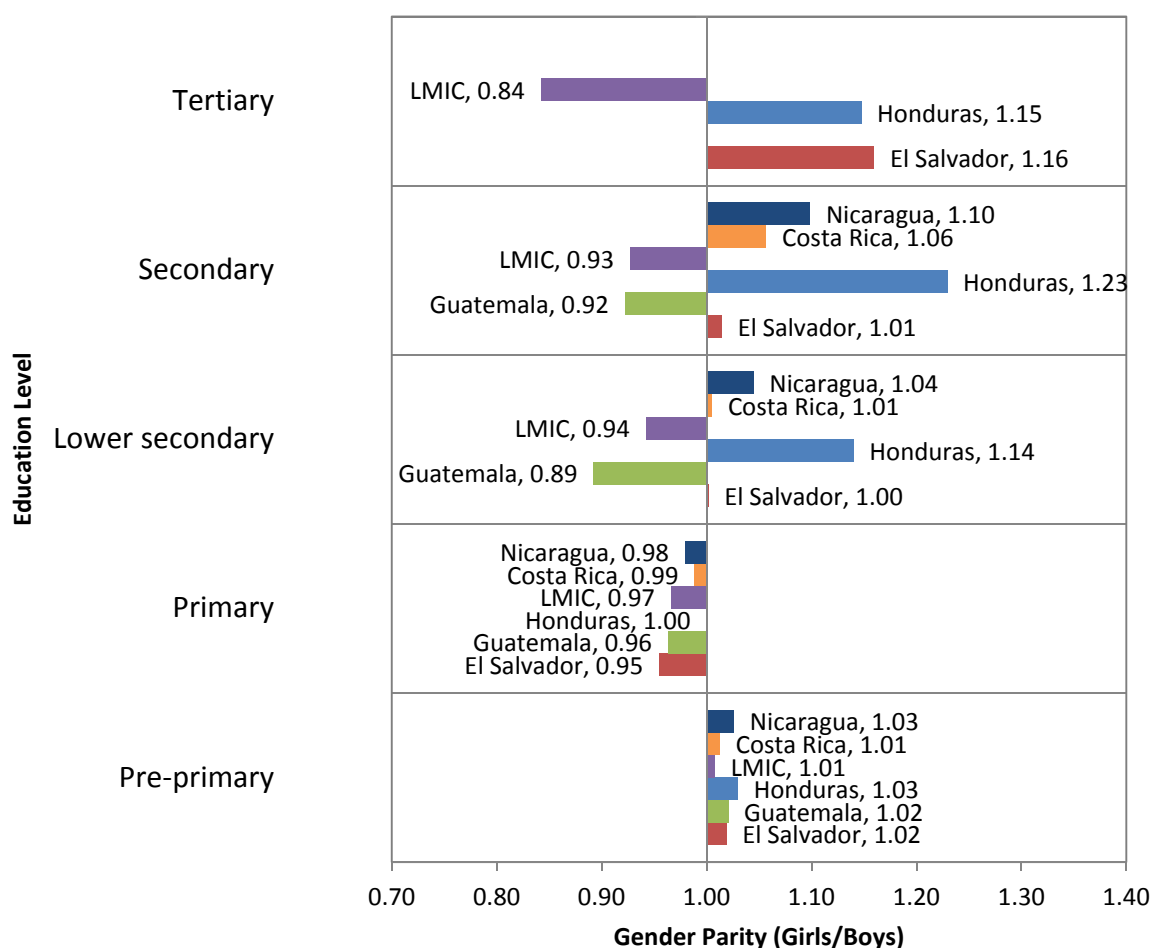
Source: Data from INE Honduras EPHPM 1990-2011

Honduras stands out for allocating an important percentage of its GDP to education expenditure (more than 7%), which represents almost double the average investment in Latin America. However, more than 95% of the education budget is salaries. This seriously limits the investment level to achieve improvements in efficiency, equality and quality of education. As a result, the indicators are not proportional to the high levels of expenditure in this sector, as shown in Figure 71. Public education provision is strongest at the primary level, with about 80% of children attending public schools, and less significant (about 20%) at the secondary level. State participation increases again at the tertiary level.

There are large differences in access to education for rural and the urban areas. In urban areas, only 15% of the population has not received any type of education, versus 30% in rural areas. In the urban areas 59% of the population has at least a primary education, versus 46% in rural areas. For secondary the rural-urban divide is starker: 31.5% of the urban population has secondary education versus 10.5% of the rural population. Post-secondary studies are the most extreme with 7% of the urban population having completed higher education studies compared to 1% of the rural population. Of course, those born in rural areas and receiving a secondary or tertiary education may relocate to urban areas for employment.

Figure 72 shows gender parity (gross enrollment of girls/boys) by educational level for five Central American countries and the average score for lower middle income countries (LMIC).⁹⁸ The ratio is near one for pre-primary and primary in Honduras and the other countries. In secondary and tertiary, girls' enrollment rates are substantially higher than boys, in contrast to the norm in LMICs where girls' enrollment is on average lower than boys.

Figure 72: Education Gender Parity (gross enrollment), 2010



Source: World Bank, World Development Indicators, 2012

Quality of Education: In 2011, for the first time, Honduras participated in the tests of the International Association for the Evaluation of Education Achievements (IEA). The tests measure: (1) international trends in math and science (TIMSS); and (2) the international evaluation of reading comprehension (PIRLS). The scales of these tests range between 0-1,000, but the typical range for students is between

⁹⁸ Gross enrollment rate is an indicator that takes into account all students enrolled in a level of education regardless of age, while net rates take into account only the students enrolled in a level of education that have the age for each level.

300 and 700. The evaluations were applied in 2011 to 4th and 8th grade students and were published in December 2012.

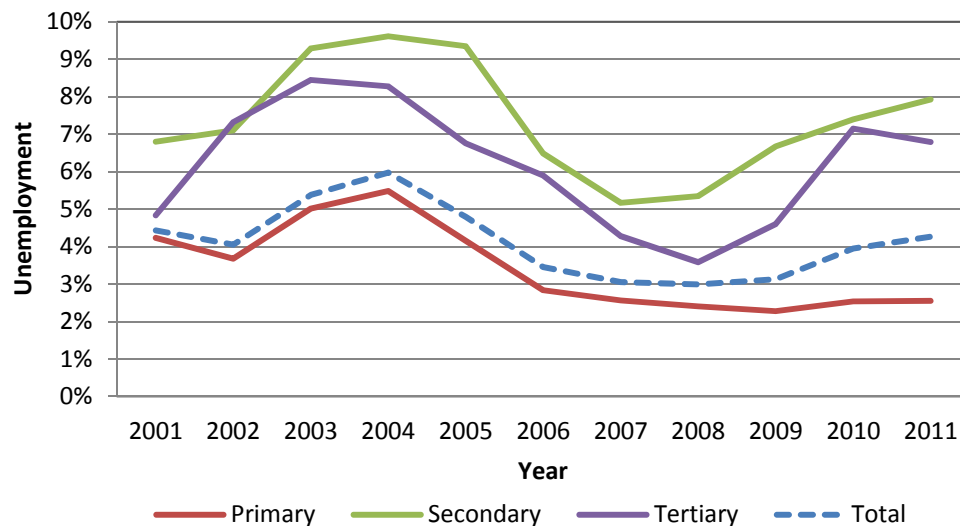
Traditionally, the East Asian countries are the leaders in the TIMSS tests. In 2011, out of the 60 participating countries, the best performers were: Singapore, Korea, and Hong Kong SAR, followed by Taipei China and Japan. In the case of the 2011 PIRLS test, 49 countries participated and the leading countries were Hong Kong SAR, Russia, Finland and Singapore. As Honduras is at a relatively lower level of development, 6th grade students took the 4th grade tests and 9th grade students took the 8th grade tests. From Latin America only Chile, Colombia and Honduras participated.

In the TIMSS test for math the Honduran students taking the 4th grade test ranked second to last with 396 points, above only Yemen (348); Chile scored 462 points with about 70% of Chilean 4th graders scoring higher than the average Honduran 6th grader. In 8th grade mathematics Honduras also ranked second to last with 338 points, above only Ghana (331 points); Chile scored 416 points with about 80% of Chilean 8th graders scoring higher than the average Honduran 9th grader. In the case of the 4th grade TIMSS in science the Honduran students' performance was acceptable (432) above Botswana (367), Yemen (345) and another nine countries; Chile scored 480. In 8th grade science Honduras scored 369 points, above South Africa (332) and Ghana (306); Chile scored 461. For the PIRLS test, given to 4th grade students, Honduran 6th graders obtained a better score with 450 points, above ten other countries, including: Colombia (448), Morocco (424), Kuwait and Botswana, both with 419 points.

Also, since 2006 the Directorate of the Admission System of *Universidad Nacional Autónoma de Honduras* has applied the Academic Aptitude Tests (PAA) to first entry students. Unfortunately, the only comparison available is with Mexico for 2009 and 2010, where the sum of the average of both tests was 1,405 points. In Honduras, the sum of the average for both tests was 806.5, which suggests that Honduran educational quality is far lower than Mexico, even for those students that attend university.

Unemployment and Educational Level. In the period 2001-2011 the lowest unemployment rates were observed between 2004-2008, reaching 3.0% of the economically active population in 2008, and coinciding with a healthy GDP growth with rates above 6.0% (Figure 73). In 2011, the unemployment rate had risen to 4.3%. Oddly, the data suggest that those with a primary education have the lowest rates of unemployment.

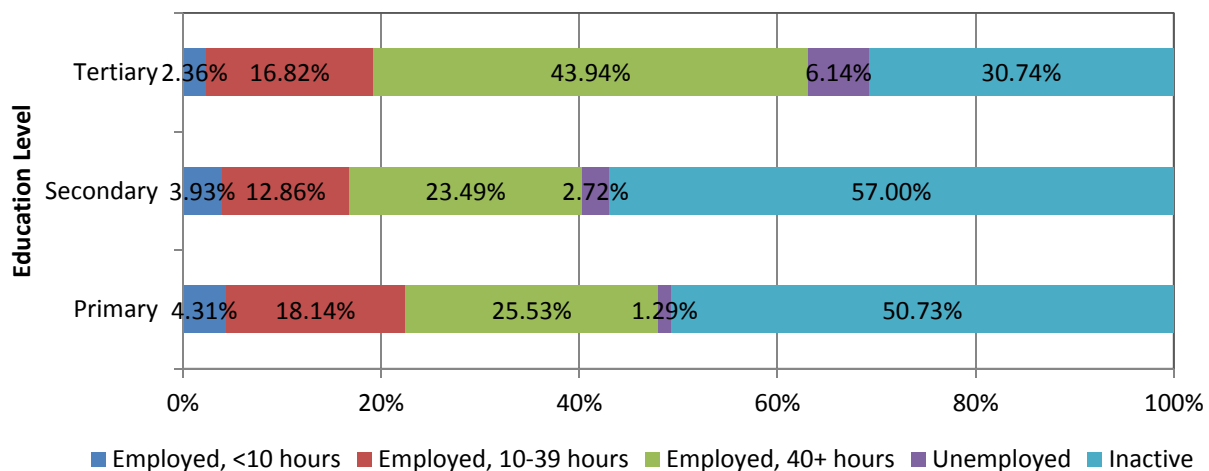
Figure 73: Unemployment by Educational Level, 2001-2011



Source: Data from INE Honduras EPHPM 1990-2011

However, the low rate of unemployment shown above may result from a low number of unemployed being considered economically active. Figure 74 shows the hours worked by educational level and we can see that while a small percentage is unemployed, a large percentage is inactive and working less than full-time, so that only about a quarter of those with a primary or secondary education have full-time employment. Those with a tertiary education are almost twice as likely as others to have a fulltime job. This information suggests that the current stock of workers with a secondary education exceeds demand.

Figure 74: Hours Employed by Educational Level



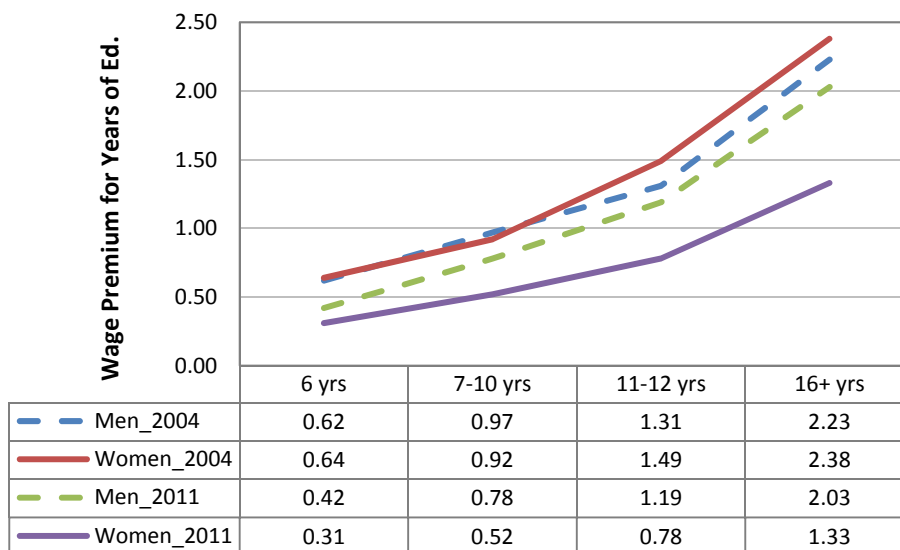
Source: Data from INE Honduras EPHPM 1990-2011

Marginal Returns to Education. This section estimates the marginal returns to education in Honduras using a modified Mincer equation of the log of salary as a function of education and experience. We first

estimate the wage premium for those that are employed, as is typical in the literature, (Model 1, Appendix 3) and then we look at the change in expected wages accounting for the probability of being employed (Model 2, Appendix 3), and for the entire population, whether working or not (Model 3, Appendix 3). In all models, five education levels are defined (primary complete, secondary incomplete, secondary complete, tertiary incomplete, and tertiary complete, with less than primary as the omitted education level) to measure the returns for each one of them. Additionally, gender differences in wages, returns to education, and probability of employment are estimated and reported.

To properly model the returns to education accounting for both the wages earned and the probability of employment we use a Heckman Selection Model (Heckman, 1979, Model 2). Figure 75 shows the wage premium per year of additional education compared to an incomplete primary education. The estimates are calculated with data from 2004 and 2011 separately for men and women using a sample aged 22-65. Appendix 3 explains the methodology used to estimate the wage premiums. For example, in 2011, compared to a person with an incomplete primary education, a female with complete primary education would have a salary 31% higher, a woman with a secondary education would have on average a salary 78% higher and with a university degree would expect a salary 133% higher. It is also noteworthy that the wage premium for additional education has decreased significantly over the last decade for both women and men. The decrease in returns may be a result of the increased average educational attainment of workers.

Figure 75: Honduras: Gross Wage Premium for Additional Education (Model 2)



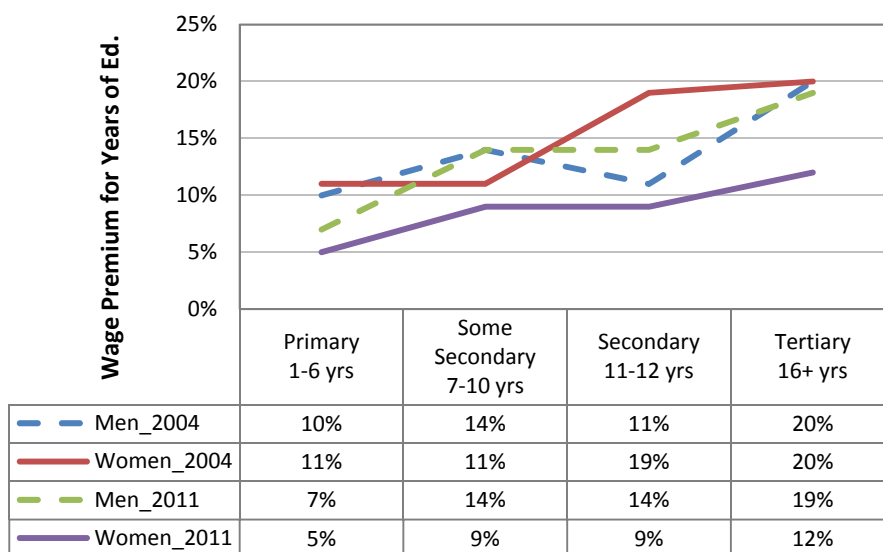
Source: Data from INE Honduras EPHPM 1990-2011

Note: Wage premium of each level compared to the group with no education or incomplete primary. Estimated using a Heckman two-stage model with log of salary as dependent variable. Sample limited to individuals 22 – 65 years of age, with a salary greater than zero. Details in Appendix 3: A Model of Marginal Returns to Education.

Whereas the graph above shows the total wage premium for each level versus an incomplete primary, the graph below (Figure 76) shows the wage premium per year of additional education compared to the

next highest level of education. For woman we clearly see a downward trend over the last decade at all education levels, and for men only at the primary education level.

Figure 76: Honduras: Annual Wage Premium for Additional Education (Model 1)



Source: Data from INE Honduras EPHPM 1990-2011

Note: The rates of return were calculated by taking the difference in the coefficients (betas) of the underlying levels of education and dividing by the additional years of schooling for each level (6 for primary, 2.5 for some secondary, 3 for secondary and 4.5 for tertiary).

Table 30 below shows the average income of Hondurans age 16 to 65 by educational level. All of the estimates of the returns to education shown above (Models 1 and 2) are done using the log of salary and must limit the sample to those observations for which salary is positive, which includes only 67% of the population (51% of women and 87% of men, considers age 22 to 65). The average income including those with no income is of course lower than the average income of only those with positive income. However, the probability of being employed also changes with educational level.

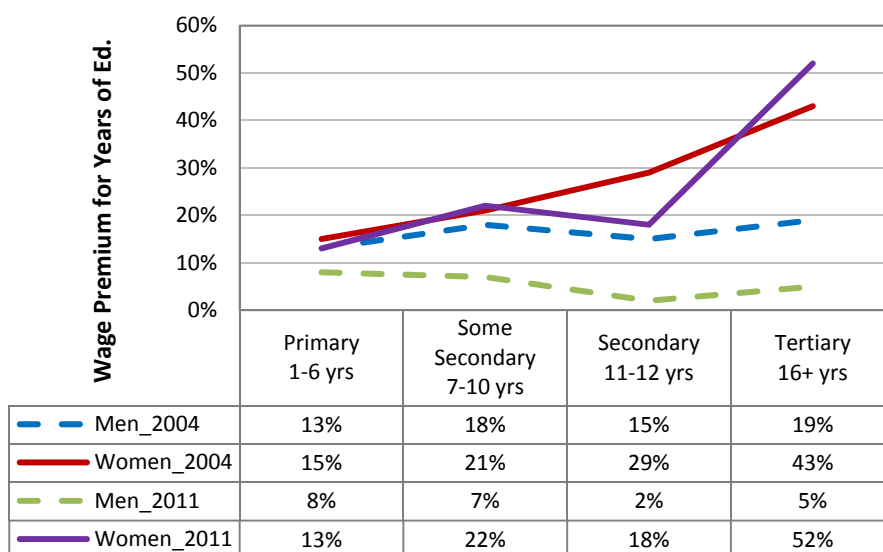
Table 30: Average Income by Educational Level

	% of Population	Average Income (USD)	% of Population with Positive Income (18-65)	Average Income if Income is Positive (USD)
Primary Incomplete	27%	\$3,057	65%	\$4,669
Primary Complete	30%	\$3,448	65%	\$5,333
Some Secondary	14%	\$3,302	56%	\$5,927
Secondary Complete	20%	\$4,735	57%	\$8,315
Some Tertiary	5%	\$5,665	52%	\$10,886
Tertiary Complete	5%	\$15,600	78%	\$20,110
ALL	100%	\$4,253	62%	\$6,851

Source: Data from INE Honduras EPHPM 1990-2011

In order to estimate the increase in expected earnings rather than wage premiums for those who are employed, we replace all zero values for income with 1 lempira so that all data (both those that earn income and those that do not) are included (Model 3). If additional education is correlated with higher employment then this will produce larger estimates than those above. In the first stage of the Heckman Selection Model we obtained estimates for the impact of education and experience on the probability of employment. The results suggest that for women, increased education is strongly associated with increased employment and age; however, in men we see a slight negative relationship between increased education and employment and a very strong positive correlation between age and employment. So, we expect the results of adding in those with no income to increase the wage premium for women and decrease it for men. Figure 77 shows the results that confirm this.

Figure 77: Honduras: Impact on Expected Earnings for Additional Level of Education (Model 3)

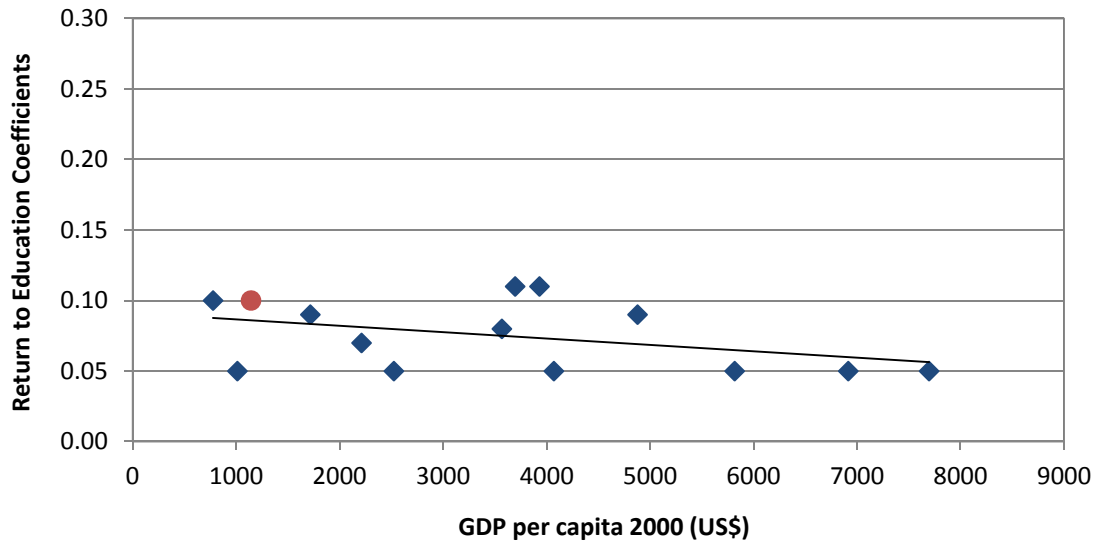


Source: Data from INE Honduras EPHPM 1990-2011

For women, the strong positive correlation of employment and education make the estimated impact on expected earnings much larger than the estimated impact of education on wages (conditional on being employed). For men, the 2004 data show little difference between the two methodologies but the 2011 data show a very low impact on estimated earnings for secondary and tertiary education. It is tempting to conclude that acquiring a secondary education lowers one's chance of employment, but this could be due to younger cohorts having higher secondary education rates than older cohorts and employment rising with age. This issue would benefit from a more thorough investigation than was possible with the resources for this study.

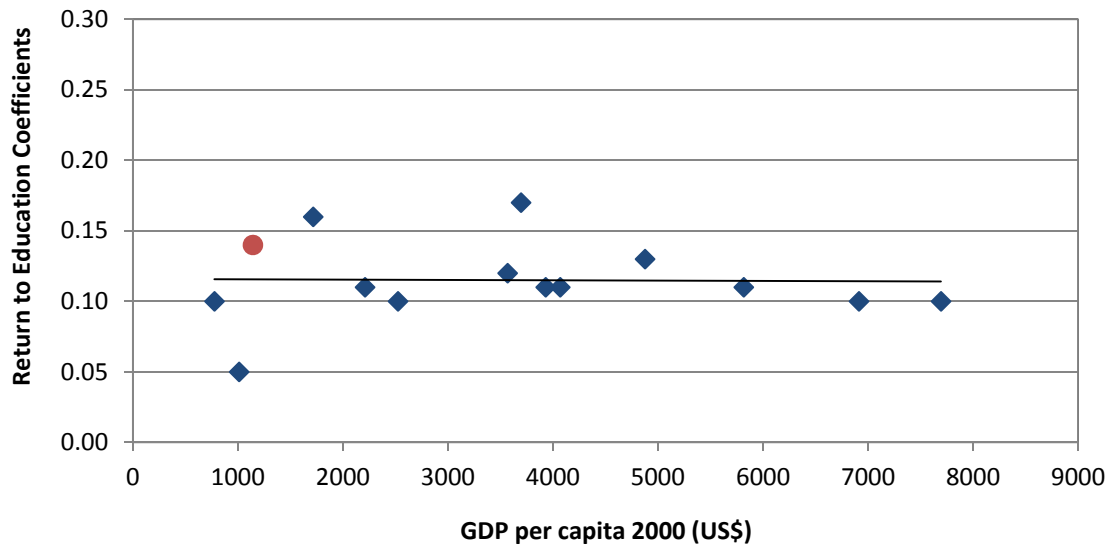
International Comparisons of Returns on Education. The graphs below show the returns to education by education level for a sample of 14 Latin American countries used by Contreras and Gallegos (2007). They limit their sample to workers that are employed at least 20 hours per week and so the results are not directly comparable to the returns shown above in Figure 76. In general, as GDP increases the returns to education tend to diminish; for the primary and tertiary level the fall is relatively higher. For primary and secondary levels, the returns on education in Honduras are above the regional trend line (Figure 78, Figure 79). On the contrary, for tertiary, Honduras is slightly below the regional trend, but is still 16% (Figure 80). The reason why the returns reported by Contreras and Gallegos for 2000 (10%, 14%, and 16%, respectively) are higher than those calculated by the CA authors for 2001 (6%, 7%, and 11%, respectively) is largely because the sample used by Contreras and Gallegos includes only those that work 20 hours or more and we included all workers with a positive wage.

Figure 78: Returns on Primary Education by Income



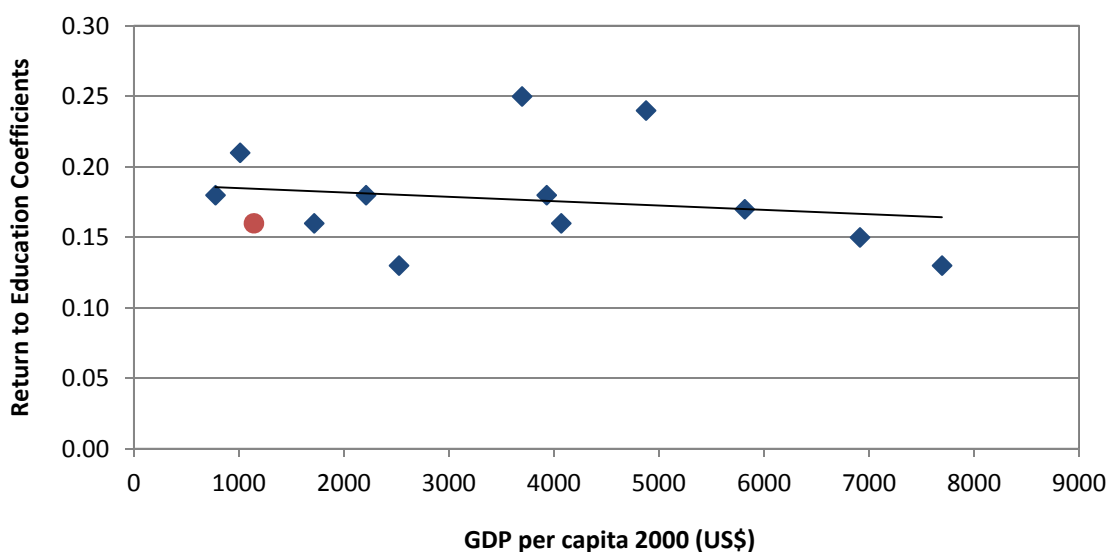
Source: Prepared based on Contreras and Gallegos (2007)

Figure 79: Returns on Secondary Education by Income



Source: Prepared based on Contreras and Gallegos (2007)

Figure 80: Returns on Tertiary Education by Income



Source: Prepared based on Contreras and Gallegos (2007)

7.2.2.2. Non-Formal Education

Honduras requires a high quality labor force to increase production of goods and services with a high value added (and higher wages). Honduras has a significant labor supply for industries that demand low-skilled workers, but the supply of qualified labor is limited in most high technology industries (World Bank, 2004a, U.S. Department of State, 2012).

In recent decades, technical vocational education and training (TVET) in Honduras has expanded considerably; however, this evolution was accompanied by an inefficient and fragmented institutional structure. TVET offerings are generally not meeting demand nor aligned to the changing needs of the labor market. Garcia (2005) found that 55% of the economically active population do not have adequate training.

About 49% of Honduran companies offer formal training to their employees and one-third of the employees receive formal training. Larger companies and companies in sectors with the highest technology levels are more prone to provide training. According to the World Bank (2004a), the percentage of companies that provide training is higher in Honduras than in Pakistan, Bangladesh, Nicaragua and India; however, it is lower than in Guatemala, Brazil or China. As with other companies in Central America, the Honduran companies conduct most of their training internally.

On the other hand, the reason most frequently mentioned by Honduran companies for not training formally, is because they satisfy their needs with learning by doing programs and informal training from other workers and supervisors. Consequently, the use of mature technologies instead of innovating, explains the dependency of the industry based on low salaries, without creating a high human capital demand. These factors, according to World Bank (2004b) interact to create a vicious circle of low levels

of investment in human capital, low levels of productivity, and few incentives to train and adopt new technologies.

Instituto Nacional de Formación Profesional (INFOP, National Vocational Training Institute) is the primary provider of vocational training for the private sector. INFOP acts as the regulator of vocational training and is in charge of setting competency standards of all the occupational profiles in Honduras, identifying training needs, providing accreditation for training providers, and evaluating training providers. However, a large portion of training (about 90%) is directly provided by INFOP. Several studies agree in pointing out serious faults in the operations of INFOP and the need to establish a demand-driven labor training system that separates the regulatory and operational functions (World Bank, 2004a; Garcia, 2005; Auguste, 2009; Auguste & Cuesta, 2009).

7.2.2.3. Health

Health is another important component of human capital and an essential ingredient in sustaining long-term equitable economic growth in Honduras. While health has intrinsic value in promoting general well-being, the focus of this section is on how health in particular affects economic growth and investment decisions. According to the HRV model, for health to be a “binding” constraint on private sector investment and economic growth, analysts must identify the direct effect of health on labor productivity. In other words, there needs to be evidence that points to poor health creating a significant obstacle in the use or accumulation of human capital. In general, a significant obstacle must be a health issue which has reached epidemic levels, so as to affect the economy. One such example is the impact of HIV/AIDS on labor productivity in Sub-Saharan Africa.

There are two important pieces of evidence which demonstrate that the risk is low for a countrywide epidemic. These are Honduras’ successful vaccination programs and its low incidence of death due to transmissible diseases. Note that global pandemics such as H1N1 and SARS would severely tax the national health system, yet there is a low probability of their occurrence and lie outside the scope of the analysis.

Honduras has made important progress over the last two decades in the eradication, elimination and control of sickness preventable by vaccination. According to the World Health Organization (WHO), 99% of the overall population has been vaccinated for polio, measles, and DTP (Diphtheria, Tetanus, Pertussis), along with similar percentages for children and infants.⁹⁹ As a result, the last reported case of polio was in 1989, and measles in 1997 (WHO).¹⁰⁰ Likewise, the last reported case of diphtheria was in 1980 and neonatal tetanus affects only a few per year.

⁹⁹ http://apps.who.int/immunization_monitoring/en/globalsummary/countryprofileresult.cfm?C=hnd

¹⁰⁰ http://apps.who.int/immunization_monitoring/en/globalsummary/timeseries/tsincidencebycountry.cfm?C=HND

The death rate from communicable diseases is low in Honduras. In a cross-regional study, the WHO reported that communicable diseases in 2008 comprise only 16.1% of total deaths, which is in line with Nicaragua (13.5%) and El Salvador (16.5%).¹⁰¹ More than two-thirds (69%) of all deaths in Honduras were due to non-communicable diseases in 2010 (WHO).¹⁰² The remaining 31% were due to injuries (8%) and non-communicable diseases, malnutrition, and perinatal and maternal complications (remaining 23%). Outbreaks of tuberculosis and malaria affect several thousand per year, or less than 0.1% of the population (WHO).¹⁰³ Finally, HIV/AIDS remains a manageable concern. The national HIV prevalence rate was 0.68% of the adult population in 2010, although it ranges between 5-10% among specific vulnerable groups.¹⁰⁴

Based on the evidence highlighted above health is not a binding constraint to growth in Honduras. Nevertheless, there are still some aspects of health which restrict future economic growth in Honduras.

The first concern is in early childhood development and nutrition. Malnutrition and poor early child development can affect the economic and labor productivity of children when they reach maturity. For example, researchers in the United States found children from better-off households have a significant advantage in cognitive abilities by age three (Hart & Risley, 1995). In Honduras, infant mortality and malnutrition rates today are high by developed country standards, and rural/urban and socioeconomic differentials in these rates mask serious deficiencies. According to the most recent country data from Honduras, the infant mortality rate is 23 per 1,000 live births and under-five mortality is 30 per 1,000 live births.¹⁰⁵ The infant mortality rate fluctuates greatly depending on income, ranging from 19 per 1,000 for the highest income quintile to 37 per 1,000 for the lowest income quintile in 2005 (INE, 2006).¹⁰⁶

Furthermore, malnutrition and diarrhea are significant threats to early child development. Diarrhea continues to be one of the leading causes of child mortality (11% in 2008), and prolonged episodes of diarrhea can lead to malnutrition (WHO).¹⁰⁷ Likewise, the high prevalence of stunting at 25% nationally (but as high as 50% in some rural areas) indicates that the main problem is likely not due to acute food shortages, but rather reflects a process of long-term chronic diet deficiency since conception, perhaps as a result of consuming a corn and bean-based diet, especially in rural areas (INE, 2006). This early life malnutrition not only causes stunting but also impairs cognitive development (Victora et al., 2008; Hoddinott et al., 2008).

¹⁰¹ World Health Statistics, Cause-Specific Mortality and Morbidity, Age-Standardized Mortality Rate by Cause: <http://apps.who.int/ghodata/>.

¹⁰² NCD Country Profiles, 2011, http://www.who.int/entity/nmh/countries/hnd_en.pdf.

¹⁰³ Mortality and Burden of Disease, Disease and Injury Country Estimate, 2008 (By Sex); <http://apps.who.int/ghodata/>.

¹⁰⁴ *National Integrated HIV Strategy*, 2011

¹⁰⁵ National Health Plan 2010-2014

¹⁰⁶ National Demographic and Health Survey (DHS, 2005)

¹⁰⁷ World Health Statistics, Cause-specific Mortality and Morbidity, Causes of Deaths among Children <http://apps.who.int/ghodata/?vid=60710#>.

The second concern about health in Honduras is the wide disparity in health services available in rural versus urban areas. Approximately 30% of the Honduran population lacks access to regular, quality health services.¹⁰⁸ The disparity in health services further distorts the human capital of rural communities and perpetuates further income disparity and hampers effective inclusive economic growth policies. The Ministry of Health (MOH) has begun to address this shortfall in recent years by decentralizing and contracting out the delivery of health services to NGOs and municipal/local governments. As of 2011, Honduras has 211 decentralized clinics providing certain basic services to 750,000 individuals in rural and underserved urban areas.¹⁰⁹ After initial international donor support the MOH has begun to assume more responsibility in funding these programs. However, recent budget cuts have stymied efforts to expand the program beyond its current 1% of the total MOH budget.

In addition, health service improvement is impeded by an unwieldy central bureaucracy and suboptimal use of public resources. More than 62% of public expenditure in the health sector financed health workers' salaries in the FY2012, an increase from 51.2% in 2005.¹¹⁰ The most recent National Health Plan acknowledges that an inefficient allocation of resources allows for insufficient funding of critical activities. According to the 2010-2014 National Health Plan, health expenditures amounted to 5.83% of GDP per capita, or US\$ 78.36, which is one of the lowest in the region. Of this amount, 65% is spent by the public sector and 35% by the private sector.

In sum, the descriptive statistics cited above highlight the fact that current shortcomings in the health sector require continued government commitment in order to achieve a sustainable, objective, and effective health care system. In addition, the low probability of plagues or widespread communicable diseases – all of which would diminish productivity – confirms the conclusion that health is not a binding constraint to growth.

7.2.2.4. Human Capital Conclusion

This section considered whether firms are choosing not to invest in Honduras due to an insufficient supply of adequate human capital. A country's stock of human capital is largely determined by the quality and quantity of health and educational services. While there are a number of concerns regarding the efficiency and effectiveness of the public provision of health services, they are not likely impeding the formation of human capital to the extent that health could be considered a binding constraint to economic growth. However, Honduras' high levels of malnutrition may have a negative impact on education attainment and merit a closer look along with other efforts to improve educational outcomes.

Honduras has nearly universal primary education and has brought down illiteracy rates to 15%; however, significant weaknesses remain in the Honduran education system including: (1) lack of equal access to secondary and tertiary education; (2) high rates of drop outs and grade repetition; (3) age-grade

¹⁰⁸ National Health Plan 2010-2014.

¹⁰⁹ Based on interviews with Ministry of Health.

¹¹⁰ Estimates based on publicly released budget information from the Ministry of Health: <http://www.sefin.gob.hn/>.

correspondence, (4) deficiencies in the training of teachers and lack of systematic evaluation of the quality of teaching; and (5) systematic deficiencies in the sector's management. In addition, there are problems with the efficiency of the education system as teachers' wages are among the highest in the region and strikes have consumed over 100 school days since 2006. The GOH has recently taken steps to reduce teacher strikes and purge the payroll of those not truly working for the ministry to address these problems.

The wage premium (limiting the sample to those employed) for secondary and tertiary education in Honduras range from 10% to 20% per year of education. However, a closer look at the effects on expected earnings (including those with and without income) shows that additional education has a strong impact for women but little impact for men. Likewise, only 28% of Honduran companies identified inadequate training of the labor force as an important restriction, compared to the 36% of the regional average (WBES, 2010). This result could be indicating that companies in Honduras, due to their current productive structure, are demanding labor with relatively lower levels of education.

While educational attainment beyond primary is low and quality of that education is poor, firms do not rank education as a binding constraint. This may be partly due to the severity of other constraints, but could also reflect that survey respondents were in industries not requiring a high level of educated labor. In the short run, there is evidence that the supply of workers with the necessary education or skills to satisfy the demand of the enterprises is adequate. In particular, the high unemployment rates for workers with a secondary and higher education suggests that the low growth rates of the Honduran economy are not generating sufficient demand for qualified labor that will absorb the supply available. As it takes a number of years to change the stock of human capital, efforts to improve the quality of education cannot be delayed until education is a binding constraint and improving the quality of education should continue to be a focus of the GOH.

7.2.3. Geography

This section will discuss whether the access to arable land, natural resources, and trade partners, or exposure to natural disasters plays a significant role in constraining economic growth. This section is included within low social returns as these factors all play a role in affecting the economic development of a country.

7.2.3.1. Natural Resources, Availability and Use

Honduras is the second largest country in Central America with a total area of 112,492 km². Honduras has easy access to international markets with 1522 km of border with Nicaragua, El Salvador, and Guatemala along with over 800 km of coastline, allowing water access to both the Caribbean Sea and the

Pacific Ocean. As mentioned in the transportation section, Honduras has the only deep-water port in Central America (Puerto Cortés).¹¹¹

Arable land is plentiful, with 9.1% of Honduras' land being irrigable.¹¹² This totals to 0.13 ha of irrigable land per citizen, which is lower than Nicaragua (0.33) and Belize (0.31), however higher than Costa Rica, El Salvador, and Panama. Of this land 800 km² are irrigated. Permanent cropland has increased from 3.2% of total land area to 3.6% from 2000 to 2011.

Freshwater is abundant in Honduras, with an average of 197.6 cm of rainfall per year. Total rainfall and river runoff is estimated at 22.3 km³ per year. Of this water, only 2.1% is utilized per year (FAO, 2012). As discussed in the energy section, the rainfall and topography of Honduras allows for significant use of hydropower, which is currently 35% of all power.

Over 46% of the land area in Honduras is forested, and forestry products account for 7.5% of all exports from Honduras.¹¹³ Deforestation has occurred at an alarming rate with total forested area dropping from 57% in 2000 to 46% in 2011. This level of deforestation is one of the highest in Central America.¹¹⁴ Deforestation can inhibit economic growth by causing soil erosion, landslides, and localized freshwater shortages. These factors lower the productivity of residents in the region, particularly in agricultural activities. Much of this deforestation is driven by illegal logging.

7.2.3.2. Natural Disasters

The natural disasters occurring most frequently in Honduras are hurricanes, floods, and droughts. It is estimated that over half the population of Honduras has been affected by natural disasters between 1980 and 2010 (4.1 million people).¹¹⁵ These disasters have caused an average of US\$ 145.5 million in damage annually. The majority of the damage over this 30 year period was caused by Hurricane Mitch in 1998, causing an estimated US\$ 3.8 billion in economic damage and killing 14,600 people. Flooding accounted for an additional US\$ 370 million in damage; however, the majority of this damage is from before the year 2000. From 2000 to 2011, only US\$ 300 million in total damage has been recorded, a significant decrease when compared to the past decade.

¹¹¹ Further information on transportation beyond geographical accessibility can be found in the infrastructure section.

¹¹² WB World Development Indicators, 2012

¹¹³ UN Trade Statistics, 2010

¹¹⁴ World Bank WDI, 2012

¹¹⁵ EM-DAT, International Disaster Database

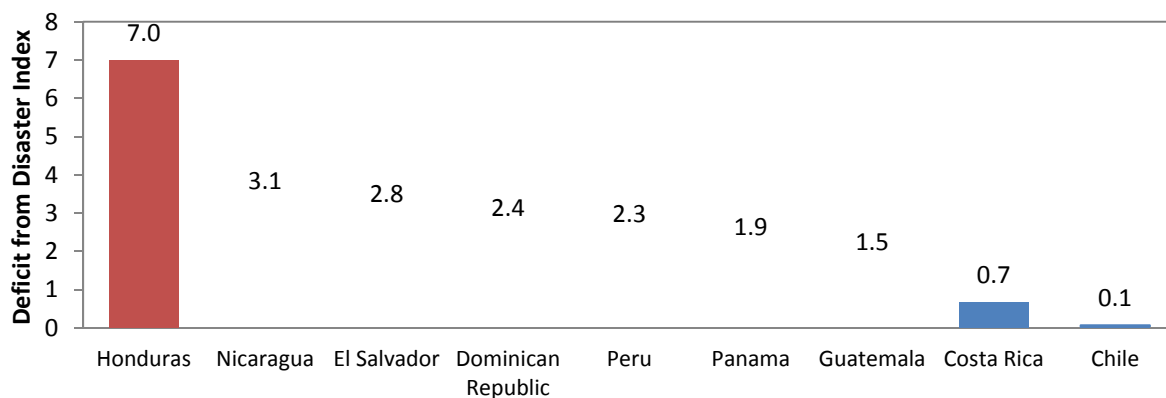
Table 31: Disasters in Honduras, by cost (thousands USD)

Disaster	Date	Damages
Storm	October, 1998	\$3,793,600
Storm	September, 1974	\$54,0000
Storm	May, 1982	\$101,000
Flood	November, 1990	\$100,000
Flood	May, 2002	\$100,000
Storm	September, 2005	\$100,000
Earthquake	May, 2009	\$100,000
Storm	May, 2010	\$90,000
Flood	September, 1993	\$57,600
Flood	October, 1993	\$56,700

Source: Centre for Research on the Epidemiology of Disasters, 2012

Hurricane readiness in Honduras has advanced significantly in the last decade, largely due to the damages caused by Hurricane Mitch. However, there is still significant amounts of housing in flood zones that are considered at significant risk.¹¹⁶ The IDB Deficit Disaster Index (DDI) measures the economic loss a country could suffer due to a disaster and the resources required to mitigate the disaster (Figure 81). A DDI above 1.0 indicates that the economic losses exceed the capacity of the state even when debt is increased to the maximum. While all countries in Central America apart from Costa Rica exceed a DDI of 1.0, Honduras is far and away the biggest risk in the region at 7.

Figure 81: Deficit from Disaster Index



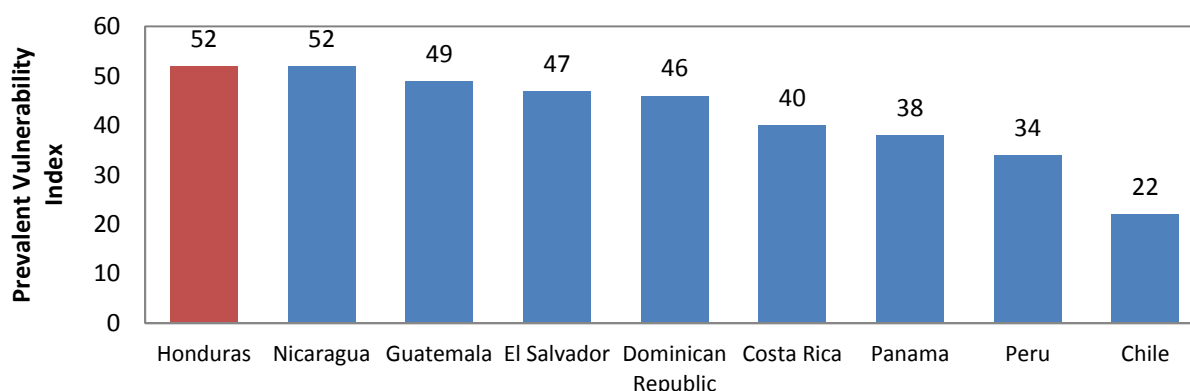
Source: IDB, 2010

A second measure of the threat from natural disasters is the Prevalent Vulnerability Index (PVI), which measures socioeconomic tenacity in disaster prone areas of the country. A high PVI (above 40) indicates

¹¹⁶ Data from 2008: CEPAL, 2010

that social and economic welfare in disaster prone regions is very fragile and at great risk from natural disasters. The results for Honduras are similar to those in Central America, besides Costa Rica, and far above the estimated index in Panama, Peru and Chile (Figure 82).

Figure 82: Prevalent Vulnerability Index



Source: IDB, 2010

Natural disasters act as a risk to citizens and businesses, and those seeking to avoid the risk can do so by purchasing insurance. Therefore insurance costs, in a competitive market, act as an excellent measure of the shadow price of natural disasters. If natural disasters are a significant cost to businesses, we would expect insurance costs to be high. Table 32 provides insurances costs from Chartis, a large insurance provider based in El Salvador. Rates for Honduras are not higher than regional comparators, and are actually below most US rates.¹¹⁷

Table 32: Cost of Coverage for Natural Disasters or Catastrophic Events (% over amount insured)

Activity	El Salvador	Guatemala	Honduras	Nicaragua	Costa Rica
Offices and Financial Services	0.11%	0.10%	0.11%	N/A	0.22%
Businesses	0.16%	0.13%	0.14%	1.04%	0.22%
Industries	0.17%	0.15%	0.16%	0.17%	0.22%
Residential Buildings	0.11%	0.09%	0.10%	0.18%	0.22%
Agribusiness	0.18%	0.21%	0.18%	N/A	0.22%

Source: Chartis Insurance (2010)

¹¹⁷ National Flood Insurance averages 2.75% rate in 2012. FEMA

Hurricane Mitch is the only natural disaster that has had an impact on GDP per capita, with growth being 1.2% below the average in 1998 and 4.0% below in 1999. While these impacts were large, growth recovered in 2000 and no other natural disaster has had such an impact. Natural disaster costs in the past decade have been absorbed largely by the private sector and by the government through international assistance and loans.¹¹⁸ While the economic cost of natural disasters is significant, the low insurance costs, lack of regular impact on GDP growth, and the ability of both the private sector and the government to cover recovery costs through insurance and aid leads us to conclude that natural disasters are not a binding constraint to growth.

¹¹⁸ IDB provides 100 million in a standby loan for disaster assistance, November 2011.

Appendix 1: WEF Global Competitiveness Indicators

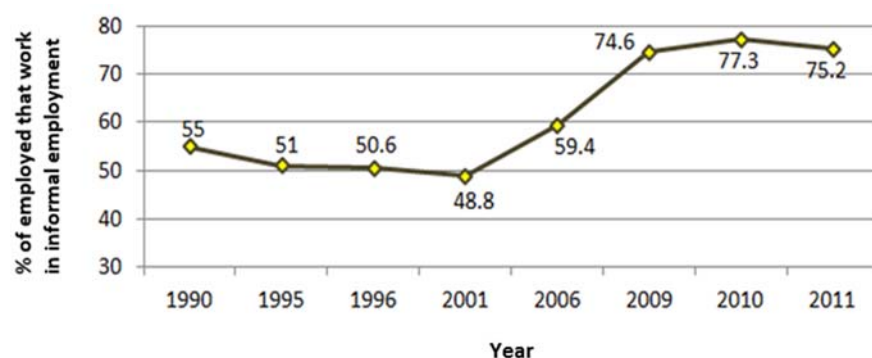
INDICATOR	VALUE	RANK/142
1st pillar: Institutions		
1.01 Property rights.....	3.7	97
1.02 Intellectual property protection.....	3.3	77
1.03 Diversion of public funds.....	2.9	86
1.04 Public trust of politicians.....	2.4	86
1.05 Irregular payments and bribes.....	3.6	88
1.06 Judicial independence.....	3.6	77
1.07 Favoritism in decisions of government officials.....	2.6	104
1.08 Wastefulness of government spending.....	2.4	119
1.09 Burden of government regulation.....	3.5	64
1.10 Efficiency of legal framework in settling disputes.....	3.3	89
1.11 Efficiency of legal framework in challenging regs.....	3.5	14
1.12 Transparency of government policymaking.....	4.4	63
1.13 Business costs of terrorism.....	4.3	126
1.14 Business costs of crime and violence.....	2.5	137
1.15 Organized crime.....	3.0	137
1.16 Reliability of police services.....	3.6	98
1.17 Ethical behavior of firms.....	3.8	70
1.18 Strength of auditing and reporting standards.....	4.6	15
1.19 Efficacy of corporate boards.....	4.7	61
1.20 Protection of minority shareholders' interests.....	4.1	77
1.21 Strength of investor protection, 0–10 (best)*.....	3.0	131
2nd pillar: Infrastructure		
2.01 Quality of overall infrastructure.....	3.7	89
2.02 Quality of roads.....	3.4	86
2.03 Quality of railroad infrastructure.....	1.3	116
2.04 Quality of port infrastructure.....	5.1	38
2.05 Quality of air transport infrastructure.....	4.5	73
2.06 Available airline seat kms/week, millions*.....	25.3	111
2.07 Quality of electricity supply.....	4.1	86
2.08 Fixed telephone lines/100 pop.*.....	8.8	98
2.09 Mobile telephone subscriptions/100 pop.*.....	125.1	32
3rd pillar: Macroeconomic environment		
3.01 Government budget balance, % GDP*.....	-2.9	58
3.02 Gross national savings, % GDP*.....	16.8	93
3.03 Inflation, annual % change*.....	4.7	87
3.04 Interest rate spread, %*.....	9.0	108
3.05 General government debt, % GDP*.....	26.3	35
3.06 Country credit rating, 0–100 (best)*.....	33.2	103
4th pillar: Health and primary education		
4.01 Business impact of malaria.....	5.1	98
4.02 Malaria cases/100,000 pop.*.....	484.3	102
4.03 Business impact of tuberculosis.....	5.3	69
4.04 Tuberculosis incidence/100,000 pop.*.....	58.0	14
4.05 Business impact of HIV/AIDS.....	4.6	97
4.06 HIV prevalence, % adult pop.*.....	0.8	99
4.07 Infant mortality, deaths/1,000 live births*.....	25.0	90
4.08 Life expectancy, years*.....	72.4	80
4.09 Quality of primary education.....	2.4	128
4.10 Primary education enrollment, net %*.....	96.6	39
5th pillar: Higher education and training		
5.01 Secondary education enrollment, gross %*.....	64.5	106
5.02 Tertiary education enrollment, gross %*.....	18.7	92
5.03 Quality of the educational system.....	2.6	129
5.04 Quality of math and science education.....	2.4	133
5.05 Quality of management schools.....	3.5	113
5.06 Internet access in schools.....	3.2	112
5.07 Availability of research and training services.....	3.7	91
5.08 Extent of staff training.....	4.0	70

INDICATOR	VALUE	RANK/142
6th pillar: Goods market efficiency		
6.01 Intensity of local competition.....	4.5	98
6.02 Extent of market dominance.....	3.3	100
6.03 Effectiveness of anti-monopoly policy.....	3.6	101
6.04 Extent and effect of taxation.....	3.3	84
6.05 Total tax rate, % profits*.....	48.3	101
6.06 No. procedures to start a business*.....	13	125
6.07 No. days to start a business*.....	14	58
6.08 Agricultural policy costs.....	3.7	87
6.09 Prevalence of trade barriers.....	4.2	88
6.10 Trade tariffs, % duty*.....	4.4	53
6.11 Prevalence of foreign ownership.....	5.0	48
6.12 Business impact of rules on FDI.....	4.4	90
6.13 Burden of customs procedures.....	4.0	81
6.14 Imports as a percentage of GDP*.....	63.3	37
6.15 Degree of customer orientation.....	4.4	89
6.16 Buyer sophistication.....	3.5	67
7th pillar: Labor market efficiency		
7.01 Cooperation in labor-employer relations.....	4.3	64
7.02 Flexibility of wage determination.....	4.5	104
7.03 Rigidity of employment index, 0–100 (worst)*.....	57.0	134
7.04 Hiring and firing practices.....	3.5	98
7.05 Redundancy costs, weeks of salary*.....	95	124
7.06 Pay and productivity.....	3.5	101
7.07 Reliance on professional management.....	3.7	102
7.08 Brain drain.....	3.1	90
7.09 Women in labor force, ratio to men*.....	0.51	124
8th pillar: Financial market development		
8.01 Availability of financial services.....	4.9	51
8.02 Affordability of financial services.....	4.5	49
8.03 Financing through local equity market.....	2.2	130
8.04 Ease of access to loans.....	2.7	72
8.05 Venture capital availability.....	2.4	80
8.06 Soundness of banks.....	5.7	37
8.07 Regulation of securities exchanges.....	5.0	29
8.08 Legal rights index, 0–10 (best)*.....	6.0	60
9th pillar: Technological readiness		
9.01 Availability of latest technologies.....	4.8	81
9.02 Firm-level technology absorption.....	4.8	67
9.03 FDI and technology transfer.....	5.0	40
9.04 Internet users/100 pop.*.....	11.1	109
9.05 Broadband Internet subscriptions/100 pop.*.....	1.0	99
9.06 Internet bandwidth, kb/s/capita*.....	0.7	96
10th pillar: Market size		
10.01 Domestic market size index, 1–7 (best)*.....	2.9	93
10.02 Foreign market size index, 1–7 (best)*.....	3.7	93
11th pillar: Business sophistication		
11.01 Local supplier quantity.....	4.4	95
11.02 Local supplier quality.....	4.4	73
11.03 State of cluster development.....	3.6	65
11.04 Nature of competitive advantage.....	3.1	92
11.05 Value chain breadth.....	3.7	60
11.06 Control of international distribution.....	4.0	68
11.07 Production process sophistication.....	3.2	92
11.08 Extent of marketing.....	3.7	87
11.09 Willingness to delegate authority.....	3.8	53
12th pillar: Innovation		
12.01 Capacity for innovation.....	2.8	88
12.02 Quality of scientific research institutions.....	2.9	111
12.03 Company spending on R&D.....	2.9	82
12.04 University-industry collaboration in R&D.....	3.4	85
12.05 Gov't procurement of advanced tech products.....	3.5	80
12.06 Availability of scientists and engineers.....	3.4	110
12.07 Utility patents granted/million pop.*.....	0.0	90

Appendix 2: Factors influencing the probability of individuals being in the informal sector

In this document we will define informal workers as those related to the following activities: household service employees, family workers without compensation, non-professional or technical independent workers and employers that work in facilities with less than five employees. In 2011, almost 75% of the working population from 10 years-old and older participated in an informal activity (Figure 83).

Figure 83: Honduras Informal Labor Market (pop. 10 years and older)



Source: Results from modeling the probability of informality using data from EPHPM 1990 – 2011, INE Honduras

Model Estimate. The definition of informality is the starting point to identify, based on certain criteria, the workers with informal employment. According to the informal market definition the calculation methodology of a model of the probability of informality occurring will be developed, with the purpose of answering the following questions:

1. What is the level of informality in the Honduran Economy?
2. What are the characteristics that can be observed and that cause a change in the probability of having an informal employment in Honduras?

To respond to these questions the probit models were applied to the data obtained from the Multi-purpose Permanent Household Surveys (EPHPM) collected by the *Instituto Nacional de Estadísticas* (INE).

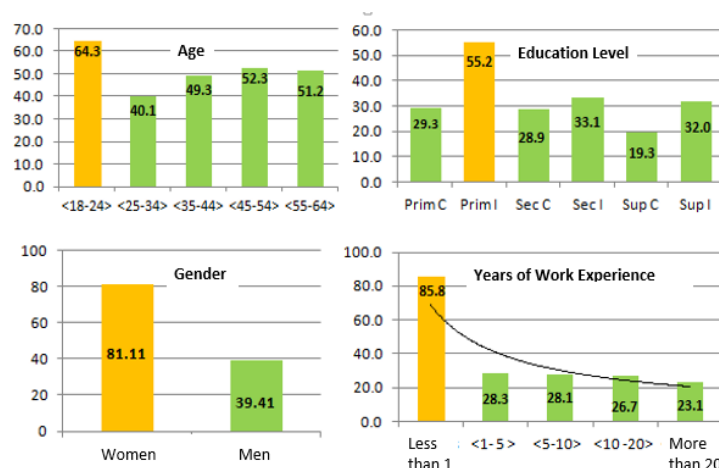
Application of the Probit Model. The econometric model used to measure the probability that an individual is employed in the informal sector includes: education level reached, labor rating (according to education), age squared, branch of economic activity, sex, civil status, position in the household, region where s/he is employed, occupational category, years of work experience, work experience squared, and a constant that represents the net influence of all the non-observed or excluded factors.

Data Source. The data used in this study come from a sample of seven surveys for the years: 1990, 1995, 1996, 2001, 2006, 2010 and 2011. It is important to highlight that with each round cuts were made and

a panel was built with the purpose of identifying the characteristics of the employed population within age ranges (18-64 years-old) and according to the regions where survey data were collected. It is also important to mention that although the largest weight of informality is in the age cohort, the general model was estimated with individuals of 10 years of age or older.

Model Results. It can be observed that the signs (positive or negative) related to the factors age, experience, education level and sex coincide with those expected and with those estimated in other models. In the following graph (Figure 84), note that men, as was to be expected, have less probability (39.4%) of having an informal job compared to women (81.1%). Also, it is verified that a greater accumulation of human capital reduces the probability of having an informal job. In this sense it is possible to observe that by age, among young people of the cohort 18 to 24 years about 64% have informal employment. This is also associated to a relationship between informality and professional experience, which shows that 85.8% of those employed with a seniority of less than a year have a greater probability of having informal employment.

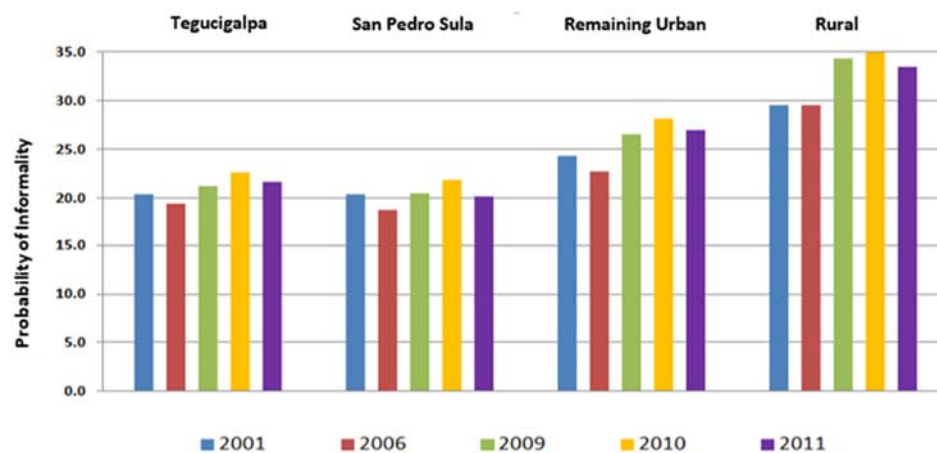
Figure 84: Probability of Informality, by Socio-Economic Characteristics



Source: Probabilities obtained from informality model using data from the INE Honduras 2011 EPHPM

Regarding the place where the individual works, it is observed that informality has a lower probability in Tegucigalpa and San Pedro Sula. For the rest of the urban and rural areas, the probability of informality was maintained at relatively high levels during the period of 2001-2011 (Figure 85).

Figure 85: Probability of Informality by Location

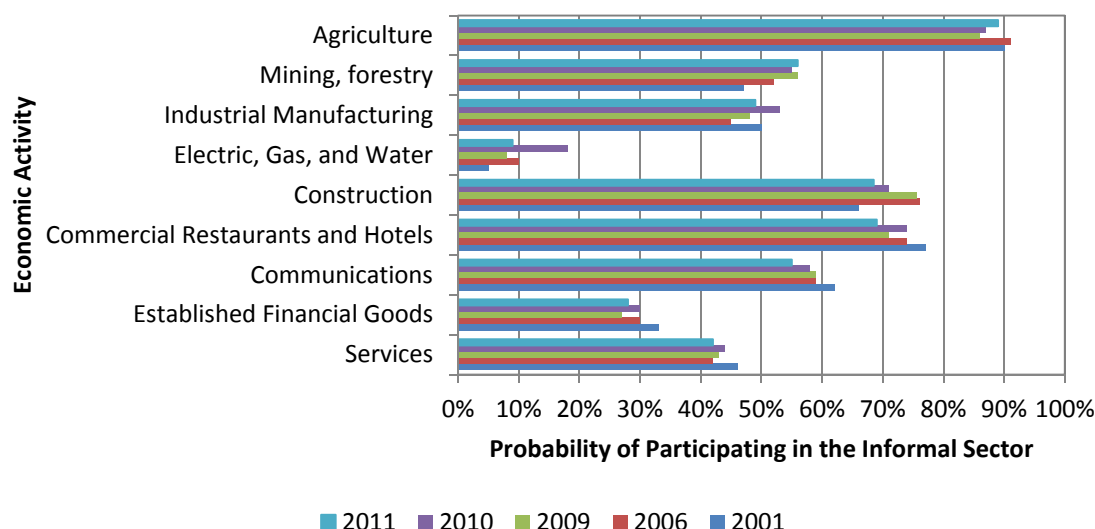


Source: Results from the probability of informality model using data from the INE Honduras EPHPM 2001 – 2011

Note: Results show the estimated probability for a 33 year old male, head of household, with incomplete secondary education, located in the commercial sector with three years of work experience.

Gonzalez and Lamanna (2007) used data from 466 manufacturing companies in 14 Central and South American countries to demonstrate that the companies that mention informal competition as an important business obstacle are largely similar to those informal companies from which they complain about. The smaller companies, with credit restrictions, that use their production capacities insufficiently and that service the smallest clients identified the practices of the informal sector competitors as a serious restriction. In addition, the companies that operate in intensive capital industries, such as the chemical, electronic, machinery, and mechanical metal industries, are in general less prone to consider the informal competition as a threat. In the case of Honduras, variables related to the branch of economic activity reveal that in the sectors of electricity, gas and water there are low levels of informality, followed by financial service establishments. On the contrary, the highest levels of informality are in agriculture, trade, construction and transportation. These results are congruent with the findings of Gonzalez and Lamanna (2007) (Figure 86).

Figure 86: Probability of Participating in the Informal Sector, by Economic Activity

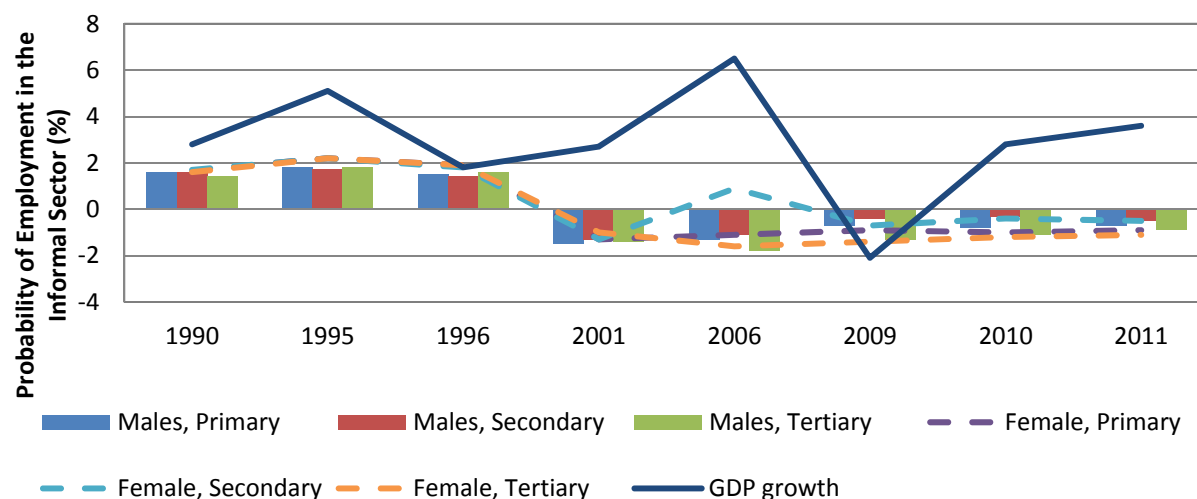


Source: Results of informal probability model using data from the INE Honduras EPHPM 2001-2011

Note: Estimated probability for a 33 year old male, no family, with incomplete secondary education and 3 years experience in the labor market.

Regarding the characteristics of individuals, people with the highest levels of education are the ones that have access to quality employment and obtain the highest revenues offered by the labor market. On the opposite end of this optimal situation are those individuals for which one can observe the probability of remaining in or having informal employment that is strongly associated with having an education level lower than incomplete secondary school. The lines and bars traced in Figure 87 have negative slopes in the period analyzed, indicating a negative correlation is attributed between informality and education. Therefore, the higher the education level reached, the lower the probability of informality. Likewise, the degree of informality tends to be higher for women than that reported for men.

Figure 87: Probably of Employment in the Informal Sector, by Sex and Education Level



Source: Results of informal probability model using data from the INE Honduras EPHPM 1990-2011

Note: Estimated probability for a person 18 to 24 years, head of household, living in San Pedro Sula, working in the manufacturing industry and has 1 year of experience.

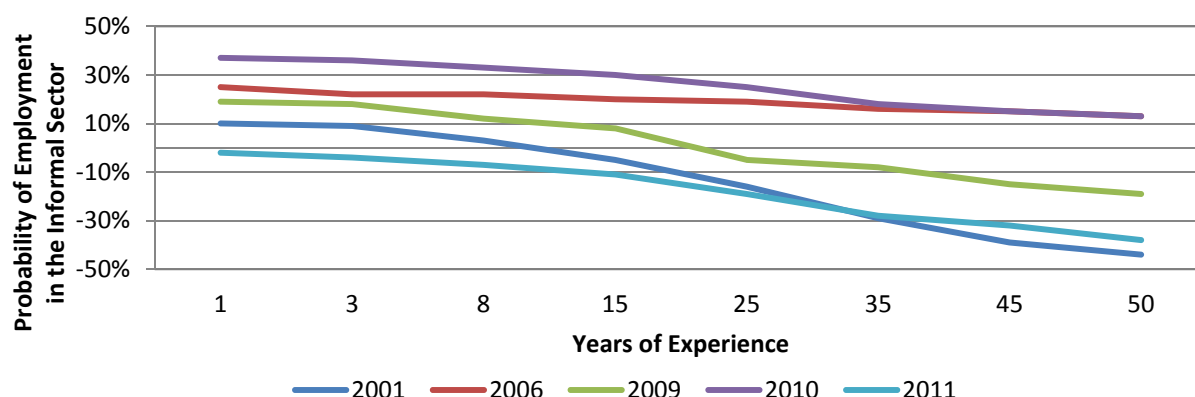
It is important to point out that the education levels of complete secondary and complete university have similar labor informality levels, which are lower than the informality levels observed among those with less education. Another interesting point to analyze are the marginal effects of the models estimated for the different years sampled, which shows an increasing weight on human capital accumulation as a determining factor of the probability of informality. Having a completed university education or complete secondary education reduces the probability of having informal employment by 23% and 18%, respectively, when compared to an individual who has completed primary. As public policy, a notable action would be promoting the completion of secondary education.

Also, it can be observed that the variable of work experience intends to capture the accumulated human capital when carrying out specific tasks that the position requires, while on the other hand the age dimension would capture the accumulation of human capital generated by remaining in the labor market. It is said that a change in the years of experience specific to the work position produces a negative change in the probability of informality, and this is why the longer the individual remains in their job there will still be a reduced probability of becoming an informal worker. When evaluating the marginal effects of informality in intermediate values, during the time period analyzed, it is possible to see that seniority in the employment position generates increasingly greater reductions in the probability of becoming an informal worker.

The following scenario shows the relationship between work experience and the probability of having informal employment. Figure 88 demonstrates a continuously decreasing relationship between the seniority accumulated and the probability of informality. The negative slope of the curves indicates that

the years of experience in the job continue generating reductions in the probability of becoming an employee in the informal sector.¹¹⁹ The behavior revealed confirms the premise that remaining in the job improves the accumulation of specific human capital.

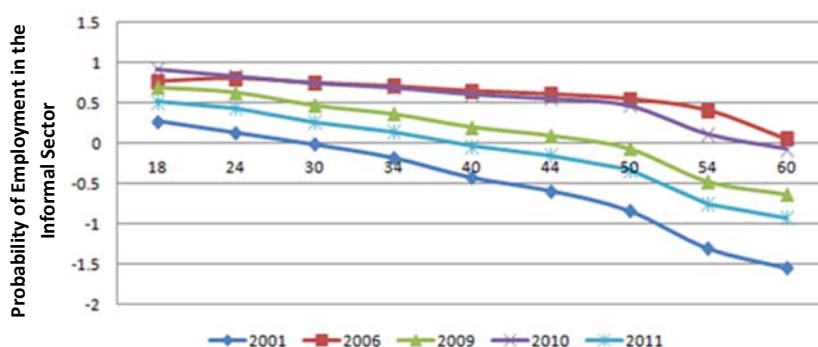
Figure 88: Probability of Employment in the Informal Sector, by Years of Experience



Source: Results of informal probability model using data from the INE Honduras EPHPM 1990-2011

On the other hand, the estimates of Figure 89 show that an individual with higher education has a probability of becoming an informal worker that decreases with age, reaffirming the hypothesis that informality reaches its minimum when an individual can obtain higher levels of human capital. Thus, for this scenario, it is confirmed that the older an individual with higher education the more negative the relationship, and this is more pronounced in 2001 and 2011.

Figure 89: Probability of Working in the Informal Sector: Tertiary Education



Source: Results of informal probability model using data from the INE Honduras EPHPM 1990-2011

¹¹⁹ Report the estimated probability for a male, head of the family, living in Tegucigalpa, working in the trade sector with an incomplete higher Education.

Informal Employment Model Results

MODEL I * - Probit model of having informal employment

	1990	1995	1996	2001	2006	2009	2010	2011
ed1824	-0.092	-0.099	-0.071	-0.150	-0.096	-0.106	0.004	-0.032
Rbst Std Err	-0.05	0.06	0.06	0.04	0.02	0.02	0.04	0.04
sex	-0.118	-0.348	-0.370	-0.175	-0.194	-0.186	-0.080	-0.029
Rbst Std Err	0.06	0.07	0.07	0.04	0.03	0.02	0.03	0.04
jefe	-0.124	-0.053	-0.130	-0.510	-0.613	-0.416	-0.407	-0.346
Rbst Std Err	0.05	0.06	0.06	0.04	0.02	0.02	0.04	0.04
dc	-0.260	-0.280	-0.220	-0.351	-0.414	-0.470	-0.497	-0.469
Rbst Std Err	0.07	0.08	0.08	0.05	0.03	0.03	0.05	0.05
sps	-0.215	-0.293	-0.084	-0.272	-0.565	-0.530	-0.508	-0.451
Rbst Std Err	0.07	0.08	0.09	0.05	0.04	0.03	0.05	0.05
resturb	-0.183	-0.162	-0.235	-0.061	-0.240	-0.161	-0.202	-0.087
Rbst Std Err	0.07	0.07	0.07	0.04	0.03	0.02	0.04	0.04
prii	0.066	0.085	0.045	0.287	0.192	0.116	-0.008	0.126
Rbst Std Err	0.05	0.06	0.06	0.04	0.03	0.02	0.04	0.04
seci	0.064	0.019	-0.115	0.524	0.427	0.473	0.454	0.297
Rbst Std Err	0.08	0.08	0.08	0.05	0.03	0.03	0.04	0.04
supi	-0.133	0.041	0.066	0.308	-0.353	-0.403	-0.210	-0.172
Rbst Std Err	0.08	0.09	0.09	0.08	0.04	0.03	0.05	0.05
ram1	6.016	5.504	8.173	6.414	3.850	3.501	2.499	3.773
Rbst Std Err	0.25	0.25	0.01	0.03	0.15	0.11	0.11	0.19
ram2	6.165	0.000	0.000	6.267	3.439	3.290	2.230	3.009
Rbst Std Err	0.26			0.01	0.26	0.19	0.33	0.34
ram3	6.248	5.910	8.341	6.113	3.232	3.157	2.324	3.031
Rbst Std Err	0.29	0.18	414.50	0.01	0.15	0.10	0.08	0.17
ram4	6.120	0.000	0.000	4.942	3.102	2.666	2.078	2.580
Rbst Std Err	0.29			0.06	0.22	0.19	0.22	0.30

ram5	6.290	5.997	8.473	6.965	4.718	4.257	3.423	4.077
Rbst Std Err	0.41	0.20	414.50	169.75	0.15	0.11	0.10	0.17
ram6	6.201	5.529	8.029	7.067	4.281	4.042	3.233	3.842
Rbst Std Err	0.25	0.17	414.50	169.75	0.14	0.10	0.07	0.16
ram7	6.522	5.799	8.126	7.006	3.995	3.606	2.789	3.468
Rbst Std Err	0.29	0.23	414.50	169.75	0.15	0.11	0.11	0.18
ram8	6.751	5.828	8.330	6.629	3.423	3.069	2.400	3.078
Rbst Std Err	0.27	0.23	414.50	169.75	0.15	0.11	0.10	0.18
ram9	6.376	5.922	8.486	6.618	3.724	3.511	2.646	3.305
Rbst Std Err	0.26	0.18	414.50	169.75	0.14	0.10	0.08	0.16
ocupc1	-0.267	-0.337	-0.454	-0.300	-0.167	-0.536	-0.277	-0.322
Rbst Std Err	0.13	0.13	0.12	0.08	0.06	0.05	0.09	0.08
ocupc2	-0.281	0.105	0.120	-0.508	-0.463	-0.385	-0.608	-0.444
Rbst Std Err	0.10	0.14	0.13	0.08	0.06	0.06	0.10	0.09
ocupc4	-0.329	-0.058	-0.028	1.028	1.397	1.024	1.172	0.846
Rbst Std Err	0.06	0.21	0.19	0.10	0.06	0.06	0.10	0.12
ocupc5	-0.498	0.004	0.288	-0.083	0.081	-0.035	-0.093	-0.042
Rbst Std Err	0.08	0.16	0.18	0.10	0.07	0.06	0.10	0.11
ocupc6	-0.469	-0.540	-0.387	0.111	0.231	0.180	0.101	0.179
Rbst Std Err	0.10	0.10	0.09	0.06	0.04	0.04	0.06	0.06
ocupc7	-0.394	-0.383	-0.002	0.570	0.906	0.802	0.904	1.043
Rbst Std Err	0.16	0.13	0.15	0.08	0.06	0.05	0.08	0.09
ocupc9	-0.231	0.138	-0.075	0.415	0.644	0.530	0.627	0.602
Rbst Std Err	0.09	0.11	0.10	0.06	0.03	0.03	0.05	0.05
ctaprop	0.393	0.535	0.628	1.981	0.000	2.715	2.649	2.572
Rbst Std Err	0.06	0.06	0.07	0.04		0.04	0.06	0.06
exper	-0.004	-0.003	0.001	-0.011	-0.002	-0.008	-0.005	-0.007
Rbst Std Err	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* (1) The model has been adjusted for selection bias and attrition. (2) Estimates were calculated using Stata. (3) Rbst Std Err= Robust Standard Error.

Appendix 3: A Model of Marginal Returns to Education

Model Specification. Three model specifications were used to estimate the returns to education in Honduras (see Figure 75 - Figure 77 for results):

Model 1 (Simple):

$$\ln(\text{salary}_i) = \beta_j \sum_{j=1}^5 E_i + \beta_7 X_i + \beta_8 X_i^2 + \beta_9 F_i + \mu_{1,i}$$

Where:

- $\ln(\text{salary})$ is the natural log of monthly salary;
- E is a set of five dummy variables for the highest education level reached (at most one variable has a value of one): primary completed, incomplete secondary, complete secondary, incomplete higher, complete higher; the omitted education level is less than primary school.
- X is the labor market experience level;
- F is a dummy variable that is 1 for female and 0 for male; model run with and without this dummy variable;
- μ_1 is the error term.

Model 2 (Heckman):

Using Stata's Heckman command, a Heckman two-step income equation was used that in step one regresses the likelihood of having employment on a set of individual characteristics that could affect the employment of an individual; the result of step one is the generation of a selection variable that is the likelihood of employment based on the aforementioned characteristics.

$$\text{Selection (employment likelihood)} = \beta_j \sum_{j=1}^5 E_i + \beta_7 X_i + \beta_8 X_i^2 + \beta_9 F_i + \mu_{2,i}$$

Note that while the selection equation could include different variables than the second equation, in this application the same explanatory variables were used in both equations.

Step two regresses the log of salary on the same set of individual characteristics, along with the inverse mills ratio (λ) estimated using the results from step one (G_i). Step two is shown below.

$$\ln(\text{salary}_i) = \beta_j \sum_{j=1}^5 E_i + \beta_7 X_i + \beta_8 X_i^2 + \beta_9 F_i + \beta_{10} \lambda_i + \mu_i$$

Model 3 (Add 1 to income):

In this model we replaced all zero and missing values of salary with a value of one, so that the natural log of the salary variable is defined for all observations rather than throwing out all observations with zero as was done in Model 1 and 2. Where Model 1 and 2 estimate the impact on wages conditional on being employed. This model is estimating the average income premium (resulting from both employment probability and wages).

Data Source. This analysis uses the permanent household surveys of INE for the years 2004 and 2011. The sample is restricted to those people that at that time they were surveyed were more than 22 years old and less than 65 years old.

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