

# Guatemala

## Closing Gaps to Generate More Inclusive Growth

### Systematic Country Diagnostic

Susana M. Sanchez  
Kinnon Scott  
J. Humberto Lopez

Latin America & the  
Caribbean Region





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Central America Country Management Unit  
Latin America and the Caribbean Region

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# Abbreviations and Acronyms

ACOFOP	Association of Community Forests of Petén
ACS	American Community Survey
ANADIE	National Partnership Agency for the Development of Economic Infrastructure
ARG	Argentina
ASAZGUA	Association of Sugar Producers of Guatemala
ASIES	<i>Asociación de Investigación y Estudios Sociales</i>
BANDESA	National Agricultural Development Bank
BCG	Bacillus Calmette–Guérin vaccine
BPO	Business Process Outsourcing
CA	Central America
CACIF	<i>Comite Coordinador de Asociaciones Agrícolas, Comerciales, Industriales y Financieras</i>
CACM	Central American Common Market
CAFTA-DR	Dominican Republic-Central America Free Trade Agreement
CEDLAS	Center for Distributive and Social Studies
CEPAL	<i>Comisión Económica para América Latina</i>
CICIG	Commission against Impunity in Guatemala
CNDH	National Human Rights Commission
COL	Colombia
NCONAP	National Committee of Protected Areas
CPO	Crude Palm Oil
DPT	Diphtheria, Pertussis, and Tetanus vaccine
ENCOVI	National Living Conditions Survey
ENEI	Labor and Income Survey
ENSMI	National Maternal and Child Health Survey
EXPY	Sophistication of Exports
FDI	Foreign Direct Investment
FEWSNET	Famine Early Warning Systems Network
FUNDESA	<i>Fundacion para el Desarrollo de Guatemala</i>
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Reduction and Recovery
HOI	Human Opportunities Index
IARC	International Agency for Research on Cancer
IDB	Inter-American Development Bank
IEP	Institute for Economics & Peace
IFC	International Finance Corporation
IGSS	Guatemala Social Security Institute
IHRIS	Integrated Human Resource Information System

ILO	International Labor Organization
IMF	International Monetary Fund
INE	National Institute of Statistics
INTA	Institute of Agrarian Transformation
IOM	International Office of Migration
IT-ITES	Information Technology and Information Technology Enabled Services
KNOMAD	Global Knowledge Partnership on Migration and Development
LAC	Latin America and the Caribbean
LAPOP	Latin American Public Opinion Project
LPG	Liquefied petroleum gas
MAGA	Guatemala's Agricultural Ministry
MARN	Ministry of the Environmental and Natural Resources
MDG	Millennium Development Goal
MFI	Microfinance Institution
MINEDUC	Ministry of Education
MP	<i>Ministerio Público</i>
MSME	Micro, small, and medium-sized enterprises
MSPAS	<i>Ministerio de Salud Pública de Guatemala</i>
MUZ	Multiple Use Zone
NGO	Non-Governmental Organization
NTBs	Non-Tariff Barriers
OECD	Organization for Economic Co-operation and Development
OLADE	Latin American Energy Commission
PAHO	Pan American Health Organization
PEC	<i>Programa de Expansión de Cobertura</i>
PES	Payment for Environmental Service
PHC	Primary Health Care
PP	Percentage Points
PPP	Public-Private Partnerships
RBB	Results Based Budgeting
RSPO	Roundtable on Sustainable Palm Oil
SAT	Tax and Customs Administration
SCD	Systematic Country Diagnostic
SEDLAC	Socio-Economic Data Base data base for Latin America and the Caribbean
SERCE	<i>Segundo Estudio Regional Comparativo y Explicativo</i>
SIGAP	Guatemalan System of Protected Areas
SIGSA	National Health Management Information System
SMEs	Small and Medium-Size Enterprises
SSEIR	Social Sector Expenditure and Institutional Review
TERCE	<i>Tercer Estudio Regional Comparativo y Explicativo</i>
TFP	Total Factor Productivity
UAM	Unaccompanied Minors

UFCO	United Fruit Company
UNCTAD	United Nations Conference on Trade and Development
UNDOC	United Nations Office on Drugs and Crime
UNDP	United Nations Development Program
UNEP	United Nations Environment Programme
UNESCO	United Nations Education, Scientific and Cultural Organization
UNICEF	United Nations International Children's Fund
VAT	Value-Added Tax
WBG	World Bank Group
WDI	World Development Indicators
WDR	World Development Report
WEF	World Economic Forum
WEO	World Economic Outlook
WGI	Worldwide Governance Indicators
WHO	World Health Organization
WTO	World Trade Organization

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# 1. Understanding Guatemala's Development Challenges

## Overview

**GUATEMALA HAS ENORMOUS POTENTIAL** to generate prosperity for its population. The country is strategically located, has substantial natural resources, and a young multi-ethnic population that could foster growth and shared prosperity. Considered the “gateway” into the Mesoamerican market, Guatemala has ports on both the Atlantic and Pacific Oceans (and a proposed dry port with Mexico) providing connectivity to external markets, thus making it an attractive destination for foreign direct investment. The country’s complex topography, with coastal plains in the southeast, central highlands, and northern lowlands, provides a range of climatic zones that encompass rich biodiversity and economic potential for agriculture, forestry, and hydropower generation. Guatemala has become a leading exporter of agricultural products and is the fourth largest exporter of sugar in the world and the largest exporter of cardamom.<sup>1</sup> Large mineral deposits of gold, nickel, lead, zinc, and iron, among others, add to Guatemala’s wealth of natural resources. And with a young and growing population, especially among indigenous people, Guatemala is in the early stages of a demographic transition that has the potential to yield a demographic dividend. The country has a population of over 15 million people, of whom half live in urban areas. Ethnic-cultural diversity makes Guatemala distinct, with 42 percent of the population belonging to an indigenous group, the highest share in the Latin America region. At the same time, almost 40 percent of the population is

younger than 14, and the median age is 21.2 years, the lowest in the Latin American region.<sup>2</sup>

In some ways, Guatemala has lived up to its potential. Guatemalan companies whose revenues, operations, and resources originate from overseas (“Guate-Latinas”), is one example of the dynamic process of globalization.<sup>3</sup> Guatemalan entrepreneurs have expanded internationally in an effort to diversify their local exposure. Most of this expansion has been in search of new markets in neighboring countries (Southern Mexico, Honduras, and El Salvador) rather than to participate in global value chains.<sup>4</sup> Guate-Latinas operate in a range of different industries, such as regional food producers, food franchises, regional commercial real estate developers, regional banks, and integrated sugar and ethanol producers. Another example of Guatemala’s economic dynamism is the emergence of information technology firms, including call centers and companies specializing in digital special effects for movies. Although large firms in the private sector could be reaching their potential, this is not the case for the private sector as a whole and its large number of micro, small, and medium-sized enterprises.

Guatemala has one of the highest poverty rates in Latin America. The poverty rate (according to the US\$4 per day poverty line) increased from 55 percent in 2000 to 60 percent in 2014. This implies that the number of Guatemalans living below the poverty line increased from 6.8 million to 9.6 million people during those 15 years. This trend is in striking contrast with the significant overall decline in poverty in both Latin America as a whole and most of Central America. The lack

of income growth among the bottom 40 percent of the population in Guatemala between 2000 and 2014 is also in direct contrast with most Latin American countries.<sup>5</sup> Non-monetary indicators of welfare also highlight the extent to which Guatemala is an outlier in the region. Chronic malnutrition (stunting) remains at levels seen only in countries with substantially lower income levels. Guatemala ranked 106 out of 120 countries on stunting in 2010, almost the exact same ranking as it had in 1990.<sup>6</sup> Education levels are also low, with only 18 percent of all 25 to 29 year olds having graduated from secondary school, half the Central American average and a quarter of the OECD average.

Tremendous and persistent inequalities can be found in Guatemala across ethnic groups, locations, and economic sectors. The Gini coefficient of income, a common measure to assess income inequality, was 0.49 in 2014. This is well below previous levels but still ranked at the top end of world inequality. Nor is inequality limited to income. Land concentration in Guatemala is among the highest in Latin America: the Gini coefficient for land in Guatemala is 0.84. In 2014, the combined wealth of Guatemalan millionaires amounted to 65 percent of GDP.

In a sense, one needs to visualize *two Guatemalas* with large gaps in outcomes between them to understand the country's challenges. One Guatemala is rural and the other urban, one is indigenous and the other non-indigenous, one informal and the other formal, and one lacks access to basic services while the other has the ability to pay for those services when the state does not provide them. The gaps between the *two Guatemalas* are large. The indigenous peoples of Guatemala are 1.7 times as likely to be poor as non-indigenous peoples, while at the same time they are poorer than indigenous peoples in most other Latin American countries. Chronic

malnutrition (stunting) is high throughout the country (affecting 47 percent of all children) but the figure is 66 percent among children in the lowest welfare quintile and 61 percent among indigenous children.<sup>7</sup> This is much higher than malnutrition rates among indigenous children in El Salvador (40 percent), Peru-Quechua (15.4 percent), India (25.3 percent), and Brazil (25.7 percent).<sup>8</sup> The differences in stunting rates among wealth quintiles are large, ranging from 17 percent in the top quintile to 66 percent in the lowest. In education the gaps are also large: rural inhabitants have, on average, only 3.7 years of schooling compared to 6.2 years in urban areas. In 2006, the gap in sixth-grade reading test scores between the poor and the middle class was the largest in the Latin American region.

The gaps between the *two Guatemalas* are also clear in economic terms. Nationally, economic activities are carried out by a small formal sector with social protection (18 percent of workers) on the one hand and, on the other hand, by a large informal sector (82 percent of workers). The share of workers who are not covered by social security in Guatemala is among the highest in Latin America and the Caribbean. In two of the largest sectors, agriculture and commerce, 94 percent and 86 percent of employment, respectively, is informal. After controlling for workers' endowments, earnings in the informal sector are almost 60 percent lower than those in the formal sector. The large informal sector is a symptom of a lack of opportunities, and contributes to the low productivity of the economy as a whole. Agriculture, a sector of particular significance to the economy, has a dualistic structure with export-oriented large farms on the one hand and subsistence-oriented small farms on the other. At one extreme, Guatemala has become a leading exporter of agricultural products such as sugar and cardamom and has the most efficient sugar-loading terminal in the world.<sup>9</sup> At the other

extreme, small farmers produce for the domestic market and for their own consumption, and their productivity is declining or stagnant.

This Systematic Country Diagnostic (SCD) looks at why a country with such great potential has not been able to materialize it. The SCD analyzes four fundamental questions to first understand the factors behind Guatemala's poor development outcomes, to then reflect on the causes that have led to the current situation, and, finally, to propose pragmatic options to move Guatemala to a higher development stage.

- How *inclusive* is Guatemala's development model and what are the factors that prevent it from being more inclusive?
- What does *growth* look like, what has driven it, and what are the bottlenecks that need to be addressed?
- How sustainable is Guatemala's development model economically, socially, and environmentally?
- Are there *additional factors* that underlie the present Guatemalan economy and what changes have the greatest potential to reduce poverty and foster shared prosperity?

## Why is Poverty So High and Persistent?

**THE HIGH LEVELS OF POVERTY** in Guatemala are a function of social exclusion, low growth, and challenges to the sustainability of growth.

### Low Inclusion

Labor markets have played only a limited role in improving household welfare in Guatemala. The number of jobs has increased at the same pace as GDP, which has helped to reduce poverty, but the quality of these jobs has not improved. Earnings are stagnant, especially in the sectors in which

the poor are most likely to work. The poor tend to lack human capital as a result of their limited access to basic services such as education and health, and this negatively affects their ability to find the types of productive employment that would help them to rise out of poverty. Coverage of basic and other services is far from universal in Guatemala, and poor households and ethnic minorities continue to bear the brunt of unequal opportunities. The low levels of revenues collected by the national government limits its ability to provide basic public services. At the same time the net result of the existing fiscal policy (direct and indirect taxes and transfers) is to actually increase poverty and does nothing to lower inequality.

There is very little upward economic mobility in Guatemala. Intra-generational mobility is low: the share of households that remained poor between 2000 and 2014 was 37 percent, which is about 50 percent higher than the average for the Latin America region. In net terms, about one in ten households rose out of poverty during that period, but more than that fell into poverty. Not only are the kind of developmental and educational opportunities for children that could enable them to rise out of poverty in adulthood unequally distributed, but also the returns to education in the labor market are unequal. For example, returns to endowments for indigenous groups tend to be lower than those for other groups. This exacerbates the disadvantages associated with having only limited opportunities. In short, people are excluded from the benefits of economic growth through both a lack of endowments and a differential rate of return on those endowments. The middle class is small (constituting less than 10 percent of Guatemalan population), which is a reflection of the considerable barriers faced by people trying to rise out of poverty.

## Low Growth

Aggregate indicators of economic development suggest that, rather than catching up with richer countries, Guatemala has diverged from them. Guatemala's per capita GDP is now 6.7 percent of the per capita GDP of the United States whereas the equivalent figure in 1960 was 8.4 percent. During the same period, other Latin American and Caribbean countries were able to increase their incomes relative to the United States from 12.2 percent to 18.1 percent on average. In Central America, Guatemala's performance in terms of converging with the United States has been similar to that of Honduras, El Salvador, and Nicaragua, neighboring countries that share Guatemala's development challenges. In contrast, Panama and Costa Rica, like most Latin American countries, have made headway in converging with the United States. Today, Guatemala is the fifth poorest economy in terms of per capita GDP in the Latin American region, a drop of five positions from its rank in 1960.

Guatemala's ability to maintain a stable macroeconomic framework, which is one of its most recognized achievements, has not translated into high growth or poverty reduction. The Central Bank has been successful in keeping the inflation rate low and stable. Moreover, manageable fiscal deficits (of around 2.1 percent since 2000) have kept Guatemala's debt level to below 25 percent of GDP. Fiscal discipline has been achieved despite Guatemala having one of the lowest tax burdens in the world (about 10.8 percent of GDP in 2014). On the external front, the current account balance has decreased over the past decade, reaching 2.3 percent of GDP in 2014, much lower than the level in the early 2000s (5.6 percent). The government's trade policies have led to a more open foreign investment regime, flexible foreign exchange arrangements, and the deregulation and the

liberalization of the financial, power, and telecommunication sectors in the mid-1990s. Nevertheless, economic growth has been modest, averaging only 3.4 percent between 2000 and 2015, and per capita growth has been weak. Nor have labor markets been able to generate sufficient good quality jobs. Despite pockets of dynamism created by the private sector, labor income has played a limited role in reducing poverty, which suggests that the private sector is constrained in its ability to generate quality jobs for a largely unskilled labor force. In contrast with the internationally competitive portions of the economy, almost two-thirds of workers operate in the informal economy, and 82 percent of workers lack social security coverage.

## Social, Fiscal, and Environmental Sustainability

A range of factors threaten the sustainability of efforts to reduce poverty and increase growth in Guatemala. Guatemala is among the top ten countries in the world most affected by extreme climate events and is not exempt from geophysical hazards. Its geographic location makes it prone to frequent and high-intensity geological and weather-related shocks such as storms, hurricanes, droughts, earthquakes, and volcanic eruptions. Moreover, climate change is already affecting the growing cycles of its key subsistence crops, which are beans and corn, and the negative effects of climate change disproportionately fall upon poor households. Guatemala's high levels of crime and violence also negatively affect households and businesses by raising the cost of doing business.

Given Guatemala's frequent natural disasters and its high levels of crime and violence, the absence of a strong safety net exacerbates households' vulnerability. The government's low fiscal revenues limit its ability to mitigate the

effects of exogenous shocks and to create a sustainable development path for the country. Guatemala has a low tax-to-GDP ratio and a high share of indirect taxes. As early as 1950, Guatemala had the lowest tax revenue as a percentage of GDP (6.67 percent) in Central America, a ranking that continues today.<sup>10</sup> Social spending in Guatemala, despite recent increases, is well below the Central American average. The fact that 2.8 million additional people fell into poverty between 2000 and 2014 (and more than half of these into extreme poverty) suggests that the government is unable to provide an adequate safety net for its population.

The final challenge to Guatemala's future growth and prosperity is that, as a relatively young democracy, it is still building the key pillars of democratic government, such as representation, justice, and equity. Guatemalans have the lowest trust in democracy (33 percent) of all populations in Latin America according to the *Latinobarómetro*.<sup>11</sup> Moreover, voter participation in elections in Guatemala is the lowest in Latin America at 56.3 percent in 2015, despite having increased from 36.9 percent in 1995.<sup>12</sup> The political landscape, with its fragmented and short-lived political parties, is not conducive for approving and implementing the structural reforms needed to reduce poverty and foster inclusive growth. It will be necessary to build consensus among all groups in Guatemala to ensure that change is perceived as feasible.

## The Legacy of the Past: A Fragmented Social Contract and Weak Institutions

**THE PERSISTENCE OF LOW GROWTH** and high poverty suggest that Guatemala is trapped in a

low development equilibrium. Guatemala's development has been hindered by two fundamental and interlinked features: (i) a fragmented social contract, which is the implicit agreement between the state and its citizens about their respective roles and responsibilities; and (ii) weak institutions. The economic and social dynamics of colonial times and the development of an economy based on large coffee plantations resulted in a fragmented social contract and a preference for a small state sector on the part of the populations of both Guatemalas. This, in turn, created weak public institutions that have not been able to provide the necessary levels and quality of public services, thus creating unequal opportunities for individuals and firms. Change has been minimal given how little accountability there is within the government and how large segments of the population have little say in public affairs. The net result has been the *two Guatemalas* that are evident today.

Today's high levels of inequality and poverty are rooted in history, a history that has resulted in a fragmented social contract and that shaped the early development of Guatemala's institutions.<sup>13</sup> The start of the coffee boom in the late 19th century triggered the enactment of discriminatory property right laws and massive land expropriation from indigenous peoples along with the privatization of their communal land. Private entrepreneurs established large coffee plantations, creating a skewed land distribution pattern between indigenous peoples and the rest of the population. To ensure the supply of labor for coffee, which was a labor-intensive crop, the government legalized the extreme labor repression of indigenous groups through the introduction of a forced labor system (*mandamiento*) in 1877, forced labor for building roads (1873), and debt servitude.<sup>14</sup> These forced labor laws continued to be in effect until the middle of the 20th century. The 1934 Vagrancy Law, which forced

landless peasants to work at least 150 days per year on plantations, was only rescinded in 1947 with the enactment of the first Labor Code. Nevertheless, the practice of plantation owners providing landless workers with subsistence plots instead of cash wages in exchange for their labor during the harvest season continues today. Overall, the economic model of plantation agriculture drove growth in the early years of the state, but in the longer run, this model and the labor legislation that it spawned created a weak social contract that has hindered the construction of effective state institutions.

The ability of Guatemalans to change the system from the inside has been limited due to restrictions on voting. The 1879 Constitution gave the vote to a very narrow segment of the population: literate males with a specific level of wealth and land. With illiteracy very high among the indigenous population and wealth concentrated in few hands, the Constitution reinforced the dualistic nature of the economic and social system. Half a century later, suffrage was extended to women, but the literacy requirement remained. It was not until 1965 that universal suffrage was voted into law and included in the Constitution.

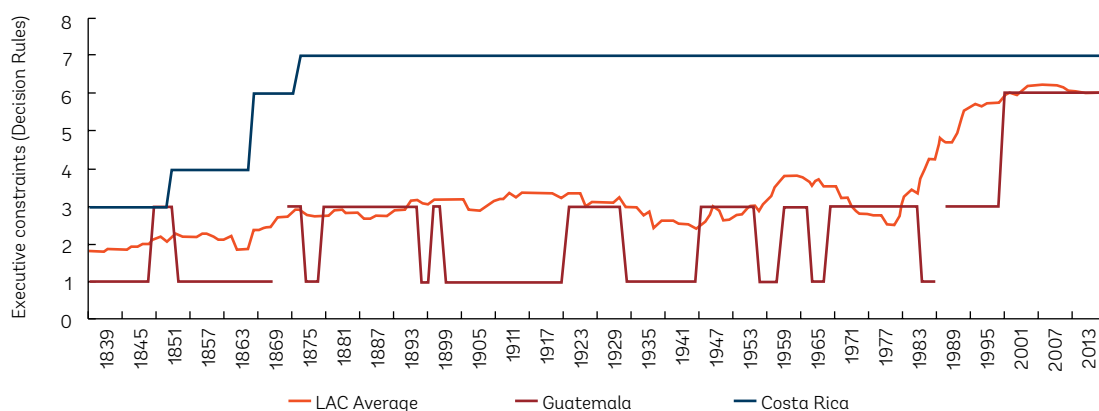
The high degree of ethno-linguistic diversity in Guatemala and the absence of a strong social contract have meant that state institutions are weak.<sup>15</sup> The ethno-linguistic diversity in Guatemala is so extensive that it translates into a high rating on the “fractionalization index” rating (which measures the probability that a random sample of two people within any given country will contain members of different ethnic or linguistic groups). Guatemala’s rating is 0.64, well above the world average of 0.39.<sup>16</sup> In highly fragmented societies, individual preferences can lead to the under-provision of public goods when the public goods that benefit one group are undervalued by members of other groups.<sup>17</sup>

Studies have shown that a high level of fractionalization in a country may limit the ability of state institutions to provide public goods, both generally and specifically. The types of public goods that are provided also tend to be those for which there is no private substitute, for example, roads rather than schools and health care.<sup>18</sup> In addition to skewing the priorities for investment, fractionalization can lead to inefficiencies in public spending.<sup>19</sup> Redistributive policies aimed at promoting equity and growth are also rarely adopted in countries with a high degree of fractionalization.<sup>20</sup> In short, Guatemala’s early economic model and the limited voice and vote of the population combined with its cultural and linguistic diversity worked against the formation of strong institutions. This has also perpetuated inequality over time and undermined the ability of the country to develop.

Historically, there have been few checks and balances on the executive branch of government that has further challenged the country’s ability to build competent public institutions. A combination of the harsh labor laws designed to guarantee a supply of labor for plantation agriculture and the inequity of their application increased the probability of labor rebellions occurring. This had two results. First, elites in one part of the country were unwilling to pay the costs of quelling uprisings in other areas and thus resisted government efforts to raise taxes. Second, in order to allow the government to react strongly to these costly uprisings, only weak constraints were put on its executive functions by the segment of the population with voting rights.<sup>21</sup> Only after the Peace Accords of 1996 did the executive constraints on the Guatemalan government become as strong as those in other democracies (figure 1.1). To put this in context, Costa Rica had a stronger system of checks and balances in the late 19th century than Guatemala has today. Moreover, Costa Rica was able to



**FIGURE 1.1 Low and Volatile Levels of Constraints to the Executive, 1839-2014**



Source: Polity IV Database, retrieved from: <http://www.systemicpeace.org/inscrdata.html>.

improve its social outcomes more dramatically as well. Between 1900 and 1930, Guatemala's literacy rate rose from 12 percent to only 19 percent, whereas Costa Rica increased its adult literacy rate from 36 percent to 67 percent in the same period.<sup>22</sup> Checks on the executive function were also inconsistent, jumping from almost nil to being somewhat constrained in very short periods of time. The combination of low funding and low constraints on executive functions further undermined the establishment of strong and effective public institutions that could bridge the gap between the *two Guatemalas*.

More recently, the 36-year civil war further damaged Guatemala's social contract.<sup>23</sup> This conflict between leftist insurgents and the government and its military lasted from 1960 to 1996, Central America's longest and most violent civil war. It eroded Guatemala's already weak institutions and their ability to provide services and other public goods and intensified social divisions and inequality as the costs of the war were borne largely by the rural and indigenous populations. It is estimated that more than 200,000 people were killed, 83 percent of whom were indigenous. At the same time, substantial

numbers of people were displaced internally and internationally, many to refugee camps in Mexico and others fleeing further north to the US. The provision of services to rural and indigenous areas was particularly curtailed. Although the level of economic growth was maintained for a while at the onset of the war, it fell during the most violent phase of the conflict in the 1980s (the same time when much of the displacement of populations occurred), which further hampered service provision. Moreover, the war had other serious short-term and long-term implications for Guatemala's structurally fragile development, particularly in terms of the level and composition of public spending, jobs lost, low productivity, insufficient output, human capital deterioration, and the disruption of life at the village level.

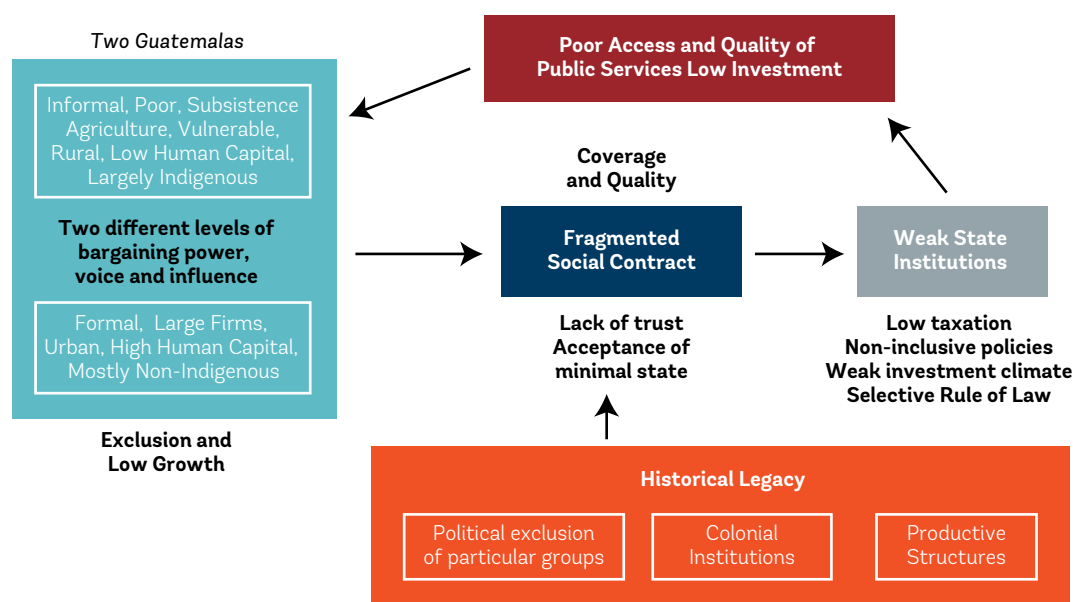
The underlying dynamics between the *two Guatemalas* are represented in figure 1.2. The fragmented social contract means that the populations of both Guatemalas tend to accept the existence of a small and weak state sector. On the one hand, those who do not benefit from public spending have little incentive to pay taxes or demand greater tax collection. On the other

hand, those who do benefit from public spending are unwilling to pay taxes or to expand the state apparatus to provide services to all. The low taxes ensure that the small public sector does not have the capacity to improve the management of public investment, which, in turn, constrains the provision and lowers the quality of public services. Economic growth is limited because of the limited capacity of the state to invest in the infrastructure needed by the private sector and to enforce the rule of law. Private households must either do without services or pay out of pocket for the services that should be provided by the government such as security, education, and health care. The history of weak constraints on the executive has resulted in ineffective controls on spending and on the inefficiencies and corruption that arise in such conditions. The inability of the state to provide services to large

groups of the population has led the voting population to feel excluded and disaffected. The net result has been considerable inequality of outcomes between different segments of the population starting in childhood and continuing into adulthood and the perpetuation of the *two Guatemalas*.

This duality and inequality exists in many other countries too, but the divisions are particularly wide in Guatemala. The first difference between Guatemala and other countries is simply the scale of the exclusion. Only 10 percent of Guatemalans are neither poor nor vulnerable to falling into poverty. The middle class, defined as the share of the population that lives on between US\$10 and US\$50 per day, shrunk from 13.2 percent in 2000 to 9.3 percent in 2014. In Latin America as a whole during the same time period, the size of the middle class actually increased,

**FIGURE 1.2** Guatemala's Fragmented Social Contract and the Interplay between Institutions and Outcomes



Source: Adapted from the proposed framework for the World Bank's World Development Report 2017 and Acemoglu (2015, lecture notes)

leading to an ever-widening gap between Guatemala and other countries in the region. Only Haiti has a smaller middle class than Guatemala. The limited size of the privileged groups means not only that the country's resources are highly concentrated but that the tax burden is highly concentrated too.

The second difference between Guatemala and other countries is that those Guatemalans who are not benefitting from growth are tremendously heterogeneous. Of all people living in poverty in the country, 52 percent are indigenous, in that they belong to three main indigenous communities, the Mayan, the Xinca, and the Garifuna. Within the Mayan group, there is also substantial diversity, with a total of 21 languages being spoken, of which the most common are Q'eqchi, Kakchiquel, Mam, Tzutujil, and Achi. The non-indigenous poor are not homogenous either. Similar to the indigenous poor, the non-indigenous poor work in a variety of sectors and live throughout the country in both urban and rural areas. The lack of uniformity among the excluded groups has made it more difficult for them to take collective action to pressure the state into providing adequate public goods and services.

A third factor that makes the *two Guatemalas* story so relevant for this SCD is the geographic concentration of investment and opportunities in Guatemala City. In many countries, the gap between urban and rural areas in terms of economic development is substantial, and this is certainly the case in Guatemala. Even more important, however, are the gaps between the metropolitan area (the capital city and its environs) and the rest of the country. A 2010 study of regional activity found that per capita GDP in the Guatemala department was 7.3 times higher than in the department with the lowest per capita GDP (Huehuetenango) (see figure 4.3). This is far higher than in, for example, Bolivia (2014), Mexico (2010), and Peru (2012) where the gap in

per capita GDP between the richest and poorest region is about 4.8, 6.1, and 6.3 times respectively. This shows just how concentrated economic opportunities are in Guatemala City. When Guatemala is compared with other countries in the region that have significant indigenous populations, the gap between Guatemala City and its suburbs and the rest of the country is particularly large. Guatemala and Honduras have similar poverty rates, but the geographic gap in Guatemala is 35 percentage points compared with only 22 percentage points in Honduras. And only Honduras has a gap in years of schooling between the metropolitan area and the rest of the country that is larger than Guatemala's.<sup>24</sup> In summary, the size and heterogeneity of the excluded groups in Guatemala and the geographic concentration of investment and opportunities makes it clear that increasing growth and shared prosperity in Guatemala will require interventions that are systematic and on a large scale.

## New Pressures on Guatemala

**IN THE ABSENCE OF PURPOSEFUL CHANGE**, the present low equilibrium of the economy and society could become a downward spiral.<sup>25</sup> New challenges have arisen in Guatemala that are creating new demands on the state and may further erode stability: these are crime and violence, demographic changes, the pressures of urbanization, and migration.

High levels of crime and violence have emerged in the past 15 years as threats to inclusive development. Guatemala is one of the most violent countries in the world: it ranks among the five countries with the highest homicide rates in the Latin American region.<sup>26</sup> While the murder rate declined from 46.4

homicides per 100,000 inhabitants in 2009 to 34 in 2013, this rate is still higher than the average rate for all of Latin America, which is around 25 per 100,000 inhabitants.<sup>27</sup> In 2012 the homicide rate in Guatemala City alone was almost three times higher than the national homicide rate and was the third highest in Latin America. About half of all violent deaths in Guatemala take place in only 5 percent of the country's municipalities. Other regions with high homicides rates, such as Izabal, Chiquimula, El Petén, Zacapa, and Jutiapa, are located along the country's borders with El Salvador, Honduras, Mexico, and Belize. While this is indicative of a likely link between violence and transnational organized crime such as drug trafficking, no studies have yet established this causality. High levels of robbery and the increased incidence of sexually related crimes, kidnappings and violence-related injuries all make citizens feel increasingly insecure.<sup>28</sup> Crime and violence are hampering Guatemala's development by limiting the opportunities available to individuals, by decreasing incentives for firms to invest, create jobs, and expand, and by undermining the population's good opinion of state institutions and governance. Historically, crime and violence has been ranked by firms as the main obstacle to doing business in Guatemala.<sup>29</sup>

Demographic pressures will present Guatemala with both opportunities and challenges in the coming decades. Because Guatemala has a very young population that is growing at the rapid rate of 2.5 percent per year, its working-age population will continue to expand rapidly while its dependent population will shrink in proportion to the working age population. This demographic transformation presents the Guatemalan government with a crucial window of opportunity for implementing social and economic policies to ensure that the young population can accumulate the human capital needed to access higher-skilled

jobs. Conversely, these demographic changes will also lead to growing demand for public services and the need for better economic opportunities in the future. The risk is that the state will be unable to generate sufficient physical and human capital to take advantage of the demographic dividend. Failure to do so could turn the potential demographic dividend into a demographic trap in which high fertility rates, widespread poverty, and falling living standards reinforce each other. For example, if Guatemala's present rates of poverty and population growth remain unchanged, by 2030 there will be almost 5.1 additional million people living in poverty, increasing the total number of the poor to 14 million out of a population of 22.5 million.

Rapid and unplanned urbanization will put further pressures on Guatemala's already strained public services. Although only half of the population currently lives in urban areas, the urban population is projected to increase from 8.1 million to 21.1 million by 2050. The process of urbanization will expand demand for basic services such as security, transportation, water, sanitation, and waste treatment facilities. Increasing deforestation due to changes in land use, agricultural practices, and illegal logging is already having detrimental consequences for the country's watersheds and ecosystem. The lack of territorial planning by the government is exacerbating the negative impact of urbanization on natural resources and on social cohesion. Climate change may also increase the rate of internal migration to cities by reducing the ability of the rural poor to produce their own food. There is evidence that recent temperature increases attributable to climate change have risen above the optimal range for important food stable such as beans,<sup>30</sup> and there is concern for the future with regard to corn. The recent growth in urban poverty suggests that the urbanization process will not be easy.

Finally, emigration has long been an escape valve for Guatemalans which has affected the economy in several ways. This emigration has been driven by a combination of civil war, natural disasters, and the overall lack of economic opportunities. Emigration from Guatemala increased rapidly during the most violent years of the civil war in the late 1970s, continued to grow in the 1990s, and has been particularly high since 2012, driven by growing levels of crime and violence. In 2014, approximately 8 percent of Guatemalans were living outside of Guatemala, and almost 90 percent of these were in the US. Unlike Honduras and El Salvador, Guatemala also has a tradition of circular migration to Mexico, primarily for agricultural and domestic work. Remittances sent home by these emigrants is a significant resource for Guatemalan households. In 2015 remittances accounted for almost 10 percent of Guatemala's GDP, lower than in Honduras (17 percent) and El Salvador (16 percent) but still high (in 2013 Guatemala ranked 25th out of 186 countries worldwide).<sup>31</sup> The share of households receiving remittances has dropped since before the global financial crisis, highlighting the risks of relying on remittances as a strategy for reducing poverty. At the same time, while migration has brought in much-needed resources for households, there is some evidence that remittances are having a Dutch disease effect by raising reservation wages and putting pressure on the exchange rate. These effects could undermine the competitiveness of Guatemalan businesses.

## Priorities

**THE ANALYSIS IN THIS REPORT SHOWS** that Guatemala's development challenges are long-standing and complex. Long-term historical processes have led to the present fragmented social contract, small state, and weak institutions.

Change has been slow at best: the key findings from a 1951 World Bank report still seem relevant today (box 1.1). It is clear that, even with the best intentions on the part of the government and its development partners, making substantial and sustainable improvements in welfare and economic growth is going to be a long-term effort. However, while the current situation reflects a negative dynamic, it could be converted into a positive one. Large groups of Guatemalans have not benefitted as much from growth as they might have been expected to do and have only been able to make a limited contribution to the country's economic growth. Thus, bridging the *two Guatemalas* would not only raise the standard of living of these groups, thus reducing poverty, but would also increase their potential to make positive contributions to the economy.

The implications of figure 1.2 and of the analysis undertaken in this SCD are threefold. The first implication is that there is a need to address many problems at once. A narrow focus on a specific change will have a very limited chance of improving the situation because the underlying effects of Guatemala's fragmented social contract and weak institutions permeate all sectors of the economy and all population groups. Second, it will be necessary to identify policies that will collectively create synergies and that will multiply the effect of each separate action. The country's resource constraints and the range and depth of need must be taken into account when designing these policies. Third, it will take more than incremental changes even in multiple areas to move Guatemala onto a higher development path. The nature of the self-reinforcing dynamic that exists in Guatemala is such that a "big push" will be necessary to break the country out of it.

Four fundamental criteria were used to identify priority areas for action. First, given the array of problems to be addressed in Guatemala,

it was necessary to start with those problems that set Guatemala apart from its peers, areas in which it is an outlier. Second, given the country's limited resources, which have declined even during the period in which this report was being written, the team decided that priority must be given to actions that can remove multiple bottlenecks and that will have a beneficial effect on other problems and sectors, not just on the immediate area of action. Third, given that Guatemala's poverty is deep (meaning that the extremely poor are truly extremely poor), at least some actions need to be taken to improve people's welfare immediately. Fourth, the team gave a high priority to interventions that have the potential to result in long-term, sustainable change.

## Inclusion Challenges – Towards a More Inclusive Social Contract

Many segments of the population have few opportunities to participate in the economy and to contribute to Guatemala's social and economic development. While there has been progress in some areas that have demonstrated the ability of the government to effect change, there are still significant gaps in terms of both opportunities and outcomes between the *two Guatemalas*. Concerns exist on many fronts, two of which the analysis has shown to be of critical importance: the high rates of chronic malnutrition (stunting) and the continued education gap.

- *Malnutrition:* The extent of malnutrition along with its historic intractability and links to other welfare outcomes makes solving this problem a high priority. The direct costs of malnutrition to individuals are high as it leads to a greater risk of mortality, higher morbidity, and lower cognitive development. It can also perpetuate poverty across genera-

tions. The costs to the economy are also high as malnutrition undermines investments in public services and deprives the labor market of productive workers.

- *Education:* Low education levels affect malnutrition through the low quality of jobs and thus the low earnings that are available to households with little education as well as through the lack of health care that is provided to poor children. Investments to increase the coverage and improve the quality of education will be needed to boost productivity in the economy and capture the demographic dividend associated with having a growing young population.

## Challenges to and Opportunities of the Growth Model

The SCD's analysis of the trends and drivers of growth in Guatemala has found that the country faces long-standing challenges to its competitiveness, productivity, and the creation of high quality jobs. Guatemala's multi-cultural society will need to be explicitly taken into account when addressing the two main challenges to growth.

- *Low investment levels.* Investment levels are low in both the public and private sectors. In the case of public investment, low fiscal revenue is the critical factor together with weak implementation capacity in the institutions involved in Guatemala's investment climate. Investment in the private sector is constrained by crime and violence, the non-enforcement of the laws related to contracts and property rights, a lack of competition, and the limited delivery of public services. Public-private partnerships, if invested in the right type of projects and paying attention to fiscal risks, might be a way to promote and attract private investment, but transpar-

### **BOX 1.1 Guatemala's Development Challenges in 1951**

A 1951 World Bank report on Guatemala highlighted many features that are largely still relevant today.

**Untapped potential.** The report argued that the country's natural advantages, properly used "should [have made] it possible for the Republic to achieve a relatively favorable position among the nations of the Americas both in living standards and in financial stability. Yet actual economic development ... ha[d] barely scratched the surface of these latent possibilities."

**Low labor productivity.** The report showed that Guatemala's overall labor productivity was low, especially in the agricultural sector.

**Investment.** An unfavorable investment climate and the under-provision of public goods were found to have led to low private investment. The report highlighted the fact that under-investment was not only due to a lack of resources: the equivalent of 2 percent of GDP in 1950 was in US accounts held by Guatemalans.

**Lack of adequate transport infrastructure.** The report considered that the topography of Guatemala kept isolated "large segments of the rural population.... and potentially productive markets." It felt that the "inadequacy of transport facilities probably constitute[d] the greatest single barrier to ... economic development."

**Lack of coordination of public policies.** The report highlighted the duplication and competition among agencies that existed in the absence of any mechanism for deciding among them. This was seen to endanger development.

**Insufficient and inequitable social spending.** Social spending was deemed to be insufficient and concentrated in Guatemala City. In the case of health, for example, "public health expenditure at 2.1 percent of the budget [was] much lower than in other Latin American countries, like Panama (12.4 percent), Costa Rica (3.5 percent), or Chile (7 percent)." Within Guatemala, the report called attention to the large ethnic disparities in terms of health, education, nutrition, and income.

**Financial needs and new revenues.** The report raised the issue of the need to increase revenues to finance critical investment. "Deficiencies in tax administration, small tax base, and low rate" were identified as the main areas that needed reform.

**Ethnic inequalities.** Finally, the report highlighted the need to increase the productivity of the indigenous peoples for the country to achieve long term development. "In the long term, to promote development in Guatemala, it is indispensable that the productivity of the indigenous population be raised so as to provide them with purchasing power over and above their subsistence needs. This will require measures aimed at improving their education, health, and nutrition. Moreover, to integrate the population into a single economy and improve standards of living, jobs must move towards sectors with higher productivity."

Source: Adapted from World Bank (1951).



ent and efficient procedures are essential to effectively mobilize private sector finance and expertise.

- *Low agricultural productivity.* A sustainable growth strategy in agriculture must involve enhancing the productivity of smallholders and fostering opportunities for farmers to adopt high-value-added production. Continued support will be needed for the formation and consolidation of organizations of small farmers, mainly those involving indigenous peoples, to develop economies of scale, increase productivity, and support the diversification of production. Boosting agricultural productivity is, of course, integrally linked to resolving land issues.

## Fiscal, Social, and Environmental Challenges

Increased fiscal resources will be needed if the government is to be able to deliver the basic public goods and services that the population needs. However, it will be difficult to increase revenues unless the public sector becomes more transparent. Land has been a contentious issue in Guatemala for a long time, which puts a strain on social cohesion and public and private investment. And the vulnerability of the country to natural disasters continues to set back development efforts and to hinder economic growth.

- *Domestic resource mobilization.* Low domestic revenues have been a recurrent constraint to Guatemala's development by limiting the government's ability to use public spending as a policy tool. Guatemala's tax revenues as a percentage of GDP are far below the regional average, in part because of the small size of the formal economy and in part because of the fragmented social contract. Adding to these constraints, the government

has little discretionary income to spend as about 88 percent of its fiscal revenues are pre-committed.<sup>32</sup> Moreover, the effectiveness of public spending is hampered by the weaknesses of institutions. Improving targeting and making more efficient use of existing resources can mitigate, in a small way, the revenue shortfalls, but the absence of a broader tax base and compliance with existing tax laws will continue to prevent Guatemala from increasing sustainable and inclusive economic growth. Without more resources, the institutional weaknesses and lack of service delivery in all sectors cannot be rectified as efficiency gains will never be enough to resolve these issues.

- *Social monitoring.* There is a need to increase pluralism in constructive ways. Until recently, Guatemalans have been characterized as disinterested in public issues or as reluctant to express dissent due to the Civil War, in which over 200,000 people were killed. As recently as 2015, 52 percent of the population indicated their belief that freedom of speech was not well protected in Guatemala.<sup>33</sup> However, Guatemalans have increasingly been demanding a more transparent and accountable government. In particular, young people who did not live through the conflict have felt empowered to take a stand. The public protests of the past year in reaction to the *La Línea* scandal<sup>34</sup> were organized mainly through social media and were instrumental in forcing the resignation of the Vice President and several ministers. So the situation is ripe for the creation of a new social consensus about the roles and responsibilities of the government in relation to the population. Transparency will be essential for the sustainability of this social consensus, which will require tools of social monitoring of government policies, spending, and



actions through citizen participation.

- *Land titling and territorial planning.* Land has been a difficult issue in Guatemala's history. The very high concentration of land ownership (which has a Gini coefficient of 84 percent, well above that for either income or consumption) is a source of economic and social stress in Guatemala where 50 percent of the population lives in rural areas. Another problem is that the lack of territorial planning by the government undermines the country's environmental sustainability. Therefore, it will be essential to resolve these issues in order to foster economic growth, improve social welfare, and protect the environment. Land is the major productive asset of many Guatemalan households, but those who have no legal tenure over the land on which they live have little incentive to invest in its productivity. For the indigenous peoples, land plays an important role in their cosmovision so their lack of tenure and control over ancestral lands often creates social unrest.
- *Environmental risks.* Guatemala is in the top 10 countries most affected by extreme climate events and is not exempt from geophysical hazards. The geographic location of the country makes it prone to frequent and high-intensity geological and weather-related shocks such as storms, hurricanes, droughts, earthquakes, and volcanic eruptions. Moreover, the impact of climate change disproportionately affects poor households.

## Knowledge and Data Gaps

THE SCD ANALYSIS has identified several knowledge gaps. It is hoped that further work can be done to collect and/or analyze data to fill these

knowledge gaps in the near future. While not an exhaustive list, the key gaps are:

- *Lack of an up-to-date census.* Carrying out any analysis, either in macro terms (for example, on per capita GDP) or in social terms (for example, on poverty rates or even ethnicity), requires accurate figures on the number of people in the country and their characteristics. Population and Housing Censuses are typically carried out every 10 years in most countries, but Guatemala's last Census is 14 years old. The new government is beginning to plan for a new Census. Once those data are available, it may be advisable to update and revise the analysis in this report.
- *Malnutrition.* What new information is needed to shed light on malnutrition levels and their intractability? One question is whether there has been any change in the synergies among the main dimensions that affect nutrition-- health, care, environment, and food-- over time.<sup>35</sup> Analyzing the data from the 2014 ENSMI when they are available should provide answers to this question. A second question relates to the role played by aflatoxin contamination of corn in malnutrition. Collecting new data (by re-visiting households visited in previous surveys) and collecting data on food sources could be a cost-effective way to answer this question.
- *Primary school enrollments.* After reaching near universal enrollment in primary school, rates have fallen in recent years. What are the key factors driving this recent decline in primary school enrollments? What role does pre-school attendance play in the decline (and why has this fallen as well?). Has the demand for child labor risen or are migration and the worsening security situation the key factors?
- *Infrastructure financing.* What are the insti-

tutional factors hindering infrastructure financing in Guatemala? How can public-private partnerships (PPP) help to increase the funding for infrastructure improvements in Guatemala?

- *Fiscal issues and effectiveness of public expenditure.* Without additional revenues, Guatemala will not have enough resources to finance its development needs. How can the government improve its tax collection system and revise its fiscal policy to make public expenditure become more effective in reducing inequalities and increasing security in Guatemala?
- *Urbanization and Intermediate Cities.* Ensuring an orderly and gradual process of urbanization could help to create “competitive cities” and better employment opportunities for the population by ensuring effective transport systems, the efficient provision of social services and minimizing the environmental damages. What strategy could the government pursue to create a network of inter-connected intermediate cities to foster private sector development?
- *Bridging the gap between the formal and informal sectors.* Informality is pervasive in the Guatemalan economy, and this is detrimental to poverty reduction, productivity, and tax collection. What are the determinants of such extensive informality in the Guatemalan economy?

## Structure of the SCD

THE ANALYSIS IN THIS REPORT FOCUSES ON the 2000 to 2014 period, covering the boom years before 2008 and the global financial crisis and recovery years up to 2014. It is based on a rich household data set from the National Living Standards Measurement Survey (ENCOVI) as well as on data on malnutrition from the 2014

National Survey of Maternal and Child Indicators (ENSMI). Where relevant and where there are available data, longer times series have been constructed, but the focus of the report is on this 15-year period. The analysis has some limitations. For example, there are only three years of data on poverty: 2000, 2006, and 2014. Thus, it was possible to study the macroeconomic impact of the crisis and the recovery period but not the microeconomic or household-level impact. The SCD team identified various countries that could be considered to be Guatemala’s peer and aspirational countries in terms of their income level and population size, and whenever it is relevant to do so, the report benchmarks Guatemala’s performance against the performance of those countries.<sup>36</sup>

The report is organized as follows. After the overview presented here in Chapter 1, Chapter 2 provides evidence of the trends in poverty, shared prosperity, and inequality in Guatemala. The first section benchmarks Guatemala’s progress in reducing income poverty against its peer countries. This is followed by an examination of consumption poverty, which is the official measure of poverty used in Guatemala. The analysis highlights the gaps between the *two Guatemalas*. The chapter ends with some findings concerning the drivers of poverty, specifically focusing on the roles played by prices, labor, and transfers. Chapter 3 attempts to answer the question of how inclusive economic growth has been in Guatemala, looking first at the limited role played by labor markets in helping people to rise out of poverty and at the limited human capital and the dearth of opportunities to increase it. The chapter then discusses the ineffective and inadequate public spending that drives these outcomes and demonstrates the link between limited opportunities and poor outcomes, focusing specifically on malnutrition and vulnerability. Chapter 4 analyzes the drivers

of growth and the roles and characteristics of key sectors. Important changes in trade policies are then covered, and the chapter ends with a detailed discussion of the main constraints to increasing investment and productivity and to creating high-quality jobs. Chapter 5 focuses on various fiscal, environmental, and social

challenges. Major concerns about tax revenues, water resources and land use are highlighted. The final chapter summarizes the priorities that have emerged from the analysis and describes a set of policies or areas of action that have the potential to put Guatemala on a path of higher and more inclusive growth.

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## Notes

- 1 See Tay (2015) for sugar.
- 2 United Nations (2015)
- 3 See Box 4.1 for details.
- 4 Casanova and Hoeber (2009)
- 5 As will be discussed in Chapter 4, per capita GDP growth has been low (averaging 1.2 percent over the 2000 to 2014 period) but positive. However, household survey data show no real growth. Such discrepancies between surveys and national account data are not unusual, and, in this case, the discrepancy is fairly small. The differences may be due to measurement errors in either the national accounts or the household surveys. A further reason for the discrepancy may be related to the population figures being used as these are projections based on a 14-year old census.
- 6 Based on data from the World Development Indicators using the periods 2010 to 2014 and 2000 to 2004.
- 7 MSPAS et al. (2015)
- 8 Hall (2015) using data from Hall and Patrinos (2014). The data for Brazil's indigenous people comes from Horta et al. (2013).
- 9 Tay (2015)
- 10 Schneider (2012).
- 11 Latinobarómetro (2015).
- 12 IDEA (2016).
- 13 This point was made in World Bank (2004).
- 14 Nugent and Robinson (2010). World Bank (2004, p. 61)

- summarizes the different types of laws supporting labor repression.
- 15 Fractionalization indexes vary, but the original measure was constructed by Easterly and Levine (1997) and expanded on by Alesina et al. (2003).
  - 16 Alesina et al. (2003)
  - 17 Easterly and Levine (1997) and Alesina et al. (1999)
  - 18 Kosec (2011)
  - 19 Examples of this can be found in Hall and Leeson (2010) and La Porta et al. (1999).
  - 20 Alesina and La Ferrara (2004)
  - 21 See Aguirre (2015) for a theoretical and empirical analysis of this connection between labor demand, fractionalization, and weak executive constraints. Nugent and Robinson (2001).
  - 22 This description of the civil war is based on CEH (1999).
  - 23 This description of the civil war is based on CEH (1999).
  - 24 The poverty gap between the Metropolitan area and the rest of the country in Guatemala is not, however, the largest in Latin America; that distinction goes to Peru followed by Panama. In part this is simply because overall poverty is so high in Guatemala.
  - 25 To paraphrase di Lampedusa (1958) "if things are to stay as they are, things will have to change."
  - 26 UNDOC (2014)
  - 27 There is no conclusive argument regarding the causes of the decline in homicide rates in Guatemala. However, the Government of Guatemala claims that various crime control measures, including the deployment of task forces involving joint military and police actions to areas with high concentration of crime, has helped to reduce violence associated with competition among criminal gangs over territory, particularly in poor urban neighborhoods.
  - 28 LAPOP (2011) showed that Guatemala has higher overall crime victimization rates (which measure crime without specifying its type) than the Latin American regional average.
  - 29 World Economic Forum (2006 and 2015)
  - 30 Mora et al. (2010)
  - 31 KNOMAD (2015)
  - 32 Cabrera et al. (2015)
  - 33 Lapop, 2015.
  - 34 *La Línea* refers to a customs scandal at the highest levels in which government officials accepted bribers from firms to reduce or eliminate customs duties.
  - 35 As identified in the UNICEF Unified Framework.
  - 36 See Annex 1.1 for a discussion of the comparator, or peer, countries for Guatemala used in this report.

## 2. Poverty and Shared Prosperity 2000-2014

*Poverty rates in Guatemala are among the highest in Latin America and the Caribbean and in recent years have been increasing. The middle class is small and shrinking. Inequality has declined but more due to falling incomes at the higher end of the distribution than to growth among the poorest. There is strong evidence pointing to the existence of “two Guatemalas” with the divide being seen along geographic, ethnic, human capital, and even demographic lines. The poor are concentrated in rural areas and among indigenous groups and have low human capital and poor outcomes. Labor income does not drive poverty reduction, and public social policies have had only a limited effect on poverty.*

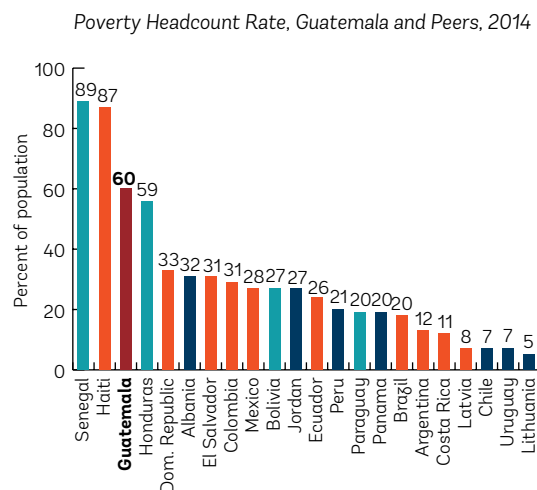
### How Guatemala Compares to its Peers?

#### Income Poverty Levels and Trends

There has been a sharp increase in income poverty in Guatemala in recent years. This is of particular concern given that such a rising trend has not been seen in neighboring countries nor among Guatemala’s economic peers.<sup>1</sup> Combined with its previous high levels of poverty, the recent increase in poverty makes Guatemala the second poorest country in Latin America and the Caribbean: only post-earthquake Haiti is poorer (figure 2.1). The poverty headcount —measured with an internationally comparable poverty line of US\$4 per day per capita—increased from 55 percent in 2006 to 60 percent in 2014. Extreme poverty —defined internationally as per capita income under US\$2.5 per day— followed a similar trend, rising from 33 to 37 percent between 2006 and 2014. (figure 2.2).<sup>2</sup> While poverty trends over the last quarter of a century have shown some decline, the change is both small—with overall poverty falling at an annualized rate of only about half a percent per year—and well below that in

the Latin American and the Caribbean (LAC) region. Worse, however, than the very slow rate of reduction is the strong recent reversal. On an annualized basis, overall poverty has risen 1.7

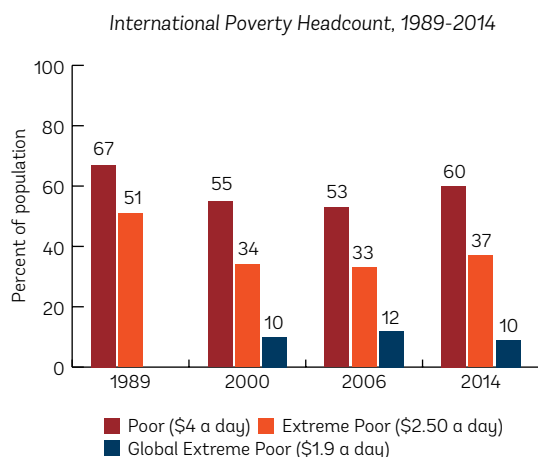
**FIGURE 2.1** Guatemala remains one of the poorest countries in the region



Source: SEDLAC harmonized database (SEDLAS and the World Bank).

Note: Countries classified as aspirational peers (countries that are a good example for Guatemala) are highlighted in orange, structural peers (countries that are a good benchmark for Guatemala) in green, and other Latin American countries in gray. See Annex 1.1 for the selection criteria to identify structural and aspirational peers. The year for each country is the closest to 2013. The Guatemala data are from 2014. Based on a US\$4 PPP poverty line.

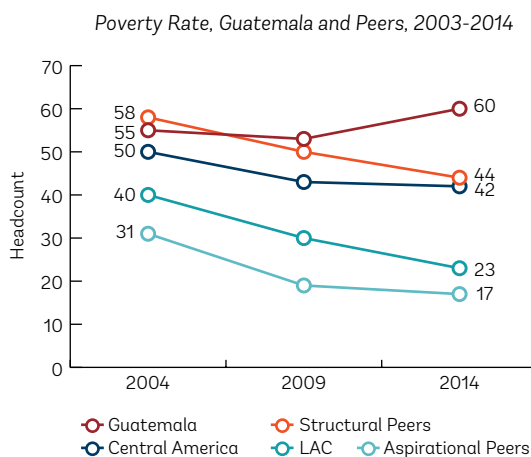
**FIGURE 2.2** Guatemala has made little progress in poverty reduction in recent decades



Source: For 1989, World Bank (2003). For other years, calculations using the 2000, 2006, and 2014 ENCOVI.  
Note: Based on income aggregate.

percent per year since 2006. The impact of the change in trend is not trivial: if the annualized rate of poverty reduction between 1989 and 2006 had been maintained through 2014, overall poverty would have been 47 percent and extreme poverty 29 percent. In human terms, 2 million fewer people would have been poor in 2014 and 1.4 million fewer would have been extremely poor. Guatemala's extreme poverty rate of 37 percent is very high, one and a half times the Latin American and the Caribbean average (24 percent). Its overall poverty rate is surpassed only by that of Haiti (87 percent) in Latin America and by Senegal (89 percent) among its structural peers (figure 2.3). Not only is its poverty rate high but the poverty trend has been in the opposite direction of the trends in LAC and in both its structural and aspirational peers. While there was a 17 percentage point decline in poverty in LAC between 2000 and 2012, Guatemala's poverty rate increased. At the same time, the gap between Guatemala and its structural and aspirational peers has also grown.

**FIGURE 2.3** Increasing poverty sets Guatemala on a path contrary to those of its peers



Source: Calculations based on the World Economic Outlook.  
Note: The dates are indicative (circa). The poverty data for Guatemala are from 2000, 2006, and 2014 ENCOVI.

Although Guatemala has improved some non-monetary measures of welfare (in education and health), it still lags behind its peers (table 2.1). In the 1960s, Guatemala's non-monetary measures of welfare were quite low compared to other countries. Between 1960 and 2013, the country has made substantial progress on many of these indicators, with the rate of progress being similar to those of other peer countries. Primary and secondary school net enrollment rates grew dramatically, increasing by 76 and 488 percent respectively over the period. Both of these rates of change were higher than those in LAC, Central America, and in Guatemala's comparator countries. However, as Guatemala started at much lower levels, it continues to lag behind. Secondary enrollment is almost 10 percentage points lower than the Central American average and almost half the LAC and peer average. The infant mortality rate is almost twice the Central American and LAC average and three times that of its aspirational peers.

## **BOX 2.1 Measurement and Data Issues in Guatemala**

### **Actual Population Size**

The population figures used in this report and in official statistics are projections, not actuals. The last Population and Housing Census dates from 2002 so some caution is needed when looking at per capita figures. It is expected that birth and death rates will have changed in the 14 years since the last census: certainly there is evidence of changes in migration patterns. Obviously, any errors in the population projections could affect the analysis of per capita GDP, and, if there are variations in the growth of different population groups, this could affect poverty measures as well, although there is no data to indicate that this particular problem exists.

### **Poverty Measurement**

The data for the poverty measures come from the National Living Standards Measurement Study surveys (*Encuesta Nacional de Condiciones de Vida* or ENCOVI) for 2000, 2006, and 2014. There are also data for a 2011 round of the survey but there are some methodological concerns about these data in terms of comparability. The government is currently reviewing this issue and since this review may lead to revisions of the 2011 indicators, we have chosen to use only data from the 2000, 2006, and 2014 survey rounds in the present report.

Guatemala uses a consumption-based monetary measure of poverty. This per capita measure covers: (i) the consumption of purchased and non-purchased food (own production, gifts, and donations); (ii) transport and communications; (iii) consumer goods; (iv) household services and legal costs; (v) utilities, education, and health; and (vi) the annual use value of housing and durable goods. The poverty lines used reflect the costs of a minimum level of calories (extreme poverty line) and the cost of obtaining both food and other basic necessities (overall poverty line). We use this official measure of welfare throughout the report.

However, the exception is when the focus of the analysis is on benchmarking Guatemala's situation in comparison with other countries (as is in done in this chapter). In such cases, we use an income-based measure of poverty and an international overall poverty line of US\$4 and an international extreme poverty line of US\$2.5 per person per day in 2005 PPP terms. While there has been an update to the 2011 PPP for the US\$1.25 line, there are no updates for the US\$2.5 and US\$4 lines. For this reason, the report continues to use the 2005 PPP and the global extreme poverty line of US\$1.25 in 2005 PPP.

### **Urban and Rural Definitions**

A new urban/rural classification was introduced in the 2002 Census by Guatemala's National Statistics Institute (*Instituto Nacional de Estadística*, INE). The share of the urban population increased from 38.6 percent in 2000 to 48.1 percent in 2006. However, only 2.9 percentage points of this increase were due to migration and population growth; the remaining 6.6 percentage point increase was due to changes in the urban/rural classification (World Bank, 2009). This dramatic increase in the share of urban areas in the sample explains why extreme poverty decreased between 2000 and 2006, even

*Box continues next page*



### BOX 2.1 continued

though both urban and rural extreme poverty increased.

The more recent evolution of poverty between 2006 and 2014 has not been affected by changes in the urban/rural classification.

When the rural-urban definition is important for our analysis, the discussion will be restricted to changes between 2006 and 2014 only.

### KNOWLEDGE GAP

The lack of a recent census creates uncertainty about actual population figures. In a country like Guatemala with such high fertility rates, constantly shifting migration patterns, and changes in mortality rates, it is crucial to have up-to-date census data. Therefore, a new round of the Population and Housing Census is urgently needed.

**TABLE 2.1** Despite Remarkable Progress, Guatemala still Lags Behind in the Region and Among Its Peers in Non-monetary Indicators

Non-monetary Indicators of Welfare, Guatemala and Peer Countries, 1960 and 2013

	Enrollment primary (% net)		Enrollment, secondary (% net)		Life expectancy at birth		Mortality rate, infant		Mortality rate, under-5		Immunization, DPT	
	1960	2013	1960	2013	1960	2013	1960	2013	1960	2013	1960	2013
<b>Guatemala</b>	<b>49</b>	<b>86</b>	<b>8</b>	<b>47</b>	<b>46</b>	<b>72</b>	<b>148</b>	<b>26</b>	<b>222</b>	<b>31</b>	<b>43</b>	<b>85</b>
Central America	65	89	22	58	52	75	123	17	182	20	44	90
Latin America	83	92	n.a.	76	56	75	117	15	166	18	37	89
Structural Peers	65	87	12	61	48	71	128	24	214	30	23	92
Aspirational Peers	76	93	27	87	60	76	110	11	159	13	56	92

Source: World Development Indicators.

Note: Structural peers are Bolivia, El Salvador, Honduras, Nicaragua, Paraguay, and Senegal. Aspirational peers are Albania, Chile, Jordan, Latvia, Lithuania, Panama, and Peru.



Only by making faster progress on all indicators will Guatemala be able to catch up to its peers.

## Shared Prosperity: Income Growth among the Bottom 40 Percent

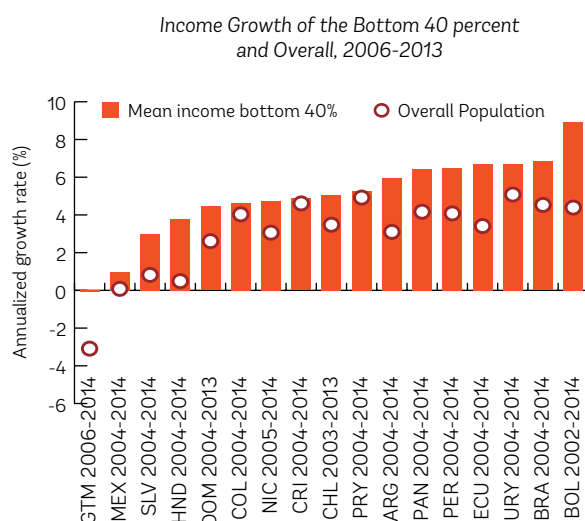
There was little evidence of shared prosperity in Guatemala in the 2000 to 2014 period. As measured by average growth in the incomes of the bottom 40 percent of the population, shared prosperity was negligible in Guatemala between 2006 and 2014 in contrast with most Latin American countries (figure 2.4). Guatemala and Honduras are the only countries in LAC that have experienced negative income growth in the last few years. Over the full 2000 to 2014 period, the poorest 40 percent of Guatemala's population experienced a decline in income, though this decline was much smaller than the decline experienced by the whole population. The data show

that the incomes of the bottom 40 percent of the population are much less volatile than those of the overall population, neither growing in good years nor declining as much in bad years (figure 2.5).<sup>3</sup>

## Inequality

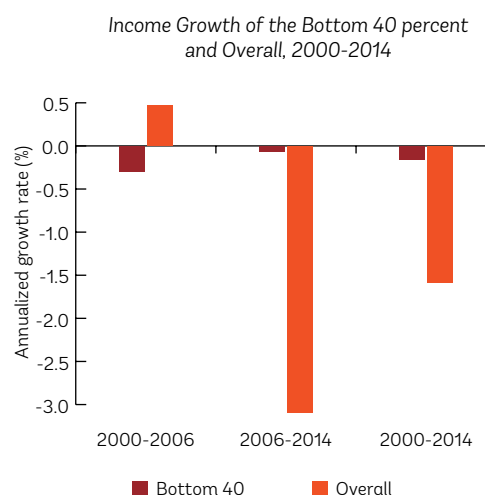
Inequality in Guatemala is high, but has fallen much faster than in either Central America or Latin America as a whole (figure 2.6). As measured by the Gini coefficient, inequality of income in Guatemala was 49 percent in 2014, higher than in most LAC and CA countries, all aspirational peers, and all structural peers except for Honduras (figure 2.7). Guatemala's inequality ranked in the 91st percentile worldwide (WDI, 2015). However, while there was no appreciable change between 2000 and 2006, the next eight years saw a very substantial decline in the Gini, which fell from 0.55 to 0.49 percent. This sharp

**FIGURE 2.4** Income Growth in Guatemala was Negative while in Other LAC Countries it Rose



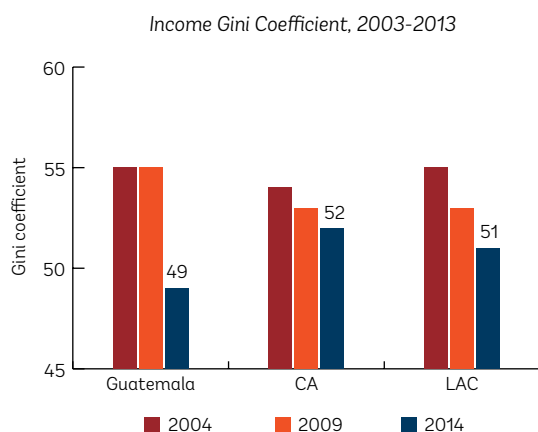
**Source:** Calculations based on SEDLAC (CEDLAS and The World Bank).  
**Notes:** Data are from the point closest to the years mentioned but are not exact: the Guatemala data used here are from 2006-2014 while for most of the other countries the reference period starts in 2008.

**FIGURE 2.5** The Income of the Poor Fell Much Less than Overall Incomes



**Source:** Calculations based on SEDLAC (CEDLAS and The World Bank).  
**Notes:** Shared prosperity here is calculated using income.

**FIGURE 2.6 The Rate of Decrease in Income Inequality was Higher in Guatemala than in Central America or in LAC**



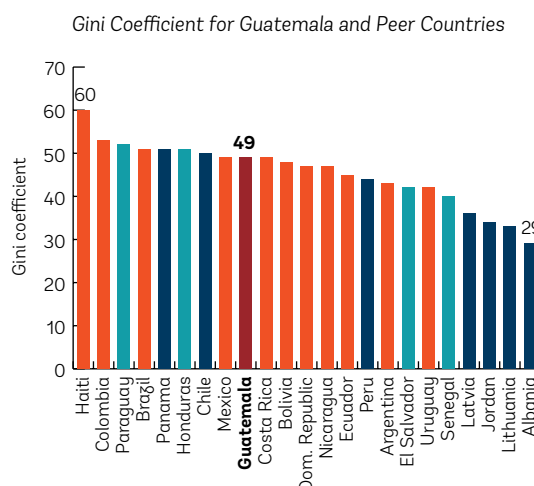
**Source:** SEDLAC harmonized database (SEDLAS and the World Bank), June 2015.

**Note:** The Gini coefficients, based on income, for each country are as close to the indicated years as possible. For Guatemala the data points are 2000, 2006, and 2014.

fall in inequality occurred in both urban and rural areas, with urban inequality falling from 0.55 to 0.48 and rural inequality falling from 0.50 to 0.46.<sup>4</sup> As already discussed, these reductions in income inequality have mainly been due to a fall in the incomes of the rich rather than to a rise in the incomes of the poor.<sup>5</sup> And despite this convergence in the income distribution, the total share of income held by those in the bottom deciles remains extremely low. The richest 1 percent of the income distribution controls 13 percent of total income. The middle class, here defined as having incomes of US\$10 to US\$50 in 2005 PPP terms, have 26 percent of total income, while the poor, or the bottom 60 percent of the population, have only 26 percent between them (figure 2.8).

The trends in Guatemala's welfare indicators diverge from those of other Latin American and even Central American countries. At 9 percent, Guatemala has the second lowest proportion of

**FIGURE 2.7 Inequality Continues to be Higher in Guatemala than in Its Peer Countries**



**Source:** SEDLAC harmonized database (SEDLAS and the World Bank), June 2015.

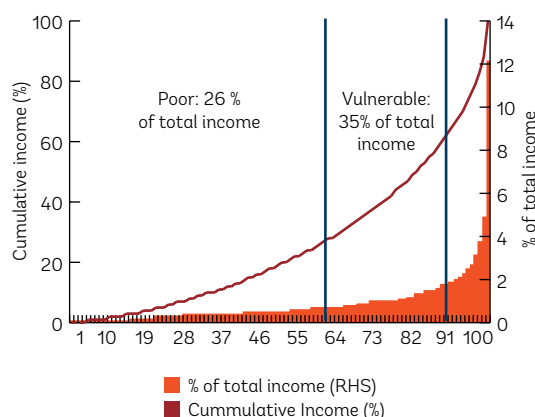
**Note:** The Gini coefficients, based on income, for each country are as close to the indicated years as possible. For Guatemala the data points are 2000, 2006, and 2014.

middle class population in LAC, only surpassed by Haiti at 4 percent. In LAC as a whole there has been a dramatic rise in the size of the middle class, from 21 to 35 percent of the population, and poverty (as measured by US\$2.50 a day) has been halved. In Central America, these changes have been less sharp, but poverty has still fallen. Guatemala has deviated from this regional trend: its poverty rate has risen and the share of the population considered to be middle class fell from 13 to 9 percent between 2000 and 2014 (figure 2.9).

## Economic Mobility

Guatemalans have limited economic mobility. The country has been less able to translate its, admittedly low, economic growth into welfare improvements than other countries in Latin America. The significant gains in mobility seen in most countries in LAC in the 2000s have not

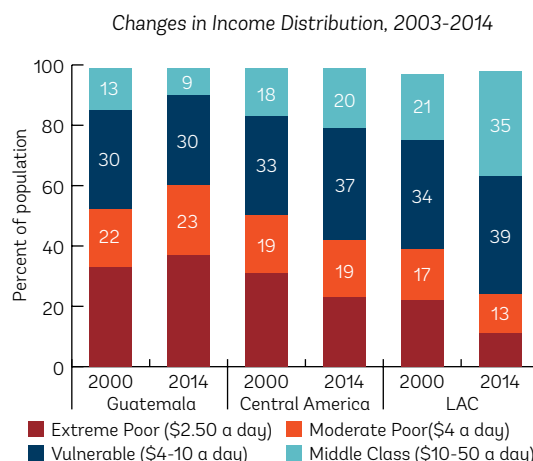
**FIGURE 2.8 Total Income is Highly Concentrated in Guatemala**



**Source:** SEDLAC harmonized database (SEDLAS and the World Bank) June, 2015  
**Note:** Poverty definitions based on international poverty lines in US\$ in 2005 PPP

been matched in Guatemala. While about one in ten households rose out of poverty between 2000 and 2014, a slightly larger number fell into poverty (figure 2.10). Compared with the rest of Central America and LAC in general, Guatemala's gross changes in poverty have been limited (see Annex 2.1). The share of households that have risen out of poverty in Guatemala is lower than the shares for Guatemala's regional peers. Also, twice as many non-poor households fell into poverty in Guatemala as in LAC as a whole and slightly more than in the rest of Central America.<sup>6</sup> Within Guatemala, chronic poverty was highest in rural areas and varied strongly by ethnicity. The Mam experienced the highest level of chronic poverty with two-thirds of households remaining in poverty. While having the lowest level of chronic poverty, the Q'eqchi experienced the highest rate of new poverty with 18 percent of their households having fallen into poverty between 2000 and 2014. The non-indigenous

**FIGURE 2.9 In Guatemala the Share of the Middle Class Has Decreased Unlike in the Rest of the Region**



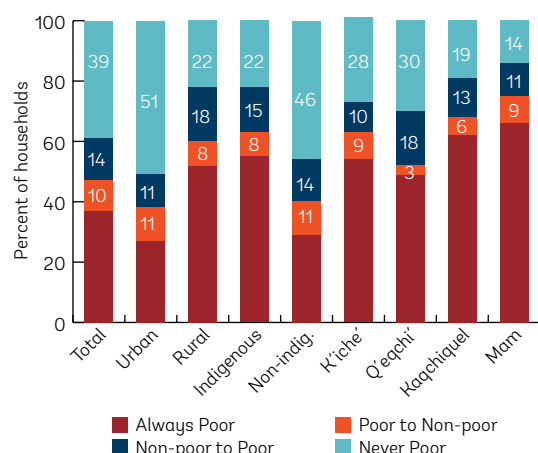
**Source:** SEDLAC harmonized database (SEDLAS and the World Bank) June, 2015 for LAC and Central America using data from the 2000 and 2014 ENCOVI  
**Note:** Poverty definitions based on international poverty lines in US\$ in PPP terms of 2005. Income figures are per capita per day.

population had both the lowest levels of chronic poverty and the highest share of households who were not poor in both periods. This analysis does not address the degree to which churning (movements into and out of poverty) may have occurred over the 15 year period, which limits the extent to which it can be used to understand mobility. There is a need for panel data to be collected in Guatemala to allow for a more in-depth analysis of intra-generational mobility.

Poverty at the municipal level has changed more than the net poverty figures would suggest. There is evidence of convergence among municipalities in rural areas (no data exist for urban areas<sup>7</sup>), with the poorest municipalities showing greater gains in poverty reduction than those with lower poverty rates in 2000 (figure 2.11). There were clear winners and losers, with annualized changes in poverty at the municipal level ranging from a decrease of more than 4 percent to an increase of over 3 percent. Of those

**FIGURE 2.10 Guatemala Has Experienced More Movements into Poverty than Out of Poverty**

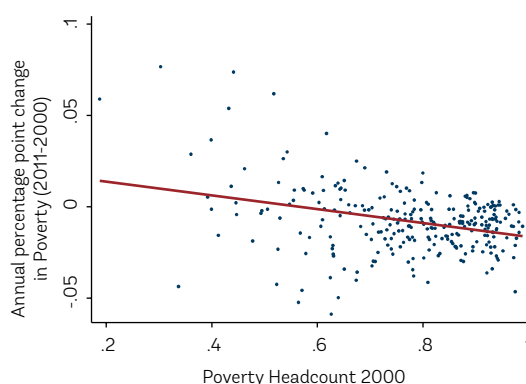
Share of Households by Change in Economic Status, 2000-2014



Source: Calculations using data from SEDLAC (CEDLAS and The World Bank) and the 2000 and 2014 ENCOVI using a lower bound estimate based on Dang et al. (2011).

**FIGURE 2.11 Poorest Municipalities Experienced Greater Gains in Poverty Reduction than Those with Lower Poverty Rates**

Poverty Convergence of Rural Municipalities, 2000-2011



Source: Baez et al. (2015)

Notes: The graph displays beta-convergence.

municipalities that had poverty rates above 75 percent in 2000 (defined as chronically poor municipalities), those that remained poor as of 2011 started with higher levels of poverty, averaging 91 percent poverty rates compared to 85 percent in those municipalities whose poverty rates had improved somewhat. Chronically poor municipalities were more likely to be located in remote areas far from departmental capitals and Guatemala City and to have a lower than average road density. Not surprisingly, people in chronically poor municipalities also had less access to basic services. Finally, those municipalities with large indigenous populations, those with lower labor force participation, and those that were most vulnerable to weather shocks had less economic mobility.

## The Divide Between the Poor and the Non-poor within Guatemala

### Official Poverty Levels and Trends (Consumption-Based Measure)

The official national measures of poverty reveal the same trends as found using the internationally comparable income measure (figure 2.12). The official consumption-based measure using the national poverty line shows overall monetary poverty in Guatemala falling between 1989 and 2006 but then rising by 2014. (See box 2.1 for how poverty is measured in Guatemala.) The changes in consumption poverty between 2000 and 2014, both positive and negative, were greater than for income poverty. Extreme poverty

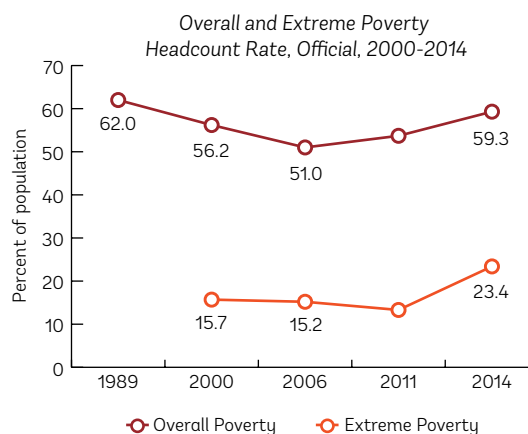
grew at a faster rate than overall poverty when measured using consumption. At 16 percent in 2000, the extreme poverty level in Guatemala was comparable to the rest of Central America.<sup>8</sup> However, by 2014, extreme poverty had risen to 23 percent suggesting that significant numbers of people had consumption very close to the national extreme poverty line. The growth in both overall poverty and extreme poverty in Guatemala was also accompanied by increases in both the poverty gap and poverty severity for both overall and extreme poverty. In short, not only were more people living in extreme poverty in 2014 than in 2006, but these people, on average, were poorer in monetary terms than they had been eight years earlier.

The gaps between the poor and the non-poor in Guatemala are large. In general terms, the poor are more likely to be informally employed, live in rural areas in specific departments, belong to an indigenous group, and have very low levels of education. This is not uncommon; many other countries could also describe the differences between poor and non-poor in a similar fashion. In Guatemala, the key issue is the size of the gap and, as is discussed in the following section, how difficult it has been to narrow these gaps because of the limited socioeconomic mobility in Guatemala. There is also a new twist in that urban poverty is becoming a new concern.

## The Geographic Divide

There are clear geographic patterns of poverty in Guatemala (figure 2.13). The areas of the country with the lowest levels of poverty are in the corridor that stretches from the Pacific port of Puerto Quetzal, crosses through the Metropolitan region, and ends at the Atlantic port of Puerto Barrios. The differences at the department level are enormous: in 2014 for both overall and extreme poverty there was close to a 50-percentage

**FIGURE 2.12 The Decline in the Overall Poverty Rate Was Interrupted by the Global Financial Crisis**



Source: World Bank (2004), Cadena et al. (2013) and calculations using the 2014 ENCOVI.

Note: Based on official measures using consumption and nationally calculated poverty lines.

point difference between the poverty rate in the poorest and the least poor departments. In 2014, Alta Verapaz was the poorest department, with an overall poverty rate of 83 percent (and an extreme poverty rate of 54 percent). In contrast, the department of Guatemala had an overall rate of 33 percent, and only 5 percent of its population lived in extreme poverty. The geographic gap has closed somewhat in terms of overall poverty, but the opposite is true for extreme poverty where both the absolute gap between the richest and poorest department and the variance between departments rose between 2006 and 2014.

Poverty is highest in rural areas, but there has been a striking increase in urban poverty. In 2006, rural poverty was more than two times the level of urban poverty overall (71 percent compared to 30 percent) and for extreme poverty, the ratio was 4.8. (See box 2.1 on why the 2000 urban and rural data are not comparable with later years.) Both rural and urban poverty had risen by 2014, and rural poverty remained much

**FIGURE 2.13 Poverty Levels Vary Dramatically by Departments although Poverty Has Risen in Most Areas since 2006**



Source: Calculations based on the 2006 and 2014 ENCOVI.  
Note: Based on consumption poverty and national poverty lines.

higher than in urban areas. The depth and severity of poverty levels are also worse in rural areas, although there has been some convergence in the second half of the decade as these indicators declined in rural areas while remaining unchanged in urban areas.<sup>9</sup> However, the increase in urban poverty between 2006 and 2014 was much greater (41 percent) than in rural areas (8 percent). This does not appear to have been due to rural-urban migration: a Huppi-Ravaillon decomposition shows that it has been the poverty increases within each area that have been

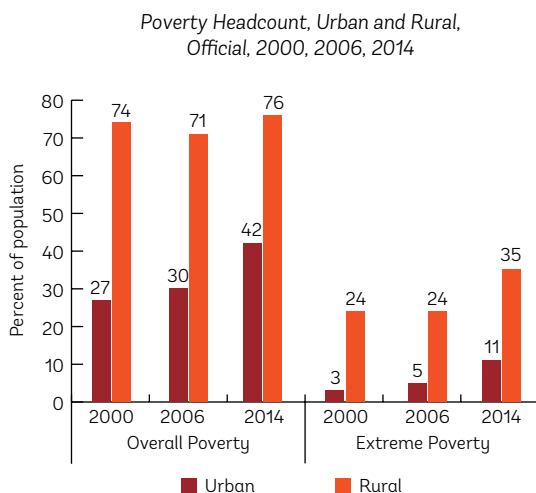
responsible for the changes. Movements between rural and urban areas were actually poverty-reducing, albeit on a very small scale.<sup>10</sup>

The rise in urban poverty has narrowed the urban-rural gap and shifted the concentration of the poor quite dramatically. In 2000, 7 percent of all people in extreme poverty lived in urban areas, while by 2014 this had increased to 24 percent (figure 2.15). While some of the change between 2000 and 2006 can be attributed to a post-census reclassification of rural areas, this explains only a portion of the observed change

and does not affect differences between 2006 and 2014. The larger change has been in terms of overall poverty. In eight years, the share of the poor living in urban areas has gone up from 28 percent to 57 percent. The regional change in the concentration of the poor is also quite striking.

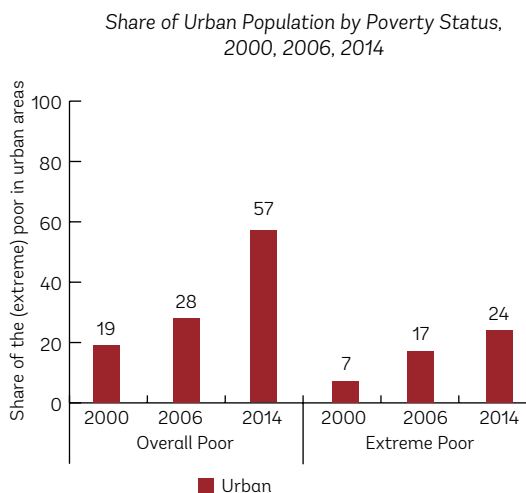
The Metropolitan region of the country is now home to almost 12 percent of the poor population: in 2000 the region only accounted for 7 percent of the poor (figure 2.16). There was also a transformation in terms of the concentration of the extreme poor, from just under 1 percent in

**FIGURE 2.14 Poverty and Extreme Poverty Rates Are Substantially Higher in Rural Areas**



**Source:** Calculations based on the 2000, 2006, and 2014 ENCOVI.  
**Note:** Based on official consumption measure of poverty and national poverty lines.

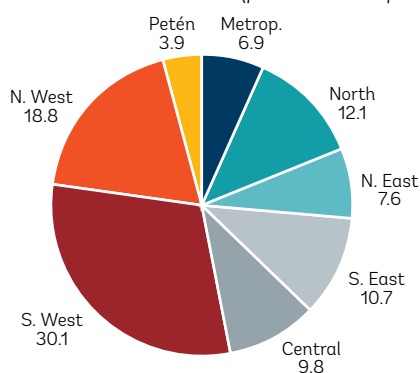
**FIGURE 2.15 But More than Half of All Poor People Now Live in Urban Areas**



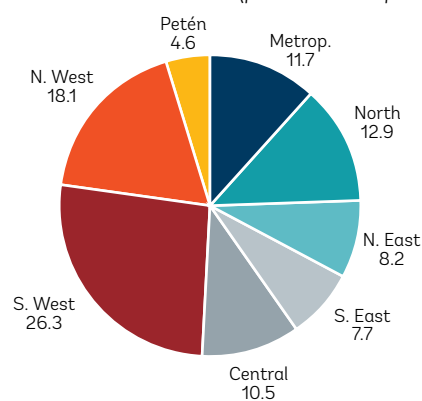
**Source:** Calculations based on the 2000, 2006, and 2014 ENCOVI.  
**Note:** Based on official consumption measure of poverty and national poverty lines.

**FIGURE 2.16 Almost Half of the Poor Live in the Northwest and Southwest in 2000, but More Than a Quarter Now Live in the Metropolitan Area**

Where the Poor Live, 2000 (percent of total poor)



Where the Poor Live, 2014 (percent of total poor)



**Source:** Calculations based on the 2000 and 2014 ENCOVI.

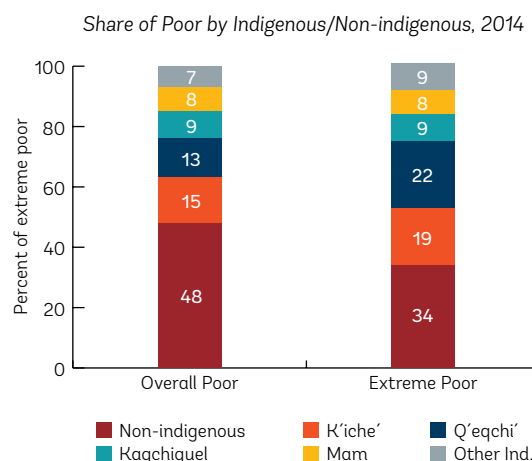
2000 to almost 5 percent in 2014 (see Annex 2.2 for details). In contrast, there was a decrease in both poverty and extreme poverty in the majority of the other regions between 2000 and 2014. Only the Northeast had a sharp rise in extreme poverty, with the concentration of the extreme poor changing from 5 to 11 percent over the period. Despite the Northwest experiencing the highest reductions in both poverty measures, its large population share and still high poverty rates mean that the extreme poor remain concentrated in the two Western regions, with almost one-third of the extreme poor living in those regions as of 2014.

## The Ethnic Divide

The poverty and extreme poverty rates for indigenous groups are significantly higher than average. Almost 80 percent of the indigenous population lived in poverty in 2014, and half of these were extremely poor. In contrast, the overall poverty rate among the non-indigenous was 47 percent, and only 13 percent were living in extreme

poverty. While overall poverty among indigenous groups has declined marginally, their share of extreme poverty has risen. While one in three of

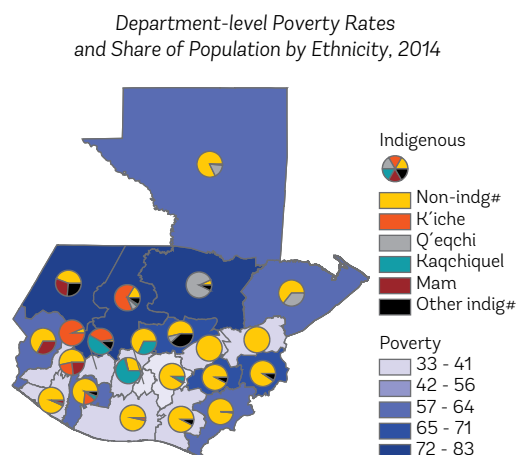
**FIGURE 2.17 Two-thirds of Guatemala's Extreme Poor are Indigenous Even Though Indigenous People Account for Only 42 percent of the Population**



Source: Calculations based on the 2014 ENCOVI.

Note: Based on official consumption measure of poverty and national poverty lines.

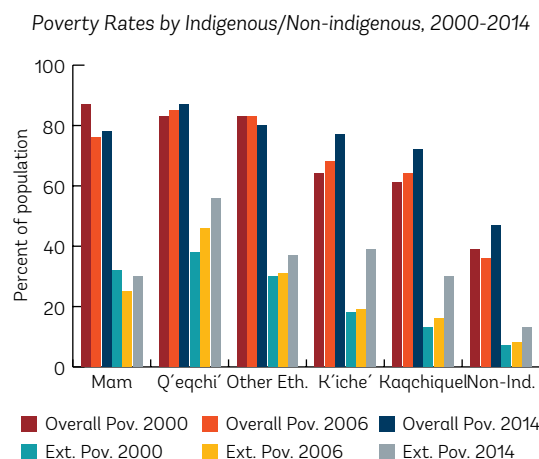
**FIGURE 2.18 Ethnic Dispersion and Poverty Are Linked**



Source: Calculations based on the 2014 ENCOVI

Note: Based on official consumption measure of poverty and national poverty lines.

**FIGURE 2.19 The Indigenous Are Much More Likely to Be Poor than the Non-indigenous**



Source: Calculations based on the 2000, 2006, and 2014 ENCOVI

Note: Based on official consumption measure of poverty and national poverty lines.



the indigenous poor used to be extremely poor, the figure is now one in two. At the same time, poverty among the non-indigenous has started to rise. However, in terms of the share of the country's poor, poverty remains concentrated among indigenous groups. They represent 52 percent of the total poor and 66 percent of the extreme poor, yet constitute only 42 percent of the population of the country (figure 2.17). Two-thirds of all extremely poor households have an indigenous head of household. A Oaxaca Blinder decomposition shows that two-thirds of the differences in poverty between indigenous groups

and non-indigenous groups is due to different endowments, while the remaining third is due to unexplained differences in the returns to these endowments.

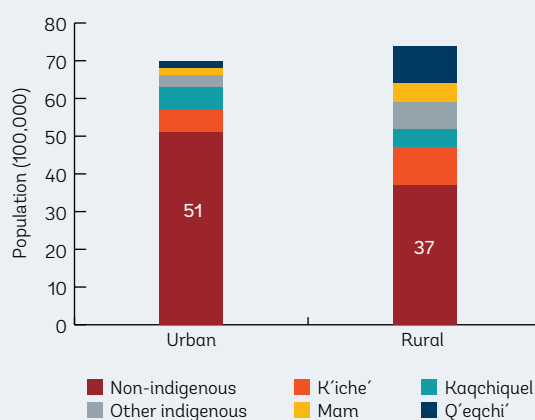
There are significant differences among the ethnic groups in Guatemala, both in poverty levels and in trends. (See box 2.2 for a brief discussion of the differences between the major indigenous groups of Guatemala.) Areas with a greater concentrations of indigenous people tend to be poorer, but many of the ethnic groups are spread across departments with varying degrees of poverty: this is particularly true for the

## BOX 2.2 The Indigenous People of Guatemala are a Heterogeneous Group

It is important to recognize that the indigenous people of Guatemala do not represent a homogeneous block, any more than does the non-indigenous population. The multiple ethnicities represented in Guatemala are distinct across a range of characteristics and welfare outcomes. In terms of population, the K'iche are the largest indigenous group at 1.6 million people, while another 17 Mayan groups plus the Xinca and Garifuna populations together represent just over 1 million people. The fertility rates of the groups also vary resulting in quite distinct population pyramids (in 2002 the Mam was the youngest group and the Garifuna the oldest) and in different demands for basic services such as education (see Annex 2.3).

Indigenous people are, in general, more likely to live in rural areas—in contrast the rest of the other population, which is split 50-50 between rural and urban areas—which affects their access to services. However, there are large variations between the different Mayan groups. K'iche are the most urban of the groups, with almost 40 percent of their members living in urban areas while the Q'eqchi' are the most rural at 84 percent. Indigenous people represent the majority of the population in some departments but only a tiny minority in others (see Annex 2.3). Wherever possible in this report, the analysis is disaggregated by indigenous group.

FIGURE B2.2.1 Rural and Urban Population by Ethnicity, 2014



Source: INE, based on the 2014 ENCOVI

Note: The category other indigenous includes Xinka, Garifuna, and other Mayan.

non-indigenous and the Mam (figure 2.18). The Mam had the highest poverty rate in 2000 at 90 percent, and live in both departments with high poverty levels and in others with much lower levels. By 2014, the Q'eqchi had overtaken the Mam, having the highest poverty and extreme poverty rates (87 and 56 percent respectively) and representing 22 percent of the extreme poor. In contrast the Kaqchiquel have the lowest poverty rate among the indigenous groups despite this rate having increased in both 2006 and 2014 (figure 2.19). As noted earlier, the Mam have the highest chronic poverty rate, and none of the indigenous groups have fewer chronically poor households than the non-indigenous do.

## The Human Capital Divide

There is an important interplay among income, labor, and human capital (table 2.2). Poor households in Guatemala have lower levels of human capital than non-poor households, which is reflected in wide monetary welfare gaps. The heads of poor and extremely poor households have, on average, slightly over 3.3 and 2.0 years of education respectively compared with almost seven years of education for non-poor heads of household. The non-poor have a higher number of dependents per worker, which is a slightly unexpected finding. However, the average per capita income and per capita consumption of the extreme poor is about one-fifth of that of the non-poor suggesting that the earnings of the poor are significantly lower. Given the wide gap in education between the poor and non-poor, this is not surprising. Additionally, a large fraction of the extremely poor who are working are only doing so in the capacity of unpaid family workers. The concentration of the poor in agriculture (62 percent of the extremely poor compared to 14 percent of the non-poor) and higher levels of informal sector work (76 percent

versus 55 percent) may also contribute to the observed dependency gap.

## Other Demographic Characteristics

Poor and non-poor households have significantly different characteristics in terms of their household structure and employment status (table 2.2). The poor are more likely than the non-poor to live in male-headed households; in fact, overall and extreme poverty rates among female-headed households are lower than the corresponding national figures and, in terms of overall poverty, the rates have fallen.<sup>11</sup> Even holding constant the type of household involved (single adult households with or without children or two adult households with or without children), households headed by men are more likely to be poor (see full results in Annex 2.4). Poorer households tend to be much younger: in 2014 the proportion of individuals aged 14 years old or younger in poor households was twice as large as in non-poor households. Having a younger head of household is also correlated with greater poverty, with all other characteristics held constant. The poor and extreme poor tend to belong to larger households than the non-poor. Households in extreme poverty have 6.8 members on average while non-poor households have an average of three fewer members. Having a head of household who is indigenous but not one of the four large Mayan groups is linked to a significantly greater risk of poverty, as is living in the North and having less education.

**TABLE 2.2 There Are Sharp Differences Between the Poor and Non-poor in Terms of Demographics, Education, and Informality of Employment**

Characteristics of Poor and Non-poor Households, 2014

	Extreme poor	Moderate poor	Non-poor	Bottom 40 percent	Top 60 percent
<b>Household Characteristics</b>					
Age of head	45.5	45.1	47.1	45.2	47.1
Female-headed household (percent)	12.9	19.5	25.5	17.3	25.7
Single earner without children	2.3	4.4	14.8	3.7	14.9
Single earner with children	44.0	45.0	33.8	44.7	33.6
Two or more adult earners without children	1.0	2.1	5.6	1.7	5.7
Two or more adult earners with children	52.8	48.5	45.8	49.9	45.8
Head indigenous	65.5	43.1	21.2	50.5	20.9
Rural	75.7	56.5	29.3	62.6	29.2
Proportion age 0-14	44.9	36.8	22.7	39.4	22.6
Proportion age 15-64	51.3	56.9	67.9	55.2	68.0
Proportion age 65+	4.9	6.4	9.8	5.9	9.9
Education of household head (years)	2.0	3.3	6.7	2.9	6.8
Dependency ratio on employed persons	35.7	39.5	50.1	38.3	50.2
Monthly per capita income	468	739	2102	650	2121
Monthly per capita consumption	363	660	1755	565	1768
Household size	6.8	5.3	3.8	5.8	3.8
<b>Total households</b>	<b>544,458</b>	<b>1,084,735</b>	<b>1,722,837</b>	<b>1,653,516</b>	<b>1,698,514</b>
<b>Labor force (percent)</b>					
Salaried	57.7	60.7	61.7	59.6	61.7
Self-employed	24.1	24.3	23.6	24.3	23.6
Employer	0.4	1.0	4.6	0.8	4.7
Unpaid worker	17.0	12.2	7.6	13.9	7.5
Unemployed	0.9	1.7	2.5	1.4	2.6
<b>Informality (percent)</b>					
Formal (with social security)	3.1	11.1	29.6	8.3	29.8
Informal (without social security)	96.9	88.9	70.4	91.7	70.2
<b>Employment sector (percent)</b>					
Agriculture, hunting	61.5	41.3	14.0	48.5	13.6
Mining	0.0	0.2	0.2	0.1	0.2
Manufacturing	9.8	12.2	13.9	11.4	13.9
Electricity, gas and water	0.6	1.0	1.2	0.8	1.2
Construction	5.2	7.9	5.3	7.0	5.2
Wholesale, retail trade	12.8	20.6	32.2	17.7	32.5
Transport, storage, and communications	1.3	3.2	5.0	2.5	5.0
Financial intermediation	1.2	1.8	7.0	1.6	7.1
Public administration	0.6	1.0	4.0	0.9	4.1
Education	0.5	1.6	6.7	1.2	6.8
Health and social workers	1.5	3.5	6.9	2.8	6.9
Domestic services	5.0	5.9	3.7	5.6	3.7

Source: Calculations based on the 2014 ENCOVI.  
Poverty and Shared Prosperity 2000-2014

## Drivers of Changes in Poverty and Shared Prosperity

### Consumption: Growth, Distribution, and Prices

The increase in prices, particularly food prices, is clearly linked to the rise in nationally defined poverty in recent years (figure 2.20). Changes in prices affect the real wages that households earn and the costs of the goods and services that they purchase. Figure 2.20 presents a Shorrocks-Kalenikov decomposition that looks at the relative importance of changes in consumption growth, changes in the overall distribution of consumption, and the changes in prices. It clearly shows the significant effect that rising prices have had on poverty since 2006. Without the increase in prices, the poverty rate would have been substantially lower. Changes in the distribution of consumption contributed to poverty reduction, especially in the case of extreme poverty in the latter half of the last decade as did the changes in growth. However, these gains were mitigated by

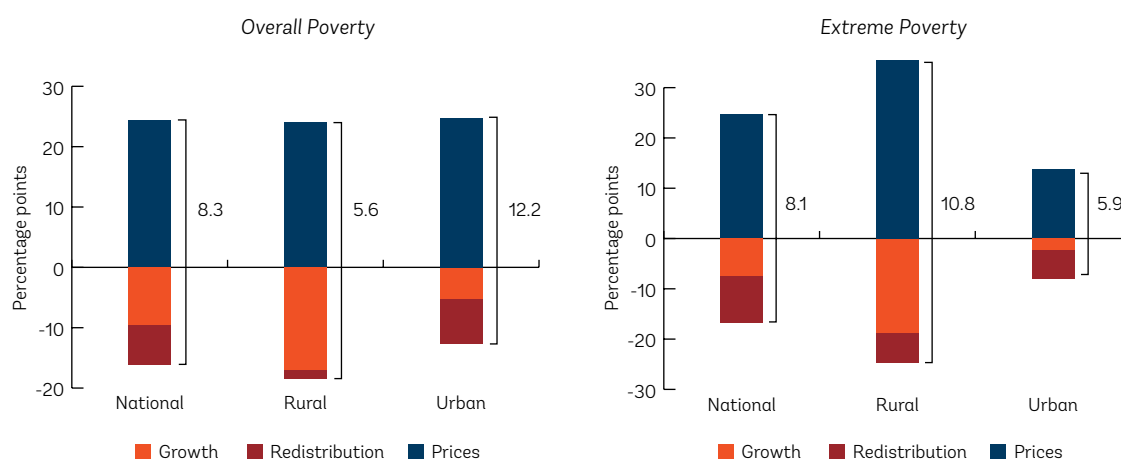
rising prices.

The rise in food prices since 2006 has had a substantial impact on poverty levels through the resulting increase in the value of the poverty line. Overall, the incomes of the bottom 40 percent of the population (roughly the group living in extreme poverty) stayed the same over the 2006 and 2014 period: consumption was stagnant as well. However, the rising prices of food caused the real value of the food poverty line to increase by 19 percent over the period, resulting in a large increase in extreme poverty. In contrast, between 2000 and 2006, the real value of the extreme poverty line rose by only 9 percent. The overall poverty line with its large non-food component (approximately half of the value of the overall line is for non-food items and services) changed much less, growing by only 3 percent between 2006 and 2014, after having fallen by just 1 percent in the previous period.

### Drivers of Observed Changes in Income Poverty

The very poorest 10 percent of the population was the only group that registered any income

**FIGURE 2.20** Shorrocks Kalenikov Decomposition of Poverty Rate Changes, 2006-2014



Source: Calculations based on the 2006 and 2014 ENCOVI.

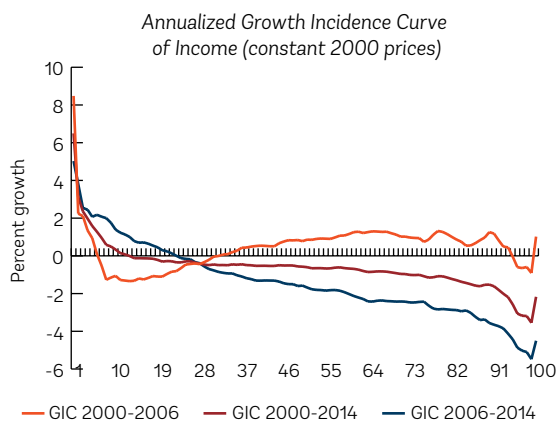
Note: Based on the consumption measure of welfare and the national poverty lines.

growth between 2000 and 2014 (figure 2.21). Growth was pro-poor in the sense that the bottom decile saw a small annual growth in their incomes over the 2000 to 2014 period while the income of the higher deciles actually declined. The negative slope of the growth incidence curves, especially in the 2006 to 2014 period, helped to bring income inequality sharply down. While the magnitude of the change seems counterintuitive given the increase in poverty, it is explained by the fact that incomes declined among the highest deciles, which has had the effect of reducing inequality without reducing poverty.<sup>12/13</sup>

## Sources of Income

Labor income in Guatemala has played a less prominent role in poverty reduction than in the rest of Latin America.<sup>14</sup> Changes in poverty rates can be explained by changes in labor earnings, employment levels, private and public transfers, and other non-labor incomes. Between 2000 and 2006, the two main drivers of overall and extreme poverty reduction were a growth in employment for both men and women and transfers. Labor

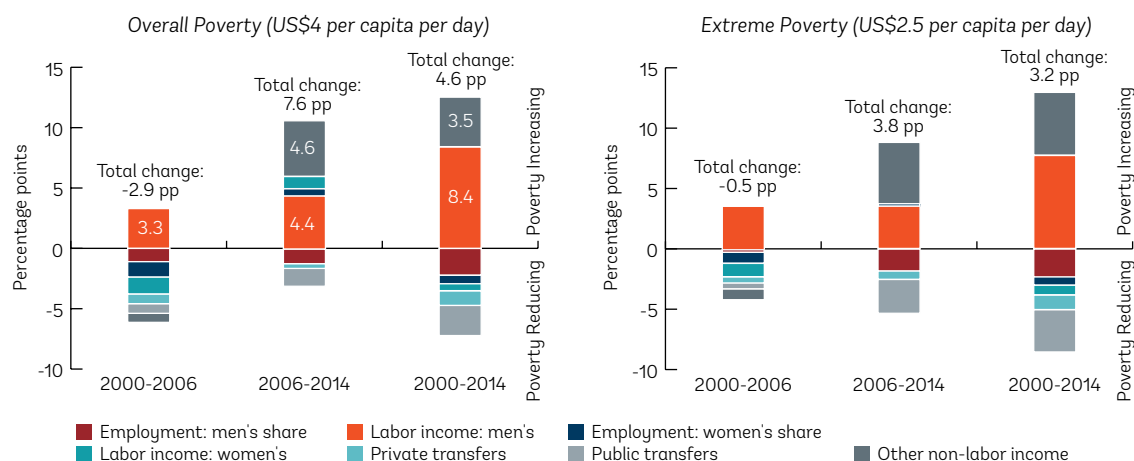
**FIGURE 2.21 Income Inequality Decreases Mainly Due to Income Reductions at the Top of the Income Distribution**



Source: For 2000 and 2006, Cadena et al. (2013). For 2014, Calculations based on the 2014 ENCOVI.

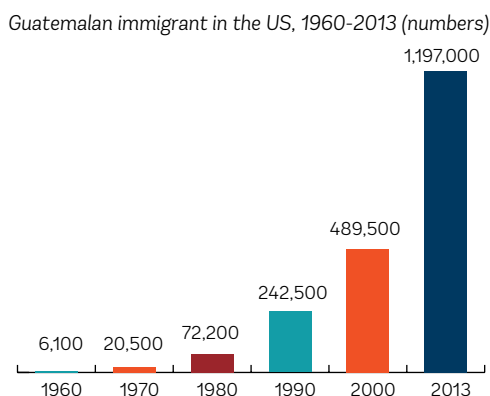
income played a more limited role in poverty reduction as there was a strong negative relationship between men's labor income and poverty (figure 2.22). This result contrasts with the rest of LAC where labor income, especially for men, played a very important role in reducing pov-

**FIGURE 2.22 More Jobs and Transfers Mitigated the Negative Effect of Earnings on Poverty Contribution of Income Sources to Poverty Reduction (Income-based Poverty)**



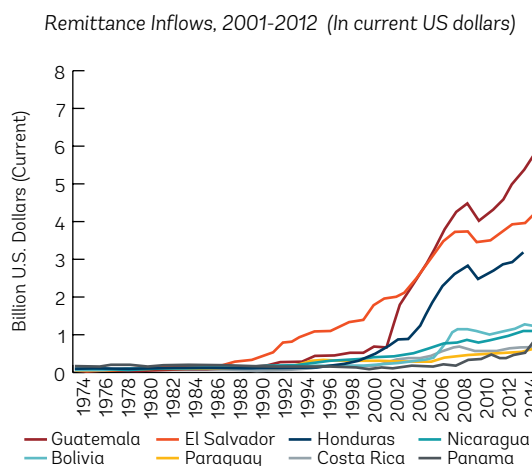
Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

**FIGURE 2.23** Guatemalan Migration Has Risen Rapidly in the Last 35 Years



Source: World Bank estimates based on Migration Policy Institute database and US Census and American Community Survey (ACS) data.

**FIGURE 2.24** The Inflow of Remittances Has Also Risen



Source: World Bank estimates based on Migration Policy Institute database and US Census and American Community Survey (ACS) data.

erty in that period, to the tune of a 2 percent reduction on average. In the early part of the last decade, women's labor income was associated with a decline in poverty but, by 2006 to 2014, both male and female labor incomes were linked to higher poverty. In Guatemala, it was primarily the increase in the share of men who were employed rather than the level of their earnings that helped to lower poverty.

The contribution of public transfers to poverty reduction has increased over the last 15 years. Between 2000 and 2006, the reduction in poverty associated with private transfers (largely remittances) and with public transfers was largely similar. However, between 2006 and 2014, the effect of public transfers grew, especially in the case of extreme poverty levels, while the effect of private transfers diminished (for overall poverty) and grew only slightly (for extreme poverty). This change indicates that the increased spending on transfer programs (to be discussed in the next chapter) did have a positive effect on poverty

levels and that targeting of these resources to poorer households was successful.

The distribution of remittances, however, appears to have shifted away from poor households. The levels of remittances remain high (figure 2.24). In terms of the share of GDP, in 2014 remittances accounted for a substantial 10 percent of GDP. While this is a lower proportion than in Honduras (17 percent) and El Salvador (16 percent), it still represented a record for Guatemala of US\$5.8 billion. Most remittances originate from the US (US\$4.4 billion), followed by Mexico (US\$152.2 million) and Canada (US\$100.1 million). Remittance flows grew substantially during the 2000s, peaking at US\$4.5 billion in 2008, until they plunged to US\$4 billion in the aftermath of the global financial crisis in 2009 (figure 2.24). Since then, remittances have recovered sharply, and the number of emigrants continues to grow (approximately 8 percent of Guatemalans were living outside of Guatemala in 2013 with almost 90 percent of them living in the

US (figure 2.23).<sup>15</sup> The fact that remittances continue to grow but their effect on poverty has declined or stagnated indicates that there may have been a shift in the characteristics of recipient households.

## Conclusion

**IN SUMMARY, THE RECENT PAST HAS NOT BEEN FAVORABLE TO GUATEMALA.** Incomes have declined as has consumption for all but the poorest. The historical gaps between rich and

poor remain, and the country lags behind its peers in terms of its welfare indicators. Several non-monetary measures of welfare related to education and health appear to have improved, and social spending has helped to reduce poverty. However, labor markets have contributed little to poverty reduction. There continues to be a critical disconnect between economic growth and poverty reduction, with the two having moved in opposite directions in recent years. The next chapter addresses the issue of why growth has not been inclusive in Guatemala.

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## Notes

- 1 See Annex 1.1 for details on countries considered as Guatemala's economic peers along with other comparator countries used in this report.
- 2 The data presented in the first section of this chapter are income-based measures compared to international poverty lines. See Box 2.1 for an explanation of official poverty measures in Guatemala and when these are used and when the internationally comparable ones are used in this report. However, as in this section and wherever the focus is on international comparisons, an income aggregate will be used as well as international poverty lines as follows: US\$1.25 per person per day (the global extreme poverty line), US\$2.5 per person per day (extreme poverty line for LAC), and US\$4 per person per day (overall poverty line for LAC). The lines are in 2005 PPP terms. While there has been an update to the 2011 PPP for the US\$1.25 line, there has been no update for the US\$2.5 and US\$4 lines. For this reason, we have used with the US\$1.25 global extreme poverty line in 2005 PPP.
- 3 In consumption terms, overall growth was similar, but growth for the bottom 40 percent was positive - 1.5 percent over the 2000 to 2006 period and then 0.3 percent in 2006-2011. This suggests some measurement problems related to income among those at the lower end of the distribution, but even the better consumption measures show very weak shared prosperity in recent years.
- 4 As might be expected, a consumption-based Gini shows much lower levels of inequality but the trend in the consumption-based Gini is similar to that seen with income. The decline in inequality between 2006 and 2014 is even more dramatic in consumption terms. The decline in both urban and rural inequality can be seen in both income and consumption terms.
- 5 One hypothesis about the change in the Gini that cannot be ignored is that there may have been a deterioration in the quality of data at the top end of the distribution over time. There is always some degree of under-reporting: studies of top earner databases from tax records in other countries have shown that the Gini is often under-estimated as a result of non-responses from households at the top end of the distribution. The concern is not so much that this phenomenon exists but that these non-responses may be increasing. Given the very sharp rise in crime and violence in Guatemala, particularly in the cities, it is quite plausible that households are not willing to provide information on their wealth to surveys.
- In Mexico the non-response rate in some areas of the country has increased to 25 percent in recent years and non-response is correlated to education levels, suggesting that it is correlated to income as well. No assessment has yet been carried out of the increase in non-responses in the latest round of the ENCOVI in Guatemala or of its implications, so until that happens, a degree of skepticism about the magnitude of the fall in the Gini might be warranted.
- 6 These figures were calculated using a synthetic panel method (Dang et al, 2011) as there are no real panel data sets in Guatemala that would allow the study of a household's movements in and out of poverty directly. The overall poverty rates from this analysis will not exactly match the national poverty figures as, first, the analysts used an international poverty line of US\$4 per capita per day in PPP terms, which is slightly higher than the national line in Guatemala of PPP US\$3.17, and, second, the methodology only incorporated households that were formed in 2000, meaning that younger households were under-represented in the analysis compared with standard poverty analysis. See Annex 2.2 for the comparison of mobility with Central America and Latin America. To ensure that our estimates of mobility are comparable methodologically with the LAC and CA results, we have used the 2011 ENCOVI data. The issues of comparability between the 2000 and 2011 rounds of the ENCOVI suggest that our analysis may overstate the numbers of households who rose out of poverty. Our mobility analysis within Guatemala is based on the 2000 and 2014 surveys and thus suffers from no comparability issues.
- 7 The panel of municipalities was created using small area estimation techniques a la Elbers, Lanjouw and Lanjouw, 2001). Given data limitations estimates could only be made for rural municipalities. See Baez et al. (2015) for further details.
- 8 No figure is available for extreme poverty in 1989.
- 9 Changes in the definition of rural and urban areas between 2000 and 2006 make earlier comparisons suspect: see Box 2.1.
- 10 Huppi-Ravallion decompositions look at intra-area and across areas changes in poverty. The within-area increase in poverty was 8 percentage points, but the across-area movements mitigated this effect, resulting in a 7.6 percentage point rise in overall poverty. For extreme poverty, the within-area increase in poverty was 4.1 percentage points, while movements from rural to urban areas led to a small decline in poverty for an overall rate of 3.7.



- 11 World Bank (2009).
- 12 An alternative hypothesis is, of course, that non-responses may be affecting reported income: crime and violence, particularly extortion, have risen in recent years, which might have reduced people's willingness to give accurate responses to surveys.
- 13 The picture is slightly more positive in terms of growth in consumption: consumption inequality decreases mainly because of growth in the bottom of the distribution while income inequality decreases mainly due to income reductions in the top of the income distribution (see Annex 2.5).
- 14 World Bank (2011a)
- 15 Other destination countries are Mexico and Canada, with 41,000 and 18,000 Guatemalan immigrants respectively (Orozco et al, 2015 and KNOMAD, 2015).



### 3. Inclusion and Exclusion

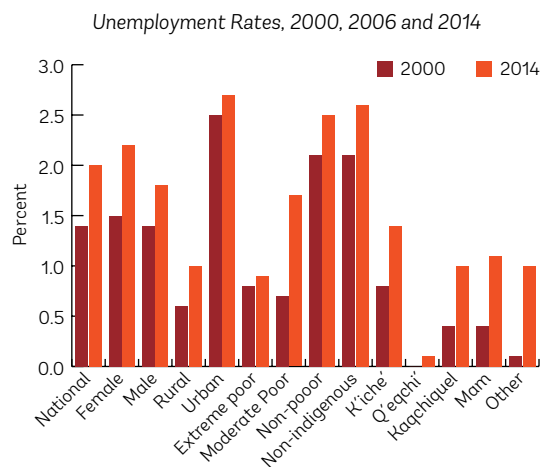
*Labor markets have played only a limited role in changes in welfare in Guatemala. The number of jobs has increased at the same pace of GDP, which has contributed to poverty reduction. However, the quality of these jobs has not: earnings are stagnant, especially in the sectors in which the poor are most likely to work. The lack of human capital affects individuals' ability to find the types of productive employment that would help them to move out of poverty. This lack of human capital stems from limited access to basic services such as education and health. Coverage of these and other services is far from universal and the influence of geography, ethnicity and household characteristics on inequitable access have changed little in the past 15 years. The poor and ethnic minorities bear the brunt of unequal opportunities and poor outcomes. Spending patterns restrict Guatemala's ability to provide universal access to basic services as the low levels of revenues collected limit the provision of public services. At the same time the incidence of spending is such that overall fiscal policy actually increases poverty. Inequality is not lowered by the sum of direct and indirect taxes and transfers. On a range of indicators, Guatemala is not catching up to its peers and competitors, which is hindering future economic growth, job creation, and welfare gain and putting its social contract under further stress.*

**PROGRESS ON GENERATING AN INCLUSIVE MODEL OF DEVELOPMENT IN GUATEMALA** has been slow. Any positive change has often been outweighed by structural features that perpetuate poverty and inequality. Many Guatemalans are faced with limited job opportunities and stagnant earnings. In part this is the result of an economic structure that does not facilitate the adequate creation of well-remunerated jobs (see discussion in Chapter 4). In part, however, it reflects a lack of human capital. Much of the population has limited access to the basic services and infrastructure that would allow them to increase their human capital and escape poverty. A basic underinvestment in public goods is the main reason behind the story of limited opportunities, while spatial inequalities, an inefficient use of resources, and weak institutions exacerbate the situation.

#### Limited Labor Market Opportunities

**LABOR MARKETS HAVE PLAYED** only a limited role in changes in welfare in Guatemala. High and rising poverty stands out as a pressing challenge for Guatemala. As discussed in Chapter 2, contrary to the experiences of other countries in Latin America, labor incomes have not contributed to poverty reduction in Guatemala. Over the 2000-2014 period, there has been a decline in earnings. In particular, the fall in the labor income of men contributed to an 8.4 percentage point increase in poverty while increases in women's labor incomes only reduced poverty by 0.6 percentage points. This trend is particularly worrisome given the rapid growth of the labor force in Guatemala, which presages further declines in earnings unless the country is able to generate better paying jobs for its citizens. There is a small dynamic private sector, but most of the jobs remain informal, without social security

**FIGURE 3.1** Rising Levels of Unemployment Among Women and in Rural Areas May be Cause for Concern

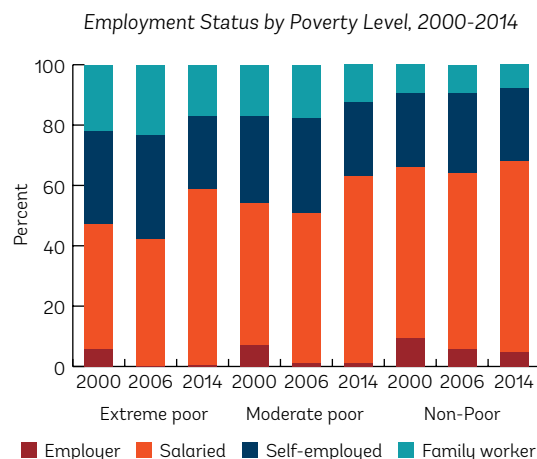


Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

protection. As discussed in more detail in chapter 4, productivity is low and declining.

The Guatemalan labor force, like the overall population of the country, is quite young and growing. In 2014, more than 40 percent of the labor force was under age 30.<sup>1</sup> The economically active population grew by 4.4 percent per year, or about 225,000 people, between 2010 and 2014. The growth in the economically active population in recent years has not entirely been due to population changes as some of the growth may reflect people moving back into the labor force as the economy recovered from the global financial crisis. However, demographic trends guarantee that the supply of labor will continue to grow in the near future. The supply of labor could also increase substantially if the labor market were to become more attractive to women: female labor force participation in Guatemala is the lowest in the region. Despite these population pressures, at the national level unemployment is low, just 2 percent in 2014. However, the rate has risen substantially since 2000, particularly among

**FIGURE 3.2** There Has Been a Striking Increase in Wage Employment in Recent Years



Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

women, urban workers, and most indigenous groups (figure 3.1). This trend suggests some new constraints on labor demand.

Perhaps the most striking change in the labor force in the past 15 years has been the increase in wage employment with no accompanying increase in the share of formal sector employment (figure 3.2). Between 2000 and 2006, there was little change in the composition of the labor force but in the following eight years the share of the poor and extreme poor in wage employment increased by 32 and 41 percent respectively (figure 3.2). This has largely been driven by a drop in unpaid family work as well as the almost complete disappearance of employers among the poor. However, the shift towards wage employment has not been accompanied by a commensurate change in formality or in earnings. In 2000, informal employment, defined as not having access to social protection, constituted 72 percent of the labor force, and by 2014 this had risen to 82 percent.<sup>2</sup>

Earnings have fallen sharply despite the move to greater wage employment, a clear indication that minimum wage legislation is not binding (table 3.1). Both median monthly and hourly earnings have fallen in real terms for the poor since 2000. This fall has been substantial: almost 9 percent in hourly earnings for the extreme poor and 11 percent for workers in the bottom quintile. Monthly earnings have fallen by even more, indicating an increase in underemployment as the numbers of hours worked has decreased. Again, these findings suggest that there are new and rising constraints on labor demand that will impede poverty reduction.

The poor continue to be concentrated in the agricultural sector—although less so than previously—and the commerce sector (figure 3.3). Between 2001 and 2013, agriculture as a sector grew strongly in Guatemala at 3 percent, just below GDP growth. However, the sector is characterized by a dynamic export sector (exports have grown annually 11.5 percent since

**TABLE 3.1 Earnings Have Declined Over the Last 15 Years**

Percentage change in real median earnings, 2000-2014 (2014 Quetzales)

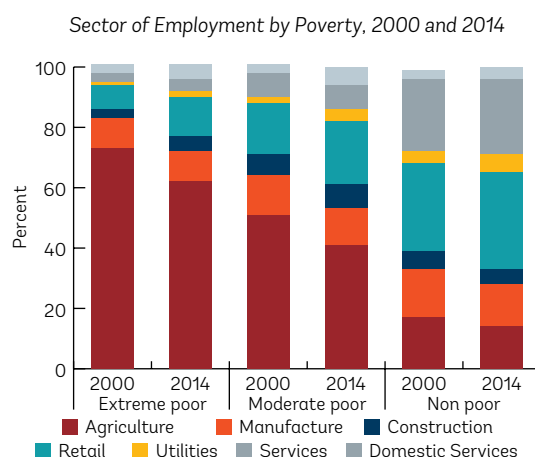
	Monthly	Hourly
Ext. Poor.	-18.3	-8.6
Mod. Poor	-10.4	0.9
Non Poor	-2.4	1.6
Quintile 1	-19.5	-11.0
Quintile 2	-22.7	-2.7
Quintile 3	-14.4	-0.6
Quintile 4	-4.1	4.2
Quintile 5	-9.5	-7.5

Source: Calculations based on the 2000 and 2014 ENCOVI.

Note: Moderate plus extreme poor = overall poor.

2002) and a subsistence sector of minfundistas that has experienced declining productivity.<sup>3</sup> Between 2000 and 2014, median hourly earnings in the agriculture sector fell by 12.3 percent from their already low levels (figure 3.4). A 2013 study that calculated the decomposition of sectoral

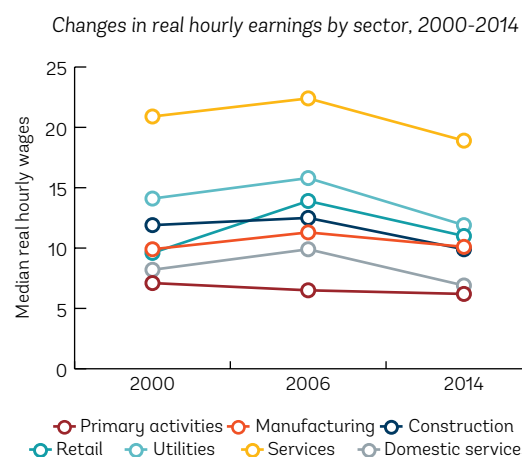
**FIGURE 3.3 The Poor Are Concentrated in Agriculture**



Source: Calculations based on the 2000 and 2014 ENCOVI.

Note: Services includes: financial services, public administration, education, and health services.

**FIGURE 3.4 The Sectors where the Poor Are Concentrated Have Had Recent Declines in Earnings**



Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

Note: Services includes: financial services, public administration, education, and health services.

effects on poverty reduction showed that a rise in agricultural employment was associated with an increase in poverty.<sup>4</sup> An analysis using synthetic panels showed very high levels of chronic poverty among households engaged in agriculture, both in the 2006 to 2014 period and over the longer 2000 to 2014 period.<sup>5</sup> There was a strong rise in earnings in the commerce sector between 2000 and 2006, followed by a steep decline by 2014. For households engaged in commerce in 2000, there was a strong movement out of poverty (18 percent of households) by 2006, but this upward mobility between 2006 and 2014 was more muted (9 percent), reflecting declining earnings in the sector. The agricultural and the commerce sectors account for the majority of informal employment (36 and 29 percent respectively).

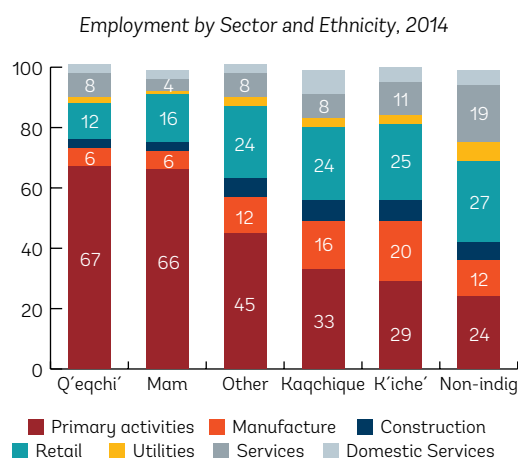
The sectoral composition of the labor force within each ethnic group largely reflects the rural-urban concentration of the groups (figure 3.5). Among the predominantly rural Q'eqchi, 67 percent work in agriculture, while the more urban K'iche have less than half as many working in agriculture. The Kaqchikel appear to have a

slightly different labor force than their Mayan peers. On the one hand, they have a much more diversified labor force than their urban-rural shares would suggest. They are also the group with the lowest share of their labor force (albeit still high) working in the informal sector (78 percent compared to around 90 for the Mam, K'iche, and Q'eqchi).

## Constrained Human Capital Accumulation

**LOW LEVELS OF HUMAN CAPITAL** in Guatemala prevent individuals from accessing high quality jobs and limit poverty reduction. Human capital plays an important role in earnings. Hertz et al. (2008) found that the substantial wage differences between rural and urban areas were largely explained by the differences in the endowments of the two populations, of which education was key. The same was true within the rural sector: the substantial earnings advantage of non-agricultural workers was due mainly to differences in endowments.<sup>6</sup> In 2014, 30 percent of the wage gap between rural and urban areas was explained by differences in education while 37 percent of the gap between indigenous and non-indigenous workers was due to differences in education levels.<sup>7</sup> Human capital in the form of health also influences economic outcomes.<sup>8</sup> An important longitudinal study in Guatemala showed that better childhood nutrition had a substantial positive impact on adult earnings. Males with lower malnutrition as children had earnings, on average, that were 46 percent higher than their more malnourished peers.<sup>9</sup> In the case of Guatemala, where the economy has a limited ability to generate good jobs and the country is characterized by fast population growth, individuals with little human capital are at a particular disadvantage.

**FIGURE 3.5** Employment Varies by Ethnicity with Significant Diversification among the Kaqchikel and Concentration among the Q'eqchi



Source: Calculations based on the 2014 ENCOVI.

The progress that Guatemala has made in terms of human capital accumulation over the last 20 years has not been enough to catch up to its peer countries. The 1996 Peace Accords created an important impetus toward creating a new model of inclusive growth, laying out an overall agenda of inclusive human development with a focus on increasing the capacity of the state and emphasizing the need to promote equity for indigenous people and women. This has led to a realignment of the government's objectives, some re-direction in public spending, and the setting of new revenue targets in the last two decades. There has certainly been some evidence of progress and better outcomes, particularly in educational enrollment and child mortality. However, the program set out 20 years ago has neither been fully realized nor been enough to break historical patterns of inequality of opportunities. Levels of health and education in Guatemala remain below those of its peer countries, and the gaps between groups within Guatemala are sizeable. In education, the notable headway that has been made in enrollment rates and test scores has not been enough to make up for Guatemala's low starting point vis-à-vis other countries. In health, the picture is less positive as some measures show progress while other critical ones related to malnutrition and maternal mortality have changed little if at all. For all measures of human capital, the ethnic gap is striking, and there is often a sizable gender gap as well.

## Malnutrition

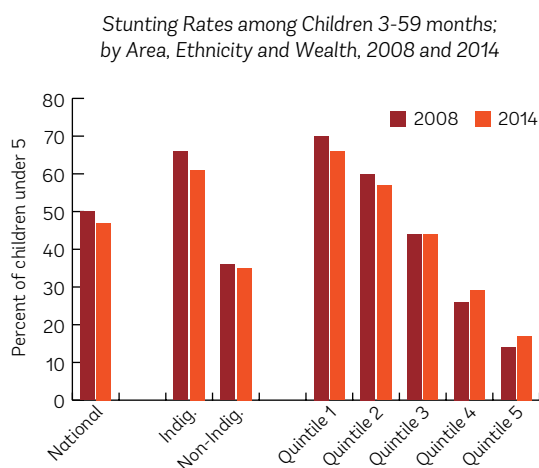
Guatemala is an outlier in the region in terms of chronic malnutrition (stunting). Data from 2014-15 show that almost half of all children in Guatemala (47 percent) are stunted, an indication of the high levels of poverty and inequality in the country (figure 3.6).<sup>10</sup> This rate of chronic malnutrition is higher than that of any of its peers.

Bolivia and Ecuador are the closest, but their rates are only 27 and 25 percent respectively. Among countries that have data on malnutrition since 2010, Guatemala's rate of chronic malnutrition is lower only than those of Yemen, Papua New Guinea, Eritrea, and Burundi, two of which are low-income countries.<sup>11</sup> A smaller but still considerable share of children (12.6 percent) is underweight.

The persistently high chronic malnutrition rates in Guatemala illustrate a lack of the most basic type of human capital - good health. The overall change in both indicators of malnutrition in the past six years has been negligible: stunting declined by only 3 percentage points from its 2008-09 level of 50 percent and underweight declined from 13.1 percent to 12.6 percent. Even within this small positive change, there are some worrying signs. In the 0 to 5 month age cohort, 30 percent of children are stunted, and by the age of 19 to 23 months, stunting increases to 54 percent, a pattern that has not changed since 2000. However, stunting among the youngest group has risen from 22 percent since 2008-09.<sup>12</sup> The differences in stunting rates across wealth quintiles are large, ranging from 66 percent in the lowest quintile to 17 percent in the highest, again a pattern similar to that of previous years. Of concern is the fact that, while the level of stunting among children in the bottom 40 percent has fallen since 2008-09, there has been a small increase for those in the top two quintiles.

Finally, malnutrition rates have actually increased in several departments: in El Progreso and Jalapa stunting rose by 15 and 9 percent respectively (figure 3.7). However, the gravity of the malnutrition story is best illustrated by the fact that, even in the department with the lowest levels of stunting, Guatemala, three out of ten children suffer from chronic malnutrition. In absolute terms, the number of children suffering

**FIGURE 3.6 Malnutrition Rates Remain Stubbornly High**



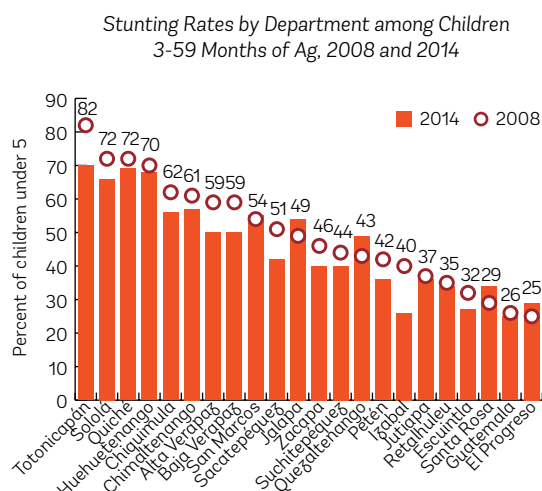
Source: MSPAS et al. (2015)

Note: The ENSMI has neither an income nor a consumption measure: quintiles here are based on wealth as reported in MSPAS et al. (2015).

from stunting has gone up 10 percent since 2008, an increase of almost 100,000 children.

The ethnic and geographic gaps within the country are large although there has been some closing of the gap. Rates of malnutrition remain substantially higher among the indigenous population: almost two of every three indigenous children suffer from stunting (61.2 percent) compared to one in three among the non-indigenous population (34.5 percent). However, the gap has shrunk slightly: since 2008-09, the decline in malnutrition among indigenous people has been greater than among the non-indigenous group (7 and 4.7 percent respectively). Differences between departments continue to be large, with a ratio of almost three to one between the departments with the highest and the lowest levels of malnutrition, but malnutrition has declined slightly in almost all departments. Izabal stands out with a stunning one-third decline in stunting in just six years. Once the new data from the 2014-15 Demographic and Health Survey

**FIGURE 3.7 Changes in Malnutrition Varied with Rates Rising in Three Departments**



Source: Data from MSPAS et al. (2009) and MSPAS et al. (2015)

(ENSMI) are available, it is hoped that analysis of these data will yield insights into how this was achieved and how malnutrition could be reduced nationwide.

Guatemala's progress in reducing chronic malnutrition has been slow. Between 1987 and 2000, stunting went down at a rate of 2 percent annually. In contrast, in Brazil over a similar period (1986-1996) the annual rate of change was 6 percent. Stunting in Guatemala fell to its lowest point in 2000 (44 percent) but rose again by 2008 and has fallen only slightly since then from 50 to 47 percent, an annualized rate well below that of previous years. In terms of underweight (acute malnutrition), after a strong positive change in the early 1990s progress has also been slow in recent years. The slow rate of change in malnutrition rates seems to suggest that recent government programs have been unsuccessful, particularly the *Ventana de los 1000 Días*, which was supposed to improve child outcomes through better pre- and ante-natal care as well as through



strong nutritional interventions. However, it is possible that the program has played a role in the recent positive changes in child mortality (see below), and this result may be confounding the malnutrition findings. If very malnourished children who previously died now survive, the program may be causing mortality rates to fall while increasing malnutrition rates. In the absence of a deeper study of the evolution of malnutrition and child mortality, this remains a hypothesis that needs to be tested.

What is often called “hidden” hunger also affects children and adults in Guatemala. Hidden hunger refers to a lack of micronutrients in children’s diet that impedes their growth and development. In 2014, 53 percent of households reported that, due to a lack of resources, their children ate an unbalanced diet or a diet limited in diversity.<sup>13</sup> Among extremely poor households, this figure rose to 74 percent. Iron deficiencies or anemia, which hinder the intellectual development of children, affect 25 percent of children in Guatemala.<sup>14</sup> While high, this level represents a significant decline since 2008 when the figure was 48 percent. Iodine deficiency affects 14 percent of the population. Of seven countries studied in Latin America, only Honduras had higher levels of deficiency. Fewer than half of all households (40 percent) have access to iodized salt. Thirty-five percent of children under the age of 5 had levels of zinc below accepted norms. Vitamin A deficiencies, which harm the immune system, affected 16 percent of pre-school children in 2009-10. The severity of this deficiency had showed up in an earlier study,<sup>15</sup> which estimated that 1,500 children died annually in Guatemala due to Vitamin A deficiencies. With the exception of anemia figures, no recent analysis exists to update these other indicators of hidden hunger. However, the overall rate of deaths from malnutrition in Guatemala has undergone a

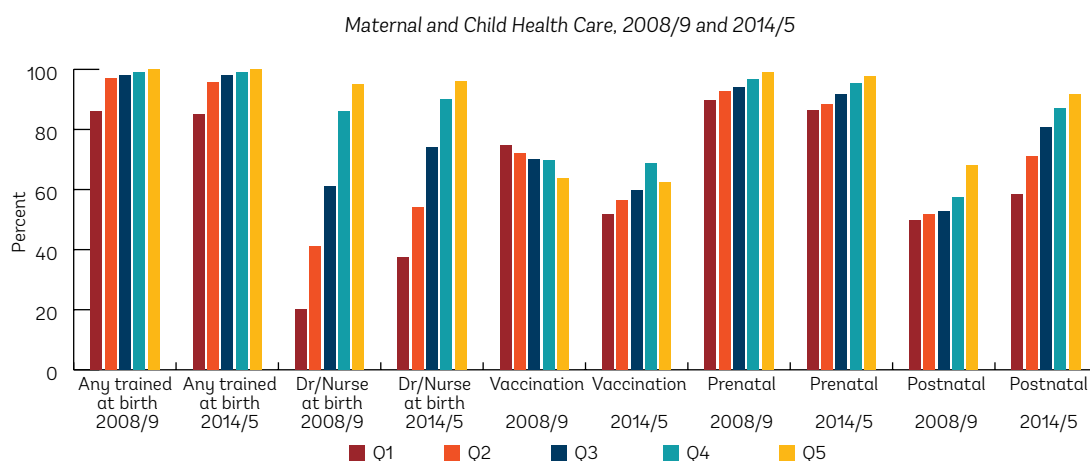
tremendous decline from 20.7 to 11.5 per 100,000 suggesting that there have been improvements in many factors, particularly in the provision of nutritional supplements and supplementary feeding.<sup>16</sup> The Zero Hunger program that explicitly tackles hidden hunger as well as seasonal hunger may be one of the factors contributing to this success.

## Health

Apart from chronic malnutrition, many health indicators have substantially improved over the past 15 years. Guatemala is on track to meet the MDG for under-5 mortality, although there is some evidence that the rate of decline in child mortality is slowing.<sup>17</sup> The share of pregnant women who receive pre-natal care has increased and is on par with the Central American average at 93.2 percent. Life expectancy rates rose by 12 years between 1990 and 2013 to 72 years, and the rate of serious infectious diseases such as tuberculosis decreased from 75 to 60 per 100,000 between 1990 and 2013. Between 2008 and 2014, the share of births attended by doctors or nurses rose as did the share of children who received appropriate post-natal care (figure 3.8). The latter indicator changed considerably, again suggesting that recent government programs have been effective in some areas.

Progress has been made in some measures of maternal and child care, but inequities remain. Changes have often not benefited the poor as much as the non-poor and have yet to fully close the gaps between the “two Guatemalas.” Despite improvements since 2008, in 2014 the majority of births by women from the lowest quintile were still attended by midwives rather than doctors, only one-third of all births were attended by either a doctor or a nurse, and 15 percent of all births took place with no trained assistance at all. In contrast, 96 percent of births in the top

**FIGURE 3.8 Gaps in Maternal and Child Health Care across Wealth Quintiles Are Large and Not All Changes Have Been Positive**



Source: MSPAS et al. (2009 and 2015) based on the 2008/9 and 2014/5 ENSMI.

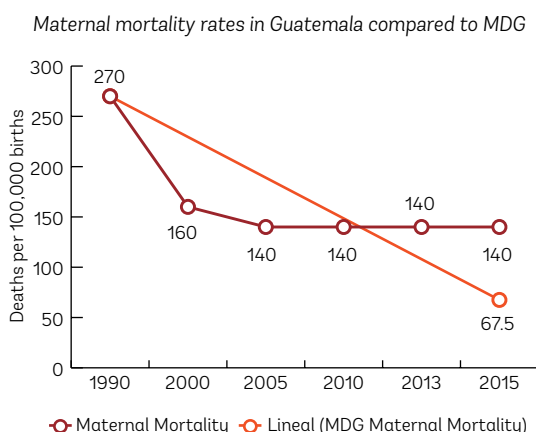
Note: "Any trained at birth" refers to having a doctor, nurse, or midwife in attendance at a birth. "Dr./Nurse at birth" refers to having a doctor, or nurse in attendance at a birth. Full vaccination is defined as a child having received prior to his or her second birthday the measles vaccine, three doses each of DPT and polio (excluding the polio vaccine given at birth), and one dose of BCG. Prenatal care consists of four prenatal care visits. Postnatal is at least one well-child visit after birth.

quintile were attended by doctors or nurses. The recent substantial rise in post-natal care among all groups has actually led to a widening of the gap between the top and bottom quintiles as the rate of improvement among the 3rd and 4th quintiles was three times that of the first quintile. The only indicator for which the poor appear to have an advantage is in vaccinations, but all groups have surprisingly low levels of full vaccination.<sup>18</sup> Levels of vaccination have actually dropped substantially since 2008 contrary to what would have been expected given the intensive government programs to improve child health outcomes and the observed increase in post-natal care. There has been a particularly alarming fall in the rate of measles vaccinations from 78 percent of all children under the age 2 in 2008 to only 63 percent in 2014. The largest declines were for those in the bottom three quintiles. Understanding the causes of this decrease is urgently needed as an outbreak of measles or other diseases could partially erase the

important gains in child mortality that have been achieved to date.

Other health indicators continue to be of concern. Guatemala's maternal mortality rate is the highest in the LAC region. The regional average was 87 per 100,000 births in 2013 compared with 140 for Guatemala (figure 3.9). This rate has held steady for the last 10 years, meaning that Guatemala is far from meeting the MDG on this indicator. Neonatal mortality, while having fallen fairly steadily since 1972, has been resistant to change in the past 15 years, despite the increase in pre-natal care. The burden of ill-health in the country is also uneven. Almost three-quarters of maternal deaths are among indigenous women, and births by indigenous women are half as likely to be attended by a skilled professional as those births by the rest of the female population. Indigenous and rural women are more likely to suffer from anemia than their urban counterparts. While infant mortality rates are falling nationally, they are

**FIGURE 3.9 Guatemala Is Not on Track to Meet MDG on Maternal Mortality**



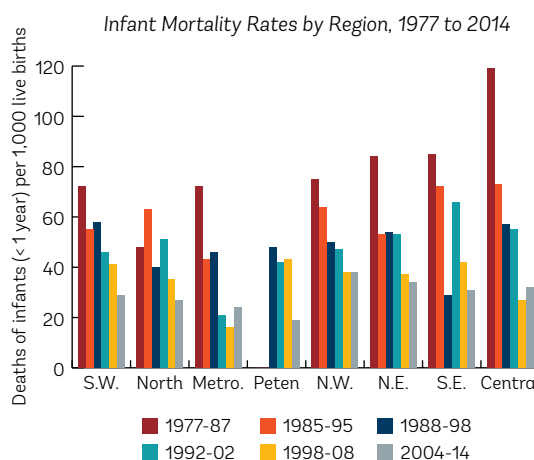
Source: World Bank (2015a) based on WDI.

much higher in the Northwest and the Northeast regions. The rate of decline varies. The rate for the Central region has halved since 1997 and the rate for Petén has halved just over the past decade, but the Metropolitan region has experienced exactly the opposite trend, reflecting the rise in urban extreme poverty discussed in the previous chapters (figure 3.10).

## Education

Guatemala's substantial increases in education levels have exceeded those of its peers. Between 1970 and 2010, Guatemala's rate of increase in years of schooling outstripped most of its peers, with only Bolivia, El Salvador, and Brazil having improved faster (figure 3.11). Overall there has been a significant improvement in schooling: those who have gone through the school system more recently (18 to 30 year olds) have 2.3 years more schooling than the population as a whole. This progress has been evident across most groups, and some of the most disadvantaged have had faster rates of improvement (figure 3.12). In

**FIGURE 3.10 Changes in Infant Mortality Have Been Uneven across Regions**

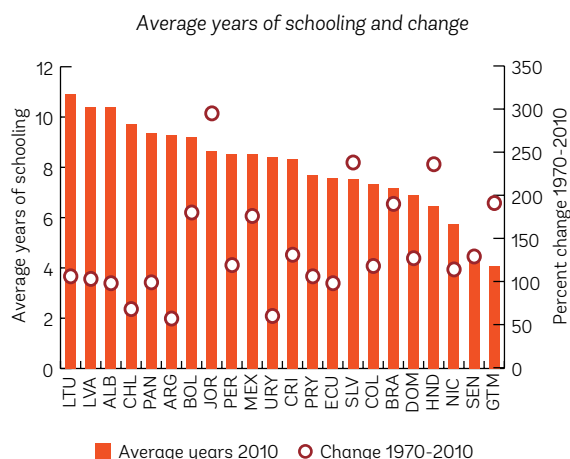


Source: MSPAS et al. (2009 and 2015)

Note: Rates are calculated for the 10 year period prior to each survey date, 1977-1987...2004-2014.

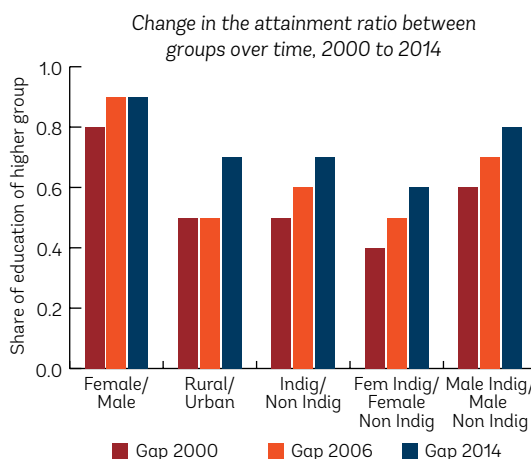
2000, among the 18 to 30-year-old population, women had only 82 percent of the schooling of males, but by 2014 they had 92 percent. The greatest increase was for indigenous women, the most disadvantaged group. In 2000 they had 35 percent of the schooling of non-indigenous males, but by 2014 they had 63 percent. In absolute terms this remains a wide gap but at the same time represents real and positive change. Nevertheless, disparities by location and ethnicity remain striking (figure 3.13). Rural inhabitants have, on average, only 5.8 years of schooling, compared to 8.6 in urban areas. The gap between indigenous and non-indigenous people is 2.4 years of education. Overall, the gender gap is relatively small, just over half a year. However this masks two important features: non-indigenous women have less of a gender gap, having levels of education that are only 0.2 years less than their male counterparts compared to a 1.2 year gap between indigenous men and women. Also, indigenous women have 2.1 years less education than the national average. Despite these short-

**FIGURE 3.11** Guatemala's Level of Education Is Well below Its Peers but Has Been Rising Fast



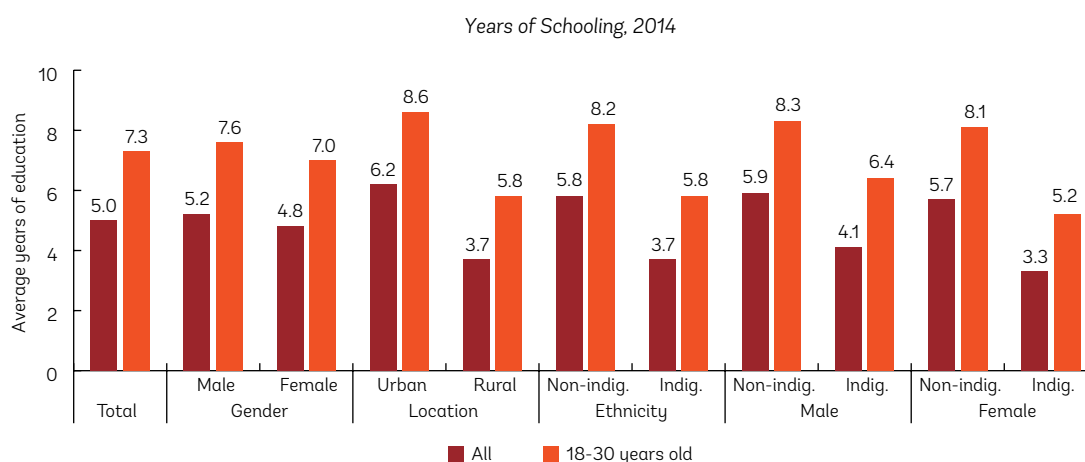
Source: EDSTATS.

**FIGURE 3.12** Some Progress Has Been Made on Closing the Large Gaps in Schooling



Source: Calculations based on the 2000, 2006, and 2014 ENCOVI  
 Note: The share of the groups with the lower level is divided by the share of the group with the higher level.

**FIGURE 3.13** Education Levels in Guatemala Remain Low and Unequal



Source: Calculations based on the 2014 ENCOVI.

comings, if these rates of convergence continue, the historic inequality in education can be erased.

At the primary education level, Guatemala has made significant strides, both in increasing overall coverage and in decreasing inequities in access. In sharp contrast with earlier periods,

there are few differences by location and ethnicity as primary school enrollment became almost universal in 2009. Between 2000 and 2006, the schooling gap due to ethnicity in Guatemala went from around 3.5 years to less than a half year, a significant achievement (Ferreira et al, 2013),

although literacy rates still vary by ethnicity. In 2014, the Q'eqchi had the lowest literacy rates in any language at just under 67 percent (figure 3.15), compared to a national rate of 84 percent. However, they have the highest literacy rates in a Mayan language.<sup>19</sup> The Kakchikel have the highest literacy rate of any indigenous group at 78 percent, which however is 6 percentage points below the national average.

A cause of concern is that universal primary enrollment has declined since 2009. Even since reaching near universal enrollment in 2009 (99 percent) enrollment has fallen and, by 2014, net primary school enrollments had fallen to 82 percent, which was even lower than it had been in 2000. A simple analysis of changes in the role of different factors on enrollment shows that there have been changes since 2000 in terms of geographic areas and ethnicities.<sup>20</sup> In 2000, children outside the Metropolitan region were slightly more likely to attend primary school than those in the Metropolitan region. However, by 2014, this has changed for children in the Northwest, Southwest and Northeast who became less likely to attend school than those in the Metropolitan region. The probability of enrollment among indigenous children overall also declined slightly, and this decline was higher than for groups. There are two hypotheses as to why this change is occurring. First, pre-school attendance also fell, and there is a link between pre-school attendance and the transition to primary school. However, a recent study in Guatemala found that pre-school attendance

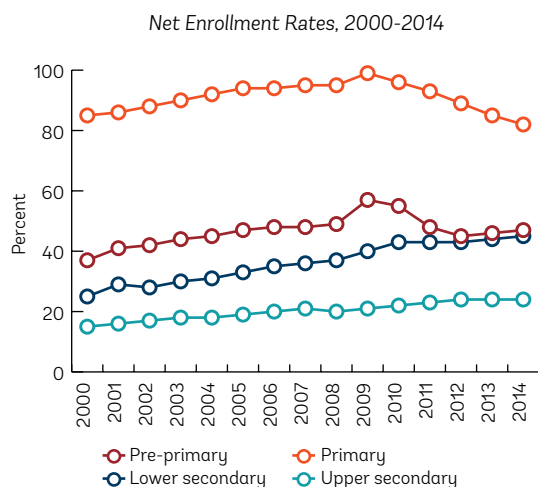
increased the probability of successful completion of primary school by only 2.4 percent.<sup>21</sup> Additionally, the primary school enrollment drop-off preceded that of the pre-school enrollment drop-off, and the pre-school attendance rate has started to recover whereas this is not the case for the primary school rates. This suggests that, while declining pre-school enrolment may have been part of the cause, it is not the only one and, of course this begs the question as to why pre-school attendance fell. A second hypothesis about the changing primary school enrollment rate is that the denominator, or the number of children of school age, is wrong and has become less accurate over time given the large-scale international migration of children. In the absence of a new census this hypothesis cannot be tested. It is hoped that the new census will be fielded soon as understanding and addressing the factors affecting these negative changes in enrollments is critical if recent gains in schooling are not to be lost. Finally, other factors, such as a rising demand for child labor or worsening of the security situation may be affecting enrollment.

Further concerns exist regarding the levels of educational attainment at the secondary level. The share of children aged 15 to 19 years old who have not completed the nine years of schooling mandated in the 1985 Constitution is high (figure 3.16).<sup>22</sup> And only Nicaragua, among Guatemala's peer countries, has a lower secondary school completion rate. Given where Guatemala started, even with the recent increases in secondary enrollment rates, secondary

### KNOWLEDGE GAP

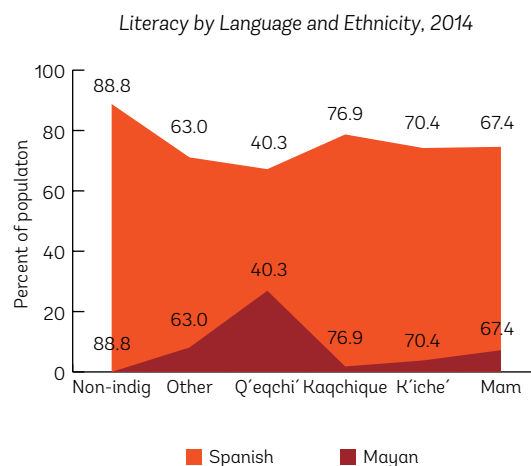
What are the key factors driving the recent decline in primary school enrollments? What role does pre-school attendance play (and why has this fallen), has the demand for child labor risen, or do migration and a worsening security situation play a significant role?

**FIGURE 3.14 Primary Enrollment Became Almost Universal But Shows Signs of Reversal**



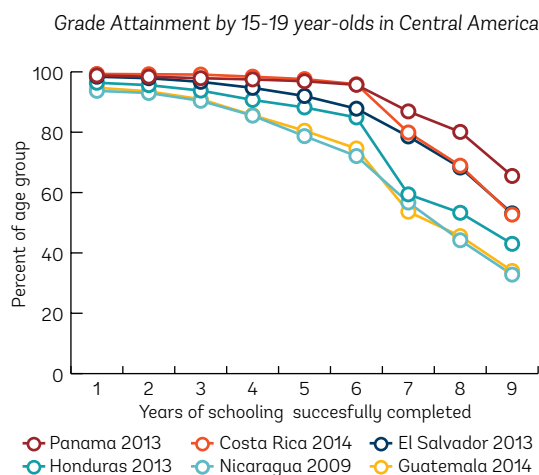
Source: UNESCO, 2014a and Ministry of Education, 2015.

**FIGURE 3.15 Literacy Rates in Both Spanish and Mayan Languages Vary by Groups**



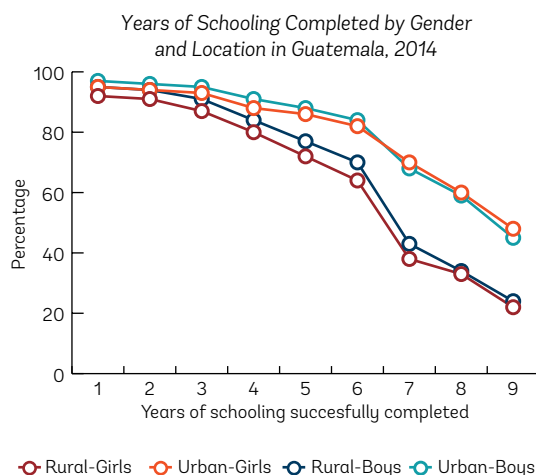
Source: Calculations based on the 2014 ENCOVI.

**FIGURE 3.16 Guatemala Has Low Levels of Educational Attainment Compared to the Rest of Central America**



Source: World Bank (2015) and calculations based on the 2014 ENCOVI.

**FIGURE 3.17 Levels of Completion Are much Lower in Rural Areas, Especially for Girls**



Source: World Bank (2015) and calculations based on the 2014 ENCOVI.

enrollment remains lower than the levels in its peer countries (see Figure 4.32). In Guatemala, the drop-off in enrollment is fairly steep: there is almost universal enrollment in the first grade of primary school, but the rates begin to drop off

very quickly after that. Only half of the enrolled children finish their first year of secondary school. Gross enrollment in secondary school is 65 percent, the lowest in the Central American region, and the net rate of 47 percent is well

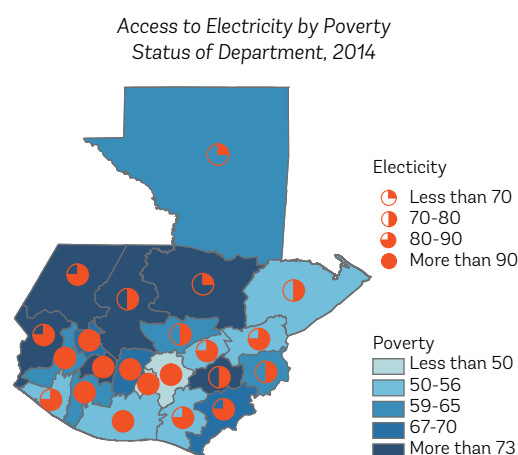
below both the LAC and CA averages. High repetition rates—one in eight primary students repeats a grade—contribute to this low attainment. Critically, the educational gaps after the primary level begin to divide along ethnic, geographic, and gender lines. By the age of 18 the enrollment gap between indigenous and non-indigenous youths is close to 15 percentage points, and there is a 20 percentage point difference between the share of rural girls who complete 9th grade and the share of urban boys who do so (figure 3.17).

## Limited Opportunities: Infrastructure and Services

THE HUMAN CAPITAL OUTCOMES discussed above are affected by inequities in access to basic infrastructure and services. Low and unequal

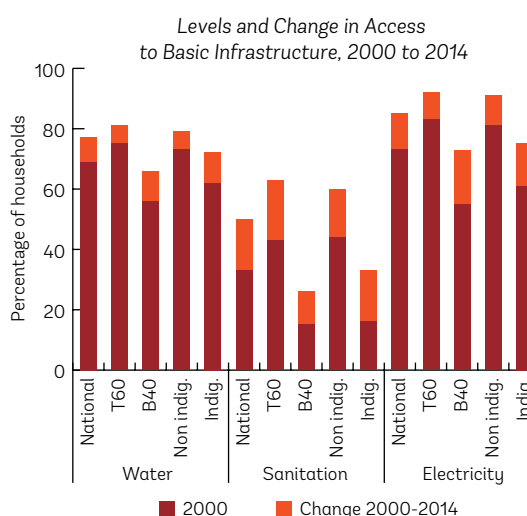
access to basic infrastructure—electricity, water, and sanitation—and services—education, health care, and social protection—persists in much of Guatemala. Access to infrastructure has increased in recent years, but coverage is far from universal. There are clear geographic patterns of access to services (figure 3.18). Those living along the corridor linking the Caribbean and Pacific ports have greater access to electricity, water, and, especially, sanitation, while those in the poorer regions of Northwest, Petén, and the Northeast have significantly fewer services. Guatemala's 90 percent access rate to electricity is the fifth worst in LAC (behind only Honduras, Haiti, Nicaragua, and Guyana). Reflecting the duality in Guatemalan society highlighted in Chapter 1, 97 percent of the population in the Metropolitan region has access to electricity while only 54 percent of the people in Verapaz do. In addition to inequities in physical access to electricity, high electricity prices hinder access to electricity in practice

**FIGURE 3.18 Access to Basic Services Usually But Not Always Reflects Monetary Well-Being**



Source: Calculations based on the 2014 ENCOVI.

**FIGURE 3.19 Access to Basic Services Has Improved in Recent Years But This Has Not Led to Convergence**



Source: Calculations based on the 2000 and 2014 ENCOVI.

Note: Access is defined as: having electricity, running water, a flush toilet or improved latrine in the dwelling.

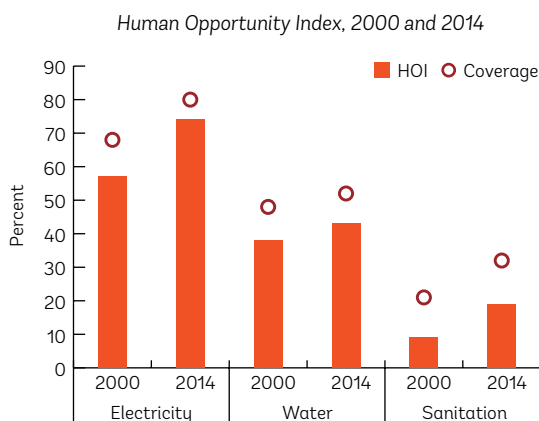
and perpetuate social exclusion. Lower-income households are more vulnerable to high electricity prices because energy expenditures account for a larger share of households' expenditures. In periods of high oil prices, the cost of electricity can become unaffordable for the lower strata of population. Therefore, the recent drop in prices has been a boon.

The share of the population covered by basic services has increased in the past 15 years. Similar to the trends in enrollment rates, access to infrastructure increased more quickly for the bottom 40 percent of the population and for indigenous groups, helping to start to close the gap between the “two Guatemalas.” The provision of basic services largely mirrors the concentration of welfare and population in the departments around the capital, although geographic patterns of coverage are not completely correlated with poverty. Suchitepéquez and Sololá, which have quite high poverty rates, also have high coverage of electricity (although Suchitepéquez

has limited sanitation services and Sololá has little access to piped water). The initial high levels of inequality in service access mean that ethnic and socioeconomic characteristics continue to be correlated with access to basic infrastructure, despite the positive progress that has been made (figure 3.19). Access to sanitation has increased for all groups. This is the service both with the lowest coverage and with the largest gains. However, gaps between groups remain. Even if access continues to expand at recent rates, universal coverage is still not going to be achieved in the short run.

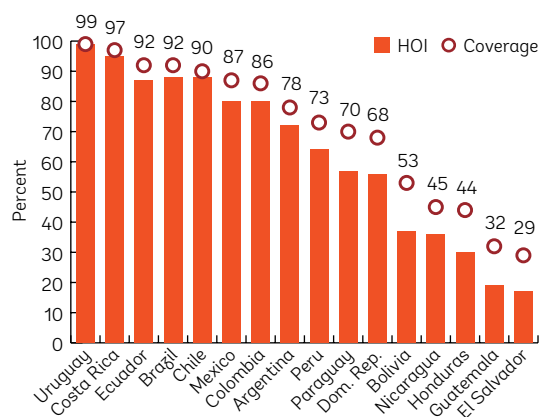
The extent to which a child has access to basic infrastructure in Guatemala depends on the characteristics of his or her household. As shown above, there is an equity gap in access to services in Guatemala due to a lack of universal coverage. There is an additional equity gap that occurs because access to social infrastructure is not evenly or randomly distributed but instead is correlated with specific characteristics of the

**FIGURE 3.20** Circumstances Affect Children's Access to Basic Services



**Source:** Based on the 2000 and 2014 ENCOVI.  
**Note:** Circumstances are location, gender of the child, parental education and income, and ethnicity.

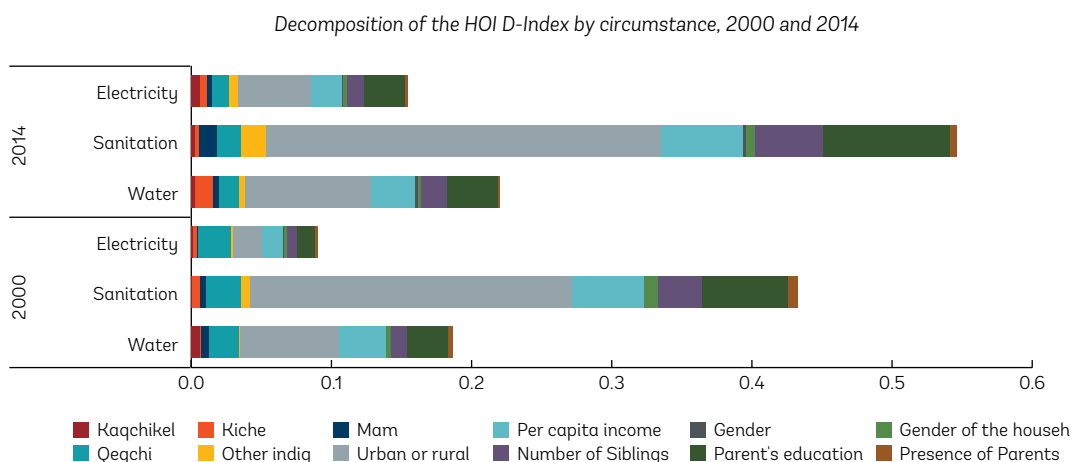
**FIGURE 3.21** Coverage and the HOI for Sanitation Are Particularly Low in Guatemala



**Source:** Lac Equity Lab based on SEDLAC and World Bank, downloaded October 2015. Based on the 2000 and 2014 ENCOVI.  
**Note:** Circumstances are location, gender of the child, and parental education and income. Ethnicity is not included as a circumstance.



**FIGURE 3.22 While Location Is Becoming Less Important in Explaining Access to Services, Ethnicity Continues to Be a Key Explanatory Factor**



Source: Calculations based on the 2000 and 2014 ENCOVI.

population. The World Bank's Human Opportunity Index (HOI), an equity-adjusted measure of coverage, shows that the distribution of service provision is such that household welfare, ethnicity, parental education, and geographic location, among other things, are highly correlated with access (figure 3.20).<sup>23</sup> In 2014, Guatemala had the third highest gap, as a share of coverage, in Latin America for electricity, the fifth highest for water, and the second highest for sanitation. Levels of sanitation remain particularly low in Guatemala although the 2014 figure represented a 17 percentage point increase over 2000 (figure 3.21). The influence of these circumstances on access has diminished over time, in part due to increased service access across all circumstance groups (the so-called scale effect) and in part due to a change in the underlying population, most likely due to increased urbanization. The equalization effect, or increased service provision to previously underserved groups appears as an important factor driving an increase in the HOI for electricity provision. For water and sanitation, the

composition effect is behind the recent improvements in the HOI. The small equalization effect suggests that inequities will persist as there will be slow convergence of coverage rates among groups.

The improvements in the HOI reflect changes in the role played by different circumstances in explaining unequal access (figure 3.22). The significance of living in an urban area has declined, reflecting both the expansion of services beyond cities and the growing share of the population living in cities. Parental education and income also have decreased in importance. Ethnicity, in contrast, has increased in importance: a child of the Q'eqchi people continues to have a lower probability of accessing services than other indigenous groups and the gap between Q'eqchi children and other indigenous groups has widened. The evidence for other indigenous groups is mixed, with some appearing to have gained and other to have lost in terms of access to these basic services.

Access to health care is also limited, and geographic disparities persist. Health care

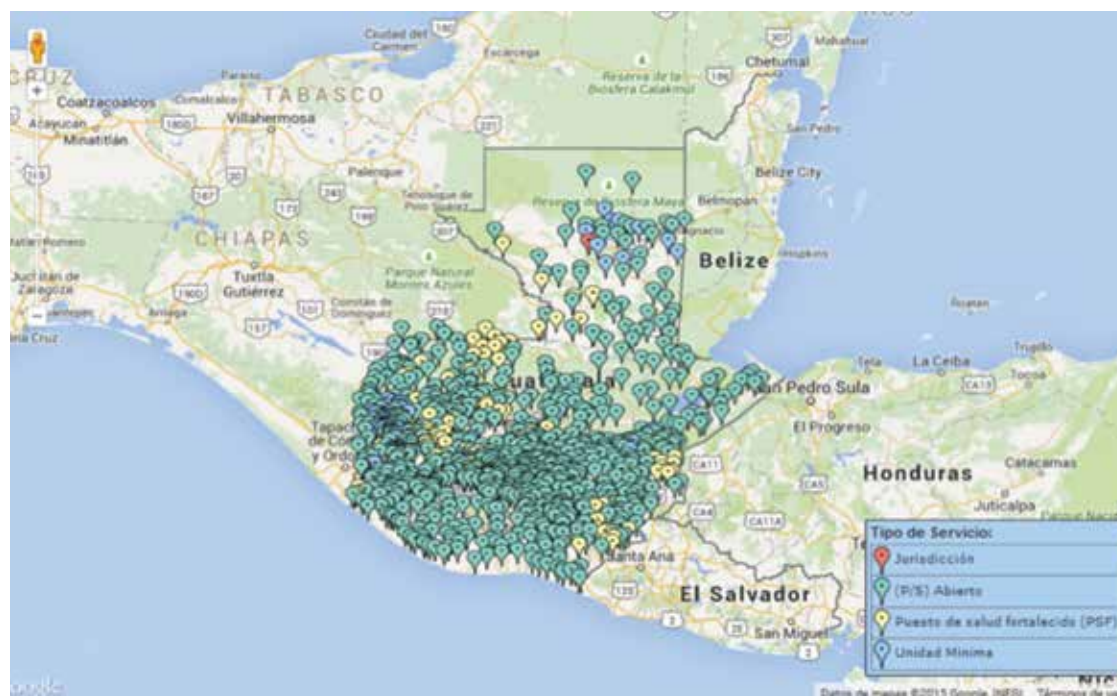
infrastructure has increased in the past 25 years. The number of primary health facilities, those used most by the poor, has increased by 44 percent since 1990, and primary health centers with beds for maternal and child health services have increased by 67 percent. The greatest increases came after the Peace Accords. However, the overall provision of health services is still low, and there are sharp inequities in this provision. The ratio of health facilities to population varies across the country, with the Northern and Central regions having the lowest ratios. There are many fewer facilities in the Northwest where a large share of the country's indigenous and rural populations lives. In the Petén area, also a poorer region of the country, primary health care facilities offer only a limited range of services

(figure 3.23). The departments with the lowest facility to population ratios are Alta Verapaz (0.38 health posts per 10,000 inhabitants, well below the standard of five health posts per 10,000 inhabitants) and Guatemala City (0.26).

The provision of health care in remote rural areas has increased although recent events may have changed this trend. An estimated 4.5 million people in remote rural areas rely on a basic package of health services provided under the Coverage Expansion Program (*Programa de Expansion de Cobertura* or PEC). Under this program, the government contracted with private and non-governmental agencies to provide a basic package of health care via a mobile health system that visits each community once a month. The program has expanded access to health care

**FIGURE 3.23 The Distribution of Health Facilities Perpetuates Inequities in Health**

*Distribution of Primary Health Posts in Guatemala, 2013*



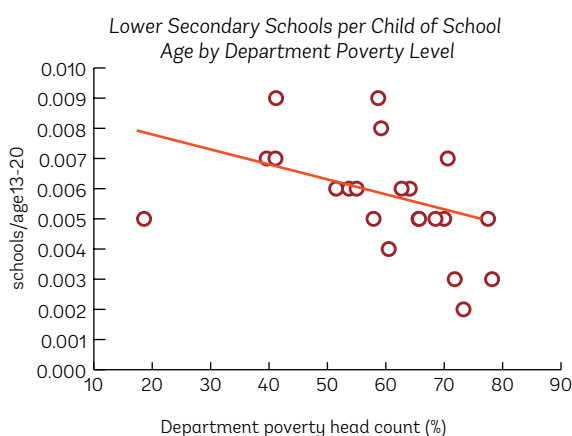
Source: Ministry of Health, 2015 as cited in World Bank (2015a).

and may be credited with contributing to the improvements in health outcomes of recent years. At its inception the program was meant to be temporary, and the government is now rolling out a replacement program. However, the transition has not been smooth. In mid-2014 the government moved to close down the PEC. Of the 390 PEC contracts that were signed in 2014, 72 contracts were suspended in Huehuetenango, Jutiapa, Southwest and Northern Petén, Izabal, Totonicapán, Quetzaltenango, Quiché, Chimaltenango, Northwest Guatemala, El Progreso, Alta Verapaz, and Chiquimula, leaving approximately 2.3 million people with no access to health care.<sup>24</sup> As a result, the number of health care visits nationally dramatically declined in 2014.<sup>25</sup> In February 2015, the Ministry of Public Health (MSPAS) cancelled the remaining PEC contracts, leaving a gap in service coverage until April 2015 when the MSPAS started rolling out its new primary health care (PHC) model using mobile health teams comprised of MSPAS staff rather than NGO staff. By June 2015, however,

this new PHC model only covered 48 percent of communities in Guatemala.

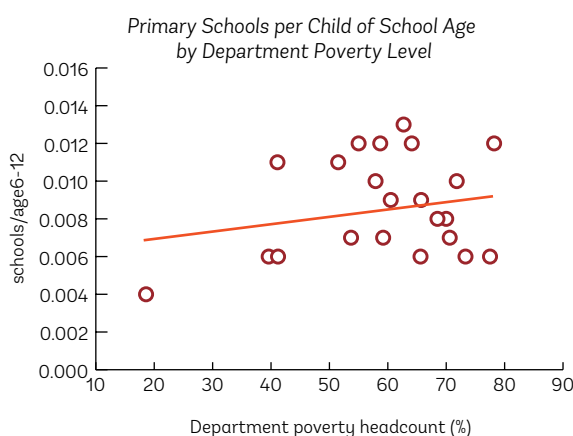
Education services are also not evenly distributed nor are they accessible to all children. At the primary school level, public provision of schools is fairly even. Bilingual education has increased, and 24 percent of all primary schools offer bilingual education.<sup>26</sup> Nonetheless, Guatemala has the third highest HOI coverage gap in Latin America, suggesting that inequities remain. Also, there are many barriers to accessing the secondary and tertiary levels. First, the distribution of secondary schools is less even than that of primary schools, and, as might be expected, areas with low population density are under-served. Given the correlation between poverty and rural areas of low density, this means that the distribution of secondary public schools penalizes the poor. At the departmental level, the poorer the department, the lower the number of secondary schools on a per capita basis (figure 3.24). The reverse is true for primary school coverage, reflecting in part the smaller size of rural primary

**FIGURE 3.24** The Distribution of Secondary Schools Underserves Poor Areas



Source: Calculations based on the Education Census Data from the Ministry of Education.

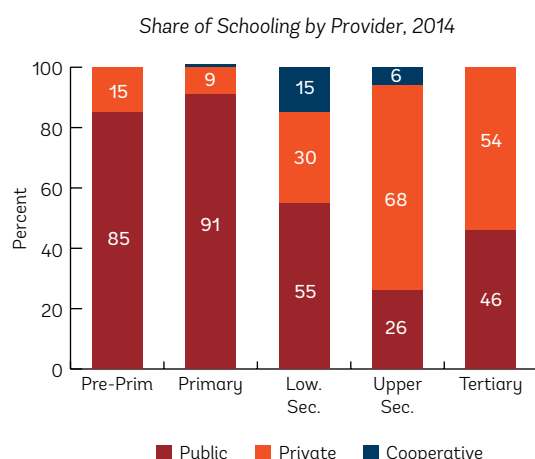
**FIGURE 3.25** The Distribution of Primary Schools Is Pro-Poor



Source: Calculations based on the Education Census Data from the Ministry of Education.

schools (86 students on average) than urban ones (243 students) (figure 3.25).

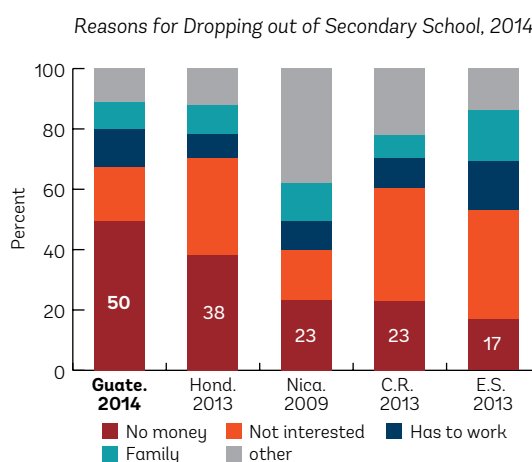
**FIGURE 3.26 Private Schooling Is More Prevalent at Higher Educational Levels**



Source: World Bank (2015) using the 2014 ENCOVI.

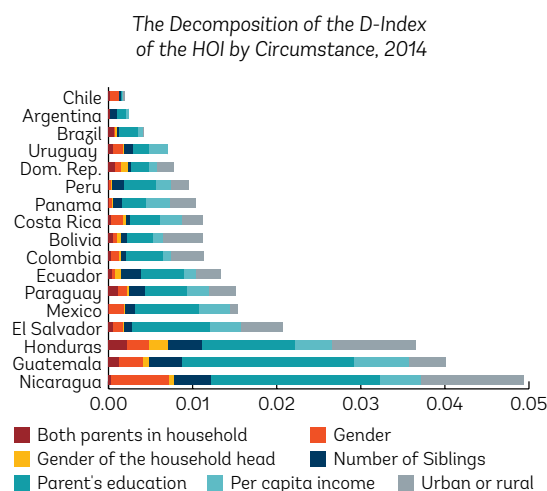
Additionally, at the secondary and tertiary levels a significant share of schools are run by the private sector (figure 3.26). As of 2014, public

**FIGURE 3.27 Costs Are a Barrier to Schooling**



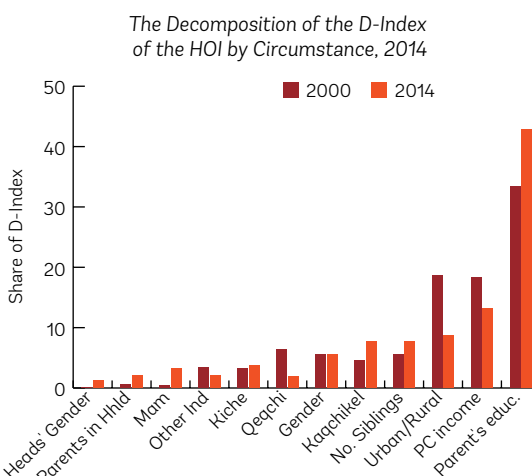
Source: World Bank (2015) using the 2014 ENCOVI for Guatemala. Note: Other includes: school does not offer appropriate grade, pregnancy, repetition, and illness.

**FIGURE 3.28 Parental Education Is More Important in Explaining a Child's Education Than Location or Household Income**



Source: LAC Equity Lab based on SEDLAC and World Bank, downloaded October 2015. Note: Country data from 2012 or closest year. Guatemala data comes from the 2014 ENCOVI. To allow comparisons with other countries, ethnicity is not included as a circumstance here.

**FIGURE 3.29 The Role of Parental Education on Enrollment Has Risen While Other Factors Have Fallen**



Source: Calculations based on the 2000 and 2014 ENCOVI.

secondary schools provided education to just over half of the lower secondary school students. This is the case even though it is mandated in the Constitution that this level of schooling be both mandatory and free. At the upper secondary level, only 26 percent of all students receive education provided by the state. At the tertiary level, there is only one public university, which accounts for just under half of all tertiary-level students. The cost of the private provision of schooling is a barrier to access. Half of the students who drop out of secondary school in Guatemala do so for reasons of money, the highest rate in Central America (figure 3.27).

Parental education continues to be the key determinant of a child's school enrollment, which reflects a lack of intergenerational mobility in terms of education (figure 3.28). This is not unique to Guatemala as other countries in the region show similar patterns. Nonetheless, given the low levels of education in Guatemala, the effect of this is particularly negative. The impact of parental education has grown over time, while household income and location have decreased in importance. Ethnicity continues to explain enrollment although change has varied by indigenous group. The effect has shrunk over time for the Q'eqchi but risen slightly for the other Mayan groups (figure 3.29).

## The Role of Spending and Institutions in Limited Opportunities

### Ineffective Spending

Spending patterns affect the government's ability to provide universal access to basic services.<sup>27</sup> Typically, governments use fiscal policy to redistribute spending to the poorer segments of

the population with the goal of lowering poverty and inequality and equalizing opportunities. In Guatemala, however, the fiscal system fails to do this. In part this is because of the very low level of revenues that are collected, which puts considerable limits on what can be spent. Even within this tight budget envelope, however, the fiscal system does little in the way of closing the income gaps or removing inequalities in Guatemala. Fiscal policy (direct and indirect taxes and transfers) has no effect on national inequality as measured by the Gini coefficient. Only when in-kind benefits from health and education spending are taken into account does the Gini decline by 0.024 to 0.53, a very small change. Brazil, which started with a similar level of income inequality as Guatemala, has achieved a decline of 0.14 in its Gini, and Costa Rica has lowered its inequality by 0.12 percentage points. In terms of poverty the impact is worse. Overall fiscal policy has actually led to an increase in poverty. The few transfer programs that are progressive (direct transfers that are both pro-rural and pro-indigenous) are small and have been reduced further since this analysis was done, and their benefits are offset by the fact that a large share of tax revenues comes from consumption taxes (see Chapter 4 for details). Households whose incomes fall between the international extreme poverty line of US\$1.25 per capita per day and the LAC extreme poverty line of US\$2.5 per day are net payers into the fiscal system. Nor does the system close the gaps between ethnic groups. The market income of the indigenous population has been calculated to be only 32 percent of that of the non-indigenous, and after all taxes and transfers had been taken into account, this only changed by 1 percentage point. While the conditional cash transfer program is pro-indigenous, total education spending and health spending are not and represent a much higher level of spending. Finally, fiscal policy does little to equalize opportunities in

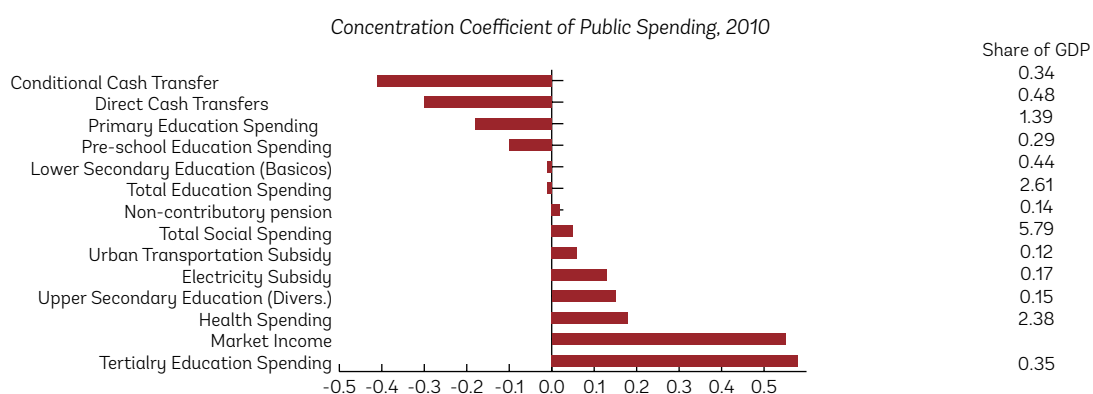
Guatemala, again in contrast with Brazil, where the government was able to use fiscal policy to equalize opportunities.

Overall, spending on education is only slightly progressive in Guatemala (figure 3.30). As might be expected, pre-school and primary spending is the most progressive whereas tertiary spending is quite regressive. Upper secondary school spending is skewed toward the non-poor, but it is less inequitably distributed than overall (market) income. However, tertiary education spending is more unequal than income equality overall. The amount spent on tertiary education is only a one-seventh of total education spending but, combined with upper secondary spending, benefits the upper income groups to the extent that it is almost enough to make all education spending regressive.

There is evidence that public spending on education is ineffective and inefficient. Concerns about the quality of education center on the poor scores that Guatemalan students achieve on international tests. Although these scores improved between 2006 and 2013, Guatemala still scores below the Latin American average on 3rd and 6th grade reading and math (figure 3.31).

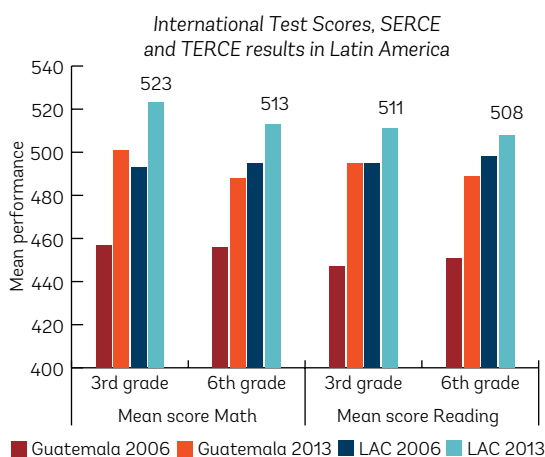
Only the writing of 6th grade students outperforms the Latin American average. Data from the Ministry of Education (MINEDUC) show that the quality issues affect all grades: only one in four upper secondary graduates has achieved the standard level in reading, and only 10 percent have achieved the equivalent in mathematics (World Bank, 2015). Further concerns about educational quality are raised by Guatemala's extremely high repetition rates. As will be noted in Chapter 4, one out of every eight primary school students repeats a grade in Guatemala, almost double the rate in El Salvador, the country with the next highest rate. Only 62 percent of children finish sixth grade on time, another indicator of quality issues. While this represents significant progress since 2000 when just 37 percent of Guatemalan children finished sixth grade on time, only Nicaragua and Honduras have lower levels. The quality of education available to children is also related to the child's circumstances. One proxy for education quality, the share of children who finish 6th grade on time, is low in Guatemala. However, the equity-adjusted level (using the HOI) was only 56. Ethnicity is one circumstance that is particularly

**FIGURE 3.30 Not All of Public Spending Is Progressive**



Source: Cabrera et al. (2014).

**FIGURE 3.31 Despite Improvements, Learning Outcomes below LAC Average**

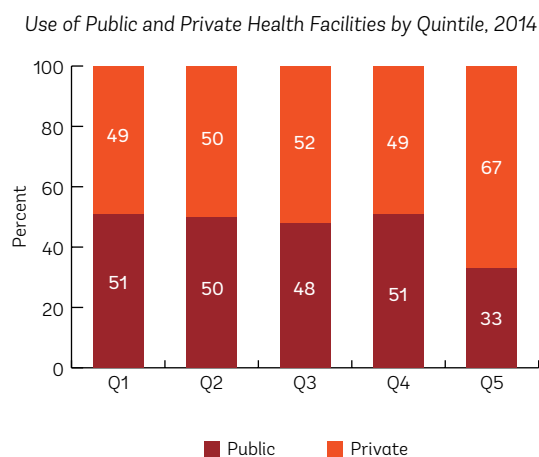


Source: EdStats.

strongly related to finishing 6th grade on time and whose impact has increased over time.<sup>28</sup> Previous studies have estimated that anywhere between 17 to 69 percent of the gap in schooling outcomes between indigenous and non-indigenous children is due to differences in the quality of schooling that they receive.<sup>29</sup>

As shown above, overall public spending on health care is regressive (figure 3.30).<sup>30</sup> This is true despite the fact that the vast majority of individuals in the upper quintiles of the income distribution use private health care. However, they also use the services provided by the Guatemala Social Security Institute (IGSS) while poorer households are much more likely to use MSPAS facilities for health care. Per capita spending by the MSPAS is only one-fifth to one-fourth that of the IGSS, which has led to inequities in the quality of care and to the overall regressiveness of public spending in this area. The use of private health care by not only the rich but also the poor is high, indicating a lack of access to public health services and, perhaps, to the perception of quality differences (figure 3.32). In

**FIGURE 3.32 Even the Very Poor Use Private Health Services**



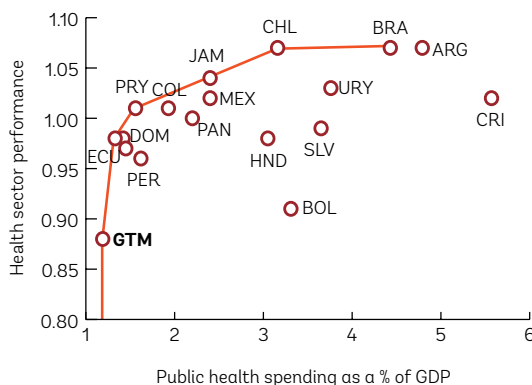
Source: Calculations based on the 2014 ENCOVI.

indigenous communities, the lack of health professionals in the public system who speak indigenous languages is another barrier to accessing good health care.

A recent World Bank analysis has also suggested that health spending is inefficient. The study found that simply increasing the efficiency and not the amount of spending could create gains of the order of 12 percent in terms of decreasing infant mortality and chronic malnutrition and increasing child measles immunization coverage (figure 3.33).<sup>31</sup> And while public health spending is correlated with decreasing child mortality, spending levels seem to have little impact on malnutrition levels, perhaps reflecting the myriad factors that affect malnutrition beyond access to health care (figure 3.34). Inefficiencies stem from a lack of coordination among institutions that has led to duplication of efforts and a lack of economies of scale that could lower the costs of medical supplies and drugs. In addition, while the MSPAS has been piloting results-based budgeting for maternal and child health services since 2012, overall budgeting still



**FIGURE 3.33 Inefficiency: Health Spending and Outcomes**



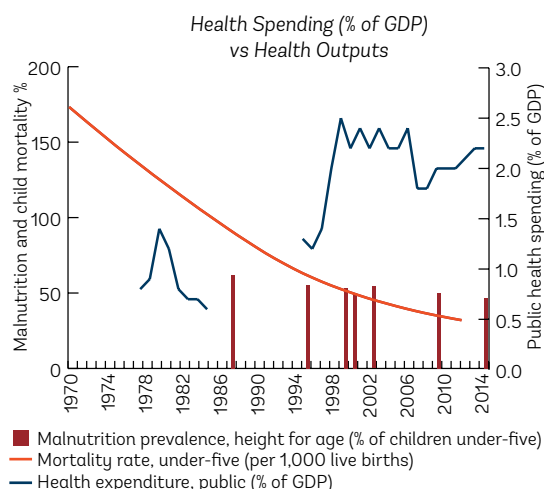
Source: World Bank (2015a).

tends to be historical, based on existing services and infrastructure with some adjustments for inflation, further contributing to inequities. Inadequate controls on procurement and little accountability have also led to the misuse of funds, with some particularly big cases having been reported recently involving high-level authorities such as the IGSS Board and a former Minister of Health.

### Inadequate Spending

A further limitation on human capital formation in Guatemala is simply that spending is too low. Guatemala spends a significantly lower amount on education as a share of GDP than its peers (figure 3.35). Public education spending has increased as a share of GDP, reaching 3 percent at its peak in 2010, up from 2.7 in 2007.<sup>32</sup> However, on a per capita basis, spending has actually declined since 2009 by almost 13 percent in real terms, which reflects population pressures, the

**FIGURE 3.34 Health Spending Has Little Impact on Malnutrition Rates**



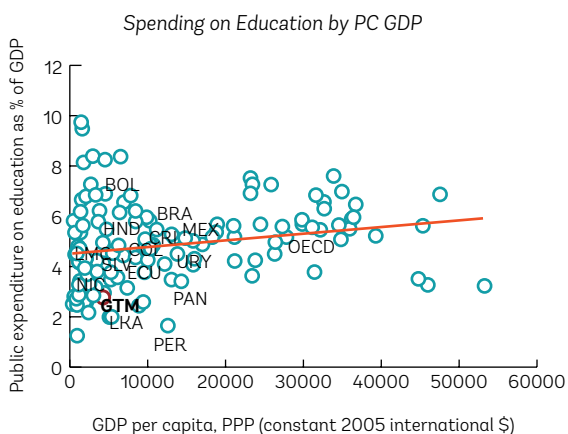
Source: Calculations based on World Development Indicators, World Bank (1985) for spending 1978-1985, World Development Indicators for spending 1993-2006, and World Bank (2015) for spending 2007-2014.

expansion of coverage, and a slight dip in spending as a share of GDP. This is unfortunate given the clear, historical correlation between spending and outcomes (figure 3.36).

The government has made a strong spending commitment to pre-primary and primary education, but this appears to have come at the expense of secondary education.<sup>33</sup> Public spending on these two lower education levels amounts to 61 percent of total education spending, which is higher than that of all but one other Central American country. Between 2007 and 2013, per capita spending on pre-primary and primary students rose, with pre-primary spending increasing by over 60 percent (from US\$272 to US\$446) and primary increasing by 6 percent (from US\$480 to US\$509). Meanwhile, enrollments also rose (by 11 percent in pre-primary and 2 percent in primary). The net effect was to substantially increase the amount of resources going to these two levels. However, given the



**FIGURE 3.35 Education Spending Is Low in Guatemala**

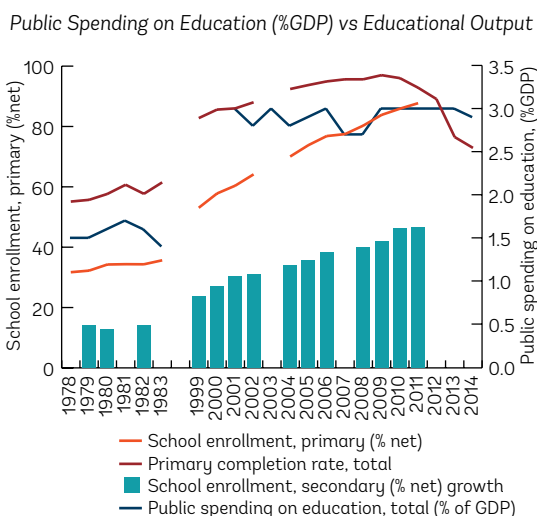


Source: World Bank (2015).

limited overall budget envelope available for education, this resulted in a drop in per capita secondary spending of 12 percent as enrollments rose while the overall level of spending remained the same. The low spending on secondary students (just under half of that spent on primary students) is a serious barrier to increasing secondary enrollment and to improving the quality and equity of secondary education. At the lower secondary level, many of the richer students opt for private schooling, an option which is not available to poorer students. Among young people not attending secondary schooling, 46 percent cite a lack of resources as the principal cause, well above the 17 to 23 percent figures in El Salvador, Costa Rica, and Nicaragua.

Levels of spending on health are too low to provide adequate health care to the population. In comparing actual levels of services to the facility-to-population standards, recent data from the MSPAS have shown that the number of

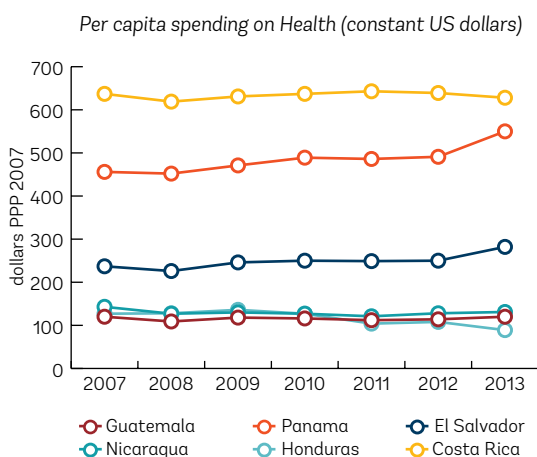
**FIGURE 3.36 Spending on Education Has Been Effective**



Source: Calculations based on World Development Indicators, World Bank (1985) for spending 1978-1985, World Development Indicators for spending 1993-2006, and World Bank (2015) for spending 2007-2014.

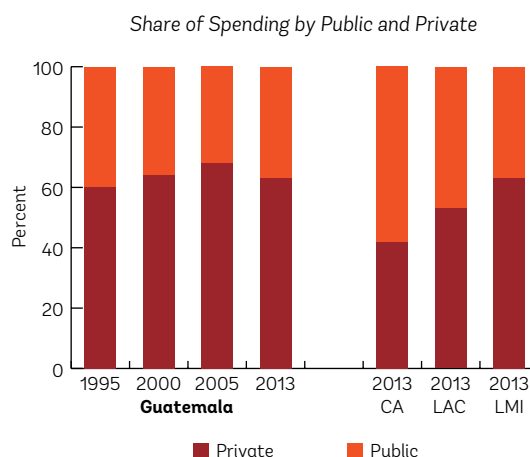
health posts in 2013 was only enough to supply a population one-fifth the size of Guatemala's and that secondary-level health facilities would be adequate for a population one-quarter the size of the present one. In short, even if public health was perfectly targeted to the poor, only one-half of the poor would have access to secondary health services and even fewer to primary health care. The government has made an effort to direct more spending to health care: as a share of GDP, health care spending has increased from 1.8 percent of GDP to 2.2 percent between 2007 and 2013. However, given the increase in the population during that time, per capita spending remained flat (figure 3.37). This level of spending is among the lowest in Central America. Importantly, private, out-of-pocket expenditures in Guatemala are quite high, substantially higher than in LAC and in other lower-middle-income countries (figure 3.38).

**FIGURE 3.37 Spending on Health Is Low and Has Not Changed in per Capita Terms**



Source: World Bank (2015a).

**FIGURE 3.38 Private Expenditure on Health Care Is High**



Source: GT MSPAS: National Health Accounts (2015) and WDI (2013) as cited in World Bank, (2015a).

Note: CA is Central America, LMI is lower-middle-income countries.

## Inadequate Institutions

The negative effects of inadequate social spending are compounded by Guatemala's weak institutions. The overall institutional weaknesses in the country further limit the ability of the line ministries to provide quality services. The way in which budgets are determined provides little room for empirically based policymaking.<sup>34</sup> Aside from the results based budgeting (RBB) agreement piloted between the MSPAS and the Ministry of Finance for child and maternal health and nutrition related services, the budget process is largely driven by historical budget trends, thus maintaining traditional inequities in spending and impeding efforts to target spending to poorer areas or populations. At the same time, considerable uncertainty is created by the budget process itself. The variation in the composition of the executed budget compared to the original allocation was double the international standard in 2011. For the Ministry of Education, this meant that the end of year budget in 2008 was 9 percent

below the original approved budget: in 2010 it had been 23 percent higher. For the Ministry of Health, the differences were also large - minus 8 percent in 2008, 11 percent in 2009, and 13 percent in 2011. This variation in available resources, combined with delays in releasing budget funds each year, makes it difficult for the line ministries to plan and to follow through on their policy objectives. Budget delays also affect the RBB implementation.

The institutions within each sector are fragmented and have limited oversight. In the case of health, a lack of coordination within the health sector has contributed to the inefficient use of resources. The MSPAS lacks resources to cover a large portion of the population and the IGSS mainly provides services to Guatemala City. The fragmentation of systems increases costs. While there are recent efforts between the MSPAS and IGSS to jointly purchase certain medicines with other countries in Central America, further coordination is needed (e.g. having a single medicines list and standardized bidding

documents, and having an integrated public policy on medicines) to increase economies of scale in medicines and equipment purchases. In addition, although the MSPAS has piloted integrated service delivery networks in some areas, the overall patient referral and counter-referral systems remains weak leading to overuse of expensive tertiary care services. At the same time, the MSPAS has neither the resources nor the capacity to carry out its supervisory role of the sector. A similar situation exists in the education sector where legal issues are affecting the ability of the education system to provide high quality services. The 25-year-old Education Law still lacks the bylaws needed to formally define the responsibilities of the different actors in the sector, which has led to fragmentation and inefficiencies in the system.<sup>35</sup> The existence of a series of newer laws enacted since 1991—the 1995/96 Peace Accords, the current Law of the Executive Power (Community Participation), and the regulatory framework for decentralization—further complicates the issue of institutional responsibility and also requires institutional strengthening at the local level.

Institutions have weak monitoring and evaluation systems and this affects the costs and quality of the services provided and limits accountability. Institutional fragmentation is mirrored in their information and monitoring systems. In the social sectors, for example, there are pieces of a strong monitoring system but there is no coordination mechanism. In the education sector, data are collected and disseminated on standardized tests scores and on the characteristics of all schools. Legislation is in place for teacher evaluations to be carried out as well. However, these systems are not linked, teacher evaluations do not take into account the learning outcomes of their students, and the data are not used systematically in policymaking. In the health sector, progress has been made in

terms of creating a unified management information system (MIS) and of increasing accountability. To date, the MIS has linked together the Hospital Information System and the Health Management Information system (SIGSA). A new database on staff is being created by MPSPA to form an Integrated Human Resource Information System (IHRIS). However, there are still gaps in the system that limit both quality and outcomes. Improving monitoring and evaluation systems is also a key to increasing transparency and accountability in the health system, which continues to face challenges on this front. The new census of public employees that is under discussion by the government that will collect and link information on contractors, employees, and procurement systems is a concrete step towards increasing transparency in the sector and also, it is expected, the effectiveness of spending.

## The Link between Limited Opportunities and Poor Human Capital Outcomes

**THE LOW LEVELS OF SERVICES AND INFRASTRUCTURE** in Guatemala play an important role in the country's high and persistent levels of malnutrition. The UNICEF framework (1990) highlights the role that environmental factors such as access to water and adequate sanitation play in determining malnutrition rates, along with food security and dietary diversity, health care, and child care practices.<sup>36</sup> (Potentially important data on food contaminants could not be included; see Box 3.1.) Using data from the 2008/9 ENSMI (as data from the 2014/5 survey round were not yet available) and following the method developed in Skoufias (2015), we constructed a measure of adequacy for each of these four factors and cal-

**TABLE 3.2 Correlates of Malnutrition, 2008-09**

	National	Urban	Rural	Bottom 40	Top 60
Adequate Food	0.167* (0.092)	0.023 (0.129)	0.298** (0.123)	0.288** (0.139)	0.002 (0.117)
Adequate Care	0.239*** (0.076)	0.133 (0.118)	0.350*** (0.100)	0.215 (0.137)	0.180* (0.095)
Adequate Environment	0.546*** (0.074)	0.312** (0.140)	0.388* (0.206)	0.426*** (0.155)	0.259*** (0.089)
Adequate Health	0.059 (0.054)	0.127 (0.089)	0.005 (0.066)	-0.101 (0.071)	0.173** (0.080)
Constant	-1.878*** (0.045)	-1.699*** (0.131)	-1.961*** (0.050)	-2.034*** (0.051)	-1.550*** (0.070)
Observations	3,670	1,376	2,294	1,953	1,717
R-squared	0.044	0.010	0.018	0.014	0.019

Source: Calculations based on the 2008-9 ENSMI.

Note: The dependent variable is the height for age z-score for children age 0-23 months.

### **BOX 3.1 Is it Food Contamination? What Role do Mycotoxins Play in Malnutrition in Guatemala?**

One unknown in Guatemala is the role that mycotoxins (aflatoxins and fumonisins, fungi that contaminate corn and other food crops) are playing in chronic malnutrition. Neither the UNICEF framework nor the analysis done in this study address the issue of mycotoxins.

Aflatoxins and fumonisins are naturally occurring toxins produced by certain fungi. In high doses, they can lead to serious illness and even death in both humans and animals. These mycotoxins mainly accumulate on crops and grains in tropical regions and contaminate a wide variety of food crops and products, such as maize, peanuts, sorghum, and cassava. In corn, the fungi infect plants both prior to and after harvest. Poor growing conditions as well as inadequate storage conditions promote the growth of the fungi. The toxins pose serious health risks to humans and are closely linked to liver cancer and the suppression of the immune system, thus increasing exposed individuals' vulnerability to other diseases. More recently, significant negative effects of aflatoxin on child growth have been reported (see Khlangwiset et al, 2015 for a review of the evidence on both child outcomes and livestock, while IITA, 2015 cites studies showing that stunting was 40 percent more frequent in areas with high aflatoxin contamination). Exposure to these mycotoxins can begin in utero and continue throughout life.

In 2015 the International Agency for Research on Cancer (IARC) highlighted that, taken together, the few well-documented population-based studies and the mechanistic data in relevant animal models

Box continues next page

### BOX 3.1 continued

suggest that mycotoxin exposure contributes to stunting, both independent of and with other risk factors. IARC suggested the need for further longitudinal studies of mycotoxin exposure and child stunting, including studies of the underlying mechanisms.

There is evidence of aflatoxins and fumonisins in Guatemala. A study in 1976 indicated high levels of aflatoxins on the Pacific Coast (De Campos and Olszyzna-Marzys, 1979). A follow-up study in 1979 (De Campos et al, 1980) showed one in six corn samples to be contaminated with levels of aflatoxin well above acceptable levels. A 2002 study (Truckess et al, 2002) found aflatoxin contamination in samples of INCAPARINA, a high-protein, corn and cottonseed-based food supplement given to an estimated 80 percent of children in Guatemala in their first year of life. Most recently, another small study done by the Full Belly Project in 2012 (Pawloswski) found evidence of aflatoxins in peanuts in Estanzuela, Zacapa. A larger study (Torres, 2013) tested corn samples from across the country and found unacceptably high levels of aflatoxins in 27 percent of samples and high levels of fumonisins in 41 percent of the samples.

Co-exposures to aflatoxins and fumonisins have also been documented. Recently, maize from 22 districts in Guatemala was analyzed and 36 percent of 572 samples tested positive for aflatoxins and 99 percent of 640 samples tested positive for fumonisins. The contamination levels are well above the permitted levels (Torres et al. 2015).

The link between aflatoxins and stunting and other poor growth outcomes among children in Guatemala has not yet been proven. Gathering evidence of the role played by aflatoxins in malnutrition is critical. To date, efforts to reduce malnutrition have focused on health care (substantial investment in pre-natal and post-natal attention). Addressing the dangers of aflatoxins would require a completely different set of policy options and targets.

*Source:* Data on Guatemala come from Torres et al. (2015) and Torres (2013).

culated the correlation of these with the z-score of height for age (stunting). In addition, we explored the interactions between these measures of adequacy. Our results highlight how a household's lack of access to infrastructure and its food insecurity are both associated with malnutrition (table 3.2).

Limited access to basic infrastructure is a key correlate of poor nutritional outcomes. At the departmental level in Guatemala, a lack of access to sanitation is linked closely with malnutrition rates (stunting), with malnutrition being higher

in areas with limited access to sanitation (figure 3.39). Interestingly, the opposite correlation applies between access to water and the malnutrition rate, suggesting that there are important interactions between water and other variables linked to malnutrition.<sup>37</sup> The correlation is greater in rural areas and among less wealthy households.

The relationship between health care services and malnutrition is not as straightforward. Adequate health care for children is comprised of prenatal visits for expectant mothers (the World

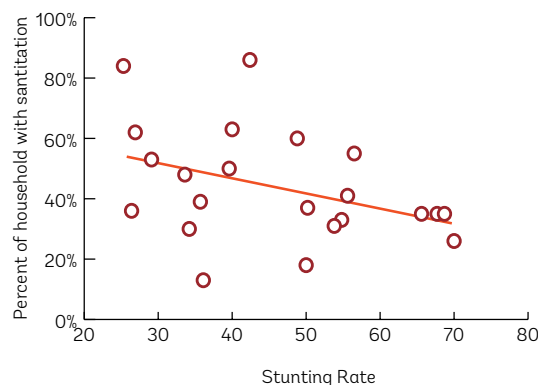
Health Organization's standard of four visits), births assisted by a trained medical profession (including midwives), follow-up growth monitoring visits for newborns, up-to-date immunizations, and Vitamin A supplements. For richer households, health care is significantly correlated with taller children, but for other groups, and even nationally, receiving adequate health care has no significant effect. This could be a reflection of lower quality services being available to the poor. Alternatively it may be an issue of demand, in that only the sickest or those at the highest risk visit health facilities given the difficulties and costs of accessing health care for poor and rural populations.

Child care is a third correlate of malnutrition. Adequate child care is difficult to measure. One component affecting childcare is the education of a child's parents, more particularly that of its mother. Evidence from other studies has shown that maternal education is highly correlated with child health and nutrition outcomes. However, there are multiple ways in which education can affect child care, which makes it an imperfect measure of the adequacy of child care. Therefore, in this analysis child care adequacy includes a measure of a women's empowerment, specifically her ability to make decisions about household purchases. A measure of breastfeeding practices and the timing of complementary foods has also been included as part of child care. The greatest effects of adequate child care can be found in rural areas, suggesting that child care may be of particular significance in areas with limited health care and more inadequate sanitation.

Poverty and food insecurity are fundamental correlates of malnutrition. Having access to adequate food is correlated with taller children. However, there is substantial evidence of food insecurity in Guatemala. As noted earlier, slightly more than half of households (53 percent) have reported that their children ate a diet limited in

**FIGURE 3.39 Lack of Access to Sanitation Is Highly Correlated with Malnutrition Rates**

*Malnutrition and Sanitation by Departments, 2014*



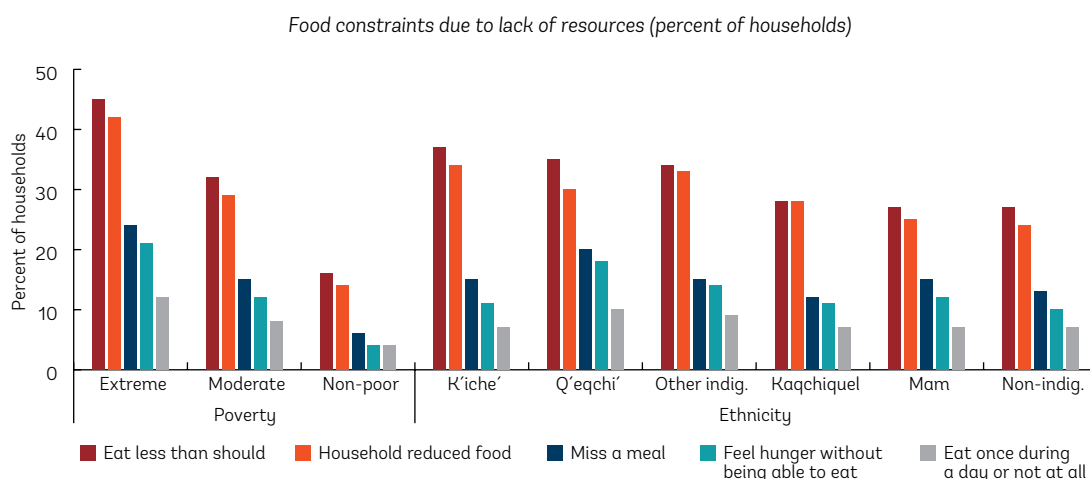
Source: Calculations based on the 2014 ENCOVI and the 2014/5 ENSMI.

Note: Adequate sanitation is defined only as having a toilet facility in the dwelling; it was not possible to distinguish between improved and unimproved latrines.

diversity due to a lack of resources at some point in the previous three months. Thirty percent of households reported that at least one child in their household had eaten less than he or she should have, and one in 12 households had at least one child who ate only one meal or did not eat at all for one or more days (figure 3.40).

Among the extreme poor, levels of food insecurity are much higher, with 45 percent of households reporting that at least one child in the household had eaten less than he or she should have, one-quarter of households reporting that their child(ren) had had to miss a meal, and one in eight extremely poor households reporting that their children had eaten only one meal a day or none at some point over the previous three months. Among ethnic groups, the Mam, the non-indigenous, and the Kaqchiquel have similar levels of food insecurity. The group with the lowest food security appears to be the Q'eqchi. These patterns reflect the inability of households to smooth their consumption due to poverty, a lack of storage infrastructure, and the annual

**FIGURE 3.40 Food Insecurity Affects Many Households**



Source: Calculations based on the 2014 ENCOVI

Note: The question posed to households was: "Due to a lack of resources, in the last three months did any child....? Moderate poverty refers to those people living under the overall poverty line but above the extreme line.

agricultural cycle. April to August are considered to be the months of greatest food insecurity in Guatemala.<sup>38</sup> Although the agricultural sector employs a large share of the poor, the vast majority of households in Guatemala (83 percent) are net food consumers and thus are sensitive to food price changes. It has been estimated that rural poverty grew by 1 percentage point because of the food price increases of 2008 (Robles and Torero, 2010).

There is limited evidence of positive synergies among the four factors. The analysis highlights the significance of each factor with regard to malnutrition. Compared to inadequate levels of all four factors (which characterizes a startling 41 percent of all Guatemalan children), having adequate levels of both food and health care is correlated with the greatest height gain. Having adequate levels of both food and child care is linked with the next highest level of height, followed by having both, food and adequacy in environment factors (water and sanitations). However, in addition to each individual factor

being correlated with greater height for age, it is expected that the interactions between the factors would provide an additional effect beyond the sum of the two individual effects. However, the evidence for this synergy effect is mixed. Only among the poor is there a significant positive interaction effect, specifically between food and health, and between child care and health. For rural populations, there are some synergies, depending on the specifications of the model, between environment and health and child care and health.

Other health outcomes are affected by a lack of access to electricity, especially for cooking. More than half of the population of Guatemala relies on solid fuels, mostly wood energy, for cooking and heating. About 2.4 million or more than 70 percent of Guatemalan households cook and heat their houses with traditional stoves. More than 50 percent cook primarily with wood, while an additional 20 percent of households cook with wood in combination with other fuels (referred to as "fuel stacking"). Using traditional stoves for



## KNOWLEDGE GAP

The data available for the analysis of the UNICEF framework are from 2008/9. Since then the Government of Guatemala has implemented two important programs aimed at improving child malnutrition. While the overall rate of malnutrition has fallen only slightly, there are large variations across groups and areas, and other health indicators have changed. An analysis of the 2014/5 data of the ENSMI, when they become available, will shed light on these recent changes and provide inputs into the government's new nutrition policies. Collecting additional data on food contamination, specifically aflatoxins in corn, will also be needed to determine what, if any, role this plays in chronic malnutrition.

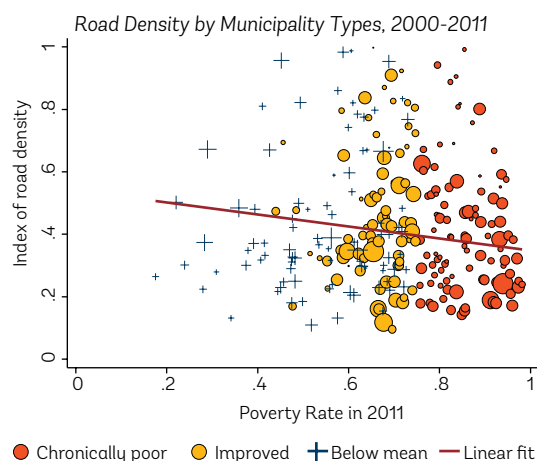
cooking has negative implications for health as well as being costly for households financially. Traditional cooking adversely affects the health of women who cook and the children in their care, causing almost 5,200 deaths every year due to indoor air pollution. Traditional stoves also emit pollutants, with each stove producing approximately three tons of carbon dioxide annually. The heavy reliance of Guatemalan households on solid fuel for cooking is the highest in Central America. Guatemala has the highest level of annual mean air pollution exposure in Central America, measured in particulate matter (PM<sub>2.5</sub>). Guatemalan families who use traditional stoves and purchase wood spend an average of 40 percent more money each month on overall cooking costs than similar households who use improved, higher efficiency stoves. Additionally, cooking with traditional stoves has gender implications since women devote around 11 hours a week collecting wood and around 13.5 hours a week cooking. Forest degradation is also a consideration since traditional stoves consume more than twice as much wood as improved stoves, and the depletion of natural resources, negative health effects, and time devoted to non-income generating activities hinder rural development by limiting the ability of rural

communities to escape the poverty trap. The poor are disproportionately affected by these effects as they are the most reliant on traditional stoves and wood for cooking.

Socioeconomic mobility is affected by infrastructure and human capital. Between 2000 and 2011, those rural municipalities that moved up from being among the poorest (those with more than 75 percent of their population in poverty) to being in the next group (those with 50 to 75 percent of their populations in poverty) had very different characteristics from that stayed in the poorest group. Access to services, such as water, sanitation and electricity, was higher in those municipalities with falling poverty, road density (and thus access to markets, economic opportunities, and other services) was higher (figure 3.41), and the share of indigenous people lower (figure 3.42). An earlier study analyzing synthetic panels between 2000 and 2006 had similar findings.<sup>39</sup> The lack of human capital, along with geographic location, ethnicity, and a lack of job opportunities had prevented segments of the population from benefitting from economic growth during those years. Households that were poor in 2006 had had very different characteristics in 2000 than those that were not poor in 2006. In 2000 they were more likely to



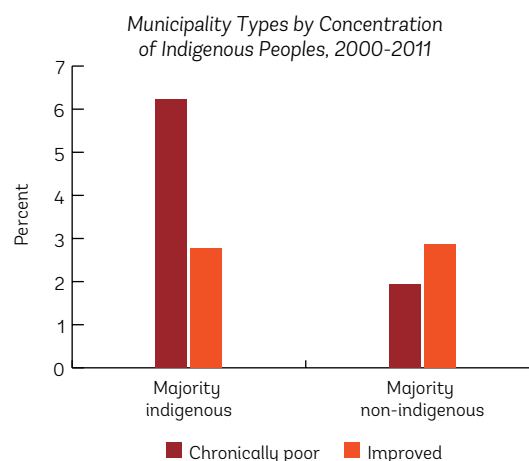
**FIGURE 3.41** Increasing Road Access to Markets, Economic Opportunities, and Services Has Helped to Reduce Poverty



Source: Baez et al. (2015).

Note: Chronically poor municipalities (orange circles) are those that had an overall poverty level of over 75 percent in both 2000 and 2011. Improved municipalities (brown circles) are those where over 75 percent of their population were in poverty in 2000 but where this figure has been reduced to under 75 percent by 2011.

**FIGURE 3.42** Poverty in Indigenous Municipalities Has Been Reduced Less Than in Non-indigenous Municipalities



Source: Baez et al. (2015).

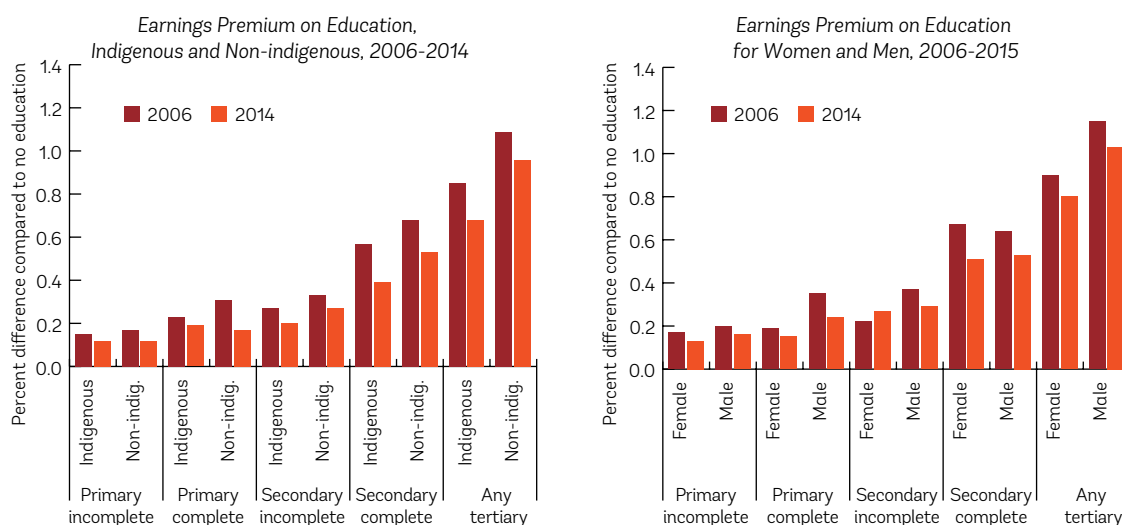
Note: Chronically poor municipalities are those that had an overall poverty level of over 75 percent in both 2000 and 2011. Improved municipalities are those where over 75 percent of their population were in poverty in 2000 but where this figure has been reduced to under 75 percent by 2011.

have been working in the informal sector, to have significantly lower levels of education, and to live in rural areas. The education gap between heads of household who were poor in 2006 and those who were in the middle class was 3.5 years in 2000.<sup>40</sup> Seventy percent of those who were poor in 2006 had been rural residents in 2000, and 80 percent had worked in the informal sector.

It is important to recognize, however that human capital endowments alone do not fully explain labor market outcomes and welfare outcomes. A Oaxaca-Blinder decomposition using 2014 data shows that, while two-thirds of the wage gap between indigenous and non-indigenous populations can be explained by differential endowments, this leaves one-third unexplained. The wage gap between indigenous and non-indigenous workers is wider than the gap between rural and urban workers. Returns to schooling are declining across the board, and of

further concern is the fact that, the returns to schooling vary by both ethnicity and gender (figure 3.43). The gap between indigenous and non-indigenous workers in terms of returns to any level of schooling is large and has remained fairly constant in recent years. Earlier analysis found that, despite women having more education than men, they earn less, in what is referred to as hyper-discrimination.<sup>41</sup> This differential in earnings unrelated to endowments may well explain why female labor force participation in Guatemala has been so low. However, more recent data show that, holding all else constant, women now earn slightly more than men (as of 2014), reflecting both an increase in endowments (female education levels have risen, particularly among indigenous women) and the returns to those endowments.<sup>42</sup>

**FIGURE 3.43 Returns to Education Vary by Ethnicity and Gender**



Source: Calculations based on the 2006 and 2014 ENCOVI.

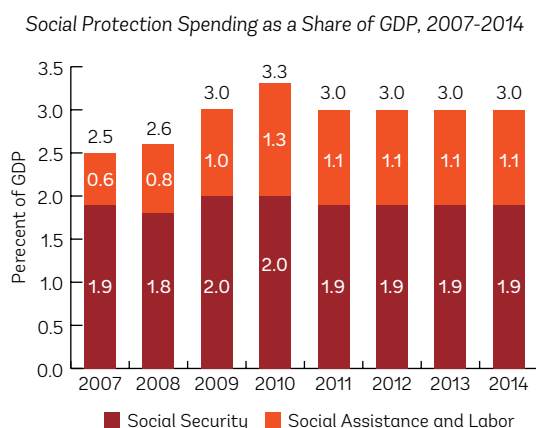
## Vulnerability

The absence of a strong safety net in Guatemala combined with the country's vulnerability to natural disasters and crime and violence may also be playing a role in the persistence of poverty. Guatemala is one of the countries that is most at risk of natural disasters and is also afflicted by high rates of crime and violence. While the government has increased social spending in recent years, the fact that around two and a half million additional people fell into poverty between 2000 and 2014 (and more than half of these into extreme poverty) suggests that the safety net is inadequate.<sup>43</sup>

Guatemala has increased social protection spending in the past seven years, mainly through cash transfers and subsidies (figure 3.44). As shown in Figure 3.30 above, cash transfers are progressive, with a majority of the benefit going to the poorest segments of the population. *Bono Seguro* (a conditional cash transfer program previously known as *Mi Familia Progres*) and

food distribution schemes such as *Vaso de Atol* and *Bolsas Escolares Solidaridad* reach between 40 and 50 percent of the poor and are reasonably well targeted. However, there is still substantial leakage to the non-poor, and the absolute amount spent on social assistance is dwarfed by social security spending, which mainly benefits those in the top quintile (figure 3.45). A simple accounting exercise that compares poverty rates with and without the *Bono* shows very little change in poverty attributable to the *Bono*. Overall poverty without the *Bono* in 2014 would be only slightly higher (60 percent compared to the actual 59.3 percent), and even if the *Bono* were perfectly targeted, it would still only reduce poverty to 58.1. The program's effect on extreme poverty is larger: in the absence of the program, extreme poverty would be 24.9 percent instead of the actual 23.4 percent. If existing leakage to non-poor beneficiaries could be eliminated, the program could lower extreme poverty by another 0.8 percentage points or by almost 125,000 people.<sup>44</sup> Reports about inconsistent payments

**FIGURE 3.44 Social Protection Spending Is Low and Has Not Changed since 2011**

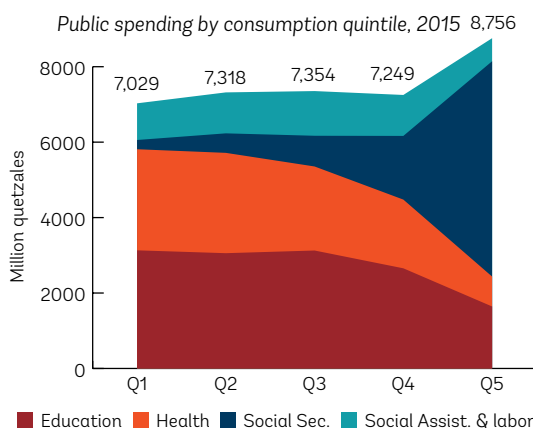


Source: World Bank (2015).

and cuts in benefits suggest that the program's impact may have declined in more recent years; the share of GDP spent on cash transfers fell from a peak of 0.4 percent of GDP in 2010 to 0.1 percent in 2013 (figure 3.46) while coverage jumped up from 281,000 households to 758,000. The increase in social assistance has been too small to have any significant impact on poverty given the number of households covered by the conditional cash transfer program. Other cash transfer programs, such as the non-contributory pension program, reach only a small share of their target populations (less than 20 percent), and their effect on welfare has not been studied.<sup>45</sup>

Low overall spending limits the ability of social assistance programs to reduce poverty and promote shared prosperity. Social protection spending has declined in the past four years, with cash transfers taking a disproportionate hit (figure 3.46). Spending levels in Guatemala are below those of all of its Central American neighbors: spending as a share of GDP is less than one-half the levels of Costa Rica and Panama, countries with much higher GDP levels than Guatemala (figure 3.47). Efforts by the

**FIGURE 3.45 The Bulk of Social Protection Spending Goes to Those in the Top Quintile**

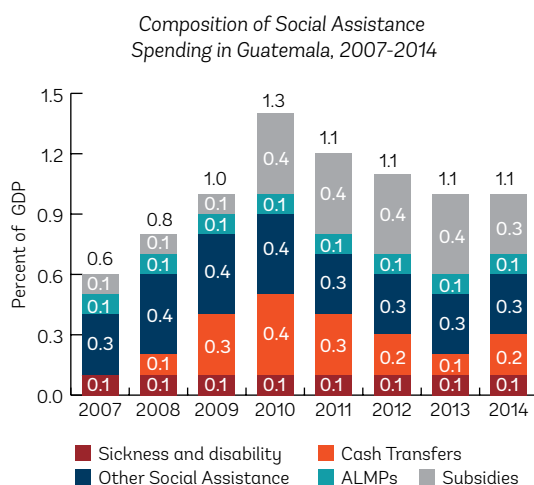


Source: Calculations based on the 2014 ENCOVI.

previous administration to coordinate programs (by creating the Ministry of Social Development and the new Unique Registry of beneficiaries) and to improve targeting are positive developments. It is not clear, however, that the efficiency gains from these actions can be enough to offset the low and, in some cases, declining spending patterns.

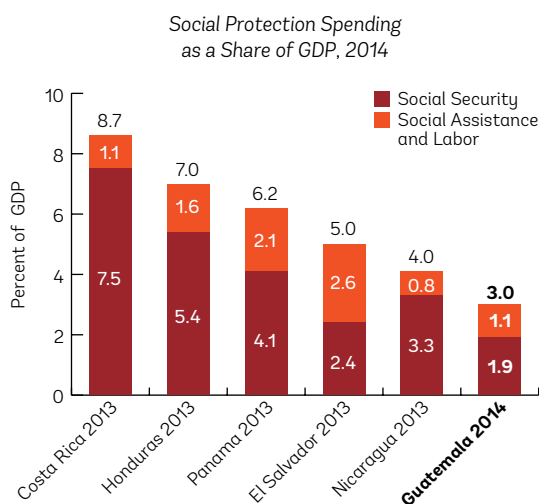
To some extent remittances have played a social safety net function and have facilitated human capital accumulation. A study using data from the early part of the 2000s found that remittance-receiving households were more likely to spend their money on education and housing than households not receiving remittances.<sup>46</sup> Households with emigrants were found to have stunting rates 6 percentage points less than those for non-migrant households due to the increased food security and lower morbidity facilitated by the receipt of remittance payments.<sup>47</sup> Households with members who had migrated had greater food security and dietary diversity.<sup>48</sup> Finally, a survey of migrant households in 2005 showed that remittances provided 10 percent of equity financing for small

**FIGURE 3.46 Social Spending Is down from Its 2010 Peak**



Source: World Bank (2015).

**FIGURE 3.47 Guatemala's Social Protection Spending Levels Are Well below Those of Its Neighbors**

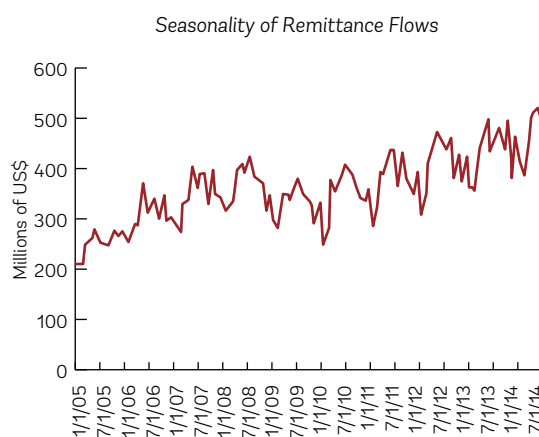


Source: World Bank (2015).

businesses, well above the 2 percent provided by the formal banking sector, and favoring agriculture where the presence of the banking sector is particularly limited.<sup>49</sup>

Remittances, however, are a precarious safety net and not an ideal vehicle for human capital accumulation. On the one hand, remittances are highly seasonal as many migrants work in agriculture and construction, both of which tend to have a notable downward trend in the early part of the calendar year (figure 3.48).<sup>50</sup> Additionally, and more importantly, evidence from the global financial crisis has shown that remittances are pro-cyclical, rising with economic growth and falling during the crisis: the dip in remittances in 2009 was striking (see chapter 2). In general, the share of households receiving remittances has fallen over time, from a high of 22 percent of all households in 2000 to only 9 percent in 2014 (figure 3.49), and richer households are more likely to receive remittances than the poorest households. Overall, remittances as a share of household income rose in 2006 and

**FIGURE 3.48 Remittances Change Seasonally and with Economic Cycles**

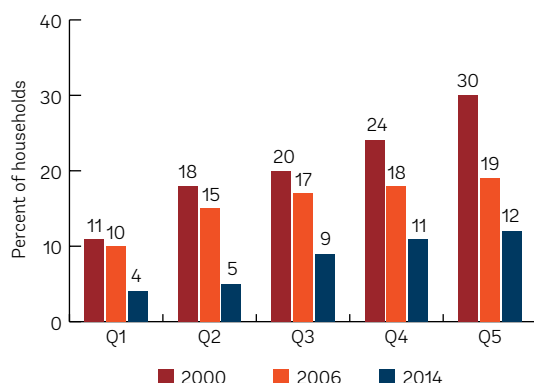


Source: Coello et al. (2015) based on Cheikhrouhou et al. (2006)

then declined by 2014 (figure 3.50). However, the importance of remittances for richer households is greater in 2014 than in it was in 2000, suggesting that much of the increase in total remittances to the country is going to richer households. Given this pattern, it is not clear how much the

**FIGURE 3.49** There Has Been a Sharp Drop in the Share of Households Receiving Remittances

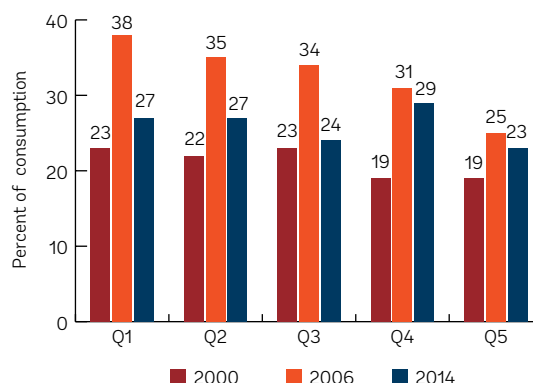
Share of Households Receiving Remittances, 2000-2014



Source: Calculations using the 2000, 2006, and 2014 ENCOVI.

**FIGURE 3.50** Remittances Have Been Declining in Significance as a Share of Household Consumption

Remittances as a Share of Consumption, by Quintile, Among Households Receiving Remittances, 2000, 2006, and 2014



Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

### BOX 3.2 The Changing Profile of Guatemalan Emigrants to the United States and Mexico

**Migration has had many causes in Guatemala.** The first wave of emigration of Guatemalans to the US and Mexico began during the second phase of the civil war when large numbers of Guatemalan refugees escaped in the late 1970s. Violence related to the war in this period centered in the western Mayan highlands, forcing the local, mainly Mayan, populations, into refugee camps in Mexico. The negative impact of the war on economic growth also intensified labor emigration to both Mexico and the US. Today, however, the drivers of Guatemalan emigration to the US are different. In addition to a general lack of economic opportunity and high levels of inequality and poverty, a series of natural disasters has also led to Guatemalans leaving the country. In the past two years, the spread of the coffee rust fungus has affected 70 percent of Guatemala's coffee crop, causing the loss of an estimated 100,000 jobs and a 15 percent decline in output. Hurricanes Mitch (1998), Stan (2005), and Agatha (2010) and a powerful earthquake on the southern coast in 2012 all increased emigration significantly. Crime and violence, connected to gangs, drug trafficking and criminal organizations, constitute additional drivers of emigration, together with Guatemala's generally weak rule of law.

**Since 2012 a further characteristic of Guatemalan emigration has consisted of the ballooning number of unaccompanied minors (UAM).** In 2013 over 75 percent (approximately 51,000) of UAMs apprehended by U.S. migration authorities came from El Salvador, Guatemala, and Honduras. Most Guatemalan migrants are young males with limited education and financial literacy, trying to support their direct family members at home. Overall, Guatemalan immigrants in the US tend to be

Box continues next page

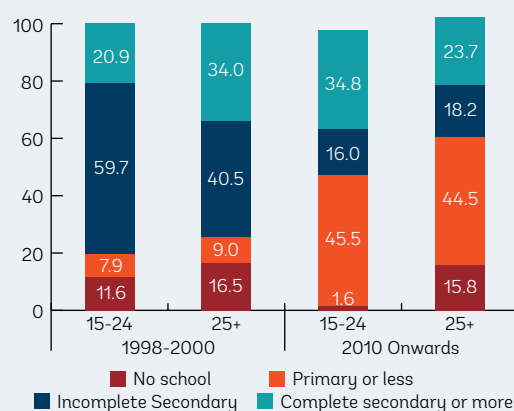
### BOX 3.2 continued

younger, poorer, and less educated than other US Hispanics, with recent migrants being less skilled than their predecessors. Thus, Guatemalan immigrants and their families tend to be the least well off migrant groups in the US even though they do not come from the poorest classes in Guatemala.

**Guatemalan immigrants in the US are also becoming bimodal in terms of education levels, suggesting that different factors were behind the decision to migrate during these two periods.** Among both young adults and adults, recent immigrants to the US are more likely than those who arrived after the Peace Accords to have at most a primary school education. Recent immigrants aged between 15 and 24 are more likely than immigrants of the same age from the earlier cohort to have completed secondary schooling, but immigrants over the age of 25 are significantly less likely to have done so compared to their peers in the previous migration wave. In fact, whereas those with some secondary education accounted for the large majority of post-1996 immigrants in both age groups, they have accounted for one in two young immigrants and four in ten older immigrants since 2010. As a result, the job profiles of Guatemalan immigrants in the US have also changed. Before settling abroad, these workers were primarily engaged in agricultural activities, services, sales, and no skill activities, and as a result in the US they tend to work as unskilled workers, mostly in construction, services, restaurants, and hotels. This combination of lower educational attainment and concentration in low-skilled jobs of the recent waves of immigrants suggests that it is the less well-off who are increasingly emigrating from Guatemala. In other words, there has been a significant shift in the self-selection of Guatemalans who choose to leave the country in search of work. It remains to be seen what effect this will have on the levels of remittances (which, unexpectedly rose sharply in 2015).

**FIGURE B3.2.1 Recent Guatemalan Immigrants to the US Are Less Skilled Than the Initial Wave**

*Educational Attainment of Guatemalan Migrants at Age of Entry to the US for those who Arrived During 1998-2000 and those Arriving from 2010 and Later*



**Source:** Calculations based on the 2013 American Community Survey (ACS) and the 2000 US Census. Information for the most recent arrival cohort (2010 onwards) comes from the 2013 ACS while information on the post-Mitch cohort (1998-2000) comes from the 2000 US Census. The figure presents workers with three skill levels: the unskilled, who completed primary schooling at most (including those with no formal schooling); the low-skilled, who completed some secondary education; and the skilled, who have at least a secondary school education.

massive increase in remittances seen in 2015 (a 15.2 percent increase over 2014 levels) will affect poverty.<sup>51</sup> A further reason why relying on remittances as a safety net is precarious is the changing nature of Guatemala's migration flows.

Recent Guatemalan migrants to the US have significantly less education than previous waves of migrants, which could have a negative impact on the earnings that will be available for remittances in the future. However, the 2015

### BOX 3.3 The Downside of Migration

While emigration provides opportunities for individuals and families to escape from violence, to find better economic opportunities, and to send much-needed income to their households in their country of origin, it is not without its costs. In addition to the Dutch disease discussed in Chapter 4, migration can have a high human cost.

The migration experience itself can lead to negative outcomes for the Guatemalan emigrant, ranging from death or injury to various forms of labor exploitation. The migration corridor through Mexico is one of the busiest and most dangerous in the world (IOM, 2004). In a six-month period in 2010, more than 11,000 kidnappings of migrants were reported (CNDH, 2011). A 2013 survey on the southern border of Mexico revealed that almost 60 percent of emigrants from Central America suffered from at least one episode of violence while crossing the southern border including robbery, sexual violence, and extortion (Secretaría de Gobernación et al, 2013). Children and adolescents are particularly vulnerable, whether traveling in family groups or alone.

Most of the migrants from Guatemala are undocumented in their destination countries. Being undocumented makes migrants vulnerable to exploitation. A recent study of female migrants from Guatemala working in southern Mexico found them to be victims of various forms of labor exploitation, from forced overtime, low or unpaid wages, restriction of freedom of movement and/or communication to physical and sexual violence (World Bank, 2016).

The families whom migrants leave behind also suffer from their absence. A study in the south-east of Guatemala documented how households whose head had migrated were excluded from social assistance and in-kind programs on the erroneous (as it turns out) assumption that migrant households are better-off. A lack of empowerment and skills and a shortage of labor all can negatively affect the welfare of migrant-sending households as well (Coello et al. 2015).

remittance story suggests that other factors, such as the increase in the number of migrants, are increasing remittance levels (See box 3.2 for more details on the changing face of migration). Finally, migration has a downside as well, creating costs for migrants and their households as well as for the economy (See box 3.3 and the discussion in Chapter 4.)

## Convergence and Divergence

Our analysis of the persistent inequities in Guatemala raises concerns not only about the present but also about the future of the population. The analysis has found that the distance between the “two Guatemalas” is shrinking slowly at best. Despite progress, in some cases quite significant progress, in improving several key indicators of non-monetary welfare, Guatemala’s low starting point means that the country will continue to lag behind its peers and, unless it is able to



generate a faster rate of change than its peers, this situation will continue. At the same time, other indicators are not changing, leading to a divergence between Guatemala and other countries, especially its economic competitors. There is a risk to Guatemala in diverging from the development paths of other countries. The fact that poverty has not fallen and malnutrition rates remain high creates concerns for the quality of life of the population and for the strength of the economy. The continued large gaps in secondary and tertiary education access and attainment are reducing Guatemala's productivity, its ability to create well-paid, sustainable jobs, and its attrac-

tiveness to investors going forward. The lack of basic infrastructure and health care will continue to cost the population in terms of morbidity and mortality and act as a brake on economic development. There have been some positive trends in terms of convergence on education test scores, falling infant mortality rates, and better services related to childbirth, and this suggests that it is possible to tackle the other problems that are preventing social inclusion. While more spending is needed, institutional reforms are also needed to make spending more effective and to improve service delivery.

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## Notes

- 1 The information on the labor force between 2010 and 2014 is based on the authors' analysis of the Encuesta Nacional de Empleo e Ingresos (ENEI).
- 2 Of the three measures of informality calculated, two showed an increase and one showed no change between 2000 and 2014.
- 3 Twenty percent of agricultural land is in the hands of 92 percent of the farmers. Our characterization of the agricultural sector, unless otherwise noted, is from World Bank (2015b).
- 4 See Cadena et al. (2013).
- 5 A synthetic panel is generated from multiple rounds of cross-sectional data using imputations techniques based on Dang, et al. 2011. See Annex 3.3 for the details of this. Note also, the analysis from 2006 to 2014 is likely to be more representative of all households in the country today than those households included in the 2000 to 2014 analysis as the latter analysis is based on households that existed in 2000 and thus captures none of the changing characteristics related to households formed more recently.
- 6 The analysis uses an Oaxaca-Blinder decomposition. Note that the data used for this analysis are from 2000, and it is expected that some changes have occurred. An update of the analysis is planned with the new round of the ENCOVI.
- 7 Based on authors' calculations using the 2014 ENCOVI. There was a total wage gap between urban and rural populations of 18 percent and between indigenous and non-indigenous of 19 percent.
- 8 For general examples of the relationship between health and earnings see Luft (1975) and Case et al. (2005).
- 9 For the studies in Guatemala, see Martorell (1992), Ramirez-Zea et al. (2010), and Martorell et al. (2010).
- 10 These figures are from the latest round of the Demographic and Health Survey (Encuesta Nacional de Salud Materna-Infantil, or ENSMI) carried out in 2014-15 (MSPAS et al. 2015). While some findings of this survey have been published and are used here, the data set itself is not available. Thus, some of the analysis of malnutrition in this report continues to rely on the previous round of the ENSMI from 2008-09 (MSPAS et al. 2009).
- 11 Data on malnutrition from the WDI.
- 12 Marini and Gagnolati (2003) analyzed data from the 2000 ENCOVI and found that stunting rates grow with

- age. This is being confirmed by ongoing work (by Scott and Vinja) using data from the 2008-09 ENSMI. For 2014-15, see MSPAS et al. (2015).
- 13 Calculated using data from the 2014 ENCOVI.
  - 14 The figures are from MSPAS et al. (2009) and MSPAS et al. (2015). There are some contradictions in the data for previous years. World Bank (2012) reported a 40 percent rate while Paz (2014) reported a 20 percent rate. The lower rate is based on the 2009-10 micronutrient survey.
  - 15 UNICEF (2004).
  - 16 Data from INE at <http://ine.gob.gt>.
  - 17 World Bank (2015a)
  - 18 Full vaccination is defined as a child having received prior to his or her second birthday the measles vaccine, three doses each of DPT and polio (excluding the polio vaccine given at birth), and one dose of BCG (MSPAS et al. 2015).
  - 19 The sample size of the survey data used in this analysis is adequate at best for looking at these groups. The other groups are too small to be able to be examined separately. There are some concerns about the adequacy of the sample even for the larger groups.
  - 20 See Annex 3.1 for the probit analysis on which this discussion is based.
  - 21 Bastos et al. (2016).
  - 22 There is a discrepancy between the survey data (from the 2014 ENCOVI) and the administrative data concerning the rate of completion of nine years of schooling. The survey indicates that two out of three children do not complete this level, while the administrative data indicate that only 55 percent do not. It is not clear what is driving the discrepancy. However, neither figure suggests that Guatemala has been able to fulfill its Constitutional obligation regarding education.
  - 23 See Barros et al. (2009) for a discussion of the HOI methodology.
  - 24 An additional 12 contracts were also cancelled, five due to the resignation of the health provider and seven in Suchitepéquez for other reasons (Informe Metas Físicas PEC, Ministry of Health). The authors would like to thank Dr. Virginia Moscoso for providing us with this information.
  - 25 Data from the national health management information system (SIGSA) show that there was a massive rise in health care visits nationally from 7 million to 23 million visits annually between 2009 and 2013 followed by a 46 percent decline in 2014. While there are some concerns that the SIGSA under-reports visits, in recent years reporting has improved, suggesting the observed fall in visits is probably real even if the magnitude is open for discussion.
  - 26 Given that Guatemala has 23 spoken languages, it is not always clear that bilingual education will be able to ensure that children are taught in the language that they spoke prior to attending school. Further information is needed on the how bilingual schooling is working in practice.
  - 27 This section is based on Cabrera et al. (2014).
  - 28 See Annex 3.2 for the decomposition of this indicator.
  - 29 McEwan and Trowbridge, (2007) and Hernandez Zavala (2006).
  - 30 There are discrepancies between this work and more recent work (World Bank, 2015, SSEIR) that will need to be reconciled. The SSEIR study suggests that health spending is fairly evenly distributed among consumption quintiles.
  - 31 Based on the Data Envelope Analysis developed by Farrell (1957) as carried out in World Bank (2015a).
  - 32 Edstats (2015) as cited in (World Bank, 2015, SSEIR).
  - 33 This section is based on the data presented in (World Bank, 2015, SSEIR).
  - 34 The budget discussion is based on World Bank (2013).
  - 35 The 1991 law needs to be updated to incorporate this other legislation as well as to reflect the changing landscape in education in Guatemala in the past 25 years. As argued in World Bank (2015b), the significant increase in enrollments at both the primary and secondary levels has decreased the needs for the non-formal education system, and this needs to be brought into alignment with the formal system.
  - 36 This is the basic framework developed by UNICEF (UNICEF, 1990).
  - 37 The results cited here are based on ongoing work being done by Katja Vinha and Kinnon Scott using the 2008-09 data. A similar analysis will be carried out on the 2014-15 ENSMI once these data become available so that changes in the importance of different correlates of malnutrition can also be identified.
  - 38 FEWSNET (2014) as cited in World Bank (2015b).
  - 39 Ferreira et al. (2013)
  - 40 In this study (Ferreira et al. 2013), the middle class is defined as having per capita incomes of US\$10 per day in 2005 PPP terms.
  - 41 Hertz et al. (2009).
  - 42 See Annex 3.4 for more details.
  - 43 The rise is due both to an increase in the poverty rate as

well as to an increase in the population. Between 2006 and 2014, the population of Guatemala grew by 2.5 million so, even if poverty rates had remained the same between 2006 and 2014, the numbers of poor would still have risen by 1.3 million, 0.4 million of whom would have been in extreme poverty.

44 This simple estimation may overstate the impact of the program on poverty. Households often respond to receiving public transfers by changing their labor supply or by sending or receiving remittances.

45 The Economic Contribution Program for Older Adults (Programa de Aporte Economico del Adulto Mayor) was

started in 2006 and had 103,000 beneficiaries by 2010, with each eligible senior over 65 years of age receiving around US\$51 per month (Cabrera et al. 2014).

46 Adams and Cuenca, 2010

47 Carletto et al. 2011

48 Coello et al. 2015

49 International Office on Migration (IOM), 2004)

50 Cheikhrouhou et al. (2006)

51 Guatemala had the highest growth in remittances in Latin America between 2014 and 2015, reaching a high of 6.2 billion dollars (Orozco et al. 2016).

## 4. Trends and Drivers of Growth in Guatemala

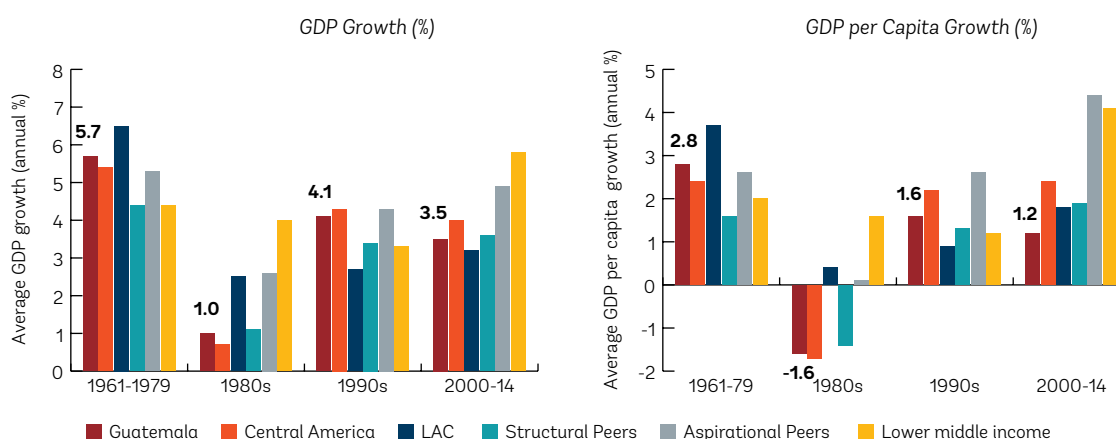
*Guatemala has experienced modest economic growth in recent years. Its per capita GDP has failed to converge with those of Latin America (average) and that of the U.S. With a relatively young and growing population, Guatemala will need to achieve much higher economic growth and job creation rates to reduce poverty. Persistently low levels of physical and human capital formation have contributed to a long-term decline in productivity. Like other countries with high poverty levels, Guatemala faces the challenge of creating new and better remunerated jobs for its growing working age population, a challenge that is complicated by the prevalence of informality in the economy. Persistent competitiveness challenges related to the under-provision of public goods, rising crime and violence, and weak governance are exacerbated by weak economic institutions, which complicates the investment climate for the private sector and perpetuates inequalities. Guatemala's demographic trends provide an opportunity for higher and sustained growth provided that the government implements productivity-enhancing investments and policies, such as infrastructure investments to increase connectivity and industrial policies to foster the creation of better jobs. However, given Guatemala's low levels of public revenues and immense investment needs, spending efficiencies may not be enough.*

### Growth Trends

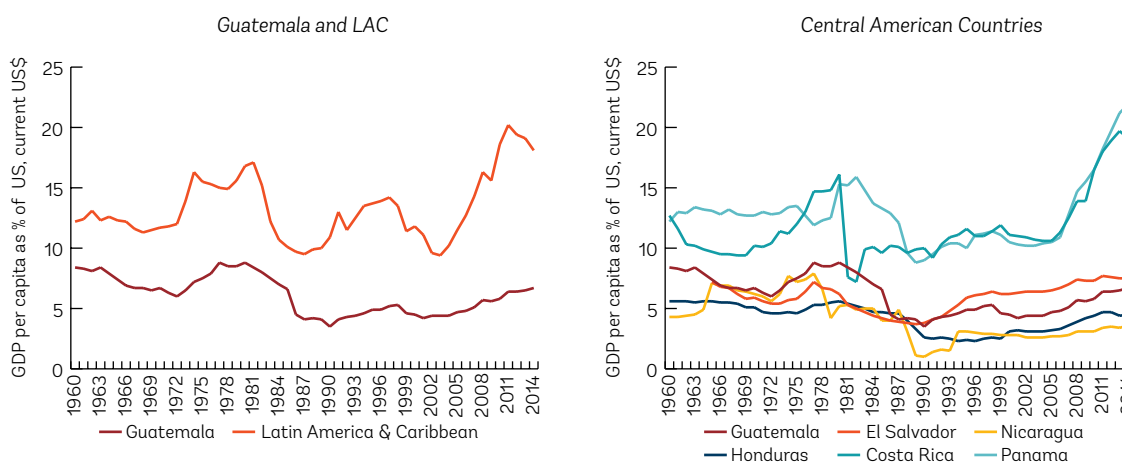
**GUATEMALA IS KNOWN** for having persistently low growth in per capita GDP as a result of a combination of modest aggregate GDP growth and a fast growing population. GDP growth averaged 3.5 percent between 2000 and 2014 (figure 4.1), slightly above the Latin America average of 3.2 percent but not particularly strong when compared to other economies in Central America (4 percent) or to Guatemala's aspirational peers (4.9 percent).<sup>1</sup> When converted into per capita growth rates, Guatemala averaged a very low 1.2 percent in those 14 years, about 1 percentage point lower than the regional average (figure 4.1). This is not surprising given the population growth rate of 2.1 percent per year, which is almost two times higher than the average for Latin American countries (1.1 percent) and the highest in the region.<sup>2</sup>

The current size and future expansion of the working age population provides Guatemala with a window of opportunity to seize a demographic dividend. This dividend is possible because the working age population is growing more rapidly than the dependent population, resulting in more people that could potentially contribute to growth. The working age population increased from 51.4 percent in 1960 to 58.1 percent in 2014, while at the same time the dependency ratio declined from 94 percent to 72 percent.<sup>3</sup> However, reaping the benefits of this potential dividend will depend on the existence of effective policies to foster labor productivity (such as education) on urban development, and on the ability of the private sector to create jobs with the highest development payoff. Without both productivity-enhancing investments and policies to remove constraints to private sector growth, which will be discussed later in this chapter, the

**FIGURE 4.1 Guatemala Shows Declining GDP Growth, in contrast to the LAC Region**



**FIGURE 4.2 There Has Been Little Economic Convergence with the U.S. in Contrast to LAC, Costa Rica, and Panama**



majority of the poor will have to continue to work in low-productivity jobs with low earnings and be trapped in chronic poverty.

Meanwhile, Guatemala has not advanced in converging with the United States. In 2014, its per capita GDP was 6.7 percent of that of the U.S. whereas in 1960 it was 8.4 percent (figure 4.2a). Meanwhile, the average per capita income of

other Latin American and Caribbean countries relative to the United States has increased from 12.2 percent to 18.1 percent. Guatemala's performance in this respect has been similar to that of Honduras, El Salvador, and Nicaragua, neighboring countries with shared development challenges (figure 4.2b). In contrast, Panama and Costa Rica have made much headway in

converging with the United States. Today, in terms of per capita GDP, Guatemala is the fifth poorest economy in the Latin American region, a drop of five positions from its rank in 1960. The ever-growing gap between Guatemala and other countries raises the question of what the underlying causes are behind this divergence.

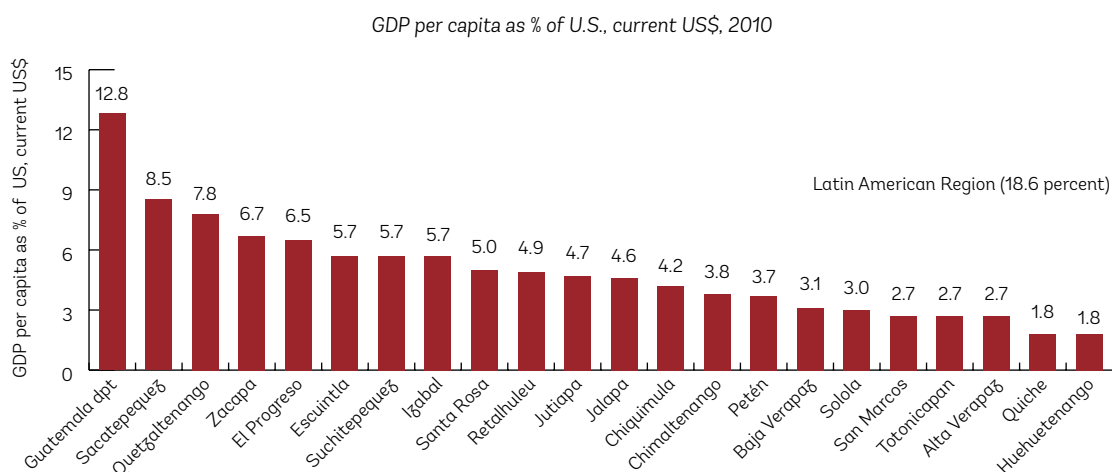
This lack of convergence has occurred despite prudent macroeconomic policies. The Central Bank has made efforts to maintain macroeconomic stability, keeping inflation low, stable, and well within target ranges. Moreover, manageable levels of fiscal deficit (around 2.1 percent since 2000) have contributed to levels of debt below 25 percent of GDP. This fiscal discipline has been achieved even though Guatemala has one of the lowest tax burdens in the world (10.8 percent of GDP in 2014), an issue that is discussed further in Chapter 5. On the external front, the current account balance has improved over the past decade, reaching 2.3 percent of GDP in 2014, much lower than the level of the early 2000s (5.6 percent), and the nominal exchange rate has been stable at about Q7.8 per US dollar since 2000.

## Regional Disparities

**ECONOMIC ACTIVITY** is concentrated in Guatemala City, creating a large regional disparities. In many countries, the gap between urban and rural areas in terms of economic development is substantial, and this is certainly the case in Guatemala. Even more important, however, are the gaps between the department of Guatemala, which includes the capital city, and the rest of the county (figure 4.3). A 2010 study of regional activity found that per capita GDP in the Guatemala department was 7.3 times higher than in the department with the lowest per capita GDP (Huehuetenango).<sup>4</sup> This is far higher than in, for example, Bolivia (2014), Mexico (2010), and Peru (2012) where the gap in per capita GDP between the richest and poorest region is about 4.8, 6.1, and 6.3 times respectively.<sup>5</sup> This shows just how concentrated economic opportunities are in the department of Guatemala, which accounts for almost 50 percent of GDP.

Guatemala faces the challenge of not only increasing its GDP per capita, but also reducing

**FIGURE 4.3 The Department of Guatemala, the Richest, Lags the Latin America Region**



Source: Calculations based on data from World Development Indicators and Red de Gestores (2011).

regional disparities. Differences in GDP per capita are more striking when analyzed relative to the United States. In 2010, the GDP per capita of the department of Guatemala was 12.8 percent of that of the U.S., about 31 percent below the average for the Latin America and Caribbean region. The departments with the lowest GDP per capita, Huehuetenango, Quiché, and Alta Verapaz also have high poverty rates.

## Growth Decomposition

**WHAT ARE THE DRIVERS BEHIND GUATEMALA'S GROWTH PERFORMANCE?** This section examines the contributions made by three elements: (i) factors of production; (ii) aggregate demand; and (iii) the supply side.

Factor accumulation (labor and capital) has been the main driver of GDP growth. As shown in Figure 4.4, the contribution of labor has been increasing since the 1960s according to growth accounting estimates prepared for this report. This reflects Guatemala's growing working age population and high labor force participation rate rather than increases in labor productivity.<sup>6</sup> Labor force participation declined from 67.2 percent in 2000 to 63.3 percent in 2014. Meanwhile, unemployment is low at about 2 percent of the labor force but is rising, which may indicate growing pressures in the labor market (figure 3.1). Between 2010 and 2014, the contribution of labor to growth amounted to 2.7 percentage points, roughly 3.5 times the contribution made by capital. In contrast to labor, the contribution of capital to growth has declined over the same period.

Gross capital formation has historically been low in Guatemala. In 2014, Guatemala's gross capital formation was 13.8 percent, the second lowest in Latin America (after El Salvador) and the 14th lowest in the world, and well below the 21 percent average for Latin America and the 25

percent average for the world (figure 4.4). This low level of gross capital formation is not new as back in 1960 Guatemala had the fourth lowest ratio in the world with 9.8 percent of GDP. These low levels of investment have not been enough to accelerate growth and have negatively affected the productivity and competitiveness of Guatemalan firms. Estimates suggest that Guatemala could raise its economic growth by more than 1 percentage point per year by increasing its investment-to-GDP ratio up to the average of Mexico, Peru, and Chile.<sup>7</sup>

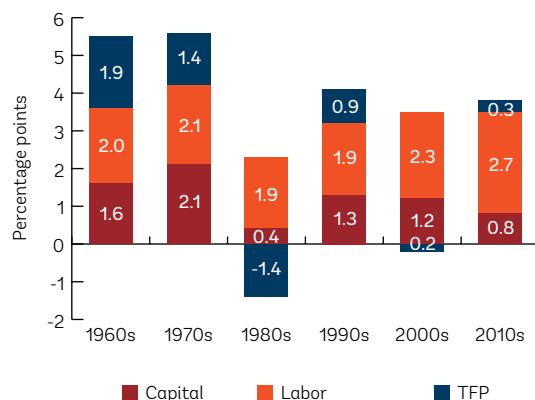
Various factors could be affecting overall investment levels. For example, Guatemala's low savings rate (only 11.6 percent in 2014, the second lowest in the Latin American region after El Salvador) does not help to boost investment levels. According to national account data, public investment, which averaged 1.9 percent between 2010 and 2014, is constrained by the lack of public resources as well as by inefficiencies in the public investment process (see Chapter 5). Private investment increased from 5.5 percent of GDP in 1985 to almost 17 percent of GDP in 2006, partly as a result of trade liberalization policies that attracted foreign direct investment and of the privatization of the power and telecommunication sectors. However, private investment had declined to 13.3 percent of GDP by 2014, possibly due to shortcomings in the investment climate, such as contract enforcement and high transport and logistics costs, in that limit returns to investment and to a lack of opportunities, as will be discussed later in this chapter.

Meanwhile, the contribution of total factor productivity (TFP) has fluctuated but overall has been very small. TFP, which captures how efficiently labor and capital are being used, is important for boosting living standards. During the 1960s and 1970s, for example, TFP was a major contributor to Guatemala's growth,



**FIGURE 4.4 Labor Is the Main Factor Contributing to GDP Growth**

GDP growth decomposition by factors of production, 1951-2014

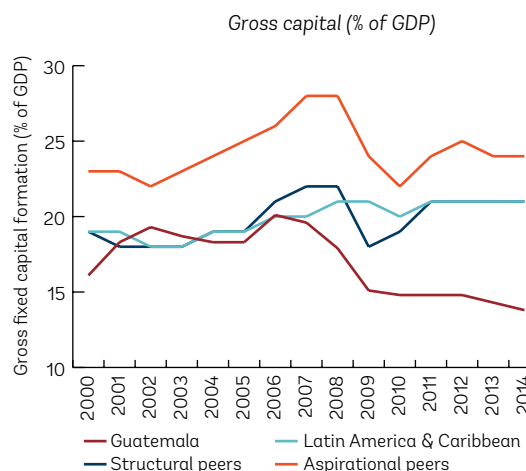


**Source:** Calculations using data from the Central Bank of Guatemala and World Development Indicators.  
**Note:** Labor was adjusted for human capital. The calculations assume an income share of capital of 35 percent, a 6 percent depreciation rate of capital, and a return to human capital of 7 percent.

boosting real growth rates by an average of 1.9 and 1.4 percentage points per year, in the two decades respectively. After a decline in TFP in the 1980s due to the intensification of the civil war and the debt crisis, TFP contributed an average of 0.9 percentage points to growth in the 1990s. During the 2000s, the contribution of TFP declined, cutting annual GDP growth by an average of 0.2 percentage points per year, but this trend has since reversed, with a marginal increase in TFP having added around 0.3 percentage points to annual GDP growth since 2010. The overall decline in TFP's contribution to growth is not unique to Guatemala. Productivity growth has slowed in most countries in the Latin American region and in advanced economies after the global financial crisis.<sup>8</sup>

On the demand side, private consumption has been the main contributor to growth in Guatemala (figure 4.6). Private consumption, which accounts for over 80 percent of GDP,

**FIGURE 4.5 Gross Capital Formation is Low and Declining**

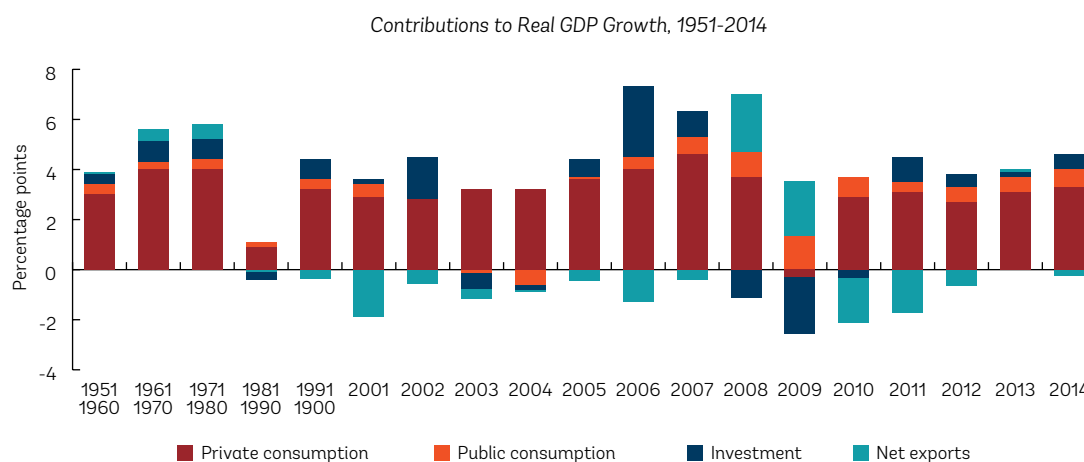


**Source:** World Development Indicators. Aspirational peers include Albania, Chile, Jordan, Latvia, Lithuania, Panama, and Peru. Structural peers include Bolivia, El Salvador, Nicaragua, Paraguay, and Senegal.

contributed on average, 3 percentage points to GDP growth between 1950 and 2014. This large share is the result of low levels of private and public investments. More recently, rising remittances—around 50 percent of which are spent on consumption—and expanding consumer credit have fueled an increase in consumption. Meanwhile, the contribution of exports of goods and services to growth has been offset by imports of goods and services. This is explained by imports amounting to a higher share of GDP than exports rather than by differences in growth rates between exports and imports.

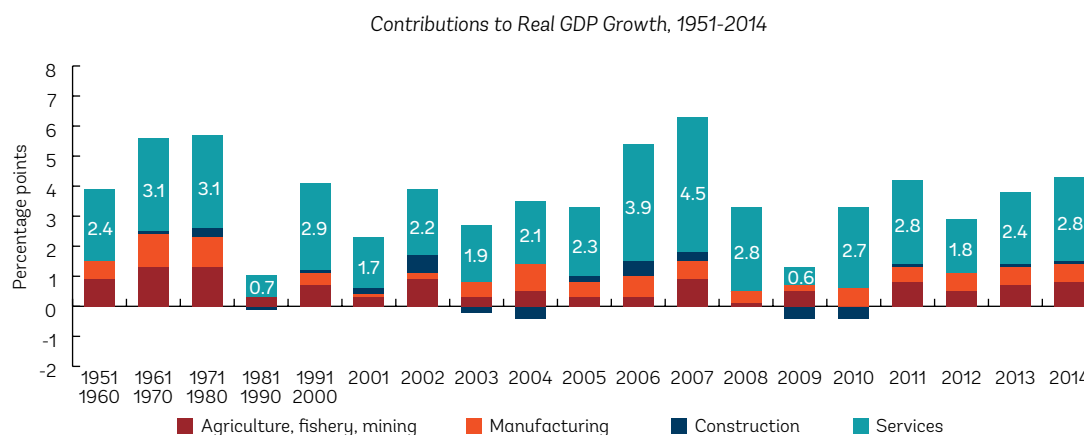
On the supply side, the service sector continues to be the main driver of GDP growth. It accounted for 70 percent of GDP growth between 2010 and 2014, equivalent to 2.5 percentage points (figure 4.7). Within the service sector, growth has been particularly strong in the financial sector, followed by transportation and commerce. Financial services grew by 8.3 percent

**FIGURE 4.6 Private Consumption is the Main Contributor to Growth**



Source: Calculations using data from the Central Bank of Guatemala.

**FIGURE 4.7 The Service Sector Is the Main Driver of GDP Growth**

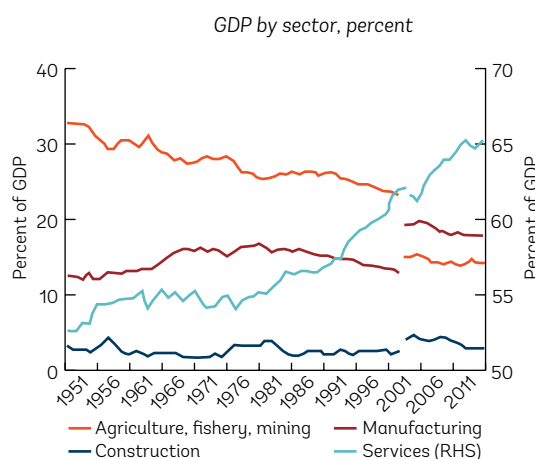


Source: Calculations using data from the Central Bank of Guatemala.

during the 2010 to 2014 period (or 0.4 percentage points of GDP growth), reflecting the continued growth in the provision of credit to the private sector and an expansion of bank branches. Although the contribution of the financial sector to overall GDP remains small (4.6 percent in 2014), it more than doubled from 2 percent in 2000. The contributions of agriculture, manufacturing, and construction are smaller because of the account for a smaller share of total GDP.

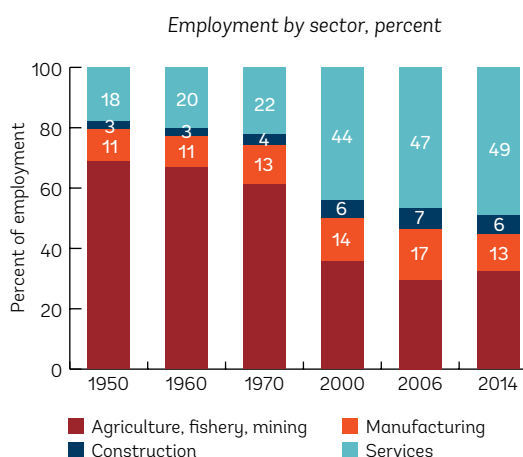
As in other countries in the region, Guatemala's economic structure has undergone a structural transformation with the agriculture's share in economic output and employment falling. The share of agriculture in economic output fell from 32.6 percent in 1950 to 15 percent in 2002 and had dropped further to 14.2 percent by 2014 (figure 4.8). During the same period, the decline in agriculture employment has been much slower, from 69 percent to 32

**FIGURE 4.8 The Share of Manufacturing Is Declining**



**Source:** Calculations using data from the Central Bank of Guatemala.  
**Note:** The base year for GDP was changed in 2000.

**FIGURE 4.9 Agriculture Generates Most of the Jobs in Guatemala**



**Source:** Calculations using data from the 2000, 2006, and 2014 ENCOVI for economically active population 15–64 years old..  
**Note:** Employment data for 1950, 1960, and 1970 come from Baires Martínez (1985) and refers to economically active population 10 years and more.

percent (figure 4.10). Changes in the relative contribution of each sector have implications for labor productivity. For example, if the bulk of employment moves from high productivity sectors to low productivity ones, the overall productivity of the economy will decline.

## A Sector Perspective on Economic Activity, Job Creation, and Informality

**IT IS IMPORTANT TO UNDERSTAND** the dynamics of different sectors in order to grasp the links between economic growth and job creation. Labor earnings are the main source of income for the vast majority of people in Guatemala and are a key driver of poverty reduction.<sup>9</sup> Whether growth contributes to poverty reduction depends on the labor intensity (relative to their size) of

some sectors, especially in their use of unskilled labor and labor productivity.<sup>10</sup> Like other countries with high poverty levels, Guatemala faces the persistent challenge of creating more and better remunerated jobs for its population, a challenge that is compounded by high informal levels and a fragmented social contract. Firms and workers are informal either because they are excluded from state benefits that have limited coverage or because they opt out because of the poor quality of public services and enforcement capability of the government.<sup>11</sup> This duality in economic activity and employment matters because informal employment is more prevalent among indigenous groups and rural workers and tends to yield lower incomes.

### Job Creation and Informality

Employment growth has followed economic activity, and the service sector is the main creator of jobs. The number of jobs grew at an

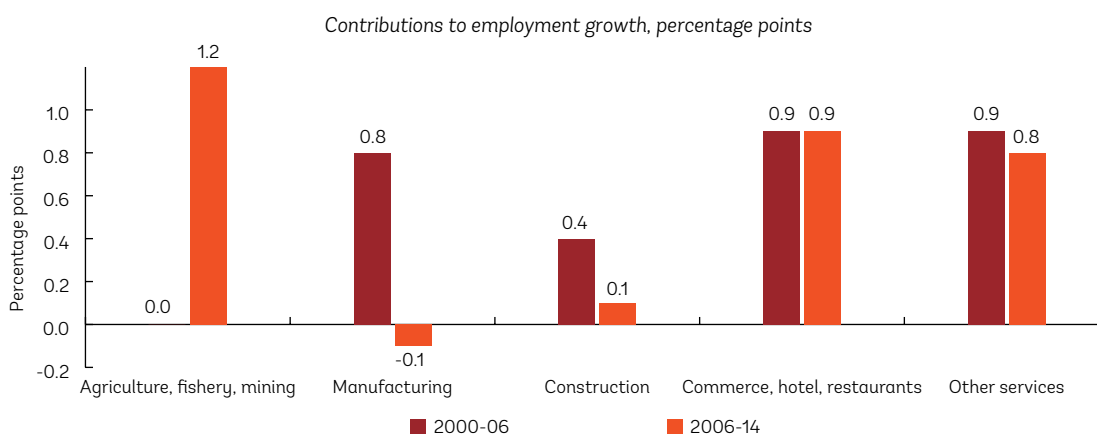
annualized rate of 3.1 percent between 2000 and 2014, while GDP growth averaged 3.5 percent. About 60 percent of jobs were created in the service sector (figure 4.10). Manufacturing was a key contributor to job creation during the 2000 to 2006 period, but its capacity to create jobs collapsed between 2006 and 2014.<sup>12</sup> In contrast, growth in agricultural employment was minimal in the first half of the 2000s, but since 2006 it has contributed 1.2 percentage points to job creation. This increase in agricultural employment after 2006 is associated with the expansion of land use for agricultural production by the private sector. Furthermore, as Guatemala moves along the structural transformation path, it is expected that agribusiness (processed) activities will represent a larger and rising share of GDP as the share of primary agriculture goes down. Although Guatemalan agribusiness performs well in comparison with other regional and global peers, the sector will need to grow faster to be able to significantly increase employment.

Guatemala's private sector creates most jobs, but few jobs are formal. The public sector accounts for 5.5 percent of the workforce, which is very small compared with an average of 10.9

percent for Latin America in 2012. Informality is one way to assess the quality of jobs and the engagement of workers and firms with the government.<sup>13</sup> One of the most popular labor-based definitions of informality is jobs with no social security. Using that definition, Guatemala has the second largest informal sector in the Latin America region. (figure 4.11). Most of the net jobs created in Guatemala since 2000 are in the informal sector, mainly in agriculture and commerce (figure 4.12).

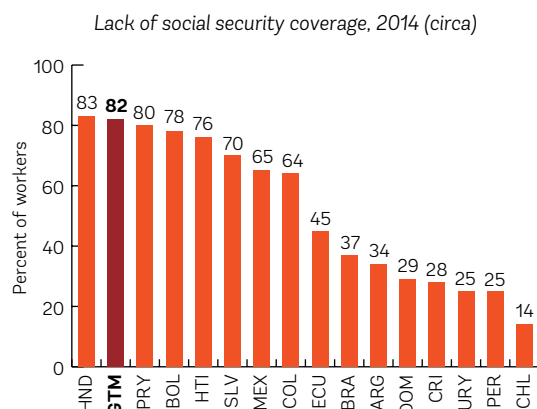
Differences in the extent of informality between the department of Guatemala and the rest of country indicate market segmentation. The main features of formal jobs in the private sector are: (i) they are geographically concentrated in urban areas (76 percent) and in the department of Guatemala (51 percent); (ii) they are offered by large firms (52 percent); (iii) they are held by workers with some secondary or tertiary education (83 percent); and (iv) they are held by people in the top two income quintiles (83 percent). In contrast, informal jobs tend to be: (i) located in rural areas (50 percent) and outside the department of Guatemala (81 percent); (ii) in microenterprises (75 percent);

**FIGURE 4.10 Most Jobs Have Been Created in Agriculture and Services Sectors since 2006**



Source: Calculations using data from the 2000, 2006, and 2014 ENCOVI.

**FIGURE 4.11 Guatemala Has the Highest Share of Informal Workers in LAC**



Source: Calculations using data from SEDLAC.

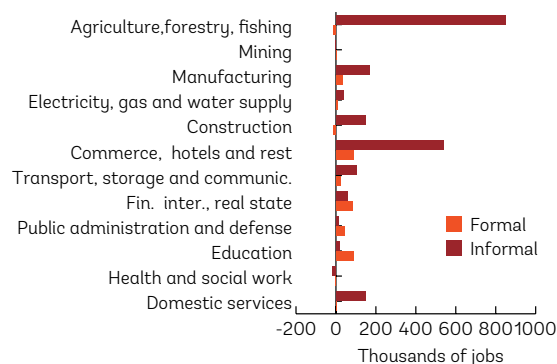
and (iii) held by workers with no education or only some primary education (69 percent). With respect to economic sectors, most formal jobs are in manufacturing (24 percent), commerce and hotels/restaurants (25 percent), and financial intermediation (16 percent). In contrast, informal jobs are more likely to be in agriculture (38 percent), with only 12 percent in manufacturing. Median hourly earnings from formal jobs in the private sector are twice as high as earnings from informal jobs.

Micro, small, and medium-sized enterprises (MSMEs) play an important economic role in creating jobs. It is estimated that MSMEs employ 79 percent of workers in Guatemala City (in the department of Guatemala) and 92 percent in the rest of the country (figure 4.13). At the national level, the smaller the firm, the greater the degree of informality, but informal jobs are less common in Guatemala City than in the rest of the country for all firm sizes (figure 4.14).

At the firm level, economic activity is concentrated in the department of Guatemala. According to the 2013 Directory of Registered Enterprises and Their Branches, most registered enterprises (62 percent) and the jobs that they

**FIGURE 4.12 Most Jobs Created Between 2000 and 2014 Lack Social Security Coverage**

*Change in employment by informality and sector, 2000-14*

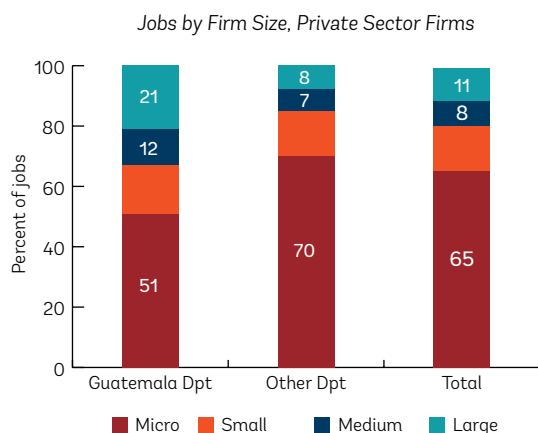


Source: Calculations using data from the 2000 and 2014 ENCOVI.

offered (76 percent) were in the department of Guatemala. Most registered enterprises (those in the formal sector) were operating in the commerce sector (34.5 percent). The number of registered manufacturing enterprises is relatively small (6.6 percent of all registered enterprises). The majority of registered enterprises are microenterprises (64 percent) with one to five employees.

Some large private firms in Guatemala have been able to expand into foreign markets. The emergence of “Guate-Latinas” as part of the process of globalization is one example (box 4.1). Guatemalan entrepreneurs have expanded internationally in an effort to diversify their local exposure. Most of this expansion has been in search of new markets in neighboring countries (such as southern Mexico, Honduras, and El Salvador) rather than to participate in global value chains.<sup>14</sup> This shows that the Guatemalan private sector can be dynamic and globally competitive. However, while this is true for some larger firms, it does not seem to hold true for the country’s private sector as a whole and its large number of MSMEs.

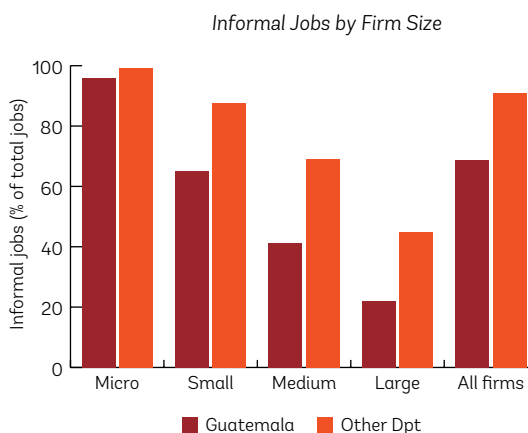
**FIGURE 4.13 Most Private Sector Jobs Are in Microenterprises**



Source: Calculations using data from 2014 ENCOVI.

Note: Microenterprises (1 to 5 workers), Small enterprises (6 -19 workers), Medium-sized enterprises (20-96 workers), and large enterprises (more than 96 workers).

**FIGURE 4.14 Informality is Associated with Firm Size and Location**



Although informality is widespread, there is scope for firms to enter the formal sector, thus expanding the tax base and ensuring a level playing field between firms.<sup>15</sup> A 2010 survey of informal enterprises in Guatemala found that more than one-quarter of informal business owners reported that they would like to register their firms, and many would be willing to pay to learn how to register. However, a substantial majority of entrepreneurs in the informal sector stated that they did not want register their businesses, citing the associated tax and regulatory burdens as well as exposure to bribery as the most important reasons for not registering. This suggests that the prevalence of bribery holds back the growth of the formal sector both by discouraging existing informal enterprises from registering and by constraining the growth of new formal sector enterprises. Promoting formalization could potentially expand the tax base and provide benefits for the firms themselves, by increasing their access to financial investment.

## Financial Sector

Guatemala's financial sector is dominated by banks. The supervised financial system comprises 103 financial institutions, including 17 commercial banks, 14 finance companies, and 6 off-shore companies. Banks and finance companies account for 83.3 percent and 2.9 percent of the system's assets respectively, while the remaining 13.5 percent belong mainly to off-shore companies (8 percent), exchange houses, and insurance companies. Non-regulated financial institutions like cooperatives and microfinance institutions (MFIs) have assets amounting to about 2.6 percent of GDP and cater to about 2 million clients.<sup>16</sup> Guatemala's banks are profitable, liquid, well-capitalized, and domestically funded. Guatemala's robust financial sector is reflected in its strong performance in recent years on key financial soundness indicators. The banking system appears to be sound with non-performing loans at 1.3 percent of total credit in December 2015 and a capital adequacy ratio of 14.1 percent. The domestic banking sector has been subject to

#### BOX 4.1 Guate-Latinas: How Guatemalan Firms Have expanded in the Latin American Region?

The emergence of “Guate Latinas” has been a result of the process of globalization and illustrates the strengths of Guatemala’s private sector. The term refers to businesses that have revenues, operations, and resources that originate from overseas. This phenomenon is not recent but has accelerated in the past decade. There are several examples of “Guate-Latina” firms.

**Pollo Campero**, a chicken restaurant chain subsidiary of one of the largest regional conglomerates Corporación Multi-Inversiones, was founded in Guatemala in 1971 and has expanded as a franchise to a network of more than 300 restaurants worldwide, including the United States (55 restaurants) and Asia (Indonesia and Shanghai). The two main reasons why Pollo Campero chose to internationalize were market-seeking (expanding the business in untapped markets with similar consumer characteristics) and macroeconomic (expanding the business to diversify risk by reducing its dependence on Guatemala alone).

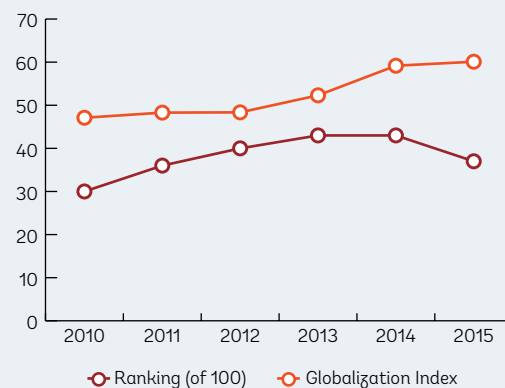
With operations in 12 countries, Pollo Campero’s sales in 2014 amounted to US\$467 million, of which 75 percent was earned abroad. Almost half of its 8,500 employees are located abroad.

**Grupo Pantaleón**, the largest sugar producer in Central America, is another Guate-Latina with investments in Brazil, Nicaragua, Honduras, and Mexico. It produces sugar, alcohol, and molasses and engages in power generation.

**Planesa** is a producer and exporter of berries, snow peas, and sugar snap peas among other products. The company expanded its operations into Mexico and Chile in 2012 to provide a consistent supply to grocery chains in North America in all seasons. Its products are distributed under the brand Pure Fresh.

Source: Casanoya and Hoeber (2009).

FIGURE B4.1.1 Globalization Index and Ranking of Pollo Campero

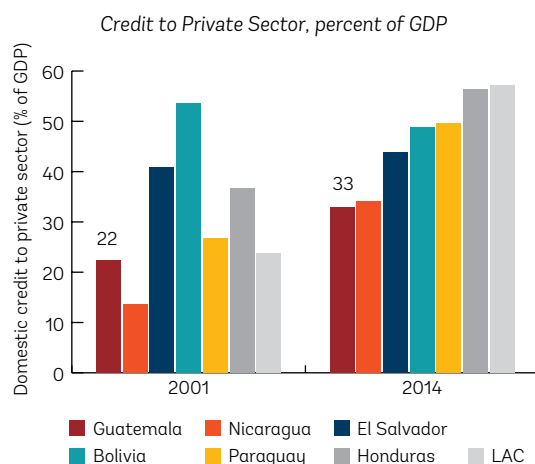


Source: América Economía (2015).

some consolidation with recent purchases of two financial institutions by large Colombian banks. Moreover, *Banco Industrial* and *Banrural*, the largest and second largest bank respectively, have expanded into Honduras.

The provision of credit to the private sector has expanded in recent years, but there is scope for further financial deepening. Guatemala’s financial depth, measured as the share of private sector credit to GDP increased from 22 percent in 2001

**FIGURE 4.15 Guatemala Lags Behind Comparators in Terms of Financial Depth**

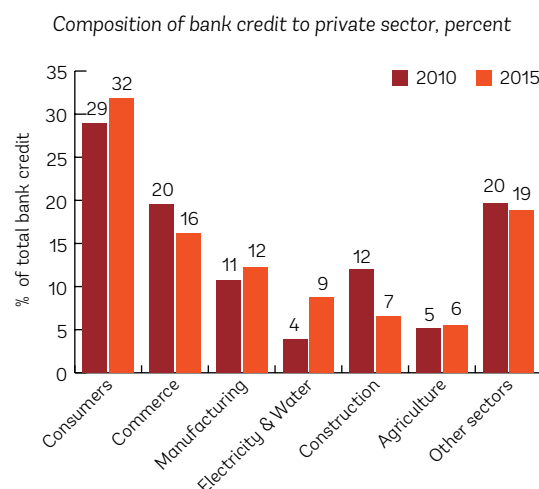


Source: World Development Indicators.

to 33 percent in 2014 but remains among the lowest in the Latin American and the Caribbean region (figure 4.15). Bank credit remains concentrated in the department of Guatemala (69 percent in 2014). As a result, large regional disparities exist in financial depth by departments. Using 2010 data on GDP per department, the latest estimates available, the department of Guatemala's financial depth (38 percent) was three times higher than the rest of the departments (13 percent).

Credit growth in the banking sector has been uneven across sectors and type of firms. In 2015, the portfolio of banks remained concentrated in consumers (32 percent) and the commerce sector (16 percent). Consumer credit rose by 10 percent in the period 2010 to 2015, spurred by increased demand for credit cards. Bank credit in the manufacturing and agricultural sectors also expanded faster than other sectors, but they accounted for only 12 and 6 percent of total bank credit in 2015, respectively. The banking sector targets mainly large enterprises, which saw strong

**FIGURE 4.16 The Share of Consumer Credit Has Expanded**



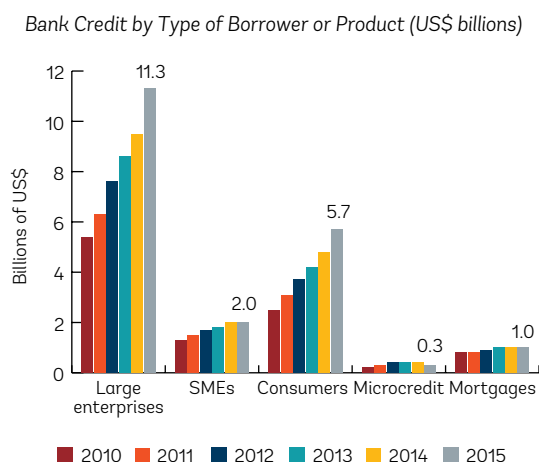
Source: Calculations with data from the Superintendency of Banks of Guatemala.

growth and accounted for 55 percent of bank credit in 2015. SME and microcredit lending have grown slower, accounting for 10 percent and 2 percent of bank credit in 2015, respectively. The low levels of SME and microcredit financing explain the overall still low ratio of credit to GDP in Guatemala. It is worth noting that the Guatemalan Congress approved in mid-April 2016 the Microfinance Law which will regulate the establishment, registration as well as operations including risk management, disclosure of information and supervision of microfinance institutions in general. The legal framework is expected to allow for a sustainable growth of microfinance lending in the country while strengthening and consolidating MIFs with enhanced oversight and more transparency.

Dollarization and anti-money laundering remains a source of risk for the financial system. The acceleration of foreign-currency-denominated loans, which accounted for 45 percent of total outstanding loans in December 2015, underscores the importance of the government



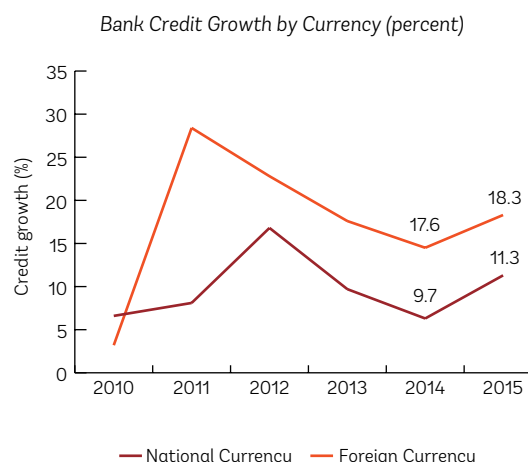
**FIGURE 4.17 Credit to SMEs Is Growing Slower than Credit to Large Enterprises**



Source: Calculations using data from the Superintendency of Banks.

maintaining strong macro-prudential policies to limit risks to financial stability. More importantly, the share of foreign-currency-denominated lending to borrowers with no capacity to generate foreign earnings has increased from almost 20 percent in 2011 to 38 percent in 2015.<sup>17</sup> The National Risk Assessment conducted by the Guatemalan authorities in 2015 highlights drug trafficking as the main threat, but the assessment also identified other money-laundering threats such as corruption, tax fraud, human trafficking, and extortion as medium or low risks. The assessment identified a need to build the capacity of judges, prosecutors, and investigators of financial crimes and to allow them legally to forfeit the assets of those who commit such crimes to strengthen their capacity to combat money laundering. Within the financial system, the National Risk Assessment highlighted the financial cooperatives sector, remittances, and designated non-financial businesses and professions as being most vulnerable to anti-money laundering risks.

**FIGURE 4.18 Credit in Foreign Currency Is Growing Faster**



Source: Calculations using data from the Superintendency of Banks.

## Information Technology and Information Technology Enabled Services

The information technology and information technology enabled services (IT-ITES) industry has been growing at a fast pace and has significant potential to continue to develop. Business Process Outsourcing (BPO), software development services, smart games, digital content, and call centers comprise the main types of businesses in this industry. The IT-ITES industry grew by 15 percent in 2014, which was well above the world industry average of 1.6 percent, and employed 39,000 people with service exports of US\$397 million.<sup>18</sup> The industry is supported by a formal IT-BPO association (the Agexport IT-BPO Commission), innovative spaces (Campus Tec), and local IT leaders (Studio-C and Fundación CA).<sup>19</sup> Moreover, Guatemala offers competitive wages for international investors/clients in the sector, while for the local population wages are well remunerated. One of the main

constraints to the growth of the IT-ITES sector is the lack of skilled/specialized workers.

## Energy Sector

Guatemala's electricity sector has grown significantly over the past five years. Private capital participation in the generation sector has also increased over the years. Electricity distribution is mostly private, with three distribution companies sharing more than 80 percent of the regulated demand. In Guatemala, there are 3,750 kilometers of transmission lines owned by four major companies that provide the service. Guatemala began expanding its transmission system in 2009, and the government has a 10-year plan to support transmission projects awarded to private sector companies on the basis of public bids using the lowest annuity as a basis for selecting the winner. The main challenge for the sector is how to meet the growing energy demand in the long-term. The government authorities and distribution companies are currently planning a bidding process for nearly 350-400 megawatts in order to ensure energy supply needs forecasted for 2021. This will require institutional capacity building and the preparation of a strategy as well as addressing deficiencies, especially in transmission given that the National Interconnected System does not cover the entire country and that there still are isolated areas and rural systems that are not connected to the national grid.

In contrast to the well-functioning power market, the generation of electricity is still highly dependent on fossil fuels, which exposes the sector to oil price volatility. The recent drop in oil prices has dramatically reduced the cost of energy in Guatemala. While average industrial tariffs in Guatemala reached US\$0.3120 per kWh in 2013, the highest in Central America, in 2015 the average industrial tariff was US\$0.1144 per

kWh, the lowest in the region according to the Latin American Energy Organization.<sup>20</sup> This situation may be reversed if the oil prices increase again so it is crucial to develop new capacity from different sources to diversify the generation matrix. While certain renewable technologies have already been in place in Guatemala for several years (primarily geothermal), others, such as solar and wind, have only recently been introduced in the country by distribution companies using long-term Power Purchase Agreement bids with criteria for renewable energy. Although renewable technologies currently account for only a small portion of total installed generation capacity, these are expected to grow in the short term. The integration of these renewable energy sources in the power system is a key challenge for the following years. In addition to renewable energy, the private sector installed a coal-fired plant El Jaguar and the government has signed an agreement with Mexico to be supplied with natural gas through a gas pipeline between the two countries, thus benefitting from low gas prices in the US and Mexico.

## Agriculture Sector

The agriculture and agro-industry sectors have been key drivers of economic growth via export expansion.<sup>21</sup> With robust growth rates, agriculture contributed 0.5 percentage points to growth between 2002 and 2014, about the same as the manufacturing sector. The expansion of agricultural exports, which have doubled since the late 1990, has been the leading force behind positive sectoral growth rates. Exports of agriculture products represented 32 percent of the country's merchandise export value in 2014, amounting to US\$3.5 billion. Guatemala now has a world leading export sector that includes sugar, palm oil, rubber, cardamom, vegetables, and fruits,

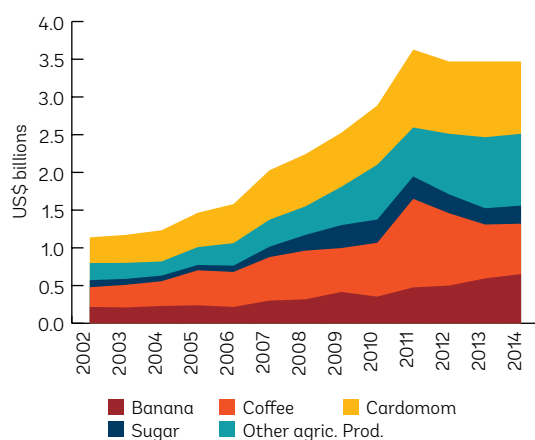
particularly bananas and melons. Export expansion in large commercial crops such as palm oil, sugar, and bananas has been the result of a combination of area expansion and productivity increases. However, in the case of vegetables and cardamom, which tend to be produced by small-scale farmers, the gains have been the result of area expansion and in these sectors productivity has either stagnated or decreased. Although the agriculture export basket has diversified, traditional exports such as coffee, sugar, bananas, and cardamom still represent about 25 percent of total merchandise export value.

Overall, there have been only very small gains in labor productivity in the agricultural sector, which has caused Guatemala to lag behind the Latin American average. Agricultural workers are less productive than those in manufacturing and services. More importantly, labor productivity in agriculture has been falling behind other Central American and Latin American countries (figure 4.20). Guatemala has been less successful than other countries in the region in increasing its

agriculture output and at the same time significantly reducing the number of people involved in agriculture.

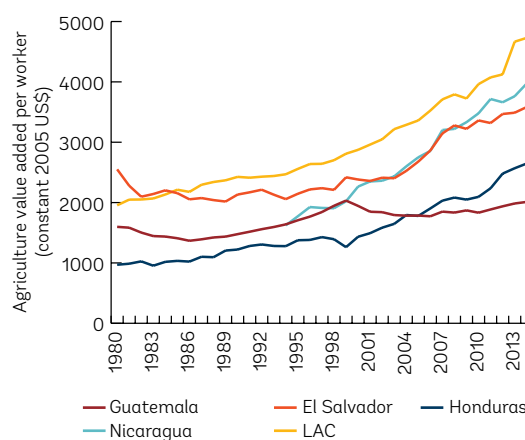
Aggregate increases in overall land productivity have been modest and only in some subsectors, which highlights the dualistic nature of agriculture production in Guatemala. On the one side, the sector contains a segment of highly efficient large commercial producers running plantations with large plots and competitive yields (sugar, palm oil, and banana production covered 21 percent of the cultivated land in 2013). On the other side, there is a large segment of small-scale commercial and subsistence agriculture producers (estimated by Guatemala's Agricultural Ministry to amount to nearly 0.8 million households), a large proportion of whom produce low-value and low-input crops (one-third of the planted agricultural area in Guatemala is used to produce corn and beans).<sup>22</sup> Thus, while commercial agriculture crops like palm oil and sugar have increased their yields to competitive levels, yields of staple crops like corn and beans, which are produced by the vast

**FIGURE 4.19 Four Products Account for Most of Agricultural Exports**



Source: Calculations using data from the Central Bank of Guatemala.

**FIGURE 4.20 Guatemala's Agricultural Value Added per Worker is Stagnant**



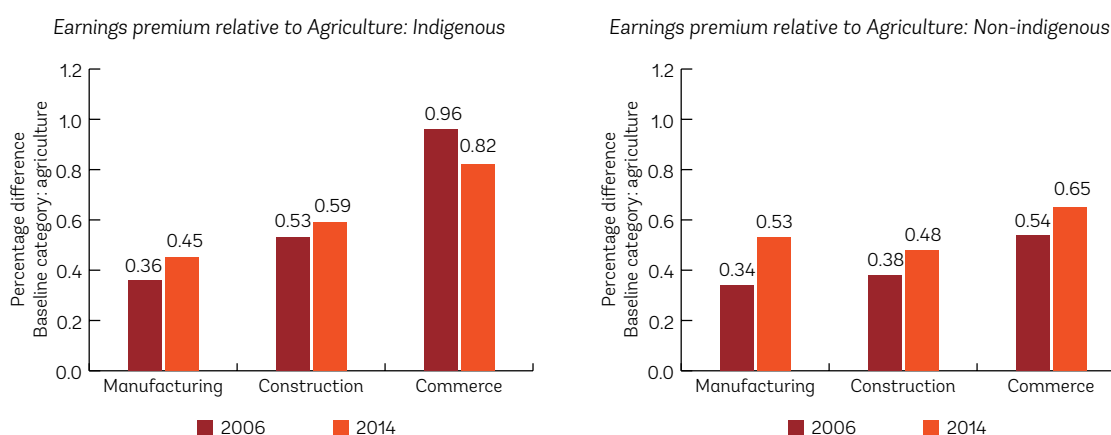
Source: World Development Indicators.

majority of poor farmers, are stagnating. In the case of corn, for example, the average yield per hectare in 2013 was similar to that in 1990. Small plots, overuse of soils, and a lack of technology are the main causes of these stagnating yields for corn and beans. A study that analyzed TFP per producer typologies (excluding large commercial plantations) concluded that only those categorized as large producers reported gains in productivity, while all types of other agricultural households (infra-subsistence, subsistence, production surplus, and small commercial) suffered from declining productivity between 2006 and 2011.<sup>23</sup> Low productivity in agriculture, especially among subsistence farmers, hampers not only agricultural progress but also overall economic growth by depressing wages and lowering internal demand and investments. Moreover, earnings in the agricultural sector have also been falling behind other sectors in recent years (figure 4.21).

The sugar industry is one of Guatemala's main sources of foreign currency. Comprised of 13 sugar mills, the industry generates approximately 60,000 full-time jobs, which support around 250,000 people.<sup>24</sup> In addition, it generates indirect

employment for another 300,000 people, of whom 33,000 are cane harvesters. About 50 percent of production is exported, mainly to South Korea (23 percent), the United States (11 percent), and Chile (8 percent). With a yield of 12.2 metric tons per hectare, Guatemala's sugar industry is the third most productive worldwide, behind Colombia and Swaziland with 14.6 and 13.9 tons per hectare respectively. This is almost double the industry's yield in 1985 (6.4 metric tons per hectare). Moreover, Guatemala ranks fourth in terms of sugar exports, has the most efficient sugar loading terminal in the world (2,200 metric tons per hour), and has the largest storage capacity in the Central American region (431,000 metric tons).<sup>25</sup> The country has earned a reputation for delivering a high quality product (with 95 to 98 percent polarization)<sup>26</sup> and for fulfilling its commitments. These remarkable productivity increases in the sugar industry are the result of investments in research and development and in the adoption of new technologies. The combined efforts of these investments have resulted in: (i) improved genetics; (ii) integrated pest management; and (iii) more efficient irrigation. However, environmental and social

**FIGURE 4.21 The Earnings Premium for Working Outside Agriculture is Increasing**



Source: Calculations using the 2006 and 2014 ENCOVI.

performance are often cited as areas of improvement for the sugar industry.

Palm oil production has emerged as a new driver of agriculture production, but several factors hinder its sustainable expansion. Guatemala is currently the fourteenth largest producer of palm oil in the world and third in Central America. The area planted with palm oil increased from about 30,000 hectares in 2003 to 115,000 hectares in 2013.<sup>27</sup> The crop generates 17,000 direct jobs and some 45,000 indirect jobs. Guatemala yields of palm oil are among the highest in the world (7 tons per cultivated hectare compared to a world average of 3 to 4 tons per cultivated hectare). The majority of crude palm oil (CPO) produced in Guatemala is sold to foreign markets, particularly Mexico, but it is also acquired by the fats and oils industry within Guatemala, which produces vegetable oil (a food staple) at a reasonable price, thus contributing to the country's food security. Clearly the sustainable expansion of palm oil production is a key priority for Guatemala, but there are some issues that need to be addressed to ensure this happens. Environmental concerns are emerging as a result of palm oil expansion in Petén and North areas of the country that could threaten important forest reserves. Also, in order to support inclusive development, the labor and social standards of the sector need to improve. Therefore, the effective use of land planning and the adoption of international industry standards will be necessary to improve the sector's social and environmental outcomes. Although in 2013 Guatemalan palm producers agreed to adopt the international standards laid out in the RSPO (Roundtable on Sustainable Palm Oil) Principles and Criteria, the sector has yet to put them into practice. The government might also consider creating special mechanisms for improving land rights and expanding access to finance to foster the sector's growth. Other challenges affecting the

sustainable expansion of the palm oil industry are as follows: (i) palm oil prices had dropped from US\$800 per ton in 2009 to around US\$650 by June 2015; (ii) palm oil plantations tend to be located in hurricane-prone zones, resulting in endemic flooding of farms; and (iii) risks associated with land-holding rights have been a source of uncertainty to expand the total planted area.

While coffee accounts for only 3 percent of GDP in Guatemala, the sector generates an estimated 500,000 jobs.<sup>28</sup> It employs almost 9 percent of the active labor force and accounts for 11 percent of Guatemalan exports. The value of coffee exports grew by an average annual rate of 9.6 percent between 2002 and 2013. Exports gains have mainly been due to a shift in the market in the early 2000s towards the specialty segment. It is estimated that the area under production has remained relatively stable at around 260,000 hectares. A large majority of the coffee producers are smallholders (70,000 producers have less than 0.7 hectares). Seven out of every ten households in coffee-producing regions live in poverty, and two out of ten live in extreme poverty. Coffee accounts for over two-thirds of agricultural production in the 50 municipalities that have very high levels of extreme poverty. Over the last decade, coffee yields have stagnated in Guatemala,<sup>29</sup> lagging behind those of Colombia and Brazil, which are both major coffee exporters. A lack of investment in variety development and new technologies as well as a lack of proper management has constrained productivity improvements in Guatemala with some plantations having not been renovated since the 1980s. The coffee sector remains highly vulnerable both to shifts in international prices and to exogenous shocks to production including climate and disease risks (such as *Roya* or coffee leaf rust). Reducing the vulnerability of the sector and increasing

productivity will require considerable investments in R&D and extension services. For example, introducing varieties that are resistant to the coffee leaf rust would significantly increase productivity in the sector and reduce its vulnerability, but in Guatemala, unlike in Honduras and Colombia, the lack of long-term investment in R&D has limited varietal improvements.

Guatemala has also been able to diversify its agriculture production base and exports by expanding into high-value food and agriculture production and exports such as spices, fruits, and vegetables. Cardamom emerged as an important export commodity in the 1990s. By 2009 its export value had reached US\$304 million but subsequently declined to US\$240 million in 2014 as a result of pest outbreaks and declining international prices. Nevertheless, Guatemala remains one of the biggest exporters of cardamom, holding some 67 percent of the global market. Alta Verapaz, one of the poorest departments in Guatemala, produces 70 percent of total cardamom exports, with about 350,000 small-scale producers involved in cardamom production. The country's fruit exports are dominated by bananas (a traditional sector) and melons. In the vegetable sector, which mainly consists of small-scale producers, exports grew from US\$86 million in 2002 to US\$220 million in 2013. The fruit and vegetable processed sector in particular has grown remarkably in the last few years, with average annual growth of 14 percent for processed fruits and 6.6 percent for processed vegetables between 2010 and 2013. A constraint for export-oriented agribusiness is the poor, costly, and inefficient ports infrastructure on the Atlantic coast, the main departure point for exports to the eastern US. This translates into a lack of competitiveness for local and multinational firms in the sector, particularly with regard to fruits and vegetables.

The refusal rate of Guatemalan products at the US border is among the highest among Latin American exporters of fresh products. Clearly, phytosanitary and sanitary issues are main constraints to production and export expansion. Examples of phytosanitary issues are the recent outbreaks of Thrips (black insect) in cardamom production and Roya (leaf rust) in coffee. Pesticide residue is the most common sanitary issue facing exporters of fruit and vegetables, accounting for 44 percent of the refusals received by Guatemalan fruit and vegetable exporters to the U.S. Besides pesticides, the other problems cited in the refusals received by Guatemalan exporters were inaccurate labeling (29 percent), product adulterations (12 percent) and poor hygienic conditions (6 percent).<sup>30</sup> Although the government has been encouraging producers and enterprises to adopt quality and food safety management systems, it will be necessary to introduce incentives for producers through their relationship with exporters, and to strengthen the certification and inspection services and regulatory frameworks. This is particularly relevant given that new changes to the U.S. Food Safety Modernization Law are imposing new requirements on foreign suppliers.

The current pattern of growth in the agriculture sector is environmentally unsustainable. The duality that characterizes the agriculture sector in Guatemala is, to some extent, structural given existing disparities in access to assets and services (for example, 8 percent of producers account for 92 percent of the productive land). Therefore, reducing those disparities is critical. Furthermore, agricultural growth has been driven by crop substitution (from annuals to perennials) but also by a cycle that has involved cutting down forests to establish extensive livestock systems and then changing from livestock to crop production. Furthermore, livestock and large commercial production are

increasingly being practiced in fragile ecosystems, while the expansion of subsistence agriculture has caused land overuse and soil erosion. Therefore, given that the potential for expanding production areas in Guatemala is limited, ensuring the sustainable intensification of production in the sector is critical. Moreover, the lack of a strong framework to deal with sanitary and phytosanitary issues, including making relevant investments in R&D, is a major constraint to expanding exports.

There is a need for a strategy to promote the sustained, sustainable, and inclusive growth of the agricultural sector. Given the growing competition among agricultural crops and activities, land and territorial planning need to be key pillars of such a strategy. The over-exploitation of workers and the use of child labor are growing concerns related to the expansion of plantation crops in Guatemala, so another key pillar must be improving labor conditions in export agriculture. Because the disastrous effects of pests and diseases as well as climate variability (and climate change patterns) are major obstacles to sustained agricultural growth, reducing the vulnerability of the sector also needs to be at the core of any growth strategy. A final key pillar should be increasing smallholder productivity and expanding opportunities to adopt high-value-added production.

## Manufacturing and Construction Sector

The manufacturing sector is small in Guatemala. Its share of GDP declined from 19.2 percent in 2002 to 17.7 percent in 2014 because it has been growing more slowly than other sectors of the economy. Manufacturing has contributed 0.6 percentage points to GDP growth since 2010, with food and beverages and textile production leading the sector. Manufacturing products

accounted for 50 percent of Guatemala's merchandise exports in 2014, but this share was substantially lower than in 2002 (67.4 percent). Clothing exports to the United States rose to their highest level in 2004 when they exceeded US\$1.5 billion, but they have declined in recent years in large part because in 2005 the U.S. removed quotas on textile imports from Asian countries where labor costs are significantly lower than in Guatemala.

The construction sector is underdeveloped, which explains its limited contribution to job creation. It accounts for a small share of GDP (2.8 percent), contributes about 0.1 percentage points to growth, and is underdeveloped compared to the Central American average.<sup>31</sup> This underdevelopment can partly be attributed to low public infrastructure spending, the lack of a functioning framework for public-private partnerships to attract and mobilize private sector financing, and partly to a weak residential market due to the low incomes of the population.

## Tourism

The tourism industry is small, but has a lot of potential. In 2014, almost 1.6 million of tourists visited the country. Relative to its population, the number of tourists is about 10 percent, well below Costa Rica (50 percent) or the Dominican Republic (38 percent). Guatemala ranked 16th in the region and 80th overall according to the Travel and Tourism Competitive Index. The tourism industry's direct share in GDP was 3.4 percent in 2014 (the indirect share was 8.8 percent), and it contributed directly to 2.9 percent of total employment (indirectly, it contributed 7.9 percent).<sup>32</sup> With revenues amounting to 15 percent of merchandise exports in 2013, the tourism industry is one of Guatemala's main sources of foreign exchange. The country possesses many attributes for

tourists, including Maya ruins, protected areas (29.8 percent of the country), volcanos, wide topographic diversity, and pleasant climate. Despite its attractive attributes, Guatemala has not fully capitalized on its tourism potential, partly attributed to high levels of crime and violence as well as constraints in the institutional support to advocate and promote the sector.

## Foreign Direct Investment

**GUATEMALA HAS A LONG TRADITION** of attracting foreign direct investment, which has contributed to the development of certain industries. The country was one of the pioneers in attracting FDI with the initial development of coffee production in the late 1800s and of bananas in the early 1900s.<sup>33</sup> After the 1996 Peace Accord, the privatization of state-owned enterprises (electricity and telecommunications) accelerated the inflow of FDI, which was also directed towards other sectors such as food and beverages, textiles, retail, and mining. Other than trade agreements, legislative and institutional changes contributed to the increase in FDI such as: (i) the adoption of the 1998 investment law; (ii) the 1997 enactment of the Mineral Law established more favorable conditions for foreign investment, and as a result the number of exploration and exploitation licenses increased dramatically;<sup>34</sup> (iii) the liberalization of the exchange rate in 2001; (iv) the creation of the agency “Invest in Guatemala” in 2004; and (v) the creation of the National Competitiveness Program in 2004.

Nevertheless, Guatemala’s FDI flows are among the lowest in Central America. FDI inflows into Guatemala almost doubled between 2007 and 2014 (figure 4.23), reaching 2.2 percent of GDP in 2014. However, they are still lower than the flows into other Central American

countries like Nicaragua (7.1 percent), Honduras (5.8 percent), Costa Rica (4.7 percent), and Panama (10.2 percent). Preliminary data as of September 2015 show that FDI inflows shrunk by 20.2 percent compared to the same period in 2014, which can be attributed partly to various political scandals in 2015.

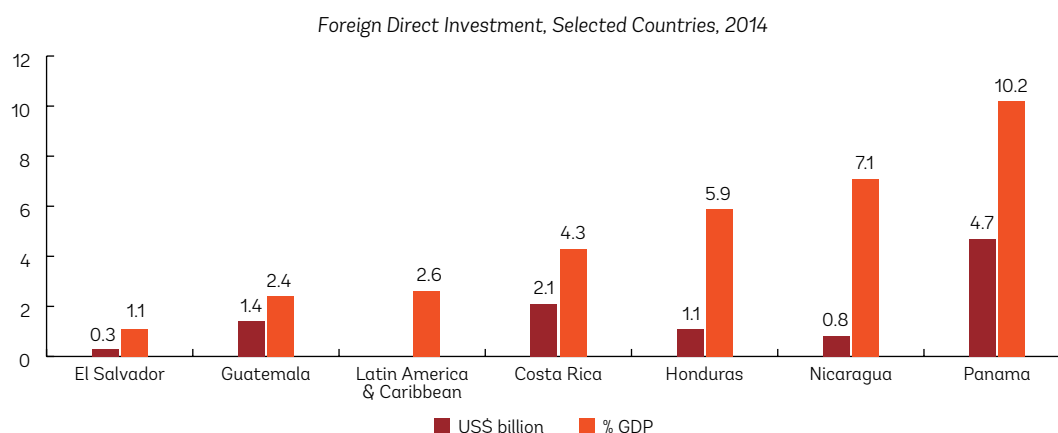
The impact of FDI on the composition of exports and the economy varies depending on the type of investment involved. In Guatemala, the composition of FDI inflows have gradually shifted from primary sectors such as agriculture, petroleum, and mining to non-tradable sectors, such as electricity, banking and insurance, and commerce (figure 4.24). Business processing (BPO), call centers, and other niche industries (such as the production of ornamental plants) have all flourished by relying on FDI. In general, the impact of FDI on the development of the manufacturing sector is difficult to quantify. However, Honduras is an interesting example of how attracting efficiency-seeking FDI has jumpstarted the light manufacturing sector, particularly insulated wire for cars.<sup>35</sup>

## Exports

**TRADE POLICIES** have long been at the center of Guatemala’s development strategy. In the 1960s, Guatemala was one of the original members of the Central American Common Market (CACM), which contributed to the creation of an industrial base and promoted regional trade. Since the mid-1980s, substantial progress has been made in Guatemala in reducing tariff rates and non-tariff barriers (NTBs) and removing export licenses and taxes.<sup>36</sup> In the mid-1990s, the government deregulated and liberalized the financial, power, and telecommunication sectors and has more recently given tax and duty exemptions to *maquilas* and non-traditional exports. Guatemala became a member of GATT

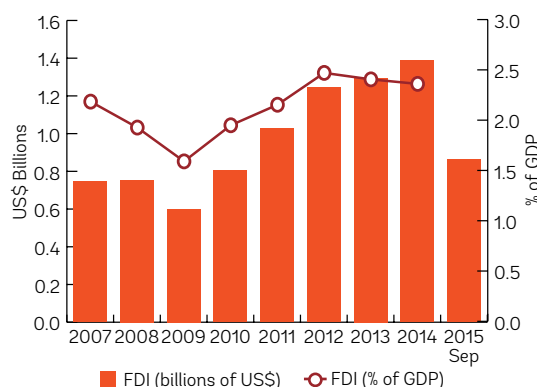


**FIGURE 4.22 Guatemala Lags Behind in Attracting FDI**



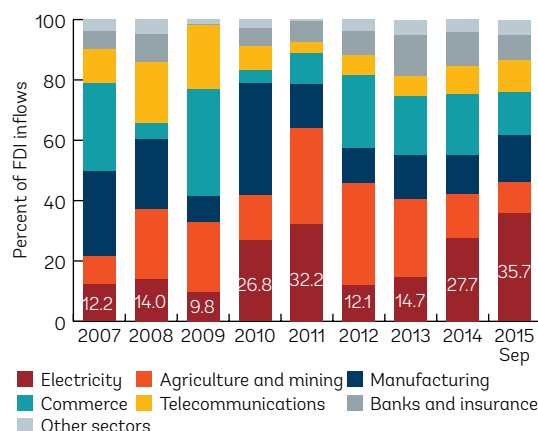
Source: Calculated using data from the World Development Indicators and CEPAL (2015).

**FIGURE 4.23 Foreign Direct Investment Has Been Growing since 2009**



Source: Calculations using data from the Central Bank of Guatemala.

**FIGURE 4.24 Electricity and Manufacturing Account for the Bulk of FDI Inflows**



Source: Calculations using data from the Central Bank of Guatemala.

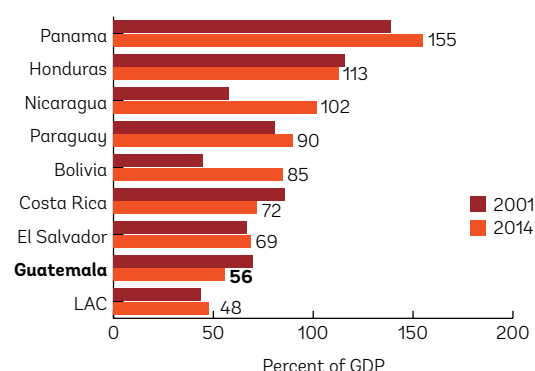
in 1991 and the WTO in 1995, joined CAFTA-DR in 2006, and has also signed Free Trade Agreements or Preferential Trade Agreements with the Dominican Republic, Mexico, Panama, Chile, Colombia, Peru, Ecuador, Venezuela, Belize, Taiwan, and Cuba. Additionally, the conclusion of an Association Agreement between the European Union and

Central America in 2012 has led to a more open foreign investment regime and flexible foreign exchange arrangements.

Recently Guatemala's trade openness has been declining and trails behind other countries of comparable economic size and conditions. When measured as trade flows (exports plus imports of goods and services as a percentage of GDP),

**FIGURE 4.25 Trade Openness Declined in Guatemala While It increased in Most Central American Countries**

*Exports and Imports of Goods and Services, 2001 and 2014*



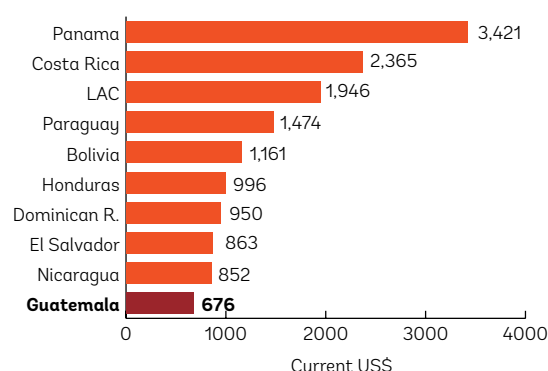
Source: World Development Indicators

trade openness increased by 19 percentage points between 1960 (27.2 percent) and 1999 (46.4 percent). As shown in Figure 4.25, between 2001 and 2014, trade openness in Guatemala declined by 13 percentage points, reaching 56.3 percent. Guatemala's progress in increasing trade flows is poor in comparison to other Central America countries, which have substantially increased their trade openness during the same period. Both exports and imports have contributed to this decline in Guatemala's trade flows. In terms of per capita merchandise exports, another indicator of trade openness, Guatemala is also lagging behind other Central American countries (figure 4.26). To facilitate trade, the government initiated a project to integrate Guatemala's customs and other border agency procedures with those of Honduras.

Merchandise exports have diversified in terms of products, and Guatemala now has the most varied basket in Central America. The number of its export products increased from 1,952 to 3,272 between 1994 and 2014, currently the highest in the region (figure 4.27). Product diversification can be traced back to two main causes: (i) the

**FIGURE 4.26 Merchandise Exports per Capita Are Low**

*Merchandise Exports Per Capita, 2014*

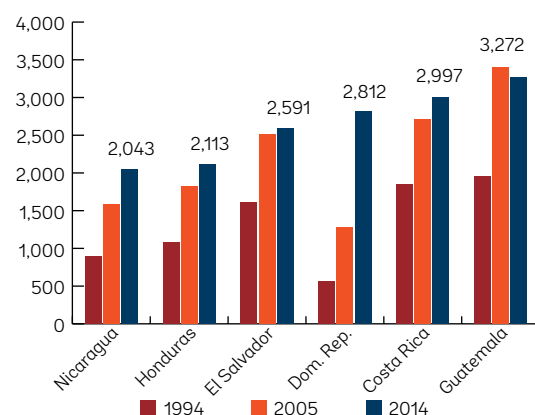


Source: Calculations using data from World Development Indicators.

decline of apparel and textile exports after the end of the WTO's Agreement on Textiles and Clothing in 2005 and (ii) the start of important mining projects in the mid-2000s that increased the exports of precious metals like gold and silver and lately of industrial minerals like zinc, lead, and nickel. In terms of markets, Guatemala now exports its goods to 142 distinct markets, up from 92 in 1994. Export diversification has softened the impact of the 2008-2009 global economic crisis on exports from Guatemala.<sup>37</sup>

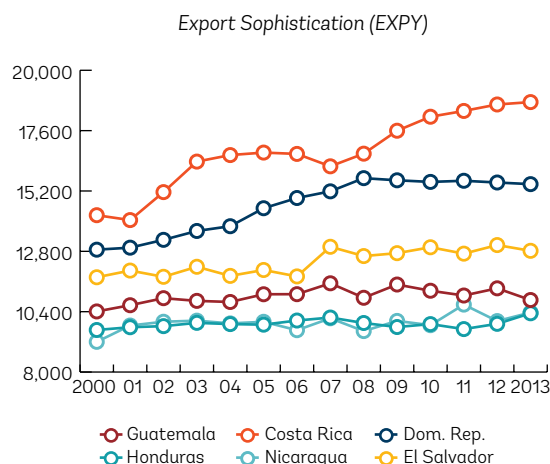
However, product diversification has not boosted export sophistication. The complexity of the Guatemalan export basket has remained stagnant over the last two decades while other countries in the region have increased the sophistication of their export baskets (figure 4.28). Three agricultural products (coffee, bananas, and sugar) accounted for 21.6 percent of Guatemala's exports in 2014, up from 17.9 percent in 2005 (table 4.1). Efforts to diversify its exports of non-traditional products has focused on fresh, frozen, and processed fruit and vegetables and on flowers, seeds, and ornamental plants to the U.S. and European markets. Growth of

**FIGURE 4.27 Export Diversification Reflected in Large Number of Products**



Source: World Integrated Trade Solutions (WITS). Number of Export Products (HS 6-digit).

**FIGURE 4.28 Exports Lack Sophistication**



Source: World Integrated Trade Solutions (WITS).  
Note: The Sophistication of Exports (EXPY) uses methodology introduced by Hausman et al. (2005) to estimate the level of technological sophistication embodied in a country's export portfolio.

**TABLE 4.1 Top Export Products, 2005-2014**

2005				2014			
Product	US\$ millions	%		Product	US\$ millions	%	
1 Women's or girls' blouses, etc, of cotton, knit	541.6	10.1		1 Raw cane sugar, in solid form	950.8	8.8	
2 Coffee, not roasted or decaffeinated	464.1	8.6		2 Bananas, including plantains, fresh or dried	721.2	6.7	
3 Bananas, including plantains, fresh or dried	261.6	4.9		3 Coffee, not roasted or decaffeinated	667.2	6.2	
4 Raw cane sugar, in solid form	236.6	4.4		4 Silver ores and concentrates	357.9	3.3	
5 Petroleum oils and oils obtained from Bituminous coal	226.2	4.2		5 Lead ores and concentrates	349.3	3.2	
Total of top five products		32.2		Total of top five products		28.1	

Source: Based on data from COMTRADE.

non-traditional exports (such as melons, berries, flowers, and plants) picked up during the last decade, but many of these products have failed to become major agricultural exports. Similarly, exports of services remains concentrated in tourism (almost 60 percent), and information and communication technology service exports account for 20 percent of service exports, including computer and information services (1.4 percent) and other business services (7 percent).

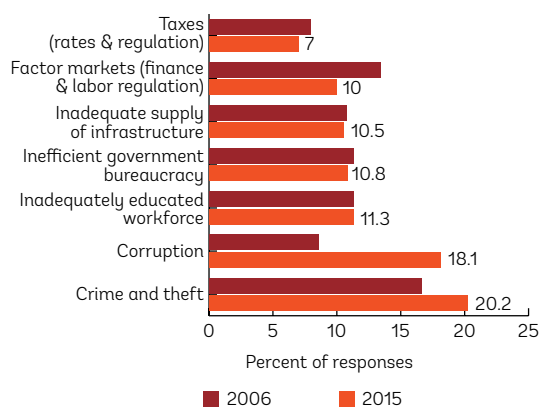
## Underlying Constraints on Inclusive Growth

FOR MANY YEARS private firms have reported experiencing obstacles within the investment climate that have negatively affected their productivity. The World Economic Forum, which carries out yearly surveys to construct its index of global competitiveness, asks business executives

to identify the most problematic factors that hinder doing business. About half of the firms in Guatemala identified governance (crime and theft, corruption, and an inefficient public sector) followed by the low quality of the labor supply as the main constraints that they faced (figure 4.29). The World Bank Enterprise Survey for Guatemala for 2010, the latest year available, found that enterprises reported the top five problem areas as crime and theft (21 percent), practices in the informal sector (19 percent), political instability (16 percent), and corruption (11 percent). These constraints in the investment climate have harmful effects on firms' productivity. Using objective indicators of these constraints, a 2009 study found that improvements in regulatory compliance and governance indicators (proxied by crime and security statistics and the incidence of bribes) would have the largest positive effect on firm-level productivity.<sup>38</sup>

Guatemala's growth constraints are not new. Comprehensive growth reports for the past 30 years have consistently identified the same constraints: low endowments of human capital, low investment levels, inadequate infrastructure, weak institutions, and limited access to finance.<sup>39</sup>

**FIGURE 4.29 Crime and Theft Continues to Negatively Affect Private Business**



Sources: World Economic Forum (2006 and 2015).

A similar set of challenges was identified in the 1951 World Bank report about Guatemala's economic development (box 1.1). Although Guatemala scores well in the latest Global Competitiveness Report from the World Economic Forum for its macroeconomic environment, financial market development, and business sophistication, it got low scores in the areas of institutions, health, and education. Institutional challenges in Guatemala are discussed in Chapter 5.

The combination of low human capital and investment with weak institutions has resulted in rates of economic growth that are not enough to reduce poverty levels. Having low revenues relatively to its GDP, Guatemala has not been able to increase its historically low endowments of human capital. Moreover, public investment is too small to be able to attract private investment to address infrastructure shortcomings. Weak institutions have resulted in weak rule of law, widespread corruption, and high levels of crime and violence. Ultimately, policy inertia and the lack of a coherent growth strategy reduce the impact of public policies.<sup>40</sup> Addressing these issues will be crucial in order to enhance growth and prosperity for Guatemala's citizens.

## A Large Education Deficit

Guatemala's education performance is poor, which means that it lags behind its peer countries in terms of competitiveness. The only gains produced by the government's low levels of investment in education have been in terms of primary school completion. Indeed, between 2000 and 2014, the share of adults (those who are at least 25 years old) that had at least a complete primary education increased from 30 percent to 43 percent (figure 4.30). As shown in Figure 4.32, dropout rates are quite high in Guatemala compared to other countries. In 2010, only about

18 percent of Guatemalans in the 25 to 29 age group had completed secondary education, well below Honduras (30 percent) and the Latin American average (51 percent). Returns to education in Guatemala are high but declining, suggesting either an excess labor supply or low labor demand for the skills being produced in the school system (figure 4.31).

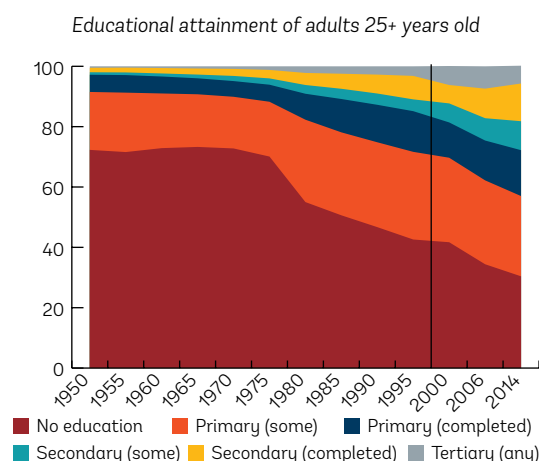
Low educational attainment, the limited supply of skilled labor, and the low quality of education will hinder productivity and the transition to high-value added sectors in Guatemala. The lack of an educated workforce affects firms' productivity in different ways. Low levels and the poor quality of education make it more difficult for workers to use their existing physical capital efficiently and to adapt to new technologies quickly. An inadequately educated workforce hinders technical progress and, thus, productivity growth, and curtails the economy's capacity to develop high-value added sectors. Moreover, the inadequacy of education prevents the majority of the population from accessing better paid jobs,

especially those from indigenous communities. According to a World Bank analysis of small and medium-sized enterprises in Guatemala, only 10 percent of their owners had attended tertiary school and fewer than 50 percent had been enrolled in secondary school. In addition, only 3 percent of their permanent employees had received a higher education, while 46 percent had only primary and secondary schooling.<sup>41</sup>

## Infrastructure Gap

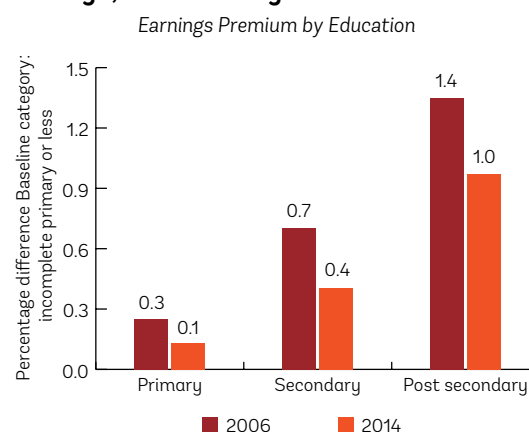
Coverage of roads and electricity is modest in Guatemala compared with coverage in its structural peers. In terms of road density, Guatemala ranks better than Honduras but worse than Nicaragua and Panama (figure 4.33). Only 89.6 percent of dwellings are attached to the electricity grid, the fifth lowest percentage in the Latin America region, though this has improved in recent years (figure 4.33). Nevertheless, wide disparities exist between rural and urban areas and across departments. For example, dwellings in the department of Guatemala have almost

**FIGURE 4.30 Gains in Primary Education Attainment Accelerated in Past 14 Years**



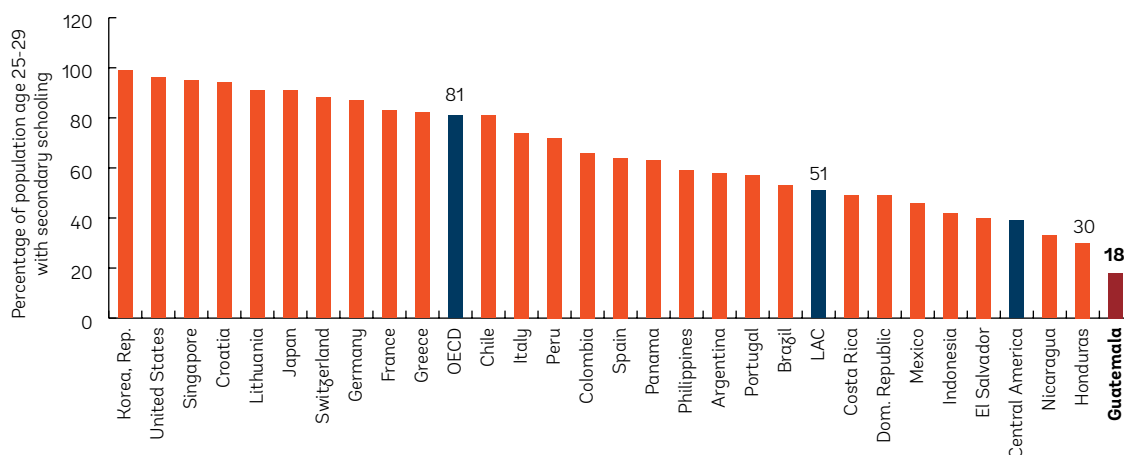
**Source:** Calculations based on data from Barro and Lee (2010) for 1950 to 1995 and from the 2000, 2006, and 2014 ENCOVI.

**FIGURE 4.31 Returns to Education are High, but Declining**



**Source:** Calculation using data from Encuesta Nacional de Empleo e Ingresos (ENEI).

**FIGURE 4.32** Very Few Guatemalan Complete Secondary Schooling



Source: Calculations based on Barro and Lee (2010).

universal coverage (99.5 percent) whereas in Alta Verapaz only 43.5 percent have access to electricity.<sup>42</sup> Besides lowering standards of living, the lack of access to electricity also affects employment opportunities by hindering firms' productivity.

The quality of infrastructure in Guatemala has deteriorated in recent years. Figure 4.34 presents the World Economic Forum Index on the overall quality of infrastructure, which shows that Guatemala has the highest ranking among all of its structural peers. However, the quality of its infrastructure has worsened in recent years in all sectors, especially in roads, ports, and airports (figure 4.34). The electricity supply is the only kind of infrastructure that has improved and significantly grown, but there are significant rural areas, particularly in the northern part of the country, that are still not connected to the national grid.

In terms of transport and logistics, Guatemala faces high costs that negatively affect its competitiveness and reduce gains from trade. A recent analysis of four logistics corridors estimated costs ranging from 6.4 to 11.4 percent of the

value of the goods being transported.<sup>43</sup> The main factors that contribute to these high costs are: (i) inefficient and costly road freight services largely due to a lack of competition; (ii) deficient and costly seaport operations and infrastructure; (iii) costly document and goods processing, including delays at borders (both ports and inland border crossings); (iv) urban congestion in Guatemala City; and (v) poor road conditions, particularly secondary and tertiary networks, due in part to poor maintenance.

The infrastructure deficit raises concerns about the adequacy of current levels of infrastructure spending and the existing implementation capacity for infrastructure projects. Guatemala stands out among Latin America countries for its low levels of infrastructure investment at only 1.6 percent of GDP (figure 4.35). Public infrastructure spending (figure 4.35) has declined because capital expenditures have reached a historic low in recent years and are not sufficient to support sustained growth and meet the country's needs. Estimates suggest that Guatemala could increase growth by over 1 percentage point by increasing

its investment-to-GDP ratio to the level of the average for Mexico, Peru, and Chile.<sup>44</sup>

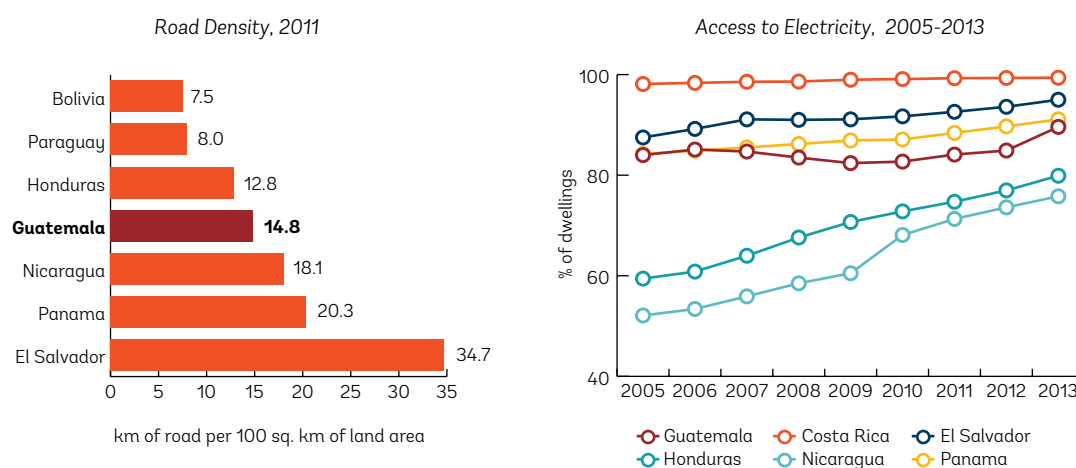
Infrastructure investment spiked in 2007 and 2010 due to private investments in the telecommunications and energy sectors respectively (figure 4.35b).

Capital expenditure is currently concentrated on community development and transport. The vast bulk of public investment is allocated to the budget lines of community development (both

urban and rural, including local transport) and road transport, which together account for about 80 percent of the total capital expenditures.

While the bulk of public investment was traditionally allocated to and handled by the central government, in the last 10 years capital transfers to other public sector entities (including regional development councils and municipalities) have accounted for more than half of all public investment.

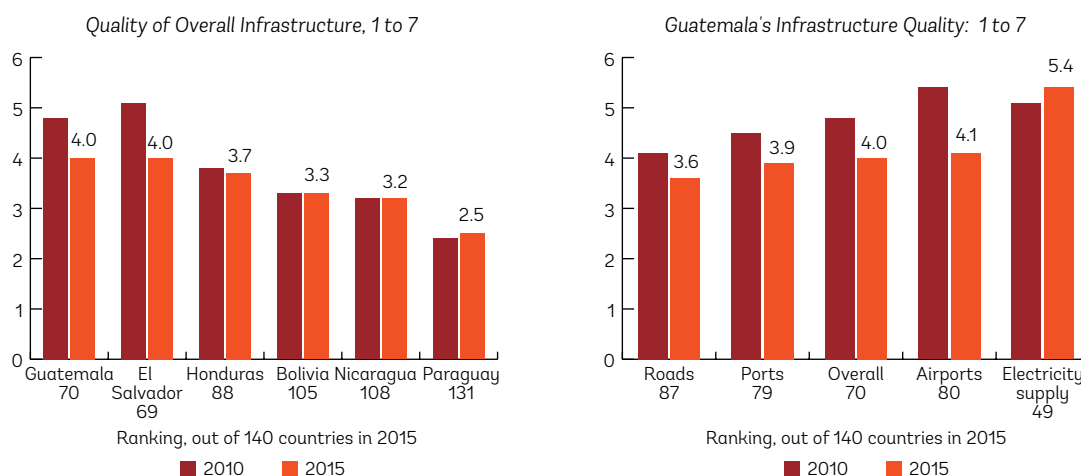
**FIGURE 4.33 Modest Coverage of Roads and Electricity**



Source: World Development Indicators.

Source: CEPAL (2014).

**FIGURE 4.34 The Quality of Infrastructure Has Deteriorated**



Source: World Economic Forum (2010, 2015).

Infrastructure spending has decreased despite high investment needs. Guatemala has relatively limited road infrastructure coverage, and its electricity coverage ranks among the lowest in Latin America. Furthermore, Guatemala's quality of infrastructure, as measured by the World Economic Forum's competitiveness index, deteriorated between 2010 and 2015. Frequent natural disasters have inflicted additional damage to the country's infrastructure, further adding to the financial strains. For example, the series of disasters of 2010 (in Agatha and Pacaya) caused an estimated US\$305 million (0.74 percent of GDP) in damages in the transport sector alone. In light of this, the reduction by half of public investment in road transport from 1.8 percent of GDP in 2011 to 0.9 percent in 2014 is of concern, especially considering that this is not compensated for by private sector investment.<sup>45</sup>

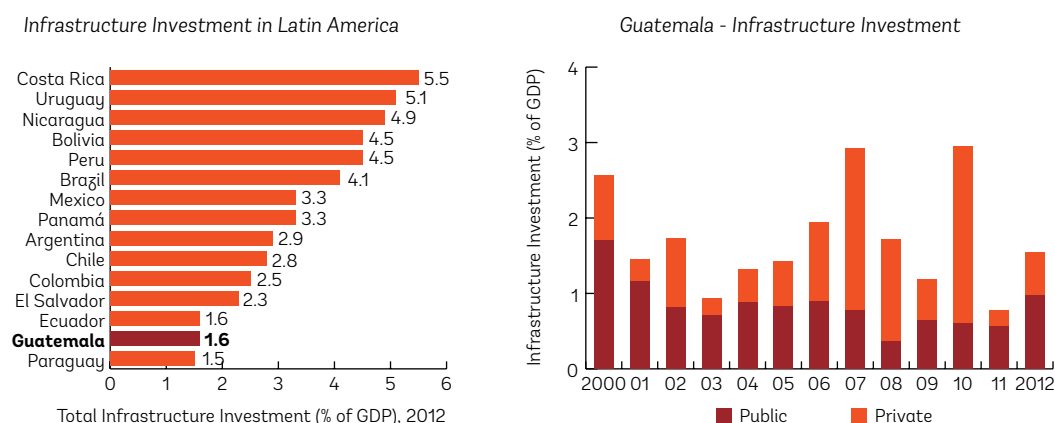
It might be possible to increase investment in infrastructure through the use of public-private partnerships (PPPs) without placing greater pressure on public financing. In 2013, the government established the National Agency for the Development of Partnerships in

Infrastructure (ANADIE) to boost investment levels through public-private partnerships. ANADIE has identified seven projects costing more than US\$1.3 billion, including a government center (US\$180 million), the Tecum Uman Port (US\$40 million), the Pacific Train (US\$250 million), solid waste projects (US\$75 million), a north-south road (US\$220 million), and an urban train (US\$420 million). However, so far progress has been made on only one of these projects.<sup>46</sup> Another concern is that public-private partnerships need to be assessed and regulated, for example, to ensure that PPP tenders are awarded transparently and that contract terms are effectively specified and regulated, and this will require further investment. Legal certainty and respect for rule of law is also a matter of concern for domestic and foreign investors. The PPP agenda needs to fact in these elements to ensure successful promotion of projects.

## Crime and Violence

Crime and violence are among the main challenges to growth in Guatemala. For the past 10 years, it has ranked at the top obstacle to business

**FIGURE 4.35** Guatemala's Investment in Infrastructure is one of the Lowest in the Region



Source: CEPAL (2014).

Note: Infrastructure investment includes transport, energy, telecommunications, and water and sanitation.

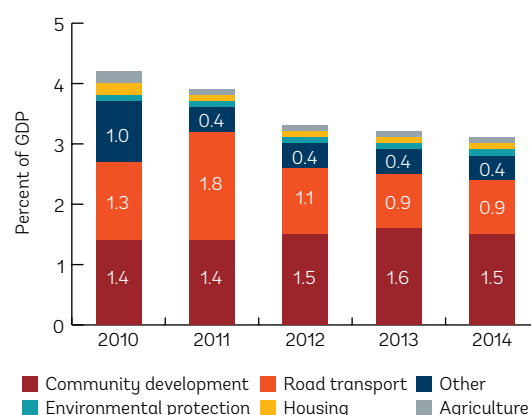


operations reported by business executives (figure 4.29). Although Guatemala's homicide rate has declined since 2008, in 2015 the homicide rate increased slightly to 33.8 from 31.2 in 2014 (figure 4.37).<sup>47</sup> This homicide level is well above the average for all Latin America (around 25 per 100,000 inhabitants). High robbery victimization, increased incidence of sexually related crimes, kidnappings, and, violence-related injuries have also contributed to the strong perceptions of insecurity among citizens.<sup>48</sup>

Crime and violence affect specific geographic areas disproportionately. Over 39 percent of national homicides<sup>49</sup> between 2003 and 2013 were reported to have occurred within the metropolitan area of the Department of Guatemala, which represents about 17 percent of the population<sup>50</sup>. Other regions with the highest homicides rates, such as Izabal, Chiquimula, El Petén, Zacapa, and Jutiapa, are located along the borders with El Salvador, Honduras, Mexico, and Belize.<sup>51</sup> Because these areas are part of transshipment routes for drug trafficking, this is suggestive of a possible link between high homicide rates and organized crime.<sup>52</sup>

High levels of crime and violence increase the costs of doing business and lower returns to investment. The economic costs of these crimes are high and rising – an estimated 7.7 percent GDP in 2011,<sup>53</sup> 11.3 percent GDP in 2013,<sup>54</sup> and 10 percent of GDP in 2014.<sup>55</sup> These high costs hinder competitiveness and reduce profit margins and can make the difference between whether a firm survives or fails. The public's lack of confidence in the police has meant that private security personnel now outnumber the police force. The 2010 World Bank Enterprise Surveys showed that on average 70 percent of Guatemalan firms pay for their own private security, spending about 1.9 percent of their yearly sales on average. In addition to such direct costs, crime and violence affect the opportunities and incentives

**FIGURE 4.36 Capital Expenditures by the Central Government Has Been Declining**



Source: Calculations based on data from the Ministry of Finance of Guatemala.

for firms to invest, create jobs, and expand.<sup>56</sup> Productivity is hampered by absenteeism or by the need to limit working hours for workers who are concerned about their personal security. Furthermore, crime and violence also could also reduce returns to education, discouraging individuals to pursue higher levels of education and thus reducing the pool of skilled labor. Finally, high security costs may be deterring foreign firms from establishing operations in Guatemala or are inducing them to leave to resettle in countries with less crime and violence.

## Business Regulations and Competition

Business regulations and competition policy influences growth by facilitating private sector participation in the economy.<sup>57</sup> One of the government's key functions is to approve and implement sound policies and regulations that will foster private sector development. Moreover, through business and market regulations and a commitment to enforcing property rights and

contracts, state institutions can affect returns to investment and thus how private firms behave. This section reviews some current aspects of Guatemala's state institutions that appear to be hindering private sector activities, including poor business regulations and lack of competition.

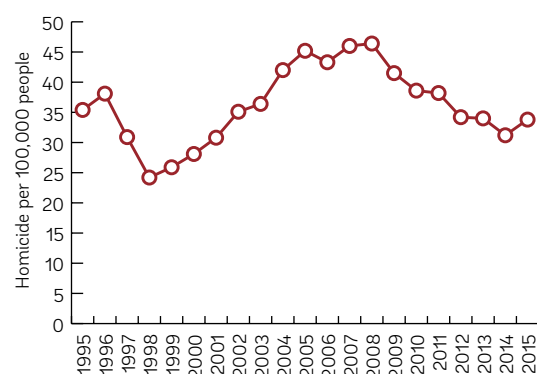
The ease of doing business also influences the competitiveness of the economy and investment decisions of private firms. Guatemala's ranks quite high in the World Bank's 2015-2016 Doing Business Index - 81th out of 189 countries (figure 4.38a). This is probably because the government has recently implemented some innovative IT solutions to reduce red tape and modernize the interface between the public administration and the final users, especially in the areas of tax payments, customs, and property registration.<sup>58</sup> These modernization efforts should be extended to other areas of business regulations to facilitate investment and increase firms' productivity. Guatemala's lower ranking on specific indicators related to the protection of minority investors, contract enforcement, resolving insolvency, and dealing with construction permits indicate

priority areas that need to be reformed (figure 4.38b).<sup>59</sup>

Guatemala lacks both a clear competition policy and a competition authority to address anticompetitive behavior and high market concentrations.<sup>60</sup> Without neither a competition law nor an independent competition authority, Guatemala is one of the few countries in Latin America that does not have a competition regime in place. Although the Guatemalan Constitution includes a provision that forbids monopolies, this provision has not been implemented in practice. Likewise, despite the fact that both the Law of Hydrocarbons and the Electricity Law include competition provisions, the government has not enforced them or sanctioned any uncompetitive practices. Guatemala also currently lacks a merger control regime for both general application and for regulated sectors.<sup>61</sup> However, as part of its commitments under the Association Agreement between Central America and the European Union, Guatemala has agreed to enact a competition law by November 2016.<sup>62</sup>

Examples of restrictive business practices can be found in various sectors of the economy.<sup>63</sup> In the sugar sector, one company holds a monopoly on the distribution of sugar and thus sets the prices for the consumers. There are dominant suppliers of construction materials (cement, steel, and bitumen), canned beans production, and poultry production. In the road freight service, for example, the lack of competition results in an almost 100 percent markup in freight prices per ton-kilometer.<sup>64</sup>

**FIGURE 4.37 Homicide Rate Has Been Declining in Guatemala**



Source: National Civil Policy (PNC) and National Institute of Statistics (INE) for 1995 and 2014, and Ramos (2016) for 2015 reporting data from .

Note: Data for 2015 comes from Ramos (2016).

## Remittances and Exchange Appreciation

As in El Salvador and Honduras, high migration rates and resulting remittances may be reinforcing low growth in Guatemala in several ways.<sup>65</sup> First, remittances can contribute to the “Dutch

## KNOWLEDGE GAP What's the full cost of crime to the Guatemalan Economy?

**Guatemala, like other countries in the Northern Triangle, is showing signs of increasing gang violence and extortions, and associated closure of business activities.** Firms report that extortion demands could range between US\$45 to \$5,000 per month. Both formal and informal firms are equally affected. Dealing with crime and violence could represent between 8 to 15 percent of business costs. Although there are not statistics about number of business closures due to extortions, the question arises of the consequences on entrepreneurial activities and labor incomes.

*Source:* Miranda (2016) and El Periódico (2014).

disease” effect because capital inflows can cause real exchange rate appreciation. A rise in household income as a result of the inflow of remittances leads to an increase in consumer demand, which raises prices for domestic non-tradables, prompting a reallocation of labor away from the tradable goods and real exchange rate appreciation. Second, migration has directly reduces the size of the labor force, but it may also indirectly influence the labor market participation of those left behind by increasing reservation wages. The real exchange rate has appreciated by 30 percent since 2003, which is detrimental for competitiveness.<sup>66</sup>

### Financial Inclusion

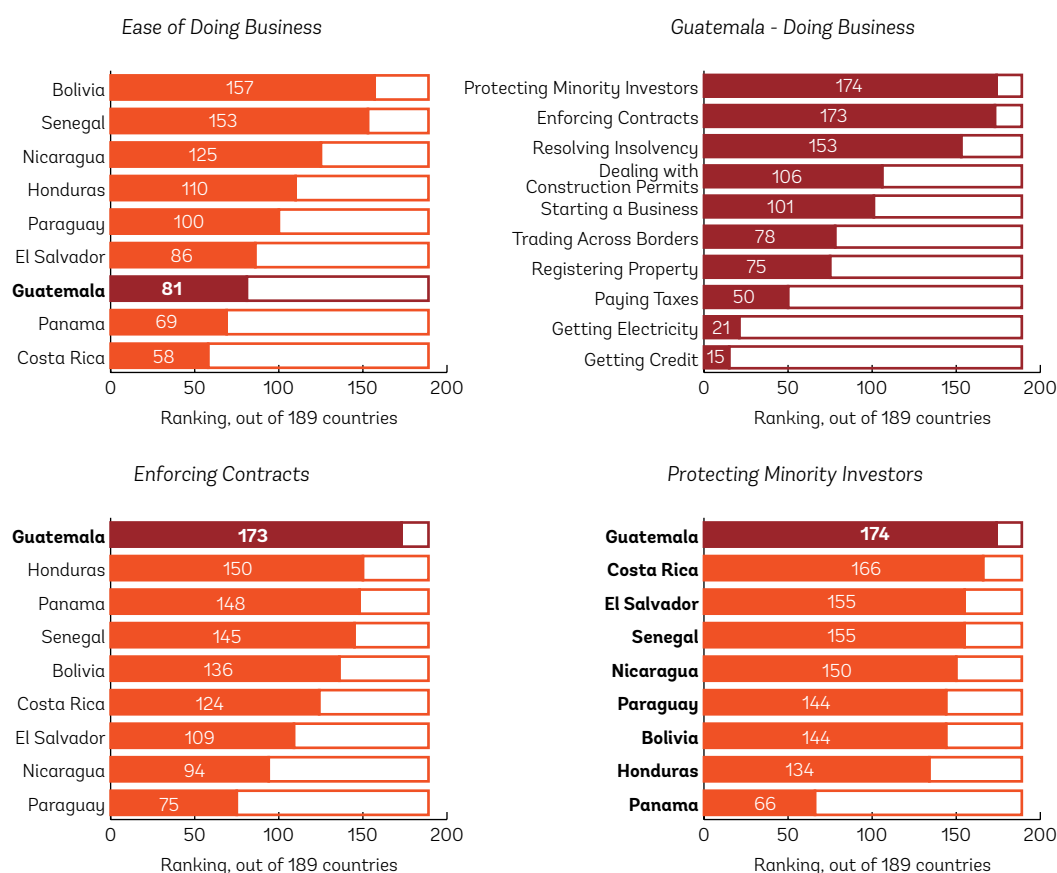
Guatemala saw rapid growth in account ownership, but the gap between the poorest and richest households increased. According to the World Bank Financial Inclusion database (Findex), 41 percent of adults has an account with a financial institution in 2014, up from 22 percent in 2011. Guatemala's account ownership is still below countries in the Latin America and Caribbean region (51 percent of adults), although above El Salvador (35 percent), Honduras (30 percent), and Nicaragua (19 percent). Large disparities exist in account ownership, as 27 percent of those

in the bottom 40 percent of income earners has an account with a financial institution compared to 51 percent of adults in the richest 60 percent of households. In contrast with the regional average, the gap between adults living in the poorest and the richest households widened from 16 percentage points in 2011 to 23 percentage points in 2014.

Access to loans from financial institutions remains limited like in the rest of Latin America and the Caribbean region. The recent Findex survey finds that only 12 percent of adults borrowed from a financial institutions in 2014, down from 14 percent in 2011 (figure 4.39). For poorest individuals, only seven percent borrowed from a financial institution, below 16 percent among the richest one. Family and friends remain the first source of financing for Guatemalan adults (20 percent).

The dearth of financing instruments, particularly loans, suitable for small and medium-sized enterprises (SMEs) and micro-entrepreneurs constrains firm investment and growth. About one third of Guatemalan (SMEs) are credit constraint (rejected by financial institutions or self-excluded due to inadequate products by financial institutions) in Guatemala, among the highest levels in the Latin America and the

**FIGURE 4.38 Guatemala's Burdensome Procedures for Doing Business**



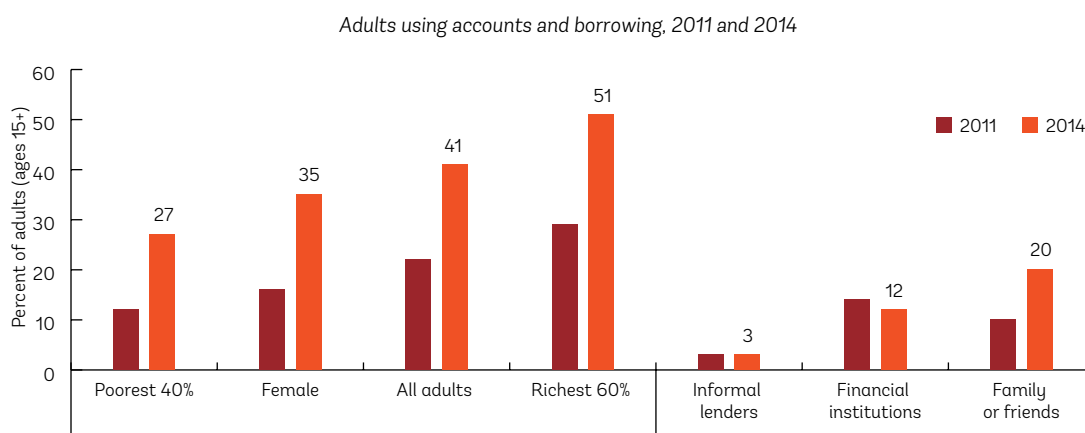
Source: Doing Business Indicators (2015-2016).

Caribbean region.<sup>67</sup> Furthermore, when banks are used to finance investments, Guatemalan SMEs reported bank financing covered between 15 to 25 percent of total investment, among the lowest in the region (figure 4.40). Besides the limited use of bank financing, Guatemalan firms are also not using leasing or factoring to finance their need for investment or working capital. Leasing and factoring represent less than 0.1 percent of banking credit. Seed capital instruments are almost inexistent in Guatemala. Only one private equity fund for MSMEs operates in the country and only five equity incubators. Firms rarely use their movable assets as collateral because of the

cumbersome and expensive registration procedures required to do so. The lack of eligible collateral and efficient credit information results in firms being granted low value loans, thus preventing them from growing into more sustainable businesses. Banrural, a state-owned development bank, is the main provider of financial services to SMEs and to indigenous populations (box 4.2).

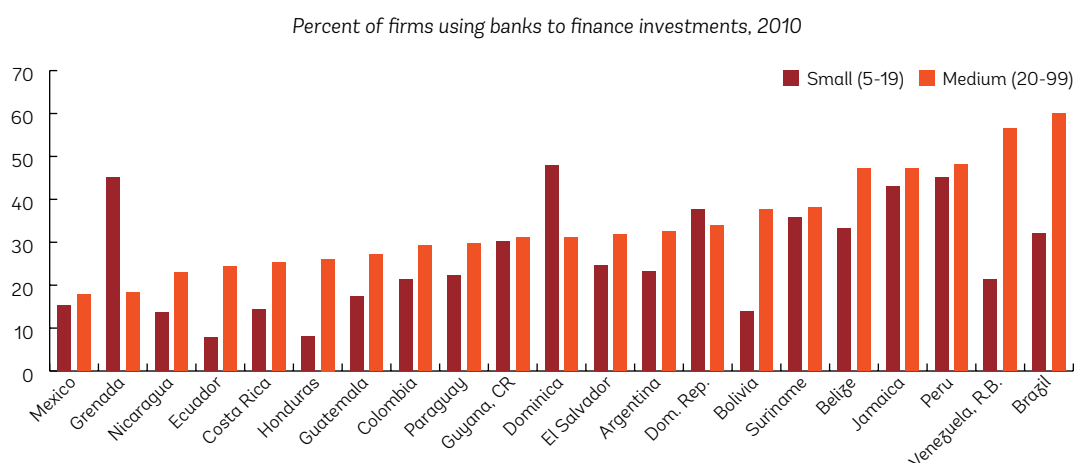
A stronger regulatory and supervisory framework for microfinance institutions (MFIs) and financial cooperatives would ensure sound growth and facilitate the consolidation of supply. For financial cooperatives, this is particularly

**FIGURE 4.39 Account Ownership Increased between 2011 and 2014, but Borrowing is Limited**



Source: Findex Survey.

**FIGURE 4.40 Fewer Guatemalan SMEs Use Banks to Finance Investments**



Source: World Bank Enterprise Surveys.

urgent as they hold the deposits of 10 percent of the population. For MFIs, an appropriate regulatory framework would help them to grow by allowing the largest MFIs to take deposits as well as ensuring adequate consumer protection.

Improving the regulatory and supervisory framework for financial consumer protection would protect the most vulnerable from becoming over-indebted when they apply for a loan.

Recent research undertaken by the World Bank on the current financial services market in Guatemala found a lack of transparency (poor disclosure of total costs and the existence of hidden fees), unfair practices (collecting twice on the same loans and seizing property without a court ruling), and weak redress mechanisms for consumers.

#### **BOX 4.2 The Case of Banrural, Guatemala**

Banrural S.A. was created in 1998 as the result of the restructuring of the Guatemalan National Agricultural Development Bank (*Banco Nacional de Desarrollo Agrícola* or *Bandesa*). The process of transforming Bandesa into Banrural was part of the modernization process of the Guatemalan financial system approved by the Guatemalan Congress in 1997. Banrural was conceived as a joint public-private venture with 30 percent of its capital provided by the state and 70 percent by the private sector. The mixed ownership structure was designed to facilitate the active participation of civil society groups involved in the rural sector with a strong social commitment. Banrural's private shareholders include community groups, cooperatives, and organizations. It holds the accounts of all government employees and manages all public trust funds.

As of December 2015, Banrural was the second largest bank in Guatemala in terms of assets (valued at US\$6.9 billion). The bank relies on an extensive network of almost 1,000 branches and 2,174 agents to serve a loan portfolio of US\$4.3 billion, equivalent to 21.3 percent of the Guatemalan banking system. At the end of 2014, Banrural started operations in Honduras, and as a result of the forced liquidation of Banco Continental in Honduras, it purchased assets estimated at US\$225 million.

Banrural aims to foster economic activity in rural areas of the country in a way that is profitable and sustainable for its shareholders, while maintaining a development objective with an entrepreneurial vision. It offers a diverse array of financial products and has a special focus on indigenous populations. Microenterprise credit, corporate credit, second-tier lending, and international operations as well as a number of payment services (water, electricity, and telephone) are all part of its portfolio. First-tier lending is provided by a specialized microfinance unit, which is responsible for providing loans to individuals or to groups (e.g., solidarity groups, or communal banks). Other loans are tailored to small and medium-sized farmers, consumers, and housing renovations and expansions.

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## Notes

- 1 Countries classified as aspirational peers (countries that are a good example for Guatemala) are Albania, Chile, Jordan, Latvia, Lithuania, Panama, and Peru. See Annex 1.1 for details.
- 2 World Development Indicators.
- 3 World Development Indicators.
- 4 Red de Gestores (2011).
- 5 Data from the statistical institutes from Bolivia, Peru, and Mexico.
- 6 In a regional study, Sosa et al. (2013) reported a similar finding for the Latin America region, but Guatemala was not included in the sample of countries.
- 7 Swiston and Barrot (2011).
- 8 OECD (2015).
- 9 World Bank (2012).
- 10 Loayza and Raddatz (2010).
- 11 Perry et al. (2007).
- 12 The slowdown in job creation in the manufacturing sector was also captured by the World Bank Enterprise Surveys of 2006 and 2010. See World Bank (2014b) for

details.

- 13 Perry et al. (2007) and World Bank (2014a)
- 14 Casanova and Hoeber (2009).
- 15 This paragraph is adapted from World Bank (2014b).
- 16 There are 259 active financial cooperatives and about 150 microfinance institutions (MFIs) that provide credit.
- 17 SIB (2015).
- 18 Agexport (2015)
- 19 The Agexport-IT-BPO Commission aims to increase and accelerate the availability of a pool of workers with technical and English skills. Campus Tec is a privately owned and managed space that has transformed a red area into a vibrant entrepreneurial space. The facilities are growing and the model is being prepared to be exported to Honduras and El Salvador. The Guatemalan Studio-C got world attention by developing digital special effects for the Narnia movie with Guatemalan talent and is developing skills in young people along with Fundación CA.
- 20 OLADE (2014).
- 21 This section is adapted from the World Bank (2015).
- 22 World Bank (2015).
- 23 Cannock and Chumpitaz (2013).
- 24 The sectoral gains from this sector are not captured in the agriculture statistics as they are generally included in the manufacturing category.
- 25 Association of Sugar Producers (ASAZGUA)
- 26 Polarization (percent) indicates the sucrose content of the sugar. The higher the polarization the higher the quality of the sugar.
- 27 INE (2013).
- 28 World Bank (2014b).
- 29 MAGA (2015).
- 30 World Bank (2015)
- 31 World Bank (2014b). The construction sector accounted for 6 percent in Honduras and 28.6 percent in Panama.
- 32 WTTC (2015).
- 33 German investment accounted for 64 percent of coffee exports by 1896, and by the 1940s the United Fruit Company (UFCO) owned 566,000 acres of the US-developed banana plantations, roughly 16 per cent of the total arable land area in Guatemala (UNCTAD, 2011).
- 34 Up until 1996, Guatemala’s mineral resources remained largely unexplored because of the civil conflict and restrictive legislation (Holden and Jacobson, 2008).
- 35 Exports of insulated wire multiplied are among the top five exports products for Honduras and amounted to US\$624 million in 2014 or 8 percent of merchandise

- exports (Fruman, 2016).
- 36 IDB (2007) and World Bank (2005).
- 37 Camanho da Costa Neto and Romeu (2011).
- 38 Fajnzylber et al. (2009)
- 39 See World Bank (1951, 1987, 1991, 1996, and 2005) and IDB (2007).
- 40 Cuevas et al. (2010)
- 41 World Bank (2014b).
- 42 CEPAL (2014)
- 43 Dumitrescu et al. (2015).
- 44 Swiston and Barrot (2011).
- 45 According to CEPAL (2014), total infrastructure investment (public and private) in Guatemala reached 1.6 percent of GDP in 2012, the second lowest share in Latin America after Paraguay.
- 46 Palacios (2015).
- 47 There is no conclusive argument regarding the decline in homicide rates in Guatemala over the last five years. However, the Government of Guatemala claims that a combination of crime control measures, including the deployment of task forces involving joint military and police actions to areas with high concentration of crime has helped to reduce violence associated with competition among criminal gangs over territory, particularly in poor urban neighborhoods.
- 48 A 2011 Latin American Public Opinion Project (LAPOP) victimization survey showed that Guatemala has overall victimization rates (which measure crime without specifying its type) higher than the regional average.
- 49 Data from The National Civil Policy, 2012.
- 50 According to projections by the National Institute of Statistics in 2011.
- 51 GAM (2016).
- 52 Selee et al. (2013).
- 53 World Bank (2011a).
- 54 FUNDESA (2014).
- 55 IEP (2015).
- 56 World Bank (2011a).
- 57 World Bank (Forthcoming).
- 58 See UNCTAD (2011) for some of examples of these improvements. In the area of tax payment, Guatemala expanded the category of businesses for which electronic filing and payment of value added is mandatory (2010), introduced a new electronic filing and payment system (2014), and enhanced the electronic system for filing and paying corporate income tax and VAT (2015).
- 59 The World Bank Doing Business Indicators have ranked Guatemala among the top reformers in several years (2014, 2013, and 2012).
- 60 UNCTAD (2011).
- 61 Effective competition authorities have an enormous impact on the functioning of markets. Competition agencies make economy-wide interventions to promote open, transparent, and dynamic markets that serve consumers and improve the business environment. Competition agencies directly focus on tackling anticompetitive behavior by firms and encourage them to adhere to the competition law through a deterrent effect and, more positively, through effective advocacy. Several studies show that the effective application of competition policy can lead to productivity increases and price reductions in key input sectors, thus to boosting GDP growth in the short to medium term.
- 62 Moving forward, it will be critical to ensure that the new Guatemalan Competition Law includes the provisions to set up of a competition agency able to effectively tackle anticompetitive behavior and regulations that unduly restrict competition.
- 63 UNCTAD (2011)
- 64 Dumitrescu et al. (2015)
- 65 Hernandez Ore et al. (2015), and Calvo-Gonzalez and Lopez (2015).
- 66 IMF (2014a and 2014b)
- 67 Ramalho et al. (2014).

## 5. Sustainability of the Pattern of Growth, Distribution, and Poverty Reduction

*Despite its macroeconomic stability, Guatemala has experienced low GDP per capita growth, and this growth has not translated into economic and social gains for the vast majority of the population. The severe disparities in economic and social outcomes between the “two Guatemalas” is hindering Guatemala’s path for inclusive growth. Several factors are getting in the way of efforts to reduce poverty and foster sustained inclusive growth, including Guatemala’s small public sector for the size of the economy paired with limited capacity to provide public goods, weak governance, high levels of crime and violence, growing urbanization, and exposure to natural disasters. However, as a result of social and economic pressures, demand is growing for greater provision of public goods such as education, health care and public infrastructure, and momentum is building behind efforts to seize the opportunities presented by Guatemala’s upcoming demographic dividend.*

### Fiscal Sustainability

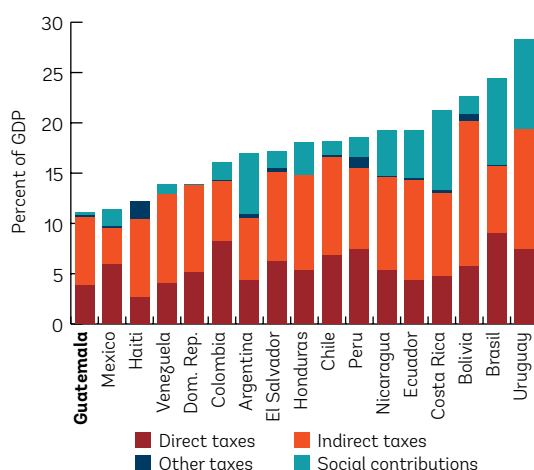
A **LOW TAX BURDEN** is one of the main constraints for promoting development in Guatemala.<sup>1</sup> As early as 1950, Guatemala had the lowest tax revenue as a percentage of GDP in Central America (6.67 percent),<sup>2</sup> a ranking that continues today. In 2014, tax revenue as a share of GDP reached 10.8 percent, which was still well below most countries in the Latin American and the Caribbean (figure 5.1). Guatemala has no significant non-tax revenue sources in contrast with other countries with low tax-to-GDP ratios like Mexico and Panama.<sup>3</sup> This concentration on taxes as a source of revenues (94 percent of total government revenues in 2014) makes Guatemala’s economy vulnerable to economic shocks. Another consequence of the low tax burden is that the government has a limited amount to spend on the provision of public goods and services.

While both tax revenues and expenditures have increased since the 1996 Peace Accords, the outcomes have been much weaker than was foreseen in the agreements. The Peace Accords called for the state to take a stronger role in

neglected areas and for increased expenditure, especially on education, health, housing and justice, to be financed by a gradual increase in tax revenues. Even without overhauling its tax system and despite a gradual decline in import tariffs resulting from trade liberalization and regional integration, Guatemala was able to raise its tax revenues by implementing incremental tax policy measures and improving tax administration. The tax-to-GDP ratio increased from 8.8 percent of GDP in 1995 to over 12 percent in the mid-2000s but has since fallen back to 10.8 percent in 2014. This increase in revenues was accompanied by an expansion in spending to meet the commitments of the Peace Accords. Total central government expenditure increased from 10.3 percent of GDP to 13.4 percent in the same period (figure 5.2), with the social sectors accounting for a significant share of this increase.

Guatemala’s public finances have focused on fiscal discipline and low debt levels. In response to the crisis of the early 1980s when the overall fiscal deficit averaged 4.9 percent of GDP (between 1981 and 1984), the government implemented a comprehensive adjustment

**FIGURE 5.1 Guatemala's Tax Burden Was the Lowest in Latin America in 2013**



Source: CEPAL - CEPALSTAT.

**FIGURE 5.2 Public Sector Spending Is Low and Declining**



Source: Ministry of Finance, Central Bank of Guatemala.

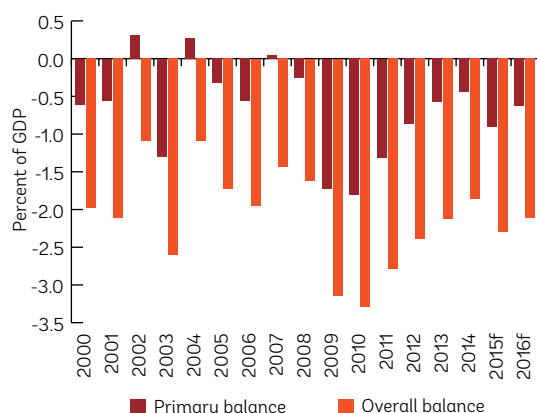
program to promote fiscal consolidation in the early 1990s.<sup>4</sup> Thereafter, the overall fiscal deficit fell to 1.7 percent in the 2000 to 2007 period. The 2009 global financial crisis negatively affected government finances due to lower tax collection and counter-cyclical spending.<sup>5</sup> The overall deficit peaked at 3.3 percent in 2010, and since then it has gradually declined as a result of expenditure controls (figure 5.3). As in the past, fiscal consolidation has been achieved by reducing the already low levels of public expenditures on infrastructure and human capital. Capital expenditures declined from 4.1 percent of GDP in 2010 to 3 percent in 2014 and are projected to decline to 2.5 percent of GDP in 2016.<sup>6</sup> Public debt has ranged between 20 and 25 percent of GDP since 2000, with almost half of that debt held domestically (figure 5.4). However, public debt relative to tax revenue is high at 224 percent.

Even in the absence of comprehensive reforms, economic forces have had some impact on the composition of revenue over the past 20 years. The liberalization of trade through regional

integration and, more recently, the DR-CAFTA agreement with the United States have resulted in a significant loss in revenues from import tariffs. In 1995, tariff revenue accounted for 24 percent of total tax intake in Guatemala, but this fell to 8 percent in 2007 (when the DR-CAFTA agreement came into effect) and to 4 percent in 2014. As a share of GDP, tariff revenue fell from 2.1 percent of GDP in 1995 to 0.4 percent in 2014 (figure 5.5). This development was accompanied by a gradual strengthening of the administration of domestic taxes as well as by incremental reforms in tax policy, which especially strengthened the collection of VAT. As a result, the share of VAT in total tax revenues increased from 36 percent in 1995 to 47 percent in 2014, replacing some of the revenue that was previously generated by import tariffs. However, VAT revenues remain heavily reliant on imports, which account for 56 percent of all VAT collected. The general VAT rate also remains low at 12 percent, below the LAC average of 15 percent.

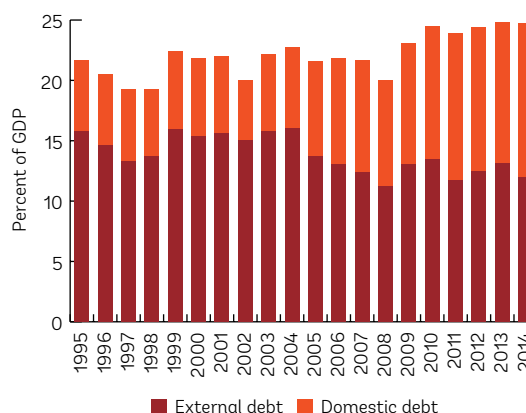
Given the limited size of the budget, the composition of taxes and spending does not

**FIGURE 5.3 Central Government Fiscal Balance, 2000-2016**



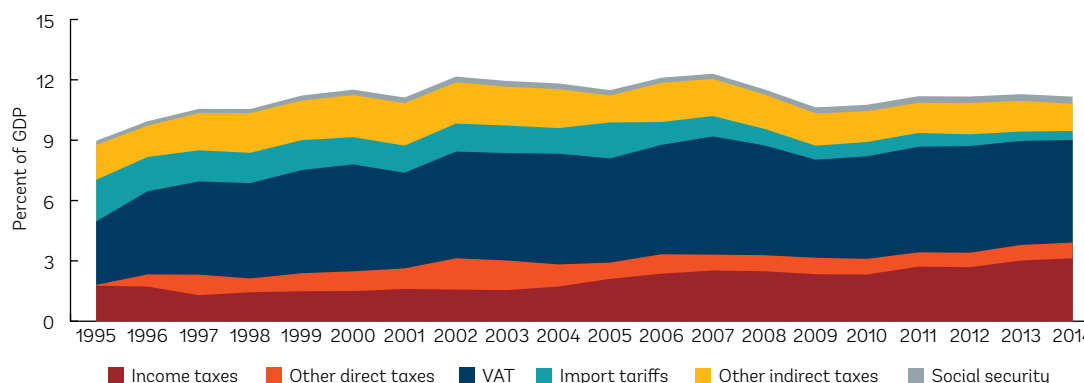
Source: World Economic Outlook.

**FIGURE 5.4 Public Debt is Low in Guatemala**



Source: Ministry of Finance, Central Bank of Guatemala.

**FIGURE 5.5 Central Government Tax Revenue by Type of Tax, 1995-2014**



Source: Tax and Customs Administration of the Ministry of Finance.

reduce inequalities. A study using data from the 2009-2010 National Survey of Family Income and Expenditure found that consumption taxes are so onerous for the poor that they counteract the benefits of cash transfer programs.<sup>7</sup> In general, indirect taxes tend to be less progressive than direct taxes. This is because the most important indirect tax, the VAT, is linked to consumption and thus captures a wider tax base, including poorer segments of the population. The most important direct tax, the income tax, on the other

hand, has a much smaller base, consisting primarily of salaried employees in the formal sector. Similarly, the VAT is a flat rate tax applied to most products, while income taxes tend to be designed on a progressive scale (in other words, richer taxpayers pay a larger share of their income than poorer taxpayers). Social security contributions are very low as well. On the spending side, Guatemala has one of the lowest social spending rates as a percentage of GDP in Latin American and the Caribbean. As was

discussed in Chapter 3, while social spending in Guatemala has increased as a share of total spending, the quality of this expenditure remains of concern, especially with respect to its geographic targeting and technical efficiency.

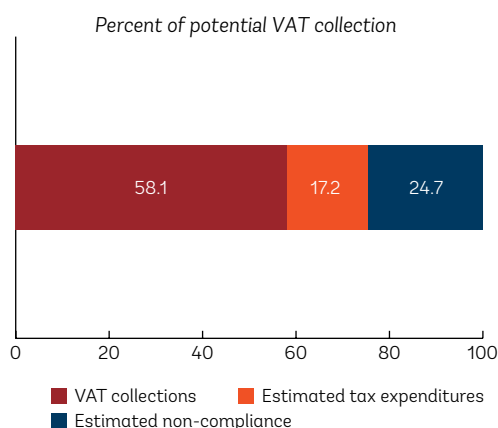
However, given the low levels of tax revenues, even if the tax system were more progressive, it is likely that its distributional impact would be very limited. Even after the 2012 tax reform, only a small share of salaried workers has had a positive income tax bill, which means that the scope for income redistribution through the tax system is small. Any redistribution will thus have to come from the expenditure side.

A combination of institutional and behavioral factors lie behind the low tax revenues in Guatemala. Tax non-compliance has traditionally been high in Guatemala, as a result of many Guatemalans' perception of the unfairness of the tax system and the lack of government capacity to enforce the rules. Evasion of income tax is estimated at between 60 and 65 percent of collections, among the highest rates in Latin America.<sup>8</sup> Evasion and involuntary under-declaration together are estimated to account for around 40 percent of VAT collections or 25 percent of potential VAT collections (figure 5.6). These estimates suggest that improving controls within the Tax and Customs Administration (SAT) could lead to significant increases in revenue collection. For example, for each 10 percent reduction in VAT non-compliance, VAT collections would increase by 0.2 percent of GDP. More recently, the SAT has experimented with behavioral insights to increase tax collection without the need for new legislation. It found that improving the way in which the tax authority communicates with taxpayers could help to reduce tax evasion.<sup>9</sup> Legal tax avoidance is also widespread, with firms and individuals taking advantage of a tax regime that applies different rates to income derived from different sources.

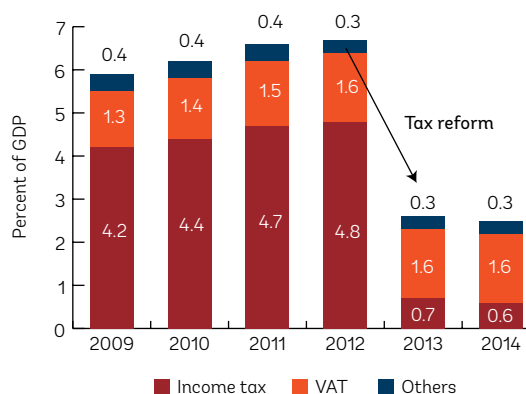
In addition to non-compliance, tax rates and tax expenditures (exemptions) are also key factors, albeit less so than in the past. Previous estimates by the SAT suggested that tax expenditures were as high as 8 percent of GDP in 2012, but this included a number of items that are not typically considered tax expenditures according to internationally accepted criteria. However, even according to the SAT's revised methodology, tax expenditures reached 6.7 percent of GDP in 2012, with income taxes accounting for the bulk of this amount. The 2012 reform drastically reduced tax expenditures for the personal income tax from 4.8 percent of GDP in 2012 to 0.7 percent in 2013 (figure 5.7). This is because the reform included a number of structural changes to income taxes, including a reduction in deductions, changes in the tax thresholds and tax rates, and the elimination of the VAT credit. Of the remaining tax expenditures (2.5 percent of GDP in 2014), 0.5 percent of GDP are constitutionally mandated. While a further review of tax expenditures (especially for the VAT) would be useful, the SAT estimates suggest that any additional revenue gains may be more limited going forward.

The SAT's weak institutional capacity is a major obstacle to increasing tax revenues and undermines citizens' trust in the government. Implementation and governance problems have affected tax collection. The SAT suffers from a dysfunctional governance structure, fragmentation and staff manipulation of information systems, a lack of effective merchandise control infrastructure in customs field offices, a lack of information sharing with between internal units (such as tax audit and tax collection), and weak tax enforcement. Also, several corruption scandals in tax collection have contributed to a culture of tax evasion, which has further complicated the enforcement of the formal tax regime. In April 2015 a customs fraud known as *La Línea*

**FIGURE 5.6 SAT Collected only 58 Percent of Potential VAT Revenue in 2014**



**FIGURE 5.7 Tax Expenditures Decreased after the 2012 Tax Reform**



Source: Calculations based on data from Guatemala's Tax and Customs Administration (SAT).

Notes: Using the SAT's new definition of tax expenditures. Previous estimates were significantly higher.

in which a criminal network diverted millions of Quetzales to private citizens was exposed by the Public Ministry (*Ministerio Público*, MP) and the International Commission against Impunity in Guatemala (CICIG). *La Línea* had inserted some its members into the SAT as government officials and technical personnel, and these people were responsible for carrying out the illegal activities. This resulted in a considerable fall in the public's trust in government institutions, and thus diminished the amount of tax collected in 2015.

Efforts to boost revenues through tax reforms have faced strong opposition, which has resulted in a cycle of temporary fixes. Tax policy reforms are frequently challenged in the constitutional court and subsequently reversed. Opponents of tax reform frequently challenge the reforms in the Constitutional Court, referring to Article 243 of the Constitution that states that taxes should not exceed taxpayers' ability to pay.<sup>10</sup> This opposition has meant that successive incoming Presidents have faced fiscal difficulties and the need to introduce short-term fixes. This cyclical introduction of temporary taxes has been paralleled by sector-specific laws that have

increased exceptions and weakened progressivity. In 2012, the government passed the first substantive tax policy reform in years, but overall tax collections have not increased. In fact, after rising from 8.2 percent of GDP in 1992 to 12.1 percent in 2007, total tax collections fell to 10.8 percent in 2014 and to an estimated 10.2 percent in 2015. Moreover, even if the amount of tax collected had increased, there would have been little extra revenue to spend on priority public policies as long as nothing was done to address the many existing rigidities in the budget.

It is critical for the government to find a way to raise revenues not only for Guatemala's long-term fiscal sustainability but also to increase social spending and the provision of public goods. Having "two Guatemalas" with different expectations and engagement with the state does not make it easy to reach a consensus about the most appropriate size of the public sector. In the debate on tax reforms, some make the argument that the main priority should be to increase the efficiency of spending as a way to escape the vicious circle of under-provision of public goods. As discussed in Chapter 3, some studies have shown that

outcomes in the health sector, for example, might improve if expenditures were to become more efficient. However, regardless of any potential increase in spending efficiency, with such low levels of tax collection, it will be very difficult to provide the level of health, education, and security services that would be needed to integrate the “two Guatemalas.” More importantly, the ratio of debt levels to tax revenue is very high (239 percent) and is quickly approaching dangerous levels that could jeopardize Guatemala’s relative fiscal stability.

## Social Sustainability

**TO ADDRESS THE MAIN RISKS** to social sustainability, Guatemala must confront the challenges of land tenure insecurity, lack of progress on the indigenous agenda, and increasing dissatisfaction with the way democracy works. *First*, land inequality is high and disputes over competing property rights and boundaries have negative consequences on economic and social sustainability. The existence of separate cadastral and registry databases continues to fuel insecurity over land tenure. *Second*, a lack of progress in ensuring the rights of the indigenous peoples of Guatemala is another source of social tensions. *Third*, Guatemalans have the perception that little progress is being made on many fronts, reflecting the shortcomings of the social contract. Another source of social vulnerability is the high levels of crime and violence, a challenge that is discussed in Chapter 4.

### Land Tenure Security

Inequality of land ownership and insecurity of tenure are hindering Guatemala’s prospects for reducing poverty and increasing shared prosperity. Inequality in the distribution of agricultural land is a structural problem in the countryside

with historical origins in the allocation of land grants during the colonial period and the privatization of communal lands during the liberal reform period (1870-1930). Currently, small producers make up 92 percent of farms, but they only have access to 22 percent of the country’s agricultural land. In contrast, commercial producers make up only 2 percent of farms but control 57 percent of all agricultural land.<sup>11</sup> Poor households either have no land or cultivate less than two hectares of land, often in marginal or ecologically sensitive areas, which then results in deforestation and soil degradation. Furthermore, about 40 percent of rural land parcels are not registered with the Land Registry, meaning that their owners have no legally enforceable right to their land. Until recently, there was no cadastre to identify the location and boundaries of land parcels, which has consequences for land tenure security. Guatemala’s indigenous peoples are among the most vulnerable to land tenure insecurity. Although Guatemalan law recognizes customary land tenure, these rights are often undermined by a lack of formal documentation.

Guatemala has a complex legal and institutional history of agrarian reform. A radical attempt at land reform in 1952 (Decree 31) was aborted following the overthrow of the government of Jacobo Arbenz. Several laws were subsequently passed that annulled the Arbenz agrarian reform law, replacing it with other mechanisms for land re-distribution such as a land tax and an idle land provision (Decree 559). The Agrarian Transformation Law (Decree 1551), which was passed in October 1962, established the National Institute of Agrarian Transformation (INTA), an agency charged with distributing land to the landless and land-poor, implementing a titling program, and establishing a land purchase program. INTA’s mandate was to expand the program of distributing state-owned land and continued to do so until the supply of these lands



was largely exhausted. The government created the Land Fund (Fontierras) after the 1996 Peace Accords, initially to allocate land to returning war refugees. Returning refugees were settled on land already owned by the state, much of which consisted of farms that had been abandoned by their owners and whose ownership had been taken over by the state and administered by INTA. When INTA was disbanded, the Land Fund took over many of its activities, such as adjudicating state-owned land and issuing definitive land titles.

Market-based land reform had a limited impact in land redistribution in Guatemala. After the Peace Accords, the government introduced a ‘willing seller, willing buyer’ model with the aim of redistributing land and improving the efficiency of land markets. Under this model, Fontierras provided loans to groups for the purchase or leasing of agricultural land, as well as grant financing to help establish productive projects, from which they would generate the proceeds to repay the loan. Nonetheless, problems emerged due to overvalued land prices and insolvent farms.

Meanwhile, peasant organizations have mobilized to gain access to land. Since the Peace Accords, several grassroots initiatives have emerged in Guatemala to claim and secure access to land. The amount of land secured through these initiatives—based on historical land claims, rural labor disputes, and land invasions—rivals the quantity of land transferred through the market-based mechanism.<sup>12</sup> Historical land claims are based on indigenous peoples’ historic land rights and customary tenure. Other claims are based on labor demands by former permanent workers (*mozos colonos*) of agricultural estates. The invasion of agricultural estates is another strategy to claim land, but these acts often end with violent evictions.<sup>13</sup>

The implementation of policies for the allocation, distribution, recognition, and enforcement of land rights requires strong political will and long-term reform. The struggle for land was at the core of Guatemala’s 36-year civil war. The 1996 Peace Accords established a new framework for agrarian policy centered on redistributing land, increasing security of tenure, and resolving land conflicts. These were major tasks that would require legal reforms and the collaboration of multiple state and civil society actors. The government has made efforts to implement land reform, but these have not been sufficient to change the overall agrarian structure. In fact, new investments on agro-industrial crops are reinforcing existing land concentration dynamics. Since 1998, the government has invested in the establishment of a new land administration system. One important achievement was the approval of the Cadastre Law in 2005. The many different legal origins of land rights in Guatemala, including customary, colonial, and republican claims, has resulted in a complicated system of land tenure. Social conflicts often erupt from these multiple claims on land, and the judicial system is often ineffective in resolving them. Communal lands are still an important source of livelihoods and cultural identity for peasant and indigenous communities. In recent years, government policy has promoted the recognition and protection of communal lands.

## Establishing Rights for Indigenous People

Progress has been made in establishing the rights of the part of the population (almost half) that self-identifies as indigenous but many gaps remain. The indigenous population in Guatemala is large, around 42 percent of the total population or 5.75 million people. It also suffers an unequal burden of poverty and limited opportunities.

Starting with the Constitutional Reform of 1993, which contains several articles promoting the cultural identity, equity, and protection of indigenous peoples, many additional laws have been passed to further promote and protect their rights and to recognize Guatemala as a multiethnic and multi-linguistic state (see Annex 5.2 for a detailed list of legislation affecting the recognition of indigenous rights). However, many of the laws that are designed to recognize and promote the rights of the indigenous peoples lack the necessary institutional mechanisms for implementing the laws, which means that legislation has not resulted in better outcomes. Moreover, even in the case of international legislation, such as the Guatemalan ratification of ILO 169 (Indigenous and Tribal Peoples), which allows for indigenous authority over communities and land, indigenous authorities have not been able to exercise these rights in practice.

Another concern relates to the lack of a mechanism for consulting indigenous people and acquiring their informed consent to measures that affect them. The absence of this consultation has undermined both the content and the implementation of laws. However, some progress has been made in creating space within the state's institutions to promote the visibility, voice, and vision of indigenous peoples, including the creation of approximately 37 different sectoral units, commissions, funds, and directorates. This process has most recently culminated in the creation in 2014 of an Indigenous Peoples Presidential Cabinet, a high-level consultative and deliberative organ that reports to the President. The Cabinet's objective is to coordinate the formulation and management of actions and policies that respect Guatemala's ethnic and linguistic diversity. Specifically, the Cabinet is charged with promoting research on traditional practices and with coordinating the design and management of a National Policy and Action

Plan on Indigenous Peoples and Inter-culturality. The multi-sectoral Cabinet has carried out national-level consultations on a draft of the Policy, which now has to be approved by the relevant political authorities. The Action Plan has not yet been prepared because of a lack of resources to do so. However, the steps taken so far have demonstrated the government's commitment to increasing the visibility and political priority of indigenous peoples in the national development process and have resulted in the creation of a platform that will be a critical vehicle for addressing the multi-sectoral needs of this population. (See box 5.1 for some evidence from Mexico on the key components of obtaining representation for indigenous peoples.)

Recent progress on the legal front is a promising development towards the creation of a more cohesive social contract. After four decades, the government agreed on a plan of reparations to the 33 communities displaced by the Chixoy dam.<sup>14</sup> The plan contains a fairly wide range of activities aimed at improving both the economic and social well-being of the communities affected. The first payments under the reparations were made in October, 2015. Much rides on the ability of the government to fulfill the plan as agreed, as its failure to do so will undermine any goodwill that the plan has generated. The second recent event, the conviction of ex-military leaders of rape and the enslavement of indigenous women during the civil war, also demonstrates a commitment to justice. It remains to be seen what impact these events will have on the construction of a more inclusive social contract and whether Guatemalans will see these delays responses as adequate.

The land rights of indigenous peoples often come into conflict with mining operations. Guatemala is a signatory of the UN Declaration on the Rights of Indigenous Peoples, which requires the government to obtain the free, prior,

and informed consent of indigenous peoples before adopting or implementing measures that may affect them. Nonetheless, there is no established mechanism for consulting with indigenous peoples before such measures are adopted. As a result, there have been numerous complaints of inadequate consultations, environmental degradation, and human rights abuses. In

the absence of an official consultation process, indigenous organizations have organized their own public consultations based on municipal law. In these consultations, indigenous peoples have continuously rejected mining operations on their lands.<sup>15</sup>

### **BOX 5.1 What Insights Can be Gained from the Chiapas and Oaxaca Experiences?**

**Given many geographic and ethnic similarities between Guatemala and the two southernmost states of Mexico, Chiapas and Oaxaca, there might be lessons that can be learned from Mexico that can be applied to Guatemala.** Both Chiapas and Oaxaca are states with a high percentage of indigenous peoples (36 and 66 percent respectively) and high rates of poverty. In 2008 Chiapas had the highest rate of poverty in Mexico (76.9 percent) with Oaxaca in fourth place at 68.3 percent. While they were both still among the poorest states in 2014, multi-dimensional poverty had declined faster in both states than the median rate in the country. Recent work in Chiapas highlights many of the same barriers to poverty reduction as are found in Guatemala, namely that the limited complexity of the economy leads to low incentives to accumulate more and more productive assets and that there is a lack of coordination among different groups and between the indigenous peoples and the state (Levy et al. 2015). At the same time, dependence on federal aid in Mexico can be attributed to a Dutch disease effect, raising the costs of tradable goods and making the zone less competitive (Hausman et al. 2015), a role that remittances seem to be playing in Guatemala.

**Various analyses done in the context of Chiapas and Oaxaca (and other countries as well) highlight ways to promote inclusive growth in Guatemala.** First, in Chiapas, there is a large gap between the goals and the mechanisms of participatory spaces (local community authorities and organizational structures) and invited spaces (where the government invites the participation of communities and controls the process). Traditional spaces are as concerned with process as with end goals, have a greater focus both on rights in general and on improving the collective and tend to have a long-term planning horizon. In contrast, invited spaces usually reflect the much shorter time horizon of elected governments, have limited capacity or experience with affecting collective outcomes, and, because of their timeframe, and prioritize projects over longer-term changes. (See Cortez Ruiz, 2004 for Chiapas and LaFrance and Nicols, 2010 for a more general overview in a different setting.) Finding a mechanism to close this gap is critical. At the same time, there is a need for the indigenous populations to have institutions that are credible both to their constituency and to the broader society (Rosenthal, 2008) and to have access to government institutions (Anaya Muñoz, 2005). A striking difference between Chiapas and Oaxaca is in access to formal government channels. Anaya Muñoz argues that

*Continue in the next page*

### BOX 5.1 continued

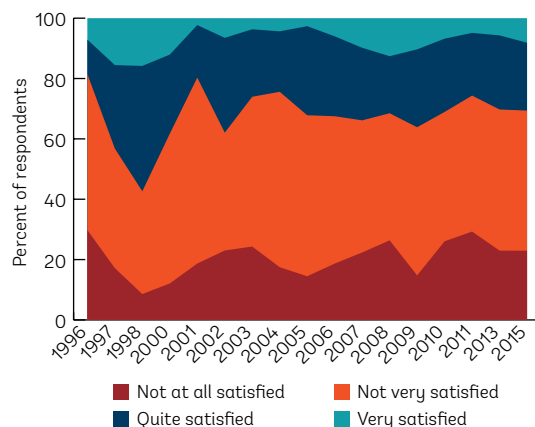
representatives of the indigenous peoples were heavily engaged in the San Andres agreement in Chiapas, much like the Peace Accords in Guatemala. Both agreements had positive effects, but in terms of the politics of recognition of rights and culture, this was not enough. In Oaxaca the indigenous peoples also had access to formal power structures. At the municipal level, traditional electoral practices resulted in indigenous peoples being elected to municipal governments and, at the state level, a combination of factors gave them access to the governor's office, albeit informally. Neither of these channels was available to the indigenous peoples in Chiapas. This lack of access to formal channels has translated into significantly less legislative change in Chiapas than in Oaxaca. Interestingly, in Oaxaca, a state with almost twice the number of indigenous people as Chiapas but with more access to formal channels, income poverty fell (from 41 to 34 percent) rate between 1990 and 2010 whereas in Chiapas it rose (from 46 to 49 percent) (CONEVAL, 2015).

## How Guatemalans Perceive their Country?

Survey results suggest an underlying core of dissatisfaction among Guatemalans on issues related to social cohesion and the social contract. Almost 70 percent of the population is dissatisfied with the way that democracy works in Guatemala (figure 5.8). The government's approval rating was highest immediately after the Peace Accords were signed but these expectations were clearly not met in subsequent years as the approval rating has since declined. The country ranks in the mid-range of Latin American countries in terms of the population's satisfaction with its government. A significant proportion of the population (24 percent) also feels that the country is in decline, an increase since 2000 (figure 5.9). However, more than half of the population believes that the country is stagnating (54 percent). It is not clear which changes in the indicators discussed in Chapters 3 and 4 have had an effect on these perceptions, though the increase in poverty and other ongoing problems are likely to be key factors.

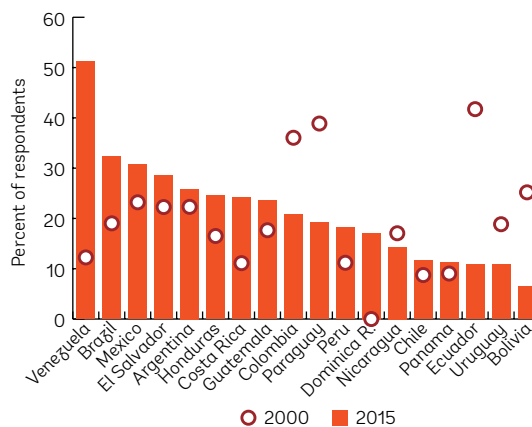
Guatemalans are concerned about fairness and opportunity and the factors that prevent them. As seen in Chapter 4, when business executives are asked to list the main problems of the country, business executives answered crime and violence, inflation and the economy, and jobs in that order.<sup>16</sup> When citizens were asked about what freedoms were most at risk in Guatemala in the 2015 Latinobarómetro, they reported the just and fair distribution of income led the list followed by the difficulty of obtaining a job (figure 5.10). Close behind in third place came the inability of the state to protect citizens from crime and violence, which is a problem that affects both job creation and, therefore, a fairer distribution of income. Moreover, the same 2015 Latinobarómetro reports that thirty percent of respondents considered the existing income distribution to be extremely unfair, and another 49 percent thought it was generally unfair (Annex 5.1). In the 2000 Latinobarómetro survey, when respondents were asked to rank themselves on a scale of one to ten with one being the poorest and ten being the wealthiest, the average response was 4.7, but by 2015, the average had

**FIGURE 5.8 The Government's High Approval Ratings After the Peace Accords Has Dissipated**



Source: Calculations based on data from Latinobarómetro.

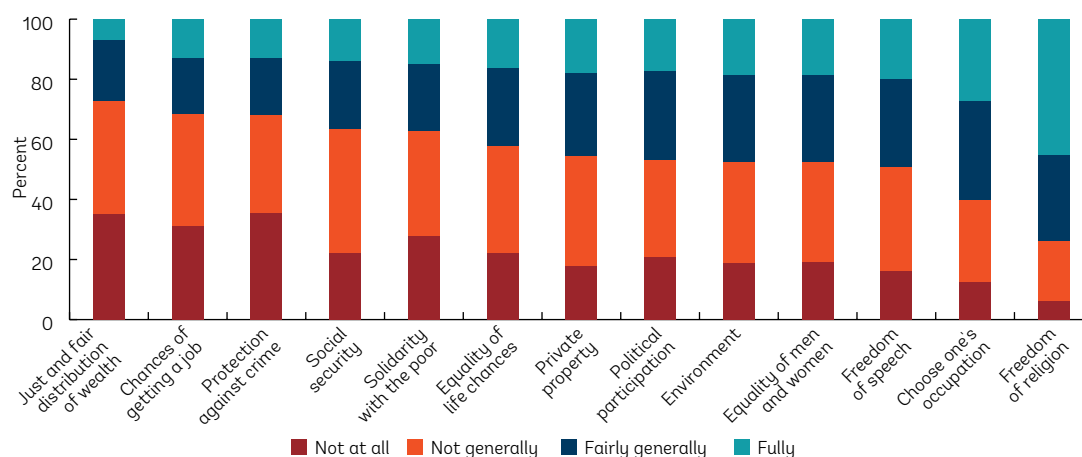
**FIGURE 5.9 Three-quarters of Guatemalans Think that Their Country is Stagnating or in Decline**



Source: Calculations based on data from Latinobarómetro.

**FIGURE 5.10 Guatemalans Are Concerned about Equity, Access to Jobs, and Crime and Violence**

*To what extent do the following freedoms, rights, life chances, and guarantees apply in Guatemala?, 2015*



Source: Calculations based on data from Latinobarómetro.

fallen to 3.6. In the Latin America Region and the Caribbean region as a whole, only in Honduras was there a greater decline as this indicator actually increased in most countries. On the one hand, it is not surprising that the perceptions of the population mirror what the empirical data

are showing - that incomes are falling and people are becoming worse off. However, the perception data also show that there is a high degree of dissatisfaction, which may either serve as a catalyst for change or may cause people to disengage from the political process.

## Environmental Sustainability

**TACKLING VULNERABILITY** to natural hazards and environmental challenges posed by deforestation, urbanization, and water contamination will be critical for Guatemala's development. Many of these environmental challenges are linked to difficulties in enforcing compliance with existing environmental laws.<sup>17</sup> *First*, Guatemala's vulnerability to natural hazards exacerbates environmental problems. *Second*, deforestation is threatening one of Guatemala's main natural resources that can potentially be sustainably harvested and contribute to a variety of the quality of other natural resources, such as water and soil quality. The Guatemalan System of Protected Areas (SIGAP) covers about 31 percent of Guatemala, including the Maya Biosphere Reserve.<sup>18</sup> *Third*, deforestation, agricultural practices, and urbanization are putting pressure on the quality of water resources. *Fourth*, Guatemala has one of the fastest urbanization rate in the Latin America region, which will put pressure on natural resources.

### Vulnerability to Natural Hazards

Guatemala is among the 10 countries in the world most affected by extreme climate events and is not exempt from geophysical hazards. The geographic location of the country makes it prone to frequent and high-intensity geological and weather-related shocks such as storms, hurricanes, droughts, earthquakes, and volcanic eruptions.<sup>19</sup> In 2010, Tropical Storm Agatha, the strongest tropical cyclone to ever strike Guatemala in terms of rainfall, produced widespread floods and landslides, causing estimated total damages equivalent to 2.2 percent of GDP.<sup>20</sup> Adverse weather events like Agatha combined with vulnerable conditions can result in long-

term damage to the well-being of households. A recent study found that between 2006 and 2011 per capita consumption plummeted by 5.5 percent (12.6 percent in urban areas) and poverty increased by 18 percent, equivalent to 80,000 more families falling into poverty.<sup>21</sup> The manifestations of climate change disproportionately affect poor households.<sup>22</sup> Moreover, climate change also has environmental effects, causing large-scale soil loss, contamination of surface water, and increased sedimentation in rivers and drainage systems.<sup>23</sup>

In addition, cyclical droughts have a detrimental effect in rural areas by affecting crop yields and food security. There are recurrent droughts related to *El Niño* in the Dry Corridor (*Corredor Seco*), which includes areas of the Quiché, Baja Verapaz, Chiquimula, Zacapa, El Progreso, Jutiapa, and Jalapa departments.<sup>24</sup> Meager rainfall results in crop losses for farmers but also in lower demand for agricultural labor, as in the case of seasonal workers for the coffee harvest. In some years (for example, 2001 and 2009), farmers have suffered from a combination of droughts and a global recession. Moreover, the recurrence of droughts, as in the past three years, makes it more difficult for subsistence farmers to cope with their crop and labor losses, and thus results in seasonal hunger and increases in cases of acute malnutrition (or even death due to malnutrition). In 2014, the government declared a state of emergency when 236,000 families in 208 municipalities were affected by a severe drought that caused heavy falls in the production of maize (80 percent) and beans (63 percent).<sup>25</sup>

### Deforestation

Another environmental challenge for Guatemala is deforestation due to changes in land use, agricultural practices, and illegal logging. Forest cover decreased from 44.3 percent in 1990 to 33.1

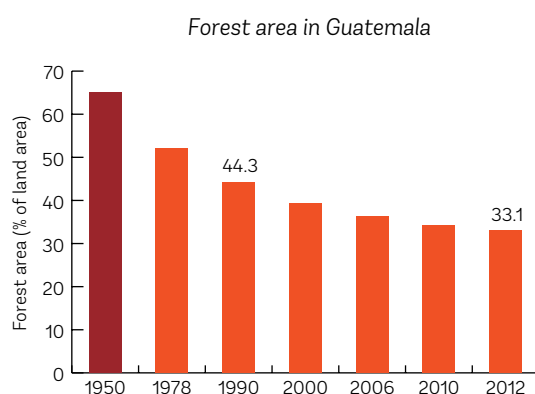
percent in 2012, with an annual deforestation rate of 1.3 percent (figure 5.11). This annual loss has accelerated since 2000. Much of the deforestation has occurred in the Department of El Petén and, to lesser extent, Izabal. From 2006 to 2010, the latest period with data available, El Petén's forest cover, which accounts for about half of the country's forest mass, decreased by 1.7 percent per year (a loss of approximately 124,610 hectares).<sup>26</sup> The main causes of deforestation in Guatemala are: (i) the lack of rural employment opportunities, which forces many households to convert forested land into land used for agriculture or grazing; (ii) illegal logging in forests; (iii) uncontrolled growth of existing urban areas and new settlements; (iv) forest fires; and (v) the extensive use of firewood for cooking and heating.<sup>27</sup> The reluctance of rural residents to switch to alternative fuels is both cultural and economic; there has been a significant increase in the cost of liquefied petroleum gas (LPG) costs, and most rural households prefer food cooked over wood fires.<sup>28</sup>

Indigenous communities are managing forest resources in the northern departments. Through

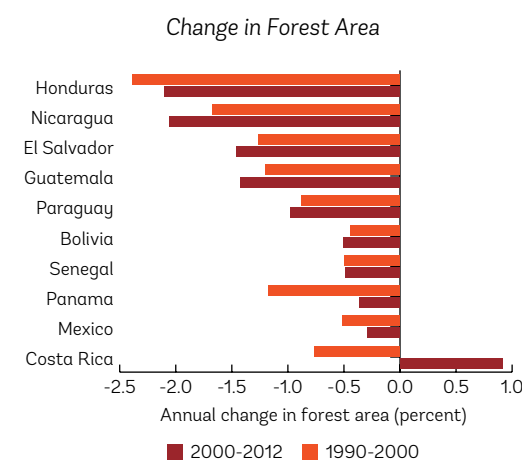
community forest concessions in the Maya Biosphere and through communal forest land management by indigenous and peasant groups in the Departments of Alta Verapaz, Huehuetenango, Izabal, and Quiché, indigenous people manage the communal land and the productive activities within the forest. However, the forest concessions consist of a 25-year contract with the Government of Guatemala, which means that the ownership rights actually belong to the state, thereby preventing the transferability or sale of concession rights.

Deforestation is also having a significant negative impact on Guatemala's watersheds and ecosystems. There is the potential to implement a payment for environmental service (PES) mechanism within Guatemala's watersheds to finance biodiversity conservation.<sup>29</sup> This potential varies widely across the country, but overall around 25 percent of all biodiversity conservation priority areas have this potential.<sup>30</sup> In fact, the legal framework to enable PES has existed in Guatemala since the mid-1990s (through the Central American Convention on Biodiversity in 1992 and the Agreement on Biological Diversity

**FIGURE 5.11 Forest Area is Falling Rapidly in Guatemala**



Source: World Development Indicators.



Source: Calculations based on World Development Indicators.



in 1995), yet no substantial efforts had been made to implement this framework in practice.<sup>31</sup>

Community forestry has been an effective tool for the sustainable use of natural resources in the Petén department. In the early 1990s, community groups and conservation NGOs lobbied the government to allow community concessions to manage the forest in the Multiple Use Zone (MUZ) of the Maya Biosphere Reserve in the Department of Peten. These groups argued that private logging concessions were doing a poor job of managing the forest and that the National Council of Protected Areas (CONAP) did not have the operational capacity to monitor compliance with laws governing the preservation of the environment. The government partnered with local communities in the sustainable use of forest resources and approved the first concession in 1994. By 2008, concessions grouped under the Association of Community Forests of Peten (ACOFOP) controlled an area of 426,000 ha.<sup>32</sup> Concessions have had the right to use and manage timber and non-timber products for 25 years. As a result, the MUZ has been significantly less deforested than the buffer zone in South Peten and the protected areas to the West (Sierra del Lacandón and Laguna del Tigre).<sup>33</sup> In the highlands, uncertainty over the recognition of communal lands is hindering the expansion of the community forestry model.

## Water Contamination

The uncontrolled discharge of untreated wastewater and solid waste and the increasing use of agrochemicals have led to a considerable contamination of water sources in Guatemala.<sup>34</sup> Major watersheds, such as Lake Atitlán, that are essential local sources of water for agriculture and consumption, have suffered from eutrophication and other bacterial contamination with negative implications for the health of the nearby

population.<sup>35</sup> According to the 2012 strategic plan of the Ministry of Environmental and Natural Resources (MARN), about 90 percent of Guatemala's surface water in rivers, water springs, and lakes, is contaminated to varying degrees. This level of water contamination contributes to infant mortality as a result of gastrointestinal illnesses, especially when the majority of municipalities have taken no action to chlorinate domestic wastewater.<sup>36</sup> Furthermore, out of nearly 24,000 controlled water systems and mechanical wells, 33 percent do have adequate levels of residual chlorine, while 67 percent have been shown to have some bacterial contamination, most of which can be found in the areas of Escuintla, Alta Verapaz, Petén, El Progreso, Jutiapa, and Chimaltenango.<sup>37</sup>

## Urbanization

Rapid urbanization is creating environmental challenges for the country. As of 2014, only 51 percent of Guatemalans lived in cities, which was well below rates in other countries in Central America and below the average for the Latin America and the Caribbean region (79.6 percent). However, the pace of urbanization is picking up, with an average annual growth rate of 3.3 percent during 1990-2014, and well above the national average population growth rate of 2.3 percent. It is projected that continuing population growth and urbanization will add 13 million people to Guatemala's urban population by 2050 from its current level of 8.1 million.<sup>38</sup> At the same time, the proportion of the population living in urban areas is expected to increase, reaching 67 per cent by 2050.<sup>39</sup>

Uncontrolled urbanization and significant population density presents environmental challenges such as the pollution of water and air with negative consequences for human health. The under-provision of water and sanitation



services in urban areas, especially the lack of adequate sanitation, is a threat to water quality and ultimately human health, and this is increasingly the case in Guatemala's cities. Only 35 percent of domestic solid waste in urban areas of Guatemala is disposed of in sanitary landfills, while the rest is dumped into the streets and in urban waste dumps. The increase in medical waste is also becoming an acute issue. In 2010, while 20 of Guatemala's hospitals made use of proper waste disposal services provided by registered companies, eight still burned their waste in the General Cemetery and 17 even burned it within the hospital building.<sup>40</sup> Urbanization also typically leads to an increase in traffic, as has been observed in countries like Costa Rica or Brazil, which in turn leads to a rise in emission of pollutants with harmful effects on human health.

## Institutional Challenges

**GUATEMALA FACES** significant challenges with the quality of its institutions. According to the Worldwide Governance Indicators (WGI), Guatemala scores in the lowest quartile of the world in three of six indicators (government effectiveness, rule of law, political stability) with the rule of law indicator in the lowest decile (figure 5.12 Panel a). In all indicators, Guatemala is below the world median; only in regulatory quality does the country approach the median (scoring in the 48 percentile). In terms of control of corruption, and voice and accountability, Guatemala is in the bottom third of the ranking. Moreover, the country has made no significant improvement in any of the six dimensions of governance in the past 20 years. The public institutions pillar of the World Economic Forum's (WEF) Global Competitive Index also show the weakness of Guatemala's institutions (figure 5.12 Panel b). In nine of the twelve components of the institutions pillar,

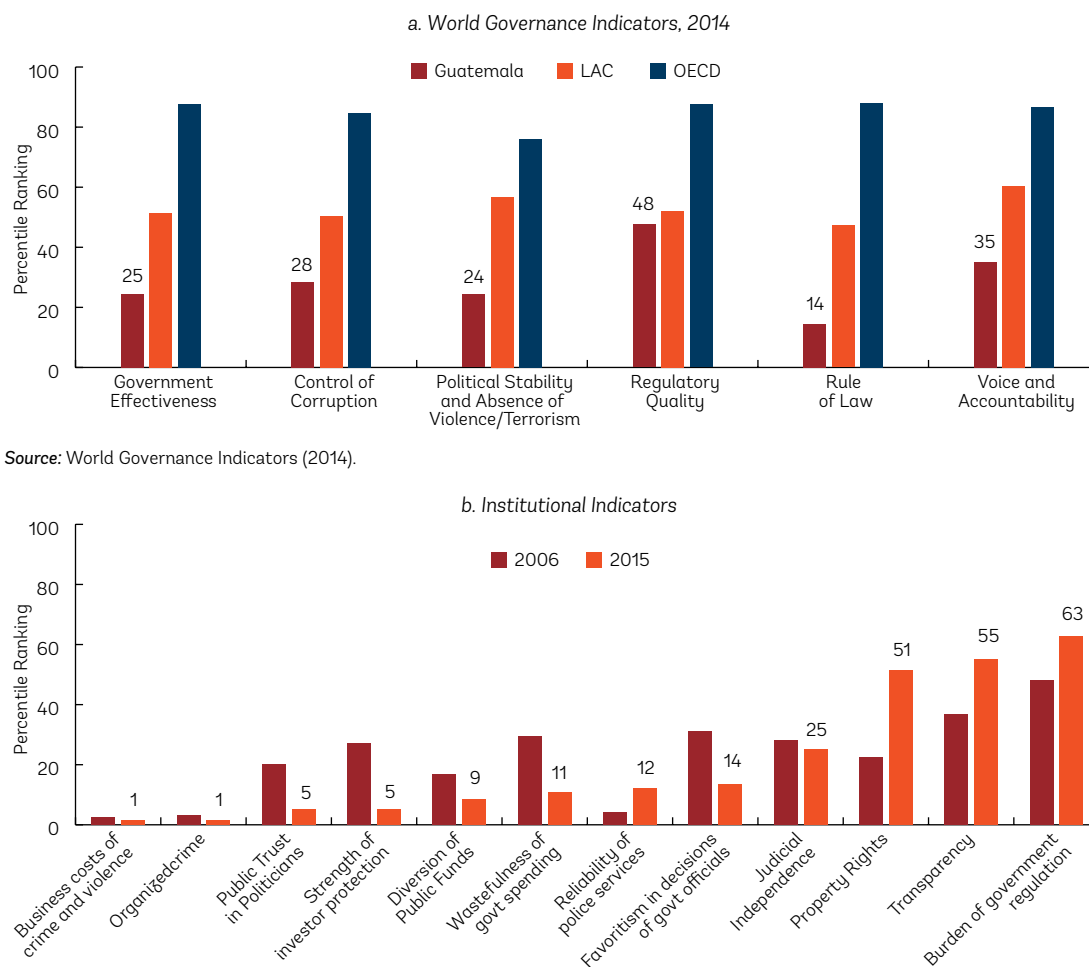
Guatemala ranks in the lowest 25th percentile of the world and in five of those (business costs of crime and violence, organized crime, public trust in politicians, strength of investor protection, and diversion of public funds) in the lowest decile. More importantly, in the past 10 years, the percentile ranking of Guatemala's institutions appear to be deteriorating rather than improving for the majority of the indicators of institutional quality. Guatemala improved its percentile ranking in only three areas, property rights, the burden imposed by government regulations and transparency, nearing the median ranking. The trends in the WGI and WEF indicators underscore a worrisome picture of the quality of institutions in Guatemala and the challenges ahead.

The origin of today's weak institutions are rooted in history. First, as discussed in chapter 1, the expansion of the coffee sector in the late 19th century contributed to a fragmented social contract and society, reflected in the early exclusionary land, labor, and education policies.<sup>41</sup> Second, voice and accountability was negatively affected by prolonged restrictions on who is eligible to participate in selecting the government. The 1879 Constitution restricted the population eligible to vote to literate males and universal suffrage was enacted only in the 1965 Constitution. Third, the combination of historically low tax revenues and low constraints on executive functions further undermined the establishment of strong and effective public institutions. Fourth, the civil war had consequences in terms of the level and composition of spending, affecting the provision of public goods. In short, Guatemala's early economic model combined with the limited ability to influence policies through the political system by the vast majority of the population have worked against the formation of strong institutions and has undermined the ability of the country to develop.

Political institutions, such as political parties, are also weak, further constraining voice and accountability. Political parties are vehicles for social groups to influence public policies and existing institutions.<sup>42</sup> Parties contribute to shaping and building a strong social contract through the roles that they perform in mediating constituency relations with the state.<sup>43</sup> However, Guatemala stands out for having the most volatile and fragmented party system in Central America.<sup>44</sup> Political parties are short-lived, with many appearing and disappearing from election

to election. A large share of congressional representatives change their party affiliation after elections or take positions in the executive.<sup>45</sup> In the last elected congress, about half of the representatives changed their party affiliation. The practice of changing party affiliations is detrimental for voice and accountability. In April 2016, the congress reformed the law to restrict the practice of changing parties. Another feature that has reduced the effectiveness of political parties to influence public policies is the limited participation of indigenous groups in Congress.<sup>46</sup>

**FIGURE 5.12 Guatemala's Institutions Are Lagging Behind And Not Improving**



Source: World Governance Indicators (2014).

Source: World Economic Forum (2006 and 2015).

### **BOX 5.2 The Commission Against Impunity and Accountability**

In 2007, Congress approved the establishment of the Commission against Impunity in Guatemala (CICIG). Working under the umbrella of the United Nations, the CICIG was designed to aid local investigators and police in developing prosecutable cases aimed at eradicating criminal networks. With impunity levels then at an alarming 98 percent, the judiciary was seen as too weak to do so on its own. Since its creation, the CICIG has assisted in securing convictions in a number of high-profile cases involving top government officials, most recently, as discussed above, the customs fraud scheme known as *La Línea*. The Commission's findings led to the arrest of Guatemala's President and Vice President as well as other government officials. Thus, the CICIG has managed to change the public's perception that criminal networks are impregnable.

Guatemalans are increasingly demanding a more transparent and accountable government. In the past, Guatemalans have been tended to be either disinterested in public issues or reluctant to express dissent. This culture of fear and silence was a result of the bloody civil war between 1960 and 1996, in which over 200,000 people were killed. Even as late as 2015, 52 percent of the population believe that freedom of speech is still not generally protected. However, this tide of silence appears to be shifting as young people who did not live through the conflict begin to feel empowered to take a stand. The revelations of the *La Línea* scandal triggered public outrage and sparked a large number of public protests in the streets, organized mainly through social media. These protests have shaken the state's political stability and resulted in the resignation of the Vice President and several ministers. It will be interesting to see if the results of new opinion polls reflect any change of attitudes.

In short, Guatemala's political parties suffer from various limitations to coordinate policy making and that maintain the status quo.

The weaknesses are reflected in a slowdown in the legislative activity by Congress. Legislative production shows some cyclical with the presidential terms. During the past two presidential terms, the number of Decrees approved per year by Congress has been higher in the first year of a presidential term, declining afterwards. Moreover, the share of Decrees approved in the same year that they introduced is also higher in the first year of a presidential terms. The number of Decrees approved during the 2008-11 was 2.3 times higher than during the presidential term of 2012-15.

## **Emerging Priorities**

**AS THIS CHAPTER** has demonstrated, there are several fiscal, social, and environmental priorities that the Government of Guatemala needs to focus on. First, fiscal revenues remain a problem. While better targeting and more efficient use of existing resources can help to fill the revenue gap, the overall shortage in revenues will continue to impede growth, inclusion, and sustainability of growth. This will need to be accompanied by changes in earmarks of revenues. Second, resolving the issues related to land ownership and land management will allow large segments of the rural population to realize returns on their individual and collective assets while, at the same time, protecting the biodiversity of the country

and mitigating climate risk. Land issues remain a critical point of social conflict: settling these issues could have a significant positive effect, especially for indigenous peoples. Finally, proper water management linked to land management is needed to ensure the viability of the country's

hydropower as well as the irrigation of agricultural land. Also, reversing and preventing further pollution of water resources will be critical to protect the health of people and of the natural environment and to aid in the eradication of malnutrition.

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## Notes

- 1 This section is adapted from Chakeri (2016).
- 2 Schneider (2012)
- 3 World Bank (2013) and Fundesa and ICEFI (2012)
- 4 World Bank (1996).
- 5 World Bank (2014).
- 6 Barrientos (2015).
- 7 Cabrera et al. (2015).
- 8 Gomez-Sabaini and Jimenez (2011).
- 9 Kettle et al. (2015).
- 10 IMF (2005).
- 11 INE (2003).
- 12 Granovsky-Larsen (2013).
- 13 One of the largest invasions in recent years took place in the Polochic Valley during 2010, when approximately 800 Q'eqchi' families occupied sugar cane plantations. These families were former workers who had been negotiating the purchase of land from land owners through Fontierras since 2002. However, the negotiations with the communities were dropped when sugar mills from the Pacific region bought the land to expand cultivation in the Polochic River Valley. In retaliation, the Q'eqchi' families invaded the estates in November 2010. They occupied the land for five months before being violently evicted.
- 14 CONADUR/SEGEPLAN (2014).
- 15 Bunch and Loarca (2013).
- 16 World Economic Forum (2015).
- 17 CONADUR/SEGEPLAN (2014).
- 18 Guatemala has 309 declared areas under different management categories, covering 3.5 million of hectares. For details on the Maya Biosphere Reserve, see <http://www.stateofthembr.org>.
- 19 Guatemala experiences frequent earthquakes and has four active volcanoes that present a threat (Fuego, Pacaya, Cerro Quemado, and Santiaguito).
- 20 Baez et al. (2015).
- 21 Cadena et al. (2013) and Baez et al. (2015). In order to cope with this shock, rural households withdrew their children from school to join the labor supply, which was also being increased (on the intensive margin) by adults, especially in urban areas.
- 22 In the case of Tropical Storm Stan, 25.8 percent of poor households reported being affected compared to 16.7 percent of non-poor households (see World Bank, 2009)
- 23 Joint UNEP/OCHA Environment Unit (2005).
- 24 FAO (2012) and Rodriguez (2015).
- 25 See Alvarez (2015) and Action Against Hunger (2014).
- 26 CONADUR/SEGEPLAN (2014).
- 27 CONADUR/SEGEPLAN (2014), World Bank (2006), and UN-REDD (2012).
- 28 Ekouevi and Tuntivate (2010)
- 29 World Bank (2010)
- 30 Pagiola et al. (2010)
- 31 Máñez Costa and Zeller (2005)
- 32 Larson et al. (2008)
- 33 Davis (2015)
- 34 Guatemala is in the top 10 countries in the world for importing hazardous pesticides.
- 35 Chandra et al. (2014)
- 36 MSPAS (2012)
- 37 MSPAS (2012)
- 38 United Nations (2014).
- 39 United Nations (2014).
- 40 MSPAS (2012)
- 41 In the case of land, the government enacted discriminatory property rights laws and supported massive land expropriation from indigenous peoples along with the privatization of their communal land. In the case of labor, the government legalized different forms of mandatory forced labor that affected indigenous groups. Elements of non-inclusive labor laws persisted until the mid-1980s. In the case of education, the economic model of large plantations and subsistence wage economy reduced the incentives for both workers and the government to invest in education. The education system that developed excluded the indigenous people, with most of them (mainly women) remaining illiterate.
- 42 Scheneider (2012).
- 43 Castillejo (2015).
- 44 Scheneider (2012).
- 45 Cabrera (2011).
- 46 Cabrera (2011).

## 6. Closing the Gaps in Guatemala: An Agenda of Priorities

**GUATEMALA IS A COUNTRY WITH SIGNIFICANT POTENTIAL** for growth and for improved welfare. The country's strategic location vis-à-vis international trade, its substantial natural resources, and its young multi-ethnic population with the associated chance for a demographic dividend all contribute to this potential. Guatemala has lived up to its promise in many ways. There is a dynamic private sector that has benefitted from macroeconomic stability and sound trade policies. Exports have increased as a result of substantial growth and increased productivity in the agricultural sector. The emergence of Guatemalan companies that are able to compete internationally (Guate-Latinas) illustrates the strengths of the Guatemalan economy. Hand-in-hand with successes in economic growth, there have been impressive gains in some social indicators over the past 15 years. In particular, Guatemala has been able to substantially lower its child mortality rate to the extent that it has met the MDG goal and it has also expanded educational opportunities, particularly at the primary level. Access to basic public services such as electricity, water, and sanitation has also increased over the past 15 years.

However, Guatemala is one of the poorest countries in the Latin America and the Caribbean region. Poverty is both deep and persistent. The majority of the country's population live in poverty, a share that increased from 55 percent in 2000 to 60 percent in 2014, using the international poverty line of US\$4 per day. There is little intra-generational socioeconomic mobility, with 37 percent of Guatemalan households being chronically poor, which is about 50

percent more than the average for the Latin America and the Caribbean region. Malnutrition (stunting) rates among Guatemalan children are high, similar to those found in countries with substantially lower levels of GDP. Guatemala has ranked 106 out of 110 countries with data on stunting since 2010, which is almost the exact same ranking that it had in 2000.<sup>1</sup> Shared prosperity, as measured by the average growth of incomes for those in the bottom 40 percent of the population, was non-existent in Guatemala between 2000 and 2014. Inequality of income, as measured by the Gini coefficient, was 0.49 in 2014, well below previous levels but still placing Guatemala almost at the top of global inequality rankings. The middle class is small (consisting of less than 10 percent of the population), which is a reflection of the barriers that people face in trying to move out of poverty.

Aggregate indicators of economic development suggest that Guatemala's growth path has diverged from the paths of richer countries. Guatemala's current per capita GDP is now 6.7 percent of that of the US, whereas in 1960 it was 8.4 percent. Meanwhile, Latin America and Caribbean countries in general were able to improve their position relative to the United States from 12.2 percent of US per capita GDP to 18.1 percent. In Central America, Guatemala's lack of convergence with the United States has been similar to that of Honduras, El Salvador, and Nicaragua, Guatemala's neighboring countries with which it shares similar development challenges. In contrast, Panama and Costa Rica, like most Latin American countries, have made headway in converging with the United States. Today,

Guatemala is the fifth poorest economy in the Latin America region in terms of per capita GDP, a drop of five positions from its rank in 1960.

The previous chapters have described the large gaps in outcomes and opportunities that characterize the country and have resulted in *two Guatemalas*. One Guatemala is rural and the other urban, one is indigenous and the other non-indigenous, one informal and the other formal, and one lacks access to basic services while the other has the ability to pay for those services when the state does not provide them. Indigenous people in Guatemala are 1.7 times as likely to be poor as non-indigenous people and are also poorer than indigenous people in most other Latin American countries. Chronic malnutrition (stunting), is high throughout the country (affecting 47 percent of all children), but the figure is 66 percent among children in the lowest welfare quintile and 61 percent among indigenous children.<sup>2</sup> This is much higher than malnutrition rates among indigenous children in El Salvador (40 percent), Peru-Quechua (15.4 percent), India (25.3 percent), and Brazil (25.7 percent).<sup>3</sup> The differences in stunting rates among wealth quintiles within Guatemala are large, ranging from 17 percent in the top quintile to 66 percent in the lowest. In education, the gaps are also large: rural inhabitants have, on average, only 3.7 years of schooling compared with 6.2 year for urban residents. In 2006, the gap in sixth-grade reading test scores between the poor and the middle class in Guatemala was the largest in the Latin America region.

The differences between the *two Guatemalas* are also clear in economic terms. Nationally, economic activities are carried out by a small formal sector with social protection (18 percent of workers) on the one hand and a large informal sector (82 percent of workers) on the other. The share of workers who are not covered by social security in Guatemala is among the highest in

Latin America and the Caribbean. In two of the largest sectors, agriculture and commerce, 94 percent and 86 percent of employment is informal, respectively. After controlling for workers' endowments, earnings in the informal sector are almost 60 percent lower than those in the formal sector. The large informal sector is a symptom of a lack of opportunities and low productivity in the economy as a whole. Agriculture, a sector of particular significance to the economy, has a dualistic structure with export-oriented large farms on the one hand and subsistence-oriented small farms on the other. At one extreme, Guatemala has become a leading exporter of agricultural products such as sugar and cardamom and has the most efficient sugar-loading terminal in the world.<sup>4</sup> At the other extreme, small farmers grow food for the domestic market and for their own consumption, and their productivity is declining or stagnant.

There is an urgent need to close the gaps between the *two Guatemalas*. The success of both Guatemalas depends on recognizing the interdependence between low per capita high inequality and how this affects growth and development outcomes. Empirical evidence shows that too much inequality is detrimental to growth. Under certain conditions, inequality can create beneficial pressures on an economy: for example, inequality of outcomes can provide incentives to individuals to accumulate human capital and to firms to invest and innovate. However, the evidence suggests that in a country like Guatemala with limited upward socioeconomic mobility and a state structure incapable of equalizing opportunities to build human capital and create access to basic infrastructure services, inequality comes at a considerable cost.

The persistence of low growth and high poverty suggest that Guatemala is trapped in a low development equilibrium. Guatemala's development has been hindered by two

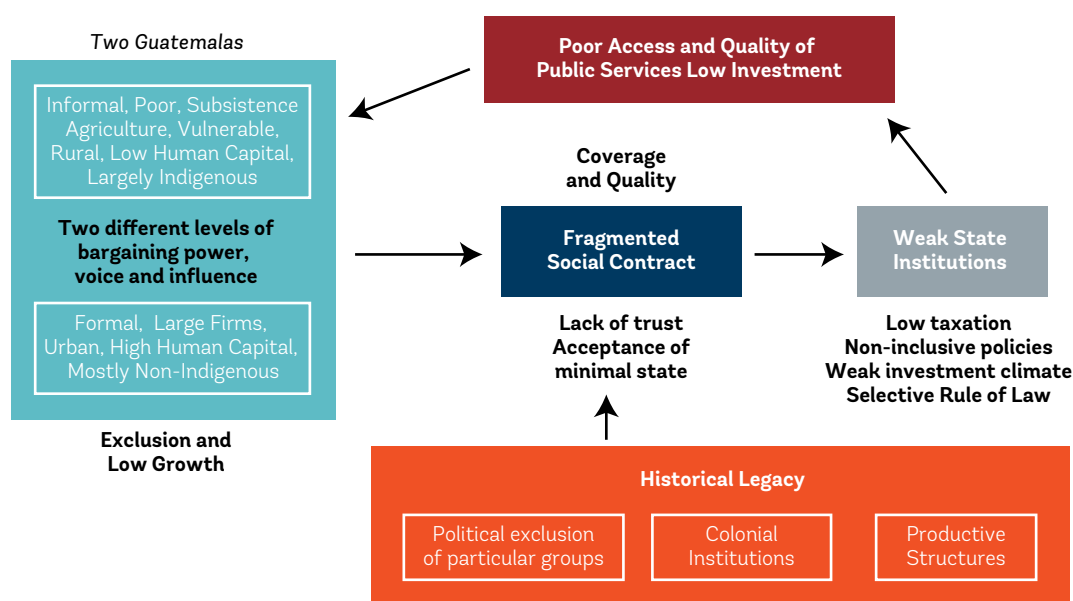


fundamental and interlinked features: (i) a fragmented social contract (the implicit agreement between the state and its citizens about their respective roles and responsibilities), and (ii) weak institutions. The economic and social dynamics of colonial times and the development of an economy based on large coffee plantations resulted in a fragmented social contract and a preference for a small state sector on the part of the populations of the *two Guatemalas*. This dynamic, in turn, created weak public institutions that have not been able to provide universal access to quality public services, creating unequal opportunities for both individuals and firms. Change has been minimal given how little accountability there has been within the system and how large segments of the population have had little say in public affairs. The country is trapped within this low-level

equilibrium because neither of the *two Guatemalas* has the resources or opportunities to change it. The more dynamic formal sector of Guatemala is too small to be able to provide the funding for the basic public goods needed to support the economy, such as transportation infrastructure, pollution controls, public health protections, basic sanitation in urban slums, and the provision of technical assistance to small farmers or entrepreneurs. Meanwhile, those in the informal and excluded sectors of Guatemala cannot contribute to the economy because of the limited opportunities available to them to increase their human capital, find good jobs, and rise out of poverty. The net result has been the *two Guatemalas* that are evident today.

The underlying dynamics between the *two Guatemalas* are represented in figure 1.2. The fragmented social contract leads to a general

**FIGURE 6.1** Guatemala's Fragmented Social Contract and Interplay between Institutions and Outcomes



Source: Adapted from the proposed framework for the WDR 2017 and Acemoglu (2015, lecture notes).

acceptance of a small and weak state. On the one hand, those who do not benefit from public spending have little incentive to pay taxes or demand greater tax collection. On the other hand, those who do benefit from public spending are unwilling to pay taxes or to expand the state apparatus to provide services to all. The low taxes ensure that the small, weak public sector does not have the capacity to improve the management of public investment, which, in turn, constrains the provision of public services, lowering its quality. Economic growth is restricted because of the limited capacity of the state to invest in the infrastructure needed by the private sector and to enforce the rule of law. Private households must either do without services or pay out of pocket for the services that should be provided by the government such as security, education, and health care. The history of weak constraints on the executive has resulted in ineffective controls on spending and the inefficiencies and corruption that arise in such conditions. The inability of the state to provide services to large groups of the population has led the voting population to feel excluded and disaffected. The net result has been considerable inequality of outcomes between different segments of the population, starting in childhood and continuing into adulthood, and the perpetuation of low growth, high poverty, and the *two Guatemalas*.

## What are the Implications for Action and the Costs of Inaction?

**THE COMBINATION OF A LOW-LEVEL EQUILIBRIUM** rooted in weak institutions and large gaps in welfare outcomes between different groups

of Guatemalans suggests that a major coordinated effort - a big push - will be needed to set Guatemala on a more inclusive development path. Realistically, marginal or incremental interventions will not be enough to overcome the self-reinforcing dynamic that currently exists in Guatemala. The underlying effects of the fragmented social contract and weak institutions permeate all sectors of the economy and all population groups. Underfunded and ineffective public institutions provide too few services to create the conditions for upward mobility. Low and inefficient levels of social spending limit the population's access to the basic services that they need to accumulate human capital. Multiple deficiencies arise as malnutrition combined with limited access to health and education services further undermine human capital accumulation. This reduces employment opportunities and thus prevents many households from generating the income needed to purchase basic services. At the same time, the small size of the middle class and the population's limited voice and participation in political life act as a damper on effective demand for change. This combined with the long-standing structural problem of low levels of investment lead to continued low growth in per capita GDP. Public investment is constrained by inefficiencies and a lack of public resources, while private investment is constrained by crime and a lack of public investment in infrastructure. Low investment reduces productivity, which slows the pace of economic diversification, reduces the sophistication of exports, keeps Guatemalan firms from being competitive, and constrains growth in job creation, earnings, and savings. Without addressing these multiple problems in parallel, there is little possibility of Guatemala's economy rising out of its present low-level equilibrium.

The extent of the policy inertia in the system should not be under-estimated. Even the Peace Accords of 1996, which were a comprehensive

attempt at change, have not been fully successful. The inertia has even started to unravel the changes that occurred after the Peace Accords, with primary education enrollment rates falling again and access to health care declining. While institutions are resistant to change, there has also been little or no pressure for change from an unengaged population. Poor households have no voice with which to express their need for better public goods and services, and better-off households can afford to opt out of the system, purchasing goods and services from the private sector. Neither group sees itself as benefitting from the state. There is a need to bring both groups into the system. In short, what is fundamentally needed is a new consensus on the role and size of government - a new social contract. This cannot be done by small-scale, marginal interventions because the magnitude of the deprivation and the barriers to development are too large. In Guatemala's environment of limited resources, strong historical trends, and policy inertia, it will not be easy to initiate a big push for change. Nor is it clear what would propel it, but it is possible that the present political environment is conducive for just such a push.

While there is potential for a big push to succeed at this time, the costs of failing to change now are also greater than in the past. The current rapid urbanization of the country will make it cheaper and more efficient to provide basic services to the population as service provision in densely populated areas is more cost-effective than in sparsely populated rural communities. At the same time, the rapidly urbanizing population means that pressure on the government to actually deliver quality services can be expected to increase. The demonstrations of the past year that were sparked by the *La Línea* scandal have shown how easy it can be for the urban population (especially the growing youth population) to organize and generate demand for change. If the

government continues to fail to provide enough basic services of good quality in urban areas, this may create social instability that would hamper investment and increase security tensions.

## Policy Areas

This section discusses the policy areas where key changes are needed to set Guatemala's economy and society on a path to a new model of development.

Three fundamental criteria were used in this report to identify the key policy areas where changes are needed. The first is that the issue in question must be significant in terms of its magnitude or scale. The reasoning behind this is that closing the gaps between the *two Guatemalas* will require interventions that will affect broad swathes of the population and that will have widespread effects. Given how many significant problems need to be addressed in Guatemala, however, this criterion was not quite enough to determine which policy interventions should be prioritized. It was necessary to add a further condition - that the priority areas be ones in which Guatemala is an outlier, where the scope of the problems sets the country apart from its peers. As discussed in the previous chapters, these areas are malnutrition, education, fiscal policy, and land concentration.

The second criterion was that the actions to be recommended within these key policy areas should work together to create synergies and should multiply the effect of the other actions. This is a critical criterion given the small size of the economy and the public sector. The lack of financial resources stemming from low government revenues, the lack of human capital in the public sector, and the weaknesses of the institutions themselves make effective policy change difficult. Therefore, it is imperative that each action taken should make sense in its own right,

tackle fundamental bottlenecks, and yield multiple outcomes, while at the same time complementing the investments and activities in other policy areas.

Finally, the third criterion relates to the timing of the policy actions. The policy interventions to be chosen need to create some degree of positive change as soon as possible. Given the depth of poverty in Guatemala, where the extremely poor are truly extremely poor, at least some interventions need to enhance welfare immediately. The next generation of children needs proper nutrition and education if Guatemala is to be able to take advantage of the demographic dividend. At the same time, the events of the past year have led to a drop in already low revenues. Stopping this downward spiral and finding ways to increase revenue collection is fundamental. And nothing can be done unless actions are taken that will rapidly spur citizen engagement and strengthen the social contract. Other actions can be chosen that will have more medium-term goals such as efforts to improve the overall investment climate in order to foster the creation of the kind of jobs that will enable people to rise out of poverty. Given the high share of the population who are dependent on the agricultural sector today, it will also be necessary to increase the productivity of investments in the sector, while moving towards a shift out of agriculture in the medium term. However, even for those policies with longer-term goals, actions need to be taken now to begin to the process of change. The big push will require that activities are carried out in parallel as taking them sequentially will not move the country forward at the necessary speed.

This SCD has identified a critical set of policy areas where actions must be taken to ensure inclusion, promote growth, and reduce poverty in Guatemala. Malnutrition is the cause of many inequities and deprivations as well as being a

barrier to the development of both individuals and the economy. The lack of education limits opportunities for individuals and undermines the productivity and potential of the economy. To promote economic growth, there is a need to increase investment, and, by improving the investment climate, the returns to investment. In particular, given the current dependence of households in both Guatemalas on agriculture, investments aimed at increasing productivity in that sector will be key to improving welfare outcomes and increasing growth. Changes in fiscal policy are needed to promote equity and generate sufficient resources to provide needed public goods. Actions are also needed to address the unequal distribution of land, which constrains social and economic progress, and to make Guatemala less vulnerable to the frequent occurrence of natural disasters, which set back development efforts and economic growth. Above all, there is the need to forge a new pluralism in Guatemala in which all people feel committed to and included in the social contract. In all of these policy areas, given the unequal burden of poverty and deprivation borne by the indigenous peoples, interventions must be designed to be pro-indigenous as well as being pro-poor.

## Tackling Malnutrition

The extent of malnutrition in Guatemala, along with its historical intractability and its effects on other welfare outcomes, puts solving the malnutrition conundrum at the top of any priority list. With 47 percent of the children under 5 year old being chronically malnourished, Guatemala's level of chronic malnutrition is closer to those in poor Sub-Saharan countries than the levels in Latin American neighbors. This means that in 2015 around 740,000 Guatemalan children were malnourished and, at this rate, every year another

125,000 will be added to the list.<sup>5</sup> In 2012, the government announced a Zero Hunger Pact in which it called for a decrease in malnutrition of 10 percent over three years. The actual decline, 6 percent over eight years, has been starkly inadequate to solve the country's rampant nutrition problem, in even the medium term.

Malnutrition represents a substantial cost to Guatemala. It limits people's opportunities to participate in the economy and to contribute to the country's social and economic development. The direct costs of malnutrition to individuals are high, leading to a greater risk of mortality, higher morbidity, and lower cognitive development, and can perpetuate poverty across generations. Also, research in other countries has found that chronic malnutrition in children leads to a 22 percent loss of earnings in adulthood.<sup>6</sup> Reducing chronic malnutrition can have a wide range of effects from lowering infant mortality and morbidity to improving child development, learning, and school outcomes to better labor market outcomes and increased productivity.<sup>7</sup> A longitudinal study conducted in Guatemala between 1966 and 1977 demonstrated the positive impact that better nutrition can have on growth, school attainment, and labor capacity and in terms of higher rates of literacy, numeracy, and information processing.<sup>8</sup> The cost of malnutrition to the economy is also high as it undermines investments in public services and deprives the labor market of productive workers. Solving the malnutrition challenge will require multi-sectoral interventions in the areas of health, education, water and sanitation, and agriculture. Evaluating the experiences of the government flagship nutrition program, Zero Hunger, could provide important insights as will updating the analysis of the UNICEF framework with data from the 2014/15 ENSMI.<sup>9</sup>

## Providing Quality Education for All

Improving education is another key investment with great potential to increase equality of opportunities in Guatemala and to promote economic development. Guatemala has a long way to go to bring its education system up to the standard of its peers. In 1970, the average number of years of schooling in Guatemala was below any of its peer countries. Forty years later that statement is still true. The gap has shrunk between Guatemala and the next closest country, which reflects the government's recent efforts to improve schooling, particularly among indigenous women, but relative to the average of all of its peer countries, Guatemala is not doing well. The transition rate of students between school levels continues to be below that of other countries, repetition rates are exceptionally high, and the low scores of Guatemalan students on international tests continue to highlight the difficulties that the government is facing in trying to provide quality education for all. The recent decline in primary school enrollments raises additional concerns.

Three characteristics of Guatemala make education a priority. First, the country continues to have a high fertility rate. This means that demand for schooling will remain high for the near future. It also means that there is a potential economic dividend that can be reaped in the best case scenario. In the worst case scenario, the demographic dividend can become a trap if the new generations are not educated. Second, the country is characterized by low productivity. An uneducated workforce hinders growth by limiting not only economic productivity but also the pool of taxpayers. Third, education has many other benefits beyond its immediate economic impact. As shown in Chapter 3, the higher the educational attainment in the household, the better the nutritional outcomes for children. A

lack of education reduces the opportunities available to individuals and can be a threat to social cohesion, especially in the context of wide-spread crime and violence. Education can increase social cohesion by helping to foster a shared national identity, which is particularly relevant in Guatemala given its multiple ethnicities, cultures, and languages.

## Unlocking Private and Public Investment Levels

Achieving higher growth will be an elusive goal in Guatemala without increasing investment levels. Guatemala has one of the lowest private and public investment levels relative to GDP in the Latin America region. Access to finance remains a challenge for SMEs as the financial sector does not yet provide the kind of instruments that could be used by SMEs, such as factoring and leasing. Investments in infrastructure that will increase the connectivity of Guatemalan firms with both internal and external markets will be critical to fostering the integration of the *two Guatemalas*. Other constraints, such as crime and violence, limited connectivity to markets, weak enforcement of laws governing contracts and property rights, and geographical inequalities in the delivery of public services also negatively affect returns to investments, and thus, the propensity of firms to invest in the first place. On the public sector side, capital expenditures have reached a historic low in recent years (2.9 percent of GDP in 2014) and are not sufficient to finance much-needed public infrastructure investment. Public-private partnerships could potentially be an alternative to finance infrastructure projects given Guatemala's low levels of tax collection.

## Boosting Agricultural Productivity

The agricultural sector has created the largest number of jobs in the past 15 years, and boosting its productivity will be critical for improving the earnings of the poor. A sustainable growth strategy in agriculture must focus on enhancing the productivity of smallholders and fostering opportunities for high-value-added production. Large gains should have been realized from the introduction of inclusive export crops such as coffee and cardamom (which mostly involve small-scale producers). However, growth in these subsectors has been constrained by the disastrous effects of large-scale outbreaks of pests and diseases, the failure to adopt technology such as irrigation, and the absence of any strong market coordination. The government will need to support the formation and consolidation of organizations of small farmers, mainly those of indigenous peoples, to help them to take advantage of economies of scale and diversify their production. Also, increasing agricultural productivity is, of course, integrally linked to resolving the land issues discussed below. Given the extreme inequality of land distribution in Guatemala (with 8 percent of producers accounting for 92 percent of the productive land), it will be crucial to develop a well-functioning land market and to increase the security of land tenure.

## Reforming Fiscal Policy

Low domestic resource mobilization has been a recurrent constraint to Guatemala's development by limiting the extent to which public spending can be used as a policy tool. Guatemala's tax revenues are far below the regional average as a percentage of GDP and have not increased since the late 1990s, despite several efforts by the government to improve tax administration and to reform the tax system. There is large degree of



informality in the economy, which means that the potential exists to broaden the tax base but this will require not only a larger private formal sector but also a more educated workforce. Furthermore, the government is hampered in its management of public expenditures. There are extensive rigidities embedded in the Constitution that pre-commit almost 90 percent of fiscal revenues.<sup>10</sup> Moreover, the effectiveness of public spending is impeded by weaknesses in budget processes ranging from the practice of preparing budgets based on past allocations (rather than on sectoral plans and results), to excessive reallocations during the budget year, to the frequent use of extra-budgetary vehicles and the accumulation of payment arrears. The use of non-competitive procurement practices and frequent cost overruns, especially in public works contracts, also reduce the positive impact of public spending. While better targeting and more efficient use of existing resources can help to fill the revenue gap to some extent, these gains will never be enough to resolve these institutional weaknesses and the chronic shortage of available services. Only significantly and consistently higher revenues will address these otherwise intractable problems.

### Promoting Territorial Planning

Land has played a difficult role in Guatemala's history. The coffee boom in the late 19th century resulted in a series of discriminatory property laws and the expropriation of land belonging to indigenous peoples along with the privatization of their communal lands. The civil war in the 20th century had its seeds in the conflict between the demand for, and the resistance to, land reform. Despite significant attempts by the government to address land tenure issues, communal land ownership was only recently legally recognized, and land conflicts continue to be common. The very high concentration of land ownership in

Guatemala (a Gini coefficient of 84 percent, well above those for either income or consumption) is a source of economic and social stress in a country where 50 percent of the population lives in rural areas. Meanwhile, the absence of any systematic territorial planning is undermining efforts to protect the environment.

Introducing nationwide territorial planning and resolving the conflicts related to tenure will be beneficial for economic growth, social welfare, and the environment. Land is the major productive asset of many Guatemalan households. If they do not have secure tenure over that land, then they have no incentive to invest in it. Without the legal rights to their land, farmers cannot use it as collateral, thus reducing their access to financial markets. When land is not used for agriculture, investors face increased costs and conflicts with communities who see few options for redress in cases of unclear ownership. For indigenous peoples, land plays an important role in their cosmovision: thus, a lack of tenure and control over their ancestral lands continues to foment social unrest. Finally, the current environmental degradation in Guatemala, including water contamination and deforestation, is the result of inadequate land use and management.<sup>11</sup>

### Addressing Natural Disasters and the Environment

Guatemala's geographic location makes it vulnerable to a full range of extreme weather events and natural disasters. Thus, it is critical to build its resilience to natural disasters, especially for the poor. The government has taken steps to put in place an agenda for disaster prevention and mitigation, such as mainstreaming disaster risk management into national development plans and territorial planning addressing disaster risk.<sup>12</sup> Two key steps are needed in this area. First, the

government needs to encourage the financial sector to provide instruments to help individuals and firms to cope with risks, such as insurance and savings mechanisms. This will reduce the extent to which social and infrastructure spending has to be diverted to disaster response activities. Second, growing urbanization and the lack of land management exacerbates the negative effect that natural disasters have on water access and quality. Water is a crucial resource that affects public health, agricultural livelihoods (through irrigation), and the viability of the country's hydropower. Also, malnutrition cannot be eradicated without clean and plentiful water. Therefore, it is vital to improve the management of water resources and to reverse and prevent further pollution of water resources to protect the health of both people and the natural environment.

## Generating Social Accountability and Forging a New Social Contract

There is a need to increase pluralism in constructive ways. Guatemalans are increasingly demanding a more transparent and accountable government. Until recently, they have often been characterized as disinterested in public issues or as reluctant to express dissent due to the Civil War, in which more than 200,000 people were killed. As recently as 2015, 52 percent of the population indicated their belief that freedom of speech was not well protected in Guatemala.<sup>13</sup> However, there appears to have been a shift as young people who did not live through the conflict appear to feel empowered to take a stand. The public protests of the past year in reaction to the *La Línea* scandal were organized mainly through social media and were instrumental in the resignations of the Vice President and several ministers. So there may be an opening for the creation of a new social consensus about the

roles and responsibilities of the government in relation to the population. Transparency will be essential for the sustainability of this new social contract, which will require mechanisms for the public to monitor government policies, spending, and actions. A range of social accountability mechanisms will need to be implemented to increase information flows, construct spaces for citizen-state interactions and create a process of negotiation for change.<sup>14</sup>

## Change and Recent History

**EFFECTING REAL CHANGE** in Guatemala will not be easy. History, vested interests, and tradition have created a degree of inertia that will be hard to break. The Peace Accords and the recent *La Línea* scandal have highlighted both the possibilities and the difficulties of making substantive and sustainable change. In many ways, the 1996 Peace Accords, which ended a 36-year long armed conflict, represented a turning point towards the development of a more inclusive social contract in Guatemala. The Accords laid out a path for closing the gap between the rich and the poor in the country, in part through a set of fiscal and social targets, including greater and more targeted social spending (education and health) and greater domestic revenue mobilization. The Accords also established a new framework for agrarian policy centered on market-assisted land distribution aimed at increasing the security of tenure and resolving land conflicts. Moreover, the Accords officially recognized that the country is made up of four distinct ethnic groups—Maya, Xinka, Garifuna, and non-indigenous—and also subscribed Guatemala to the ILO's Convention 169 relating to indigenous peoples. Despite the consensus reached through the Accords, however, in 1999 a national referendum held on



the question of whether to incorporate certain rights specific to indigenous communities into the constitution was defeated. Recent analyses have also pointed to several continuing flaws in national legislation on social justice: (i) laws recognize that rights exist but there are no institutional mechanisms to ensure that the rights can be exercised; (ii) ILO 169 is not being applied or enforced; and (iii) a continued lack of widespread consultation with stakeholders has undermined the content of the laws in question. Land tenure issues continue to be a source of conflict, and recent closures of public health facilities in remote rural areas suggest that sustaining change is also difficult. In sum, the Peace Accords changed much but were not enough to move the country onto a path towards lower inequality, higher revenue mobilization, and higher growth.

The recent *La Línea* scandal may have opened a window of opportunity for change. The 2015 scandal had the positive effect of galvanizing a segment of the population to demand accountability in government and the enforcement of the rule of law. Together, the protesters (who held a weekly vigil in the Plaza in Guatemala City), the independent investigation unit (CICIG), and the Justice Ministry have demonstrated that impunity is not inevitable in Guatemala. Citizen engagement, at least by the urban middle class, was shown to be effective. The protests and the Justice Ministry's actions not only resulted in the most senior government officials being held accountable but also galvanized the population to engage in the political process, with record high numbers of voters participating in the recent presidential elections. Whether this state of affairs will continue is unknown. And the extent to which the newly engaged and empowered electorate will generate long-lasting changes in development policies has yet to be seen. In the end, the continuation of this positive trend will depend on creating a new social contract in

which the political system responds to the demands of the population, thus spawning a virtuous cycle of citizen engagement and effective government, and moving the *two Guatemalas* into alignment.

Closing the gaps between the *two Guatemalas* will enable the country to harness its full potential. Breaking the self-reinforcing dynamics of a fragmented social contract, weak state institutions, low growth, and high inequality will require a complex and ambitious agenda of actions. The prerequisite will be the creation of a high-level political consensus about the need to forge a new social contract. The priorities identified in this Systematic Country Diagnostic focus on closing the gaps in such a way that will allow Guatemala and all of its citizens to flourish.

## Knowledge and Data Gaps

**IN THE PROCESS OF CARRYING OUT THE ANALYSIS FOR THIS REPORT**, important knowledge gaps were identified. Filling these gaps will require the collection of new data and new analyses. It is hoped that further work can be done to increase our knowledge about Guatemala and about the factors that will affect its growth, equity, and sustainability:

- *Lack of an up-to-date census.* Carrying out any analysis, either at the macro level (for example, on per capita GDP) or at the household or individual level (on poverty rates or even ethnicity), requires accurate figures on the number of people in the country and their characteristics. Population and Housing Censuses are carried out every 10 years in most countries, but Guatemala's last Census is 14 years old. The new government is beginning to plan for a new Census. Once

those data are available, it may be advisable to update and revise the analysis in this report, particularly the analysis based on the 2014 data, if the population shares from the Census are significantly different from those being used in the present population projections.

- *Malnutrition.* What new information is needed to shed light on malnutrition levels and their intractability? One question is whether there has been any change in the synergies among the dimensions in the UNICEF framework (health, care, environment, and food) over time. Analyzing the data from the 2014/15 ENSMI when they are available should provide answers to this question. A second question relates to the role played by mycotoxins in malnutrition. Collecting new data on food sources and the presence of aflatoxins (by re-visiting households visited in previous surveys) could be a cost-effective and powerful way to answer this question.
- *Primary Enrollments.* What are the key factors driving the recent decline in primary

school enrollments? What role does pre-school attendance play in the decline (and why has this fallen as well)? Has the demand for child labor risen or are migration and a worsening security situation responsible for the fall in enrollments?

- *Infrastructure Financing.* What are the institutional factors hindering infrastructure financing in Guatemala? How can public-private partnerships (PPP) help to increase the funding for infrastructure improvements?
- *Fiscal Issues and Effectiveness of Public Expenditure.* Without additional revenues, Guatemala will not have enough resources to finance its development needs. How can the government raise enough revenue from taxes to finance its fiscal policies? How can public expenditure become more effective in terms of reducing inequalities in Guatemala?
- *The Gap between the Formal and Informal Sectors.* Informality is pervasive in the Guatemalan economy, and this is detrimental to poverty reduction, productivity, and tax collection. What are the determinants of this extensive informality?

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## Notes

- 1 Based on data from the World Development Indicators using the periods 2010 to 2014 and 2000 to 2004.
- 2 MSPAS et al. (2015)
- 3 Hall (2015) using data from Hall and Patrinos (2014). The data for Brazil's indigenous peoples comes from Horta et al. (2013).
- 4 Tay (2015).

- 5 Based on the INE's population projections, cited in Government of Guatemala (2013).
- 6 Grantham-McGregor et al. (2007)
- 7 There has been a substantial amount of research on this topic. The list here is from a summary by Black et al. (2013).
- 8 A longitudinal study designed to measure the effect of consuming a highly nutritious dietary supplement (atole) on a range of outcomes was implemented in Guatemala between 1966 and 1977. A follow-up study was carried out in 1988-89 to look at the more long-term effects. There is an extensive bibliography on these studies. The information cited here is from the summary report on this bibliography by Mantorell (1995).
- 9 In 2012 the government launched the Zero Hunger Program and the related First 1000 Days of Life Initiative to address child mortality and malnutrition. The goal of the Zero Hunger Program was to reduce chronic malnutrition in children under-five and child mortality through the coordination of multisectoral interventions. The program targets the 166 municipalities with the highest levels of chronic malnutrition.
- 10 Cabrera et al. (2015) and ICEFI (2015).
- 11 The most recent is a 30-mile stretch of a river that is disappearing as a result of being diverted to make room for a plantation.
- 12 GFDRR (2014).
- 13 Latinobarometro (2015).
- 14 Social accountability mechanisms range from participatory policy making and planning, citizen involvement in the monitoring and evaluation of public goods and services, to citizen participation in oversight functions. (For an overview, see World Bank, 2006.)



# Annex 1.1: Country Comparators

To benchmark Guatemala's performance, this report uses six comparable groups of peers: Central American countries, Latin American peers, lower-middle-income countries, world average, structural peers, and aspirational peers.

The structural peers were selected using the "Find your friends" tool. The group of structural peers includes countries that provide appropriate benchmarks for answering SCD-relevant questions such as whether or not certain conditions, policies, or economic performances in Guatemala are adequate. The criteria and filters for selection were the following: (i) lower-middle-income countries; (ii) population between 5 million and 25 million people; (iii) Agriculture, value added (% of GDP) less than 20 percent; and (iv) small island states were excluded. The use of these

criteria resulted in the following set of countries: Bolivia, El Salvador, Honduras, Nicaragua, Paraguay, and Senegal.

Under aspirational peers, we want to aggregate countries that may be used as good examples of development for Guatemala and that Guatemala may emulate. Thus, we set the following criteria for the period 2001 - 2013: (i) lower middle income and upper middle income countries; (ii) GDP per capita growth higher than 3 percent; (iii) inflation below 5 percent; (iv) maternal mortality ratio (per 100,000 live births) less than 100; and (v) population below 35 million. Countries that are "natural intensive", landlocked, or islands were excluded. This classification delivers the following group of countries:

**FIGURE A1.1 Structural Peers for Guatemala**

Country	Nominal GDP per capita (US \$), 2013	Population (millions), 2014	Agriculture, value added (% of GDP), 2001-13
<b>Guatemala</b>	<b>3,512</b>	<b>15.9</b>	<b>13.0</b>
Bolivia	2,700	11.2	14.0
El Salvador	3,875	6.4	11.1
Honduras	2,323	8.3	13.4
Nicaragua	1,840	6.2	18.1
Paraguay	4,170	6.9	19.3
Senegal	1,073	14.5	16.3

Source: Find my Friends Tool 2014.

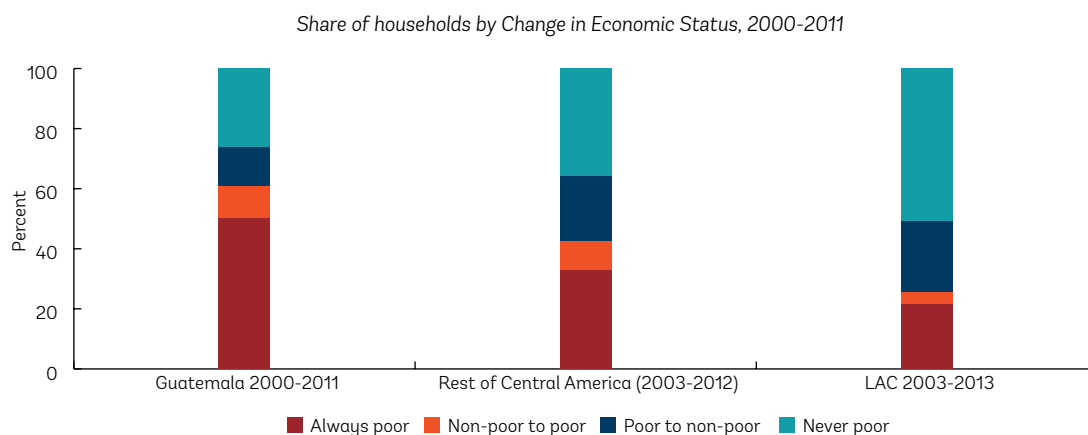
**FIGURE A1.2 Aspirational Peers for Guatemala**

Country	Nominal GDP per capita (US \$), 2013	Population (millions), 2014	GDP per capita growth (%), 2001-13	Inflation (%), 2001-13	Maternal mortality ratio, latest data point
<b>Guatemala</b>	<b>3,512</b>	<b>15.9</b>	<b>0.9</b>	<b>6.3</b>	<b>140</b>
Albania	4,610	2.8	5.4	2.9	21
Chile	15,776	17.7	3.3	3.1	22
Jordan	5,174	6.7	3.1	4.3	50
Latvia	15,205	2.0	5.5	4.7	13
Lithuania	16,003	3.0	5.9	3.0	11
Panama	10,839	3.8	5.3	3.2	85
Peru	6,674	31.4	4.1	2.6	89

Source: Find my Friends Tool 2014.

## Annex 2.1: Mobility: Guatemala, Central America and LAC

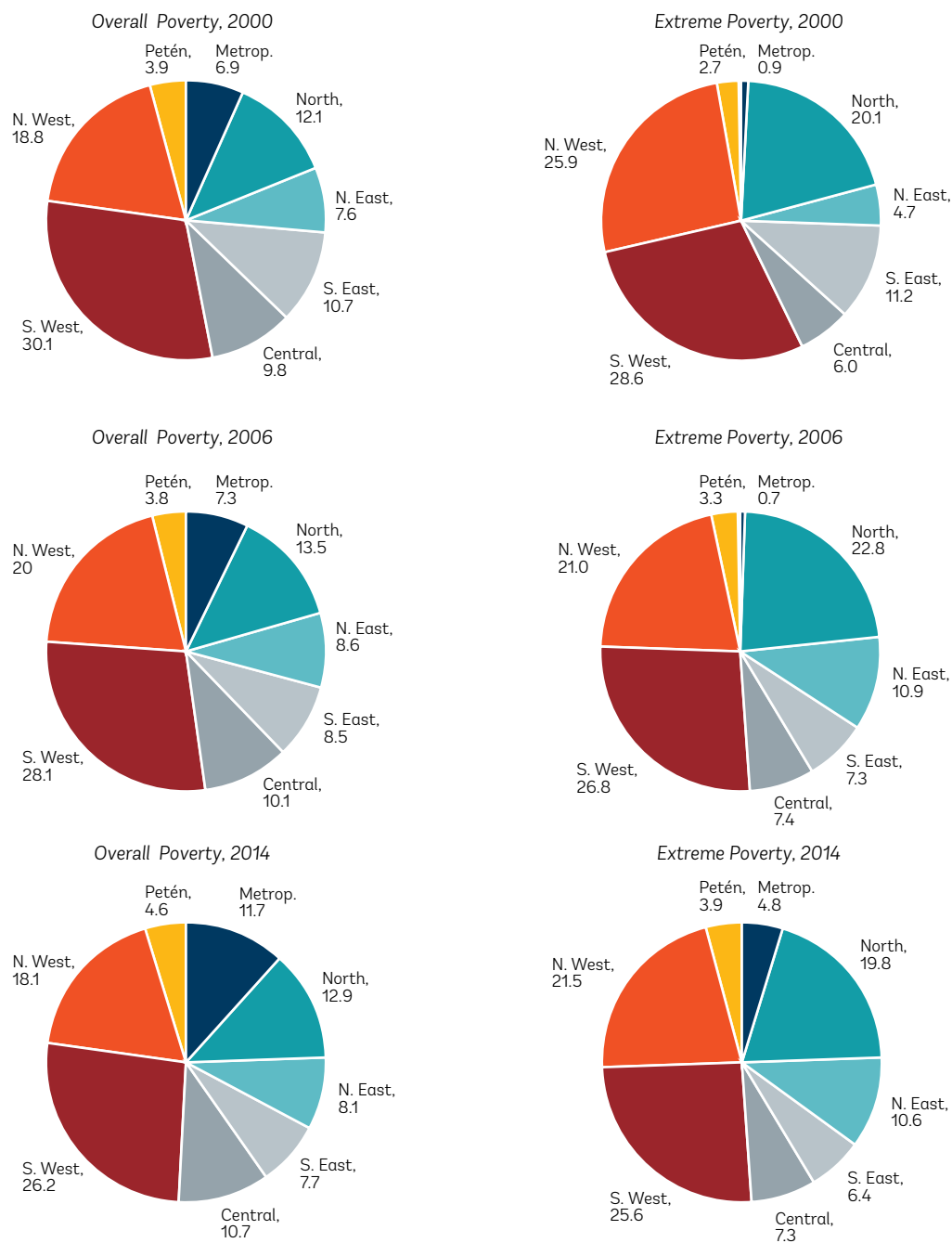
**FIGURE A2.1** The country has experienced greater movements into poverty than out of poverty



**Source:** Calculations with data from SEDLAC (CEDLAS and The World Bank) and ENCOVI 2000 ad 2011, using lower bound estimate based on Dang et al, 2011. For comparability with Central America and LAC, the analysis of Guatemala uses the 2011 data despite some concerns about comparability between the 2000 and 2011 data. However, given what is known about the 2011 dataset, it is expected that the analysis will overstate movements out of poverty and understate movements into poverty.

## Annex 2.2 Poverty by Region

**FIGURE A2.2 Distribution of Poor and Extreme Poor by Region, 2000, 2006 and 2014**





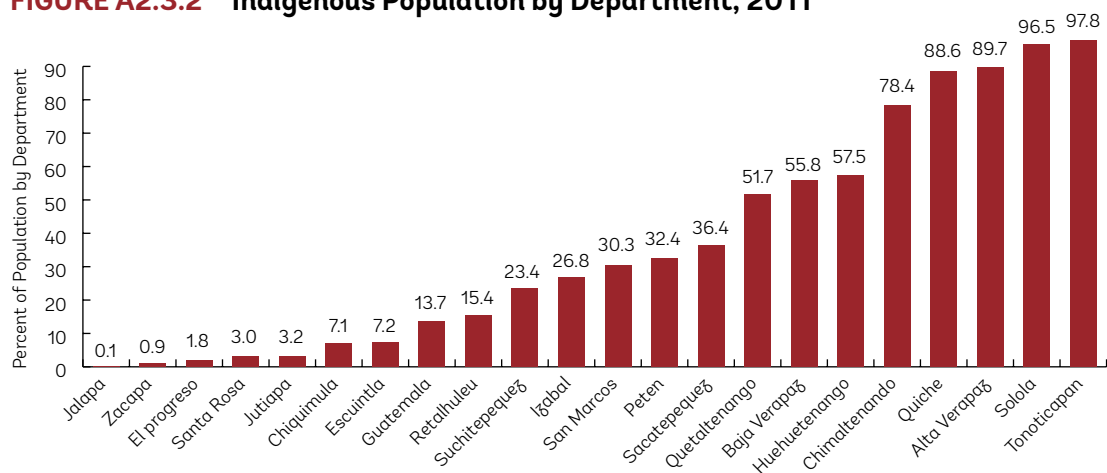
## Annex 2.3: Age Pyramid by Ethnicity

**FIGURE A2.3.1** Age Pyramid by Ethnicity



Source: INE, 2010.

**FIGURE A2.3.2 Indigenous Population by Department, 2011**



Source: INE, calculations based on the 2011 ENCOVI.

## Annex 2.4 Probability of Being Poor

Probability of Being Poor, 2014										
	Extreme poor		Moderate poor		Non-poor		Bottom 40		Top 60	
	coef	t	coef	t	coef	t	coef	t	coef	t
Age of head	-0.004***	0.000	-0.006***	0.000	0.010***	0.000	-0.011***	0.000	0.011***	0.000
Male-head household	0.103***	0.004	0.067***	0.002	-0.098***	0.003	0.110***	0.003	-0.110***	0.003
Single adult, no child.	0.016**	0.007	-0.570***	0.004	0.312***	0.004	-0.333***	0.004	0.333***	0.004
Two adults, no child.	0.119***	0.010	-0.136***	0.005	-0.016***	0.006	-0.026***	0.006	0.026***	0.006
Two adults, with children	0.040***	0.003	0.052***	0.002	0.072***	0.003	-0.077***	0.003	0.077***	0.003
Yrs. Educ. Of Hhld Head	-0.097***	0.000	-0.077***	0.000	0.130***	0.000	-0.129***	0.000	0.129***	0.000
Proportion age 0-14	0.013***	0.000	0.002***	0.000	-0.011***	0.000	0.012***	0.000	-0.012***	0.000
Proportion age 15-64	0.001***	0.000	-0.002***	0.000	0.001***	0.000	0.001**	0.000	-0.001**	0.000
Proportion age 65+	0.006***	0.000	0.004***	0.000	-0.007***	0.000	0.009***	0.000	-0.009***	0.000
Dependents per employed	-0.004***	0.000	-0.004***	0.000	0.003***	0.000	-0.003***	0.000	0.003***	0.000
Household size	0.182***	0.001	0.003***	0.000	-0.220***	0.001	0.219***	0.001	-0.219***	0.001
K'iche'	0.503***	0.004	0.060***	0.003	-0.460***	0.003	0.464***	0.003	-0.464***	0.003
Q'eqchi'	0.620***	0.005	-0.111***	0.004	-0.636***	0.005	0.652***	0.005	-0.652***	0.005
Kaqchiquel	0.533***	0.004	0.099***	0.003	-0.365***	0.004	0.377***	0.004	-0.377***	0.004
Mam	0.140***	0.005	0.292***	0.004	-0.398***	0.004	0.445***	0.004	-0.445***	0.004
Other indigenous	0.289***	0.005	0.143***	0.004	-0.427***	0.005	0.446***	0.005	-0.446***	0.005
Employer	-0.971***	0.009	-0.606***	0.005	1.190***	0.006	-1.216***	0.006	1.216***	0.006
Self Employed	-0.143***	0.002	-0.044***	0.002	0.220***	0.002	-0.215***	0.002	0.215***	0.002
Unpaid Family Worker	-0.334***	0.017	-0.286***	0.011	0.644***	0.012	-0.673***	0.012	0.673***	0.012
Unemployed	0.545***	0.016	0.144***	0.013	-0.243***	0.014	0.209***	0.014	-0.209***	0.014
North	0.725***	0.006	0.004	0.004	-0.234***	0.005	0.242***	0.005	-0.242***	0.005
North East	0.901***	0.005	-0.029***	0.004	-0.399***	0.004	0.404***	0.004	-0.404***	0.004
South East	0.531***	0.006	0.215***	0.004	-0.341***	0.004	0.364***	0.004	-0.364***	0.004
Central	0.247***	0.005	0.237***	0.003	-0.266***	0.003	0.302***	0.003	-0.302***	0.003
South West	0.390***	0.005	0.150***	0.003	-0.204***	0.003	0.205***	0.003	-0.205***	0.003
North West	0.502***	0.005	0.059***	0.003	-0.267***	0.004	0.312***	0.004	-0.312***	0.004
Peten	0.392***	0.006	0.123***	0.004	-0.089***	0.005	0.103***	0.005	-0.103***	0.005
Rural	0.377***	0.003	0.109***	0.002	-0.373***	0.002	0.354***	0.002	-0.354***	0.002
_cons	-2.753***	0.015	0.221***	0.011	0.609***	0.017	-0.711***	0.021	0.711***	0.021
R2										
Number of observations	9,824	9,824	9,824	9,824	9,824					

Source: Calculations based on the 2014 ENCOVI.

Notes: Based on all households. Significance: .01 - \*\*\*; .05 - \*\*; .1 - \*;

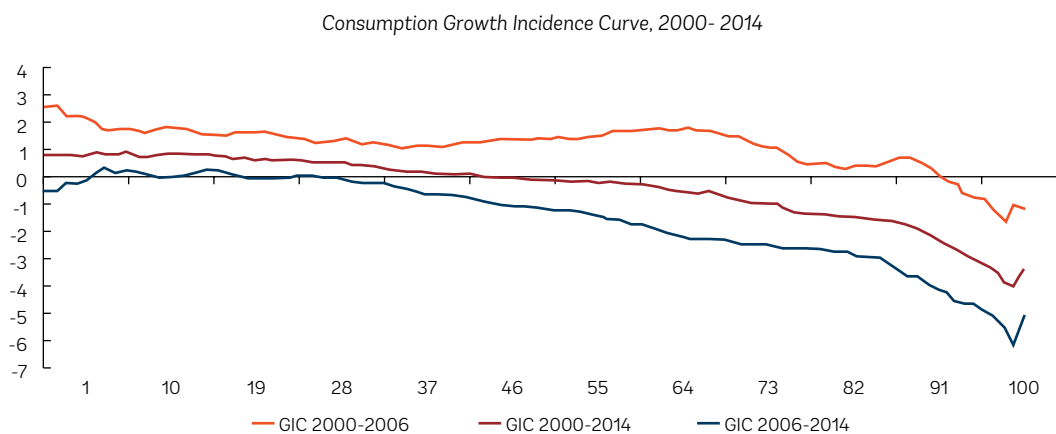
Probability of being poor, non-poor, in bottom 40 or top 60 percent of population, 2014										
	Extreme Poor		Overall Poor		Non-Poor		Bottom 40 percent		Top 60 percent	
	coef	t	coef	t	coef	t	coef	t	coef	t
Age of head	-0.007***	0.000	-0.008***	0.000	0.019***	0.000	-0.019***	0.000	0.019***	0.000
Male-head household	0.107***	0.007	0.072***	0.004	-0.068***	0.005	0.086***	0.005	-0.086***	0.005
Yrs. Educ. Of Hhld Head	-0.154***	0.001	-0.109***	0.000	0.194***	0.000	-0.193***	0.000	0.193***	0.000
Proportion age 0-14	0.022***	0.000	0.005***	0.000	-0.021***	0.000	0.022***	0.000	-0.022***	0.000
Proportion age 15-64	0.000	0.000	-0.004***	0.000	0.001**	0.000	0.002***	0.000	-0.002***	0.000
Proportion age 65+	0.010***	0.000	-0.000*	0.000	-0.012***	0.000	0.014***	0.000	-0.014***	0.000
Dependents per employed	-0.007***	0.000	-0.007***	0.000	0.006***	0.000	-0.007***	0.000	0.007***	0.000
Household size	0.328***	0.001	0.037***	0.001	-0.407***	0.001	0.407***	0.001	-0.407***	0.001
K'iche'	1.005***	0.007	0.053***	0.005	-0.821***	0.006	0.826***	0.006	-0.826***	0.006
Q'eqchi'	1.000***	0.009	-0.242***	0.007	-1.064***	0.009	1.093***	0.009	-1.093***	0.009
Kaqchiquel	1.037***	0.008	0.124***	0.005	-0.563***	0.006	0.582***	0.006	-0.582***	0.006
Mam	0.192***	0.008	0.413***	0.006	-0.589***	0.008	0.678***	0.008	-0.678***	0.008
Other indigenous	0.492***	0.008	0.195***	0.006	-0.692***	0.008	0.723***	0.008	-0.723***	0.008
Salaried	1.726***	0.018	0.975***	0.009	-2.061***	0.010	2.100***	0.010	-2.100***	0.010
Self-empl	1.416***	0.018	0.904***	0.009	-1.673***	0.010	1.726***	0.010	-1.726***	0.010
Unpaid Worker	1.121***	0.037	0.527***	0.020	-1.103***	0.022	1.098***	0.022	-1.098***	0.022
Unemployed	3.231***	0.028	0.985***	0.018	-2.847***	0.020	2.807***	0.020	-2.807***	0.020
Agricult.	0.796***	0.006	0.194***	0.004	-0.752***	0.004	0.742***	0.004	-0.742***	0.004
Light Manuf.	0.885***	0.020	0.153***	0.012	-0.611***	0.014	0.563***	0.014	-0.563***	0.014
Other Manuf.	-0.152***	0.018	-0.104***	0.009	-0.022**	0.010	-0.014	0.010	0.014	0.010
Construction	-0.326***	0.025	-0.458***	0.011	0.466***	0.012	-0.525***	0.012	0.525***	0.012
Commerce	0.177***	0.028	-0.218***	0.018	0.271***	0.020	-0.252***	0.020	0.252***	0.020
Utility	-0.029***	0.010	0.374***	0.005	-0.359***	0.006	0.412***	0.006	-0.412***	0.006
FIRE	(dropped)		-0.289***	0.018	0.135***	0.020	-0.074***	0.020	0.074***	0.020
Pub. Adm. & Defense	(dropped)		(dropped)		(dropped)		(dropped)		(dropped)	
Education, Health, Social work	-0.160***	0.013	-0.205***	0.007	0.186***	0.007	-0.174***	0.007	0.174***	0.007
Priv. hhlds as empl.	0.710***	0.015	0.255***	0.009	-0.612***	0.010	0.614***	0.010	-0.614***	0.010
North	1.288***	0.012	0.010	0.007	-0.374***	0.009	0.390***	0.009	-0.390***	0.009
North East	1.621***	0.010	-0.074***	0.006	-0.667***	0.007	0.677***	0.007	-0.677***	0.007
South East	0.852***	0.011	0.310***	0.006	-0.463***	0.007	0.503***	0.007	-0.503***	0.007
Central	0.272***	0.011	0.362***	0.005	-0.362***	0.006	0.429***	0.006	-0.429***	0.006
South West	0.626***	0.009	0.224***	0.005	-0.271***	0.005	0.277***	0.005	-0.277***	0.005
North West	0.807***	0.010	0.087***	0.006	-0.358***	0.007	0.445***	0.007	-0.445***	0.007
Peten	0.646***	0.012	0.161***	0.007	-0.071***	0.008	0.101***	0.008	-0.101***	0.008
Rural	0.497***	0.005	0.094***	0.003	-0.438***	0.004	0.406***	0.004	-0.406***	0.004
Constant	-6.858***	0.034	-0.948***	0.020	3.655***	0.036	-3.845***	0.038	3.845***	0.038
R2										
Number of observations	2,853,771		2,891,502		2,891,502		2,891,502		2,891,502	

Source: Source: Calculations based on the 2014 ENCOVI.

Notes: Based on households with the head working.

## Annex 2.5: Growth Incidence Curve, Consumption

**FIGURE A2.5** Growth Incidence Curve, Consumption



Source: Calculations based on ENCOVI 2000, 2006, and 2014.

## Annex 3.1: Changes in the Probability of Primary School Enrollment

Probability of Primary School Enrollment						
	2000		2006		2014	
	coef	t	coef	t	coef	t
Male	0.268***	0.002	0.123***	0.001	0.093***	0.001
Age	-0.180***	0.000	-0.084***	0.000	-0.089***	0.000
Indigenous	0.014***	0.002	0.051***	0.002	-0.068***	0.002
Education of father	0.038***	0.000	0.016***	0.000	0.027***	0.000
Education of mother	0.052***	0.000	0.060***	0.000	0.024***	0.000
No. of children 0-6	-0.052***	0.001	-0.104***	0.001	-0.188***	0.001
No. children 7-15	0.101***	0.001	0.178***	0.001	0.167***	0.000
Number of adults	0.032***	0.001	0.022***	0.000	0.008***	0.000
Quintile 2	0.341***	0.002	0.203***	0.002	0.160***	0.002
Quintile 3	0.507***	0.003	0.372***	0.002	0.342***	0.002
Quintile 4	0.646***	0.003	0.711***	0.003	0.498***	0.002
Quintile 5	1.277***	0.004	1.019***	0.004	0.748***	0.003
Urban	0.209***	0.002	0.110***	0.002	0.119***	0.001
North	0.406***	0.004	0.322***	0.003	0.207***	0.003
Northeast	0.184***	0.004	0.218***	0.003	-0.085***	0.003
Southeast	0.387***	0.004	0.201***	0.003	0.172***	0.003
Central	0.258***	0.004	0.209***	0.003	0.107***	0.003
Southwest	0.472***	0.003	0.249***	0.002	-0.003	0.002
Northwest	0.294***	0.004	0.069***	0.003	-0.032***	0.003
Peten	0.331***	0.005	0.344***	0.004	0.191***	0.003
_cons	1.149***	0.006	0.104***	0.004	0.680***	0.004
R2						
Number of observations	10,320		22,812		16,934	

Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

Notes: .01 - \*\*\*, .05 - \*\*, .1 - \*

Probability of Primary School Enrollment, ethnicity						
	2000		2006		2014	
	coef	t	coef	t	coef	t
Male	0.268***	0.002	0.123***	0.001	0.093***	0.001
Age	-0.180***	0.000	-0.084***	0.000	-0.089***	0.000
Kiche	-0.171***	0.003	-0.015***	0.003	0.026***	0.002
Q'eqchi	-0.003	0.004	0.115***	0.004	-0.157***	0.003
Kaqchiquel	0.043***	0.003	0.005*	0.003	-0.070***	0.003
Mam	0.068***	0.004	0.065***	0.003	-0.164***	0.003
Other Indig.	0.184***	0.004	0.160***	0.003	-0.018***	0.003
Father's educ.	0.038***	0.000	0.017***	0.000	0.027***	0.000
Mother's educ.	0.051***	0.000	0.059***	0.000	0.024***	0.000
No. children 0-6	-0.050***	0.001	-0.103***	0.001	-0.189***	0.001
No. children 7-17	0.102***	0.001	0.179***	0.001	0.166***	0.000
No. working adults	0.032***	0.001	0.022***	0.000	0.008***	0.000
Quintile 2	0.347***	0.002	0.209***	0.002	0.165***	0.002
Quintile 3	0.522***	0.003	0.380***	0.002	0.343***	0.002
Quintile 4	0.666***	0.003	0.720***	0.003	0.500***	0.002
Quintile 5	1.302***	0.004	1.029***	0.004	0.748***	0.003
Urban	0.211***	0.002	0.111***	0.002	0.110***	0.001
North	0.399***	0.005	0.255***	0.004	0.267***	0.004
Northeast	0.186***	0.004	0.201***	0.003	-0.074***	0.003
Southeast	0.392***	0.004	0.189***	0.003	0.165***	0.003
Central	0.254***	0.004	0.222***	0.003	0.102***	0.003
Soutwest	0.508***	0.003	0.257***	0.003	-0.017***	0.002
Northwest	0.251***	0.004	0.049***	0.003	-0.057***	0.003
Peten	0.342***	0.005	0.324***	0.004	0.202***	0.003
_cons	1.129***	0.006	0.098***	0.004	0.687***	0.004
R2						
Number of observations	10,320		22,812		16,934	

Source: Calculations based on the 2000, 2006, and 2014 ENCOVI.

Notes: .01 - \*\*\*; .05 - \*\*; .1 - \*

## Annex 3.2: Sectors and Intragenerational Mobility

**FIGURE A3.2 Sectors and Intragenerational Mobility**



Source: Calculations based on ENCOVI 2000, 2006 and 2014.



## Annex 3.3: Mincer Equations and Oaxaca Blinder

Mincerian Wage Equation (dependent variable ln of hourly wages)						
	Indigenous		NonIndigenous		Ethnic Groups	
	coef	t	coef	t	coef	t
Male	0.153***	0.018	0.122***	0.011	0.130***	0.010
Primary Incomplete	0.139***	0.019	0.146***	0.017	0.165***	0.012
Primary Complete	0.209***	0.024	0.237***	0.018	0.249***	0.014
Secondary Incomplete	0.243***	0.028	0.308***	0.020	0.298***	0.016
Secondary Complete	0.532***	0.033	0.612***	0.020	0.591***	0.017
Tertiary	0.835***	0.049	1.050***	0.023	1.006***	0.020
Age	0.044***	0.003	0.049***	0.002	0.047***	0.002
Age squared	-0.000***	0.000	-0.001***	0.000	-0.000***	0.000
Urban	-0.072***	0.016	-0.077***	0.012	-0.075***	0.010
North	-0.149***	0.030	-0.147***	0.033	-0.191***	0.022
Northeast	-0.265***	0.052	-0.180***	0.017	-0.190***	0.017
Southeast	-0.202***	0.065	-0.270***	0.018	-0.243***	0.018
Cnetram	-0.280***	0.031	-0.133***	0.016	-0.156***	0.015
Southwest	-0.227***	0.026	-0.199***	0.015	-0.185***	0.013
Northwest	-0.306***	0.029	-0.160***	0.022	-0.217***	0.017
Peten	0.060	0.057	-0.064***	0.024	-0.051**	0.023
Year 2014	-0.172***	0.015	-0.274***	0.010	-0.240***	0.008
Manufacturing	0.370***	0.024	0.367***	0.018	0.387***	0.014
Construction	0.558***	0.031	0.407***	0.021	0.490***	0.017
Retail	0.715***	0.022	0.496***	0.017	0.599***	0.013
Utilities	0.590***	0.045	0.419***	0.023	0.493***	0.021
Services	0.792***	0.031	0.589***	0.019	0.681***	0.016
Domestic services	0.469***	0.039	0.386***	0.028	0.438***	0.023
Informal	-0.305***	0.020	-0.284***	0.013	-0.278***	0.011
Salaried	0.597***	0.046	0.679***	0.026	0.649***	0.023
Self-employed	-0.365***	0.020	-0.147***	0.015	-0.252***	0.012
Unpaid	(dropped)		(dropped)		(dropped)	
K'iche'					-0.153***	0.015
Q'eqchi'					-0.003	0.023
Kaqchiquel					-0.198***	0.016
Mam					-0.123***	0.020
Other					-0.233***	0.019
_cons	1.152***	0.069	1.175***	0.046	1.164***	0.038
R2	0.326		0.390		0.407	
Number of observations	13,000		24,568		37,568	

Source: Calculations based on ENCOVI 2014.

Note: .01 - \*\*\*; .05 - \*\*; .1 -

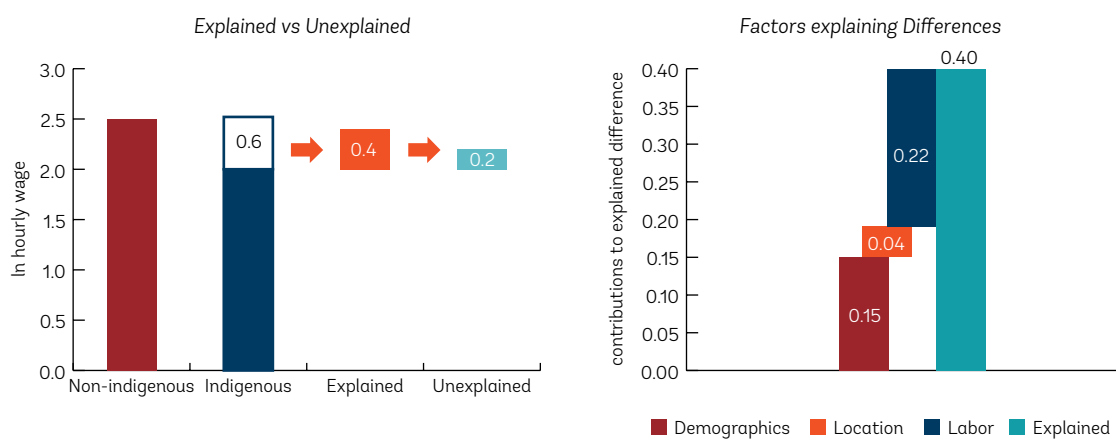
### Oaxaca Blinder Decomposition of Earnings, Indigenous and Non-indigenous

	Overall		Explained		Unexplained	
	coef	t	coef	t	coef	t
Non Indig.	2.521***	0.000				
Indigenous	1.958***	0.001				
difference	0.563***	0.001				
explained	0.402***	0.001				
unexplained	0.160***	0.001				
Male			-0.008***	0.000	-0.021***	0.001
Primary Incomplete			-0.012***	0.000	0.003***	0.000
Primary Complete			0.004***	0.000	0.004***	0.000
Secondary Incomplete			0.017***	0.000	0.007***	0.000
Secondary Complete			0.059***	0.000	0.013***	0.000
Tertiary			0.082***	0.000	0.012***	0.000
Age			0.007***	0.000	0.159***	0.009
Age squared			-0.001**	0.000	-0.014***	0.005
Urban			-0.017***	0.000	-0.001*	0.001
North			0.020***	0.000	0.004***	0.000
Northeast			-0.016***	0.000	0.002***	0.000
Southeast			-0.022***	0.000	-0.003***	0.000
Cnetram			0.000***	0.000	0.016***	0.000
Southwest			0.030***	0.000	0.008***	0.001
Northwest			0.039***	0.000	0.019***	0.000
Peten			-0.001***	0.000	-0.003***	0.000
Year 2014			0.003***	0.000	-0.059***	0.001
Manufacturing			0.000***	0.000	-0.000***	0.000
Retail			-0.007***	0.000	-0.001***	0.000
Utilities			0.003***	0.000	-0.000***	0.000
Services			0.005***	0.000	-0.012***	0.000
Domestic services			0.033***	0.000	-0.049***	0.000
Informal			0.012***	0.000	-0.007***	0.000
Salaried			0.022***	0.000	-0.006***	0.000
Self-employed			0.014***	0.000	-0.001***	0.000
Unpaid			0.017***	0.000	-0.014***	0.000
K'iche'			0.021***	0.000	-0.010***	0.000
Q'eqchi'			-0.000	0.000	-0.004***	0.000
Kaqchiquel			0.054***	0.000	0.019***	0.001
Mam			0.009***	0.000	0.003***	0.000
Other			0.032***	0.000	0.071***	0.001
Retail			(dropped)		(dropped)	
_cons					0.028***	0.005
R2						
Number of observations				37,568		

Source: Calculations based on ENCOVI 2014.

Note: .01 - \*\*\*; .05 - \*\*; .1 - \*

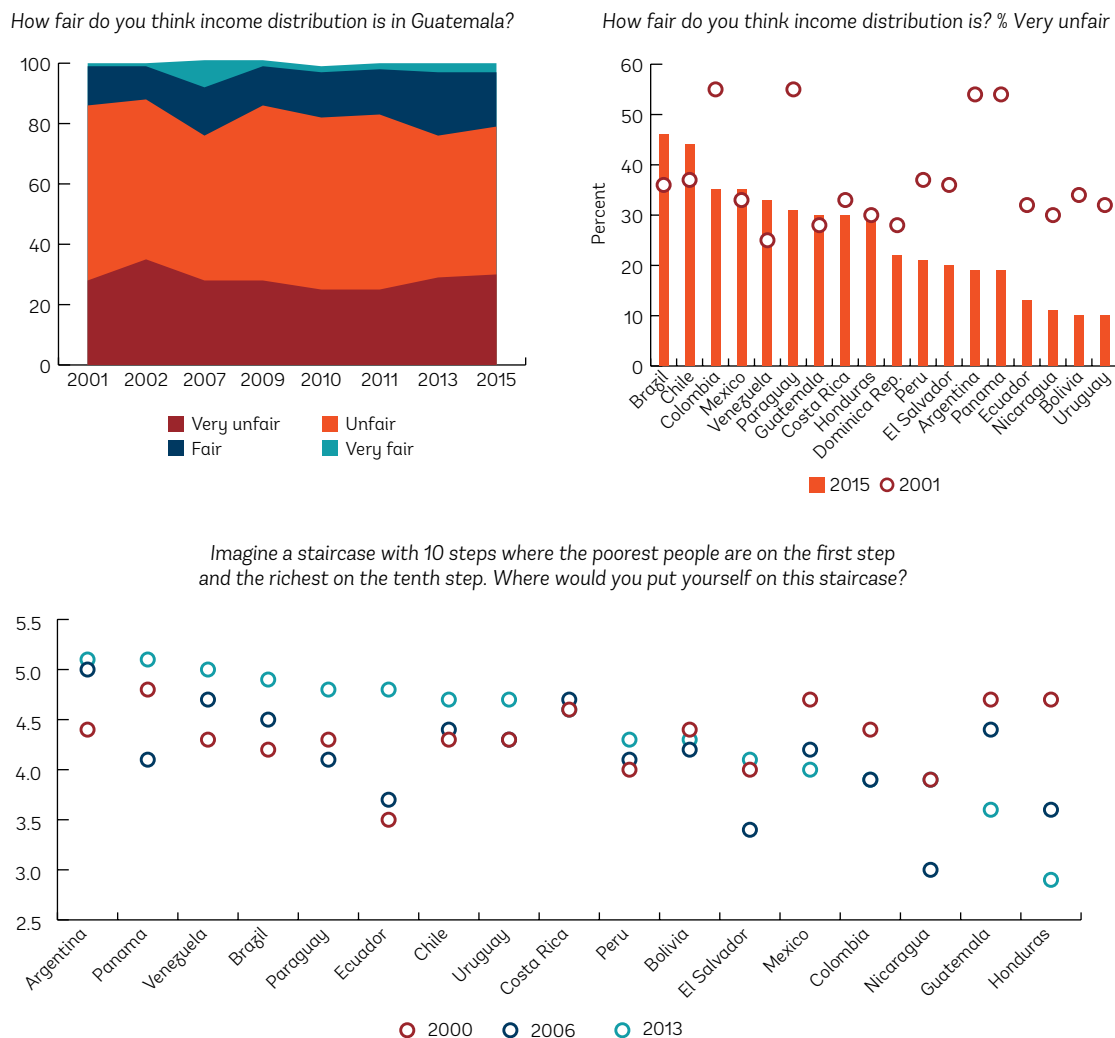
**FIGURE A3.3** Blinder Oaxaca decomposition by indigenous population



Source: Calculations based on ENCOVI 2000, 2006 and 2014.

# Annex 5.1: Perceptions

**FIGURE A5.1 How fair do you think income distribution is in Guatemala**



Source: Calculations based on Latinobarómetro.

## Annex 5:2: Legislation Supporting Indigenous Rights

Legal Instruments	Año	Artículos	Tema relacionados a los derechos indígenas
Constitución Política	Reforma 1993	1, 2, 3, 4, 5, 36, 58, 59, 60, 61, 62, 65, 66, 67, 68, 69, 70	Artículos que promueven la equidad ética y de género.
		58	Identidad Cultural
		66	Protección a Grupos Étnicos
Ley de idiomas Nacionales	2003	-	Reconoce, promueve y respeta los idiomas de los pueblos maya, garífuna y xinka
Ley de Consejos de Desarrollo Urbano y Rural	2002	1	Estipula que el sistema de Consejos de Desarrollo es el medio principal de participación de los cuatro pueblos guatemaltecos
Ley General de Descentralización	2002	4	instituye el respeto a la realidad multiétnica, pluricultural y multilingüe de Guatemala
Código Municipal	2002	2	que el municipio se caracteriza primordialmente por sus relaciones permanentes de vecindad, multiétnica, pluriculturalidad y multilingüismo organizado para realizar el bien común de todos los habitantes de su distrito
Ley Marco de los Acuerdos de Paz	2002	-	Compromisos del Estado cuyo cumplimiento requiere de acciones a desarrollar por las instituciones públicas y por las personas individuales y jurídicas de la sociedad
Acuerdo sobre identidad y derechos de los pueblos indígenas	1995	-	El acuerdo define la nación guatemalteca como pluricultural, multiétnica y multilingüe. 3Años más tarde, en 2003, se promulgó la Ley de Idiomas Nacionales (decreto 19-2003), la cual reconoció la diversidad de comunidades lingüísticas
Ley de Registro e Información Catastral	2005	-	Reconoce tierras comunales –tanto para grupos indígenas como no indígenas

Source: FIDA/ CLADPI, 2012

<b>DICTÁMENES FAVORABLES</b> Emitidos desde el año 2004 a la fecha	
<b>INICIATIVA No.</b>	<b>PROCESO</b>
2699	"Ley de Reconocimiento de la Competencia del Comité para la Eliminación de la Discriminación Racial". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 05 de mayo del año 2004. Pendiente en su tercer debate y redacción final.
4087	"Ley de Medios de Comunicación Comunitaria". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 11 de Enero del año 2010. Pendiente lo conozca el Pleno.
4051	"Ley de Consulta a los Pueblos Indígenas". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 23 de septiembre del año 2009. Pendiente lo conozca el Pleno.
3835	"Ley de Lugares Sagrados de los Pueblos Indígenas". Dictamen favorable, emitido por las comisiones de Pueblos Indígenas y De la Paz y Desminado, el 19 de agosto del año 2009. Pendiente lo conozca el Pleno.
4084	"Ley del Sistema Nacional del Desarrollo Rural Integral". Dictamen favorable, emitido por la Comisión de Agricultura, Ganadería y Pesca el 30 de septiembre del año 2009. Pendiente lo conozca el Pleno.
3551	"Ley del Programa Nacional de Resarcimiento". Dictamen favorable de la Comisión de la Paz y Desminado, el 18 de noviembre del año 2008. Pendiente en su tercer debate y redacción final.

Source: Lineamientos, Agenda Indígena 2016-2020 en Guatemala, draft

<b>DICTÁMENES FAVORABLES</b> Comisión de Pueblos Indígenas 2012-2013	
<b>INICIATIVA No.</b>	<b>PROCESO</b>
3946	"Ley de Jurisdicción Indígena". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 17 de abril del año 2013. Pendiente que conozca el Pleno del Congreso de la República para su primer debate.
4047	"Ley General de Derechos de Pueblos Indígenas de Guatemala". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 06 de junio del año 2012. Pendiente que conozca el Pleno del Congreso de la República para su primer debate.
4412	"Ley Orgánica del Instituto de Desarrollo Indígena Guatemalteco". Dictamen favorable, emitido por la Comisión de Pueblos Indígenas el 14 de marzo del año 2012. Pendiente lo conozca el Pleno.

## STATUS OF TREATIES, DECLARATIONS AND AGREEMENTS

Nombre del instrumento	Fecha de aprobación	Fecha de ratificación	Reservas en la ratificación	Resumen sobre el instrumento
Convención Internacional sobre la Eliminación de Todas las Formas de Discriminación Racial	1965	1982	(Guatemala) Ningún derecho adquirido será afectado con la vigencia de este Convenio.	La Convención reafirma que la discriminación entre seres humanos por motivos de raza, color u origen étnico constituye un obstáculo a las relaciones amistosas y pacíficas entre las naciones y puede perturbar la paz y la seguridad entre los pueblos, así como la convivencia de las personas aun dentro de un mismo Estado. Por lo que: "Los Estados partes tomarán, cuando las circunstancias lo aconsejen, medidas especiales y concretas, en las esferas social, económica, cultural y en otras esferas, para asegurar el adecuado desenvolvimiento y protección de ciertos grupos raciales o de personas pertenecientes a estos grupos, con el fin de garantizar en condiciones de igualdad el pleno disfrute por dichas personas de los derechos humanos y de las libertades fundamentales."
Convenio 169 sobre Pueblos Indígenas y Tribales en países independientes	1989	1995 1994		Esta Convención transforma la visión del C107 de integracionista y proteccionista a una Convención que incluye la participación activa de los pueblos indígenas en la construcción de su propio desarrollo, cada vez que los Estados apliquen las disposiciones de las legislaciones nacionales tengan en consideración el contenido del Convenio 169. Uno de sus artículos importantes destaca: Artículo 2: 1. Los gobiernos deberán asumir la responsabilidad de desarrollar, con la participación de los pueblos interesados, una acción coordinada y sistemática con miras a proteger los derechos de esos pueblos y a garantizar el respeto de su integridad. 2. Esta acción deberá incluir medidas: a) que aseguren a los miembros de dichos pueblos gozar, en pie de igualdad, de los derechos y oportunidades que la legislación nacional otorga a los demás miembros de la población; b) que promuevan la plena efectividad de los derechos sociales, económicos y culturales de esos pueblos, respetando su identidad social y cultural, sus costumbres y tradiciones, y sus instituciones; c) que ayuden a los miembros de los pueblos interesados a eliminar las diferencias socioeconómicas que puedan existir entre los miembros indígenas y los demás miembros de la comunidad nacional, de una manera compatible con sus aspiraciones y formas de vida. Otros aspectos que también incluye el C169 es la consulta con los pueblos indígenas a través de sus instituciones y otras formas de organización propia, cada vez que se adopten medidas que afecten sus intereses, asuntos y convivencia. El consentimiento previo de los pueblos indígenas también se constituye aspecto fundamental de carácter transversal en el contenido de las normas y por consiguiente de los derechos que allí se tutelan.

## STATUS OF TREATIES, DECLARATIONS AND AGREEMENTS

Nombre del instrumento	Fecha de aprobación	Fecha de ratificación	Reservas en la ratificación	Resumen sobre el instrumento
Convenio sobre la Diversidad Biológica, CDB	1992	1995		Lo más importante que desarrolla este Convenio es reconocer la importancia que representa para la conservación de la biodiversidad y los ecosistemas del planeta, los conocimientos tradicionales, la práctica de las comunidades locales e indígenas en mantener la conservación desde sus formas tradicionales y la función decisiva que desempeña la mujer en la conservación. Un extracto de la Convención es la siguiente: "Reconociendo la estrecha y tradicional dependencia de muchas comunidades locales y poblaciones indígenas que tienen sistemas de vida tradicionales basados en los recursos biológicos, y la conveniencia de compartir equitativamente los beneficios que se derivan de la utilización de los conocimientos tradicionales, las innovaciones y las prácticas pertinentes para la conservación de la diversidad biológica Y la utilización sostenible de sus componentes. Reconociendo asimismo la función decisiva que desempeña la mujer en la conservación y la utilización sostenible de la diversidad biológica y afirmando la necesidad de la plena participación de la mujer en todos los niveles de la formulación y ejecución de políticas encaminadas a la conservación de la diversidad biológica,..."
Declaración sobre el II Decenio Internacional sobre los Pueblos Indígenas del Mundo	2005			<ol style="list-style-type: none"> <li>1. El fomento de la no discriminación y de la inclusión de los pueblos indígenas en la elaboración, aplicación y evaluación de los procesos internacionales, regionales y nacionales relativos a la legislación, las políticas, los recursos, los programas y los proyectos.</li> <li>2. El fomento de la participación plena y efectiva de los pueblos indígenas en las decisiones que afectan directa o indirectamente a sus estilos de vida, tierras tradicionales y territorios, a su integridad cultural como pueblos indígenas que poseen derechos colectivos o a cualquier otro aspecto de sus vidas, teniendo en cuenta el principio del consentimiento libre, previo e informado;</li> <li>3. La redefinición de las políticas de desarrollo para que incluyan una visión de equidad y sean culturalmente adecuadas, con inclusión del respeto de la diversidad cultural y lingüística de los pueblos indígenas;</li> <li>4. La adopción de políticas, programas, proyectos y presupuestos que tengan objetivos específicos para el desarrollo de los pueblos indígenas, con inclusión de parámetros concretos, e insistiendo en particular en las mujeres, los niños y los jóvenes indígenas;</li> <li>5. La creación de mecanismos de supervisión estrictos y la mejora de la rendición de cuentas a nivel internacional y regional y particularmente a nivel nacional, en lo tocante a la aplicación de los marcos jurídicos, normativos y operacionales para la protección de los pueblos indígenas y el mejoramiento de sus vidas.</li> </ol>



## STATUS OF TREATIES, DECLARATIONS AND AGREEMENTS

Nombre del instrumento	Fecha de aprobación	Fecha de ratificación	Reservas en la ratificación	Resumen sobre el instrumento
Declaración Universal sobre los Derechos de los Pueblos Indígenas	2007			Instrumento internacional aprobado por las Naciones Unidas, el 13 de septiembre de 2007. El mismo instrumento es uno de los más importantes en la protección y salvaguardia del los derechos de los pueblos indígenas, también se constituye en el primer instrumento que en su formulación durante más de 2 décadas, contó con la participación de representantes de los pueblos indígenas en el Grupo de Trabajo constituido en el seno de las Naciones Unidas para su elaboración. En este instrumento se reconocen derechos colectivos fundamentales para la existencia de los pueblos como el derecho a la libre determinación que ubica a los pueblos indígenas en el mismo estatus de cualquier pueblo en el mundo, en todo lo que implica este término en el derecho internacional, con su plena autonomía y el ejercicio del autogobierno, para su pleno desarrollo. Otro aspecto fundamental como derecho humano inherente a la existencia de los pueblos son los derechos existentes sobre las tierras y los territorios indígenas, que debe incluir los derechos al subsuelo y los demás elementos que incluye el término territorio, como garantía a la existencia de las futuras generaciones.
Source: FIDA/CLADPI, 2012				





**GUATEMALA HAS ENORMOUS POTENTIAL TO GENERATE PROSPERITY FOR ITS POPULATION.** Although some pockets of dynamism and successes exist, the country has one of the highest poverty rates in Latin America. Moreover, tremendous and persistent inequalities can be found across ethnic groups, locations, and economic sectors. In a sense, one needs to visualize “two Guatemalas” with large gaps in outcomes between them to understand the country’s development challenges. This Systematic Country Diagnostic looks at why a country with such great potential has not been able to materialize it, addressing the following questions:

- How *inclusive* is Guatemala’s development model and what are the factors that prevent it from being more inclusive?
- What does *growth* look like, what has driven it, and what are the bottlenecks that need to be addressed?
- How *sustainable* is Guatemala’s development model economically, socially, and environmentally?
- Are there *additional factors* that underlie the present Guatemalan economy and what changes have the greatest potential to reduce poverty and foster shared prosperity?