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Costa Rica's Development
From Good to Better

Systematic Country Diagnostic

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Cover design: Karol A. Keane/Keane Design, Inc.

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Acknowledgments

We would like to thank the members of the Costa Rica Country Team from all Global Practices and the International Finance Corporation (IFC), as well as the many stakeholders in Costa Rica (government authorities, think tanks, academia, and civil society organizations), who have contributed to the preparation of this document in a strong collaborative process (see appendix A for a description of this process). We are very grateful for their inputs, knowledge, and advice.

The following people provided guidance and inputs: Fabrizio Zarcone (Country Manager for Costa Rica), Frank Sader (Principal Strategy Officer, CGECF), Louise J. Cord (Practice Manager, GPVDR), Auguste Tano Kouame (Practice Manager, GMFDR), Fernando Leonardo Hernandez (Special Advisor to the Costa Rica SCD/Lead Economist, GMFDR), Maryanne Sharp (Country Operations Adviser, LCC2C), Oscar Calvo-Gonzalez (Program Leader, LCC2C), and Ayat Soliman (Program Leader, LCC2C). Augusto de la Torre (Chief Economist, LCR) chaired the Quality Enhancement Review meeting that provided guidance to the team during the preparation phase.

The following members of the SCD team contributed substantial inputs and/or participated in several workshops: Leonardo Lucchetti, Mateo Salazar, German Caruso, Liliana Sousa, Laura Moreno (GPVDR); Emma Monsalve, Pablo Acosta, Melissa Zumaeta Aurazo (GSPDR); Friederike (Fritzi) Koehler-Geib, Jennifer Keller, Chris Dychala, Cornelius Fleischhaker, David Yuravlivker, Mateo Clavijo, Sonia Plaza (GMFDR); Klas Sander, Carter Brandon, Christian Albert Peter, Sarah Guel (GENDR); Svetlana Edmeades, Erick Fernandes (GFADR); Fernando Montenegro, Christine Lao Peña (GHNDR); Marcelo Becerra, Javier Botero, Melissa Adelman, Ciro Avitabile (GEDDR); Thomas Kenyon, Melissa Rekas, Maria Pluvia Zuñiga, Armando Heilbron (GTCDR); Cecilia M. Briceño-Garmendia, Harry Moroz, Xijie Lv, Doyle Gallegos, Pau Puig Gabarro, Rocio Sanchez Vigueras, Elena Gasol, Elene Allende (GTIDR); Gabriela Elizondo Azuela, Bartley Higgins, Juan Carlos Cardenas Valero (GEEDR); Rekha Reddy, Patricia Caraballo, Will Price, Miquel Dijkman (GFMDR); Davide Zucchini, Marcelo Buitron, Lourdes Linares, Irina Luca, José Rezk (GGODR); Armando Guzmán, German Freire, Dianna Pizarro, Alicia Maguid, Claudia Soto (GSURR); Luiz T. A. Maurer (GCCCS); Luis E. Gutierrez (LCCCR); Jovana Stojanovic (LCC2C); Jorge Araujo (LCRVP); Laura Chioda, Daniel Lederman, Julian Messina, Jaime Rafael de Pinies Bianchi (LCRCE); Alma Kanani (LCROS); Jorge Rodriguez-Meza (DECEA); Angela Fonseca (CLAPA); and Mi Hyun Bae (CRKI4).

The team would like to thank the peer reviewers Ambar Narayan (GPDVR), David Rosenblatt (DECOS), and Ariel Fiszbein (Inter-America Dialogue) for their comments. We thank other teams preparing SCDs for useful exchanges, in particular Friederike (Fritzi) Koehler-Geib, Kinnon Scott

(Panama), Oscar Calvo-Gonzalez (El Salvador), Marco Hernandez and Liliana Sousa (Honduras), Zeinab Partow (Uruguay), Emmanuel Skoufias (Brazil), and Barbara Cunha (Colombia). Finally, the team would also like to thank Desiree Gonzalez, Cathryn Summers, Michelle McCue (LCC2C), Diana Galeano, and Diana Lachy (GMFDR) for their support to the task and the finalizing of the report.

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Abbreviations

ARESEP	Regulatory Authority of Public Services (*Autoridad Reguladora de los Servicios Públicos*)
BCCR	Central Bank of Costa Rica (*Banco Central de Costa Rica*)
CACM	Central American Common Market
CAFTA-DR	Dominican Republic–Central America–United States Free Trade Agreement
CANATUR	National Chamber of Tourism
CCH	Costa Rican Chamber of Hotels
CCSS	Costa Rican Social Security Administration (*Caja Costarricense de Seguro Social*)
CEDLAS	Center for Distributional Labor and Social Studies
CEQ	Commitment to Equity Project
CGR	Controller General of the Republic (*Contraloría General de la República*)
CINDE	Costa Rica Investment Promotion Agency (*Coalición Costarricense de Iniciativas de Desarrollo*)
COMEX	Ministry of Foreign Trade (*Ministerio de Comercio Exterior*)
CONARE	National Council of Rectors (*Consejo Nacional de Rectores*)
CONARROZ	*Corporación Arrocera Nacional*
CPI	Consumer Price Index
CR-ICT	Costa Rican Institute for Tourism
DALY	Disability-Adjusted Life Years
EHPM	Encuesta de Hogares de Propósitos Múltiples
ENAHO	Encuesta Nacional de Hogares
FA	*Frente Amplio*
FDI	Foreign Direct Investment
FODESAF	National Development and Family Allocations Fund (*Fondo de Desarrollo Social y Asignaciones Familiares*)
FONABE	National Scholarship Fund (*Fondo Nacional de Becas*)
FSI	Financial Soundness Indicators
FTZ	Free Trade Zone
GAM	Greater Metropolitan Area of the Central Valley of Costa Rica
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GMM	Generalized Method of Moments
HIC	High-Income Country
ICE	Costa Rican Electricity Institute (*Instituto Costarricense de Electricidad*)
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IMF	International Monetary Fund

INA	National Learning Institute (*Instituto Nacional de Aprendizaje*)
INEC	National Institute of Statistics and Census (*Instituto Nacional de Estadísticas y Censos*)
IPCC	Intergovernmental Panel on Climate Change
LAC	Latin America and the Caribbean
LAPOP	Latin American Public Opinion Project
LPI	Logistics Performance Index
MINAE	Ministry of Environment, Energy, and Telecommunications (*Ministerio de Ambiente, Energía y Telecomunicaciones*)
MNC	Multinational Company
NPL	Non-Performing Loan
OECD	Organisation for Economic Co-operation and Development
ONF	National Forestry Office
PAC	*Partido Acción Ciudadana*
PDP	Productive Development Policy
PEFA	Public Expenditure and Financial Accountability
PES	Payment for Environmental Services
PLN	*Partido Liberacion Nacional*
PPP	Purchasing Power Parity
PROCOMER	Center for Promotion of Foreign Trade (*Promotora del Comercio Exterior*)
PUSC	*Partido Unidad Social Cristiana*
REER	Real Effective Exchange Rate
ROC	Regional Operations Committee
SCD	Systematic Country Diagnostic
SEDLAC	Socio-Economic Database for Latin America and the Caribbean
SERCE	Second Regional Comparative and Explanatory Study
SME	Small and Medium Enterprise
SOE	State-Owned Enterprise
TERCE	Third Regional Comparative and Explanatory Study
TFP	Total Factor Productivity
UNESCO	United Nations Educational, Scientific, and Cultural Organization
WBES	World Bank Enterprise Surveys
WDI	World Development Indicators

Executive Summary

Costa Rica's Development Model: Enduring Democracy, the Social Compact, Open Economy, and the Green Trademark

Sometimes referred to as the "Switzerland of Latin America," Costa Rica stands out for being among the most politically stable, progressive, prosperous, and environmentally conscious nations in the region. This model has brought important economic, social, and environmental dividends, with sustained growth, upward mobility for a large share of the population, important gains in social indicators, and significant achievements in reforestation and conservation. Perhaps most important, the country experienced shared prosperity, with strong income growth of the bottom 40 percent for many years, and poverty rates in Costa Rica are among the lowest in Latin America and the Caribbean.

Indeed, Costa Rica has had uninterrupted democratic regimes since 1953, making it the oldest working democracy in Latin America. Following a two-month civil war in 1948, the Legislative Assembly was democratically elected to draft a new Constitution. The post–civil war administration also abolished the army, and ever since Costa Rica has instead relied on a police force to maintain order. In 1953, the first presidential elections under the new Constitution were held, and since then the country has held 15 additional elections (the last in 2014), widely considered peaceful and transparent. The country was not only an island of peace at a time when armed conflict was predominant in Central America but it also played a key role in the *Esquipulas Agreements* that set the basis for the pacification of Central America.

Likewise, the country's Social Compact traces its roots back to the middle of the 20th century. Many of the central tenets of the Social Compact were instituted during the 1940s–50s, including: (i) enacting the Labor Code and establishing a professional civil service isolating civil servants from changes in the Executive; (ii) guaranteeing basic social rights in the Constitution and adopting basic welfare legislation; (iii) establishing a universal health care system under the Costa Rican Social Security Agency (*Caja Costarricense de Seguro Social*, [CCSS]); and (iv) guaranteeing public education for all. This ambitious Social Compact has had the backing of high and rising social spending. Spending on education, health, and social protection started to rise in the 1950s, reaching over three percent of GDP by 1958, nearly ten percent by the end of the 1990s, and then doubling during the first decade of the 2000s. At 20.8 percent of GDP in 2012, Costa Rica's social spending is one of the highest in Latin America and on par with Organisation for Economic Co-operation and Development (OECD) countries.

And the Social Compact has achieved many successes, particularly in the delivery of universal services. Costa Rica's trademark universal and integrated health care system, managed by the CCSS has provided access to health care to its entire population, including the poor and bottom 40 percent. It is widely recognized that this health care system,

combined with the expansion of safe water and sanitation, are the key reasons behind Costa Rica's impressive health outcomes: life expectancy at birth improved from 61.6 years in 1960 to 72.5 years in 1980 and to 79.7 years in 2012, similar to the OECD average of 80.7 years. Almost 100 percent of all births are attended by skilled medical personnel, and the infant mortality rate has fallen from 90 to 10.6 deaths per 1,000 live births. The social security and pension system has also been quite inclusive, and today most of the population is covered by at least one of the programs, which have been extended throughout the country and include contributory pensions, social pensions, workers' compensation, and numerous social assistance benefits. Finally, the country has also shown a strong commitment to investing in education, nearly reaching the spending targets of eight percent of GDP that were approved by the Assembly in 2010. The literacy rate for adults 15 years old and above is almost universal (97 percent), and the share of adults 25 years and above who had no formal education has declined from 21.2 percent in 1950 to 3.4 percent today. Younger cohorts are also attaining more years of education as time goes by; for example, the cohort 25–29 years old had only about four years of education on average in 1950; in 1980 it had on average a complete primary education (above six years), and in 2010 it had a complete basic education (nine years on average).

Costa Rica's economy has been transformed by its outward-oriented policies. Trade openness has been a critical building block of this model, dating back to 1963, when Costa Rica joined the Central American Common Market and to Costa Rica's membership in the Caribbean Basin Initiative in 1983. But perhaps the most significant step was joining the Central America Free Trade Agreement (CAFTA-DR), which provided a more stable and reliable framework for Costa Rica's trade with the United States as its main trading partner, introduced changes to the legal framework to promote transparency, ensured a secure and predictable environment for investors, and led to the breakup of government monopolies in the telecom and insurance sectors. Following CAFTA-DR, Costa Rica has entered into further trade agreements with Canada, China, The European Union, Mexico, Peru, and Singapore, thus consolidating its open economy. Another key building block of the economic model was the passage of the Free Trade Zones (FTZ) law in 1981, which started a wave of Foreign Direct Investment (FDI) into the country: first with low-tech sectors (textiles), and gradually attracting companies in high-tech sectors (electronics, advanced manufacturing, medical devices and life sciences, and services for export).

This outward-oriented development model has been successful in attracting FDI and moving Costa Rica up the global value chains over the past two decades. The development model has transformed the country from a rural agriculture-based economy in the mid-1950s to one with high value-added industries that contribute to several global value chains. By 2014, FTZs accounted for 53 percent of exports, and Costa Rica's economy is very intensive in FDI (4.2 percent of GDP). In this regard, the decision by Intel to set up a semi-conductor assembly and test plant in Costa Rica in 1996 was clearly a turning point in attracting foreign investors. Indeed, after Intel, other well-known multinationals such as Abbott Laboratories (now Hospira), Baxter Healthcare, and Procter and Gamble have invested in the country; and by the late

1990s manufacturing and services had overtaken agriculture in their contribution to GDP. Costa Rica's exports are well diversified with high-tech manufacturing and services playing an increasingly important role. Costa Rica contributes to at least five major high-tech global value chains: electronics, medical devices, automotive, aeronautic/aerospace, and film/broadcasting devices. Electronics, medical devices, and other manufactured goods now make up about 60 percent of goods exports. The increasingly diversified agricultural portfolio (bananas, pineapples, coffee, etc.) accounts for most other goods exports, while low value-added products such as textiles are losing their relevance. Services exports (tourism, business services) also play an important role in the economy and have also diversified. Business services (mainly Information and Communication Technology, ICT, related) account for almost half of all services exports.

Finally, Costa Rica has also built a world-renowned "Green Trademark" centered on conservation, reforestation, and national parks. It is the only tropical country in the world that has reversed deforestation, increasing the area covered by forests from 26 percent in 1983 to 52 percent today. Reforestation is attributed, in part, to Costa Rica's Payments for Environmental Services (PES) program, which provides incentives for forest conservation and rehabilitation of an average of 310,000 hectares per year of privately owned lands over the past decade. National parks and protected areas comprise 26 percent of land area in Costa Rica, and they have become an important destination for tourists. Costa Rica also stands out as the only country in Latin America that has adopted the goal of achieving carbon neutrality by 2021.

Indeed, the country is one of the most visited nations in Latin America. In 2013, close to 2.5 million tourists visited the country. This implies that the number of visitors per capita (at around 0.5) is above popular destinations in the Caribbean basin such as Mexico (0.2), or the Dominican Republic (0.38). While sun-and-beach tourism clearly is part of Costa Rica's attractions, eco-tourism (an area where it has been a pioneer) is also very popular with many travelers visiting the national parks and protected areas. Moreover, the country typically ranks at the top of the Latin American Region Travel and Tourism Competitive Index compiled annually by the World Economic Forum to measure the factors that make a destination attractive for the travel and tourism industry.

These hallmarks of Costa Rica's development model have produced clear economic and social dividends—and poverty rates are among the lowest in Latin America and the Caribbean. GDP per capita has tripled since 1960 and now stands at US$13,876 (current PPP). Growth has averaged 4.5 percent between 2000 and 2013, above the Latin American average of 3.8 percent. Using a US$4 poverty line, only 12 percent of the country's population is considered to be poor (less than half the Latin American average). Taking a US$2.5 poverty line, only 4.7 percent of the population is poor (or about one-third of the Latin American average). Moreover, only 1.4 percent of the population lives under the US$1.25 poverty line, well below the World Bank Group's Twin Goals poverty objective for 2030. Not surprisingly, the middle class has become the largest socioeconomic group of the country, comprising about 47 percent of the population.

However, despite these impressive achievements, there are a number of emerging challenges that will need to be addressed to maintain the country's successful development path.

First, despite reasonable growth and a strong commitment to the Social Compact, poverty reduction has stagnated and inequality is rising. The long-term trend suggests rising or stagnating inequality across most of the past 25 years, in stark contrast to the significant decline in inequality in the broader LAC region. More recently, the gap between the rich and poor has widened significantly since the global crisis. Although growth recovered promptly after the global crisis, above the regional average, job creation for low-skilled workers has been feeble, contributing to rising unemployment and pushing returns to higher education upwards. Growth has been uneven, with lower growth and job creation in sectors that are more likely to employ unskilled workers (e.g., construction and agriculture). Not surprisingly, inequality has increased, with the widening gap between the earnings of rich and poor workers mirroring large disparities in human capital and educational attainment. Moreover, despite high spending on social protection benefits and the broader Social Compact, taxes and transfers have not proven to be effective in redistributing income to compensate for these disparities. Consequently, rising inequality offset the poverty-reducing impact of growth in the late 2000s, and reversed what should have been a decline in poverty between 2010 and 2014, with poverty increasing by 0.4 percentage points instead of falling by a projected three percentage points during the post-crisis "recovery" period.

Second, Costa Rica has not converged to countries of higher income, such as the US. Unlike the top regional performers (Chile, Panama, and Uruguay) Costa Rica's per capita GDP has not shown any signs of convergence towards the US level in the last 25 years. For example, in 1990, Costa Rica's per capita income was 13 percent of the US level, approximately as it is today. At the same time, the per capita GDPs of Chile, Panama, and Uruguay have increased from 13, 12 and 9 percent of the US per capita GDP in 1990 to 21, 17 and 17 percent today, respectively. Production costs that weaken the country's competitiveness prevent Costa Rica from joining the top growth performers. These production costs are affected by relatively high wages that limit the country's competitiveness in low value-added sectors, as well as by a number of investment-climate related factors such as rising electricity costs, weak infrastructure, and burdensome regulations.

And third, fiscal pressures threaten to undermine the sustainability of the country's Social Compact and Green Trademark, and prevent it from undertaking much needed investments in public infrastructure. Without fiscal consolidation, the deficit could push public debt to unsustainable levels and threaten the country's economic, social, and environmental gains. The fiscal situation has deteriorated substantially since the global crisis, with the overall deficit of the Central Government growing to 5.6 percent of GDP in 2013, and is projected to have surpassed six percent in 2014 and to reach 6.6 in 2015. In tandem, public debt increased from 25 percent of GDP in 2008 to 37 percent in 2013, with projections of 63 percent by 2019 unless corrective measures are implemented. This recent deterioration stems from counter-cyclical

measures under-taken during the crisis and structural forces that will require actions on multiple fronts.

Moreover, the current political landscape and institutional framework add an additional layer of complexity for approving and implementing key reforms needed to address these emerging challenges. The shift from a two-party to a multi-party system in the last fifteen years has resulted in more complex and lengthy reform processes. The delays and difficulties in passing comprehensive and meaningful reforms, particularly on sensitive issues such as tax reform, has resulted in a mismatch between the demands of the population and the "political delivery". This is an increasing concern given the growing need to react and adapt quickly to changing global developments. Likewise, capacity constraints, related to weak sectoral planning and bureaucratic inefficiencies, also affect the ability of the public sector to implement policies and execute public investment projects.

Inclusion: Inequality, Jobs, and Skills

Despite its progressive social policies and in contrast to the trends in the Latin American region, inequality is rising in Costa Rica. Long-term trends over different periods indicate that inequality has either increased or remained flat since the late 1980s. Changes in household survey methodologies create problems of comparability over time.[1] During the period from 1989 to 2000, the Gini measure of inequality averaged 0.45, rising from 0.44 in 1989 to 0.48 by 2000. During the period from 2001 to 2009, the Gini fell and then rose again, averaging 0.50 across the period. Inequality has risen in recent years, averaging 0.52 during the period from 2010 to 2014, which corresponds both to a revised household survey and the post-crisis recovery. In contrast, the rest of Latin America witnessed a marked decline in inequality, with the regional average falling by five points, from 0.57 in 2000 to 0.52 in 2012. As a result, Costa Rica has gone from being the least unequal country in LAC after Uruguay in 2000, to being around the median country out of 17 countries for which internationally comparable data exist for 2012.

Moreover, the incomes of the bottom 40 percent have fallen behind in recent years. The recent changes in the income distribution are also apparent when looking at the evolution of the incomes of the bottom 40 percent of the population, which grew about two percentage points *less* than the mean income growth between 2010 and 2012. The stubbornly high inequality level not only offset the poverty-reducing impacts of growth in the late 2000s, but also reversed what should have been a decline in poverty of about three percentage points between 2010 and 2014, into a poverty increase of 0.4 percentage points.

The widening income gap between the top and bottom quintiles of the population reflects the mismatch between the pattern of growth and employment versus the skills profile of the workforce. As discussed above, Costa Rica's outward-oriented economic model has favored the development of high value-added sectors, such as electronics, medical devices, IT business services, and so forth. In contrast, lower value-added sectors, such as construction, domestic services, and agriculture, have grown more slowly—or even contracted. Costa Rica's push toward high-end sectors has been quite successful. It has also created excess demand for skilled

workers, increasing their market value. And yet, Costa Rica has not sufficiently increased its stock of high-skilled workers. Surprisingly, despite the long-standing commitment to invest in public education, less than half of the cohort 25–29 years old had achieved a secondary or higher education by 2010, further adding to the stock of low-skilled adult workers, a legacy of the 1980s crisis. Costa Rica's educational attainment is lower than in peer countries in LAC (such as Chile and Panama), and significantly lower than peer countries in Europe (such as Croatia and Lithuania), and far lower than graduation rates in the OECD. Moreover, indicators of the quality of education, such as OECD's PISA or UNESCO's TERCE tests, place Costa Rican students behind most countries with spending at comparable levels. Even more worrisome, scores on international tests have worsened in recent years. Thus, the shift from low to high value-added sectors without a corresponding increase in the stock of skilled workers has produced the same result on the distribution of income as Skill-Biased Technological Change—where low-skilled labor is gradually replaced by capital. And yet, with low graduation rates, the stock of unskilled workers continues to grow.

The labor-market effects of this structural mismatch of skills and jobs have become even more pronounced since the global crisis. Job creation in sectors that employ mostly low-skilled labor has been low or negative since 2007. Unemployment started to rise during the global crisis and has continued increasing thereafter, reaching nine percent in 2014. The poor, women, and youth have been disproportionately affected in their inability to find jobs, as the sectors where job creation has been minimal or even negative in the last six years are those mainly employing low-skilled workers. Thus, it is no surprise that unemployment increased the most for this segment of workers. At the other end of the spectrum, sectors that employ mostly high-skilled workers, such as financial services, real estate, personal services, and others, are growing fast, pushing returns to higher levels of education upward.

As such, the earnings gaps between rich and poor *and* between the skilled and unskilled have widened since the "inflection point" of the global crisis. Specifically, between 2007 and 2013, the earnings of those in the top quintile increased relative to the median earner (from 2 to 2.19), whereas the earnings of workers in the bottom quintile fell in relation to the median (from 0.52 to 0.29). A similar picture is seen in disparities by skill levels: for workers with tertiary education, the ratio to the median income increased (from 1.89 to 2.01), whereas the ratio for workers with secondary complete or incomplete remained flat, and for workers with primary education or less the ratio fell (from 0.79 to 0.73 of the median income). Indeed, the returns to education have increased alongside the rise in inequality in Costa Rica, in contrast to trends in most other LAC countries.

Furthermore, despite Costa Rica's ambitious Social Compact, taxes and transfers have not proven to be effective in redistributing income to compensate for these disparities. This is explained by two main factors. *First*, although revenue collection in Costa Rica is on par with upper-middle- and high-income countries (at around 22 percent of GDP for general taxes plus social security contributions and other revenues), general tax revenues are low (13.5 percent of GDP),

and the taxation structure is not very progressive. Since 1953, the Assembly has approved 1,259 tax exemptions (nearly half of them with unclear definitions of the taxes exempted), amounting to 5.6 percent of GDP. Hence, the country has a limited ability to counterbalance income inequality through tax policies. *Second*, social assistance programs in Costa Rica are fragmented, with fairly low coverage among the poor and weak targeting accuracy. Even the most widespread program (school meals) reaches only half of the population in the lowest income quintile. A large share of the non-poor benefit from social programs, and the targeting accuracy of programs is low compared to other countries. For example, only 44 percent of Costa Rica's conditional cash transfer program (CCT) "*Avancemos*" go to those in the poorest quintile as compared with 74 percent of CCT benefits under Panama's "*Red de Oportunidades*" Program.

Growth and Competitiveness

Costa Rica's average growth performance has been positive over the past decades. As discussed above, GDP per capita has tripled since 1960 against a 260 percent increase in the region. Growth has averaged 4.5 percent between 2000 and 2013, above the Latin American average of 3.8 percent. Looking at the post global-crisis period, the country's economy recovered similarly to a set of comparator countries (Chile, Croatia, Dominican Republic, Lithuania, Panama, and Uruguay). Yet, as discussed above, since 1990 the country has not shown any sign of convergence towards the US per capita income levels in contrast to the top performers in the Latin American region.

Importantly, the country faces several challenges to its competitiveness, and the economy is showing signs of built-up vulnerabilities. These constraints reflect two forces: the mismatch of skills and jobs, and investment-climate related factors.

First, relatively high wages have made Costa Rica less viable in low value-added sectors, while insufficient supply of skills hampers competitiveness in high value-added sectors. *On the one hand*, high income levels, coupled with generous social benefits, have resulted in high reservation wages across the board. Relatively high wages have made the country less competitive in low value-added sectors. *On the other hand,* the push toward high value-added sectors such as electronics, medical devices, and IT services has been quite successful; but insufficient supply of high-skilled workers has created excess demand for high skills. This, in turn, has put upward pressure on the salaries of high-skilled workers.

And second, numerous investment-climate-related factors hinder Costa Rica's competitiveness. Rising electricity costs, high logistics costs, and burdensome regulations, plus the appreciation of the real exchange rate over the past eight years, are eroding the country's external competitiveness. Combined with high wage costs, these costs have made the country less competitive in low value-added sectors. For example, textile exports have dropped dramatically over the last decade, falling from 13.3 percent of exports in 2000 to 1.6 percent in 2014, and this trend has been mainly attributed to high production costs in Costa Rica compared to neighboring countries. Although Costa Rica has

excelled in its push towards high value-added sectors, weak infrastructure outside the Free Trade Zones and low backward links between export-oriented multi-national corporations and local firms have limited potential spillover effects to the broader economy. The quality of transport services and road and port infrastructure in particular is relatively weak. The appreciating real exchange rate has also had negative consequences for exports and the tourism sector, as well as for FDI coming into or exiting the country. For example, in 2014, Intel's announcement to relocate its microchip manufacturing plant to Vietnam, and Bank of America's subsequent announcement of the closing of its service center, have sparked renewed dialogue about the importance of diversifying exports and improving competitiveness. Although Intel has maintained its engineering and design services in Costa Rica, exports of electronics contracted by almost 20 percent in 2014. Still, export diversification has helped, and strong growth in medical device production has helped offset this contraction in electronics.

Sustainability: Fiscal, Social, and Environmental Pressures

Sustainability is threatened by the deteriorating fiscal situation. As in many other countries, Costa Rica faced the global crisis by implementing countercyclical fiscal policies. This was welcomed given the magnitude of the crisis and the fiscal space the country had at the time (public debt was below 25 percent of GDP in 2008). However, these policies created structural pressures on the country's fiscal accounts: unlike other countries which implemented temporary fiscal policies, Costa Rica chose to implement steep, permanent increases in public salaries in 2008–2010. As a result, the wage bill of the central government increased from 5.5 percent of GDP in 2008 to 7.4 percent in 2014. At the same time, however, government revenues, which had risen steeply prior to the crisis, dropped back to the average level for 2000–05. Thus, the overall deficit of the central government grew, reaching 5.6 percent of GDP in 2013, and it is projected to surpass six percent of GDP in 2014, and reach 6.6 percent of GDP in 2015. As a result, public debt increased by 12 percentage points in five years, reaching 37 percent of GDP in 2013, and is projected to surpass the somewhat worrisome level of 63 percent of GDP by 2019, unless corrective measures to control expenditures and/or increase revenues are implemented. However, such measures are constrained by a number of rigidities in the system, including numerous expenditure mandates, earmarked revenues, and tax exemptions. These rigidities leave only five percent of the annual budget for strategic allocative decisions in any given year. Furthermore, the budget process is fragmented, with only the central government budget requiring approval by the Legislative Assembly. Without fiscal consolidation, the deficit could push public debt to unsustainable levels and threaten the country's Social Compact and Green Trademark.

Indeed, there are tensions between the high level of social spending and Costa Rica's ability to deliver on its ambitious Social Compact. *In health,* despite the country's long-standing commitment to universal coverage, important "cracks in the system" reduce the efficiency of this cornerstone of the Social Compact. The

current organization of the system has led to increasing wait times and patient frustration. Out-of-pocket spending has increased alongside rising public spending on health, and budget allocations do not take into account demographic and demand changes, leading to inefficiencies and inequities of health care. Furthermore, an outdated infrastructure and information management system lowers quality and decreases transparency and efficiency of resource management. *In education*, outcomes have been particularly disappointing, despite high public spending. Dropout rates are high, test scores are low, and the system is not producing the skills needed to meet the demands implied by Costa Rica's pattern of growth. Finally, despite high coverage of the *social protection system*, different pension regimes exacerbate inequities and social assistance programs are fragmented and weakly targeted, with limited impacts on poverty and inequality. In the face of *rising inequality* combined with the deterioration of the fiscal situation, these inefficiencies erode support for the Social Compact. There are growing signs that the middle and upper classes are slowly starting to "opt out" of public services and pay for private ones (as is widespread in other Latin American countries). To the extent that this process continues, it will seriously undermine the commitment of these groups to finance universal services that they no longer use, further eroding the quality and legitimacy of the system.

Similarly, Costa Rica's global leadership in environmental conservation faces the challenge of growing pressures on the use of resources and of urbanization. *First*, the Payment for Environmental Service (PES) model competes with rising land use opportunity costs, which makes it fiscally unsustainable in the long run. Furthermore, the commitment to carbon neutrality entails not only maintaining the current levels of forest cover but also reducing the current levels of greenhouse gas (GHG) emissions from all sectors. While a large share of GHG emissions can be achieved from better management of forested and agricultural land, the country also needs to reduce carbon emissions from fossil fuels coming from transport, from construction, and increasingly from general electricity consumption. This creates significant trade-offs: the PES model is itself dependent on revenues generated from taxes on gasoline; and increasing the production of clean energy necessitates in some cases intervening in protected areas. *Second*, urbanization has increased air and water pollution, and there is no long-term plan to protect the environment from these threats. The country needs to improve its infrastructure quality, from public transportation to waste treatment capabilities. *Finally*, the intensive use of agricultural land has generated a worrisome level of agrochemical use, and more generally the lack of a proactive approach to territorial planning jeopardizes the gains in environmental conservation. Put differently, the status quo is at odds with the long-term goals of the country in terms of environmental sustainability.

Governance

On top of the challenges affecting the three basic pillars of development (inclusion, growth, and sustainability), there is an additional one that cuts across the pillars: a public sector administration that has not modernized in tandem with the economy, therefore limiting the State's ability to deliver. Despite Costa Rica's good standing on governance relative to the LAC region, both perceptions and evidence suggest that its institutions and

procedures have not been able to adapt to the challenges of a new economic and social environment. Governance challenges hamper Costa Rica's effectiveness in several ways. *First*, in a governance structure where power is spread across many actors, political gridlock has hampered the adoption of reforms in many instances over the past decade(s). As a result, a consequence of this gridlock in passing reforms has been the proliferation of an increasing number of public (and often autonomous) institutions created to address specific problems. *Second*, the budget process and numerous earmarked expenditures reduce the margin for the executive to control public investment and current expenses – or to make strategic allocative decisions. *Third*, public investment – particularly in infrastructure – has been at a standstill for decades. Various factors are named as obstacles to the implementation of public infrastructure and social projects in the various line ministries, such as the cumbersome processes associated with the Public Procurement Law, deficiencies in the environmental regulatory framework, cumbersome checks and reviews throughout the process, and so forth. *Fourth,* perception and evidence suggest inefficiencies in public service delivery (as discussed below for basic social services). *And finally,* the institutional complexity of the public sector makes for convoluted procedures that increase transactions costs of interacting with public institutions and service agencies. The relatively poor ranking of Costa Rica in the Doing Business Indicators (ranking 83rd out of 189 countries in 2015) is partly attributed to burdensome procedures within and between public institutions. Costa Rica also ranks poorly on indices of Protecting Investors (181st), Enforcing Contracts (129th), Paying Taxes (121st) and Starting a Business (118th). It's startling that a country that depends so heavily on FDI fares so poorly in those categories.

Priority Areas, Links, and Complementarities

Several threads weave across this "trilogy" of challenges for inclusion, growth, and sustainability—and point to priority areas for action. One thread involves the interactions between inequality and growth, which hinge on the mismatch of skills and jobs. Another strand is the dual challenge of maintaining competitiveness of high value-added sectors, while enhancing the viability of traditional low value-added sectors. Mounting fiscal pressures threaten the sustainability of the Social Compact and Green Trademark. Finally, the challenges of governance also weave across the development agenda, limiting the capacity of the public sector to adopt reforms, deliver services, and execute infrastructure projects. These inter-connected challenges highlight a number of priority areas that Costa Rica needs to address to continue on a sustainable and inclusive growth path.

Education and skills. Costa Rica needs to build a skilled workforce to supports its trajectory towards a high value-added economy and to reduce the skills-income gap. With fewer than half of young adults graduating from secondary school, and with performance on test scores falling, Costa Rica's labor supply does not appear to be well adapted to generate the skills needed for the labor market. Thus, building a more skilled workforce will ensure that the country remains competitive in high

value-added sectors, and that more workers can access these better paying jobs, including those in the bottom 40 percent of the population. As these changes are structural, for the most part they are also long term in nature. Workers cannot just "acquire an education overnight." As such, tackling these challenges will require a three-pronged approach: (i) strengthening the quality, retention, and relevance of the education system (from pre-school through secondary school)—which will help build the skills of "tomorrow's workers"; (ii) improving the quality and relevance of tertiary education; and (iii) strengthening the technical training system for the workforce.

Bold actions are needed to overhaul Costa Rica's education system. Given the country's level of development and high education spending, the education system seriously underperforms in quality (as demonstrated by test results), retention (low completion rates), and relevance (as indicated by low returns to training and lower levels of education). Although high rates of secondary school dropout are a *symptom* of the broader challenges in the system, imbalances in the allocation of public spending favor primary (41 percent) and tertiary education (32 percent) with relatively little allocated to the secondary level (27 percent). Indeed, both the share of public spending and the allocation per student in secondary education are low by international standards and given Costa Rica's level of development. Moreover, inequities in learning outcomes start early in life—and affect motivation and abilities to learn throughout the school years. In addition to rebalancing spending towards secondary school and early childhood development, Costa Rica needs to strengthen teacher quality and improve accountability through regular monitoring with standardized learning assessments, and a more effective governance and incentive framework.

Given the high-skilled profile of job opportunities in Costa Rica, systemic efforts are also needed to enhance the quality and relevance of tertiary education. Currently, the tertiary education system is heavily biased towards social science and humanities, and produces few STEM (Science, Technology, Engineering and Mathematics) graduates, further contributing to the skills shortage in high value-added sectors. Moreover, outdated and bureaucratic procedures for recognizing foreign degrees create obstacles for Costa Rica to "import" the skills needed to sustain its high value-added growth model. Quality and accountability mechanisms are also needed, with performance agreements with public universities and quality accreditation standards for both university and non-university tertiary education

Finally, the country needs to expand the offering and relevance of technical training, which is the most direct way to build the skills of the current workforce. Again, stronger quality standards, certification of technical programs, and accountability of training institutes could help. The National Learning Institute (INA) could also improve coordination with private-sector employers to design market-relevant curricula and course offerings so as to better respond to the needs of the growing sectors of the economy.

Competitiveness and the business climate. Boosting growth and inclusion in the labor market requires confronting the dual challenge of maintaining competitiveness of high value-added sectors, while improving the viability of low value-added

sectors. For instance, improving the integration of export-oriented and domestic firms through backward linkages could sustain the growth among small and medium enterprises (SMEs), generating jobs in mid- and low-skilled occupations. This can be done by lowering operation costs to improve the productivity of labor and counterbalance the high labor costs in Costa Rica compared to its neighbors, for example by lowering the costs of doing business through regulatory simplification.

Infrastructure. Reducing the infrastructure deficit would increase competitiveness, growth, and environmental sustainability. Costa Rica's historical efforts to build an extensive network of infrastructure in nearly all productive service areas (water, sanitation, transport, electricity, and telecommunications) are clear from the infrastructure stock: the country has two times the road and three times the rail density of the average middle-income country; access to electricity is nearly universal; and mobile penetration is higher than the OECD average. Yet, the near freeze in public infrastructure investment until the 1990s, as well as recent fiscal constraints, have taken a toll on the country's ability to upgrade and maintain its infrastructure. Further, the government has faced significant challenges in executing infrastructure investment in a timely manner. As a result, today roads and ports have among the lowest quality marks in the LAC region. Electricity prices have doubled since 2007 due to weather related variable hydroelectric output, causing increased use of thermal units and high operating costs, among other factors. This infrastructure deficit reduces the potential of local firms to grow and create jobs, and this is true in particular for firms that operate outside Free Trade Zones (FTZs). In addition, the country needs to improve its waste management and clean energy production capabilities to be able to reduce GHG emissions, and water and soil pollution. Infrastructure improvement poses a number of tradeoffs, including the need to intervene in protected areas (in the case of clean energy production), as well as the need to control the current fiscal deficit. Given the necessity of continuing to invest in infrastructure, and the reality of fiscal constraints, Costa Rica must look for options for private sector participation in the maintenance and upgrading of its infrastructure.

Both growth *and* inclusion would benefit from the many complementarities involved in improving education, competitiveness, and infrastructure. A well-educated workforce with relevant skills is fundamental for sustaining economic growth and increasing productivity. In parallel, closing the education gap between the poor and non-poor is also highly relevant for inclusion by providing opportunities those in the bottom 40 percent. Lowering the costs of doing business will boost competitiveness across various sectors. Furthermore, increasing infrastructure spending would stimulate construction, thereby creating more jobs for the large stock of low-skilled workers.

At the same time, actions are needed to ensure the sustainability of Costa Rica's development model:

- **Fiscal sustainability:** Improving the fiscal stance to restore sustainability requires reforms to manage expenditures and increase revenues. On the expenditure front, these include containing

the wage bill of the consolidated public sector, as public sector wages, both in government and more so in state-owned enterprises and other public institutions, are well above the private sector at all employment categories; and reviewing the fiscal sustainability of the pension system, particularly of special pension regimes in the public sector. In addition, a comprehensive reform of the budgetary process is needed to increase efficiency and transparency in all public sector entities. Finally, curtailing the earmarking of revenues, which cover more than half of primary spending, would make the budgetary process more flexible. Comprehensive reforms are also needed to increase revenues. For example, the 1,259 tax exemptions approved since 1953 that comprise almost six percent of GDP need to be thoroughly reviewed. Curtailing those exemptions would make the tax system more rational and progressive, as well as produce higher revenues. This reform is essential for restoring sustainability to the fiscal accounts, which is a necessary condition for achieving Costa Rica's economic and social objectives.

- **Social sustainability:** In addition to strengthening education, priority areas for sustaining the Social Compact include health and social protection. Costa Rica needs to modernize its universal health system to improve quality by: (i) strengthening the health care model to enhance capacity to adapt to demographic and epidemiological change while ensuring quality and timeliness of service delivery; (ii) improving the financial model of budget and resource allocation; and (iii) improving the management model for the health system for accountability, efficiency, and performance. The country also needs to increase the effectiveness of social protection programs by (i) harmonizing eligibility criteria and social information systems; (ii) improving performance monitoring and evaluation; and (iii) reducing institutional and program fragmentation.
- **Environmental sustainability:** To sustain its celebrated "Green Trademark," Costa Rica needs to balance environmental and natural resource management goals, by: (i) reviewing the sustainability of the PES mechanism for conservation; (ii) modernizing water and solid waste treatment (infrastructure, service delivery, regulatory framework, capacity); (iii) increasing the supply of renewable energy by making regulations on the use of protected areas more flexible; (iv) implementing a comprehensive transport policy, including measures to reduce growth of demand for energy associated with transport; (v) reinforcing regulation and oversight of agro-chemical use and incentivizing the expansion of "green" (organic) agriculture; and (vi) improving territorial planning, land management, and management of natural and man-made disasters.

Governance. Progress in all the priority areas discussed above hinges on improving the capacity of the public sector to plan and implement policies, execute public investment projects, deliver services, and increase accountability. Despite Costa Rica's good governance levels compared to the rest of the LAC region, there is a growing perception of low effectiveness of government institutions. Cumbersome regulations, in many cases

resulting from lack of coordination among institutions, make the process of starting and running a business—particularly a non-FTZ small or medium enterprise—more challenging. Low levels of transparency and accountability lower the efficiency of public spending. The current political landscape, where political minorities have the power to delay votes, further reduces the margin for approving and implementing needed reforms. The need to improve governance is apparent in all priority areas, for instance by increasing accountability in the education sector (e.g., by tracking student achievement to reward teacher and school performance). Employment creation would benefit from streamlining business regulations as well as the public procurement and investment processes to improve infrastructure. A more consolidated budget, fewer tax exemptions, and more control over spending by autonomous institutions could greatly help to reduce the current fiscal deficit, and would improve the capacity to monitor results of public spending. In turn, results-based management would help to boost the efficiency of public spending, for example, enforcing the use of common information systems and modernizing the M&E frameworks in the social sectors.

An agenda for knowledge. Finally, a number of knowledge gaps need to be filled to inform better policy decisions. Although there is a large and productive research and policy analysis community studying Costa Rica, there are a few issues where having further research and data collection would provide more information to help design more concrete policy reforms to tackle the issues presented above. For example, the specific factors driving secondary dropout are still not well understood. In the labor market, it is not clear whether the contraction of employment in agriculture, manufacturing and construction is of a cyclical or structural nature, and this has important implications for low-skilled unemployment. Likewise, although there are strong signs that reservation wages are high, there could be more studies to quantify this phenomenon better. To improve the efficiency of the public sector, it is crucial to identify the specific governance bottlenecks in executing infrastructure projects, as well as their cost implications. Also, the articulation mechanisms to improve the effectiveness of social programs need to be based on a thorough institutional mapping of social programs. Finally, environmental conservation needs to be better linked with economic activity, and a key knowledge gap in this regard is how to link sustainable production and rural landscapes to conservation.

Note

1. The long-term trends in poverty and inequality are subject to caveats regarding income measurement due to several changes in survey methodology across that time period. The main "breaks" in comparability of the data series occur in 2001 and 2010. As such, measurement of welfare across the three time periods of 1989–2000, 2001–09, and 2010–14 is not strictly comparable. See chapter 2 and box 2.1.

1. Introduction and Country Context

Costa Rica is a small country, with ambitious economic, social, and environmental goals. The country covers a land area of 19,700 square miles (51,100 square kilometers), with a population of 4.9 million, of which about three-quarters live in urban areas. An upper-middle income-country, with GDP per capita of US$13,876 (current PPP), it is under consideration for membership to the Organisation for Economic Co-operation and Development (OECD), with discussions scheduled for this year. Costa Rica's development model centers on four key pillars: its long-standing democracy, an ambitious Social Compact, an outward-oriented economy, and its celebrated Green Trademark. This model has achieved many successes, including sustained healthy growth rates, improvements in social indicators, environmental gains, and one of the lowest poverty rates in the Latin America and Caribbean region.

Anchored in a region rife with political and social turmoil until the late 20th century, Costa Rica stands out as the longest working democracy in Latin America. The country—one of the smallest in Latin America and the Caribbean (LAC)—started a process of democratic nation building back in the 19th century, with the development of the coffee industry. Stability and consensus were nurtured from the country's early years and continued during the transition to the modern democracy that started in 1949 (box 1.1). Since then, elections have been held every four years, with peaceful transitions of power between political parties, making it the oldest working democracy in Latin America. There is a clear checks-and-balances system between the Executive and the Legislative Assembly. Costa Rica's political norms have long placed a high premium on achievement of wide socio-political consensus on major policies. Participation in elections remains high, with 70 percent voting in 2010 and 68 percent in 2014, although it has declined from levels around 80 percent during elections in the 1990s.[1] This political stability, which has earned Costa Rica the label of "Switzerland of Latin America," has been attributed to several factors, including the abolition of the army after a two-month civil war in 1948, the limited presence and power of land-based oligarchies, and the 1949 Constitution, which created one of Latin America's first welfare states.

The country has also forged a far-reaching Social Compact, with universal access to basic services and a long tradition of social rights. Costa Rica's Social Compact traces its roots back to the middle of the 20th century, and is founded on constitutional guarantees of basic social rights, an extensive Labor Code, public education, and a universal health care system managed by the Social Security Agency (box 1.1). As a result, most of the population has access to improved water sources (96 percent), sanitation (94 percent), and electricity (99 percent).[2] It is widely recognized that Costa Rica's universal health care system, along with the expansion of safe water and sanitation, are the key reasons behind its impressive health outcomes.[3] Life expectancy at birth increased from 61.6 years in 1960 to 79.7 years in 2012, just one year less than the OECD average of 80.7 years. Almost all births

BOX 1.1 Historical Underpinnings of Costa Rica's Social Compact

Costa Rica's social contract has its roots in the pattern of its colonial settlement and the structure of coffee production. Largely isolated, sparsely populated, and without precious metals to export, Costa Rica was a uniformly poor subsistence economy during the colonial period (1600–1800). The farmers of the Central Valley worked their own land on homesteads. Given the dominance of the farm household, Costa Rica has been described as a "rural democracy" during this period, with minimal social divisions and few class distinctions, in contrast to neighboring countries.

Following independence in 1821, coffee production grew rapidly and became the engine of Costa Rica's economic growth. Coffee became a driver for the development of the country's infrastructure, institutional organization, and productive structure. Roads were built to export coffee to Europe. Coffee production accelerated moving from communal land rights to the privatization of land, and the predominance of small landholdings and the notion of individual property rights contributed to low inequality and shared wealth. Abundant land supply and labor scarcity contributed to high wages, contributing to a more equitable distribution of the income from coffee exports. As international demand increased, large exporters were forced to buy coffee from the smallholders, while in turn smallholders depended on large exporters for the *beneficio*—the hullery where coffee is washed, dried, and packaged for export—thereby creating a strong mutual interdependence. By the middle of the 19th century, this facilitated the consolidation of the Coffee Pact—the implicit contract developed between the large exporters and smaller producers. In part, this pact was feasible because Costa Rica had a small territory with a small population concentrated in the Central Valley, where all faced the same adversities and risks. The implicit contract was a social mechanism for dealing with these risks and overcoming the shortcomings of small size.

The social relationships implicit in the Coffee Pact gradually led to the emergence of a national egalitarian ideology that validated the participation of small producers and the landless workers not only in the distribution of the economy's product but also in the political arena. This led to Costa Rica's version of the liberal state, in which the interests of different sectors could be democratically expressed, rules were universally applicable, and institutions and legal codes promoted the growth of economic activity and a democratic society. Liberal governments created a legal framework that protected individual and property rights, guaranteed market freedom, and placed multiple limits and counterbalances on power.

This egalitarian ideology provided the underpinnings for Costa Rica's notable Welfare State. In 1941, President Rafael Angel Calderon Guardia created the social security system (*Caja Costarricense de Seguro Social*, CCSS) to provide public health services, which

BOX 1.1 *continued*

have become universal since then. In 1943, a Labor Code was enacted and an article on social rights (*garantías sociales*) was written into the Constitution of 1949. The social rights included health, housing, social assistance, public services, taxes, and minimum wages, among others.

Source: Adapted from Gonzalez-Vega and Cespedes (1993).

are attended by skilled medical personnel, and the infant mortality rate stands at 10.6 deaths per 1,000 live births, a vast improvement since 1960 which recorded 90 deaths per 1,000. Moreover, by 2011 the literacy rate for adults 15 years old and above had reached 97 percent, and the share of adults 25 years and above who had no formal education was 3.4 percent in 2010. Younger cohorts are attaining more years of education as time goes by. For example, the cohort of young adults aged 25–29 years had only about four years of education on average in 1950; in 1980 it had on average a complete primary education (six years); and by 2010 it had a complete basic education (nine years on average). This is in part the result of a strong commitment of the society to invest in education, as reflected in a recently approved constitutional mandate (June 2010) to raise education spending from six to eight percent of GDP.

Costa Rica's economy has been transformed by its outward-oriented policies, centered on trade openness, export diversification, Free Trade Zones (FTZs), and foreign direct investment (FDI). Trade openness has been a critical building block of this model, dating back to 1963, when Costa Rica joined the Central American Common Market (CACM, made up of El Salvador, Guatemala, Honduras, and Nicaragua), which spearheaded trade integration in Central America, eventually leading to a customs union. A second milestone took place 20 years later (1983), when Costa Rica joined the Caribbean Basin Initiative, strengthening its trade relations with the United States. But perhaps the most significant step was joining CAFTA-DR (the Dominican Republic-Central America-United States Free Trade Agreement), which provided a more stable and reliable framework for Costa Rica's trade with its main trading partner, the United States, introduced changes to the legal framework to promote transparency, ensured a secure and predictable environment for investors, and led to the breakup of government monopolies in the telecom and insurance sectors. Following CAFTA-DR, Costa Rica has entered into further trade agreements with Canada, China, the European Union, Mexico, Peru, and Singapore, thus consolidating its open economy. Another key building block of the economic model was the passage of the FTZ law in 1981 (amended in 1990 and 2010), which started a wave of FDI into the country: first with low-tech sectors (textiles), and gradually attracting companies in

high-tech sectors (electronics, advanced manufacturing, medical devices and life sciences, and services for export).

This outward-oriented development model has been successful in attracting FDI and moving Costa Rica up the global value chains over the past two decades. The development model has transformed the country from a rural agriculture-based economy in the mid-1950s to one with high value-added industries that contribute to several global value chains. By 2014, FTZs accounted for 53 percent of exports, and Costa Rica's economy is very intensive in FDI (4.2 percent of GDP). Exports are well diversified with high-tech manufacturing and services playing an increasingly important role. Costa Rica contributes to at least five major high-tech global value chains: electronics, medical devices, automotive, aeronautic/aerospace, and film/broadcasting devices. Electronics, medical devices, and other manufactured goods now make up about 60 percent of goods exports. The increasingly diversified agricultural portfolio (bananas, pineapples, coffee, etc.) accounts for most other goods exports, while low value-added products such as textiles are losing their relevance. Services exports (tourism, business services) also play an important role in the economy and have also diversified. Business services (mainly Information and Communication Technology, ICT, related) account for almost half of all services exports.

Finally, Costa Rica has built a world-renowned "Green Trademark," centered on conservation, reforestation, and protected areas. It is the only tropical country in the world that has reversed deforestation, increasing the area covered by forests from 26 percent in 1983 to 52 percent today (box 1.2). Reforestation is attributed, in part, to the Payments for Environmental Services (PES) program, which provides incentives to forest conservation and rehabilitation, reaching an average of 310,000 hectares per year of privately owned lands over the past decade. Costa Rica has also set aside 26 percent of its land area for protected areas, including national parks, which have become an important destination for tourists (53 percent of tourists visited those parks in 2012).[4] Tourism has become a dynamic sector, contributing 4.6 percent of GDP and 14.2 percent of total exports in 2013. Costa Rica also stands out as the first country to adopt the goal of achieving carbon neutrality by 2021 (box 1.2).

This development model has produced clear economic and social dividends—and poverty rates are among the lowest in Latin America and the Caribbean. GDP per capita has tripled since 1960 and now stands at US$13,876 (current PPP). Growth has averaged 4.5 percent between 2000 and 2013, above the Latin American average of 3.8 percent. Using a US$4 (2005 PPP) poverty line, only 12 percent of the country's population is considered to be poor (less than half of the Latin American average). Taking a US$2.5 poverty line, only 4.7 percent of the population is poor (or about one-third of the Latin American average). Moreover, only 1.4 percent of the population lives under the US$1.25 poverty line, well below the World Bank Group's Twin Goals poverty objective for 2030.[5] Not surprisingly, the middle class has become the largest socioeconomic group of the country, comprising about 47 percent of the population.

However, despite these impressive achievements, underlying vulnerabilities challenge Costa Rica's development model. There is a sense that, although Costa Rica has achieved

BOX 1.2 Costa Rica's Celebrated Green Trademark

Costa Rica takes up only 0.03 percent of the earth's surface but is considered to be one of the 20 countries with the greatest biodiversity in the world, with 52 percent covered by forests and 26 percent in protected areas. This was not always the case. Although more than half of the country was covered by forest in 1950, deforestation had stripped this to just 26 percent by 1983 under the pressures of a growing population and massive conversion of forest to pasture, underpinned by policies that supported cattle ranching and agricultural development.

Green Framework and Payments for Environmental Services. Recognizing the potential economic and global value of the forests and the risks to environmental degradation of rapid deforestation, several framework laws established the basic principles of Costa Rica's "Green Trademark" aimed at rehabilitating wooded lands and setting aside vast areas of land as protected areas. It took years of policy debate and consensus building to develop a national approach of paying for environmental services—which now takes the form of the world-renowned Payments for Environmental Services (PES) program. This program builds on a long chain of earlier legislation that made the costs of reforestation tax deductible (Forest Law No. 4475 of 1969), established reforestation as a legal imperative (Forest Law No. 6184 of 1977), and established fiscal incentives through the creation of certificates that rewarded landowners for reforestation and allowed for significant forest authority intervention in the use of forest resources (Forest Laws No. 7032 of 1986 and 7174 of 1990).

The PES was formally established in 1995 when the government adopted Forest Law No. 7575. This law established a framework for payments to landowners for these ecosystem services, and established the National Fund for Forestry Financing (*Fondo Nacional de Financiamiento Forestal,* FONAFIFO), to manage the PES and established a new certificate for forest conservation to reward landholders for their ecosystem services. Besides the 1995 Forest Law, the government enacted other environmentally related laws: (i) the 1995 Environment Law No. 7554, which mandates a "balanced and ecologically driven environment for all"; (ii) the 1996 Forest Law No. 7575, which mandates "rational use" of all natural resources and prohibits land cover change in forests; and (iii) the 1998 Biodiversity Law, which promotes the conservation and "rational use" of biodiversity resources and includes measures to conserve, protect, and sustainably exploit biological resources to ensure quality of life for future generations and the survival of natural heritage. Subsequently, the Fiscal Simplification and Efficiency Law No. 8114 (2001) fixed FONAFIFO's share of fuel tax revenues to 3.5 percent, guaranteed through the Ordinary National Budget. In addition, the Decree of the President of the

box continues next page

BOX 1.2 *continued*

Republic No. 32868 in 2005 ("Inaugurating and Regulating a Water Charging Scheme") introduced a mandatory payment for ecosystem services via instituting a water tariff structure through which 25 percent of the proceeds from water charges are allocated to the PES Program.

National Parks and Protected Areas. The National System of Protected areas was introduced in the late 1980s, followed by the National System of Conservation Areas (*Sistema Nacional de Áreas de Conservación, SINAC*) was created in 1994 to organize the country into 11 large conservation areas, most of which are based around a major national park, to avoid a situation in which the protected areas would serve as isolated "green islands" in an otherwise improperly managed landscape. SINAC oversees over 160 protected areas, of which 26 are designated national parks. Other areas are designated wildlife refuges, biological reserves, national monuments, forest reserves, national wetlands, and protected zones.

Carbon Neutrality. In May 2007, the Costa Rican government announced its intention to become 100 percent carbon neutral by 2021. Efforts are underway to begin offsetting all of the country's carbon dioxide emissions using a wide range of budgetary, legal, and financial incentives including measures to promote biofuels, hybrid vehicles, and clean energy. Another key component of the national strategy will be a "C-Neutral" label to certify that tourism and certain industrial practices mitigate all of the carbon dioxide they emit. Under the new certification system, tourists and businesses would be charged a voluntary "tax" to offset their carbon emissions, with one ton of carbon valued at US$10. The funds would be used for conservation, reforestation, and research in protected areas.

Sources: Bennet & Henniger (2009), Chomitz et al. (1998), Rodriguez Zunega (2003), WorldWatch Institute (2015), and Brown and Bird (2010).

impressive "levels" of performance for many indicators (relatively low poverty rates, long life expectancy, near-universal literacy, environmental conservation), it is increasingly becoming constrained on the "deltas" of adopting the changes needed to make the transition to a modern, higher-income economy that is aspiring to join the OECD. These "cracks in the system" are apparent in many dimensions: rising inequality; growing unemployment, especially among the poor; consistently high school dropout rates; increasing dissatisfaction in the quality of the health care system; rising electricity costs; a near halting of infrastructure investment; increasing air and water pollution; and the deteriorating fiscal balance. In turn, these risks are *symptoms* of deeper structural problems in the economy and the public sector. The *implications* of these challenges are worrisome: although the economy is expected to continue to grow at healthy rates, poverty reduction has stagnated, the incomes of the bottom 40 percent are falling behind, and inequality is rising.

These challenges affect the basic pillars underlying poverty reduction and shared prosperity: inclusion, growth, and sustainability.

- *On the inclusion front*, inequality is rising, despite the country's progressive policies and ambitious Social Compact—and in contrast to the marked decline in inequality in much of the LAC region. Consequently, inequality offset the poverty-reducing impacts of growth in the late 2000s, and reversed what should have been a decline in poverty, with poverty increasing by 0.4 percentage points instead of falling by a projected three percentage points during the post-crisis recovery period. The widening income gap between rich and poor reflects changes in the labor market, weak educational outcomes, and a mismatch between the pattern of growth and the skills profile of the workforce.
- *On the growth front*, although Costa Rica's growth performance over the past decades has been positive, it has not made much headway in convergence with the United States, lagging behind structural peer countries, such as Chile, Panama, and Uruguay. Moreover, the country faces several challenges to its competitiveness, including the mismatch of skills and jobs, investment-climate related factors, production costs, and weaknesses in public-sector administration. As a result, the economy is showing signs of built-up vulnerabilities.
- And finally, on the *sustainability front*, the deterioration of fiscal balances, tensions in the Social Compact, and various risks to the Green Trademark all combine to threaten Costa Rica's development model. The fiscal situation stands out as one of the most pressing development challenges facing Costa Rica. The recent deterioration stems from a combination of countercyclical measures undertaken during the crisis and structural forces. Without fiscal consolidation, the deficit could push public debt to unsustainable levels and threaten the country's economic, social, and economic gains. Indeed, fiscal pressures, as well as rising inequality, and increasing dissatisfaction with social services all combine to create tensions in the social compact. Finally, Costa Rica's leadership in environmental conservation faces the challenge of growing pressures on the use of resources and of urbanization. Changing economic incentives threaten the gains in reforestation, and the use of agro-chemicals is worrisome. Urbanization has increased energy use, as well as air and water pollution; and the country has not developed a long-term plan to protect the environment from these threats.

This Systematic Country Diagnostic (SCD) takes stock of Costa Rica's path to success, and reflects on the development constraints and opportunities that the country faces going forward. It does so through diagnostics of the trends, drivers, and challenges to provide elements to answer three basic questions:

1. To what extent has the Costa Rican development model been *inclusive*?
2. What has driven *growth* in Costa Rica in recent years, and what are the bottlenecks that need to be addressed?
3. How *sustainable* is the development model of Costa Rica economically, socially, and environmentally?

The SCD is organized as follows. Chapter 2 examines trends in poverty and shared prosperity. Chapter 3 assesses the inclusiveness of growth, with a focus on the challenge of rising inequality and the mismatch of labor opportunities and the skills of the workforce, with implications for the poor and the bottom 40 percent of the population. Chapter 4 analyzes the drivers of growth, as well as key constraints to growth looking forward. Chapter 5 identifies risks to the sustainability of development, including growth, the delivery of public services, and the green trademark of the country. Finally, based on the previous analyses and a participatory process with partners and stakeholders in Costa Rica as well as within the WBG,[6] Chapter 6 identifies priority areas for policy to ensure that Costa Rica stays on a sustained path of growth, inclusiveness, and shared prosperity. In several parts of the analysis, this SCD relies on comparisons with other countries, including regional peers, structural peers, and aspirational peers (OECD countries).[7]

Notes

1. Estado de la Nación (2012) and Estado de la Nación (2014).
2. Averages for 2010–13 from World Bank World Development Indicators using the Find-My-Friends Tool. Moreover, following the liberalization of the telecommunications market due to CAFTA-DR, mobile-cellular penetration levels have quickly caught up with other countries in the region, reaching 135 percent per 100 inhabitants and 94 percent of households in 2014.
3. Montenegro (2013).
4. DeShazo and Monestel Vega (1999) found that tourists spend a lot of time in those national parks.
5. The WBG's Twin Goals are (i) to reduce the percentage of people living under US$1.25 per day to three percent globally by 2030, and (ii) to increase the income growth rate for the bottom 40 percent relative to average growth, within each country.
6. See appendix A for a full description of the process.
7. See appendix B for a description of selection of comparator countries used in the analysis.

2. Poverty and Shared Prosperity

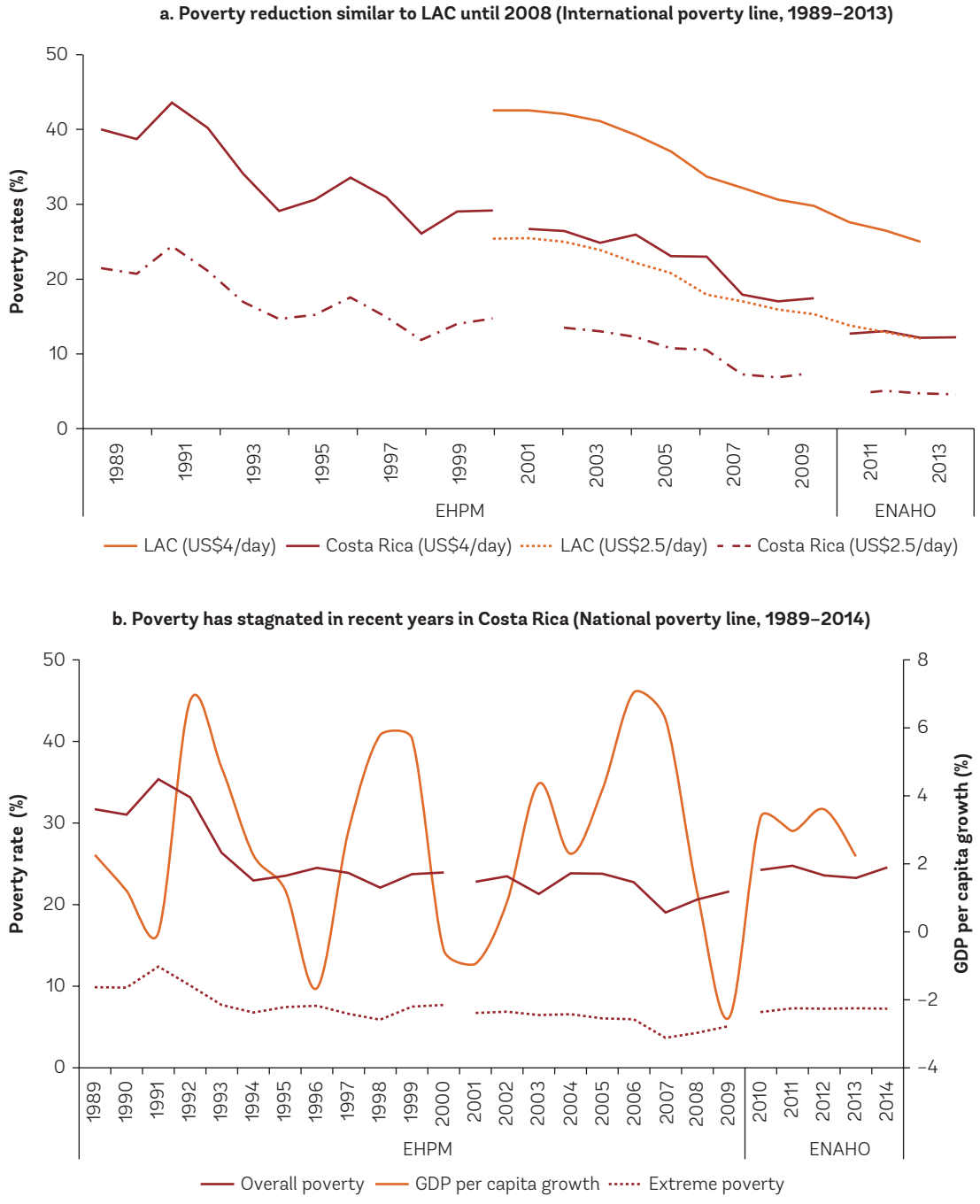
Poverty rates in Costa Rica are among the lowest in Latin America and the Caribbean, and the middle class is the predominant group. Nonetheless, poverty increased and then stagnated during and after the global crisis. The patterns of poverty show an uneven level of development in the country, with the Central region being more prosperous relative to the peripheral regions. Moreover, income inequality is rising, in contrast with the historical decline observed in most countries in Latin America. Consequently, inequality offset the poverty-reducing impact of growth in the late 2000s, with poverty rising instead of declining despite economic growth.

Poverty: Relatively Low Levels, but Recent Stagnation

One of the great outcomes of Costa Rica's sustained GDP growth and Social Compact is the reduction of poverty that took place over the second half of the 20th century. The poverty headcount—measured with an internationally comparable poverty line of US$4 per day—was reduced from around 40 percent in 1989 to 27 percent by the turn of the century. Poverty decreased further to 18 percent in 2007, falling at a rate of about 1.5 percentage points per year (figure 2.1a). However, poverty reduction stagnated during and after the global crisis. Trends for extreme poverty—defined internationally in Latin America and the Caribbean (LAC) as per capita income under US$2.50 a day—are similar, with a sustained fall from 14 percent in 2001 to seven percent in 2007, and a slower decline after 2010 to an average of five percent.[1] Costa Rica's poverty rate of 12 percent was the lowest in Latin American after Argentina (11 percent), Chile (10 percent), and Uruguay (8 percent) and less than half of the LAC average in 2012.

Official poverty figures show a modest decline since the 1990s, and a stagnation of poverty since 2010. Using the official poverty line and the per capita income aggregate, overall poverty in Costa Rica declined from around 31 percent to 19 percent between 1989 and 2007 (figure 2.1b). Poverty reduction followed a cyclical pattern: after a period of sharp decline in 1989–1994, poverty stagnated until 2000; then during the economic expansion of 2001–2007, it declined modestly at about 0.6 percentage points per year. The global crisis reversed some of these gains, causing poverty to increase to 21.6 percent in 2009; and it has remained stable during the 2010–2014 period at around 24 percent. Extreme poverty followed a similar pattern, declining from 9.9 percent to 3.7 percent between 1989 and 2007, and then increasing to 5.2 in 2009. Extreme poverty has averaged 7.2 percent in 2010–2014. By 2014, the number of poor amounted to 1.17 million, including 0.45 million of extreme poor (box 2.1).[2]

FIGURE 2.1 Poverty in Costa Rica is Low by LAC Standards, but it Has Stagnated Recently



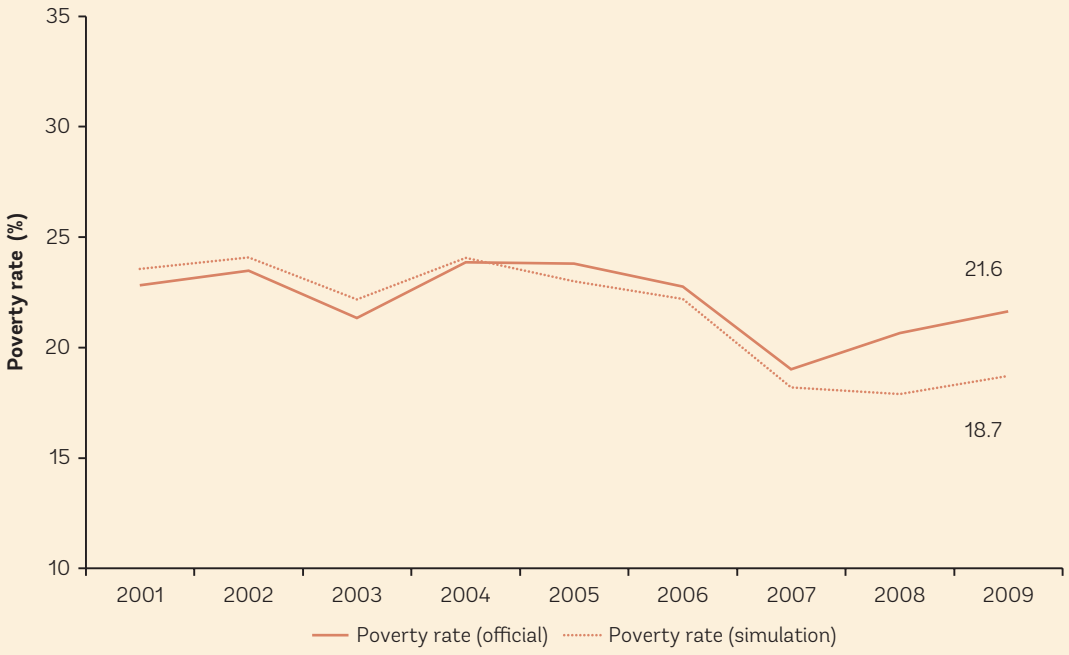
Source: Elaboration using SEDLAC (CEDLAS and The World Bank); and INEC data and World Development Indicators.

BOX 2.1 How Have Methodological Changes Affected Poverty Measures in Costa Rica?

The analysis of trends in poverty and inequality over time must be treated with some caution due to changes in methodologies used both for the collection of household survey data and for the calculation of poverty lines in Costa Rica.

Two household surveys are used to measure poverty from 1989 to 2014, but they do not allow for comparisons on poverty rates. The surveys are *Encuesta de Hogares de Propósitos Múltiples* (EHPM) up to 2009 and the *Encuesta Nacional de Hogares* (ENAHO) from 2010 to 2014. Several improvements in the methodology to estimate household incomes were introduced in the ENAHO. For example, the new questionnaire includes more and better questions on labor and non-labor income; the consumption basket was revised using the consumption patterns found in the 2004 National Income and Expenditure Survey; and there were methodological changes in how to adjust for under-declaration of incomes and the imputation of labor income.

FIGURE B2.1.1 Poverty Rates Adjusting the Non-Food Component of the Poverty Line with the Overall CPI, 2001–2009



Source: Calculation based on INEC.

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BOX 2.1 *continued*

Costa Rica uses two income-based poverty lines, one for extreme poverty and another for overall poverty. The extreme, or "food," poverty line is the value of the basic food basket required for an individual to meet the minimum caloric intake. The overall poverty line considers other basic resources beyond food.

A methodological change in calculating the poverty line was also introduced with the ENAHO. Before 2010, both components of the poverty line were adjusted using the food consumer price index (CPI). This was likely to have resulted in overestimation of poverty when food prices were rising faster than overall prices, as happened in 2007–2009. In 2009, for example, the poverty rate would have been 18.7 percent, about three percentage points lower, if the non-food component of the poverty line had been updated using the general CPI (Figure B2.1.1). Since 2010, the official poverty line is adjusted using the food CPI for the food component of the poverty line and the non-food CPI for the non-food part.

Comparing Costa Rica's poverty rates with those of other countries presents a series of challenges, but harmonized survey data are available for that purpose from the Socio-Economic Database for Latin America and the Caribbean (SEDLAC). The harmonization was developed by the Center for Distributional Labor and Social Studies (CEDLAS) at the University of La Plata, Argentina, and the World Bank. The harmonized survey data allow for cross-country comparability of poverty and inequality measures. However, per capita income and poverty lines from SEDLAC differ from official estimates. Extreme poor are individuals with a harmonized per capita income lower than US$2.50 a day, while poor are individuals with a harmonized per capita income lower than US$4 a day (2005 PPP). International comparable data from SEDLAC are available only up to 2012.

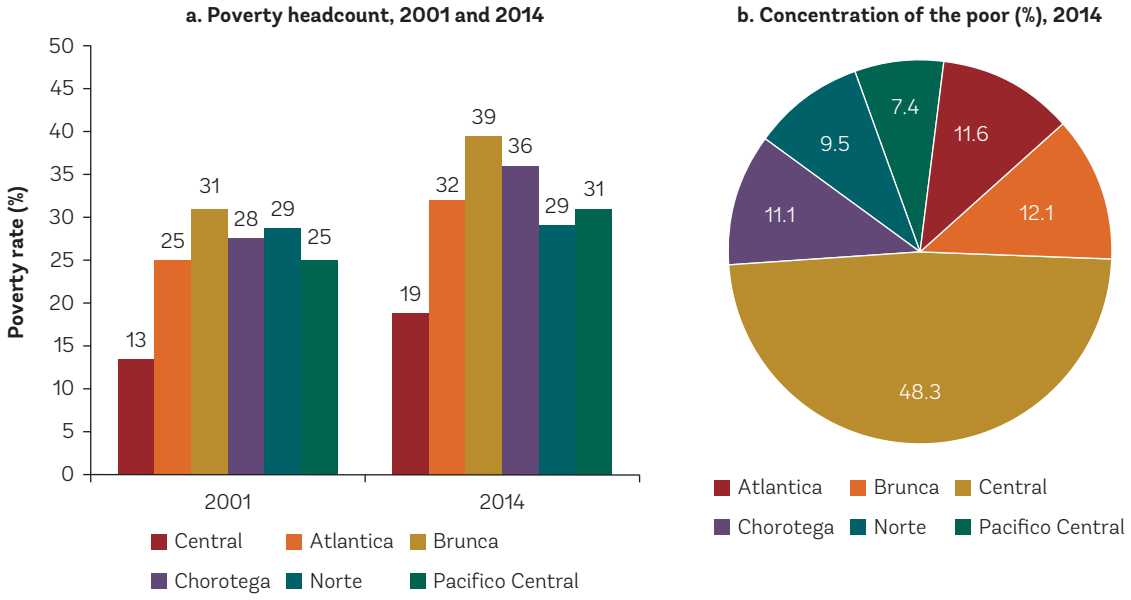
Source: Adapted from Cadena et al. (2013) and INEC (www.inec.go.cr).

Profile of the Poor: Increasingly Urban, Larger Households, and Lower Educational Attainment

SPATIALLY, POVERTY RATES are the lowest in the Central region, as compared to the other regions. Poverty rates vary significantly across the country (figure 2.2a). In particular, poverty rates are as high as 35 percent in the Brunca and Chorotega regions, as compared with 19 percent in the Central region.

In terms of their *numbers*, however, the poor are concentrated in the Central Region. About half of the 1.7 million poor Costa Ricans live in the Central region, with the other half distributed almost evenly across the rest of the country (figure 2.2b). The relative high concentration of poor in the Central region mirrors population density as this region concentrates

FIGURE 2.2 Poverty Varies Widely by Region, but Most of the Poor Are in the Central Region



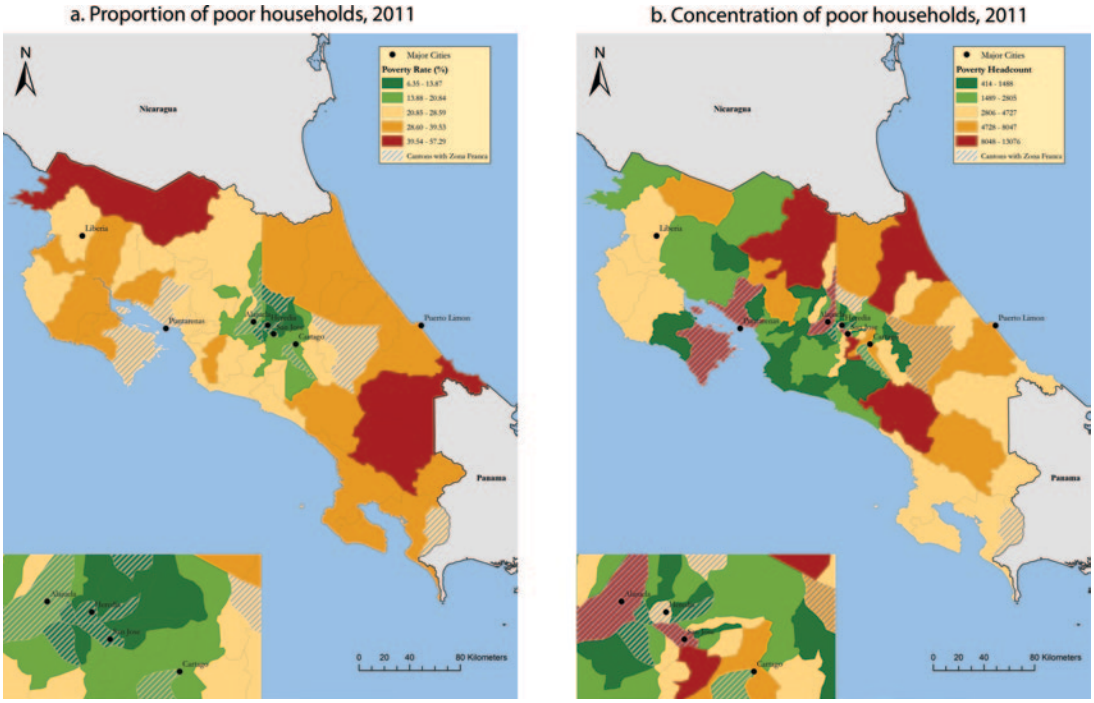
Source: Calculations using 2001 EHPM and 2014 ENAHO survey.
Note: The sample of the household survey allows estimating poverty in the six regions of the country: Central; Chorotega; Pacifico Central; Brunca; Huetar Atlantica; and Huetar Norte. Poverty rates in 2001 and 2014 are not strictly comparable (see box 2.1). Poor are individuals with a per capita income below the official poverty line.

62 percent of the country's now mostly urban population.

Regional disparities are significant, and poverty rates are much higher in the border areas. The 2011 county-level map of income (monetary) poverty produced by INEC reveals a large heterogeneity of poverty rates within and across regions.[3] In particular, poverty rates range from over 50 percent along the border with Nicaragua and Panama to less than 15 percent in some counties located in the Central region (figure 2.3a). The cantons with the highest poverty rates are also those where most of the indigenous population lives (box 2.2). Interestingly, the poverty map also shows a high concentration of poor households, with almost a quarter of poor households concentrated in only five counties in Costa Rica in 2011 (figure 2.3b).

Poor and non-poor households have significantly different characteristics. Table 2.1 compares the profile of the poor and the non-poor, as well as those in the bottom 40 and top 60 percent of the income distribution in 2014. Non-poor households tend to have higher levels of human capital: heads of household had nine years of education on average among the non-poor, compared with about five years among poor and extreme poor households. The poor and extreme poor belonged to larger households compared to the non-poor. They were also more likely to live in households with larger dependency ratios of younger children compared to the non-poor; the proportion of individuals 12 years

FIGURE 2.3 The Highest Poverty Incidence Is in Border Areas



Source: Elaborated with data from the 2011 Census reported in INEC's website (www.inec.go.cr).
Note: The figure shows the proportion and concentration of poor households in 2011. Poor are households with a per capita income lower than the official poverty line. Since numbers refer to households instead of individuals, they differ from those shown in figure 2.1b.

old or younger in poor households was twice as large as that observed in non-poor households in 2014.

Income-generation capacity also varies. For example, the average per capita income of the non-poor is 17 times higher than the income of the extreme poor and seven times higher than the income of the overall poor. The poor are more likely to work in the agricultural sector and to be self-employed, while the non-poor tend to work more in services and to be formally employed. The poor are also more likely to live in female-headed households, but non-poor women are twice as likely as poor women to participate in the labor force.

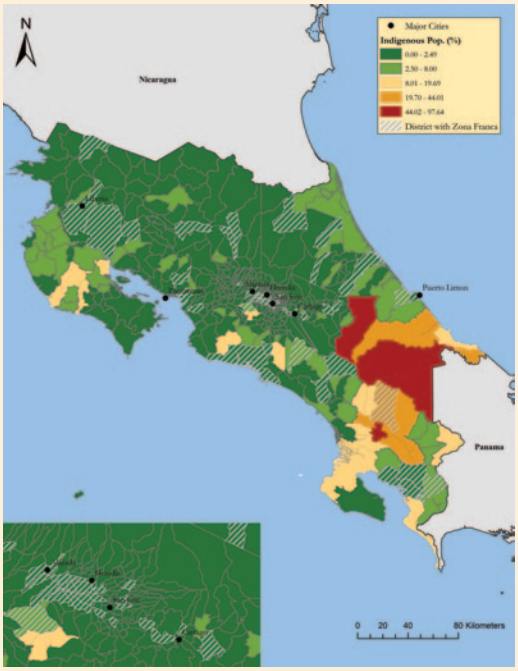
Indicators of "multidimensional poverty" improved between 2000 and 2011. Despite the modest reduction in income (monetary) poverty reduction that the country experienced during the first decade of the 2000s, the 2011 Census revealed a significant reduction in the percentage of households considered poor from a multidimensional measure, related mostly to improved access to basic infrastructure and services.[4] Thus, the percentage of households in multidimensional poverty—that is, who did not meet one or more of the four basic conditions—dropped from 36.1 percent in 2000 to 24.6 percent in 2011.[5] The share of households who did not meet the "education" component of the multidimensional indicator fell from 15.2 to 8.3 percent, as school attendance of

BOX 2.2 Indigenous People in Costa Rica: A Very Small and Disadvantaged Minority

Costa Rica's indigenous population is small, but occupies a vast share of the land. In the Latin American region as a whole, indigenous people make up about seven percent of the total population (over 36.6 million people). In comparison, in Costa Rica they represent 2.4 percent of the population (104,143 indigenous people). As such, Costa Rica, along with El Salvador, is the country with the smallest proportion of indigenous people in the entire region. In terms of land, legally established indigenous territories cover about seven percent of the Costa Rican territory (about 350 thousand hectares), but 91 percent of the indigenous population is concentrated in three cantons—Talamanca, Buenos Aires, and Hojancha (figure B2.2.1).

In the first decade of the 2000s, the indigenous population experienced a similar demographic transition as the rest of the Costa Rican population, with a falling share of children and a growing share of elderly adults. The dependency rate fell from 108 percent in

FIGURE B2.2.1 Indigenous People Are Located Mostly in the Southern Region



Source: Elaboration based on Census 2011.

box continues next page

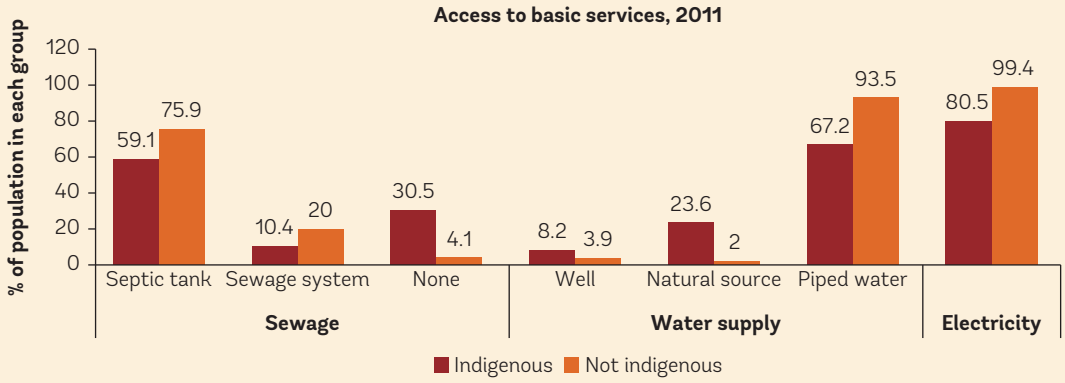
BOX 2.2 *continued*

2000 to 79.8 percent in 2011, showing the sharp decline in the share of children that resulted from a decline in fertility rates, from 9.6 to two between 2000 and 2011, together with an increase in the share of elderly adults, from four percent to 8.8 percent. Even if indigenous households are still larger than non-indigenous (3.6 versus 3.4 people per household) these differences have been falling over time.

Historically, indigenous populations have had lower access to basic services than the non-indigenous. Despite a broad coverage of basic services to most of the population of Costa Rica, indigenous people still lag behind in access to electricity, water supply, and sewage. According to the 2011 Census, 80 percent of indigenous households had an electricity connection, against 99 percent of non-indigenous. Still, compared to other indigenous populations in LAC, access to electricity is higher than in Colombia (58 percent), El Salvador (62 percent), Nicaragua (50 percent), or Panama (40 percent). As for access to clean water, 31 percent of the indigenous population had no access to sewage (public or private), against four percent of non-indigenous. And only 67 percent had access to piped water, against 94 percent of non-indigenous (figure B2.2.2). However, these indicators have improved significantly since 2000, as the 2000 Census reported that only 53 percent of households had access to clean water, 50 percent had access to some form of sewage, and 67 percent had electricity. In addition the share of households living in overcrowded conditions fell from 30 percent to 11 percent.

Human capital accumulation and income generating opportunities are also lower for indigenous populations. Indigenous people report lower educational attainment than non-indigenous: average years of education among the indigenous is 6.1, against 7.7 for non-indigenous (although this shows progress from the 3.9 years on average in 2000).

FIGURE B2.2.2 Access to Basic Services Is Lower for Indigenous Communities



Source: Elaboration based on Census 2011.

BOX 2.2 *continued*

Illiteracy is at 7.7 among indigenous and 2.2 among non-indigenous, and attendance to formal education among people 5–24 years old is 64.9 against 71.7 for non-indigenous. This translates into lower employment and income opportunities among the indigenous, as they have a higher probability of working in self-employment or unpaid work, and to be doing household chores rather than studying, for those who do not have an income-generating activity (figure B2.2.3).

FIGURE B2.2.3 Indigenous People Are More Likely to Work in Self-Employment, or to Be Inactive

Source: Elaboration based on 2011 census and Programa Estado de la Nación (2014).

TABLE 2.1 Poor and Non-Poor Households Have Different Characteristics

Characteristics	Extreme Poor	Overall Poor	Non-Poor	Bottom 40 percent	Top 60 percent
Household Characteristics					
Age of the head	48.8	50.9	50.1	50.1	50.4
Male-headed household (percent)	54.6	56.7	63.9	58.7	64.4
Proportion age 0–12 (percent)	23.7	21.2	11.5	19.9	10.2
Proportion age 13–18 (percent)	12.1	11.2	7.9	11.5	7.0
Proportion age 19–70 (percent)	57.9	56.8	72.7	58.6	75.2
Proportion age 70+ (percent)	6.4	10.7	7.9	10.0	7.7
Household size (number)	3.6	3.7	3.2	3.7	3.1
Education of household head (years)	5.4	5.6	9.2	5.9	9.9
Monthly per capita income (CRC)	24,845	59,174	431,636	82,124	500,020

table continues next page

TABLE 2.1 *continued*

Characteristics	Extreme Poor	Overall Poor	Non-Poor	Bottom 40 percent	Top 60 percent
Employment sector (percent)					
Primary sector	22.1	18.5	8.9	18.1	7.5
Manufacturing	10.6	12.2	11.4	12.8	11.0
Construction	7.9	8.3	5.7	8.7	5.1
Utilities	8.6	5.7	6.8	6.1	6.8
Retail	16.4	18.6	18.3	17.9	18.4
Services	20.8	25.4	42.9	25.2	45.8
Domestic services	13.1	10.9	5.8	10.9	5.0
Labor force (percent)					
Employee	29.9	47.3	75.1	56.6	76.3
Employer	0.8	1.1	4.3	1.5	4.7
Self-employed	28.6	25.4	14.2	21.8	13.6
Unpaid worker	3.3	1.9	0.7	1.4	0.7
Unemployed	37.4	24.2	5.8	18.7	4.7
Female labor force participation	26.7	32.1	55.6	34.5	59.8

Source: Calculations based on ENAHO.
Note: Poor and extreme poor are individuals with a per capita income lower than the official poverty and extreme poverty lines, respectively (the national extreme and overall poverty lines were CRC 45,116 and CRC 96,565 in June 2014, respectively).

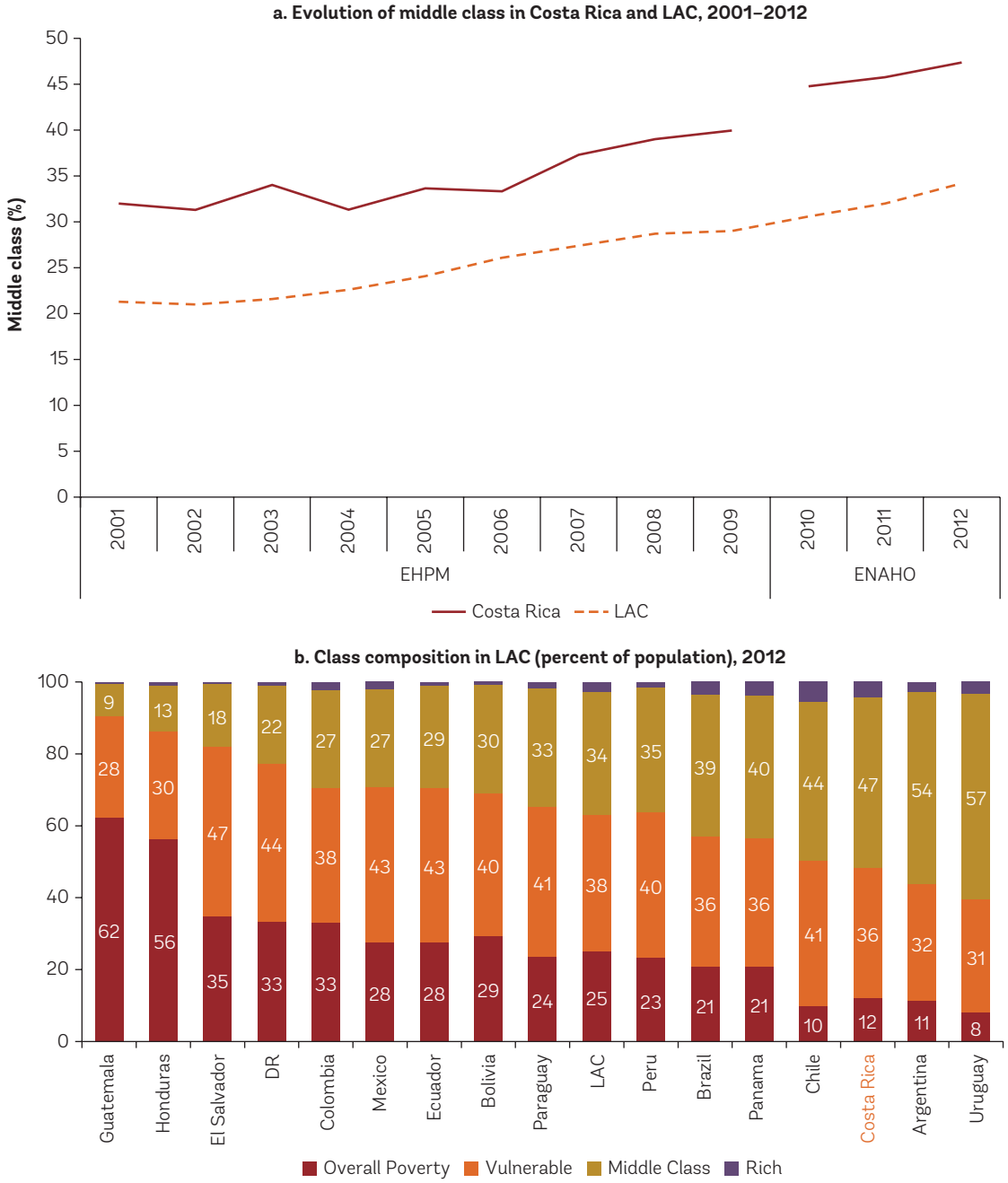
children ages 7–17 increased and repetition fell. At the same time, in 2011, 9.3 percent of households did not satisfy the "health" condition, while 7.8 percent did not satisfy the "consumption" condition, and 6.2 percent did not satisfy the "housing" condition (still, all three measures were lower than in 2000). Increased access to piped water and sewage, increased access to electricity, and a lower dependency ratio contributed to reducing the share of households who did not meet these conditions.

Shared Prosperity and the Rise of the Middle Class

Nearly half of Costa Ricans are classified as "middle class." The middle class, internationally defined as the share of the population that lives on US$10 to US$50 per day, has expanded significantly, from 32 percent of the population in 2001 to almost 47 percent by 2012, mirroring trends in the LAC region (figure 2.4a). As figure 2.4b shows, Costa Rica's middle class is among the largest in LAC in percentage terms, surpassed only by Argentina (54 percent) and Uruguay (57 percent). Still, about one-third of the population (those with incomes between US$4 and US$10 a day) remains vulnerable to falling back into poverty if hit by a shock.

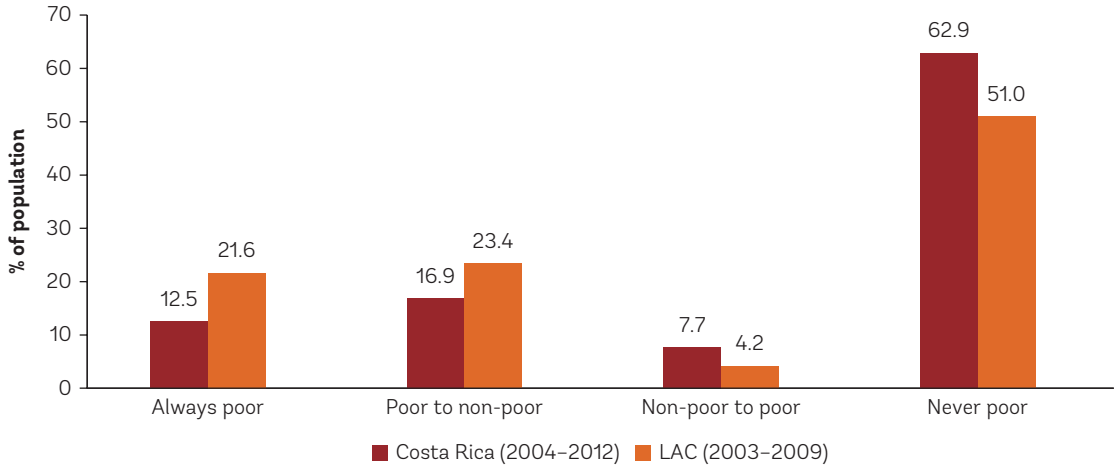
Upward mobility has contributed to the rise of the middle class. Trends in the share of poor and the middle class conceal movements in and out of poverty. Between 2003 and 2009 (a period for which comparable data exist for Costa Rica), increasing incomes resulted in important upward mobility. About 17 percent of Costa Rica's population (57 percent of the originally poor) escaped poverty during those years (figure 2.5).[6] At the same time, however, about eight percent of the total population fell

FIGURE 2.4 The Middle Class in Costa Rica Is One of the Largest in LAC



Source: Calculations using SEDLAC data (CEDLAS and the World Bank).
Note: Poor are individuals with a per capita income lower than $4 a day (2005 US$ Purchasing Parity Power per day). Vulnerable are those living with a per capita income between US$4 and US$10 a day. Middle class is defined as the proportion of individuals with an income between US$10 and US$50 a day. Rich are those with an income higher than US$50 a day. Regional estimates are population-weighted averages of country-specific estimates for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay. SEDLAC international comparable data is available only up to 2012. Numbers are not strictly comparable before and after 2010 (see box 2.1).

FIGURE 2.5 More People Moved Out of Poverty than Into Poverty



Source: Vakis et al. (2014), who apply the parametric approach of Dang and Lanjouw (2014) to all countries in LAC using SEDLAC data (CEDLAS and the World Bank).
Note: Poor are individuals with a per capita income lower than $4 a day. Estimates of poverty at the regional level are population-weighted averages of country-specific estimates for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay. Country-specific figures in regional estimates come from 2004 or 2012 surveys, or the nearest year in cases in which 2004 and/or 2012 data are unavailable. Due to comparability issues, Costa Rica estimates come from 2003 and 2009 surveys. International comparable SEDLAC data is available only up to 2012.

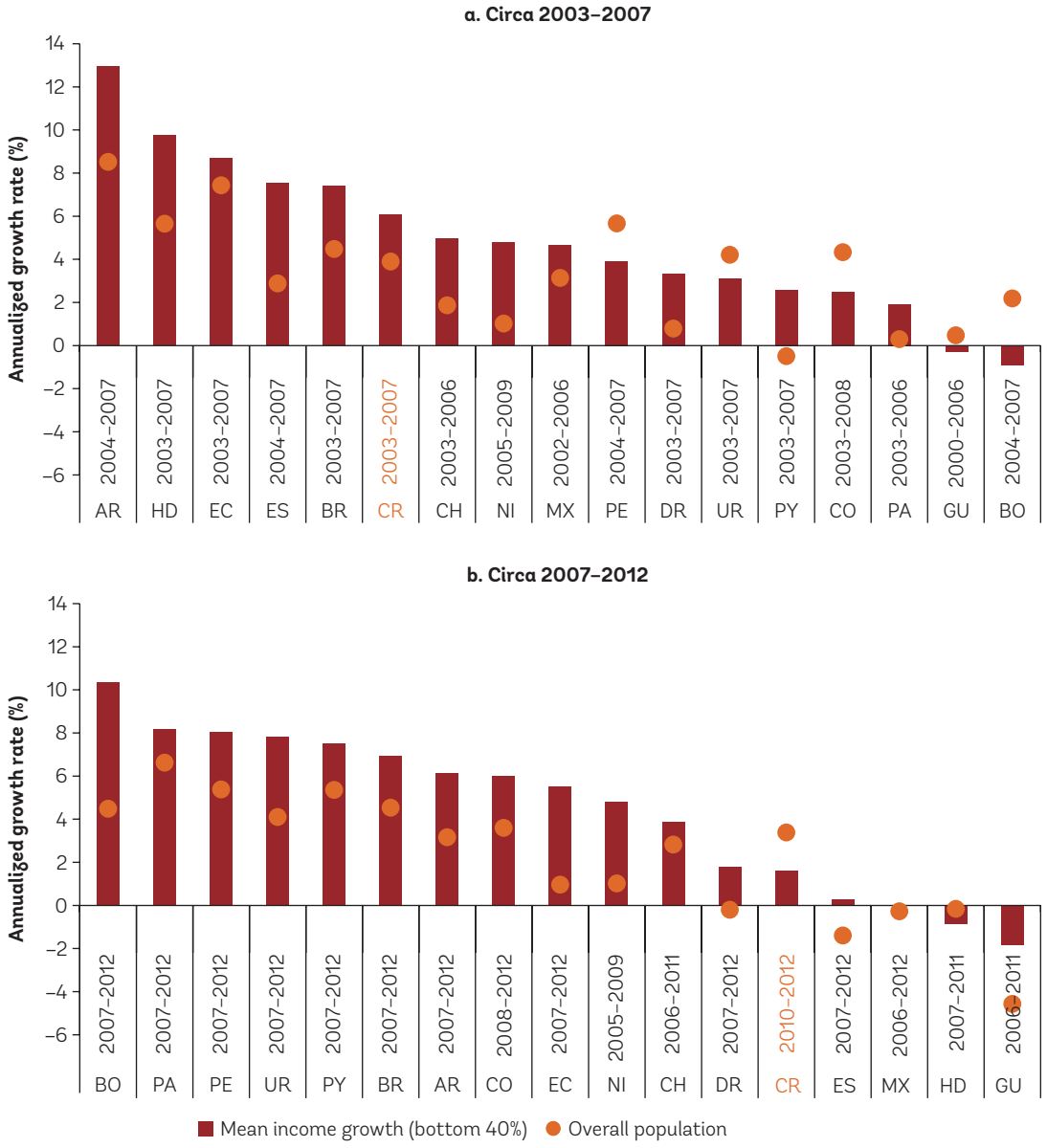
into poverty, including 11 percent of those who were previously non-poor. Downward mobility was higher in Costa Rica than in the LAC region, while upward mobility was lower. About 23 percent of the total population of LAC (half of the originally poor) escaped poverty between 2004 and 2012, while only four percent (about two percent of originally non-poor) moved into poverty during those years.

Costa Rica experienced many years of shared prosperity, with the incomes of the poorest 40 percent growing faster than the average. Income growth of the bottom 40 percent was six percent between 2003 and 2007, higher than the mean income growth of 3.9 percent. Moreover, the incomes of those in the bottom 40 percent also grew faster in Costa Rica as compared with their counterparts in other countries in the LAC region (figure 2.6a).

However, after the global financial crisis, shared prosperity declined and the incomes of the poorest fell behind. Income growth for the bottom 40 percent fell to 1.6 percent over the period from 2007 to 2012, significantly lower than average income growth in Costa Rica (3.4 percent) and among the lowest in LAC (figure 2.6b). This lower income growth for those in the bottom 40 percent of the population did not allow many individuals to escape poverty after 2010, and poverty reduction stagnated.

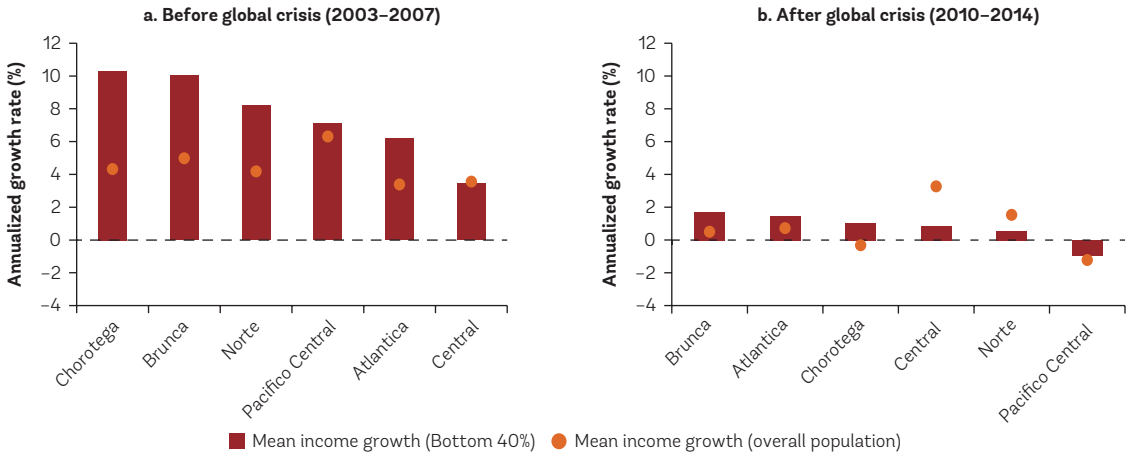
Before the crisis, even the poorest regions benefitted from shared prosperity. Between 2003 and 2007 there was some income convergence across regions, with the incomes of the bottom 40 percent growing at more than 10 percent in Brunca and Chorotega (the poorest regions in the country), against 3.4 percent in Central region (figure 2.7a). Even in the Central region, incomes at the bottom 40 and at the average grew at similar rates. However, after the global crisis (figure 2.7b)

FIGURE 2.6 Shared Prosperity by Country in LAC Mean Income Growth (Overall Population)



Source: Calculations using SEDLAC data (CEDLAS and the World Bank).
Note: Country-specific figures come from 2003, 2007, and 2012 surveys, or the nearest year in cases in which data for those years are unavailable. Due to comparability issues, Costa Rica estimates come from 2010–2012 surveys in panel b. International comparable SEDLAC data is available only up to 2012.

FIGURE 2.7 Before the Crisis, Shared Prosperity Was High in Poorer Regions



Source: Calculation based on EHPM for the 2003–07 period and on ENAHO for the 2010–12 period.
Note: The sample of the household survey allows estimating growth of incomes in the six regions of the country: Central; Chorotega; Pacifico Central; Brunca; Huetar Atlantica; and Huetar Norte.

incomes of the bottom 40 percent grew more slowly. In particular, in the Central and Norte regions, average incomes grew faster than incomes at the bottom, reversing the pre-crisis trend in shared prosperity.

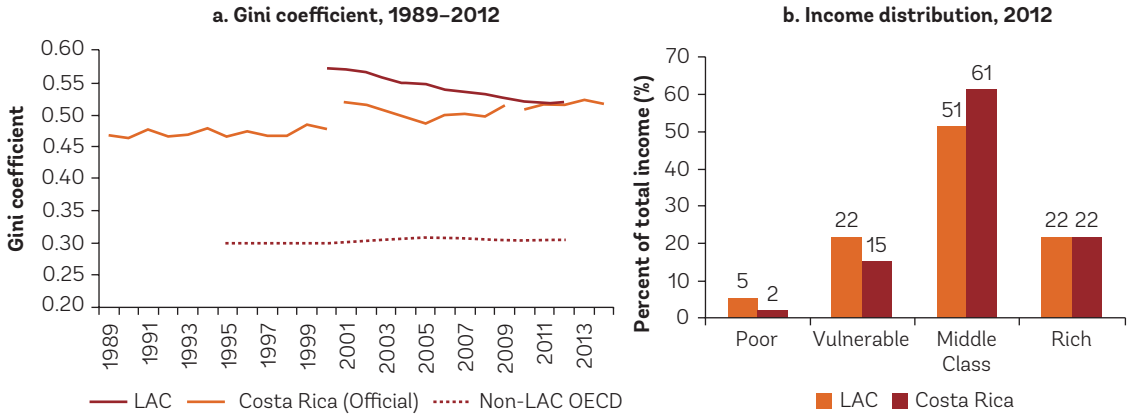
Rising Inequality, in Contrast to Regional Trends

INCOME INEQUALITY HAS RISEN or stagnated since the 1990s. Changes in household survey methodologies create problems for the comparability of measure of inequality over time (box 2.1).[7] Nonetheless, long-term trends over different periods indicate that inequality has either risen or remained flat since the late 1980s. During the period from 1989 to 2000, the Gini measure of inequality averaged 0.45, rising from 0.44 in 1989 to 0.48 by 2000. During the period from 2001 to 2009, the Gini fell and then rose again, averaging 0.50 across the period. Inequality has risen in recent years, averaging 0.52 from 2010 to 2014, a time period that corresponds both to the post-crisis recovery and to the period covered by the new ENAHO household survey (box 2.1).[8]

In contrast, the rest of Latin America witnessed a marked decline in inequality, with the regional average falling by five points, from 0.57 in 2000 to 0.52 in 2012 (figure 2.8a).[9] As a result, Costa Rica has gone from being the least unequal country in LAC after Uruguay in 2000, to being around the median country by 2012.[10] In non-LAC OECD countries, income inequality has been consistently much lower, with a Gini coefficient 0.30 in 1995–2012. Rising inequality in Costa Rica is underpinned by the widening gap between the earned incomes and skillset of rich and poor workers in Costa Rica (see chapter 3).

Similar to most countries in LAC, income is highly concentrated among the

FIGURE 2.8 Evolution of Inequality and Income Distribution in Costa Rica and in LAC



Source: Calculations using SEDLAC data (CEDLAS and the World Bank) for LAC countries and OECD Stats for non-LAC OECD countries; and EHPM/ENAHO for Costa Rica.
Note: Numbers for LAC are calculated using pooled data in Panel A and population-weighted country-specific averages for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay in Panel B. Numbers for non-LAC OECD countries are un-weighted average of country-specific averages for non-OECD countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, united Kingdom, USA. Poor are individuals with a per capita income lower than US$4 a day (2005 US$ Purchasing Parity Power per day). Vulnerable are those living with a per capita income between US$4-US$10 a day. Middle class is defined as the proportion of individuals with an income between US$10-US$50 a day. Rich are those with an income higher than US$50 a day. SEDLAC international comparable data is only available up to 2012. Inequality numbers are not strictly comparable before and after 2001 and before and after 2010 (box 2.1).

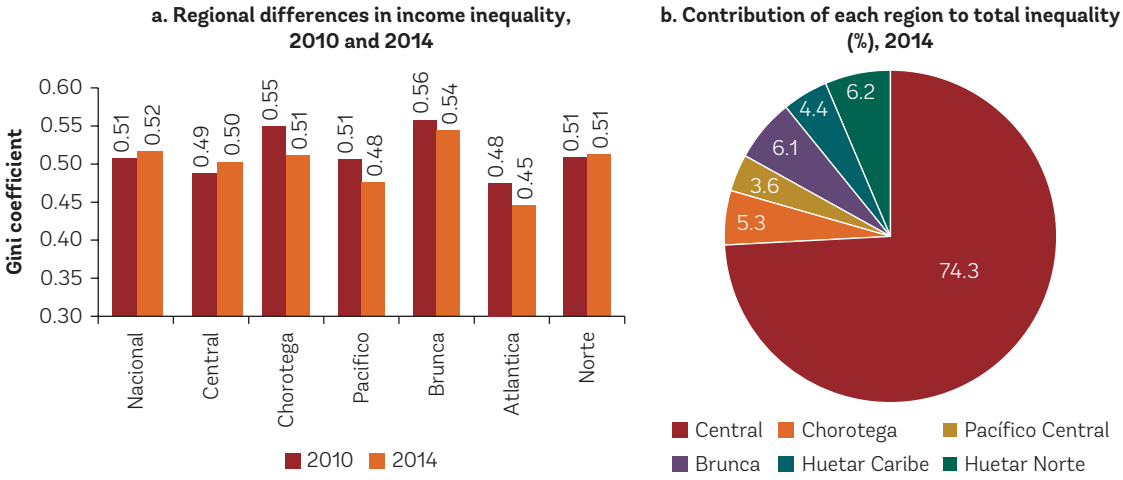
rich in Costa Rica. About 22 percent of income is held by the rich in Costa Rica, a similar share to the average in LAC (figure 2.8b). The top 20 percent of the population earns 54 percent of the income, while the share of income going to the middle class—spanning the 48th to 96th centiles of the population in 2012—amounts to 61 percent. The average income of the rich was 10.3 times higher than that of the poor in Costa Rica, slightly higher than the LAC ratio (9.5 times).

Within the country, inequality varies across regions. Brunca, Norte, and Chorotega are the regions with the highest income inequality, while Pacifica and Atlantica are the least unequal (figure 2.9a). It is interesting to note that inequality fell since 2010 in all but the Central region, where the capital city of San Jose is located. Thus, the Central region seems to have driven the overall increment of the Gini by one point. The weight of the Central region in explaining the overall Gini is confirmed by figure 2.9b, which shows that inequality in the Central region accounts for three-quarters of total inequality in Costa Rica.

Limited Poverty Responsiveness to Growth

DURING THE 2000S, POVERTY was not very responsive to growth in Costa Rica. Indeed, the elasticity of poverty to growth has been low: between 2001 and 2007, a one percent

FIGURE 2.9 Despite Regional Variation, Inequality in the Central Region Explains Most of Overall Inequality



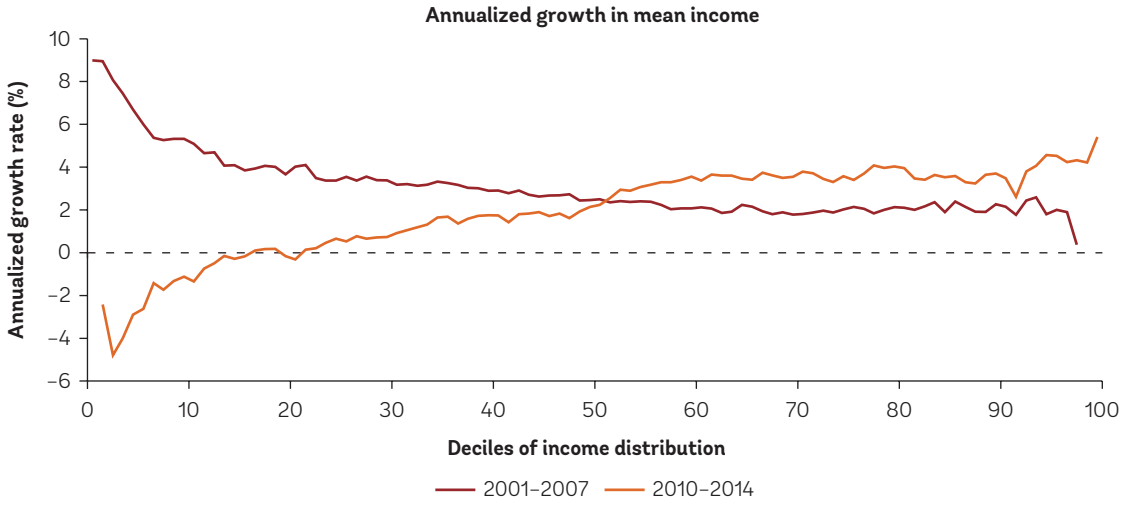
Source: Calculations using 2010 and 2014 ENAHO survey.
Note: The sample of the household survey allows estimating inequality in the six regions of the country: Central; Chorotega; Pacifico Central; Brunca; Huetar Atlantica; and Huetar Norte.

increase in GDP per capita was associated with only a 0.60 percent reduction in the official poverty rate.[11] In comparison, the poverty-growth elasticity in LAC over the same period was much higher, reaching 1.43. After the global financial crisis, the growth-poverty elasticity decreased even further in Costa Rica, to 0.44 over 2010–13, whereas in LAC it increased further to 2.0 in 2010–2012.[12] This low poverty-growth elasticity in Costa Rica was also observed for periods before 2000, particularly during the 1990s.[13]

The global financial crisis marks a clear inflection point, after which the incomes in the wealthiest deciles grew significantly faster and the poor fell behind. Growth incidence curves (figure 2.10) reveal that before 2007, growth was largely pro-poor. Indeed, the incomes of the bottom deciles of the income distribution grew faster than those in the top deciles. During and after the crisis, however, the incomes of those in the poorest deciles fell, further widening the gap between the poor and the rest of the population.

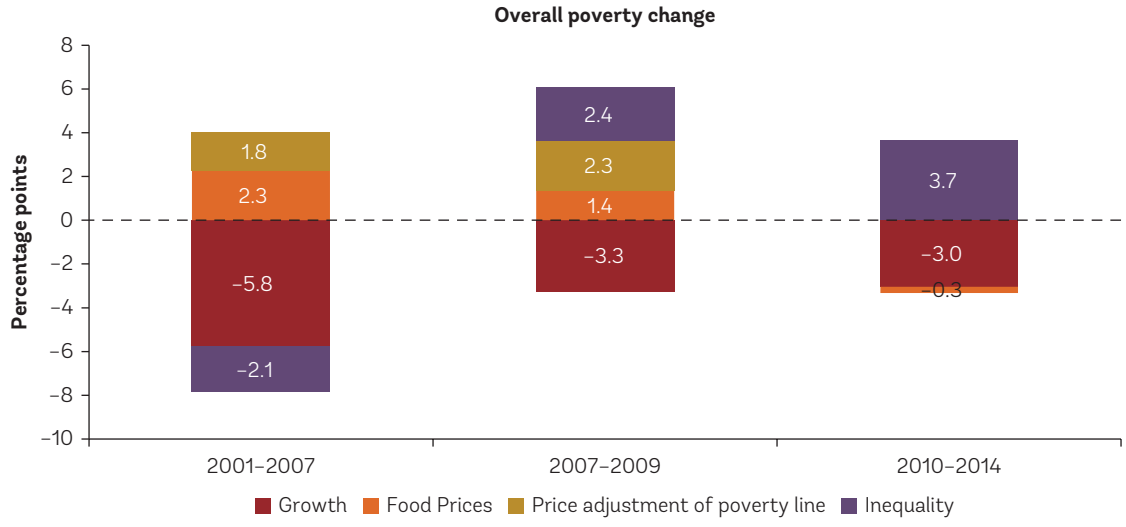
Over time, rising inequality and price effects have offset the contribution of growth to poverty reduction. Changes in income poverty stem from growth, inequality, and inflation. Inflation could affect poverty through its effects on real wages, cost of goods and services, and the regressive nature of the inflation tax. Costa Rica's success in controlling inflation could suggest progress in poverty reduction. A decomposition of changes in poverty suggests shifting effects of these factors (figure 2.11). During the pre-crisis period, poverty fell by 3.8 percentage points, helped by strong growth and changes in inequality that positively affected the bottom end of the income distribution. However, these gains were partially offset by rising prices. During the global crisis, growth slowed, food prices rose, and inequality worsened—so that the

FIGURE 2.10 Growth Benefited the Poor Relatively More Only Until 2007



Source: Elaboration based on EHPM and ENAHO.

FIGURE 2.11 Contributions of Growth, Prices, and Income Inequality to Poverty Reduction, 2001–2014



Source: Calculations based on EHPM for official poverty measures from 2001 to 2009 and on ENAHO for official poverty measures from 2010 onwards.
Note: The poor are individuals with a per capita income lower than the official poverty line (the overall poverty lines was CRC 96,565 in June, 2014). Poverty numbers are not strictly comparable before and after 2010 (see box 2.1).

net effect was an increase in poverty of 2.6 percentage points during these years (2007–09). Finally, in the post-crisis recovery period, rising inequality more than offset the positive contribution of growth to poverty reduction, such that poverty rose slightly during that period (2010–14). *If income inequality had not increased, growth alone would have decreased poverty by three percentage points during the recovery of 2010–14.*[14] *Instead, poverty rose by 0.4 percentage points during that period.*

Notes

1. The rate of global extreme poverty, measured as the share of the population living with under US$1.5 per day, is 1.4 percent (2012). See World Bank Poverty and Inequality Database.
2. Please note that poverty rates after 2010 are not comparable to previous years due to methodological changes.
3. The small area estimation technique follows Elbers, Lanjouw, and Lanjouw (2003) and combines information from surveys and censuses to produce estimates of monetary poverty in small geographic areas. By applying this technique, INEC combined information from the 2011 Census together with the 2011 ENAHO survey to produce poverty rates at the county level. For more information on the 2011poverty map visit INEC's website (www.inec.go.cr).
4. The multidimensional poverty measure from INEC captures four basic conditions that are strongly related to monetary poverty: housing, health, education, and access to other goods and services (purchasing power). Each condition has one or more indicators. A household is considered poor if it cannot satisfy one or more condition.
5. Morales (2013).
6. The analysis on the movement in and out of poverty relies on a synthetic panel estimated using the methodology of Dang and Lanjouw (2014). The synthetic panel results for poverty do not completely align with the national or international figures presented earlier, because the sample is restricted to households whose head is between 25 and 65 years of age.
7. The long-term trends in poverty and inequality are subject to caveats regarding income measurement due to several changes in survey methodology across that time period. The main "breaks" in comparability of the data series occur in 2001 and 2010. As such, measurement of welfare across the three time periods of 1989–2000, 2001–09, and 2010–14 is not strictly comparable. See box 2.1.
8. Inequality based on official per capita income presents a similar trend, decreasing from 0.52 to 0.48 in 2000–2005 and increasing to 0.51 in 2009. After the global crisis, inequality increased marginally from 0.51 to 0.52 in 2010–2014. The ENIG (Encuesto Nacional de Ingresos y Gastos) finds that income inequality remained constant with a Gini of 0.534 after adjusting for methodological differences in the definition of income (email exchanges with INEC's staff http://www.inec.go.cr/).
9. See World Bank (2014e).
10. LAC averages and comparisons cover 17 countries for which internationally comparable data exist. See World Bank (2007) and World Bank (2014e).
11. This elasticity is somehow larger when using the international poverty rate.
12. Measured using a US$4 a day poverty line.
13. See World Bank (2007).
14. The decomposition follows Kolenikov and Shorrocks (2005), who extended the standard Datt and Ravallion (1992) decomposition to include price changes. The effect of inflation during 2007–2009 on the poverty rate is due mainly to measurement issues (see box 2.1).

3. Inclusive Growth? Inequality, Jobs, and Skills

Costa Rica's inequality trends over the last two decades present a dilemma. The widening income gap between the top and bottom quintiles of the population reflects changes in the labor market and a mismatch between the patterns of growth versus the skills profile of the workforce. With weak educational outcomes, the Costa Rican labor force is not well adapted to a labor market that increasingly demands high skills, and unemployment has increased among the poor and low-skilled workers, particularly since the global crisis. The earnings gaps between rich and poor, and between the skilled and unskilled, have widened. Furthermore, despite Costa Rica's ambitious Social Compact, taxes and transfers have not proven to be effective in redistributing income to compensate for these disparities.

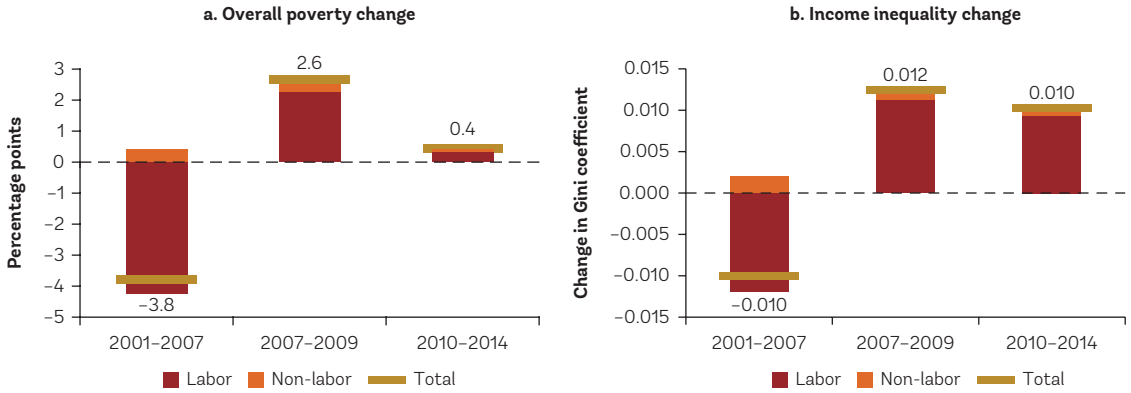
Labor Earnings and Inequality

Rising inequality stands out as a pressing challenge for Costa Rica, particularly in light of its enduring commitment to a far-reaching Social Compact. As discussed in chapter 2, the gap between the rich and poor has widened significantly since the global crisis. This follows two decades of rising or stagnating inequality—in stark contrast to the significant decline in inequality in the broader Latin America and Caribbean (LAC) region. These trends are particularly puzzling given Costa Rica's long-standing investment in an ambitious Social Compact and high social spending, as discussed in more detail in chapter 5.

Most inequality stems from differences in earned labor incomes. In general, inequality can come from many sources: differences in labor earnings, pension income and other public sector transfers, and in the returns to capital. Throughout Latin America and the Caribbean, changes in poverty and inequality have been mainly driven by changes in labor incomes.[1] And this has also been the case for Costa Rica, where changes in labor incomes have been the driving force behind reductions and increases in poverty and inequality over the past 15 years. Specifically, increases in labor incomes contributed to a 4.2 percentage point reduction of poverty and a 1.0 point reduction in the Gini coefficient during the pre-crisis period of 2000–07, but this trend was reversed during the global crisis and changes in labor incomes resulted in a 2.2 percentage point *increase* in poverty and a one percentage point increase in the Gini coefficient during the period from 2007 to 2009 (figure 3.1). Over the post-crisis recovery period, changes in labor incomes have contributed to a slight increase in poverty and an additional one-point increase in the Gini coefficient (2010–14).

Moreover, most inequality derives from differences in labor earnings in the private sector. A decomposition of the Gini coefficient in 2001, 2007, and 2012 reveals that labor income explained over 80 percent of overall income inequality (table 3.1).[2] However, while

FIGURE 3.1 Labor Income Contributed Significantly to Poverty and Inequality Changes, 2001–2014



Source: Calculations based on the EHPM for the 2001-2009 period and on the ENAHO for 2010 onwards.
Note: Poor are individuals with a per capita income lower than the official poverty line (the poverty line is C 96,565 in June, 2014). The figure presents the Shapley Decomposition of poverty and inequality changes (see Barros et al. 2006; and Azevedo, Sanfelice and Cong Nguyen 2012). Poverty and inequality numbers are not strictly comparable before and after 2010 (see box 2.1).

TABLE 3.1 Changing Sources of Inequality

	2001	2007	2012
Capital	2.97	3.83	6.47
Pensions	5.81	7.47	10.91
Transfers	-0.30	-0.61	1.23
Labor Income (Public)	27.24	24.64	27.11
Labor Income (Private)	54.55	55.00	44.89
Housing + Others	9.74	9.67	9.39

Source: Elaboration using data from SEDLAC (CEDLAS and The World Bank).

the labor income share decreased over the 2000s to 72 percent, this decline was entirely explained by changes in labor incomes in the private sector, while the share of inequality stemming from differences in incomes from public sector jobs remained constant over that period. Although the contributions of non-labor income remain relatively small, the share of inequality deriving from differences in returns to capital and pension income doubled, from about nine percent to nearly 18 percent over the period (table 3.1). Public sector transfers (social assistance) reduced inequality only marginally and only until 2007: they became regressive, contributing to increased inequality by 2012.[3] This confirms that larger increases in the top portions of the income distribution (and in the public sector in particular) in the second half of the 2000s played an important role in the increase of inequality, which social assistance programs were not able to counterbalance.

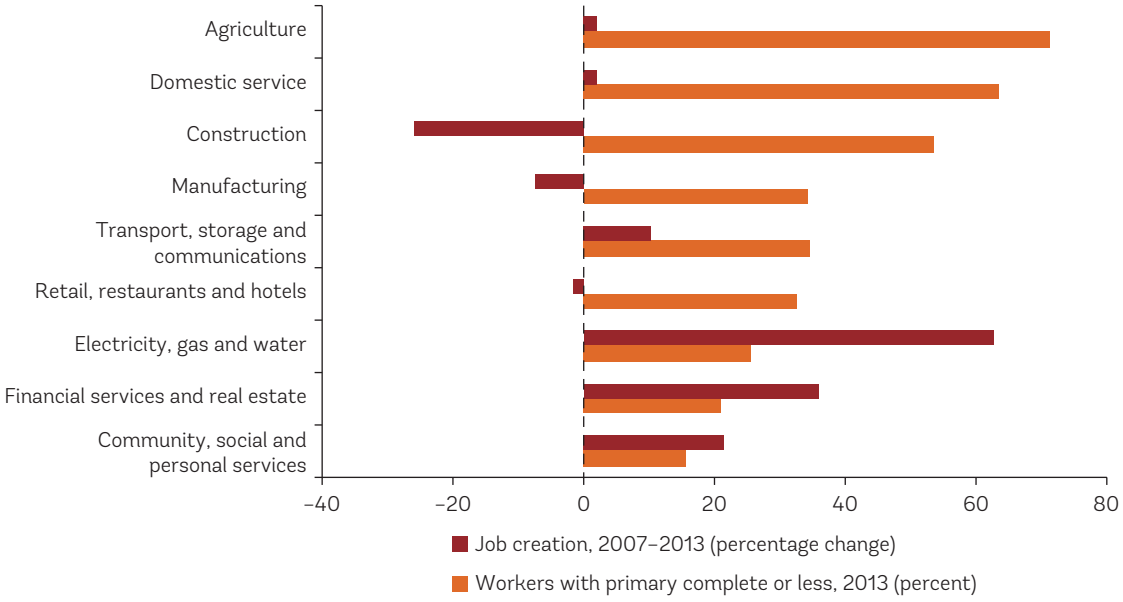
Fewer Jobs for Poor and Unskilled Workers

Poor and unskilled workers are finding limited job opportunities due to the long-term shift in Costa Rica's pattern of growth *and* the recent contraction following the global crisis. Costa Rica's outward-oriented economic development model has brought about a significant shift in the demand for skilled and unskilled labor. As discussed in chapter 4, it has favored the development of high value-added sectors, such as

electronics, medical devices, IT business services, and so forth. In contrast, lower value-added sectors, such as construction, domestic services, and agriculture have grown more slowly—or even contracted. The growth of low-end manufacturing (such as textiles), construction, and agriculture has particularly slowed since the onset of the global crisis. Job creation has been minimal or even negative in sectors like construction, domestic services, and agriculture, which employ over 50 percent of low-skilled workers (figure 3.2). At the other end of the spectrum, sectors that employ mostly skilled workers, such as financial services, real estate, personal services, and others, are growing fast (though from a low base in the case of sectors such as utilities or financial services). Changing patterns in foreign direct investment (FDI) and trade, along with Skill-Biased Technological Change, have increased local demand for high-skilled labor at a time when Costa Rica has a larger relative supply of low-skilled labor.[4] High and increasing labor costs, relative to other Central American countries, could explain the decrease in low-skilled job creation in lower value-added sectors, as discussed in chapter 4.

This structural mismatch of skills and jobs has translated into rising unemployment and falling demand for low-skilled labor, particularly since the crisis. Overall unemployment climbed from 4.6 percent just before the crisis to 7.3 percent during the crisis. Even with economic recovery post-crisis, unemployment has steadily risen to nine percent of the workforce in 2014 (figure 3.3). These trends reflect a growing mismatch between the demand for labor and the skills profile of the workforce.

FIGURE 3.2 Sectors that Employ Mostly Unskilled Labor Have Created Few Jobs



Source: Elaboration based on EHPM and ENAHO.

As such, unemployment has hit the poor particularly hard. The unemployment rate for the bottom quintile in Costa Rica exceeds 20 percent, far higher than for other income groups (figure 3.4a). By comparison, unemployment in the top two quintiles is less than five percent. The differential in the unemployment rate between the poor and non-poor is significant and increasing, reaching more than 15 percent in 2013 (figure 3.4b). In contrast,

FIGURE 3.3 Unemployment Has Been Increasing Steadily Since 2007

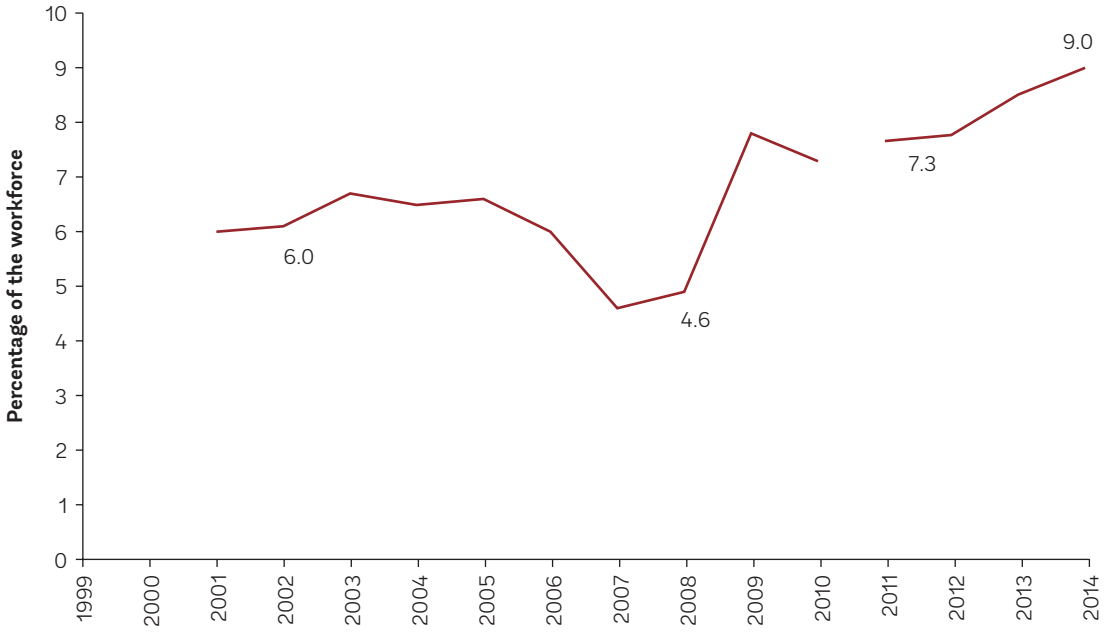
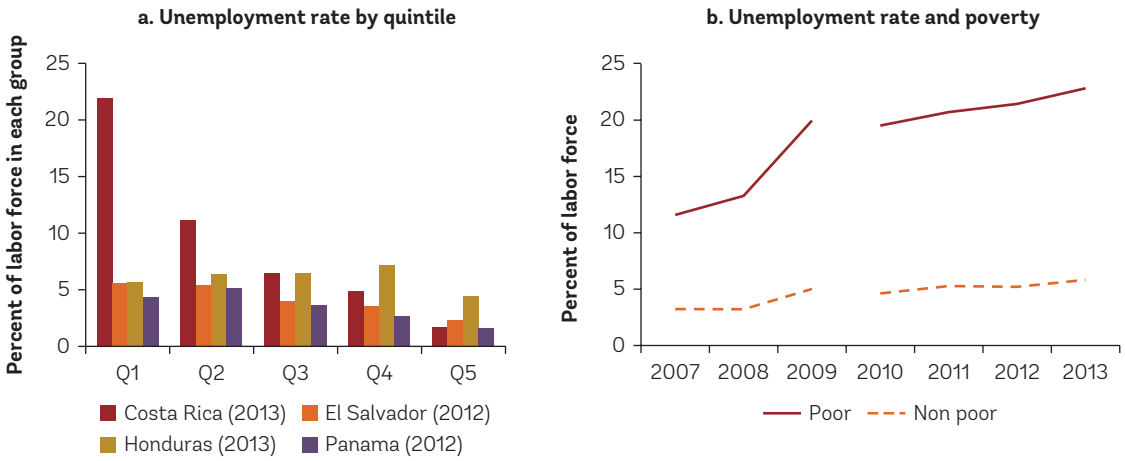


FIGURE 3.4 Unemployment Has Hit the Poor Particularly Hard



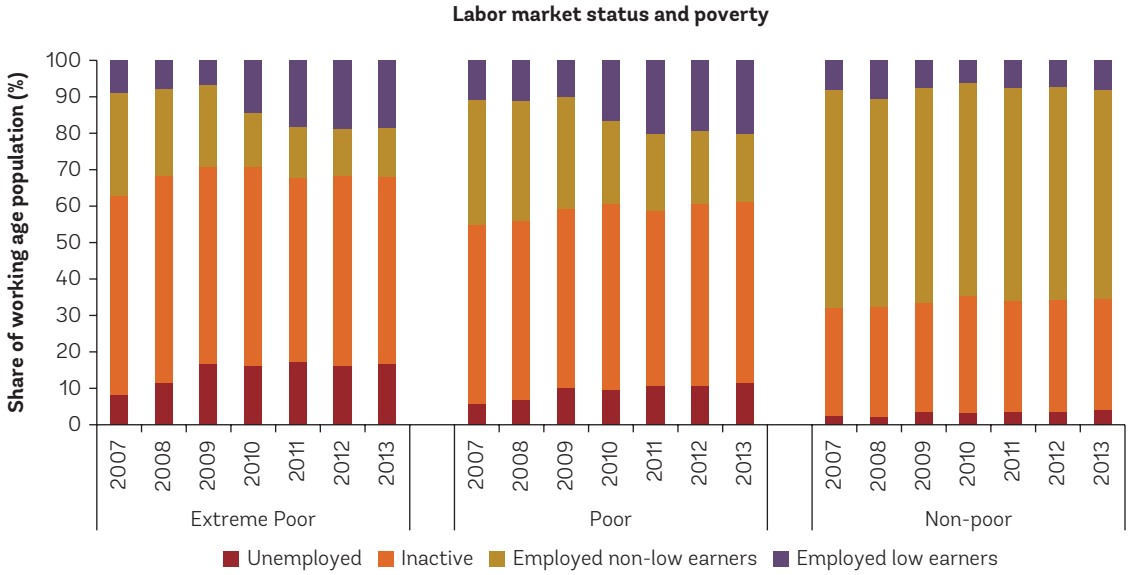
Source: Elaboration based on data from ENAHO (2013).

unemployment rates in the bottom quintile among other Central American countries (El Salvador, Honduras, and Panama) are significantly lower—hovering around five percent—likely reflecting higher rates of informality in their labor markets. Interestingly, higher unemployment among the poor in Costa Rica is not associated with an increase in the share of self-employed workers (a proxy for informal employment).

Furthermore, over 60 percent of poor and extreme poor adults do not generate *any* labor income. There is a stark contrast in terms of labor market activity between the poor and the non-poor in Costa Rica. As figure 3.5 illustrates, over 60 percent of the working-age adults who are non-poor are employed, while about 30 percent are inactive and about four percent are unemployed. In contrast, among the poor and the extreme poor, the opposite is true: 60 percent or more of working-age adults in these groups are either inactive or unemployed. Put differently, less than 40 percent of these adults generate any form of labor income. Moreover, this situation has slightly worsened since 2007, when the share of inactive plus unemployed was below 60 percent for the poor and slightly above for the extreme poor.

Moreover, the labor market presents a bleaker picture for women than for men. Female labor force participation has been historically low in Costa Rica and is among the lowest in the LAC region. By 2013, slightly over half (50.8 percent) of women of working age were active in the labor market, and participation has fluctuated around 50 percent during the 2000s, increasing only marginally. Moreover, unemployment rates

FIGURE 3.5 Fewer than 40 Percent of Poor and Extreme Poor Adults Generate Any Labor Income



Source: Elaboration based on EHPM and ENAHO.

have been consistently above the average, going from 6.9 percent in 2007 to 10.9 percent in 2013. As a result, the share of working-age women who are actually generating labor income is below 40 percent. Poor women who are heads of household and immigrant women have particularly high unemployment rates (box 3.1).

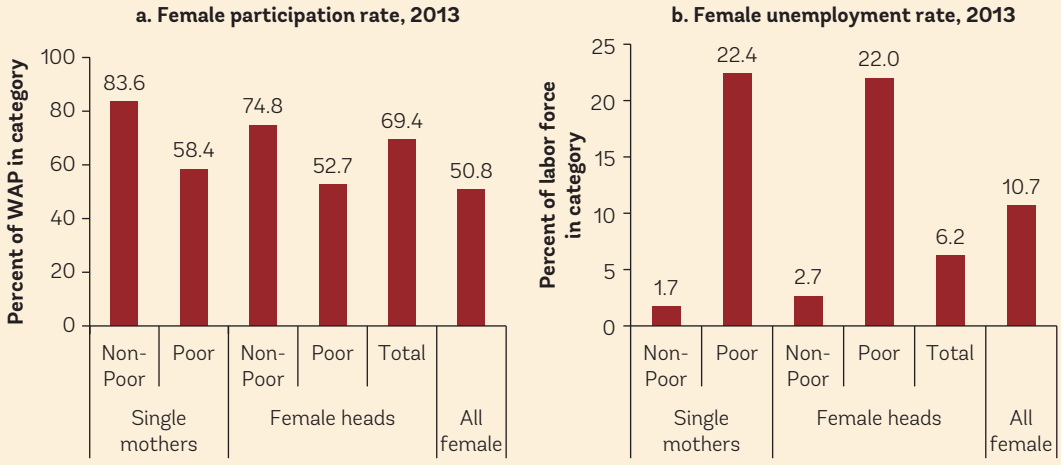
Education: Not Making the Grade, Especially for the Poor

Despite significant investment, the education system has not adapted to provide the skills needed for the changing economy—or

BOX 3.1 Female Household Heads and Immigrants Face a Tough Labor Market

In the last two decades, the Costa Rican population has seen a significant change in the composition of households, with an important increase in the share of households headed by women. Between 1990 and 2013, the share of households headed by women doubled from 18 percent to 36 percent. According to some studies, this increase implied a higher female participation in the labor market, especially among women who are low skilled and more likely to live in poverty. Indeed, the participation of female household heads in the labor force is much higher than the average female participation, although it is especially high among non-poor household heads (figure B3.1.1a).

FIGURE B3.1.1 Female Heads-of-Household and Single Mothers Have Higher Participation, and (for the Poor) Higher Unemployment



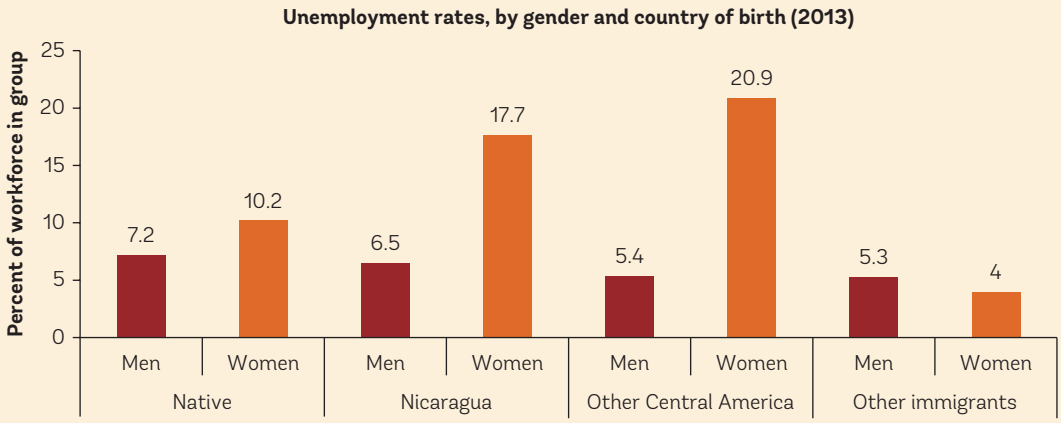
Note: WAP is working age population, 15–64 years old.

BOX 3.1 *continued*

Poor women who are heads-of-household experience particularly high unemployment rates. Female heads-of-household who are poor, and in particular single mothers, have an unemployment rate of over twice the average for women (figure B3.1.1b). Given that these women are more likely to have low skills, their employment opportunities are fewer, and as a result they experience higher unemployment.

Immigrant women have even higher unemployment rates. Immigrants, particularly from Nicaragua, represent a large share of the labor force in Costa Rica, in particular in low-skilled employment. As shown in figure B3.1.2, women born in Nicaragua and other Central American countries have an unemployment rate around twice the average for women, whereas for men the rate is below average.

FIGURE B3.1.2 Immigrant Women Have a Much Higher Unemployment than All Other Groups



Source: Gindling and Oviedo (2008); elaboration also based on ENAHO.

to ensure opportunities for the poor. Educational outcomes are surprisingly weak, given the level of spending and development. Like many middle-income countries, Costa Rica is finding that achieving basic levels of education, such as near universal literacy and completion of primary school, is not enough to generate the skills needed to sustain the demands of its evolving economy—or to promote inclusive opportunities for the poor and bottom 40 percent of the population. Given the country's level of development and high spending, its education system seriously underperforms in terms of retention (as evidenced by high school dropout rates) and quality (as demonstrated by weak test results). Moreover, disparities in education outcomes are large, putting the poor and bottom 40 percent at a significant disadvantage for learning and earning.

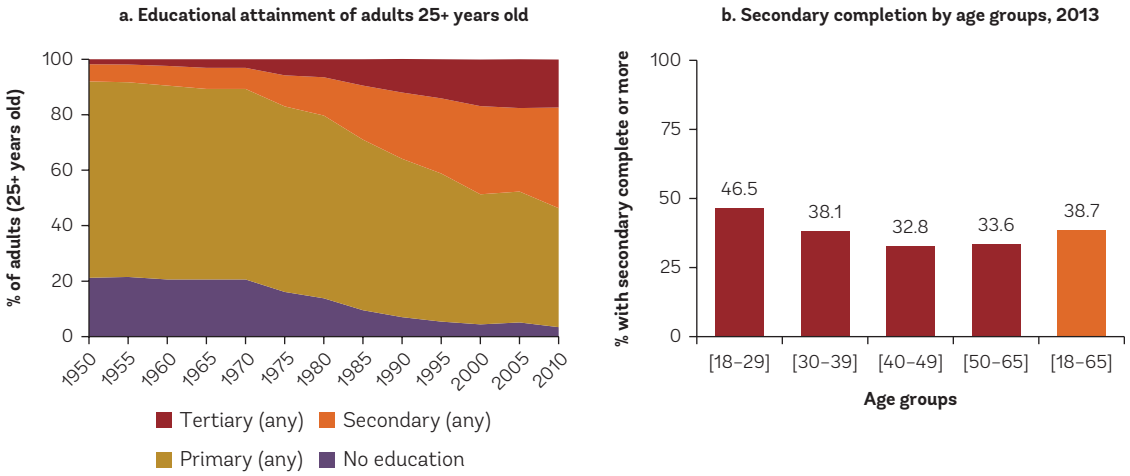
Low educational attainment: overall and for the poor

Despite large public investment and important achievements, average school attainment is still low in Costa Rica. The growing investment in education in the country has brought important gains in terms of literacy and primary school completion. By 2011, the literacy rate for adults 15 years old and above had reached 97 percent, and the share of adults 25 years and above who had no formal education went from 21 percent in 1950 to three percent in 2010. By 2010, 83 percent of adults had achieved at least a complete primary education (figure 3.6a). However, the average level of education today is below what would be expected given Costa Rica's GDP per capita and education spending. Indeed, today, fewer than half of young adults 18–29 years old—and less than 40 percent of the overall workforce—have completed secondary education (figure 3.6b).

Indeed, compared with other countries, dropout rates are quite high in Costa Rica. Less than half of the cohort 25–29 years old had achieved a secondary or higher education by 2010, further adding to the stock of low-skilled adult workers, a legacy of the 1980s crisis. Costa Rica's educational attainment is lower than in peer countries in LAC (such as Chile and Panama), and significantly lower than in peer countries in Europe (such as Croatia and Lithuania), and far lower than graduation rates in the Organisation for Economic Co-operation and Development (OECD) (figure 3.7).

Inequities in educational attainment are closely related to poverty. Figure 3.8a shows gross attendance rates by quintile for primary and secondary. Attendance in primary is higher at lower levels of income, which is positive in the sense that it is very high for all children, even the poorest. However, figure 3.8b shows that the share of children who are over-age (that is, who are a year or more older than the correct age for their grade) is higher for children in poorer quintiles. Taken together, these statistics suggest

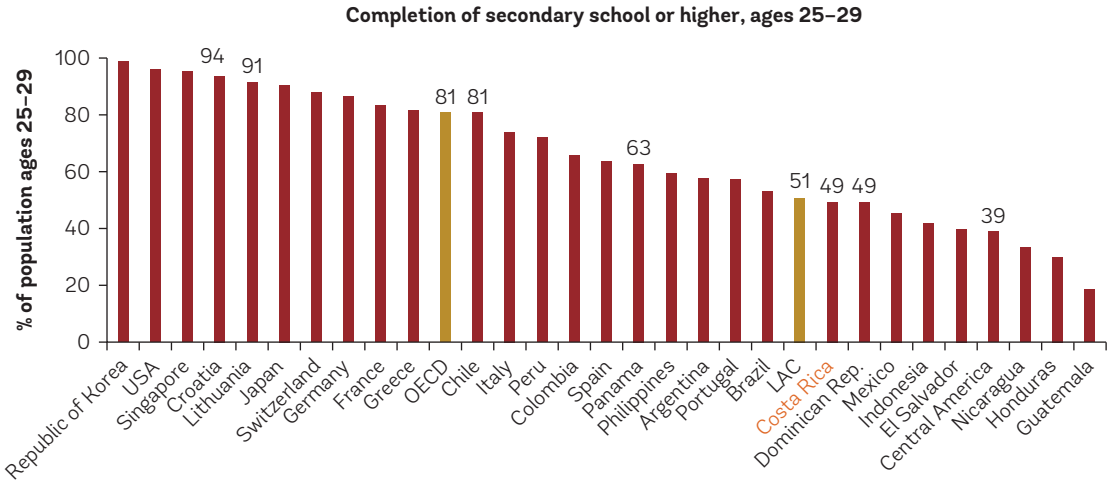
FIGURE 3.6 Costa Rica Achieved Substantial Gains in Primary Education Attainment, but Not in Secondary



Source: Elaboration based on data from Barro and Lee (2010); and ENAHO 2013.

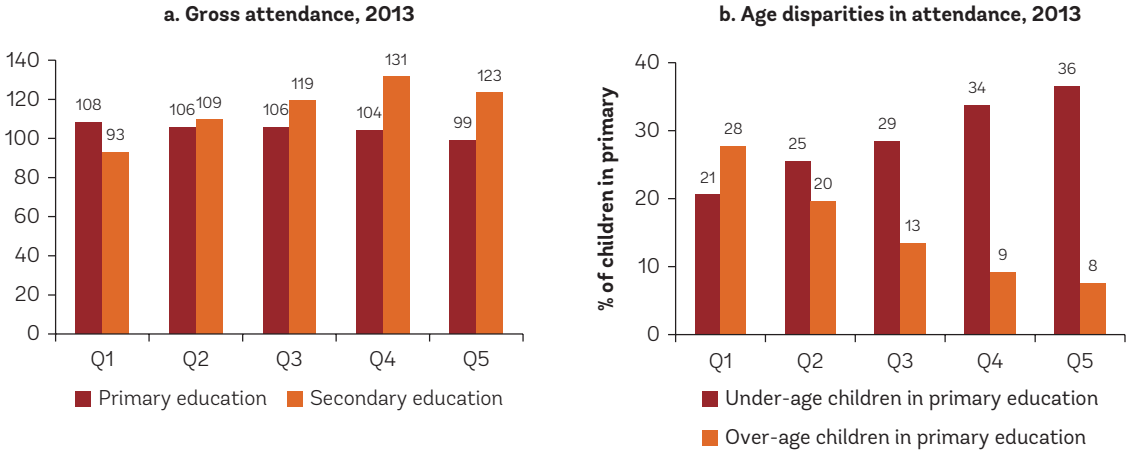
FIGURE 3.7 Relatively Few Costa Ricans Complete Secondary School

Share of the population aged 25–29 that has completed secondary school or higher (the residual dropped out before completion)



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

FIGURE 3.8 Education Outcomes Are Linked to Income



Source: Elaboration based on ENAHO.

that even though enrollment is high among poor children, repetition rates are also high, and therefore the quality of their learning might be lower and their incentives to drop out after completing primary may be higher. Consistent with that story, we observe that enrollment rates in secondary are significantly higher for children in richer quintiles.

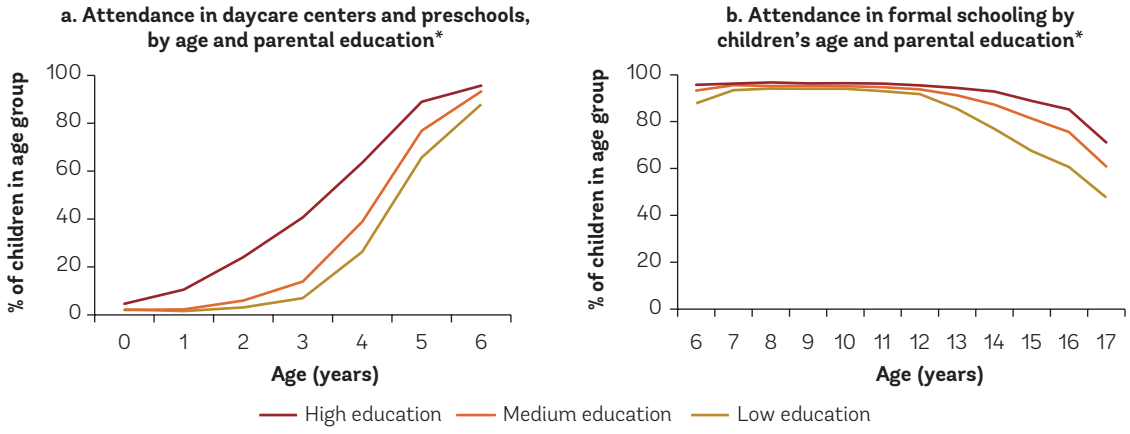
There are large disparities in enrollment in day care and preschool, but these even out by the time children enter primary school. As figure 3.9a shows, by age

four about 60 percent of children from households with educated parents are attending a day-care center, as compared with 40 percent for children in households with medium education attainment, and about 20 percent for children from households with low education.[5] Attendance in preschool is also higher for children from wealthier families: virtually all five to six year olds from the top quintile of the population attend preschool, as compared with 79 percent of those in families in the poorest quintile.[6] Enrollment equalizes by the time children start first grade, and it remains close to 100 percent for all children throughout primary, reflecting Costa Rica's long-standing guarantee of basic public education.

The transition from primary to secondary school is particularly prone to high dropout rates, especially among children from households with weaker parental education. At around age 12, some children begin to drop out, and those from households with a low "educational environment" (that is, children whose parents have low education) have a much faster dropout rate than children from more educated households (figure 3.9b). In fact, a recent study of the factors behind human capital accumulation finds that, although context variables, such as place of residence, explained a significant share of the educational attainment inequality in the 1990s, at present only household and individual level variables, such as parental education, explain such outcomes.[7] Income status also affects enrollment, with only 77 percent of teens aged 13 to 17 from households in the poorest quintile attending school as compared with 93 percent of those from households in the richest quintile.[8]

Dropouts are highest in seventh grade, just after the completion of primary education. For many children, this is linked to

FIGURE 3.9 Parental Education Plays a Determinant Role in Children's Education Investment



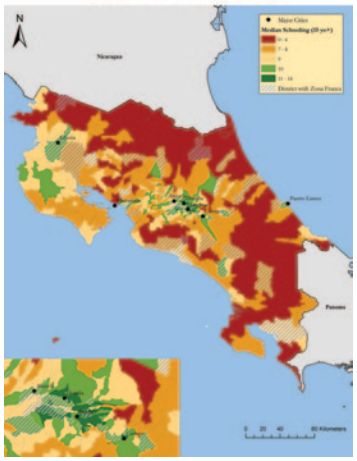
Source: Programa Programa Estado de la Nación (2013).
*Parental education is defined as the average education level of all adults 18 years and older in the household. A "low" level corresponds to an average of less than primary; "medium" corresponds to complete primary and incomplete secondary; and "high" corresponds to complete secondary and above.

their poor performance during primary school (repetition and low content learning), which affects their motivation to continue during secondary. However, some children who drop out of the system also face barriers such as distance (lack of transportation), costs (of school supplies and others), and household chores (for certain groups of girls).

Regional gaps in educational attainment also exist, but they are slowly decreasing. As figure 3.10a shows, the median educational

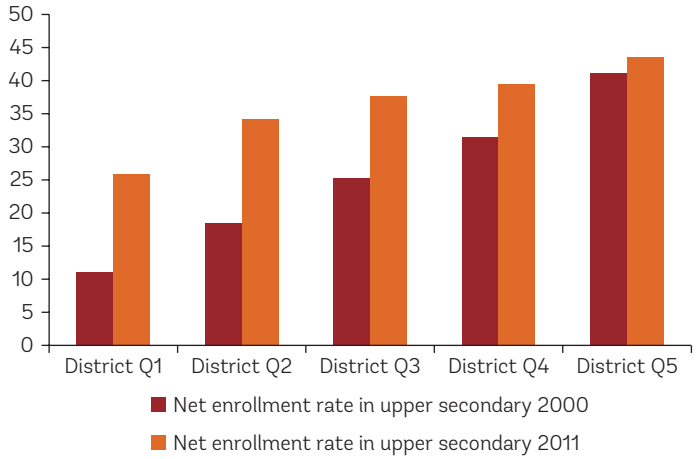
FIGURE 3.10 Regional Disparities in Education Are Large, but They Are Decreasing

a. Median years of schooling (ages 15 and above)



Source: Elaboration based on Census 2011.

b. Net enrollment in upper secondary, by district groupings according to secondary completion rates (Q1 = lowest 20%; Q5 = highest 20%)



Source: Elaboration based on Trejos and Saenz (2012).

KNOWLEDGE GAP 3.1 Why Are So Many Kids Dropping Out of School in Costa Rica?

The skill-biased development that Costa Rica has experienced has raised returns to education, particularly secondary and tertiary. Given a large secondary school network in the country and universal primary completion, it is therefore surprising that more than half of the children who finish primary fail to complete secondary education. Although some general factors are known (see figure K3.1.1), such as lack of motivation, distance (in rural areas), and gender bias, the specific factors that push children out of school are still unknown, as are the critical ages at which early signs of dropout can be detected.

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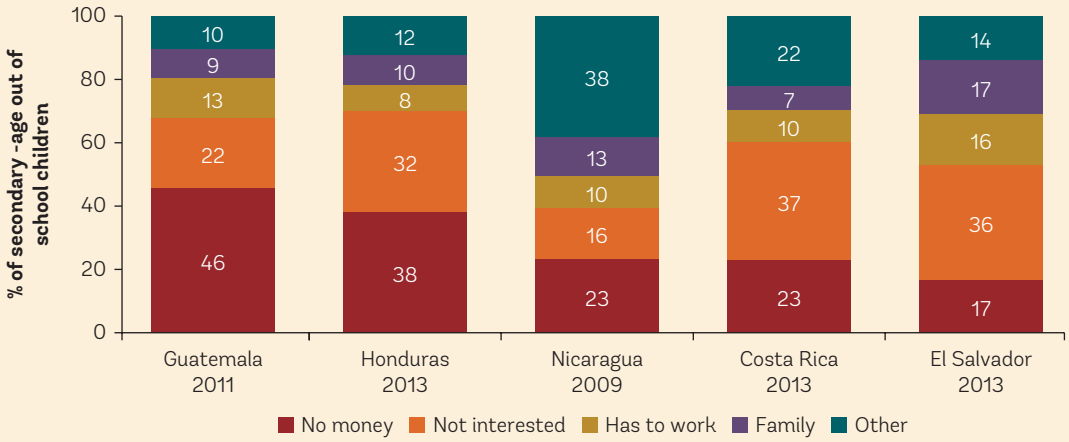
KNOWLEDGE GAP 3.1 *continued*

FIGURE K3.1.1 Main Reasons for Being Out of School



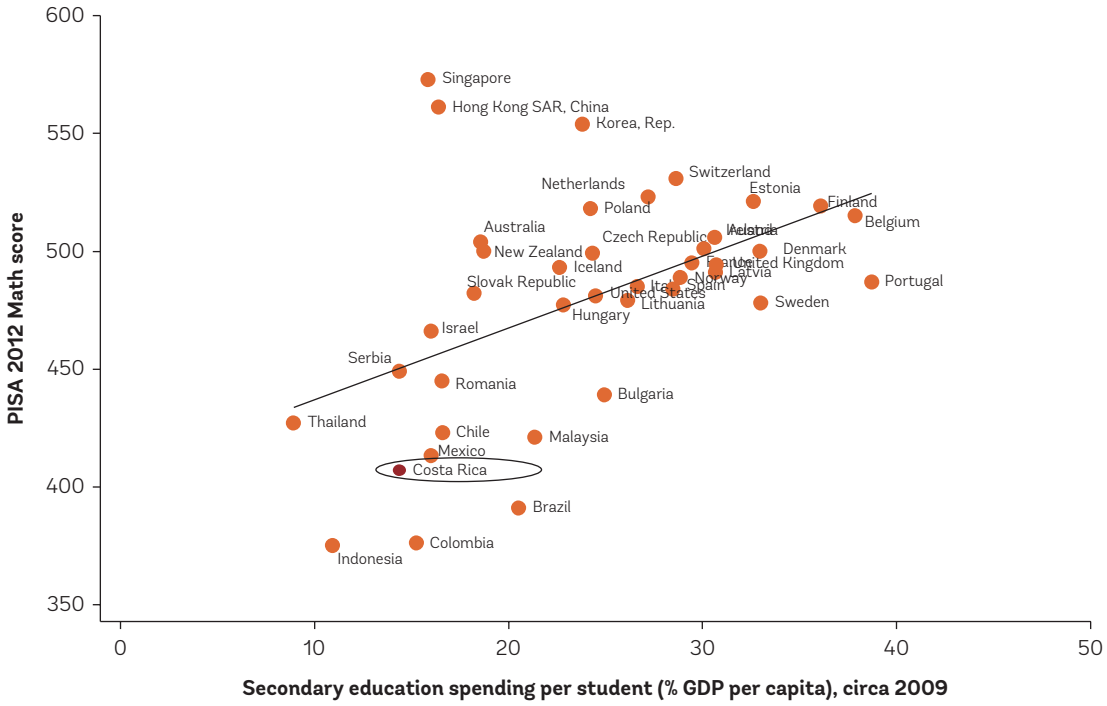
Source: World Bank (forthcoming 2015).

attainment of adults 15 years and older is up to twice as high in the Central Region (dark green in the map) as in the peripheral districts around it (dark red districts). A ranking of all districts in Costa Rica according to the share of adults 17–21 who have completed secondary education shows that there is a 42-percentage point gap between the completion rate for the bottom and the top 20 percent of districts in terms of completion (26.3 percent against 68.2 percent). A similar gap is seen in terms of net upper secondary enrollment (figure 3.10b) across districts, although the gap has been closing in recent years, as low-performing districts have increased their enrollment rates faster than high-performing ones.[9] Notice, however, that even in the best-performing districts net enrollment in upper secondary is below 50 percent.

Poor quality of education

The quality of education in Costa Rica is also very low, given its level of spending. At the primary school level, the latest results from the TERCE examination of Latin American students by UNESCO show that Costa Rica is the only country in the sample where students in both third and sixth grades performed worse in TERCE (2013) than they did in SERCE (2006) in reading and in mathematics.[10] Similarly, the performance of Costa Rican students at the secondary school level is also weak. Specifically, the performance of 15-year-old students on the international PISA mathematics exam is far lower than

FIGURE 3.11 Costa Rica's PISA Performance Is Below Expectations Given Its Secondary Education Spending



Source: Elaboration based on data from Barro and Lee (2010) and UNESCO.

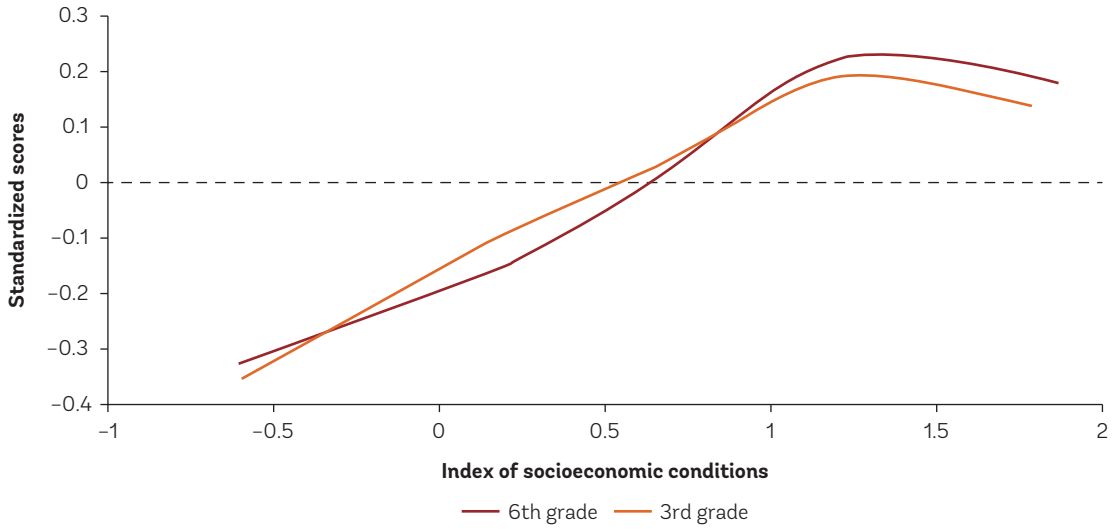
would be predicted by Costa Rica's spending on secondary education (figure 3.11).[11] Moreover, since these tests are taken only by those who remain in school by age 15, and since dropout rates are so high in Costa Rica, the average skill levels and learning outcomes of all 15 year olds (including those in and outside school) are likely even lower.

Moreover, there are large disparities in learning outcomes by socioeconomic status. UNESCO's SERCE study also shows that children from higher socioeconomic backgrounds obtain better scores than their peers from lower socioeconomic backgrounds (figure 3.12).[12]

Widening Earnings Gaps for Poor and Unskilled Workers

WAGES ARE RELATIVELY HIGH ACROSS the board—even in low value-added sectors. As discussed in chapter 4, Costa Rica has relatively high wages compared to Central American neighbors, in both agriculture and low-tech industry (light manufacturing)—two sectors that traditionally employ low-skilled workers. Surprisingly, neither rising rates of unemployment nor the continuous influx of low-skilled migrant workers from

FIGURE 3.12 Large Disparities in Learning Outcomes by Socioeconomic Status



Source: Elaboration based on UNESCO (2006).

KNOWLEDGE GAP 3.2 Are Reservation Wages High in Costa Rica?

The increase in unemployment rates, especially among poor workers, and the marginal changes in self-employment, a proxy for informal employment, is a puzzling finding. Most LAC countries respond to a decrease of jobs in the formal sector with a surge in informal employment, in the absence of a safety net that enables workers to look for other formal jobs. In Costa Rica, however, this did not happen, even if there is no clear evidence that the social safety net provides sufficient income support to those who are unemployed. Thus, the question arises of how high reservation wages are in Costa Rica, in a context of high average wages and a high cost of living relative to other countries in the region.[a]

a. For evidence on the cost of living in Costa Rica by international standards, see Programa Estado de la Nacion (2014).

Nicaragua (box 3.2) have put downward pressure on low-skilled wages. Moreover, the minimum wage does not appear to be driving artificially high low-skilled wages. Minimum wages are binding for most Costa Rican workers in formal salaried jobs, especially in low-skilled jobs.[13] And while changes in minimum wages over the 1980s–1990s did result in a small reduction in employment, this effect was minor, and there were no effects on

BOX 3.2 Nicaraguan Workers in Costa Rica Do Not Appear to Drive Down Native Workers' Wages

Immigrants, particularly from Nicaragua, represent a large share of the labor force in Costa Rica, in particular in low-skilled employment. In 2013, over 10 percent of those employed in Costa Rica were foreign-born, of which eight percent were Nicaraguan. Nicaraguan immigrants in Costa Rica are largely unskilled: less than 20 percent completed secondary school while over a third (35 percent) did not complete primary school.[a] However, Costa Ricans also have low schooling on average—in fact, 46 percent of both Nicaraguan and native-born adults finished primary school but did not complete secondary. This significant overlap in educational attainment suggests the potential for competition between these two groups for low- or unskilled jobs. This can be particularly true in specific sectors and specific parts of the country due to the non-random dispersion patterns of immigrants. Four sectors of employment—agriculture, domestic service, commerce and hotels/restaurants, and construction—account for 75 percent of low-skilled immigrant employment in 2013. For context, these same four sectors accounted for only 59 percent of low-skilled native-born employment. In some parts of the country, foreign-born workers account for significant shares of workers in these four sectors, including over 20 percent of all workers in domestic services and construction in Huetar Norte and the Central regions.

The presence of immigrant workers has little bearing on the wages of low-skilled Costa Rican workers—and is actually correlated with higher wages among higher-skilled Costa Ricans. Exploiting the sectoral and geographical differences in immigrant employment in Costa Rica, log wage regressions reveal positive correlations between native wages and the proportion of foreign-born workers in the same employment category as natives, where the employment category is defined at the region and sector level. This suggests positive complementarities between immigrant labor and skilled native labor. This is a sizeable relationship, with native workers who completed secondary receiving a wage premium of 22 percent at the average share of immigrants for this group (8.3 percent).[b] At the same time, no statistically significant relationship is evident between unskilled native workers and immigrants—suggesting that wages of native workers are not being lowered by immigrant labor. Similar analysis found no evidence of increased unemployment among native labor in regions with more immigrants.

Source: Elaboration based on Census 2011 and ENAHO (2013).
a. These education rates are calculated for the adult population 20 and above using the 2011 Costa Rica Census.
b. Note that this is not necessarily a causal relationship—for example, it could be that immigrant workers are more likely to migrate to higher-paying regions and/or work in higher-wage sectors resulting in a higher share of immigrant workers in these higher-paying sectors.

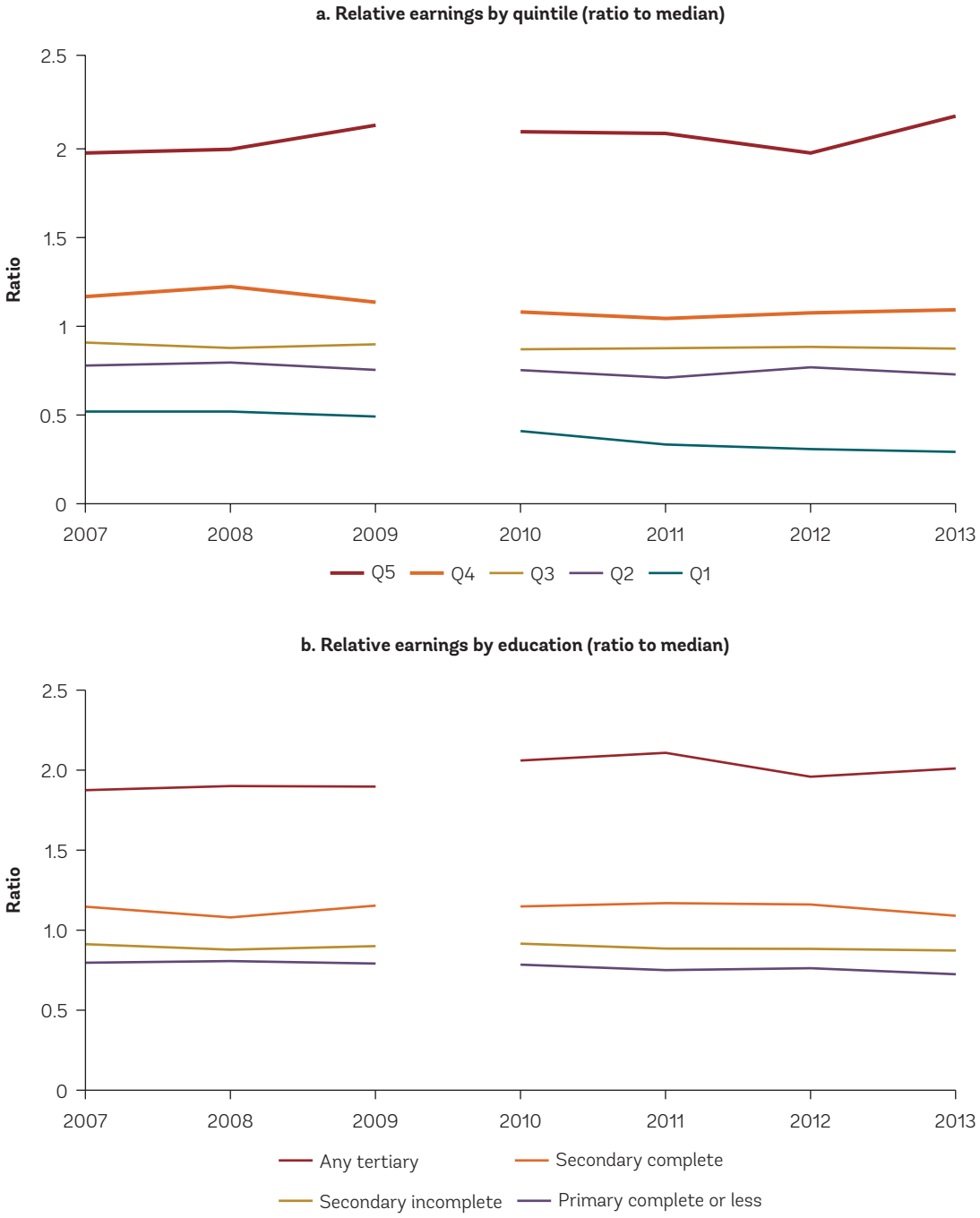
wages or employment in the uncovered sectors (self-employment). More recently, changes in the minimum wage have been very modest, mostly correcting for inflation, and the evolution of the real minimum wage has closely tracked the evolution of labor productivity (figure 3.13). Moreover, a study of the increase in the enforcement of minimum wage policy shows that it had a small positive effect on wages, especially where the minimum wage is most binding (at lower levels), but it did not affect employment in any segment of the distribution.[14] Rather, it appears that high income levels, coupled with generous social benefits, have resulted in high reservation wages across the board in Costa Rica.

Despite relatively high wages even for low-skilled workers, the earnings gap between rich and poor workers is widening. Even though earnings have grown in real terms for low-skilled workers, they have fallen in relative terms to high-skilled workers. As figure 3.14 shows, relative to the median earnings level, between 2007 and 2013 workers in the top quintile increased the ratio of their earnings to the median earner by 0.19 (from 2 to 2.19). At the same time, workers in the bottom quintile decreased the ratio of earnings to the median by 0.23 (from 0.52 to 0.29), while workers in the second to fourth quintile kept the ratios to the median almost flat. A similar picture is seen when income groups are divided according to workers' education. For workers with tertiary education, the ratio to the median income increased from 1.89 to 2.01 between 2007 and 2013, for workers with secondary complete and secondary incomplete it remained flat, and for workers with

FIGURE 3.13 Real Minimum Wage Changes Closely Follow Changes in Labor Productivity

Source: Elaboration based on BCCR and IMF.

FIGURE 3.14 Earnings Gaps Across Education and Income Levels Are Widening

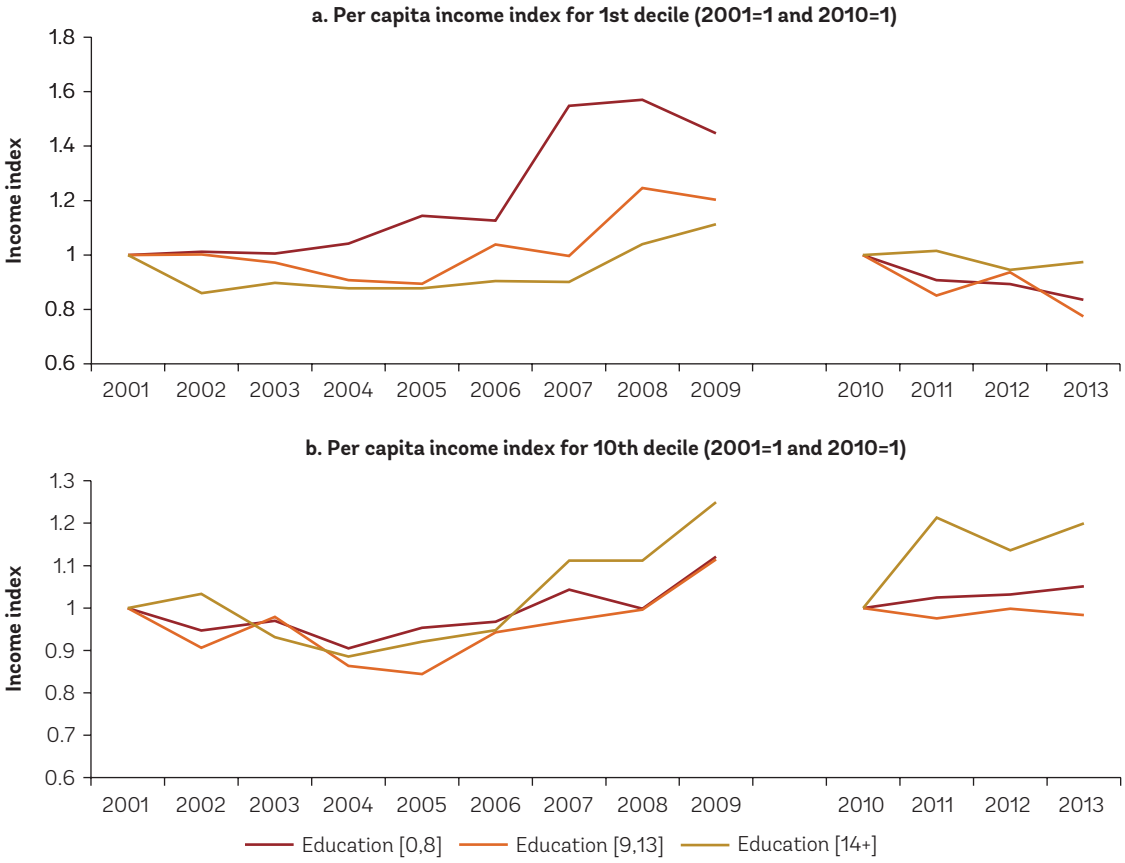


Source: Elaboration based on data from EHPM and ENAHO.

primary or less the ratio fell from 0.79 to 0.73 of the median income. This resulted in a widening of the gap between the highest-paid and the lowest-paid workers, which is at the root of the increase in inequality that occurred in the second half of the 2000s.

Indeed, the incomes of the poorest *and* those with the lowest skills grew faster before the crisis—and fell the most since the crisis. figure 3.15 plots the evolution of incomes for individuals in the poorest income decile (figure 3.15a) and the richest decile (figure 3.15b), divided according to the educational attainment (skills level) of the household head. figure 3.15a shows clearly that before 2007, the incomes of individuals in the poorest decile, whose head of household had fewer than eight years of education, grew faster than the incomes of those individuals (also in the poorest decile) whose household head had more

FIGURE 3.15 Incomes Evolved Very Differently at the Top and the Bottom Before and After the Crisis



Source: Elaboration based on data from EHPM and ENAHO.

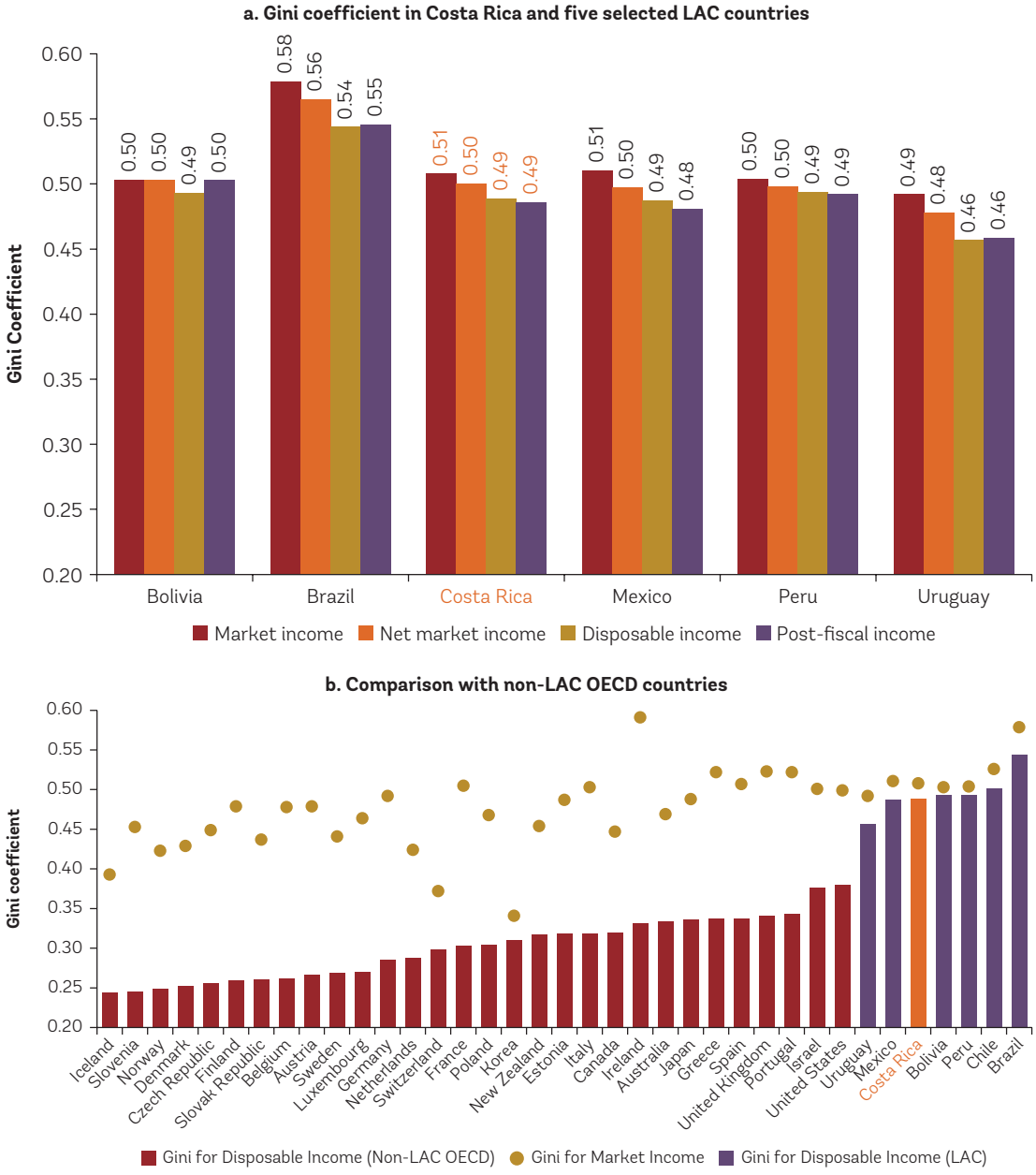
education. Moreover the incomes in the poorest decile also grew much faster than the incomes of individuals in the richest decile, which actually fell between 2001 and 2007. In contrast, starting in 2008 low incomes begin to decline, and high incomes begin to rise, which becomes more apparent after 2010.[15] Interestingly, educational gaps appear to matter more at the bottom of the distribution before 2007, suggesting that income increases were the highest among the lowest-skilled and poorest workers in the pre-crisis period.

Redistribution Has Not Offset Rising Inequality

Finally, redistributive policies have not been effective in compensating for inequities associated with labor earnings and skills. Redistribution policies have had a modest effect on overall inequality. The challenges facing Costa Rica and other LAC countries for reducing poverty in the future highlight the importance of ensuring that fiscal policy has a strong equity focus and redistributes the gains from growth among those who are less well off.[16] The Commitment to Equity Project (CEQ), a joint initiative of Tulane University and the Inter-American Dialogue, has developed a harmonized methodology to assess the distributional impact of taxation and public expenditure throughout Latin America.[17] Figure 3.16a shows the gradual impact of fiscal policy in six LAC countries including Costa Rica. Fiscal policy is decomposed into direct taxes (such as income and payroll taxes); direct transfers (such as non-contributory pensions, and conditional and unconditional cash transfers); and indirect taxes and transfers (such as value added taxes, and fuel subsidies).[18] In Costa Rica, direct and indirect transfers and taxes decrease income inequality by three Gini points, from 0.51 to 0.49, a reduction comparable to Brazil, Mexico, and Uruguay, and larger than the reduction in Bolivia and Peru. The evidence available for these six countries suggests that fiscal policy in LAC is not able to counterbalance the inequality pressures from labor income.

On the other hand, the experience from OECD countries shows that redistributive policy has the potential to reduce inequality. As figure 3.16b shows, non-LAC OECD and select LAC countries, including Costa Rica, have similar levels of market income inequality before any fiscal intervention. The Gini coefficient hovers around 0.4 and 0.5 for all these countries. However, there are significant differences in the impact of transfers (direct taxes on income, payroll taxes, and direct transfers) between the LAC group and the OECD. The Gini that results after taking into account direct taxes and transfers in the OECD group is somewhere around 0.3, while it remains almost unchanged at around 0.5 in Costa Rica and the rest of the LAC group. According to World Bank (2014e), the low tax revenue and high reliance on indirect taxation in LAC are important reasons for these differences. This is also the case of Costa Rica. If compared with non-LAC OECD countries, fiscal revenues are low and rely heavily on indirect taxes, which are neutral in relative terms and therefore tend to reduce the progressivity of the overall tax system.[19]

FIGURE 3.16 Inequality for Different Income Concepts, Circa 2010



Source: Sauma and Trejos (2014) for Costa Rica and World Bank (2014e) for the rest of the countries. World Bank (2014) results are based on Lustig and Pessino (2014), Paz Arauco et al. (2014), Higgins and Pereira (2014), Scott (2014), Jaramillo (2014), Bucheli et al. (2014).
Note: All Gini are computed using 2009, except for Mexico and Costa Rica, which is 2010. The figure shows the Gini coefficient for different income definitions. Market Income is the income received before any fiscal intervention. Net Market Income subtracts direct income and payroll taxes to Market Income. Disposable Income is Net Market Income plus direct transfers. Post-Fiscal Income adds indirect subsidies and subtracts taxes from disposable income. Final Income is Post-Fiscal Income plus in-kind public transfers on health and education (World Bank 2014e).

Notes

1. World Bank (2014e).
2. This follows Trejos and Oviedo (2012), who find that labor income for skilled workers, followed by income for employers, capital returns, and contributory pension income explained 85 percent of inequality in 2009.
3. According to Trejos and Oviedo (2012), the share of the Gini explained by social assistance went from −0.3 in 2001 to −0.9 in 2009.
4. See World Bank (2006a) and Lücke (2013).
5. Education attainment of the household is defined as the average education level of all adults 18 years and older in the household. A "low" level corresponds to an average of less than primary; "medium" corresponds to complete primary and incomplete secondary; and "high" corresponds to complete secondary and above. See Estado de la Nación (2013).
6. Estado de la Nación (2013).
7. Trejos and Murillo (2012).
8. Estado de la Nación (2013).
9. See Trejos and Saenz (2012), and Trejos and Murillo (2012).
10. Bilagher (2014). TERCE (the Third Regional Comparative and Explanatory Study) is a large-scale study that assesses the performance of pupils in third and sixth grades of primary school in mathematics, reading, and writing (language), plus natural sciences in the case of sixth grade. Fifteen LAC countries took part in 2013, plus the Mexican state of Nuevo León (Mexico). SERCE is the second study with the same characteristics that took place in 2006. See http://www.unesco.org/new/en/santiago/education/education-assessment-llece/third-regional-comparative-and-explanatory-study-terce.
11. The Programme for International Student Assessment (PISA), a triennial international survey, tests the skills and knowledge of 15-year-old students. Around 510,000 students in 65 economies took part in the PISA 2012 assessment of reading, mathematics and science representing about 28 million 15-year-olds globally. See www.oecd.org/pisa.
12. World Bank (forthcoming 2015).
13. Salaried employment (which is mostly formal in Costa Rica) represented 62.4 percent of employment among workers living in poverty, and 78.7 percent among non-poor workers in 2013, whereas 33 percent of poor workers were self-employed, against 16 percent of non-poor. Hence, the minimum wage policy applies to the large majority of workers. In the late 1990s, almost three-quarters of all workers' earnings were concentrated around the five main minimum wage categories (out of the total 19 different wages). See Gindling and Terrell (2004).
14. See Gindling, Mossaad, and Trejos (2013).
15. Due to the methodological change between EHPM and ENAHO it is not possible to construct a single income index for the entire period.
16. World Bank (2014e).
17. Important caveats and assumptions need to be considered when analyzing results from the CEQ project. The approach is static and does not take behavioral responses into account. On the expenditure side the method focuses only on transfers and expenditures in health and education and does not take into account other infrastructure spending, or the quality of the services delivered. Finally, the approach does not consider the externalities of public expenditures (World Bank 2014e).
18. This report presents results for Costa Rica (Sauma and Trejos 2014) together with the first round of CEQ results from six countries (Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay) published in World Bank (2014e) and based on Lustig and Pessino (2014), Paz Arauco et al. (2014), Higgins and Pereira (2014), Scott (2014), Jaramillo (2014), Bucheli et al. (2014).
19. Sauma and Trejos (2014), World Bank (2014e).

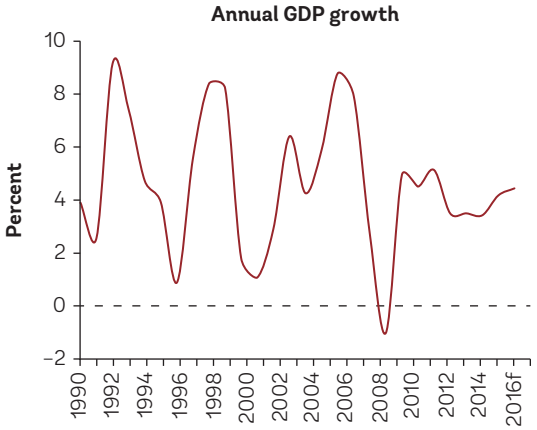
4. The Nature of Costa Rica's Growth and Its Constraints

Costa Rica's small and open economy has achieved solid growth with an outward-oriented model combined with macroeconomic and political stability. This model has encouraged export diversification towards higher value-added sectors and increasing labor productivity. However, the economy is showing signs of built-up vulnerabilities, resulting in weak job creation and loss of competitiveness. How can Costa Rica achieve higher levels of growth? Evidence points to three priority areas: education & skills, infrastructure, and government effectiveness and regulatory quality.

COSTA RICA EXPERIENCED SOLID ECONOMIC GROWTH in the past 25 years, as compared to Latin America and the Caribbean but not with other countries. Its real growth averaged 4.7 percent since 1990, above the Latin America average of 3.1 percent (figure 4.1). During 2003–2007, Costa Rica's GDP growth was particularly strong at 6.7 percent on average, well above the regional average for Latin America of 4.6 percent. During the crisis, growth slowed to 1.2 percent in 2008 and contracted by one percent in 2009. Following the global crisis, Costa Rica recovered similarly to a set of peer comparator countries (Chile, Croatia, Dominican Republic, Lithuania, Panama, and Uruguay) (figure 4.2). However, this recovery has been slower than that of upper-middle-income countries or comparator countries in Latin America and the Caribbean (LAC). Growth decelerated in 2013 to 3.5 percent and remained stable in 2014. The outlook is that growth will not accelerate in 2015, amid deteriorating fiscal balances and a rising public debt-GDP ratio, but it is expected to pick up afterwards. The recent closure of Intel's microchip factory is expected to dampen growth by about one-half to three-quarters percentage points in 2014–15.[1]

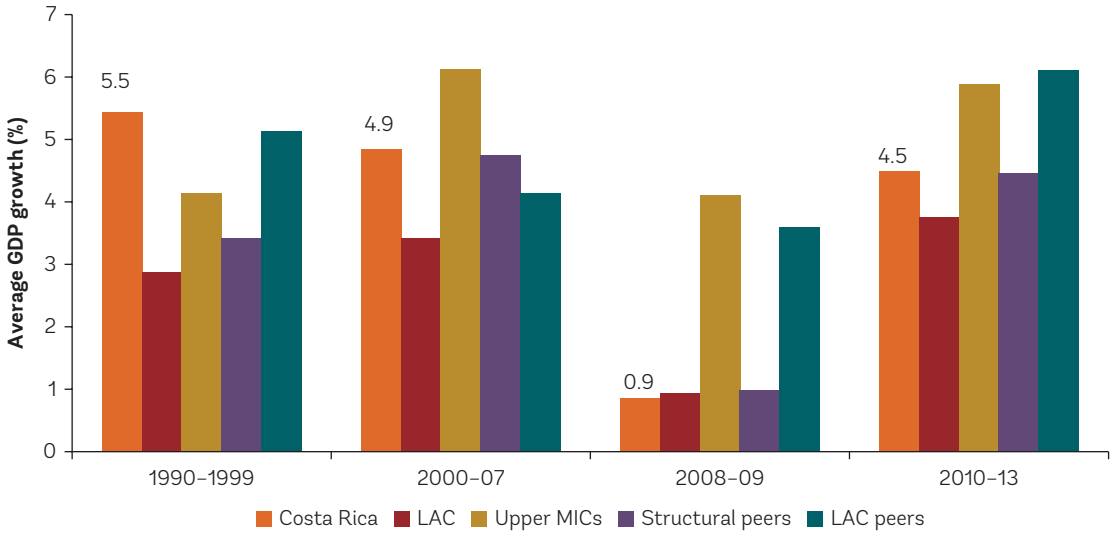
More broadly, GDP per capita did not make much headway in convergence with the United States (figure 4.3). GDP per capita grew by 83 percent to US$ 5,839 (constant, 2005 prices)—higher than the average of countries in LAC (48 percent) and the world (35.5 percent). In terms of Latin American per capita income ranking, Costa Rica is the seventh richest country of the region (in 2005 constant US$), just

FIGURE 4.1 Costa Rica GDP Growth Averaged 4.7 Percent During 1990–2014



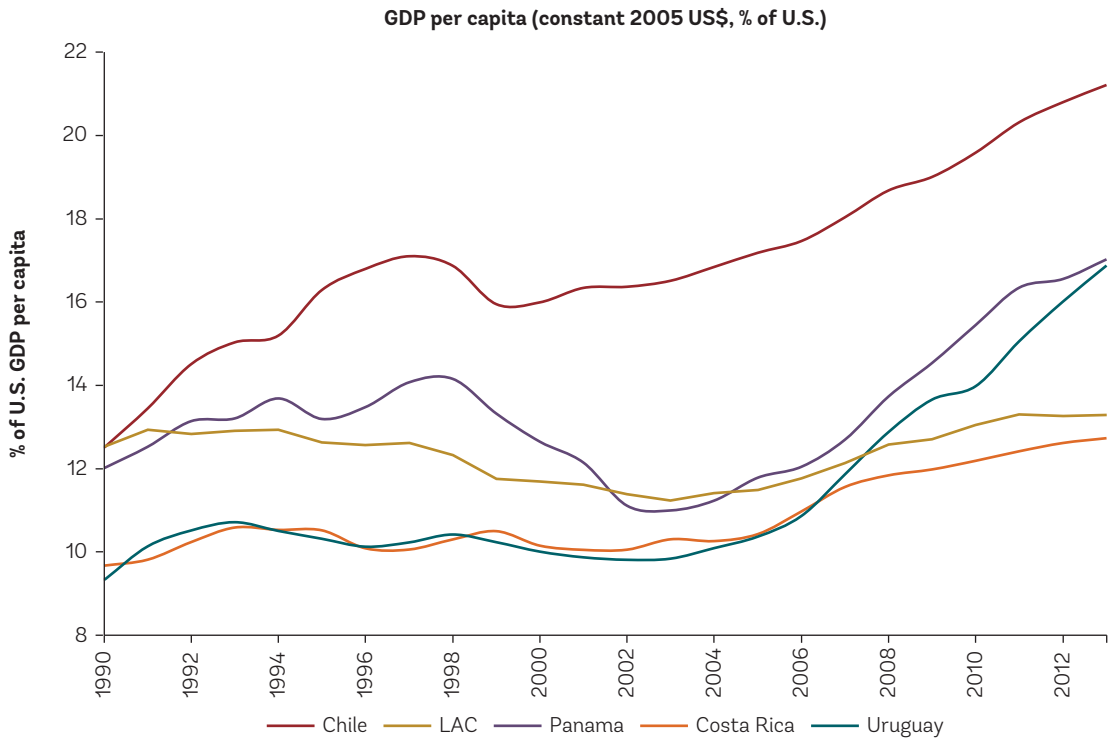
Source: World Development Indicators and GDP forecast.

FIGURE 4.2 Growth Compares Well with Respect to LAC



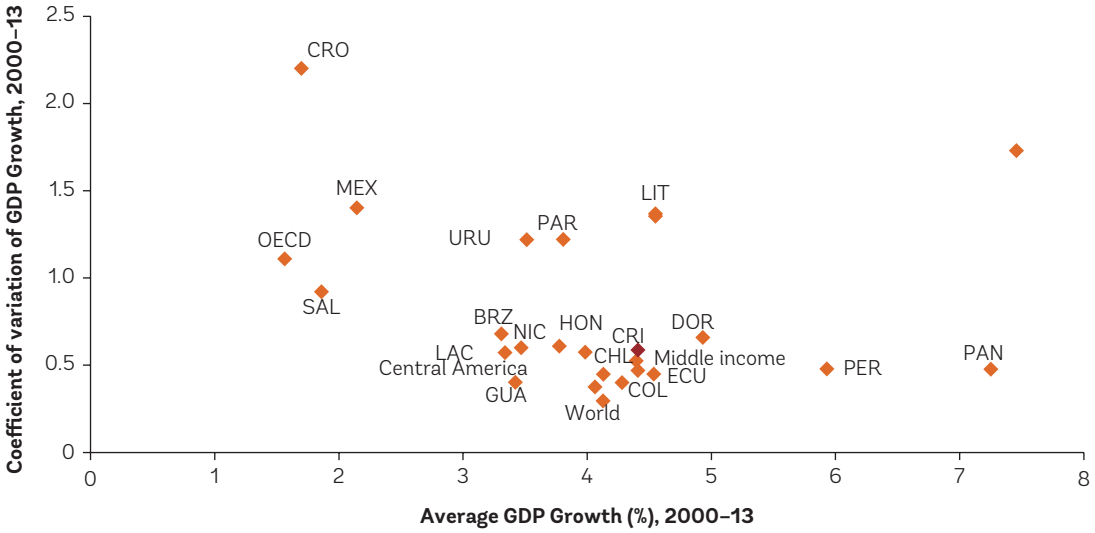
Source: Calculations based on World Development Indicators.

FIGURE 4.3 Lagging Behind in Converging Towards U.S. GDP per Capita



Source: Calculations based on World Development Indicators.

FIGURE 4.4 Growth Volatility Is Low by International Standards



Source: World Development Indicators.

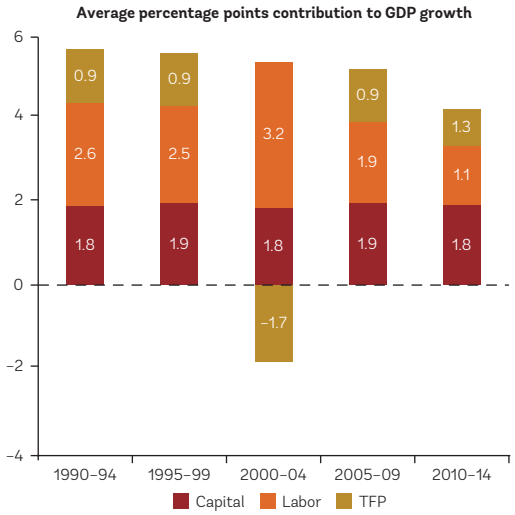
as it was back in 1960 and 1990. Growth has displayed low volatility in international comparisons during 2000–2013 (figure 4.4).

Growth Analysis and Trends

When examining growth by factor of production, the contribution of capital has been relatively stable in the past two decades. However, the mid-2000s saw a sharp decline in the contribution of Total Factor Productivity (TFP). Between 2000 and 2004, TFP declined strongly and even turned negative, dragging overall growth by about 1.7 percentage points a year (down from the positive contribution to growth of about 0.9 percentage points a year over the 1995–1999 period). TFP recovered over the 2005–2009 period, but employment growth declines resulted in a sizeable reduction in labor's contribution to output growth from about 3.2 percentage points a year to 1.9 percentage points (figure 4.5). Over the 2010–2014, the contribution of labor further declined to 1.1 percentage points. Although growth accounting is a descriptive methodology and, by definition, does not provide specific insights into the factors that underlie TFP growth, economists have consistently relied on measures of the growth "residual" TFP as a gauge of a country's technological change and innovation. In this light, TFP growth reflects a reallocation of inputs to the sector of the economy with higher productivity gains. Moreover, this is consistent with observed increases in labor productivity, measured as output per worker (figure 3.13 in chapter 3 and figure 4.6).

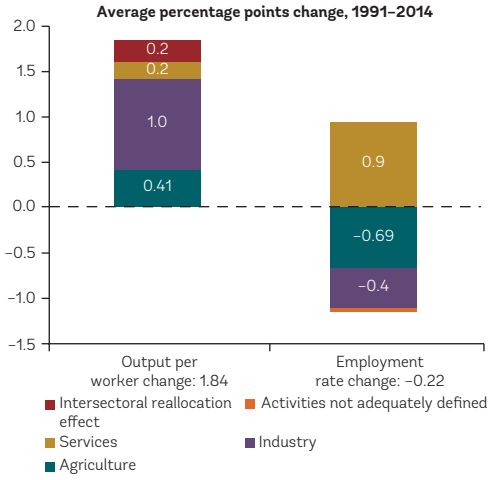
Weakened investment and net exports have dragged growth in recent years. In the mid-2000s, the external sector had a positive contribution to growth from an aggregate demand perspective, as exports outweighed imports (figure 4.7). With the

FIGURE 4.5 Declining Contribution of Labor to GDP Growth



Source: Calculations with data from BCCR. Labor adjusted for education levels.

FIGURE 4.6 Labor Productivity Increased in All Sectors, and Workers Moved to Services



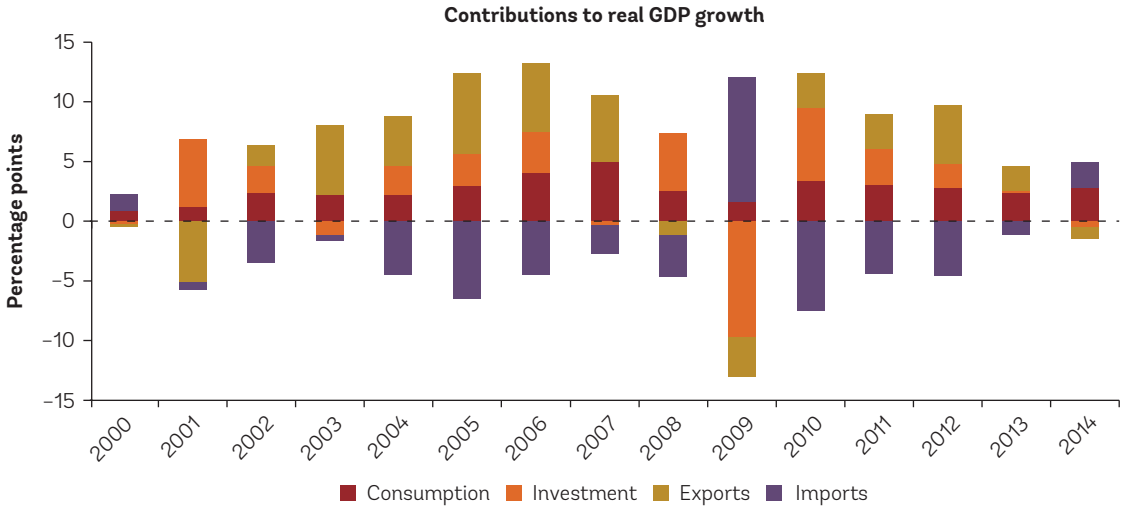
Source: Results from a Shapley decomposition of growth using data from World Development Indicators and BCCR.

global crisis, however, exports declined sharply without an accompanying strong decline in imports. Softer economic growth in the United States (Costa Rica's main trading partner) as well as in China have weakened demand, and the recent closure of Intel's microchip factory in 2014 has further reduced exports. Intel's electronics exports alone accounted for 20 percent of merchandise exports.[2] The lost dynamism in exports has been exacerbated by rising imports outside free trade zones (FTZs). The contribution of investment has also declined, lowering overall GDP growth.

The service sector continues to sustain growth. It has accounted for more than 60 percent of GDP growth (about 2.7 percentage points of growth per year) before and after the global crisis (figure 4.8). Economic growth has been particularly strong in the telecommunications and tourism sectors. The telecom liberalization has brought a renewed dynamism to the economy due to new investments and expansion in the provision of services.[3] The tourism sector also showed healthy growth of eight percent a year in both 2013 and 2014, though its contribution to overall GDP remains small (accounting for about 4.6 percent of GDP).

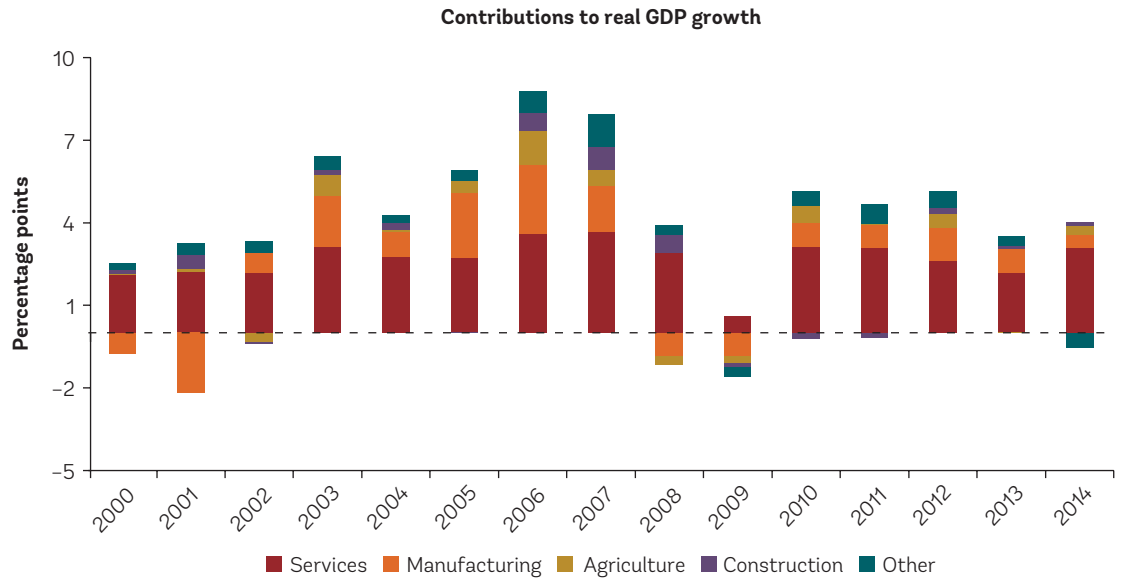
However, manufacturing, agriculture, and construction have reduced their contribution to GDP growth. The manufacturing sector has experienced a loss of competitiveness due to exchange rate appreciation, growing wages for low-skilled workers, and rising electricity prices. The construction sector, which experienced a boom in the 2000s, has not returned to pre-crisis levels. The data on new construction permits (excluding infrastructure and all public construction) shows that during the boom years the construction sector doubled the number of permits from 2.2 to 4 million of square meters per year; but, after adjusting

FIGURE 4.7 Investment and Exports Explain Recent Slowdown of GDP Growth



Source: Calculations based on data from BCCR.

FIGURE 4.8 Services Remain the Primary Driver of GDP Growth



KNOWLEDGE GAP 4.1 Is the Contraction of Employment in the Agriculture, Manufacturing, and Construction Sectors Cyclical or Structural?

Costa Rica has seen a significant contraction in employment in the construction, manufacturing, and agricultural sectors. Cyclical patterns could be the culprits as the pattern emerged during the global crisis for all three sectors, compounded by the Roya coffee rust fungus and weather factors in agriculture. However, the contraction in jobs has persisted, which is particularly worrisome given that these sectors employ a higher share of the poor and lower-skilled workers—and given the sustained rise in unemployment. What are the structural factors in these sectors that are causing this sustained contraction?

abruptly in 2009, the number of new permits has contracted in the last two years. Amounting to about five percent of GDP, the construction sector is relatively underdeveloped in Costa Rica when compared to Panama (10 percent) or Uruguay (eight percent)). This underdevelopment is partly attributed to weakened public infrastructure spending, which has been constrained by the limited fiscal space and anemic implementation of projects, and lower credit growth. Agriculture output also stagnated due to weather factors and the spread of the Roya fungus ("coffee rust").[4] As a share of GDP, agriculture accounts for five percent of GDP, though it generates 12 percent of jobs. Agriculture is an important source of jobs for the bottom 40 percent of the population (18 percent) and the extreme poor (22 percent). Agricultural products, mainly coffee, pineapples, and bananas, account for 25 percent of exports.

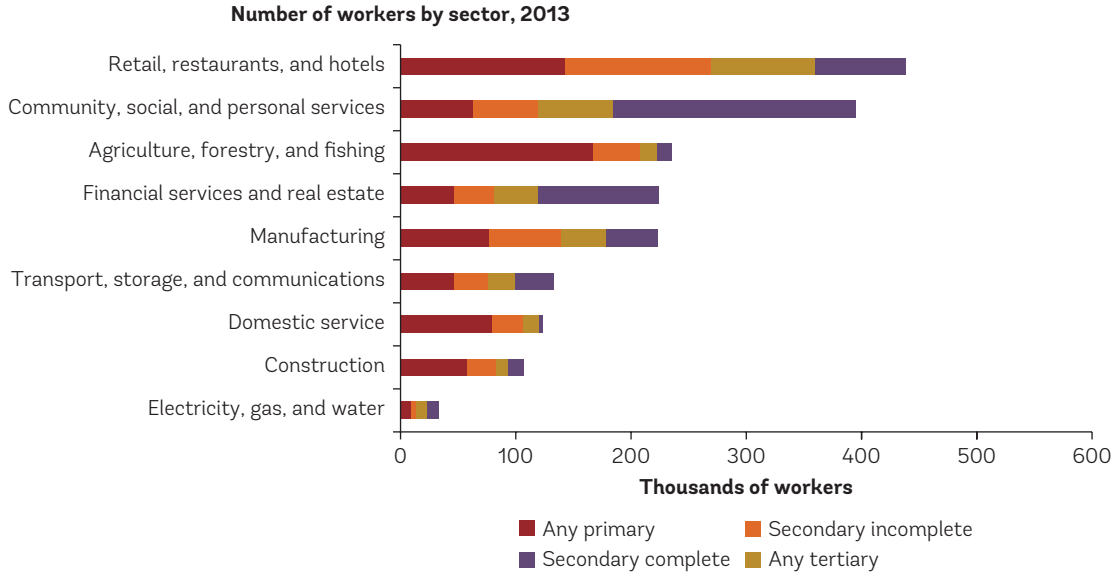
The slowdown in economic activity after the global crisis has translated into weaker job creation. As discussed in chapter 3, the unemployment rate stood at nine percent in 2014, which was relatively high by Costa Rican historical standards (figure 3.3). In the past three years, the economy has been adding around 10,000 jobs per year, which is lower than the usual average annual increase in the labor force of about 38,000. The underperformance of the construction and agriculture sectors is particularly worrisome considering that they employ a higher share of low-skilled workers (figure 4.9). Another explanation for weaker job creation is that new firms, which tend to create more jobs, are not appearing in sufficiently high numbers following the global crisis (figure 4.10).

Policies Explaining Growth

Macroeconomic stability

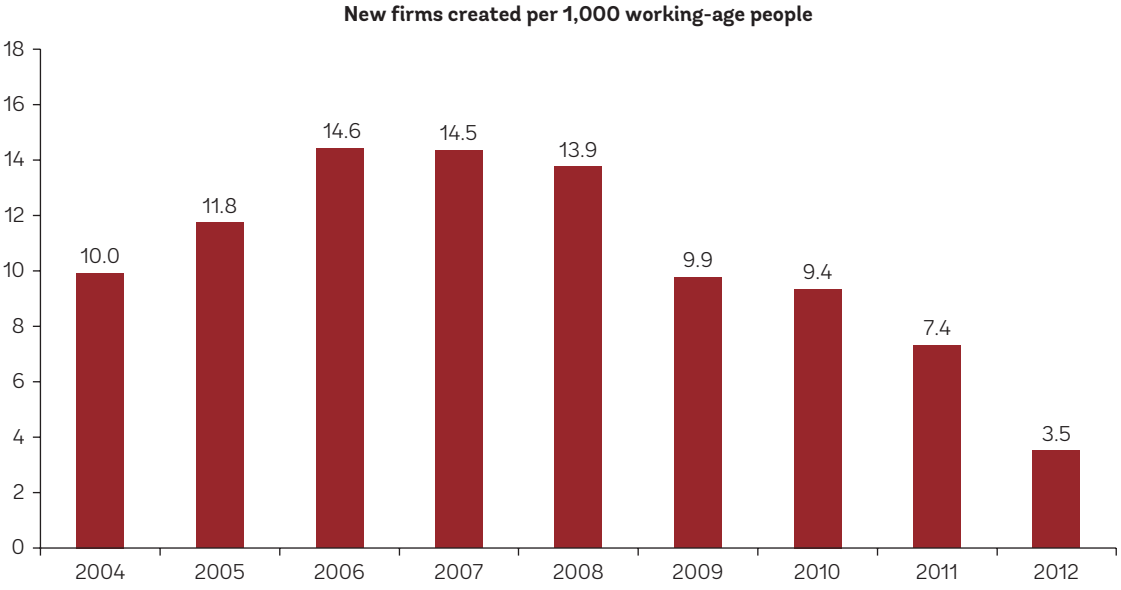
One of the reasons behind growth performance is that the country has made efforts to maintain reasonable macroeconomic stability. Costa Rica learned the importance of macroeconomic stability the hard way: during the Latin American crisis of the early 1980s it suffered a cumulative per-capita income loss of nearly 20 percent. Following that crisis, a new government started a series of structural reforms and committed to

FIGURE 4.9 Agriculture Employs the Largest Number of Low-Skill Workers



Source: Calculations based on data from ENAHO.

FIGURE 4.10 Creation of New Firms Remains Low, Contributing to Low Job Creation



Source: Entrepreneurship dataset, Doing Business.

pursuing macroeconomic stabilization.[5] Those policies proved successful in achieving a high and sustainable rate of growth averaging nearly five percent per annum in 1983–2006. The fiscal deficit was virtually eliminated at the end of that period, and public debt was reduced by two thirds, of which less than 20 percent was from external sources. The decline of the debt burden was due in part to the Ministry of Finance initiatives relating to the creation of a consolidated cash management office and the implementation of a debt management strategy. Monetary and exchange rate policies have evolved from a crawling peg policy to exchange rate band (2006) to abandonment of the pre-defined bands (2015). Inflation has dropped to single digits since 2009. Until the global crisis, Costa Rica's GDP had not contracted in 25 years.

Trade liberalization, FDI, and structural transformation

Moreover, outward-oriented policies have played a key role in fostering trade. Trade liberalization has been nurtured through various actions and dates back to 1963, when Costa Rica joined the Central American Common Market (CACM, made up of El Salvador, Guatemala, Honduras, and Nicaragua). Joining the CACM required the elimination of trade barriers among member countries and fueled an increase of manufacturing exports to the CACM. A second milestone took place 20 years later (1983), when Costa Rica joined the Caribbean Basin Initiative, strengthening its trade relations with the United States.[6] Like other Central American countries, Costa Rica began to reduce tariffs unilaterally in the mid-1980s, with trade tariffs declining from 53 percent in 1985 to about 5.2 percent in 2004 and falling further since then. But perhaps the most significant step was joining CAFTA-DR, after an intense national debate that required a referendum for its ratification.[7] CAFTA-DR provided a more stable and reliable framework for Costa Rica's trade with its main trading partner, the United States, introduced changes to the legal framework to promote transparency, ensured a secure and predictable environment for investors, and led to the breakdown of government monopolies in the telecom and insurance sectors.[8] Following CAFTA-DR, Costa Rica has entered into further trade agreements with Canada, China, the European Union, Mexico, Peru, and Singapore, consolidating its open-economy agenda. Exports now represent around 55 percent of GDP, compared to around 27 percent in 1980. The openness of the economy (measured by the ratio of exports plus imports to GDP) increased to 100 percent of GDP from 65 percent during the same period.

An explicit policy to attract foreign direct investment (FDI) complemented trade liberalization efforts. Trade agreements, through provisions governing investment, reduce the risk of expropriation and ensure against the discrimination of foreign firms. The passage of the Free Trade Zones law in 1981 (amended in 1990 and 2010), which was adopted to promote the export of non-traditional products, has contributed to attract FDI into Costa Rica.[9] Free Trade Zones accounted for 51 percent of merchandise exports in 2014, compared to 21 percent in 1997. Whereas Costa Rica's investment attraction efforts in the 1980s focused on lower value-added sectors such as textiles, since the mid-1990s it has shifted to attracting FDI with high value-added sectors, especially electronics and advanced manufacturing, medical devices and life

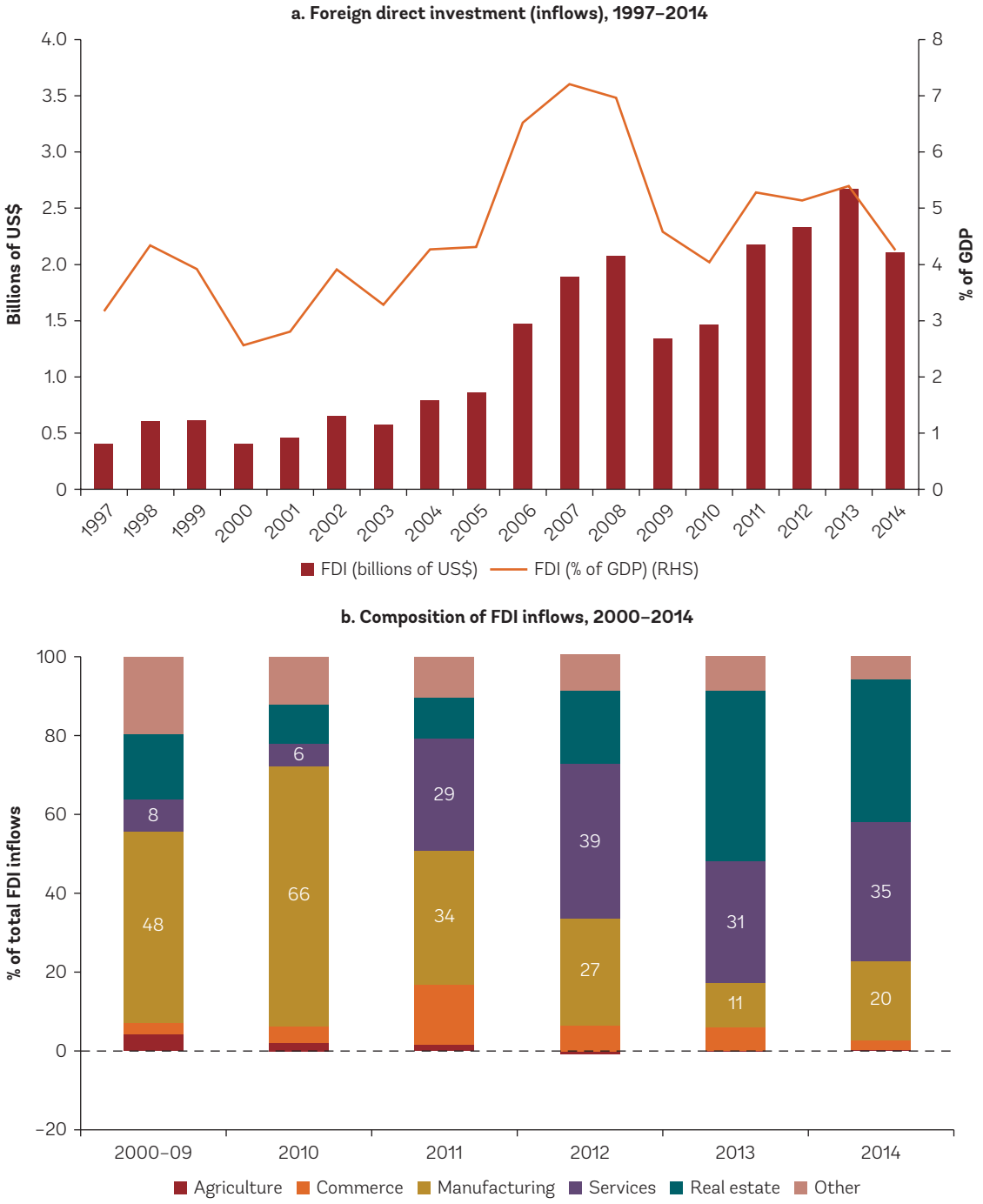
sciences, and ICT-related services. The country received US$407 million (three percent of GDP) in FDI inflows in 1997, and this grew to US$2.7 billion by 2013 (5.4 percent of GDP). FDI decreased by about 1.2 percentage point of GDP, reaching 4.2 percent of GDP in 2014, partly affected by the exit of Intel and Bank of America (figure 4.11a). Nevertheless, Costa Rica is one of the world's most FDI-intensive economies, with its FDI-to-GDP ratio exceeding international levels from 1985 through 2010.[10] The composition of FDI has shifted towards services, which accounted for 8.3 percent of total FDI inflows in 2002–05, but increased to 28 percent in 2010–14, partly attributed to the liberalization of the telecom and insurance sectors (figure 4.11b). In 2014, Costa Rica attracted US$474.4 million of new investments across 39 projects that created 10,281 jobs, offsetting the 4,343 jobs lost due to the exit or downsizing of some foreign firms.[11]

A successful institutional cluster has been effective in supporting trade and FDI. In the context of Productive Development Policies (PDPs) that Costa Rica has put in place since the 1970s, one success story is the PDP to attract FDI and promote exports. In this task there are three main actors: the Costa Rican Investment Promotion Agency (CINDE), PROCOMER (*Promotora del Comercio Exterior de Costa Rica*), and the *Ministerio de Comercio Exterior* (COMEX). All three work in tandem to bring foreign direct investment to Costa Rica and promote exports. Collaboration between CINDE and high levels of government, including the president, successfully brought Intel to Costa Rica in 1996 (box 4.1). By streamlining processes and facilitating the removal of bottlenecks for multinational companies in the FTZs, these agencies were able to contribute to the development of high-tech manufacturing and the country's status as an attractive FDI location.

Trade liberalization and FDI have made Costa Rica stand out for its vibrant high-tech and ICT sectors. Agricultural production now accounts for a little over five percent of GDP, compared to 13 percent in the early 1980s. Moreover, the service sector's share of GDP has increased, becoming the main sector of the economy. The share of the manufacturing sector in GDP has stagnated at about 22 percent in the past 25 years. At the same time, the employment share of manufacturing decreased from 25 percent to 12 percent.[12] As a result of attracting FDI in high-technology sectors, Costa Rica's share of high-tech manufacturing and ICT exports is among the highest among upper-middle-income countries and Latin America (figure 4.12). These trends suggest a fast transformation of the economy into sectors in which Costa Rica had a competitive advantage.

The economy contributes to a number of global value chains and has been able to upgrade its product mix over time. Some examples are electronics, medical devices, automotive, aeronautic/aerospace, film/broadcasting devices, and offshore services.[13] During the 1990s the profile of new companies shifted from a focus on electrical assembly to electronics. The product mix for medical devices is complex and sophisticated, including products in the areas of optics, dental, cardiovascular, and breast implants. Over time, many firms operating in the medical device cluster have vertically integrated, received raw materials, and performed different activities in the value chain (sustaining engineering, process development) (figure 4.13). In the case of

FIGURE 4.11 Costa Rica Has Been Very Successful in Attracting Foreign Direct Investment



Source: Calculations based on data from BCCR.

BOX 4.1 Intel and Development of the High-Tech Sector in Costa Rica

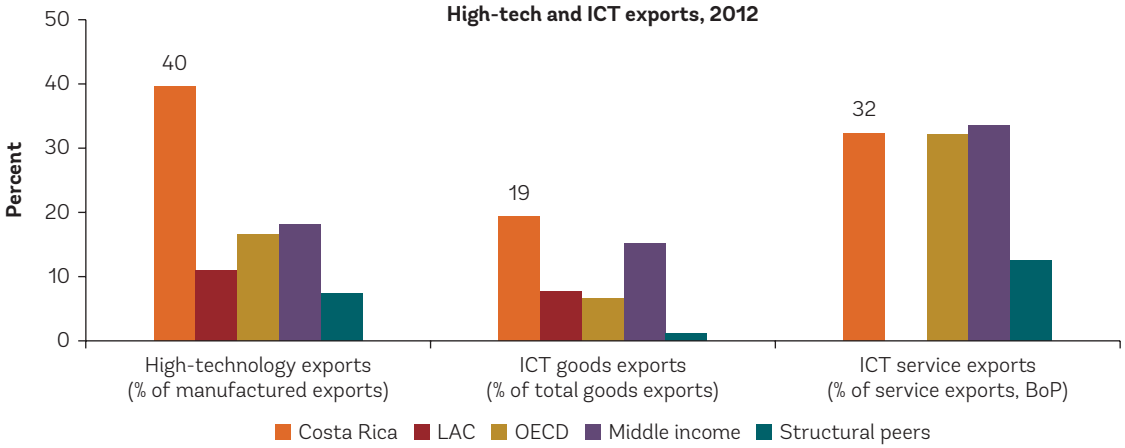
In 1996, Intel, the world's largest computer chip maker, announced plans for the establishment of its US$300 million semiconductor assembly and test plant in Costa Rica. The country's economic and political stability, its proximity to the United States, and its pro-business environment were all important. Some bottlenecks in Costa Rica's investment climate raised some concerns, however, such as inadequate supply of skilled labor, infrastructure and logistics (airport upgrades), tax incentives, and improvements in permits and construction processes.[a] The country's tertiary educational system was strengthened with the introduction of a series of programs to increase both the number of graduates with engineering and technical degrees and the proficiency of the graduates.[b] The stock of graduates from engineering programs in Costa Rica reportedly increased by almost 40 percent between 2002 and 2011.[c] CINDE also worked with existing investors to "back link" potential suppliers—both local, through the Costa Rica PROVEE program, and foreign—of products and services that transcended sectors, identifying commonalities between medical devices and electronics in their procurement of clean room services, plastics, and metal mechanics.[d]

Intel contributed to the development of the high-tech sector through three channels: (i) it had a direct impact on employment, investment, trade, output, and the development of the technology cluster; (ii) it served as a catalyst for repositioning Costa Rica as an attractive investment location, through its impact on the country's technical education, incentives laws and regulations, and infrastructure;[e] and (iii) it increased the confidence of foreign investors through the demonstration effect. Intel's decision to invest in Costa Rica gave a "signaling effect" that helped solidify the country's emergence as an attractive destination for FDI in high-tech manufacturing. Companies that followed Intel in establishing manufacturing and global service operations in Costa Rica included Abbott Laboratories (now Hospira), Procter & Gamble (P&G), and Hewlett Packard.

In April 2014, Intel announced its decision to close its Costa Rican microchip assembly factory and move its assembly operations to China, Malaysia, and Vietnam. While all microchip assembly operations will move to Asia, Intel will keep its engineering and design departments and its global service center in Costa Rica, a move that showcases Costa Rica's competitiveness in high value-added segments. It is unclear what the repercussions will be of Intel's decision to leave because Costa Rica's high-tech exports have become increasingly diversified. As it has in the past, Costa Rica will need to strategically position itself and capitalize on its strengths to continue to attract FDI and increase job creation.

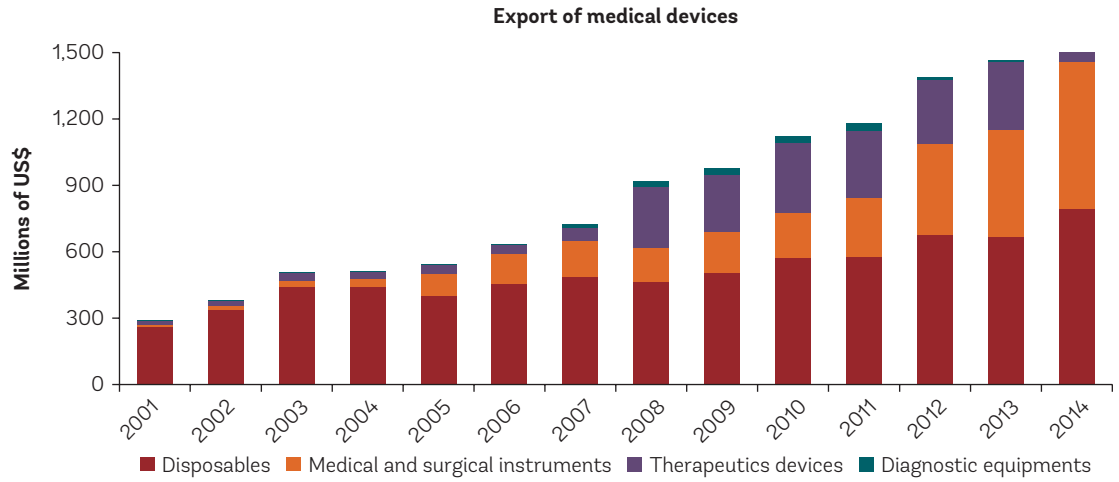
a. MIGA (2006).
b. Lederman et al. (2014).
c. Lederman et al. (2014) with data from UNESCO).
d. MIGA (2006).
e. MIGA (2006).

FIGURE 4.12 Costa Rica is a High-Tech Hotspot



Source: World Development Indicators

FIGURE 4.13 Exports of Medical Devices Have Grown and Diversified



Source: CINDE (2015).

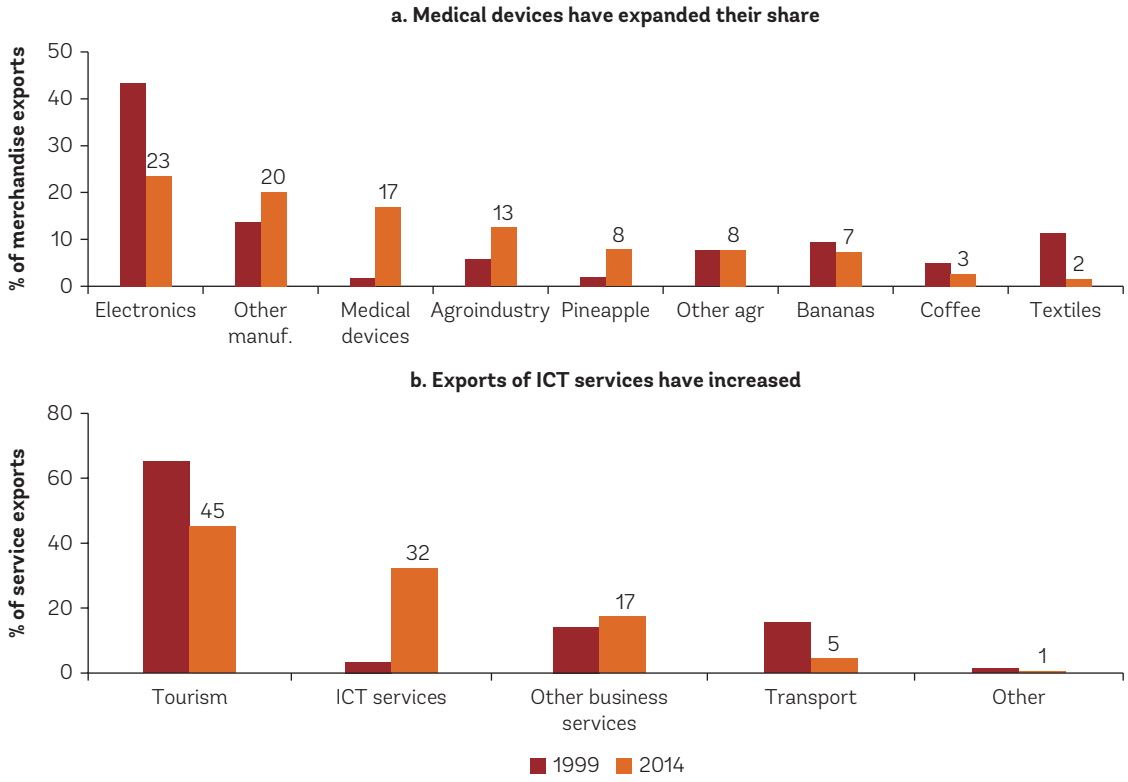
aeronautics, firms are focusing on higher-value service activities—such as software and design and engineering—and their product mix has upgraded as well.[14]

Not only have exports tilted towards higher value-added sectors but they have also become more diversified, minimizing exposure to weather or other shocks. With its integration into the global value chain of medical devices, the country has been able to survive the phasing out of Intel's manufacturing plant. Exports of medical devices have grown at an average annual rate of 12 percent in the last decade (from US$0.55

billion in 2004 to US$1.9 billion in 2014), while electronics grew at four percent per year on average. The product mix in the medical device cluster is complex and sophisticated, including products in the areas of optics, dental, cardiovascular, and breast implants. With its increasingly diversified agricultural portfolio (bananas, pineapples, coffee, and agroindustry), agricultural exports have been shielded from wide swings due to weather and diseases (figure 4.14a). Business services (mainly ICT related) account for almost half of all service exports. Leading activities in this sector also include design and engineering, professional services, shared service centers (for example, back-office services for one company, including accounting, finance, procurement, and human resources), business process outsourcing (to a lesser extent), architecture, and digital animation (figure 4.14b).

However, backward linkages from multinational corporations (MNCs) to local companies remain weak. On average, local suppliers provide only 24 percent of inputs to MNCs in Costa Rica.[15] Other studies cite that this percentage is even lower, at one percent of MNCs' inputs. Less than 20 percent of inputs sourced locally were incorporated in MNCs' exports, indicating

FIGURE 4.14 Merchandise and Service Exports Are Well Diversified Into High Value-Added Areas



Source: Calculations based on data from Procomer and BCCR.

that the inputs are likely of low value and not central to the value chain.[16] Locally sourced products are largely low valued-added products and services such as packaging, printing materials, and services (for instance, cleaning and security).[17] However, there is tangible demand for increased local sourcing by MNCs. Of the MNCs interviewed by the World Bank in 2014, 93 percent declared an interest in local procurement, and 40 percent claimed to have a supplier development program already in place. Local firms face difficulties in complying with MNCs' requirements, such as quality standards, delivery times, or upgrading of technical capabilities. Moreover, local small and medium enterprises may be deterred from seeking business with MNCs due to the uncertainty around the process of upgrading their operations.[18] The government's programs to support backward linkages have had some tangible results, although these are quite small. The programs have insufficient scale and scope to significantly influence the development of productive linkages between domestic SMEs and MNCs.[19]

Although backward linkages may be small, the presence of MNCs has had positive spillovers through knowledge transfers. One venue for these knowledge spillovers is through labor movement from MNCs to local companies. A recent study for Costa Rica finds a positive spillover generated by the movement of workers from MNCs to local firms. Former workers of MNCs create new firms with lower mortality rates or boost firm performance for their new local employer.[20] By inducing skill upgrades and changes in education programs, the presence of MNCs have also benefit local firms (box 4.1).

Capitalizing on protected areas

Costa Rica has successfully capitalized on its environmental policies and Green Trademark, by embracing and developing a sustainable tourism industry.[21] In 2013, close to 2.5 million tourists visited the country. This implies that the number of visitors per capita (at around 0.5) is above popular destinations in the Caribbean basin such as Mexico (0.2) or the Dominican Republic (0.38). While sun-and-beach tourism clearly is part of Costa Rica's attractions, eco-tourism (an area where it has been a pioneer) is also very popular, with many travelers visiting the national parks and protected areas. Moreover, the country ranked sixth in the region and 47th overall according to the 2013 Travel and Tourism Competitive Index compiled annually by the World Economic Forum to measure the factors that make a destination attractive for the travel and tourism industry. Costa Rica's large and mature ecotourism industry has earned it a reputation as a top ecotourism destination in the world. The tourism industry is one of Costa Rica's main sources of foreign exchange (14.2 percent of total exports in 2013); its direct share in GDP was 4.6 percent in 2013 (the indirect share was 12.1 percent), and it contributed directly 4.6 percent of total employment (indirectly, it contributed 11.5 percent).[22] The tourism sector comprises a diverse set of operators (hotels, airlines, transportation companies, restaurants, etc.) that work together. Costa Rica's main attributes for tourists are its beautiful national parks, pleasant climate, and social and economic achievements.[23] Although its infrastructure has deficiencies, it has been able to sustain the accelerated growth of the industry since the 1980s. Currently, a

sector-wide traveler tax is used for international promotion of the Costa Rican "brand," which prevents free riding and ensures that marketing for the country is well funded.

The tourism sector is well organized, with a strong public-private collaboration where incentives are aligned. The sector is organized around two umbrella organizations: the Costa Rican Chamber of Hotels (CCH), a very influential organization regrouping the largest hotel chains (and several smaller hotels), and the National Chamber of Tourism (CANATUR), where tourism-related businesses are represented (travel agencies, hotels, restaurants, etc.). The Costa Rican Institute for Tourism (CR-ICT) is the autonomous public institution in charge of setting tourism policy. The board of directors of the CR-ICT has a good balance of political appointees and representatives of the industry, and the CEO of CR-ICT often comes from the tourism private sector. Over time CR-ICT has adopted the role of promoter of private sector development, coordinator of sectoral dialogue, and administrator of tourism development incentives.[24] Key elements in the successful relationship between these three bodies are their strong complementarity, the consultative approach to developing policy (there is a continuous dialogue between the private and public sector), and the alignment of incentives (to maintain the Green Trademark).

Competitiveness Challenges

Increasing production costs weaken Costa Rica's competitiveness. For many years, the attraction of strategic foreign investment relied on the country's unique combination of location close to large markets, educated labor force, and political stability.[25] According to the latest Global Competitiveness report, the country scored well for health and primary education, higher education and training, technology readiness, and innovation potential, and this contributed to Costa Rica's being ranked as the third most competitive economy in Latin America, behind Panama and Chile. However, other countries in the region and beyond have caught up in terms of stability and education of their labor force. In contrast, Costa Rica's education system has not adapted to provide the skills needed for the changing economy. Private firms perceived that rising costs are affecting their operations (41 percent), with ones in the agricultural (62 percent) and manufacturing (50 percent) being the most affected.[26] The cited factors for rising production costs are electricity (24 percent), fuel prices (17 percent), and salaries (13 percent).

Competitiveness pressures are not new: private firms have reported these investment climate obstacles for many years. The World Economic Forum, which carries out yearly surveys to construct its index of global competitiveness, has asked business executives to identify the most problematic factors for doing business. For Costa Rica in 2014, the top five areas were inefficient government bureaucracy (27 percent), inadequate supply of infrastructure (24 percent), access to financing (11 percent), corruption (eight percent), and restrictive labor regulations (eight percent). These areas are very similar to the ones identified seven years ago.[27] The World Bank Enterprise Surveys (WBES) also provides data on the perception of the private sector on growth. In 2010, the latest survey, the top five problem areas were access to finance

(26 percent), practices of informal sector (23 percent), inadequately educated workforce (13 percent), business licenses and permits (nine percent), and labor regulations (five percent).

These investment climate constraints do have a harmful effect on firms' productivity. Using objective indicators of investment climate constraints, Fajnzylber et al. (2009) find that improvements in regulatory compliance would have the most beneficial impact on the productivity of Costa Rican firms.[28] With an expected contribution ranging from 61 to 72 percent depending on the benchmark selected, the regu latory compliance captures the effect of regulation and institutional quality and is proxied by sales declared for tax purposes and external audits. Governance indicators, proxied by bribes, crime losses, and security costs, rank second, contributing between 19 to 22 percent of the productivity increase. Infrastructure quality, which is proxied in this analysis by firms' losses caused by electricity outages, explains between one and 10 percent of the productivity increase.

Moreover, these constraints affect overall growth rates. Cross-country growth regressions have been used to identify statistically and economically significant determinants of growth rates. While these regressions are not without their limitations,[29] they provide useful information on counterfactual estimates on the potential impact on growth due to improvement of different investment climate areas. Two recent studies are of interest to benchmark Costa Rica's economic growth: (i) Araujo et al (2014) studies economic growth in Latin American and the Caribbean for 1970–2010, updating the work of Loayza, Fajnzylber, & Calderón (2005); and (ii) Swiston and Barrot (2011) examine the role of structural reforms in raising economic growth in Central America for 1960–2009.[30] Benchmarking Costa Rica against top performers in LAC, Araujo et al. (2014) found the largest effects on per capita GDP growth from lowering inflation, increasing financial depth, increasing trade openness, improving infrastructure, and improving the education level of the workforce.[31] When Costa Rica is benchmarked against OECD countries, the largest effects on growth will come from a better road infrastructure, greater financial depth, lowering inflation, improving the education level of the workforce, and increasing trade openness. The magnitude of the estimated effects suggests that per capita GDP growth could have been two to 14 percent higher, providing an indication of forgone growth and its potential impact on poverty reduction. Swiston and Barrot (2011) conclude that structural reforms in the financial sector (particularly improvement in bank supervision and development of domestic security markets) and in product markets (agriculture liberalization, flexibility in electricity [independent regulator and wholesale market], and telecommunications with private participation) could raise growth by about two percentage points. In fact, Costa Rica has already undertaken a major reform in telecommunications, which has contributed positively to economic activity.

Furthermore, competitiveness challenges could affect Costa Rica's strong track record for attracting FDI. The exit of Intel from its manufacturing operations, foreign investors' growing shift towards service functions, and increasing competition from other countries for FDI mean that Costa Rica cannot lag behind in its capacity to upgrade the areas that are important to continue to attract FDI and maximize their spillover into the local economy. A study of five global value chains

highlights areas that could strengthen their growth, such as increasing the supply of skilled labor.

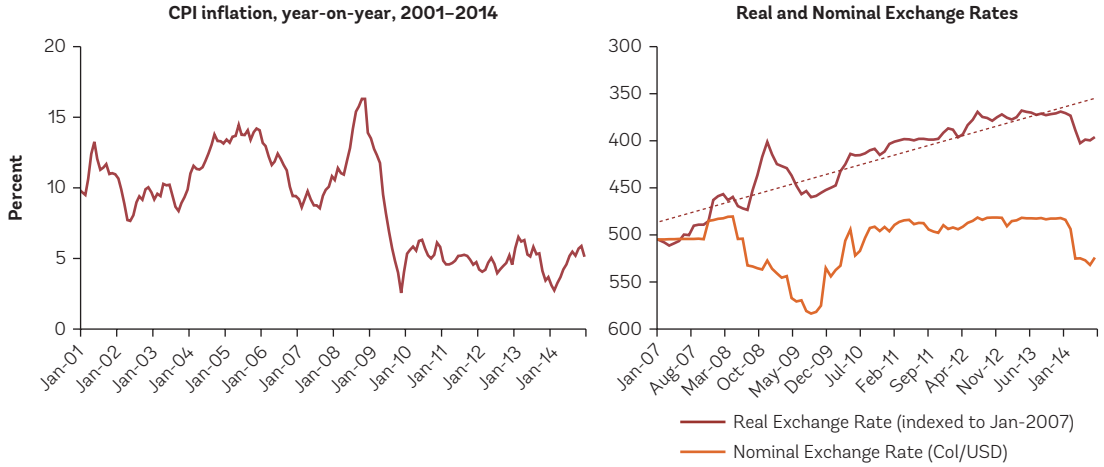
The consequences of these competitiveness challenges have become more evident after the global crisis. These challenges are the result of several forces: monetary and exchange rate policies that have resulted in an appreciation of the exchange rate, an education system that is not generating enough graduates demanded by the high-technology sectors, inadequate supply and quality of infrastructure, and public sector administration that has not evolved quickly enough to respond to the change of the economy. Addressing them will be important to preserve Costa Rica's competitive edge.

Exchange rate appreciation

Although inflation has dropped to single digits since the global crisis, the real effective exchange rate has appreciated, negatively affecting Costa Rica's international competitiveness (figure 4.15).[32] Domestic inflation persistently above that of the United States (its major trading partner) and large capital inflows put appreciating pressure on the exchange rate. The real effective exchange rate (REER) index appreciated by 12.3 percent in 2011–13, negatively affecting Costa Rica's international competitiveness. During that period, the Central Bank of Costa Rica (BCCR) actively intervened in the foreign exchange market, buying foreign currency to keep the exchange rate above the lower end of the target range. As a result, net international reserves rose from US$4.8 billion at end-2011 to US$7.3 billion at end-2013. The BCCR sterilized the resulting monetary expansion with domestic bonds, which pay a substantially higher interest than the returns it gets on international reserves. Consequently, in 2013, the BCCR quasi-fiscal deficit rose to 0.9 percent of GDP, and its debt stood at about 10 percent of GDP.

Greater exchange rate flexibility could have several advantages for the country. In early 2015, the BCCR abandoned the

FIGURE 4.15 Inflation Has Dropped to Single Digit and Real Exchange Rate Has Appreciated



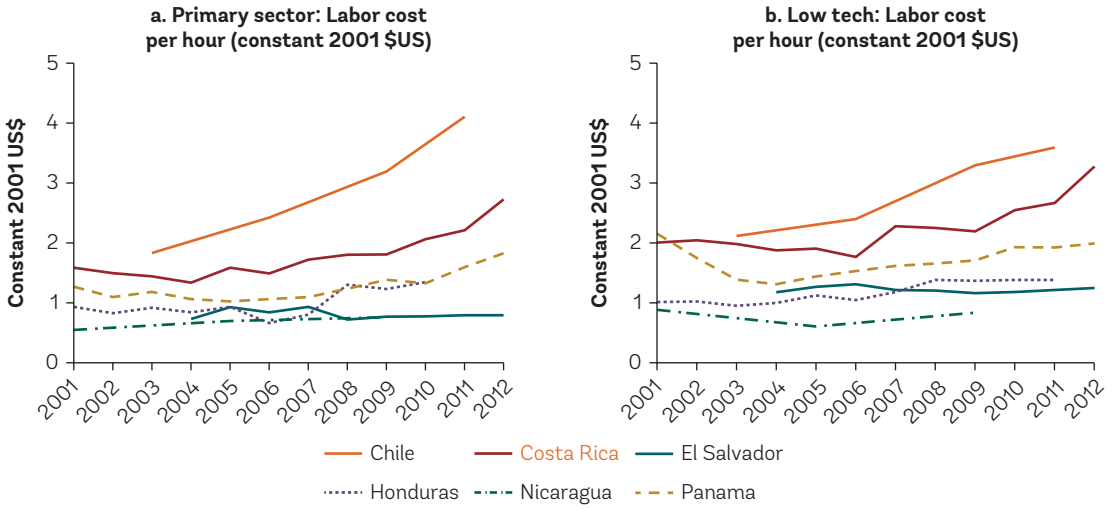
Source: Calculations based on data from BCCR

exchange rate band, allowing more flexibility to the exchange rate, as part of its transition to inflation targeting. Allowing pressures on the external position to be absorbed by the exchange rate would facilitate facing external shocks and could help prevent a sudden drop in reserves. Changes in world prices would be transmitted more directly to the local economy, thereby aligning incentives to changing international conditions. Further, as both creditors and debtors perceive higher risk regarding the direction and magnitude of exchange rate fluctuations, the new exchange rate regime could lead to a gradual de-dollarization of the economy.[33]

High wages and mismatch of skills and jobs

Relatively high wages have made Costa Rica less viable in low value-added sectors. High income levels, coupled with generous social benefits, have resulted in high reservation wages across the board. Figure 4.16 plots hourly wages (in constant 2001 US Dollars) between 2000 and 2012 in two sectors that traditionally employ low-skilled workers: agriculture (primary sector) and low-tech industry (light manufacturing) for Central American countries and Chile (one of Costa Rica's structural peers). Except for Chile, Costa Rica displayed the highest wages in these sectors over the period 2000–2012.[34] After 2006, the gap in real wages between Costa Rican workers and the others started to widen, but it did even more so after 2010, partly attributed to the appreciation of the real effective exchange rate. Textile exports have dropped dramatically from 13.3 percent of exports in 2000 to 1.6 percent in 2014, mainly attributed to high production costs in Cost Rica in relation to neighboring countries.

FIGURE 4.16 Labor Costs Are High in Low-Skill Sectors, Compared to Central American Neighbors

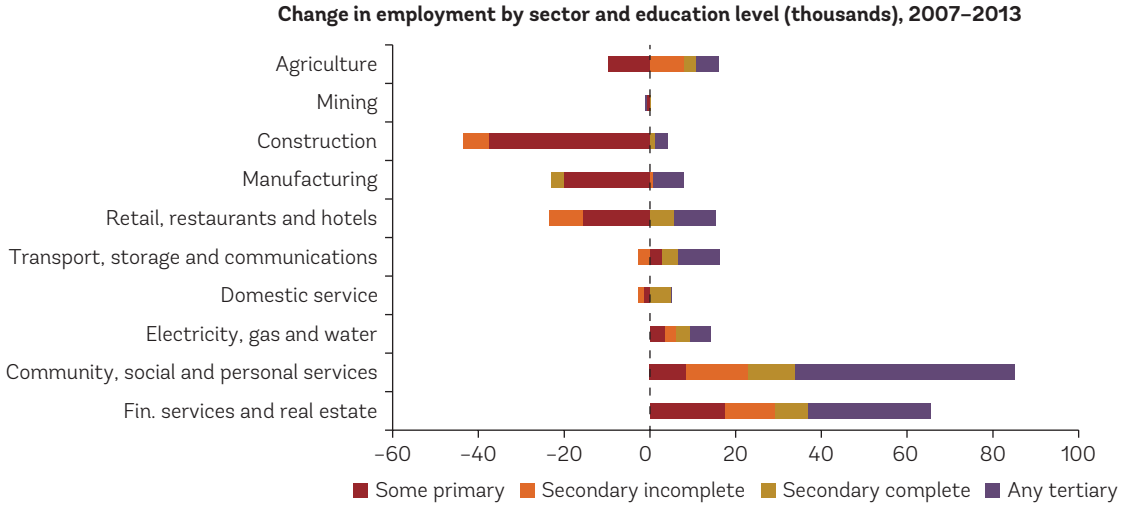


Source: Calculations based on harmonized household survey data from SEDLAC.

Changing patterns in FDI and trade have created excess demand for high skills, putting upward pressure on the salaries of high-skilled workers.[35] Most of the reduction in jobs comes from sectors that tend to employ low-skilled workers (figure 3.2), such as agriculture and construction. It is precisely in these sectors where job creation has been minimal or even negative in the last six years (figure 4.17). At the other end of the spectrum, sectors that employ mostly skilled workers, such as financial services, real estate, personal services, and others, are growing fast (though from a low base in the case of sectors such as utilities or financial services).

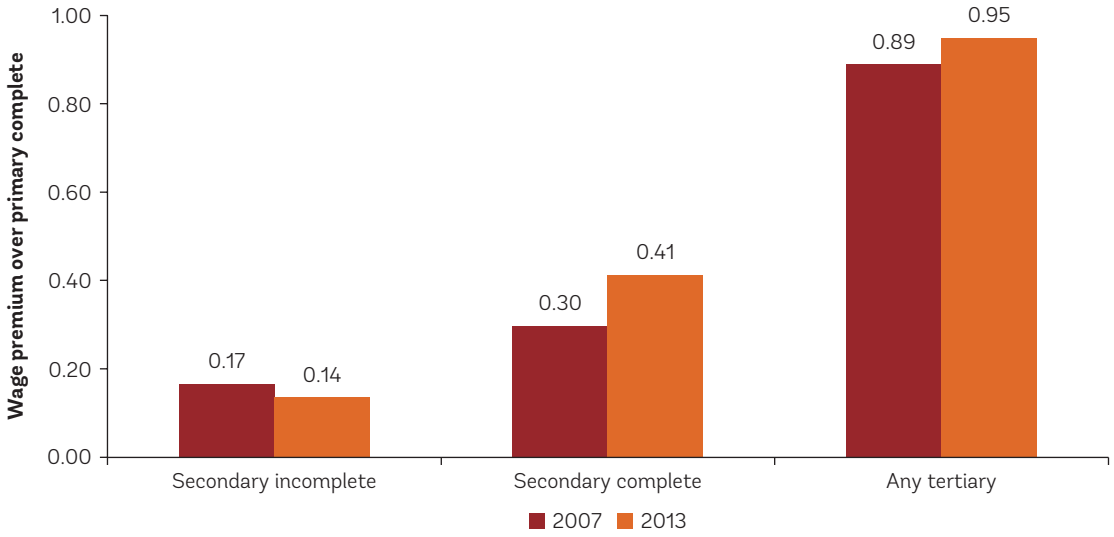
As such, returns to education have increased along with inequality in Costa Rica in the 2000s, in contrast to trends in most other LAC countries. In much of the region, the returns to higher levels of education began to fall in the 1990s—and continued during the 2000s—as more students achieved higher levels of education. This decline in the returns to education contributed in part to the historic fall in inequality in many LAC countries over the past 15 years.[36] Costa Rica's path has been different from the rest of the region, for trends both in inequality and in the returns to education. Specifically, in Costa Rica, the returns to education fell during the 1980s (over a decade before similar patterns emerged in the region), thus contributing to a reduction in inequality during that period.[37] However, contrary to LAC, the returns to education remained roughly constant during the 1990s and early 2000s in Costa Rica, and they started to rise again after 2007. Thus, the premium for having completed secondary education rose by 11 percentage points between 2007 and 2013 and by six percentage points for those with any tertiary education (figure 4.18). This is consistent with a pattern of skill-biased technological change, which generates relatively more skilled occupations, a phenomenon also documented in a study of

FIGURE 4.17 Most of the Jobs Lost Are Mostly Unskilled Labor



Source: Authors' elaboration based on EHPM and ENAHO.

FIGURE 4.18 Returns to Education Reflect Growing Demand for Skilled Labor

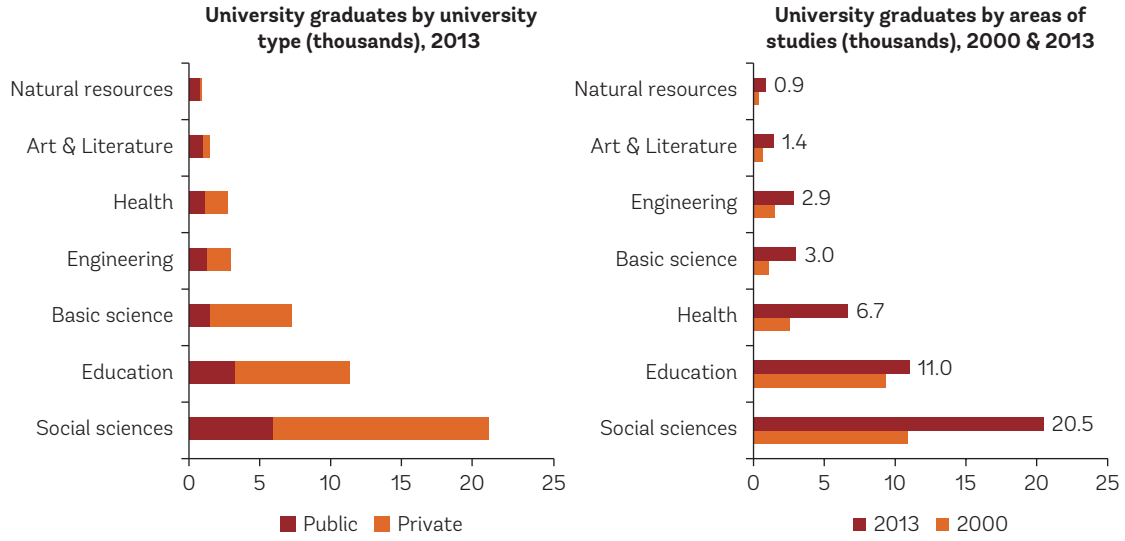


Source: Elaboration based on EHPM and ENAHO.

the evolution of occupations over the last two decades, and which shows that Costa Rica has followed a pattern of changes in occupations similar to high-income countries.[38]

And yet, the workforce is not well adapted to the current needs of the labor market, creating a deficit of workers with the skills demanded by the fastest growing sectors. Indeed, less than half of the cohort 25–29 years old (42.3 percent) had achieved a secondary or higher education by 2010, which is worrisome for a country that aims for a structural shift into "new economy" sectors. In turn, the higher education system is biased towards social sciences and does not sufficiently generate graduates with the skills demanded, such as basic science and engineering (figure 4.19).[39] In other words, students still prefer to study careers that had growing demand during the 1980s and 1990s, rather than those that have high demand (and growing wages) today.[40] The technology sectors, in particular, are affected by the relatively small skilled labor force. For example, a study of skills needs in network technology estimates that the gap between demand and supply of skilled labor in Costa Rica in 2011 was 36 percent, and for 2015 this gap was projected to expand to 48 percent; the worst among the eight Latin American countries included in the study.[41] Another study by the Costa Rican Chamber of Technology of Information and Communications (*Cámara de Tecnologías de Información y Comunicaciones*) showed that, in 2008, the country had lost an estimated US$72 million, as a consequence of the lack of technicians and professionals in this area. The technology sector is not the only one affected by this trend: CANATUR (Costa Rican Chamber of Tourism), called attention to a

FIGURE 4.19 The Higher Education System Produces Mostly Social Science Graduates



Source: CONARE.

shortage of human capital in the tourism industry.

Moreover, regulatory procedures do not facilitate the recognition of foreign degrees, which could help to fill the skills gaps. The norms that govern the recognition of qualifications, particularly the Regulations Governing Article 30 of the Agreement for Higher Education Coordination of State Universities, were defined in 1986 and have not been updated. Institutional arrangements are also fragmented: academic qualifications and university degrees are evaluated by the various higher education institutions that form CONARE (*Consejo Nacional de Rectores*, National Council of Rectors), while those granted by other kinds of higher education institutions (para-university institutions) are evaluated by the Council for Higher Education. Although CONARE has defined common criteria for the documents needed for recognition, requirements for obtaining recognition and equivalency may vary depending on the institution carrying out the evaluation. There is no unified procedure for presenting appeals against adverse decisions.

The difficulties created by this fragmented and outdated system can result in denial of work authorizations for otherwise qualified workers with foreign degrees. Thus, Costa Rica has obstacles to either "produce" or "import" the high skills needed to sustain its high value-added growth model. Regulations and procedures should be updated and unified, in line with international criteria; and measures should be taken to facilitate accreditation, adoption of a list of institutions with established quality, and efficient processing of "similar cases" whereby applicants have similar titles, degrees, and qualifications as previous candidates.

Infrastructure: telecommunications, transport, and electricity

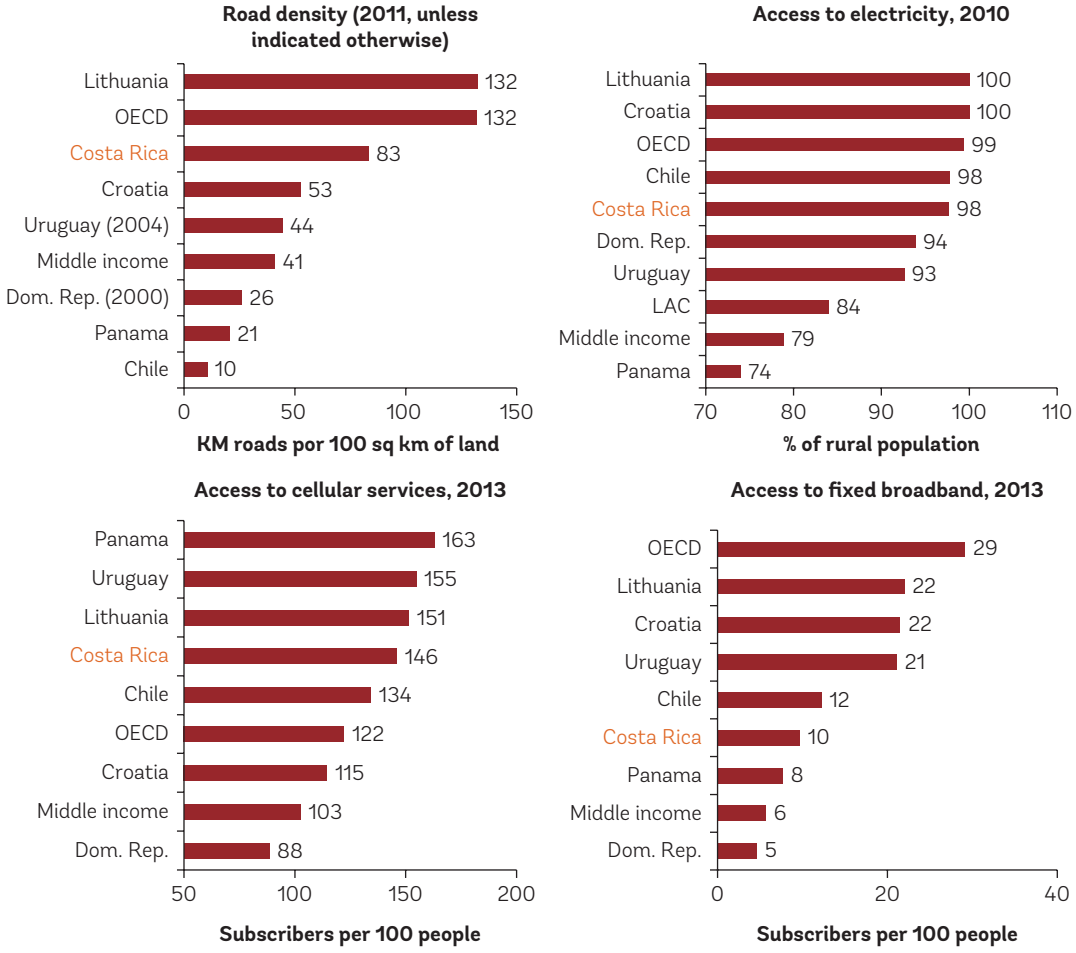
Infrastructure coverage and access are relatively good. Over several decades of investment, the country built an extensive network of highway and feeder roads, electric power grids, and telecommunication system in the context of the "Social Compact" that also put an emphasis on providing universal access to infrastructure services that would improve the wellbeing of the population.[42] Costa Rica has two times the road and three times the rail density of the average middle-income country and is behind only Lithuania and the OECD on these indicators (figure 4.20). Access to electricity in rural areas and mobile services is nearly universal. The liberalization of the telecommunication sector allowed for fast growth in access to mobile and broadband services.[43] The vast coverage of infrastructure has historically supported Costa Rica's trade and growth and standards of living.

The overall quality of infrastructure is low compared to structural peers. Figure 4.21a shows the World Economic Forum Index on the overall quality of infrastructure, showing that Costa Rica has the worst ranking. This low ranking is mainly attributed to the poor quality of ports, roads, and railways (figure 4.21b).

Telecommunications. Despite progress in the coverage of telecommunication services, areas outside the Free Trade Zones (FTZs) and in protected areas have lower access, creating regional disparities in competitiveness for local firms. Between 2008 and 2012, the percentage of households with a cellphone increased from 69 percent to 97 percent.[44] During the same period, the percentage of households with Internet access increased from 15 percent to 47 percent; however, it is still highly concentrated in the Central region, with much lower access in areas with higher poverty rates or with indigenous populations (top row of figure 4.22). Interestingly, cantons that have Free Trade Zones (FTZs) have on average better cellphone and Internet penetration (bottom row of figure 4.22) than cantons with no FTZ. Internet access in cantons with FTZs is 15 percentage points higher than in cantons without them (42 percent versus 27 percent, respectively). Similarly, cell phone use is five percentage points higher in cantons with FTZs (ICT and quality broadband are required in the high-tech sectors which predominate in the FTZs).[45] At the other extreme, cantons with Protected Areas, which attract tourists, have lower access than the rest.

Transport. Despite good access, the quality of transport services is deficient. On the two most widely used international rankings of transport service provision—the World Economic Forum's Global Competitiveness Index and the World Bank's Logistics Performance Index (LPI)—Costa Rica barely reaches the middle point among the 160–170 countries ranked, scoring below peer middle-income countries and well below the average OECD country. Costa Rica ranked 87th out of 160 countries on the 2014 LPI, with a score of 2.7 (figure 4.24). Costa Rica's score is comparable to the middle-income average but well below the OECD average of 3.7. The country's mediocre ranking can be traced to poor performance in customs and border clearance,[46] but also to poor quality of transport infrastructure, particularly in infrastructure that concerns port services. Costa Rica's score and

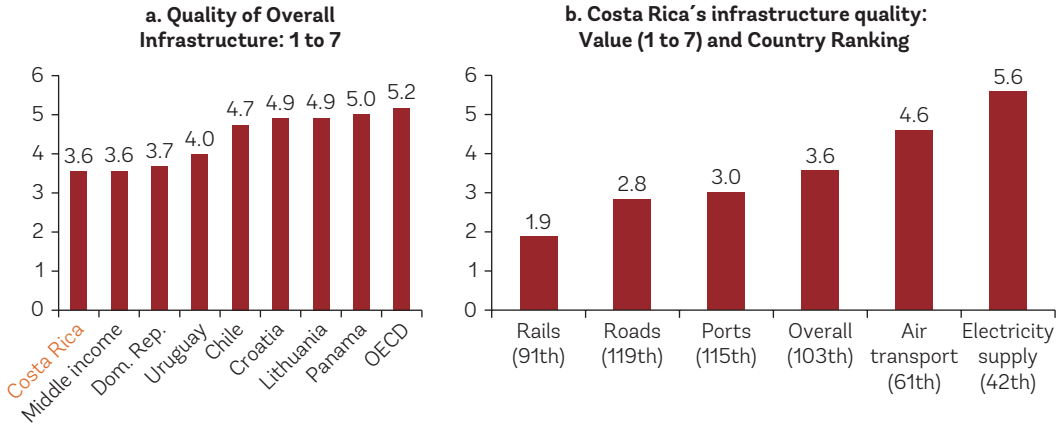
FIGURE 4.20 Infrastructure Access and Coverage Is Good in Costa Rica



Source: Road density was calculated with data from the International Road Federation and Food and Agricultural Organization. Access to mobile and broadband: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates for mobile cellular subscriptions and fixed broadband subscribers per 100 people. Access to electricity: World Bank Development Indicators

rank on the quality of its port infrastructure is the lowest among middle-income peers, scoring a 3.0 on port quality and ranking 115th out of 160 countries (figure 4.21b). A bit more promising is the air transport quality in which Costa Rica scores 4.6 and ranks 61st (out of 160). The results for transport quality are similarly poor on the WEF's competitiveness index. Costa Rica scores about 40 percent of the maximum score of seven points on the index's user assessment of road and port quality (with scores of 2.8 and 3.0, respectively). This score puts the country behind the performance of similar middle-income countries (which average 3.5 to 3.7) and very far from the infrastructure services delivered in the average OECD country (5.2 to 5.3). In contrast to other countries, Costa Rica has not made progress in its connectivity with global shipping networks.

FIGURE 4.21 Quality of Infrastructure Is Low, Compared to Structural Peers



Source: World Economic Forum (2014).

Weak road and port infrastructure cause major losses and delays in land and sea transport.[47] An extreme example of poor road quality comes from rural routes serving the pineapple industry. On the trip from farm to distribution center, product losses can be 50 percent larger than for the much longer trip from Costa Rica to Rotterdam.[48] Costa Rica also performs at the bottom of the middle-income group in quality of its port infrastructure, with a score of 3.0, and ranking 115th out of 160. A salient illustration is the Port of Limón. Responsible for most of Costa Rica's maritime traffic, the port has very low productivity and long delays: the median time between a ship's port arrival and its dock arrival is more than 15 hours, compared to a normally acceptable range of five hours.[49]

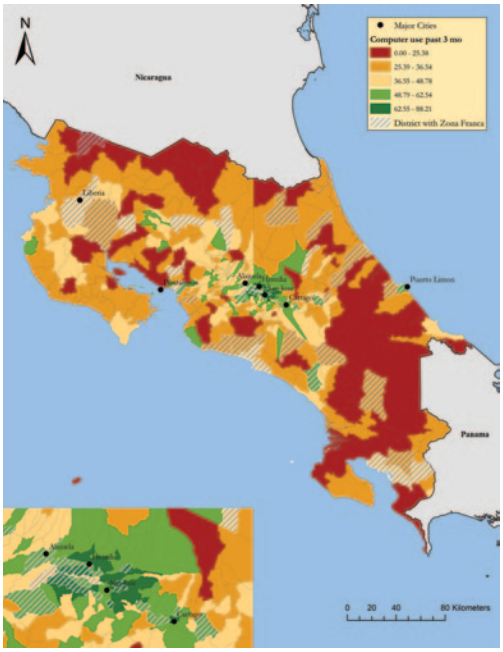
Not surprisingly, firms in FTZs tend to rely more intensively on air transport—which is more efficient than ports in Costa Rica. In value terms, about two-thirds of FTZs' exports are shipped via air transport, which is a more expensive but faster transport mode. Air transport becomes attractive and cost-effective as a modal alternative when goods are highly perishable or, more important, when value added is over a certain threshold. And although ports in Costa Rica have the worst rating in the region, the air transport market appears to be competitive for LAC standards.[50] In fact, air transport quality in Costa Rica scores 4.6 and ranks 61st out of 160 in the LPI (figure 4.21b).

ELECTRICITY. Electricity tariffs have increased significantly in recent years, affecting production costs. Between 2007 and 2013, the real industrial electric tariff increased from eight to 20 US cents per kWh (figure 4.25). Industrial and commercial electricity tariffs are competitive relative to the rest of Central America but high relative to other competitors with larger markets, such as China, Mexico, and the United States.

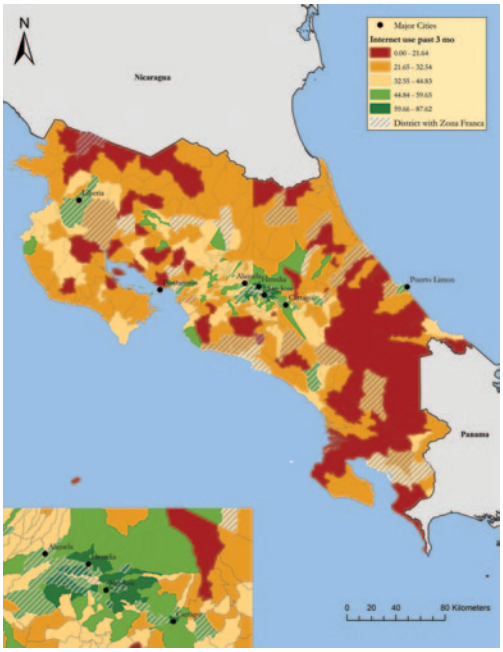
The rise in electricity tariffs originates from a combination of factors due to the energy mix and governance issues of the sector.

FIGURE 4.22 Access to ICT Is Unequal Across Regions and by Type of Activity (percent of households)

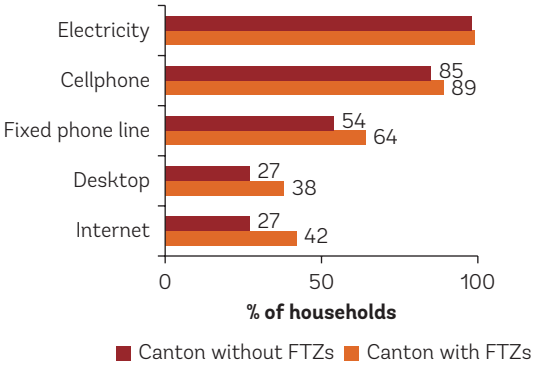
a. Households that have used a computer in the last 3 months (percent)



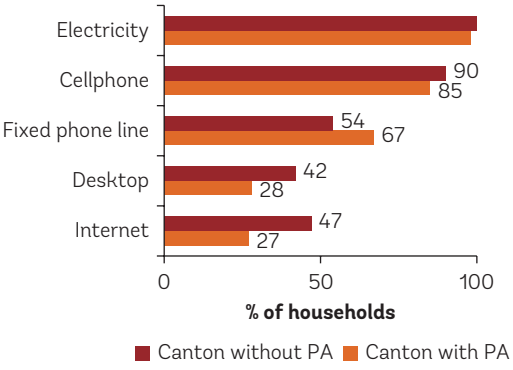
b. Households that have used the Internet in the last 3 months (percent)



c. Cantons with and without FTZs: Access to infrastructure services



d. Cantons with and without Protected Areas (PA): Access to infrastructure services



Source: Calculations based on the 2011 Population Census

First, due to its high reliance on hydropower generation, the power sector is particularly vulnerable to rainfall variability. Hydropower output has been increasingly variable over the past decade due to successive dry years, and the country has struggled to meet demand with renewable energy sources.[51] Between 2000 and 2013, the share of thermal generation increased from one percent to 12 percent, raising the short-run marginal cost

FIGURE 4.23 Connectivity to Global Shipping Networks Is Low

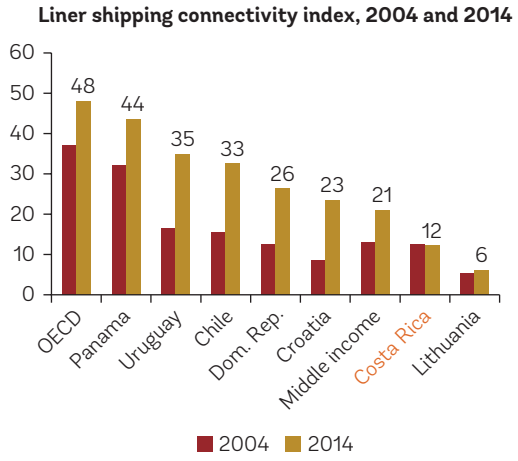
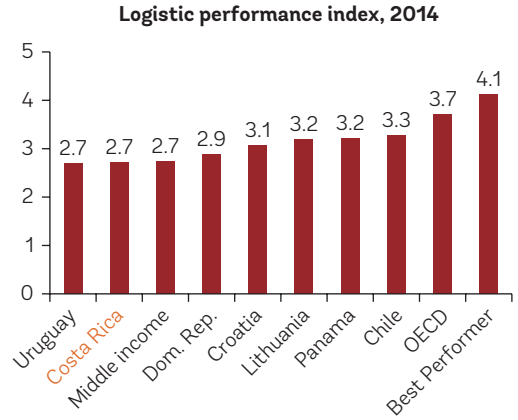


FIGURE 4.24 Logistics Environment Is Weak

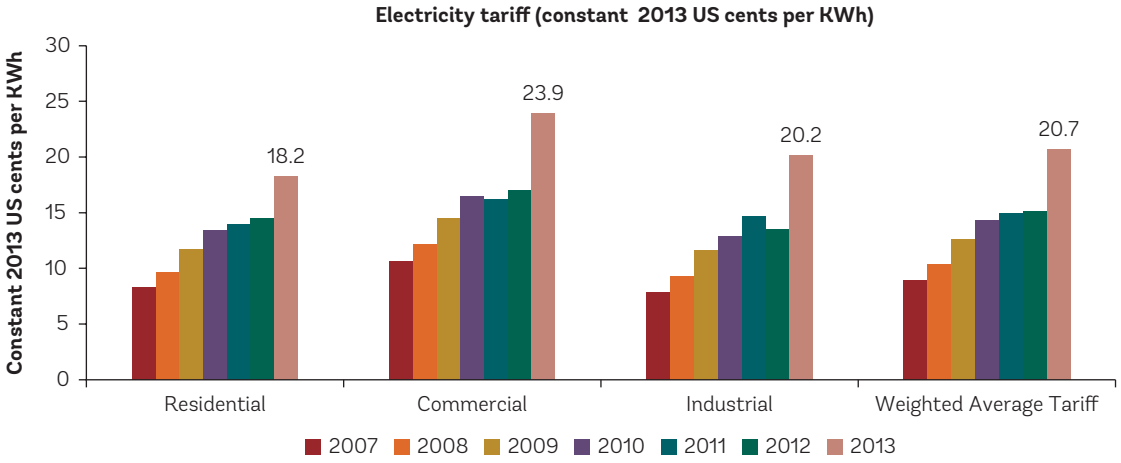


Source: World Development Indicators

of generation due to high fuel cost. Thus, the transition path toward a carbon neutral economy has been a major challenge: in the last two years, existing thermal generation capacity has been dispatched during the entire year. The cost of thermal generation is influenced by oil prices and by expensive thermal generation leasing agreements. Fuel expenditures are now reflected in the tariff.[52] *Second*, although technical losses in transmission and distributions are low (10 percent) compared to other countries, ICE's operating performance could be improved (figure 4.26). With 197 customers per employee, ICE (*Instituto Costarricense de Electricidad*, Costa Rican Electricity Institute) is the worst performer among regional peers (Colombia, the Dominican Republic, Honduras, Panama, and Uruguay). Although there is not data available on the level of salaries and benefits provided to ICE's employees, using data from the ENAHO the average central government to private sector wage premium was estimated at 23 percent in 2012—and this premium was 49 percent for other public sector entities (for example, state-owned enterprises).[53] *Third*, high depreciation costs—due to an accelerated depreciation schedule—have also increased operational costs that result in higher electricity tariffs. For example, depreciation accounted for 17 percent of generation cost in 2013.[54] *Finally*, ICE expanded its generation capacity through expensive leasing arrangements that have led to higher operational costs and electricity tariffs. Although these arrangements allowed ICE to finance its generation expansion, they have carried higher interest costs and shorter maturity than other financing alternatives. These leasing arrangements (*alquileres*) accounted for 15.4 percent of operating costs in 2010–12 and will increase to 19 percent in 2013–2015.[55]

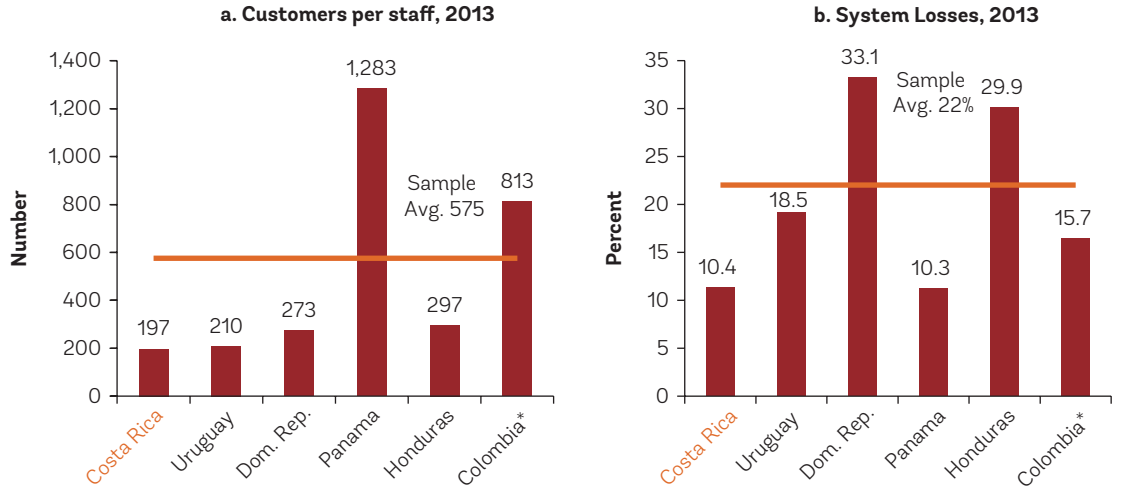
Indicators of service quality, such as waiting periods for new connections and frequency and duration of outages, are below those of its structural peers. This is particularly troublesome because of Costa Rica's interest in developing high-tech industries for which highly reliable electricity is essential. According to the World Bank Enterprise

FIGURE 4.25 Electricity Tariffs Have Increased Consistently Since 2007 in Costa Rica



Source: Calculations based on data from CEPAL (2014b).

FIGURE 4.26 Benchmarking ICE's Performance



Source: Authors' calculations. Grupo ICE (Costa Rica), UTE (Uruguay), CDEEE (Dominican Republic), EDEMET (Panama), ENEE (Honduras) and Colombia (EPM Energy Colombia). The data for Colombia is for 2011.

Surveys, private companies in Costa Rica reported an average waiting period of 39 days for a new electricity connection, which is the highest in Central America and 17 days higher than the regional average. Although in terms of frequency of outages Costa Rican firms experience 1.3 outages in a typical month, this is higher than OECD countries (0.4), Panama (0.6), or Uruguay (0.2). A similar pattern is observed for the duration

of outages. To address quality problems, ICE offers agreements to businesses in which the quantity and quality of electricity supply are clearly indicated, and those businesses can finance ICE's investments in exchange for lower tariffs.[56]

Sector governance is weak, resulting in bottlenecks that affect the overall operational and economic efficiency of the sector. The roles and responsibilities of ICE, ARESEP (*Autoridad Reguladora de los Servicios Públicos*, Regulatory Authority of Public Services), and MINAE (*Ministerio de Ambiente, Energía y Telecomunicaciones*, Ministry of Environment, Energy, and Telecommunications) overlap in some areas, causing inefficient planning and policy formation outcomes. MINAE is currently developing the VII national energy plan with public consultations ("mesas de dialogo"). The key focus areas for the consultations are: energy efficiency, distributed generation, optimizing the electricity matrix, and social and environmental issues. Costa Rica's institutional framework may not be sufficiently flexible to respond to the strategic and expansion needs of the sector. ICE faces a significant financing gap (Costa Rica needs to invest over $8 billion in the energy sector over the next twenty years), but there is no clear plan on how to increase private sector participation to attract needed investment, especially considering the existing legal constraints. The corporate governance of ICE compares somewhat poorly with peer countries in Latin America (see box 4.2).

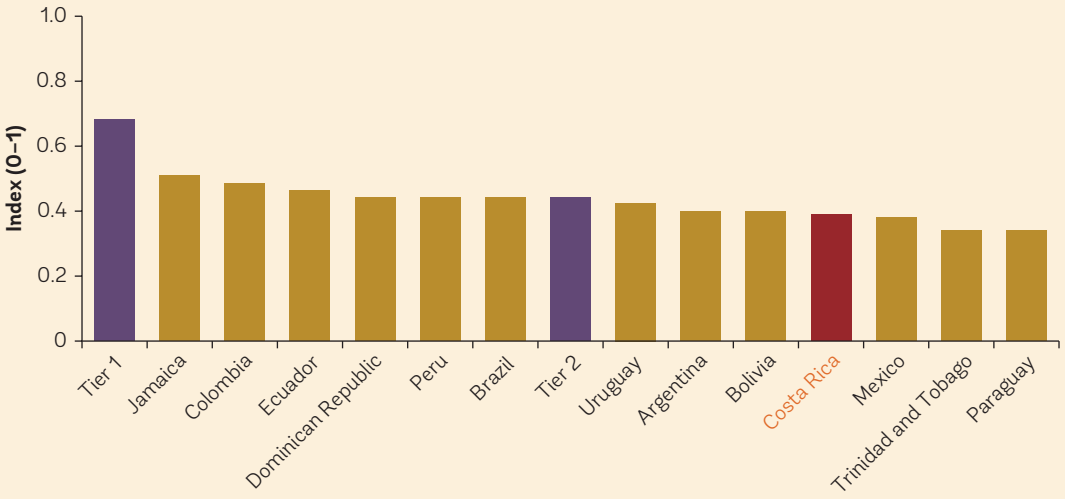
Expansion of the electricity supply is constrained by social-environmental restrictions, the capacity of ICE to finance new generation assets, and legal caps on private sector participation. The first challenge is how to address an increasing gap between the demand and supply of electricity with renewable sources only. Costa Rica will need to double its installed capacity in the next 20 years. A large hydro project is under construction (Reventazon, 305 MW) and will start operations in 2016–17, significantly contributing to increase the system's reserve margin. The project cost has been estimated at around US$1.4 billion, which at US$4.6 million per MW is on the high end of the range for new hydropower projects in Central America and clearly above global benchmarks. This much-needed capacity is necessary to ensure the security of the country's supply; however, the high capital cost will have an impact on the capital components of the tariff (depreciation and return on assets). Indeed, investment costs could be further reduced in future capacity additions if a competitive mechanism for granting hydro concessions and resulting electricity contracts was in place. Another large hydro project (Diquis, 700 MW) is confronting complex environmental and social issues.[57] Expanding generation capacity with geo-thermal energy, which is not affected by rainfall variability and can be dispatched in base-load, will require handling environmental regulations with protected areas as most volcanos are in national parks. The second challenge is how to finance the large costs associated with any project. ICE's capacity to issue new debt is limited to certain thresholds. The legal framework limits private sector participation through independent power producers (IPP) and build-operate-transfer (BOT) schemes to no more than 30 percent of installed capacity.

Addressing the infrastructure gap. The deficiencies in productive infrastructure raise concerns about the adequacy of the levels of spending and implementation capacity for infrastructure projects. Costa

BOX 4.2 Corporate Governance of State-Owned Electric Utility ICE

The corporate governance of state-owned electric utility ICE was considered poor when evaluated in 2009 against five key components of corporate governance (legal soundness, board and CEO competitiveness, professional management, performance orientation, and transparency and disclosure). ICE ranked 10th in the aggregated "corporate governance index" when compared to a peer group of 13 state-owned enterprises (SOEs) operating in the Latin American region. ICE ranked 11th in the group, in terms of performance orientation (process of setting objectives, the instruments used to set objectives and their enforcement, and the authority that conducts the assessments). This is indeed one of the areas where ICE seems to be weak.

FIGURE B4.2.1 Aggregated Index of Corporate Governance



Source: Adapted from Andres et al. (2013).
Note: Tier 1 encompasses SOEs that have desirable conditions for developing good corporate governance. Tier 2 encompasses SOEs that meet only the minimum conditions considered necessary to implement a corporate governance program.

Rica has made significant efforts to increase infrastructure investment since the structural freeze of investment imposed in the nineties but has not yet been able to leverage significant private sector funds. After investing no public funds in infrastructure throughout the 1990s, Costa Rica has recommitted to an investment program. In fact, in 2012 Costa Rica invested the most in infrastructure as a percentage of GDP (5.47 percent) of any Latin American country.[58] However, the vast majority of this investment is public sector spending: private participation represents only 10

percent of total spending (figure 4.27). The necessity of continuing to invest in infrastructure and the reality of fiscal constraints mean that Costa Rica must encourage more private sector participation in the construction and maintenance of its infrastructure. The lack of investment in maintenance is particularly acute in the road sector, where a cycle of underinvestment leading to deterioration that requires still more resources has been created.[59]

Expenditure on public infrastructure is uneven across sectors, implementation is deficient, and expenditure has not been able to keep up with needed investments. Public investment has been dominated by the transport and energy sectors with increasing investment in telecommunications in recent years. Historically, investment in water and sanitation has been very low, but there has been a recent increase. Poor implementation of infrastructure projects also contributes to the large infrastructure gap.[60] For example, the Legislative Assembly takes between 1.5 to 2.2 years to approve external loans by the Inter-American Development Bank (IDB). Also, of the $2,000 million in loans from multilateral institutions only 28 percent has been executed.[61] Limited execution is also reflected in the contraction of 2.6 percent, while it grew in most sectors. A failure of institutions is also apparent in the roads sector where resources made available by multilateral organizations have not been put to use because of inadequate management.

Infrastructure limitations and growing environmental challenges could affect further expansion of the tourism industry. As

FIGURE 4.27 Costa Rica Investment in Infrastructure, 1994–2012

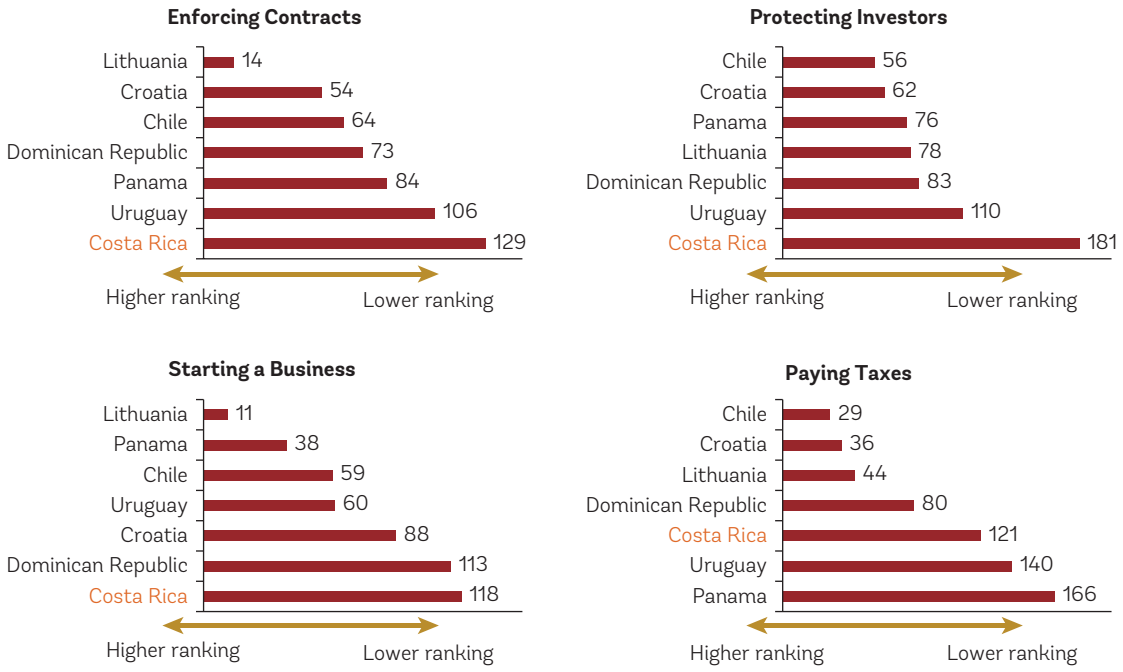
Source: Comisión Económica para América Latina y el Caribe (CEPAL 2014).

discussed earlier, the stock of infrastructure covers most of the country, protected areas still have coverage deficiencies, and in particular quality of infrastructure is low. Moreover, the growing urban population creates pressure on public services like waste management (solid and water), which do not comply with international standards for environmental sustainability. To make sure that green tourism can continue to grow in Costa Rica, it is necessary to coordinate the efforts of a large number of public actors, from infrastructure, health, training, and other institutions.

Business regulations

Business regulations and red tape also affect competitiveness. Costa Rica ranks poorly in many indexes of competitiveness (figure 4.28): Doing Business 2015 (83rd out of 189 countries), Protecting Investors (181st), Enforcing Contracts (129th), Paying Taxes (121st), Starting a Business (118th), Getting Credit (89th), and Resolving Insolvency (84th). These rankings suggest issues to be addressed in order to improve firm productivity and unleash faster rates of economic growth. The complex organization of the government and lack of coordination among agencies produce lack of clarity regarding steps and agencies and time to process regulatory requirements. For example, when the telecommunication sector was liberalized, the new private entrants reported delays in installing their systems due to the slow approval of tower building permits by the

FIGURE 4.28 Costa Rica Has Burdesome Procedures (Country Ranking)



Source: Doing Business 2014–2015.

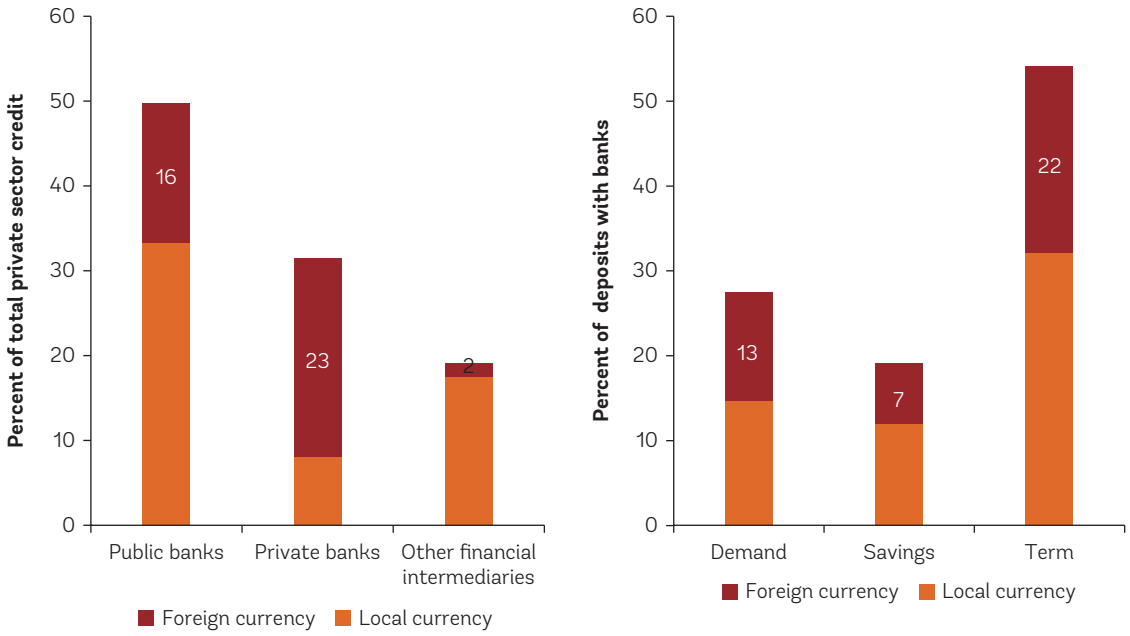
municipalities.[62] Environmental, health, and construction are the areas mostly affected by these factors.

Access to finance

Costa Rica's financial system is highly dollarized and dominated mainly by public banks, although the system has become more diversified in recent years. Dollarization is widespread in Costa Rica. Forty-one percent of deposits and loans to the private sector were denominated in dollars at the end of 2014 (figure 4.29).[63] Higher interest rates for loans in local currency and a stable exchange rate explain the attractiveness of borrowing in dollars. The widespread dollarization of the economy adds vulnerability to the financial system and undermines the effectiveness of monetary policy since it operates on a smaller monetary base.[64] Public banks account for 50 percent of the system's lending to the private sector, private banks' share is 31.4 percent, and non-bank financial intermediaries (for example, cooperatives, finance companies, and mutualistas) represent about 19 percent of the total system's credit to the private sector.

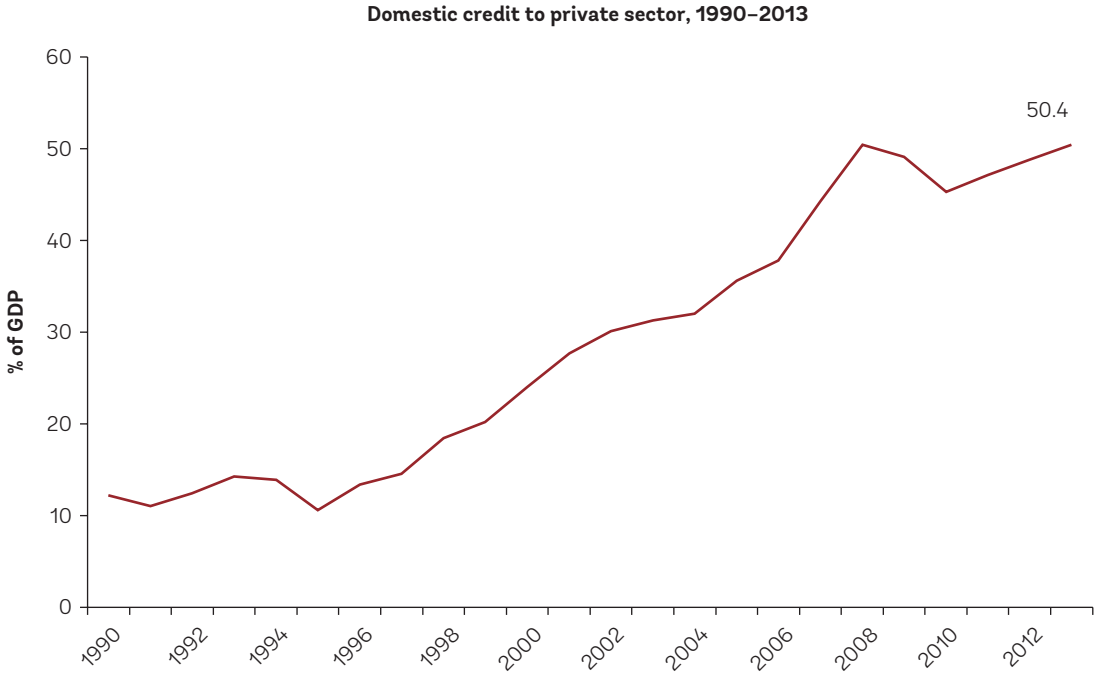
Credit to the private sector has grown slowly, and its level is below that for structural peers. Liberalization of the banking sector in the mid-1990s reignited credit, which grew from a low 18.5 percent in 1998 to 32 percent in 2004 and 50 percent in 2013 (figure 4.30). This level of financing is still low when compared to structural peers and OECD countries (figure 4.31).

FIGURE 4.29 Public Banks Dominate the Financial System. Dollarization Is Widespread, December 2014



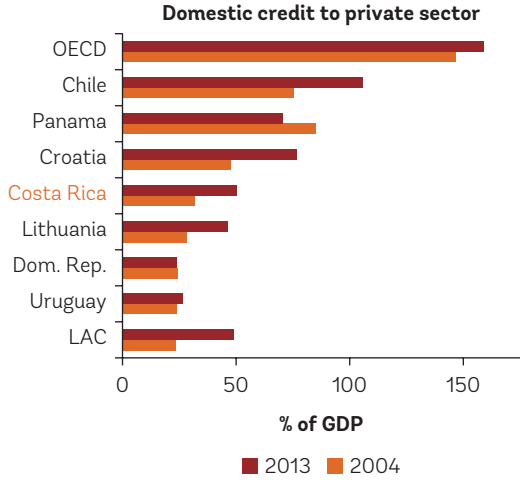
Source: Calculations based on data from the BCCR.

FIGURE 4.30 Financial Depth Has Improved Since Banking Sector Liberalization



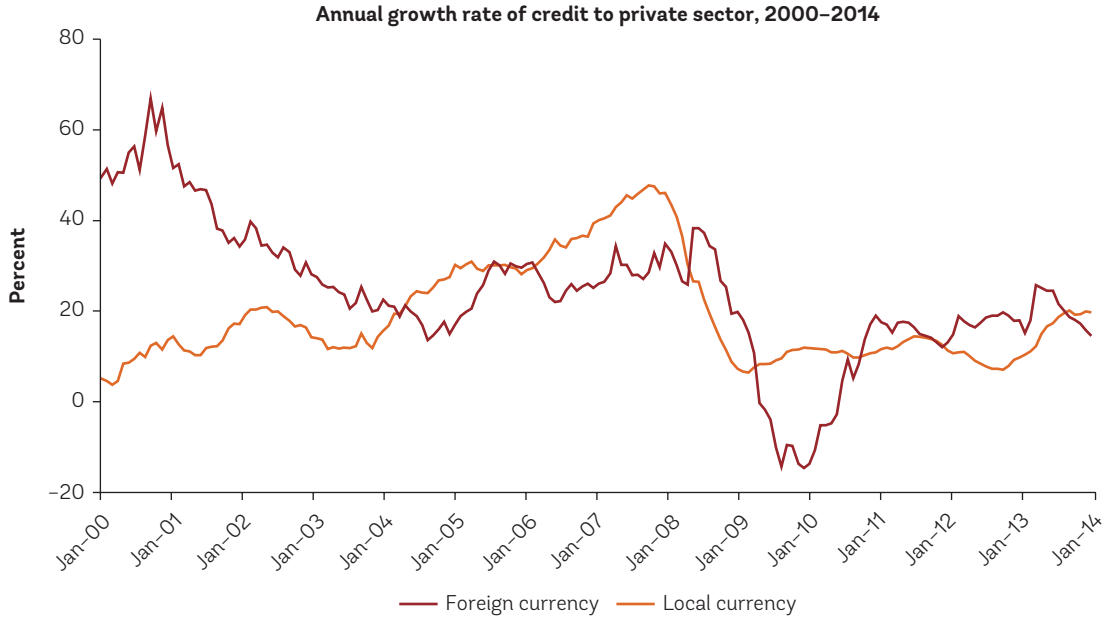
Credit growth slowdown after the global crisis and its growth has been uneven across sectors. Credit growth accelerated in 2014, reaching 17 percent as a result of the government having removed in August 2013 the limits it had imposed at the beginning of the year. Credit in foreign currency grew faster than in local currency, but that trend has so far been reversed in 2014 when credit in local currency grew faster (figure 4.32). Growth in credit is uneven across different sectors of the economy. The area of highest growth within banks' portfolio is retail lending (consumer and housing), which averaged 52.6 percent of private credit in 2010–14, double the average in the 1990s (25.7 percent). Lending for housing, services, and consumers have increased

FIGURE 4.31 Costa Rica Lags Behind Comparators in Terms of Financial Depth



Source: World Development Indicators.

FIGURE 4.32 Credit Growth to Private Sector Slowdown after Global Crisis

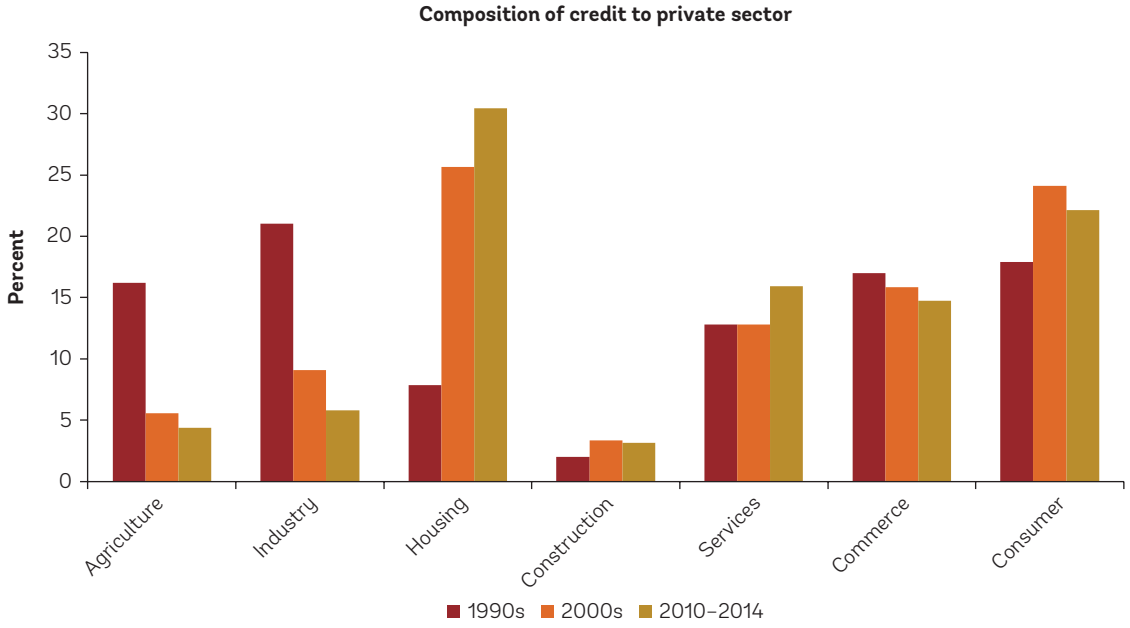


their share of total credit (figure 4.33). In contrast, the share of lending to agriculture and industries decreased in the past two decades to 4.4 percent in 2010–2014.

The penetration of financial services among firms and the population, especially the poor, is low. Costa Rican firms do not compare favorably in their use of banks to finance investments or working capital (22 and 30 percent, respectively) when compared to the Latin American average or structural peers (see figure 4.34). In the case of individuals, access to finance indicators are above regional peers; however, poorer segments (for example, the bottom 40 percent of income earners) of the Costa Rican population have much more limited access. According to the World Bank Financial Inclusion database from 2014 (Findex), 65 percent of the Costa Rican population over the age of 15 has an account at a formal financial institution, well above the regional average of 51 percent. The gap in access between those in the bottom 40 percent of income earners and the top 60 percent is only 5 percentage points, about half than for the regional average.

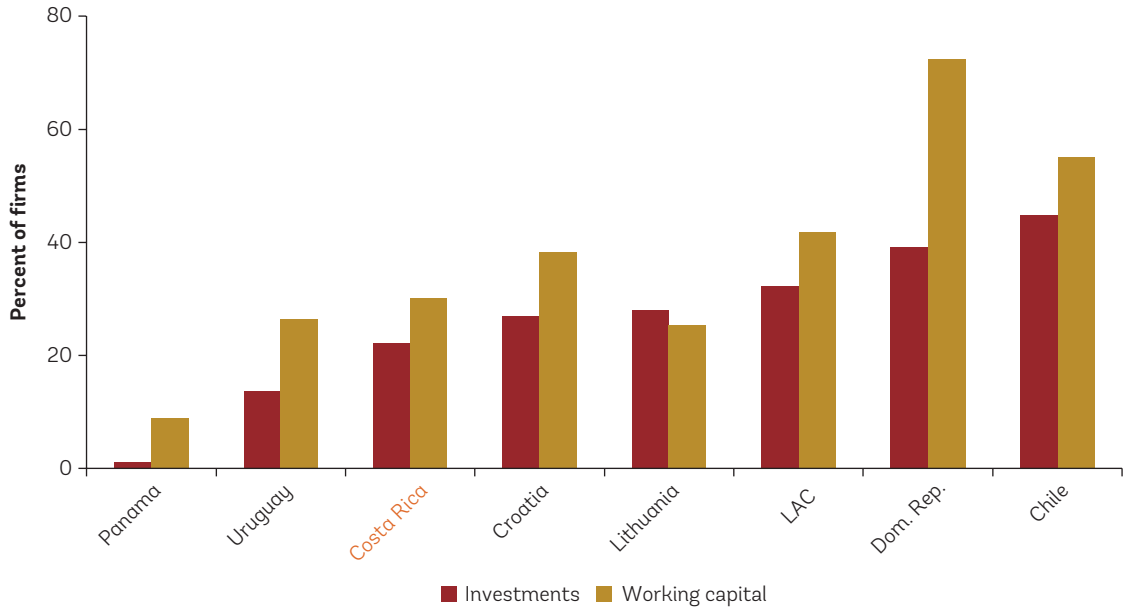
The banking system has adequate levels of capitalization and asset quality. According to the Financial Soundness Indicators (FSIs), banks had a capital adequacy ratio of 16.2 percent in July 2014, well above international standards. Non-performing loans (NPLs) stood at 1.7 percent, with high level of provisions. Profitability, measured as return on equity, was stable in 2013/2014 at around eight percent, but lower than other countries in the region, such as Chile (21 percent) or Panama (15.6 percent).

FIGURE 4.33 Share of Credit to Agriculture and Industry Contracted



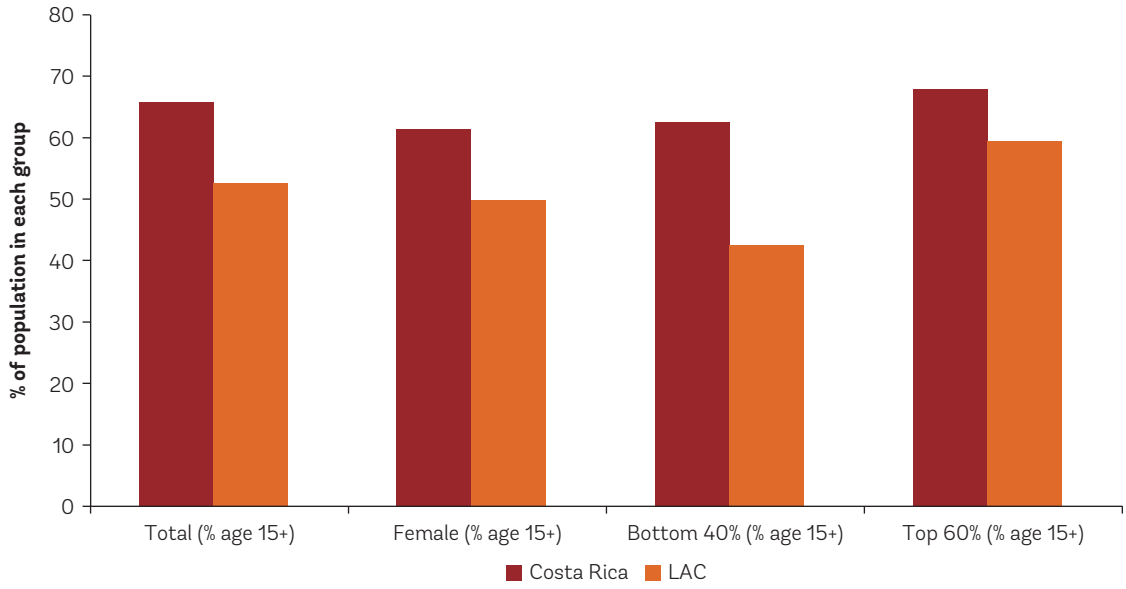
Source: Calculations based on data from BCCR.

FIGURE 4.34 Use of Bank Loans to Finance Investments and Working Capital by Firms



Source: Calculations based on data from World Bank Enterprise Surveys of 2013 for Lithuania and Croatia and 2010 for LAC countries.

FIGURE 4.35 Poorer and Female Costa Ricans Have Lower Levels of Financial Access



Source: 2014 Findex surveys.

Notes

1. IMF (2015).
2. Estado de la Nación (2014, page 140).
3. The telecommunication sector attracted large FDI flows, produced a significant consumer surplus advantage from the reduction in prices and increase in Internet and cellular line access, increasing its contribution to GDP (World Bank, 2013a). New private telecommunication companies and ICE contributed more to the value added in telecommunications, as they provided more services and added new clients, generating new revenues.
4. The Roya fungus affected 60 percent of coffee planted area, resulting in output reduction of about 19 percent in 2013 (BCCR 2014).
5. World Bank. (2006a). Apart from reducing industrial policy regulation and initiating a gradual opening of the economy, it brought the fiscal situation under control by both increasing taxes and curtailing expenditures. On the revenue side, the value added tax rate was increased and the tax base broadened. On the expenditure side, most agricultural subsidies were eliminated, public sector salaries were frozen, and the public pension system was reformed. The colon became fully convertible, and a crawling peg policy was implemented to stabilize the real exchange rate and maintain external competitiveness.
6. Dypsky (2002).
7. Hornbeck (2012).
8. World Bank (2013a).
9. Monge-Gonzalez et al. (2005).
10. OECD (2012).
11. Barquero (2014).
12. Patton and Moore (2012).
13. Monge-Ariño (2011).
14. Gereffi et al. (2013).
15. Based on a survey conducted by the World Bank in 2014, "Facilitating Global Value Chain Integration for Competitiveness in Costa Rica" (World Bank 2014f). Other studies observing

that backward linkages have been weak include also Paus and Gallagher (2008), OECD (2012), Patton and Moore (2012), IDB (2010), and IDB (2014).

16. Groote (2005). Note that the evaluation focuses on inputs purchased from local suppliers by MNCs through the "Costa Rica Provee" program. No later data is available.
17. Paus and Gallagher (2008), Patton and Moore (2012), and IDB (2014).
18. Patton and Moore (2012).
19. Monge-Gonzalez and Rodríguez-Álvarez (2013), IDB (2014), and World Bank (2014f).
20. Monge González, Leiva, and Rodriguez-Alvares (2012).
21. Duhá Buchsbaum (2004) and Cornick, Jimenez, and Roman (2014).
22. World Travel & Tourism Council (2014).
23. The tropical rainforests make Costa Rica one of the most biologically diverse areas of the world, with five percent of the entire planet's biodiversity.
24. Cornick, Jimenez, and Roman (2014).
25. World Bank. (2013a).
26. UCCAEP (2014).
27. The 2007 WEF survey of business executives identified the following top five constraints to businesses: inefficient government bureaucracy (21 percent), inadequate supply of infrastructure (21 percent), inflation (12.1 percent), inadequately educated workforce (7.3 percent), and restrictive labor regulations (6.8 percent).
28. Using a pooled sample of more than 10,000 firms from 16 Latin American countries, Fajnzylber et al. (2009) estimated the impact of objective indicators of investment climate constraints (governance and institutional quality; infrastructure; access to finance; and education, skills, and technology) on firm performance indicators, such as labor productivity, total factor productivity, and wages. The authors benchmarked firm performance against five different scenarios: moving to Ireland's investment climate, moving to Chile's investment climate, the 75th percentile of the entire sample of firms, the 75th percentile within same industry and firm size, and the 75th percentile within same industry, firm size, and country.
29. Some of the limitations of cross-country growth regression include: omitted variables, instruments used for the GMM estimation may be mis-specified, explanatory variables may not capture the structural or stabilization policies that are most relevant, and risk of over-fitting the model.
30. These studies rely on cross-country regressions, using five-year non-overlapping data, and generalized method of moments (GMM) estimators for dynamic models of panel data. The GMM estimation takes into account unobserved country-specific effects and the joint endogeneity of the explanatory variables (growth drivers) with the dependent variable (economic growth) in a dynamic model of panel data. Araujo et al. (2014) use a sample of 126 countries and Swiston and Barrot (2011) use a sample of 79 countries. Araujo et al. (2014) classify the determinants of growth into structural and stabilization policies. Structural policies include education (human capital), financial depth, trade openness, government burden, infrastructure, and governance. Stabilization policies include measures of fiscal, monetary, and financial policies, such as price stability and real exchange rate overvaluation. Swiston and Barrot (2011) use a set of structural indexes to gauge the extent of reforms.
31. The analysis finds that, if Costa Rica were a top performance in government size (i.e., by having a smaller government, as measured by government consumption expenditure as a share of GDP), its GDP per capita would be 12 percent higher. That is because the benchmarking exercise, due to the estimated coefficients of the model, views government size as something negative to improve upon. However, one has to consider that Costa Rica may have large government consumption due to its social compact, allocating around 23 percent of GDP to public health and education.
32. While the real exchange rate affects international competitiveness, it is an endogenous variable, which the authorities can use only in the short term. In the longer term, competitiveness is determined by the structural factors elaborated later in this chapter.

33. The widespread dollarization of the economy adds vulnerability to the financial system and undermines the effectiveness of monetary policy, since it operates on a smaller monetary base. As of December 2014, forty-one percent of deposits and loans to the private sector were denominated in dollars.
34. The real wage in agriculture in Honduras dramatically increased in 2011, with no apparent explanation. This data point is excluded from the graph.
35. See World Bank (2006a) and Lücke (2013).
36. See Lustig, Lopez-Calva and Ortiz-Juarez (2013); Aedo and Walker (2012); and Cord et al. (2014).
37. Gindling and Trejos (2004).
38. See Aedo et al. (2014).
39. This problem is more acute in private universities, which produce over half of the total graduates.
40. Some evidence also suggests that most students would not qualify for science programs because their scores in the high school examination are too low, so their only available options for study are in social sciences and education.
41. Adduci, Pineda, and Villate (2013).
42. World Bank (2006b). For example, one of the objectives of the 2008 telecommunication law is to ensure the provision of universal access, regardless of geographical location or economic status.
43. Increased penetration in mobile services is explained by the introduction of a prepaid mobile-cellular service and low tariffs. The forces of competition provided an abundant supply of services, prices for Internet access were reduced dramatically, and Costa Ricans have responded by subscribing massively to the new services.
44. World Bank (2013a).
45. This correlation does not address the underlying causality: did better infrastructure and ICT follow the creation of an FTZ, or did FTZs choose to locate in cantons with better infrastructure and ICT? Nonetheless, the fact that FTZs exist in cantons with better conditions provides an opportunity for service spillovers, and for firms to take advantage of the agglomeration economies that infrastructure networks can facilitate.
46. Arvis et al. (2014).
47. Arvis et al. (2014).
48. World Bank (2012).
49. Kent (2011).
50. Judging by regional benchmarks, Costa Rica's air transport is among the most competitive on the continent: it is served by more than 25 international carriers, it is in the top quintile of destinations in the Americas, and it is served very competitively in a highly de-concentrated market.
51. ARESEP (2014).
52. The mechanism for the pass-through is complex and subject to modifications. For example, ARESEP introduced a mechanism for partial pass-through during dry months to lower the impact on consumers; at the same time it approved the transfer of fuel expenditures incurred in past years to recent years.
53. IMF (2013).
54. ARESEP (2014).
55. Rodriguez (2013).
56. Intel signed one of those agreements in 1998 and signed 45 new agreements in 2005 (World Bank, 2006a).
57. Indigenous communities are opposing the proposed Diquis hydroproject because it would inundate some villages.
58. CEPAL (2014a).
59. Loría and Umaña (2014) and World Bank (2008).
60. Loría and Umaña (2014).
61. Loría and Umaña (2014).
62. World Bank (2013a).
63. Dollarization of private credit increased from five percent in 1992 to 50 percent in 2003. Since then, it has decreased slowly to its current level of 41 percent.
64. In response, authorities have put in place prudential measures to discourage lending in dollars to non-foreign exchange generators and to reduce the banks' open foreign exchange positions. The authorities granted a four-year implementation period in 2013 to allow the banks to gradually rebalance their loan portfolios and adapt to new regulations.

5. Sustainability of Costa Rica's Development Model

The sustainability of its development model is at risk due to the deterioration of fiscal balances, tensions in the Social Compact, and various threats to the Green Trademark. The fiscal situation stands out as one of the most pressing development challenges facing Costa Rica. The recent deterioration stems from a combination of countercyclical measures undertaken during the crisis and structural forces. Without fiscal consolidation, the deficit could push public debt to unsustainable levels and threaten the country's social and economic gains. Indeed, fiscal pressures, as well as rising inequality and increasing dissatisfaction with social services, all combine to create tensions in the Social Compact. Costa Rica's leadership in environmental conservation faces the challenge of growing pressures on the use of resources and of urbanization. Changing economic incentives threaten the gains in reforestation, and the use of agro-chemicals is worrisome. Urbanization has increased energy use and air and water pollution, and the country has not developed a long-term plan to protect the environment from these threats. Finally, the current political landscape and institutional framework add an additional layer of complexity for approving and implementing key reforms needed to address these emerging challenges.

Fiscal Sustainability

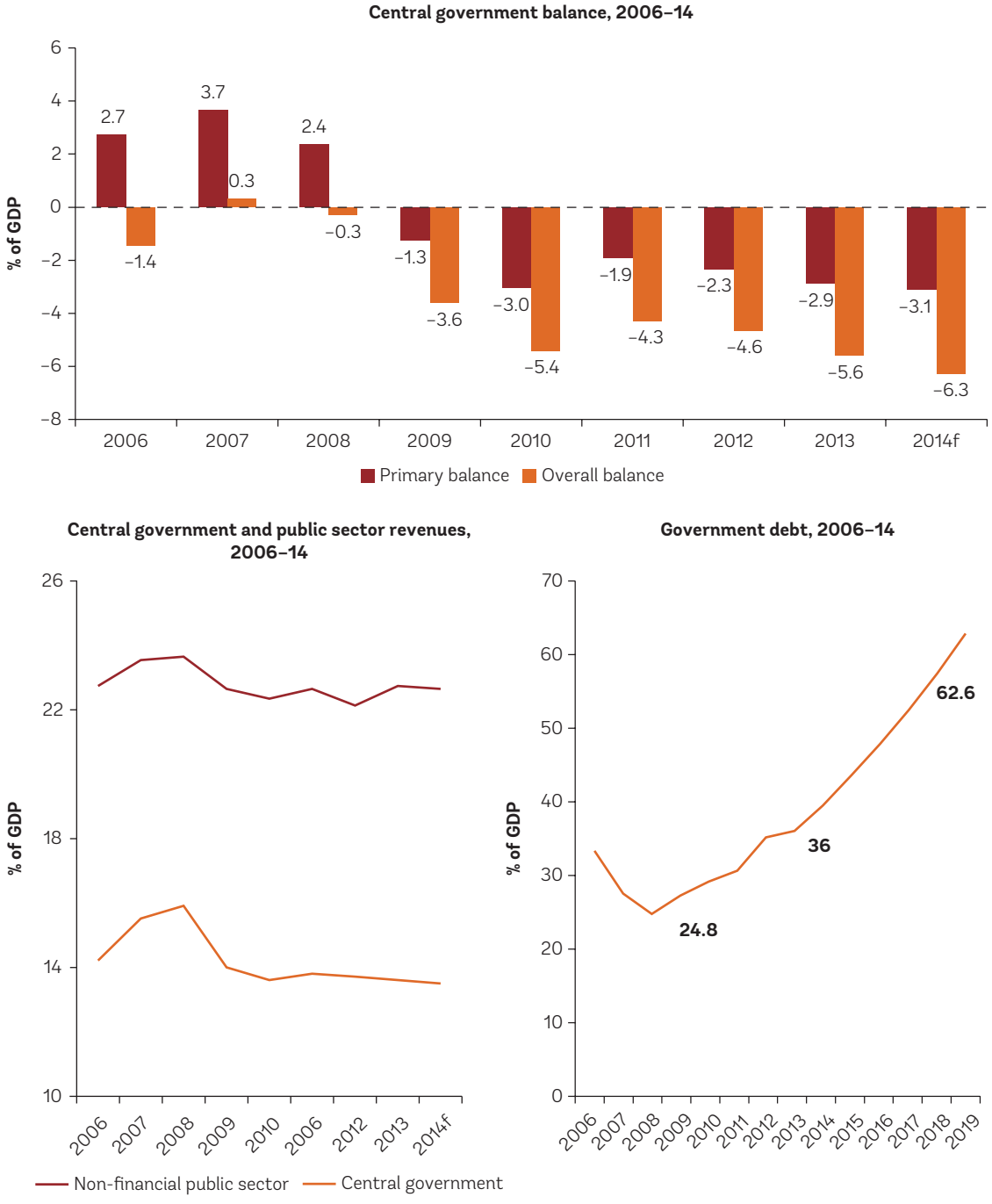
The fiscal situation is arguably one of the most pressing development challenges facing Costa Rica. Growing deficits could push the public debt to unsustainable levels and constrain resources for public investment, social services, and environmental goals.

Fiscal deterioration since the global crisis: deficits and public debt

The fiscal situation has weakened substantially since the global crisis, with the overall deficit of the Central Government growing to 5.6 percent of GDP in 2013, and surpassing six percent in 2014 and projected to reach 6.5 in 2015 (figure 5.1). As a result, public debt has increased by 12 percentage points over the past five years, from 25 percent of GDP in 2008 to 37 percent by 2013, with projections of 63 percent by 2019 unless corrective measures are implemented (Figure 5.1).[1] A study by the IMF estimates that Costa Rica has to lower its primary deficit by 3.5 percent of GDP to achieve debt sustainability and by 4.5 percent of GDP to bring its debt ratio to the pre-crisis level.[2]

Fiscal deterioration after the global crisis is not unique to Costa Rica. figure 5.2 and figure 5.3 present the overall and primary deficits, respectively, of Costa Rica and of the structural peer countries. The fiscal balance worsens for all countries. However, although Costa Rica was among the better performing countries before the crisis (third below Chile and Uruguay), after the crisis it was among the worst: its primary balance was only slightly smaller than Lithuania and Croatia, and its overall deficit was the second largest of the group. [3]

FIGURE 5.1 Central Government Fiscal Balance and Revenues



Source: World Economic Outlook database and IMF (2015).

FIGURE 5.2 Primary Fiscal Balance

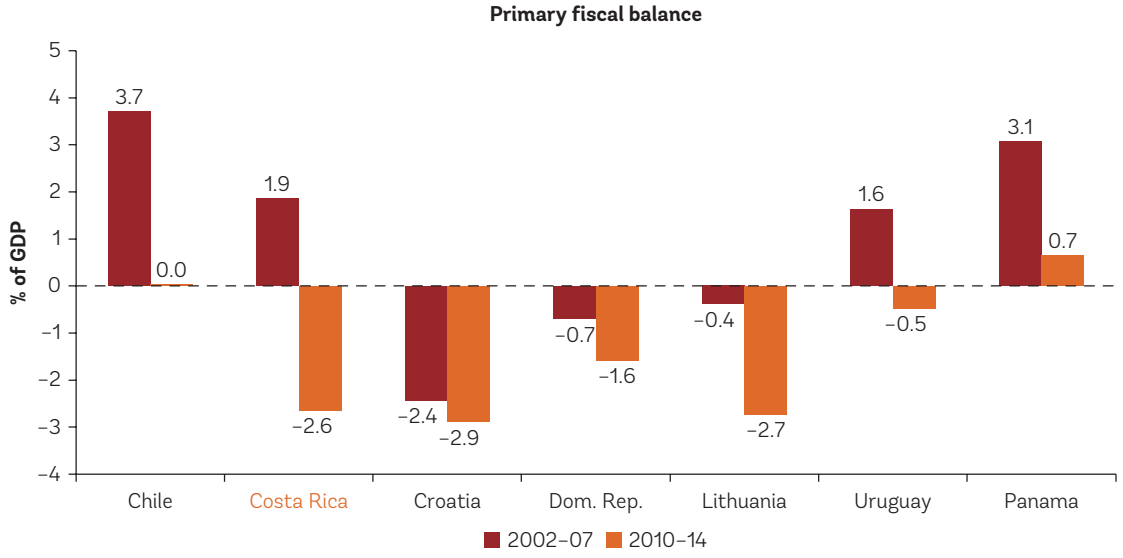
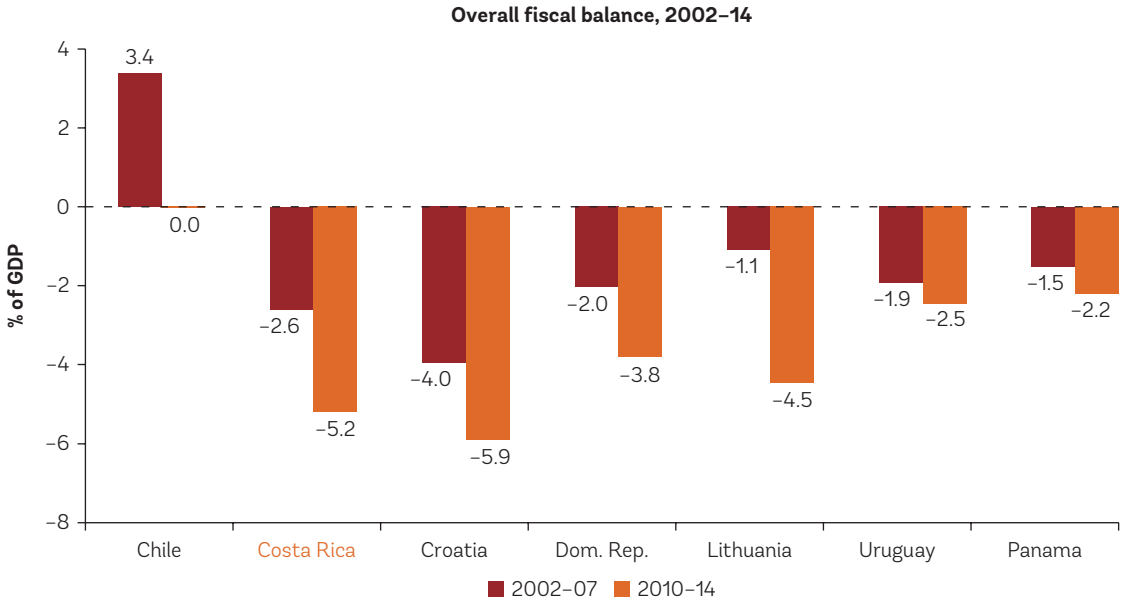


FIGURE 5.3 Overall Fiscal Balance Deteriorated Sharply After the Crisis



Source: Calculations based on data from World Economic Outlook.

A consequence of weakening fiscal accounts is the downgrading of Costa Rica's investment rating. In September 2014, Standard & Poor's Ratings Services downgraded the country's rating due to fiscal trends and the foreseen difficulties in passing a comprehensive tax reform that could put the debt on a sustainable path. The longer the delay to address the fiscal deficit, the larger will be the adjustment needed to stabilize the public debt ratio and the potential impact on the poorer segments of the population.

The growing deficit: cyclical measures and structural forces

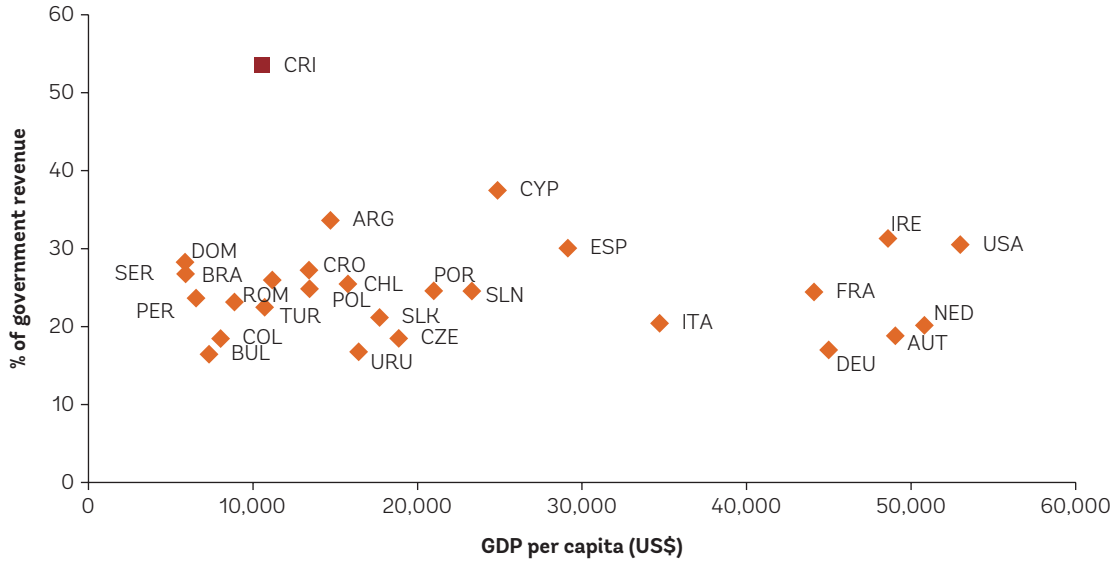
This recent fiscal deterioration stems from countercyclical measures undertaken during the crisis and structural forces. Moreover, countercyclical measures adopted during the crisis were structural, rather than temporary, further adding to existing rigidities in government finances and spending.

The set of policy actions taken to confront the global economic crisis has long-lasting implications for fiscal accounts. As in many other countries, Costa Rica faced the global crisis by implementing countercyclical fiscal policies. This was welcomed, given the magnitude of the crisis and the fiscal space the country had at the time, because the primary balance was positive and public debt was below 25 percent of GDP in 2008. However, unlike other countries, which implemented temporary fiscal policies, Costa Rica adopted policies with long-lasting structural effects. Specifically, it chose to implement steep, permanent increases in public salaries in 2008–10, and the wage bill of the public sector continued to grow even after the crisis. Current transfers also doubled to five percent of GDP. And revenues, which had increased steeply prior to the crisis, dropped back to average levels from 2000–05 (figure 5.1).

Public sector wages are particularly high in Costa Rica, as compared with other countries and the private sector. The public sector wage policy adopted during the crisis aimed to increase salaries in the central government to the 50th percentile (known as the *percentil 50)* of pay for similar jobs in the rest of the public sector. Originally intended to adjust the wages of some categories of public sector workers, it expanded throughout most entities of the central government as well as decentralized institutions.[4] As such, the wage bill of the central government rose (increasing from 5.5 percent of GDP in 2008 to 7.4 percent in 2014), *and* the consolidated wage bill of the overall public sector expanded significantly (climbing from seven percent of GDP to 10 percent in 2010). Public sector compensation is much higher in Costa Rica than in other countries, given its level of GDP and government revenues—and public sector wages are significantly higher than private sector wages, in particular for state-owned enterprises (SOEs) (figure 5.4 and figure 5.5).

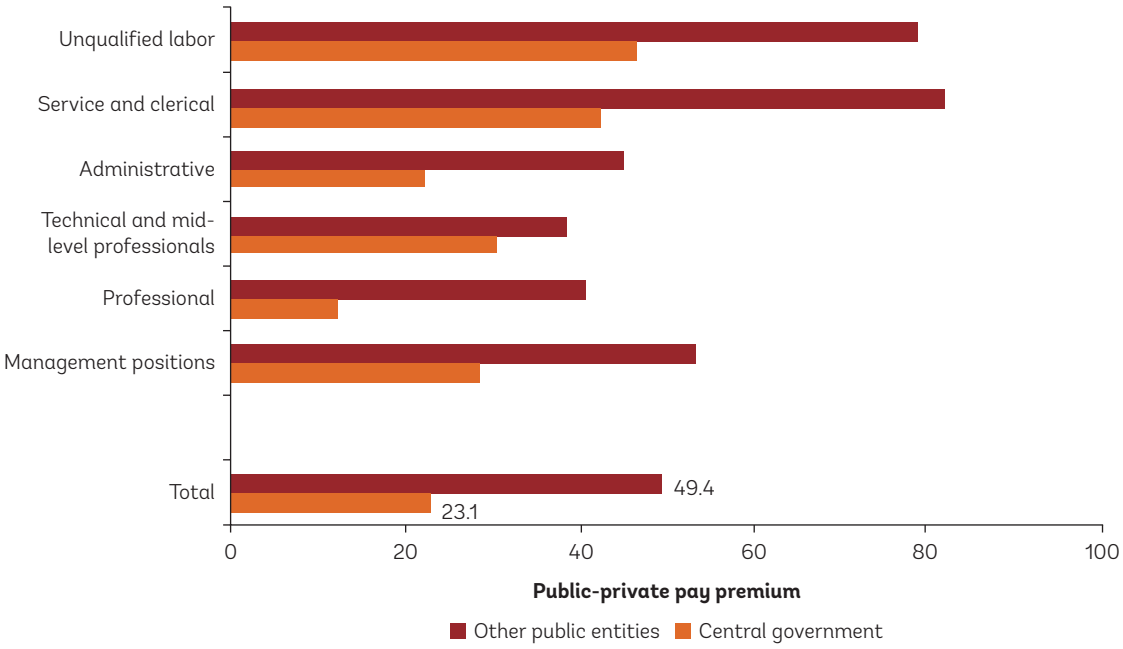
Another "big ticket item" on the expenditure side is pensions. Costa Rica's public pension system includes the main pension fund (*Seguro de Invalidez, Vejez y Muerte)*, a non-contributory social pension, and special pension regimes for teachers, civil servants, and the judiciary. The first two are managed by the *Caja Costarricense de Seguro Social* (CCSS), which also operates the universal health insurance system. Although the CCSS pension accounts are currently roughly balanced, with aging and demographic pressures they will likely face an imbalance in the foreseeable future. Even more pressing are the balances of the special pension regimes.

FIGURE 5.4 Compensation of Central Government Employees



Source: Calculations with data from WEO. Excludes wages in public universities.

FIGURE 5.5 Public-Private Income Premium by Occupation, 2012



Source: Ministerio de Hacienda (2013). This refers to relative percentage difference with private sector pay.

Overall government support to special pension regimes will cost Costa Rica about 59 percent of (2012) GDP over the next four decades.[5] A recent study by the IMF projects that the special regime for the judiciary will start to run deficits very soon, and will deplete its assets by 2030; the special regime for the civil service is projected to run flat at 2.4 percent of GDP through 2020, and will slowly diminish after that. Moreover, the special regimes are far more generous than the CCSS regime, which raises the question of equity, apart from their burden on the fiscal accounts.[6] For instance, in 2012, the CCSS spent 2.2 percent of GDP in general pension payments for 190,000 pensioners, against 2.6 percent of GDP for 62,500 pensioners of the special regimes. And while the average annual pension of a retired worker of the general system of the CCSS amounts to around 50 percent of GDP per capita, the average pension of a retired civil servant is about 170 percent of GDP per capita, and the average pension of a retired judge is about 270 percent of GDP per capita.

Managing expenditures is further complicated by extensive rigidities built into the system. These rigidities stem from the indexation of public sector wages and pensions, as well as numerous spending mandates. These include both constitutional expenditure mandates without corresponding financing sources, as well as legally required expenditures.[7] For example, there is a constitutional mandate to increase expenditures in education from six to eight percent of GDP. There are also legal mandates for allocations to municipalities, housing subsidies, earmarked taxes, wages, pensions, and interest payments on the debt. The sum total of all of these rigidities leaves the government with only five percent of the annual budget for strategic allocative decisions in any given year—and also limits its ability to control expenditures and the deficit.[8]

Further, the budget process is fragmented and much of it is outside the control of the central government. Parliament approves only the budget of the central government, which represents about one-third of consolidated public expenditures. The budgets of decentralized institutions, public enterprises, financial intermediaries, and de-concentrated entities is determined largely by their heads under budget caps and guidelines provided by the Ministry of Finance and subject to modification and monitoring by the Office of the Comptroller General (CGR).

Structural rigidities also prevail on the revenue side. Although overall revenue collection is on par with upper-middle- and high-income countries, at around 22 percent of GDP, tax revenues are low (13.5 percent of GDP) and a large share of the remaining revenues are earmarked to autonomous public institutions (such as social security contributions for pensions and health insurance, which are managed by the CCSS). Moreover, since 1953, Parliament has approved 1,259 tax exemptions, of which only 23 percent had a time limit. Further, nearly half of these exemptions have no clear definition of the tax that is exempted.[9] The potential magnitude of these exemptions for revenues is quite large, amounting to 5.6 percent of GDP. Finally, the budgets of SOEs do not require Parliamentary approval, and SOEs do not publish data. In an attempt to address the situation, Congress approved a fiscal reform in 2012, but it was deemed unconstitutional by the Supreme Court on the basis of procedural irregularities.

In addition, coordination between fiscal, monetary, and exchange rate policy is limited. Fiscal policy has not been sufficiently

coordinated with monetary policy, and the fiscal deficit is adding to inflationary pressures. The BCCR-stated objective is to move to a fully inflation-targeting system, and the recent measure of floating the exchange rate, abandoning the pre-defined bands, is a move in the right direction. It is expected that this policy change will reduce dollarization of the financial system, reducing a source of vulnerability.

Sustainability of the Social Compact

To ensure sustainability of the Social Compact, Costa Rica must confront the triple challenges of fiscal pressures on social spending, increasing dissatisfaction with public services, and rising inequality. *First*, the deterioration of the fiscal system implies potential tradeoffs among social goals—and the need for improved quality and efficiency of *social spending*. *Second*, increasing dissatisfaction with the quality of *health care* symbolizes the numerous "cracks in the system" that are emerging in the delivery of public services. There is a sense that, although Costa Rica has achieved impressive "levels" of performance for many indicators (low poverty, life expectancy, literacy), it is increasingly constrained on the "deltas" of adopting the changes needed to make the transition to a modern economy with an effective "Welfare State" in the context of demographic transition. *Third*, rising inequality has exposed disparities in the *education* system and the mismatch of skills and jobs, as well as the ineffectiveness of *social transfers* to redistribute income to compensate for these inequities.

The long rise of social spending

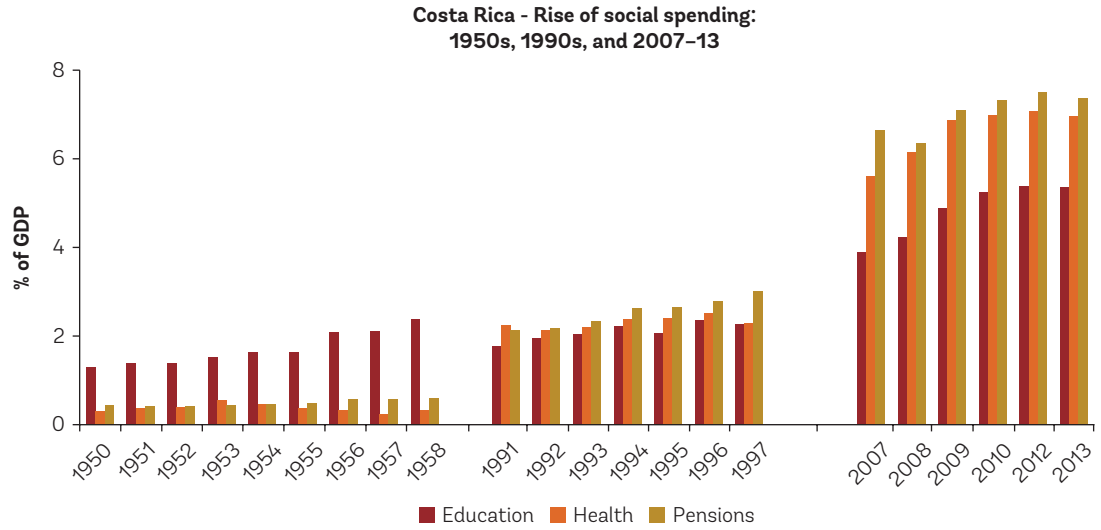
Costa Rica's Social Compact has deep historical roots. The construction of the Social Compact goes back to Costa Rica's early days as a coffee-producing economy of small landholders (see chapter 1). It was consolidated during the middle of the 20th century with the creation of the universal health and social security system *Caja Costarricense de Seguro Social* (CCSS) in 1941, the establishment of the Labor Code in 1942, the guaranteeing of public education for all, and the 1949 Constitution, which mandated basic social rights (complemented by extensive social welfare legislation).

This ambitious Social Compact has had the backing of high and rising social spending. With the abolition of the army, the country had more resources to invest in the provision of basic public and social services to the entire population. As a result, social spending started to rise in the 1950s, reaching over three percent of GDP by 1958 (figure 5.6). It then increased steadily over the decades, reaching almost 10 percent by the end of the 1990s and 20.8 percent by the end of the first decade of the 2000s. This is close to the average level spent by OECD countries,[10] and significantly higher than Central American neighbors (figure 5.7). Investment in education was initially the highest category of social spending, but by the 1990s health and pensions had both surpassed education. In 2012, total social spending amounted to 20.8 percent of GDP, with 7.4 percent for pensions, seven percent for health, 5.3 percent for education, and 1.1 percent for social assistance.

Some key achievements of the Social Compact: universal coverage of basic services

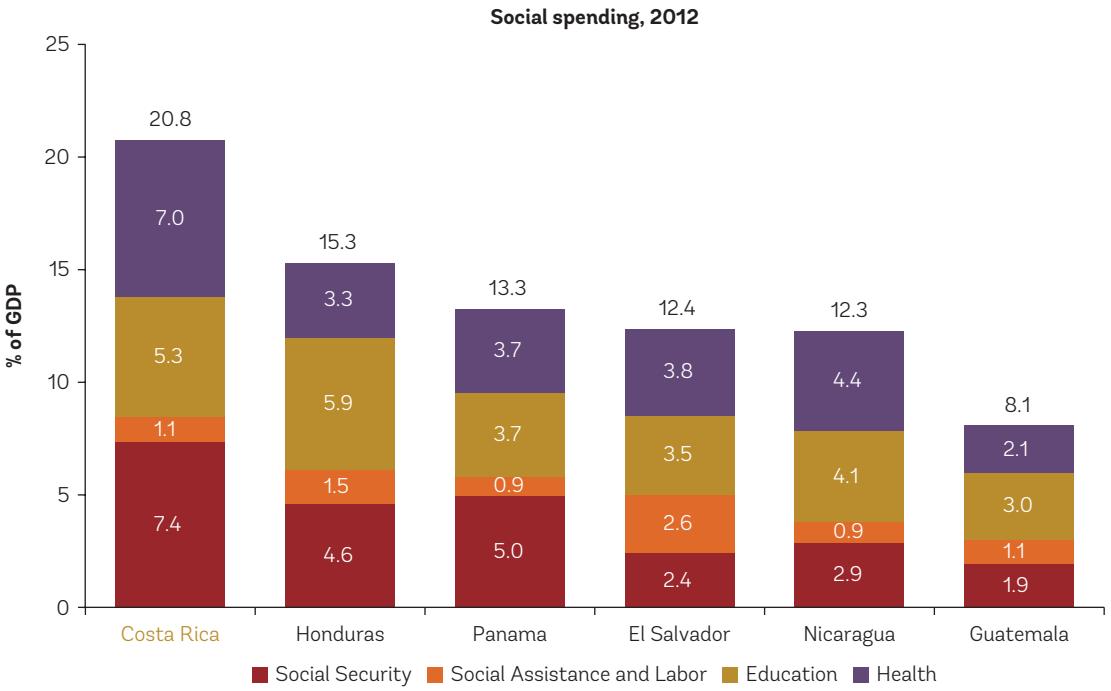
The Social Compact has achieved many successes, particularly in the delivery of

FIGURE 5.6 Social Investment Increased Steadily Over the 20th and 21st Centuries



Source: Arroyo and Lindert (2014) and World Bank (forthcoming 2015).

FIGURE 5.7 Costa Rica's Social Spending Is the Highest in Central America

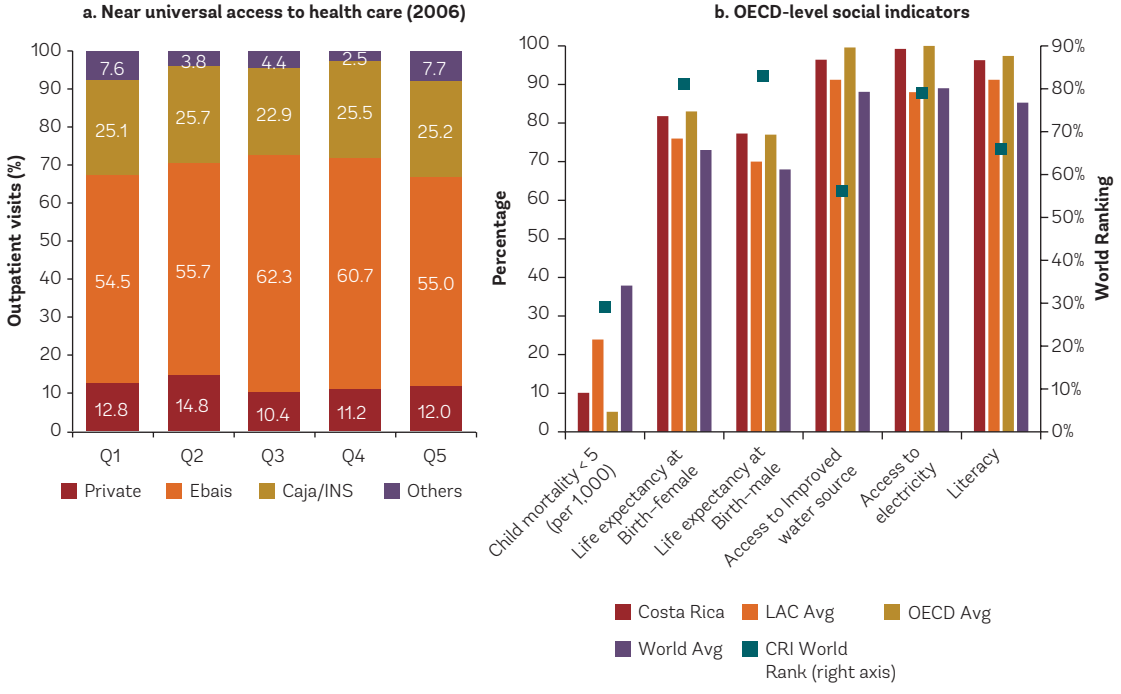


Source: World Bank (forthcoming 2015).

universal services such as health care. Universal access to the health care system has led to outstanding health outcomes for the population. The country's integrated and universal health care system, managed by the *CCSS*, has provided access to health care to the entire population, including the bottom 40 percent (figure 5.8). Universal health care has been a key factor in improving key social indicators: life expectancy in Costa Rica is 82 for women and above 77 for men, and child mortality is low (about half of the Latin American and Caribbean average). Institutional births are virtually universal and maternal mortality has fallen over the last 20 years, reaching levels that are less than half of the LAC average.

The country has also invested heavily in infrastructure, providing the population with universal access to electricity and water, and an extensive road network covers most of the country. Early on, Costa Rica built an extensive network of infrastructure in nearly all productive service areas (water, sanitation, transport, electricity, and telecommunications), responding to strong social demand.[11] Access to electricity went from 40 percent of households in 1950 to 99 percent by 2013. Access to improved water sources is also nearly universal, with 96 percent of households having access to piped water and 92 percent with access to drinking water. Costa Rica has twice the road density and three times the rail density of the average middle-income country, and is behind only Lithuania and the OECD

FIGURE 5.8 Impressive Achievements of Costa Rica's Social Compact



Source: World Bank (2014b).

Source: World Bank Health Stats/Find-My-Friends Tool.

on these indicators. Coverage of telephone lines increased dramatically, from 11 fixed telephone lines per 1000 inhabitants in 1950 to 203 in 2012. Almost all households have access to a cell phone (94 percent, higher than the OECD average) and 50 percent to a fixed phone line in 2013.[12] This large endowment of infrastructure has historically supported Costa Rica's economic growth and standards of living.

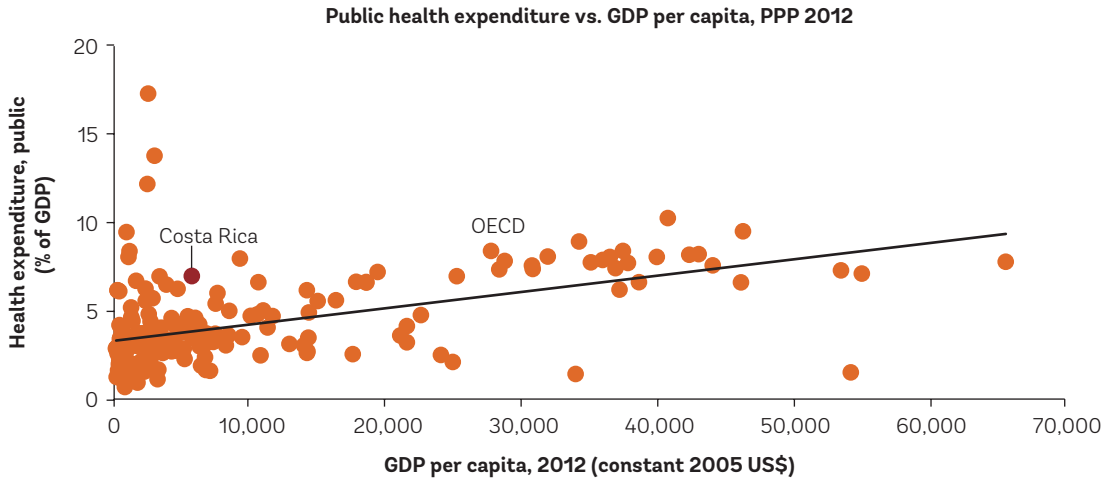
Health care: increasing concerns about quality and sustainability

Overall health spending has continued to grow during the 2000s, raising concerns about sustainability. Between 2000 and 2010, total expenditure on health went from 6.5 percent of GDP to 10.1 percent. By 2012, public expenditure was around seven percent of GDP.[13] This is far higher than public health spending for countries of similar levels of development (figure 5.9), and it exceeds average public spending on health in OECD countries (which averages 6.2 percent of GDP).[14]

Moreover, recent increases in health spending have not been matched by gains in service delivery. Between 2005 and 2010, the CCSS experienced a rapid increase in spending without revenue growth, where 97 percent of the extra spending corresponded to an increase in the number and salary of employees. This was not accompanied by an increase in productivity: estimates suggest that between 2009 and 2011, average daily hospital production dropped from 69 to 61 days, and the number of annual outpatient visits per professional declined from 758 to 654.[15] Hence, recent increases in spending have not translated into better services.

Health budget allocations do not take into account demographic and demand changes, and thus leads to inefficiency and inequality of care. Budget allocation for health facilities across the country is done on

FIGURE 5.9 Costa Rica's Public Spending on Health Care Is on Par with OECD Countries



Source: World Bank (forthcoming 2015).

the basis of historical allocation, instead of current needs stemming from demographic pressures and local morbidity patterns. As a result, the resources that health centers receive are disconnected from the resources they need, and this is leading to inequity in the capacity to deliver care.

Furthermore, the current organization of the system leads to increasing wait times and patient frustration. The demographic change in Costa Rica implies that as the population ages, chronic conditions—which are more costly to treat—will become more prevalent. Yet, the 3-level organization of healthcare (going back to the 1970s) is not well adapted to a growing number of patients with chronic conditions. Level-1 facilities are not equipped to deal with such patients, thus they refer them to level-2 or level-3 facilities, which also have to deal with more complex cases. This creates bottlenecks, whereas a more consolidated system would be able to deal with chronic cases (of low complexity).

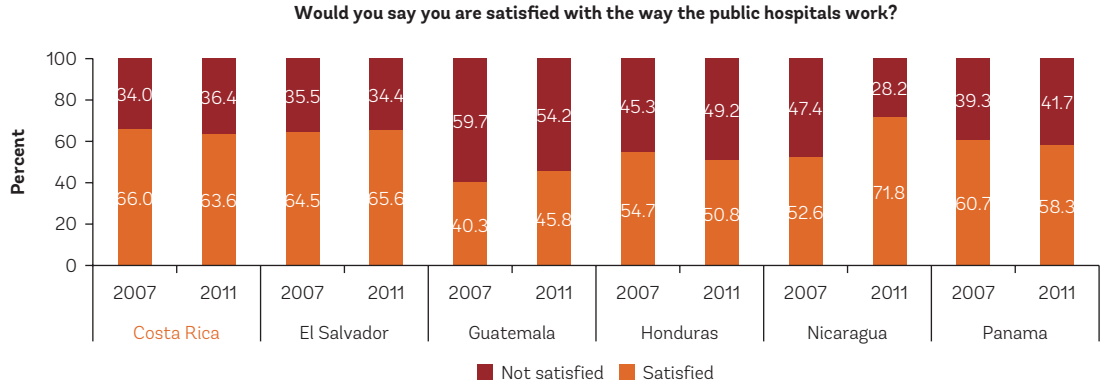
Likewise, an outdated infrastructure and information management system lowers quality, and decreases transparency and efficiency of resource management. The current health infrastructure does not reflect the high level of spending: Costa Rica is considerably below the average of its peers both in density of hospital beds and medical staff, and a recent assessment by the CCSS found that only 26 percent of hospitals and clinics were in good or excellent condition.[16] In addition, the information management system, which dates back to the 1970s, has not been adequately modernized, and as a result it is highly fragmented and information flows are very difficult. This hampers efficient resource management and lowers the accountability of the entire system (for example, most information systems, except clinical records in some health centers, are paper-based or at best spreadsheets not linked to aggregated databases).

As a result, private health costs are on the rise, and the perception of quality is declining. Between 1995 and 2010 the share of private out-of-pocket spending has gone from 23.5 percent to 31.9 percent (of total health spending). This has occurred in parallel to the aging of the country's population, which has naturally increased the demand for health services. As a result, users of the CCSS face increasingly long wait times, in particular for surgery and specialized treatments. Not surprisingly, patients who can afford private insurance policies often use them, not to pay for complementary services to those covered by the CCSS, but to get the same services with a preferential treatment. This lowers the transparency of the system, and generates inequities in access and quality of treatment, which in turn fuels patient dissatisfaction (figure 5.10).

Education: patterns of public spending versus the skills gap

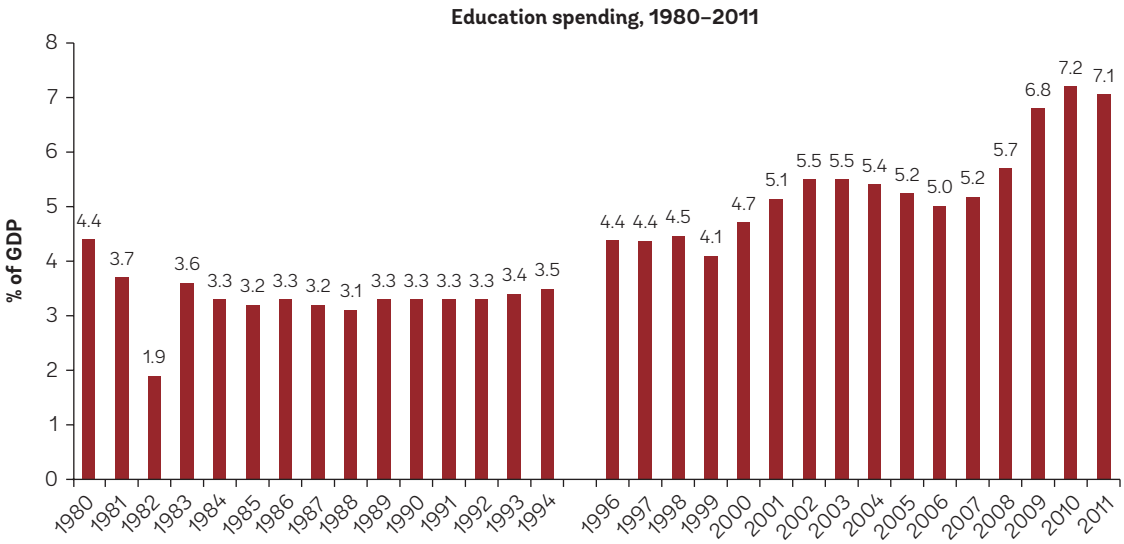
Similarly, Costa Rica has historically spent a large share of GDP on education. During the sustained growth period between 1950 and 1980, Costa Rica considerably expanded its investment in human capital, particularly in education. By the end of the 1950s, education expenditure was over two percent of GDP, and by 1980 it had reached 4.4 percent.[17] The crisis of the early 1980s caused a sharp reduction in public spending across the board (figure 5.11); for example, education spending fell to 1.9 percent of GDP by 1982, and by 1990 it was still only at 3.3 percent of GDP, one percentage point below the spending share of 1980. Nonetheless, education

FIGURE 5.10 Satisfaction with Public Health System Is Slowly Declining



Source: World Bank (2014b).

FIGURE 5.11 Costa Rica Has Heavily Invested in Education for Decades



Source: Elaboration based on data from Jimenez (2014) and Programa Estado de la Nación (2014).

spending increased systematically over the 1990s and 2000s, as the Assembly approved spending targets of six percent of GDP in 1997 (reached by 2009) and eight percent of GDP in 2010 (projected to be reached by 2018).[18] These levels of public spending as a share of GDP are higher than the 5.4 percent of GDP spent by OECD countries on average.[19]

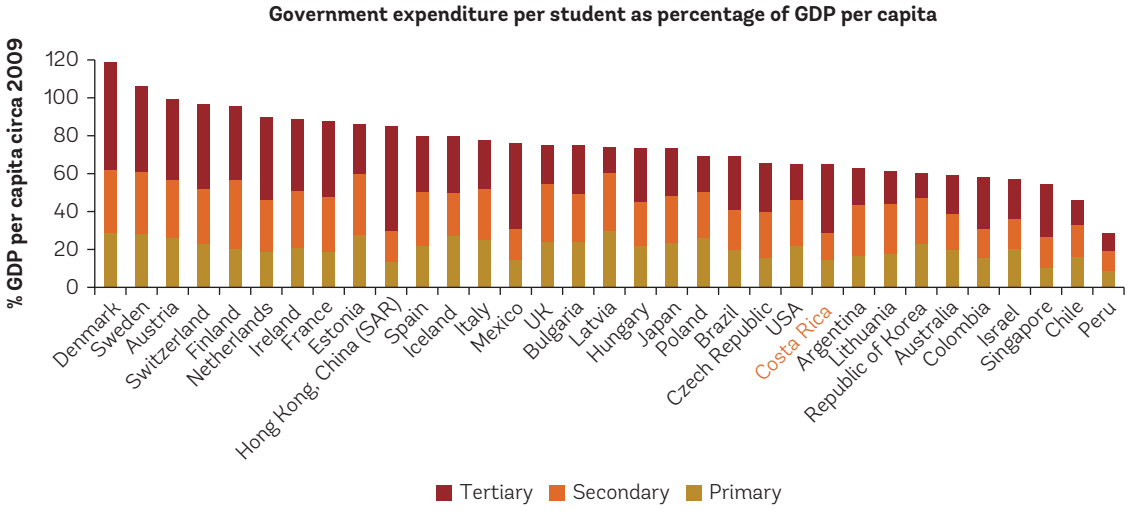
Education spending is in the "mid-range" between middle-income and high-income countries. Measuring education spending as a share of GDP is useful for assessing its trend over time, as well as its fiscal implications.

However, when comparing with other countries, measuring per student spending as a share of GDP per capita allows us to take into consideration the country's size and level of development.[20] With this adjusted measure, Costa Rica spends relatively more than some LAC countries and even on par with some high-income countries (HICs) like Australia, the Republic of Korea, Israel, or Singapore, but relatively less than Brazil, Mexico, and all other OECD countries (figure 5.12). Moreover, compared to the high-performing Scandinavian countries, Costa Rica spends significantly less per student, even relative to its much smaller GDP per capita. As discussed earlier, this investment in education has translated into important achievements in terms of literacy and primary education attainment.

Costa Rica's education expenditure favors primary and tertiary, against spending on secondary schooling. One-third of the budget goes to tertiary education (figure 5.13), which responds in part to the country's pattern of growth and the shift towards high-skilled, high value-added sectors and also to the guaranteed allocation of the budget that is granted to autonomous public universities. However, only 22 percent is allocated to secondary education, despite the demographic transition (trending towards fewer younger children) and the large skills gap for completion of secondary education (with over half of young adults dropping out before completing high school, many of them as early as seventh grade, as discussed in chapter 3). Compared with other countries, both the share of public spending on secondary and spending per secondary-school student are low for Costa Rica, given its level of development (figure 5.14).

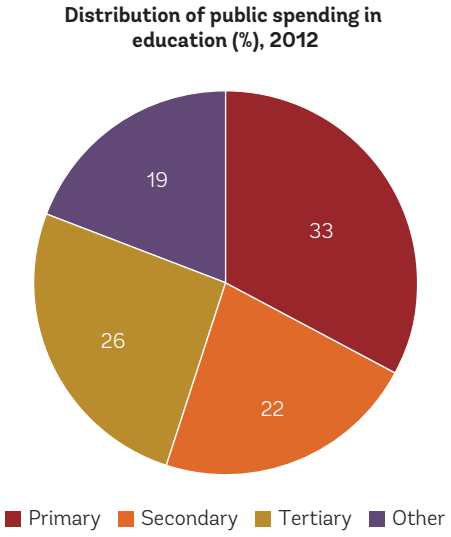
As a result of high dropout rates at the secondary level, public spending in education becomes regressive at higher levels.

FIGURE 5.12 Costa Rica Spends More on Education Than Other MICs, but Less Than Most HICs



Source: Elaboration based on data from UNESCO.

FIGURE 5.13 More than 70 percent of Education Spending Goes to Primary and Tertiary



Source: World Bank (forthcoming 2015).

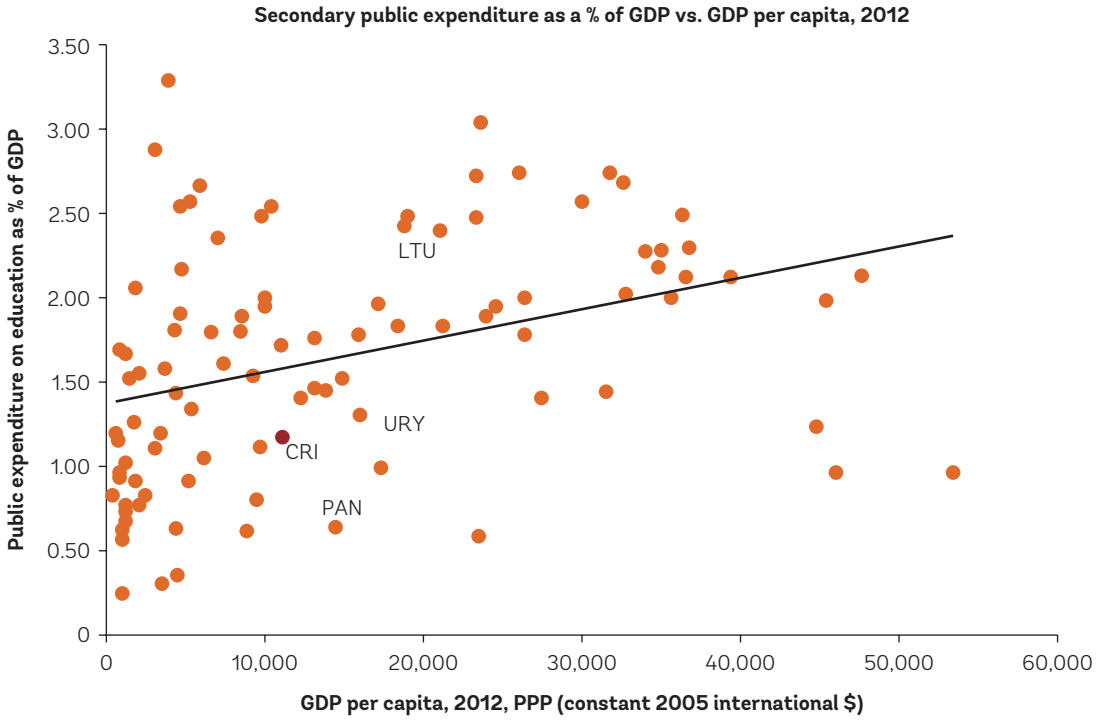
Given that a larger share of children from lower-income households drop out of secondary education, those who remain enrolled in the system and eventually access tertiary education tend to come from middle- and upper-class households. As figure 5.15 shows, spending in tertiary education goes mostly to upper-income quintiles, in contrast to spending in primary, which is more heavily directed to lower-income quintiles. Given that tertiary education is allocated 32 percent of the total education budget, the result is a regressive system where most Costa Rican households are subsidizing the education of a minority of well-off children.[21]

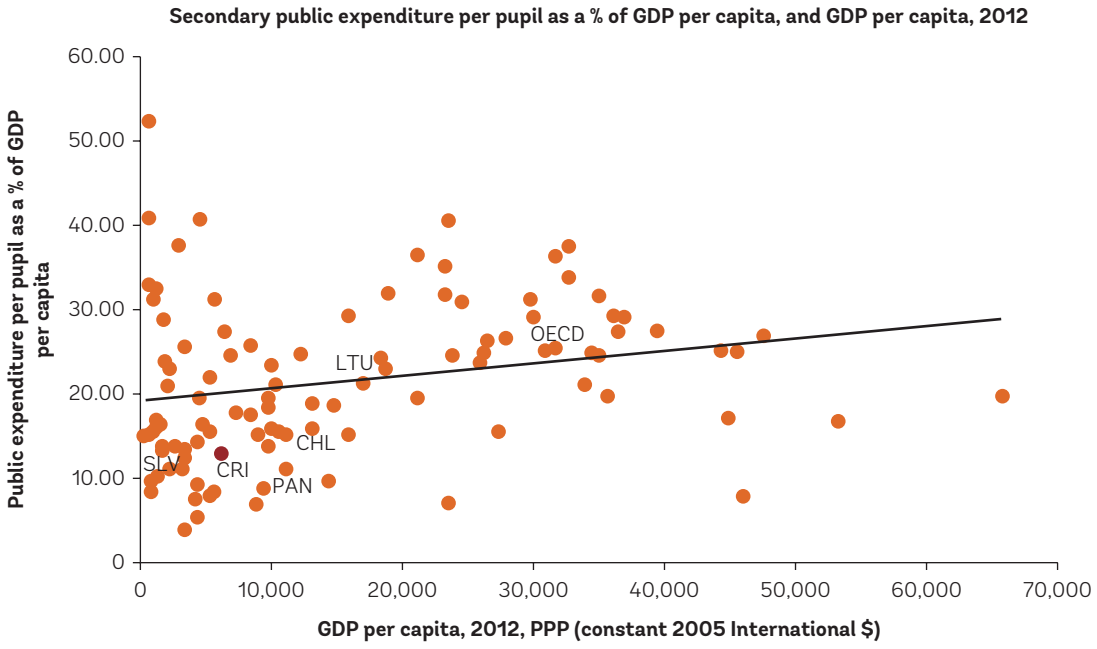
Given fiscal constraints, rising inequality, and the mismatch of skills and jobs, Costa Rica needs to increase the efficiency of spending with a focus on improving quality and completion rates. As discussed in chapter 3, the low results in school attainment and quality are worrisome, given the high share of spending on public education and the shift in labor demand towards high-skilled labor. Thus, the solution is not to spend more, but to spend better, by increasing the efficiency of spending to achieve better results. Some reform options are discussed in chapter 6.

Social protection: not so effective for reducing poverty or inequality

Social protection spending, which includes social security and social assistance, is high by regional standards. Between 2007 and 2012 social protection spending rose from 7.3 percent of GDP to 8.5 percent of GDP (left panel of figure 5.16). This is less than what is spent in OECD countries (which average 12.3 percent on old age and working age benefits),[22] and is considerably higher than in neighboring countries, such as El Salvador (5 percent), Honduras (6.1 percent) or Panama (5.8 percent).[23] The largest share within social protection spending corresponds to social security (that is, contributory pensions), whereas social assistance spending represents only 1.1 percent of GDP, similar to the share in Guatemala (1.1 percent), Nicaragua, and Panama (0.9 percent) and below El Salvador (2.6 percent). During the crisis of 2009, the government increased social protection spending, particularly cash transfers, which doubled in terms of GDP percentage from 0.3 percent to 0.6 percent.[24] All other spending categories remained largely unchanged during the period (right panel of figure 5.16).

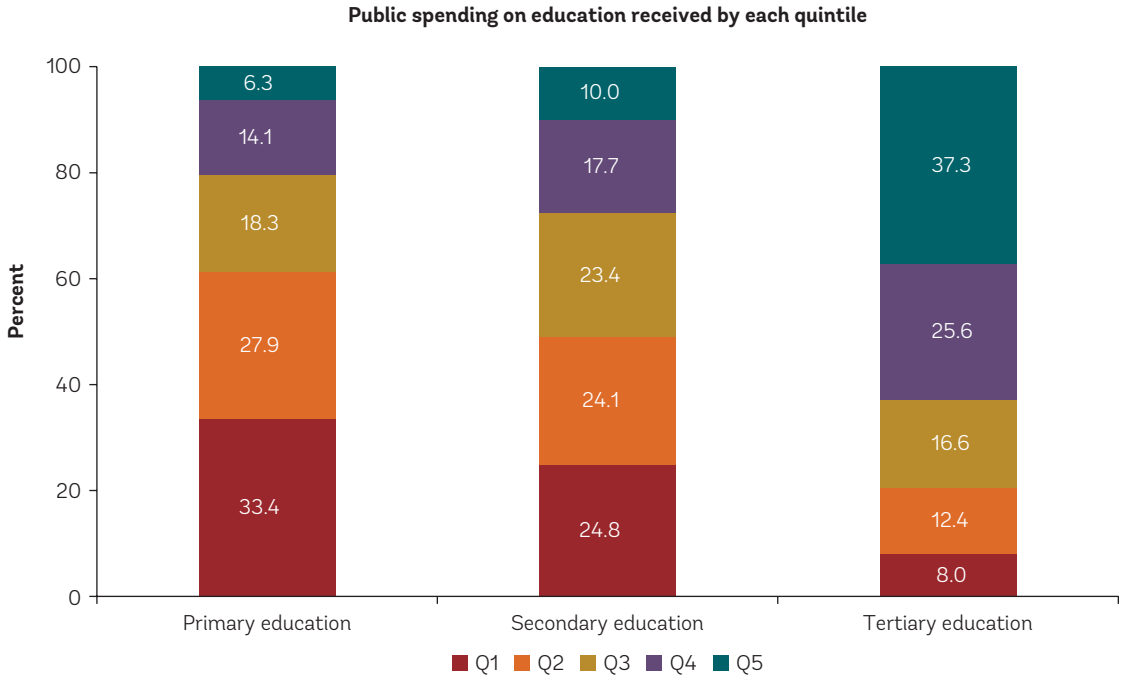
FIGURE 5.14 Spending on Secondary Education Is Relatively Low, Given its Level of Development





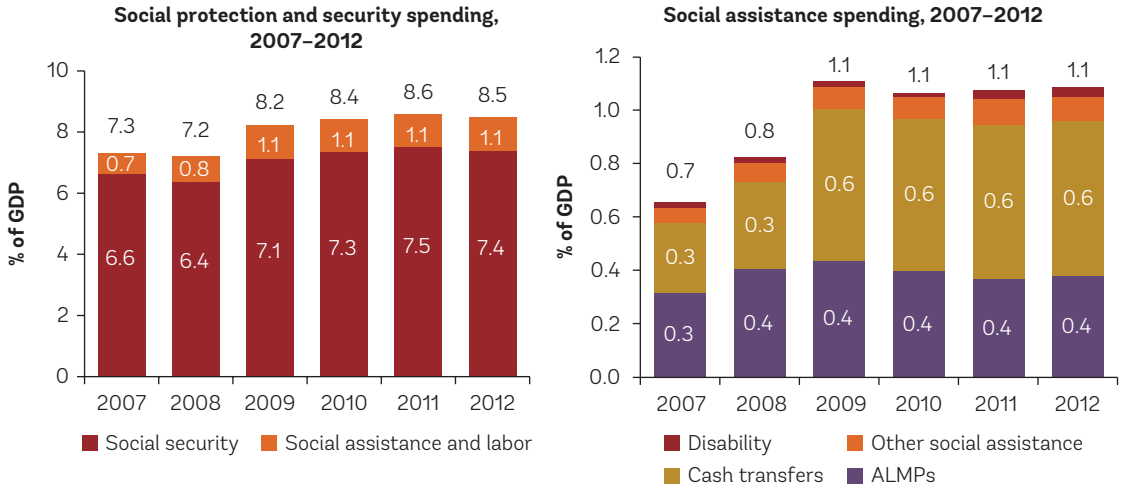
Source: World Bank (forthcoming 2015).

FIGURE 5.15 At Higher Levels, Public Education Spending Becomes Regressive



Source: World Bank (forthcoming 2015).

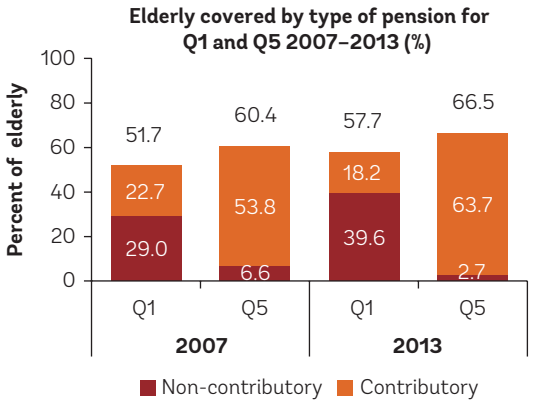
FIGURE 5.16 Most Social Protection Spending Is on Social Security and Cash Transfers



Source: World Bank (forthcoming 2015).

Pension coverage is high, but different pension regimes exacerbate inequities. A look at pension coverage among the elderly reveals that, though not universal, coverage is rather large for LAC standards.[25] Indeed, by 2013, 58 percent of the elderly in the bottom income quintile received a pension (of which 40 percent was non-contributory), and 67 percent of the elderly in the top quintile also received a pension (where 64 percent were contributory pensions). Thus, two-thirds of the elderly receive some form of pension, and there is very little inequality in terms of coverage across income quintiles (figure 5.17). Yet, the elderly poor are much more likely to receive non-contributory pensions, which are clearly smaller than contributory pensions. Moreover, among those that receive contributory pensions, there is a stark difference between pensioners of the public sector and private sector regimes. The special regimes (now mostly closed to current workers) pay significantly more generous benefits than those provided by the CCSS for the general population. This is not only a source of inequity but also raises sustainability questions, as discussed in the previous section.

FIGURE 5.17 Pension Coverage Among the Elderly Is High, Thanks to the Non-Contributory Pension

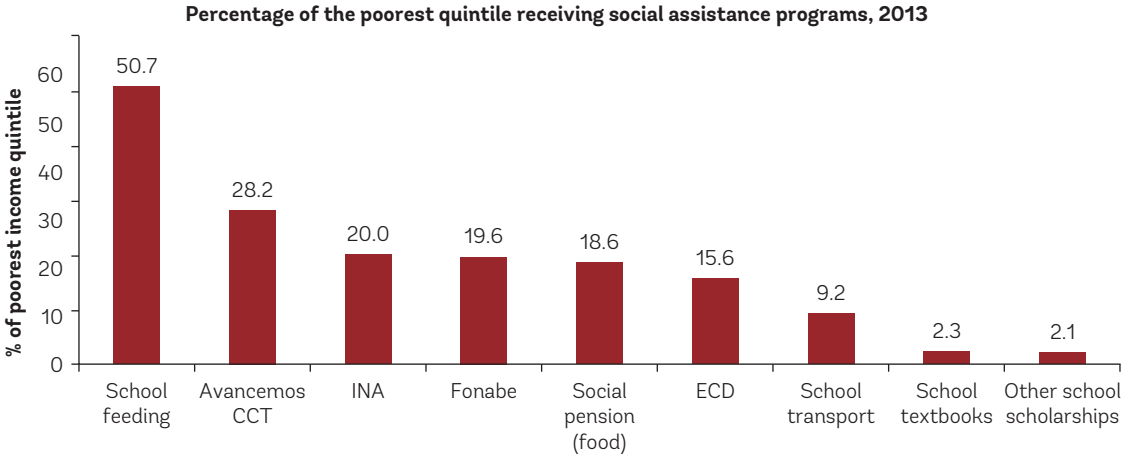


Source: World Bank (forthcoming 2015).

At the same time, social assistance transfers have had limited effects on poverty and inequality due to low coverage of the poor. This is explained by the fact that most social assistance programs in Costa Rica have fairly low coverage among the poor. As figure 5.18 shows, even the most widespread program (school meals) reaches only half of the population in the lowest income quintile; and the second largest program, the conditional cash transfer program *Avancemos*, reaches only 28 percent. In addition, there exist a large number of programs, whose coverage is not documented in the household survey ENAHO and that reach a very small number of beneficiaries (fewer than 20 thousand in most cases).

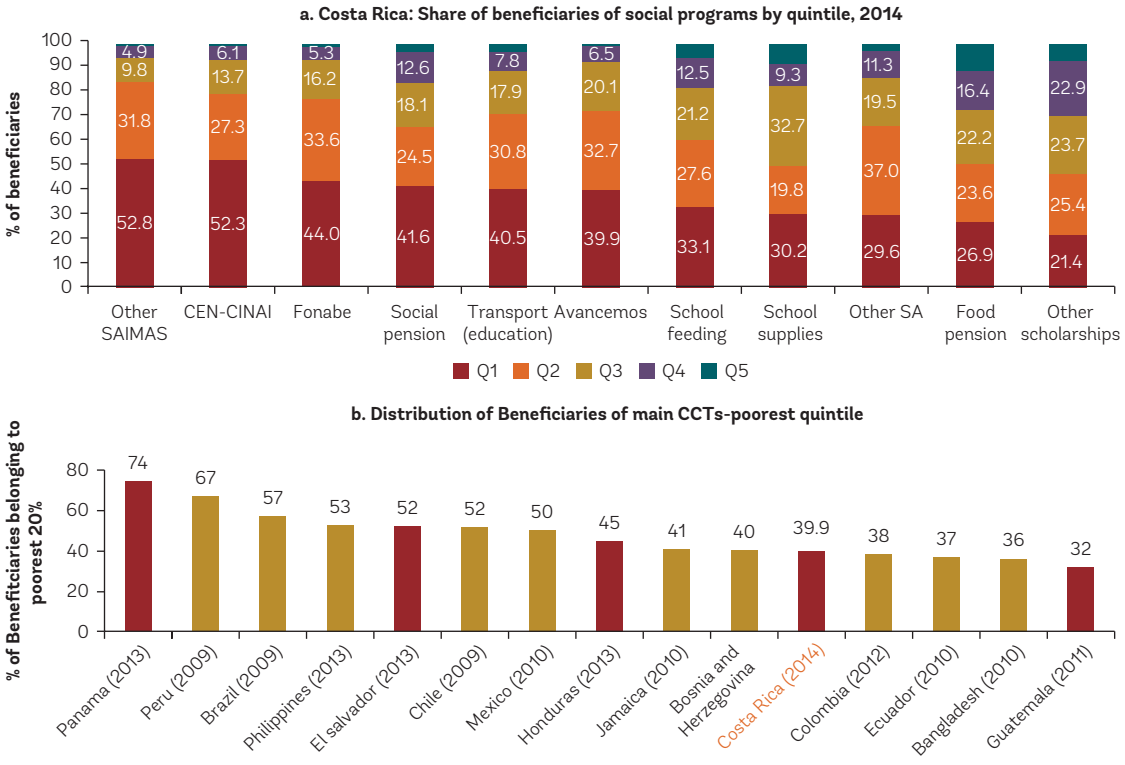
Moreover, most major social assistance programs are not well targeted. As the top panel of figure 5.19 shows, even the "best" targeted programs, such as the non-contributory pension, have about half of their beneficiaries in the bottom quintile. At the other end, a program like school meals provides most of its benefits to non-poor children, and a similar situation occurs with training programs from INA (*Instituto Nacional de Aprendizaje*, National Learning Institute). Putting Costa Rica in an international context (bottom panel of figure 5.19) reveals that there is significant room for improving the targeting accuracy of its programs. For example, 74 percent of cash transfers in the CCT *Red de Oportunidades* of Panama (one of Costa Rica's structural peers) go to the poorest quintile, against 44 percent for *Avancemos*. Thus, it is unclear how effective Costa Rica's programs can be to help the poor (and especially the poorest) bridge the

FIGURE 5.18 Coverage of Major Programs Reaches Half of the Poor, at Best



Source: World Bank (forthcoming 2015).

FIGURE 5.19 Most Major Programs Do Not Successfully Target the Poor



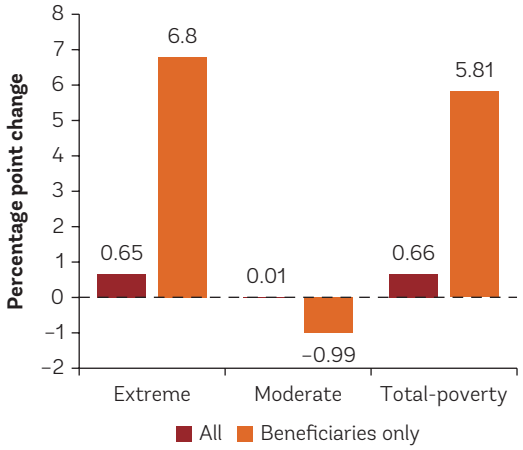
Source: World Bank (forthcoming 2015).

gaps created by low human capital and low access to jobs.

Furthermore, social assistance is widely seen as "welfare assistance" instead of a system to lift people out of poverty. Despite a broad political and social support for social programs for the poor, there is a common view both in the government and in the society, that social programs are not effective in generating capabilities that would enable people to escape poverty. They are rather seen as a retaining wall that prevents further increases of poverty, especially during crises, as seems to be the case with some programs like the CCT *Avancemos* (figure 5.20), but they have little impact on overall poverty. Yet, many social programs were conceived expressly to boost income-generating capabilities. This is the case of all school support programs (school meals, *Fondo Nacional de Becas* (National Scholarship Fund, FONABE) scholarships, and *Avancemos*), but also of the early childhood programs (Red de Cuido/CEN-CINAI), the housing programs (BAHNVI), and other smaller training and entrepreneurship programs. The lack of a culture of evaluation and social accountability within the social sector (and beyond) has contributed to the view that social programs have "no impact" and that they only serve as basic safety nets. In the long term, this can undermine the legitimacy and the public support for them.

Finally, a significant challenge for the efficiency and effectiveness of the social protection system is its fragmentation and insti tutional complexity. Institutional arrangements in the management and financing of social programs are highly complex. Before funds can be used by an implementing agency (for example IMAS (Joint Institute for Social Assistance), they flow through various channels, in particular FODESAF (National Development and Family Allocations Fund, run by the Ministry of Labor), which distributes funds from the central government to various programs, based on an allocation formula set by law. The resulting earmarking makes budget allocation inflexible; and because more than 50 percent of FODESAF's budget is earmarked, it is difficult to track financial flows and to assess the cost effectiveness of programs.[26]

FIGURE 5.20 Poverty Would Marginally Increase Without Avancemos



Source: World Bank (forthcoming).

Sustaining the Green Trademark: Managing Natural Resources and the Environment

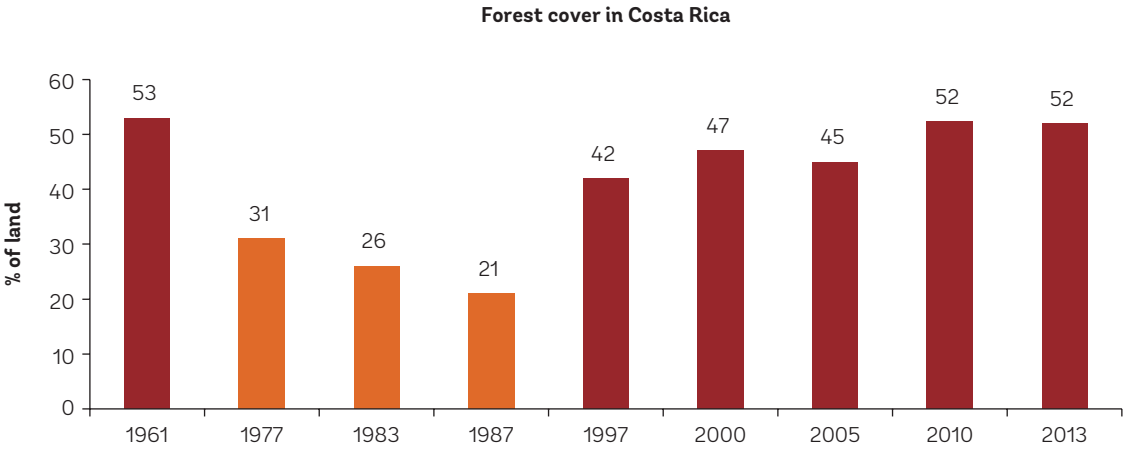
COSTA RICA IS REGARDED AS A WORLD LEADER in conservation and has made significant achievements in reforestation. Over

the last 30 years, forest cover has increased from 26 percent to 52 percent (figure 5.21). This has been made possible through public and private engagement and the use of economic incentives for conservation (under the 1996 Forest Law and its Payment for Environment Services [PES] framework), which have served as important drivers for promoting forest conservation, reforestation, and afforestation (chapter 1, box 1.2). These have proven critical to Costa Rica's development strategy, given the country's recognition as an international ecotourism destination. The tourism industry generated income of US$2.3 billion in 2013, representing around 44 percent of total service

KNOWLEDGE GAP 5.1 How Can Costa Rica Improve the Effectiveness and Coordination of its Social Programs?

Social policy is fragmented across numerous institutions in Costa Rica, many of them autonomous agencies. Consequently, more than two dozen social programs operate in parallel, often with similar target groups. What is the mapping of social programs by agency, objectives, coverage, and performance? How can these duplications (and resulting gaps in coverage for some population groups) be reduced, either through consolidation of programs, integration of Social Registries (such as the SIPO, operated by IMAS, and the SINIRUBE [National System of Registration of Beneficiaries], operated by FODESAF), or more ambitious institutional consolidation? This is the topic of a new non-lending technical assistance being requested by the Government of Costa Rica.

FIGURE 5.21 Costa Rica's Success in Reforestation



Source: Websites from: Oficina Nacional Forestal (ONF, www.onfcr.org) and Fondo de Financiamiento Forestal de Costa Rica (FONAFIF, www.fonafifo.go.cr)

KNOWLEDGE GAP 5.2 How Can Costa Rica Link Sustainable Production and Rural Landscapes to its Conservation Model?

Costa Rica's well-known Green Trademark has been centered on a conservation approach, supported by public sector economic incentives for conservation and reforestation (the PES mechanism) and eco-tourism resources. Fiscal and economic pressures, as well as scope, bring into question the sustainability of that model. How can Costa Rica adapt to the next generation of the green agenda, going beyond conservation and nature protection towards innovative ways for mainstreaming conservation into productive landscapes, and beyond carbon neutrality towards resilience? Further work under the programmatic NLTA on Green and Inclusive Growth seeks to bring further evidence to this important policy question.

exports or 19 percent of merchandise exports (chapter 4). Approximately 40 percent of tourists visited national parks. Costa Rica continues to strive for "green" leadership with its international commitment in 2009 (at the UN Summit on Climate Change) to become a carbon neutral nation by 2021 (chapter 1, box 1.2).

However, its Green Trademark and its commitment to carbon neutrality are at risk. Being green and carbon neutral at the same time entails not only maintaining the current levels of forest cover, but also reducing the current levels of Greenhouse Gas (GHG) emissions from all sectors. This is a challenging task given the trade-offs built into the current economic incentive structure for forest conservation and reforestation, which is dependent on revenues generated from tax on gasoline. While a large share of GHG emissions can be reduced through better management of forested and agricultural land, the country also needs to reduce carbon emissions from fossil fuels coming from transport, construction, and increasingly from general electricity consumption.[27]

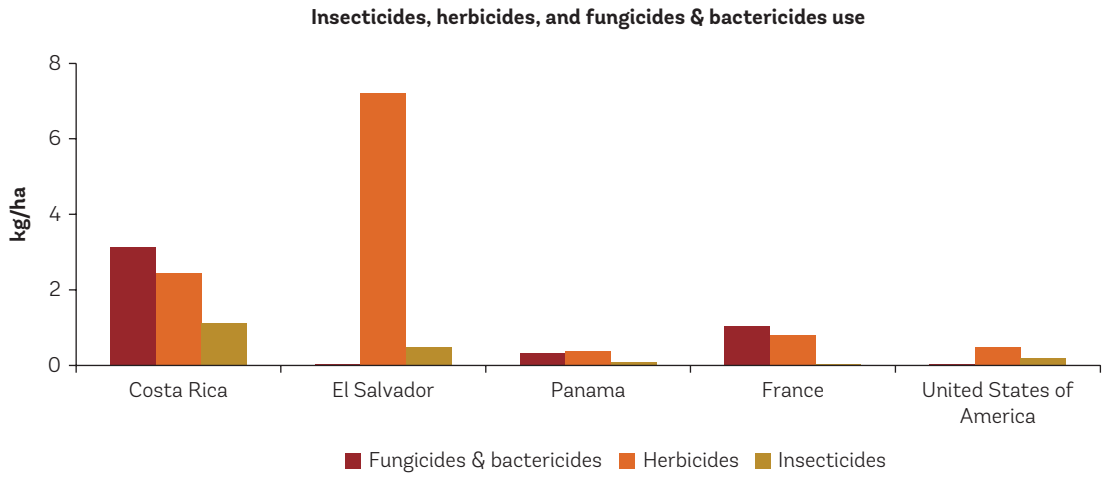
The current environmental regulatory framework favors a strong conservation approach that has limited productive opportunities. During the last four decades, the focus on conservation has led to the development of a nature-based tourism sector, on the one hand, and a significant contraction of the domestic timber industry, on the other. Costa Rica has become a net importer of processed and finished wood products, such as furniture.[28] As the demand for wood and processed timber has been steadily increasing over the last decade, underinvestment in the timber industry has led to a 36.4 percent drop in output of processed timber between 2007 and 2012 and an increase in the exports of low-value unprocessed products (such as palettes [tarimas], construction material, sawn wood). Agricultural productivity of many of Costa Rica's main crops has also seen a declining trend (coffee, in particular) (chapter 4), which affects the livelihood of rural populations engaged in agriculture. The focus on conservation has also

limited the country's potential to meet increasing energy needs through renewable energy generation (such as hydropower, geothermal, and biomass), which would require the exploitation of resources located within the boundaries of protected areas.

Efforts to maintain or further increase the forest cover are undermined by rising opportunity costs. The fiscal weight of Costa Rica's conservation and reforestation program can prove too heavy to sustain in the longer term, with more pressing social and economic issues that the country faces in the short term and an increasing opportunity cost of alternative land-use options. More profitable non-traditional export crops such as pineapples, bananas, or oil palm are becoming more economically attractive, with land owners opting out of the conservation and reforestation programs once the contracts are phased out. Although these activities generate employment in rural areas, they may jeopardize Costa Rica's achievements in countering deforestation trends and promoting a green image, unless land use change is adequately managed and potential negative environmental externalities (such as heavy use of agro-chemicals—see figure 5.22) are internalized through effective mechanisms (such as organic production). If in the medium to long term Costa Rica wants to continue increasing or maintaining its current forest cover, the regulatory framework governing its management and associated incentives needs to be reviewed and adapted to a growth strategy that considers the role of forest conservation in the context of a rural productive space that is increasingly vulnerable to weather changes.

Moreover, rapid urbanization has brought new challenges for the country. Costa Rica's urban population has been growing rapidly, from 50 percent of the total population in

FIGURE 5.22 Use of Insecticides, Herbicides, and Fungicides/Bactericides (kg/ha), Circa 2011



Source: FAOSTAT.
Note: Figure shows use in kg/ha of the three largest groups of pesticides. Calculated as the ratio of pesticides use and agricultural land area minus organic agricultural land. Latest data point used between 2007 and 2011. (Costa Rica and Panama: 2011; El Salvador and France: 2010; United States: 2007).

1990 to 75 percent in 2013. The first challenge relates to the transportation area and associated carbon emissions and air pollution. Increasing energy demand is boosting the use of fossil fuels and raising air pollution levels, mainly through a significant increase in road-based transport. Growing and aging vehicle fleets and increased congestion are key drivers, especially in the San José Greater Metropolitan Area (GMA).[29] Energy subsidies, especially for transport fuels, further magnify this development by incentivizing inefficient use of vehicles. However, the public transportation system in the GMA is obsolete (all routes converge to the city center) and contributes to gridlock. The economic costs of urban air pollution in Costa Rica amount to about CRC 210 billion (about one percent of GDP). Around 350 premature deaths and close to 4,700 lost Disability-Adjusted Life Years (DALY) are attributable to urban air pollution (Particulate Matter (PM) exposure). The second set of challenges emerging from urbanization includes sewage treatment and solid-waste management. Although access to sanitation is almost universal (chapter 3), 96 percent of all urban wastewater collected is discharged into rivers and receiving water bodies without any treatment, generating public health risks and water resources contamination (figure 5.23). Only eight percent of the population is connected to a sewage system and to a wastewater treatment plant. In San José, only four out of 16 wastewater treatment plants comply with state regulations. The water contamination has been so severe in some cases as to result in five beaches being declared unsuitable for swimmers (Quepos, Azul, Tarcoles, Portete, and Balneario municipal de Limon).[30] Mounting unmanaged solid waste has consequences for public health and the sustainability of the green model. In sum, an emerging area of environmental sustainability is the brown agenda.

The country is also highly exposed to natural hazards and faces significant challenges from climate change. Costa Rica is one of the countries with the highest exposure to

FIGURE 5.23 Access to Water, Sanitation, Sewage, and Connection to Sewage Treatment, Circa 2012

Country	Access to water source (% of urban pop)	Access to sanitation (% of urban pop)	Sewage treatment (%)	Connection to sewage treatment (%)
Costa Rica	99.6	94.9	4.0[1]	8.0[1]
Chile	99.6	100.0	72.0[4] (2011)	83.3[2] (2009)
Croatia	99.8	98.6	81.6[4] (2011)	27.0[3] (2011)
Dominican Republic	82.5	85.5	19.5[4] (2011)	12.0[2] (2005)
Lithuania	99.3	98.7	48.9[4] (2011)	64.0[3] (2011)
Germany	100	100	99.4[4] (2007)	95.0[3] (2010)
Panama	96.8	79.7	n/a	55.0[2)] (2007)
Uruguay	99.9	96.5	15.0[5]	n/a
United States	99.4	100.0	87.0[4] (2008)	n/a

Source: WDI database, 2012; 1) Programa Estado de la Nacion 2014; 2) UN Stat; 3) Eurostat; 4)Approximated based on Aquastat FAO data; 5) UNEP 2000.

hazards, including hydro-meteorological (floods, cyclones, and landslides) and geophysical (earthquakes and volcanoes).[31] It is the second most exposed country to multiple hazards based on land area, with 36.8 percent of the total area exposed to three or more natural hazards. It is estimated that 77.9 percent of the population and 80.1 percent of GDP are subject to high risk from multiple hazards. While Costa Rica has been spared by major disasters in recent years, it is not immune to the potential of a catastrophic event. Hurricane Thomas in 2010 caused damages estimated at US$292 million; Tropical Depression 12E in 2011 caused US$60 million in damages; and in 2012 the Samara-Guanacaste earthquake generated US$100 million in damages to public buildings, transport, health, education, and water and sanitation infrastructure. Furthermore, according to the Intergovernmental Panel of Climate Change (IPCC), some of the climate change projections for Costa Rica indicate up to a 32 percent decrease in overall rainfall precipitation by 2050. Some areas, especially in the North, have recently seen more frequent and prolonged drought periods. Changes in storm regimes near the coast may further erode coastal morphology, disrupt fishing areas and agricultural lands, and salinize water sources.[32]

Increasing urbanization and vulnerability of public infrastructure are two factors contributing to risk exposure. The San Jose GMA's fast-growing population puts pressure on the limited natural resources and on public goods and services. Affordable housing is a major socioeconomic constraint (see chapter 3) that forces many low-income families to relocate to higher-risk areas. In fact, most of the people affected by disasters such as floods live in informal urban settlements.[33] On the public infrastructure side, low levels of investment in disaster risk reduction are putting critical transport infrastructure at risk of failure in the event of a disaster. An illustrative example is the need to replace and retrofit the bridges most crucial for transport and most vulnerable to seismic and hydro-meteorological events. Of all the damages due to hydro-meteorological events between 2005 and 2010, 51.6 percent were recorded in the transport sector.

Strengthening prevention and resilience is complicated by low capacity of local governments. Even though national policies for Disaster Risk Management (DRM) exist at the national level, a major constraint in the process of generating more knowledge and increasing preparation is the level of local technical capacity to absorb information and implement the right measures.[34] For example, the capabilities to use and process information vary widely across municipalities: only a few have the right human and infrastructure resources, such as sophisticated mapping systems. As a result, overall resilience and adaptation to climate-induced impacts has yet to be achieved at local levels.

Sustaining and promoting a Green Trademark needs to extend beyond forest conservation and reforestation. The "green" asset that Costa Rica has established with its forests can be maintained only through an integrated approach that enables the conservation of natural resources to be developed in parallel to other productive activities and balances the many financial and environmental trade-offs. This has been achieved in other countries, such as New Zealand and Finland, where the "green" image is supported with strong forestry and agricultural sectors and a

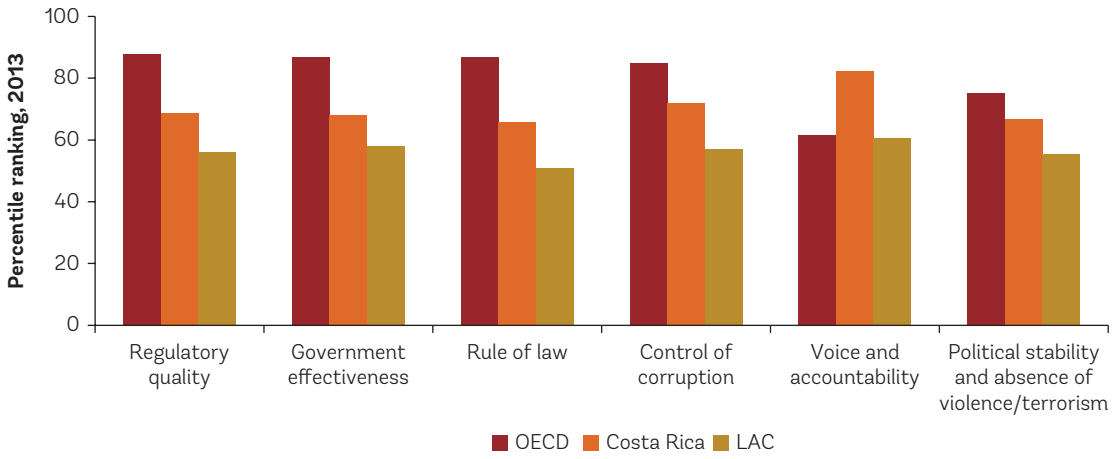
risk preparedness framework. However, the challenge in Costa Rica will be to find the right balance, if any, between "green" and carbon neutral while addressing increasing issues in the brown agenda in the country.

Governance Challenges Hamper Government Effectiveness and Regulatory Growth[35]

Despite Costa Rica's good standing on governance relative to the LAC region, both perceptions and evidence suggest that its institutions and procedures have not been able to adapt to the challenges of a new economic and social environment. Costa Rica has better governance indicators than LAC, but lags behind OECD countries (figure 5.24). After the 1948 civil war, the abolition of the army, and the creation of the new Constitution in 1949, Costa Rica became an exemplary democracy, with a clear checks and balances system between the executive and the legislative (Assembly). Since 1953, elections have been peaceful and citizen participation in the political process is high (chapter 1). Costa Rica also has high marks in the areas of voice and accountability and control of corruption. The areas of government effectiveness and regulatory quality are the ones trailing behind, with the largest difference with OECD countries.

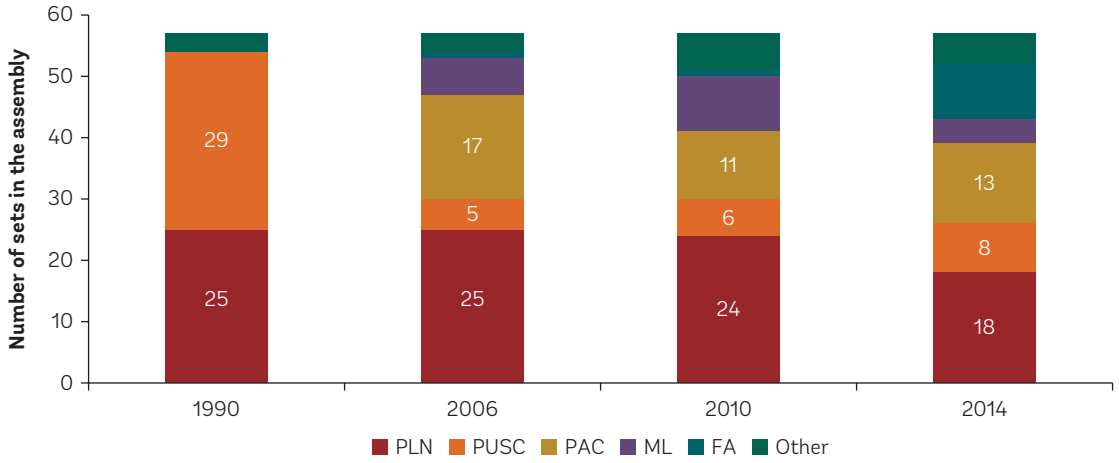
The current political landscape poses additional challenges for approving and implementing needed reforms. Costa Rica's legislative power has gradually shifted from a bi-partisan to a multi-party system, hampering the adoption of reforms in many instances over the past decade(s) (figure 5.25). Parliamentary procedures, which historically did not impede decision making, give political minorities the power to delay votes or to file injunctions, which, in a fragmented and polarized environment, seems to be hampering reform processes.[36] One example

FIGURE 5.24 Costa Rica Has Better Governance Indicators than LAC but Lags Behind OECD Countries



Source: Worldwide Governance Indicators.

FIGURE 5.25 From a Two-Party to a Multi-Party System in the Last 25 Years



Source: Costa Rican Legislative Assembly. PLN: Partido de Liberación Nacional; PUSC: Partido Unidad Social Cristiana; PAC: Partido Acción Ciudadana; ML: Movimiento Libertario; and FA: Frente Amplio.

is the fiscal reform package that was approved by the Legislative Assembly, and later invalidated by the Constitutional Court following an injunction filed by a legislator. The leadership, in drafting new legislation, has also shifted slightly from the executive to the legislative, partly a reflection of parliamentary procedures. For example, during the Chinchilla administration (2010–2014), most of the new legislation passed originated in the Arias administration (2006–2010). Paradoxically, the Chinchilla government experienced the most difficulty in passing comprehensive reforms in the Assembly during its first two years, when the political capital would seemingly be the highest.37 During the second half of the term, the "wear and tear" of parliamentary negotiations manifested itself, and the magnitude of the new legislation passed also diminished. The delays and difficulty in passing comprehensive and meaningful reforms result in a mismatch between the "political delivery" and the demands of the population. Finally, in the absence of clear political leadership and consensus, new interpretations of the existing laws take the place of passing new laws.

A consequence of this gridlock in passing reforms has been the proliferation of an increasing number of public (and often autonomous) institutions created to address specific problems. Costa Rica is notorious in Latin America for the large number of public institutions. In 2011, the state comprised 324 entities (table 5.1), followed by El Salvador with only 162. Many of these institutions were born out of a desire to make the government apparatus more efficient and agile—typically through the creation of "autonomous institutions," which are run under different regulations from the Central Government and have a separate budget process (more on this below). Also, these institutions usually have much more generous pay scales than the Central Government, but the same level of job security, and no real performance evaluation mechanisms. In the

TABLE 5.1 There Is a Large Number of Public Sector Institutions in Costa Rica, 2011

Type of institution	No.	Type of institution	No.
Branches of government	3	Semi-autonomous institutions	8
Electoral Supreme Court	2	Public enterprises	25
Legislative power	2	Non-state public agencies	47
Ministries	18	Public funds' managing institutions	1
Agencies ascribed to ministries	79	Municipalities	81
Agencies ascribed to the Presidency	3	Municipal district councils	8
Autonomous institutions	34	Municipal enterprises	1
Agencies ascribed to autonomous institutions	12		
Total			**324**

Source: Costa Rica's Legislative Assembly – website (ttp://www.asamblea.go.cr).

last two decades, more public entities were created than in the entire period 1950–1979. Between 1990 and 2009, 118 were founded or restructured. Over time, these new bodies are affecting the government's efficiency (and service delivery), thus reinforcing the vicious cycle that leads to the creation of new institutions. In some cases, some institutional clusters have been effective in achieving positive outcomes (for example, the attraction of FDI and tourism development discussed earlier); but in others there are failures, too, the most salient one being the case of the rice sector (box 5.1). With 28 institutions, the agricultural sector provides an example of the fragmentation of institutions that hinders the coordination and effectiveness of policies, decision-making, and quality of services for producers.[38] As long as public sector action is needed to provide services to foster growth, modernizing the public sector becomes a needed foundation that will impact all aspects of the economy.

Besides the proliferation of institutions, current procurement practices are not conducive to an effective control of resources. Current public procurement practices fail to consolidate purchases (taking advantage of framework agreements, for example) or standard bidding documents, both of which could lead to important cost savings. Also, neither the public sector entity nor the government makes good use of existing information technology to plan, manage, or control procurement. In many cases, precise purchasing statistics are not available and there are only weak links between procurement plans, the budget process, and various aspects of the financial management at the budget execution stage. In addition, within this overall legal and oversight framework, each public sector entity is free to set its procurement rules and procedures, making it difficult to do centralized planning or to consolidate purchases across institutions. This absence of complete statistics on procurement and procurement methods makes it difficult to identify patterns, learn from mistakes, carry out performance evaluation, and design efficient procurement policies.

Another complexity of the intricate public sector administration is the budget and

BOX 5.1 The Rice Sector: Failure of a Productive Development Policy

Rice, a staple item in the food basket of the poor, is one of the most protected commodities in Costa Rica. Rice tariffs in Costa Rica are high, at 62 percent for processed rice (having recently increased from 35 percent), and prices for locally produced rice are controlled at each step of the process. Rice subsidies (in the form of guaranteed prices), amount to 45 percent of the domestic price, higher than in the United States or the European Union (EU). Ironically, the policies that protect rice prices under a banner of food security and equity have brought them well above international prices, benefiting a handful of large producers and harming the budget of the poor.

The *Corporación Arrocera Nacional* (CONARROZ), created in 2002, has been effective in protecting producers from international price shocks, but not in improving local production conditions. CONARROZ gathers a very diverse set of rice producers and processors, most of them very small producers. Its lobbying efforts are presented as a way of defending these small producers and protecting jobs in the agricultural sector. However, most of the rice produced in Costa Rica (about 80 percent) comes from a minority of large producers and processors, who also benefit from tariff-free import quotas (assigned proportionally to their processing capacity). Thus, they can purchase rice at international market prices, and sell the processed rice domestically with a high profit. It is estimated that from 1995 to 2005, consumers transferred US$396 million to rice producers, which for the poorest households represents seven to eight percent of their per capita income.

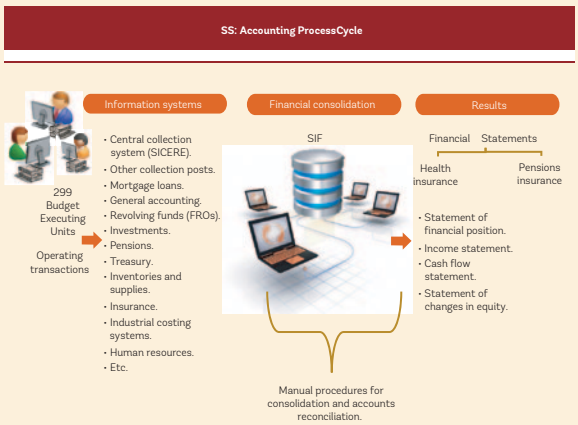
Price controls have done little to improve productivity among rice producers but have created incentives to maintain the status quo. Although consumer prices have continuously increased since 2008, producer prices have remained flat or decreased, mostly due to low quality. The average yield per hectare has gone down from 4.8 tons in 1999/2000 to 3.39 tons in 2011/2012. As a result, most domestic rice producers, particularly the smaller ones, would not be profitable at international prices, and thus have a strong interest to maintain the status quo.

Source: Crespi (2014); Monge Gonzalez et al. (2010); Arroyo et al. (2013); and Cornick et al. (2014).

planning system. The current budget system limits the ability to have a comprehensive discussion on policy and spending priorities.[39] Costa Rica has three distinct budgetary processes in the public sector. First, the central government budget or national budget, which is approved by the legislative assembly. Second, the budgetary process of the institutions outside the central government, whose budget is approved by the Comptroller General of the Republic (CGR), and which doubles the size of the national budget. Of the total public sector budget, the national budget is about 33 percent, and the budget of other institutions is 66 percent.[40] The third budget process is for municipality budgets,

BOX 5.2 The CCSS Lacks an Integrated Management System Over Resources

In terms of budget, the Costa Rican Social Security Institute (*Caja Costarricense de Seguro Social*, CCSS) is the largest decentralized autonomous entity in the Government. Its annual budget of about US$5.6 billion for 2015 is equivalent to 37 percent of the Central Government Budget.



The CCSS' operational processes are characterized by complex and cumbersome procedures. They rely on a "silo" approach that favors fragmentation and duplication of many processes paired with multiple layers of approvals. Moreover, the fragmentation of processes has resulted in the development and use of multiple non-linked IT tools (including Excel sheets and databases) for the recording, control, and generation of different pieces of information. The information generated by these independent IT tools needs to be aggregated and reconciled. In a highly decentralized environment, having excessive manual controls is not effective and has consequences in terms of added transaction costs and difficulties in producing information that could assist with service delivery.

The preparation of financial statements provides a good example of the challenges that CCSS faces to adequately monitor the use of its resources. Information from over 20 IT systems and databases is manually collected and aggregated Because these systems and databases are not linked, the CCSS has developed burdensome and manual reconciliations across the organization, as well as additional manual controls, in order to ensure that errors are prevented or detected in a timely manner. The lack of an integrated IT platform does not allow the timely and systematic recording of financial and accounting transactions. While these manual and compensating controls allow for the timely preparation of budgetary reports and financial statements (including budget monitoring, reconciliations of accounts, analyses of fluctuations, aging of accounts, and manual and supervisory reviews), given the nature of the CCSS more meaningful financial information—such as financial information by service delivery units or by cost centers—might be needed to support decision-making and monitoring financial performance.

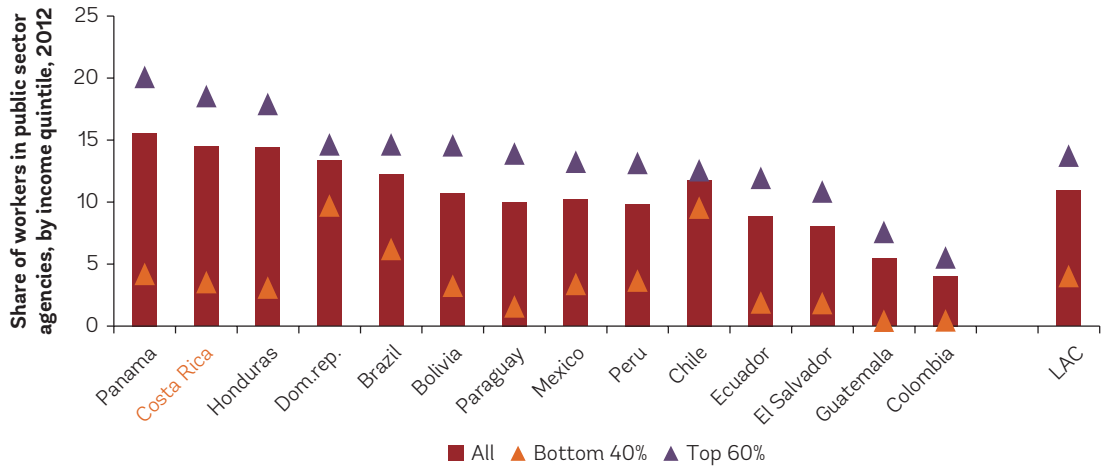
which account for less than two percent of public sector expenditures. The CGR verifies the legality of proposed expenditures by the municipalities. Thus, a large part of public expenditures is not under the direct control of the executive or the legislative powers.41 The latest PEFA assessment (World Bank and IDB 2010), found that only 49.6 percent of expenditures were approved by the Congress and in 2011 the central government accounted for only 41 percent of expenditures and 27 out of a total of 229 entities.42

The budget process and numerous earmarked expenditures reduce the margin for the executive to control public investment and current expenses. Budgets are increasingly constrained by constitutional mandates and rules without corresponding financing, such as directives on minimum spending for education, municipalities, housing subsidies, and community development. Additional laws stipulate that portions of taxes and fees must be allocated to certain activities and institutions, such as FODESAF (National Development and Family Allocations Fund) and CONAVI (National Roads Authority). Pensions, wages, and salaries account for three-quarters of central government expenditures. Public sector employment is much higher in Costa Rica than in most other Latin American countries, comprising 14.4 percent of the labor force in 2012 compared to an average of 10.9 percent (figure 5.26). Public sector wages are also significantly higher than the private sector ones (see chapter 5, figure 5.5). Moreover, the central government tax revenue is still insufficient to fund all these legal and constitutional mandates. A World Bank Public Expenditure Review finds that "in order not to exceed spending limits and given these rigidities, the government has often resorted to cutting back on public investment, putting pressure on service delivery. One of the most evident results of public investments restrictions is the deterioration in the quality of most of Costa Rica's infrastructure services."43 More important, the executive has no power to direct or contain spending in autonomous institutions, since they operate with wide margins of budgetary and administrative independence, and are constitutionally protected from political interference or changes in government.

Moreover, sectorial planning is weak with limited medium-term costing projections. Annual work plans are developed at the institution level despite a provision made in Law 8131 to develop multi-annual plans at the sectorial level (multi-institutional). The PEFA (ID-11 iii) shows a very weak environment for sectorial planning. More analysis will be needed to fully understand the consequences of weak sectorial planning coupled with increased number of institutions (including special purpose institutions, executive agencies) on service delivery, but clearly a fragmented planning system is not conducive to improving the quality of public expenditures.

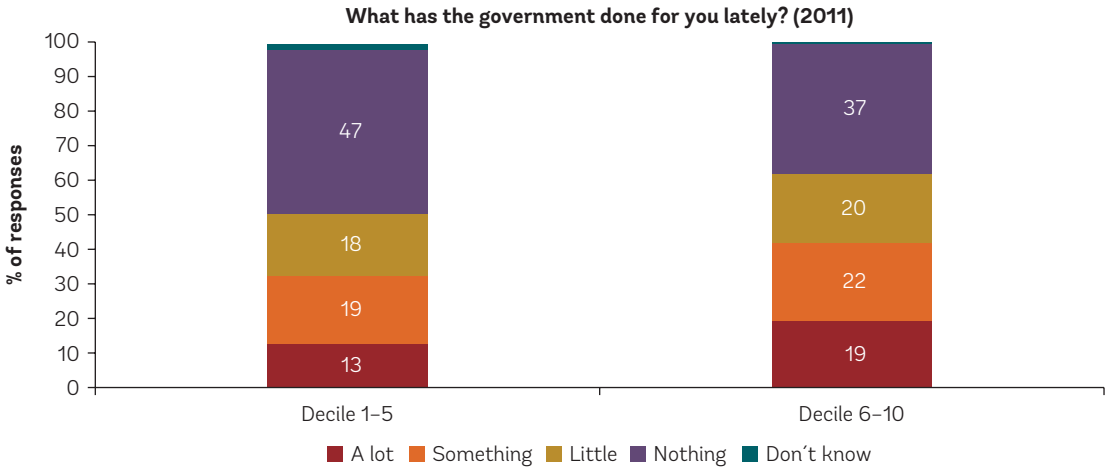
The main effect of weaknesses in public sector administration is on the diminished ability of the public sector to deliver services expected by the population and private sector. Agencies affected are those in charge of education, health, public infrastructure, and social assistance, which have a direct effect on the inclusiveness of growth. Not surprising, there is a growing perception of low effectiveness of government institutions and civil servants. According to a 2011 Latinobarómetro study, Costa Rica was rated by its own citizens at 5.5 out of 10 on the efficiency of the

FIGURE 5.26 The Public Sector in Costa Rica Is One of the Largest in LAC in Terms of Workers



Source: LAC Equity Lab.

FIGURE 5.27 High Socioeconomic Groups Are More Satisfied with the Government



Source: Calculation with data from Latinobarómetro.

government and 5 out of 10 on the efficiency of civil servants. This perception was worse among people in the lower deciles than in the top deciles. The Latinobarómetro study also reports that, when asked about "what the government has done for you in the past 12 months," citizens responded that government was doing a relatively good job for middle class and upper middle class but not so much for the poorer groups (figure 5.27).

The institutional complexity of the public sector results in convoluted procedures

KNOWLEDGE GAP 5.3 What Are the Key Governance Bottlenecks in Executing Infrastructure Projects—and What are Their Cost Implications?

Various factors are named as obstacles to implementation of public infrastructure and social projects in the various line ministries, such as cumbersome processes in the Public Procurement Law, deficiencies in the environmental regulatory framework, cumbersome checks and reviews by the Contraloria, and deficiencies in the expropriations law. Further evidence on the trajectory of investment projects—and the time delays and costs of each step along the way—would help inform the debate about how to reduce the "chokes and strangleholds" on public investment in Costa Rica.

that increase the transaction costs of interacting with public institutions and decrease the quality of services. The poor ranking of Costa Rica in the Doing Business Indicators (see figure 4.28) is partly attributed to burdensome procedures within and between public institutions. Reducing red tape will facilitate firms' operations, reducing transaction costs of interacting with public institutions. Only one quarter of firms report that red tape declined in 2014.[44] Small and medium enterprises are the most affected by red tape. Firms in the FTZs depend on CINDE to expedite solutions for complying with business regulations. Furthermore, the quality and efficiency of public services can be affected by cumbersome procedures.

In sum, we find that the public sector has moved very slowly to adapt to the increasing sophistication and needs of the economy.

Notes

1. IMF (2015).
2. Garza et al. (2012).
3. Although in 2002 Costa Rica had a fiscal deficit higher than four percent of GDP, almost all of it was due to interest payments. Nowadays, interest payments are around half that amount, and the overall deficit reflects a growing primary deficit, following the steep increases in public expenditures.
4. For example, the wage increase was applied to teachers because they should receive the same salaries or benefits increases as other parts of the central government (Estado de la Nación, 2014).
5. Net present value. Estimates by IMF (2013).
6. IMF (2013).
7. For more details, see Ministerio de Hacienda (2013), Estado de la Nacion (2014), and Cornick and Trejos (2009).
8. Ministerio de Hacienda (2013). Cornick and Trejos (2009) show that the share of pre-committed revenues has been high since the 1990s.
9. Estado de la Nacion (2014).
10. Public social spending in OECD countries averages 21.4 percent of GDP on health, social services, and social protection benefits, plus another 5.4 percent of GDP on education, for a total of 26.8 percent of GDP. Sources: OECD 2014 update, OECD Social Expenditure Database (SOCX) and OECD Education at a Glance 2013.
11. World Bank (2006b)
12. The share of households with fixed phone lines has decreased since 2014 as households have gained access to cell phone services.
13. World Bank (forthcoming 2015).
14. OECD Social expenditures database (http://www.oecd.org/social/expenditure.htm).

15. World Bank (2014b).
16. World Bank (2014b).
17. Arroyo and Lindert (2104) and Jimenez (2014).
18. The estimated education expenditure for 2012 (5.3 percent of GDP) shown in figure 5.6 differs from the official figure, as it takes into account only executed budget. See World Bank (forthcoming 2015).
19. OECD (2013).
20. Another option is to compare expenditure per student in PPP US Dollars; however, the largest education expenditure item is teacher salaries (a non-tradable good), thus, even the PPP correction places too large a weight on high-income countries' expenditures.
21. Primary education receives 41 percent and secondary 27 percent. Figures are for 2012.
22. OECD Social Expenditure database (http://www.oecd.org/social/expenditure.htm).
23. World Bank (forthcoming 2015).
24. Much of these increases were directly linked to an increase in the public sector's base salary, which had repercussions for pension payments, including non-contributory pensions. See also the previous section on fiscal accounts.
25. Rofman and Oliveri (2011).
26. See IMF (2013).
27. About 66 percent of total energy consumption is based on oil products such as gasoline and diesel (Blanco 2014).
28. ONF (2013).
29. The GMA accounts for only four percent of the national territory but concentrates more than 60 percent of the population and approximately 75 percent of the vehicle fleet. There are approximately 1.4 million cars in Costa Rica for roughly 4.6 million people (INEC, 2011 Census).
30. Estado de la Nación (2014).
31. According to the Natural Disaster Hotspot study by the World Bank, Costa Rica is number eight worldwide in economic risk exposure to three or more hazards. See GFDRR (2011).
32. World Bank (2014d).
33. An "informal" settlement is typically a piece of occupied land for housing where occupants have no legal title. See Estado de la Nacion (2014).
34. GFDRR (2011) and World Bank (2013c).
35. Governance is broadly defined as "the traditions and institutions by which authority in a country is exercised" (Kaufmann, Kraay, & Mastruzzi, 2010) or "a government's ability to make and enforce rules, and to deliver services" (Fukuyama, 2013). Numerous studies across a wide set of countries point to good governance being beneficial for growth, investment, and finance, and bad governance leading to detrimental effects on economic outcomes.
36. Cornick and Trejos (2009) highlight the problematic features of the rules and procedures of Costa Rica's legislature in more detail: "A two-thirds quorum is required not only when votes are cast but even during debate: written discussion and submissions for the record are not allowed. Bills must be voted on once in committee and then twice by the full Congress. Questions concerning a law's constitutionality are referred to the courts between the first and the second vote; a minority of members may even send the bill to the courts before the first vote. Every member may propose an unlimited number of amendments to a bill and is allocated a certain amount of time to argue for each proposal. Each motion to amend is debated and voted on separately, may be raised and re-raised in committee, and then raised and re-raised again before the full house" (p. 165).
37. This is also true for other administrations.
38. Estado de la Nación (2014). Besides fragmentation of public sector institutions, there is also a fragmentation of programs, projects, or services provided (p. 337).
39. World Bank and IDB (2010, p. 52).
40. Estado de la Nacion (2014).
41. World Bank (2008).
42. IMF (2013).
43. World Bank (2008).
44. UCCAEP (2014).

6. Priority Areas, Linkages, and Complementarities

Costa Rica's development model has sustained impressive achievements. Centered on its long-standing democracy, ambitious Social Compact, open economy model, and Green Trademark, the country has sustained healthy growth rates, improvements in social indicators, environmental gains, and one of the lowest poverty rates in the Latin America and Caribbean (LAC) region.

However, despite these impressive achievements, there are a number of emerging challenges that will need to be addressed to maintain the country's successful development path.

First, despite reasonable growth and a strong commitment to the Social Compact, poverty reduction has stagnated and inequality is rising. The long-term trend suggests rising or stagnating inequality across most of the past 25 years, in stark contrast to the significant decline in inequality in the broader LAC region. More recently, the gap between the rich and poor has widened significantly since the global crisis. Although growth recovered promptly after the global crisis, above the regional average, job creation for low-skilled workers has been feeble, contributing to rising unemployment and pushing returns to higher education upwards. Growth has been uneven, with lower growth and job creation in sectors that are more likely to employ unskilled workers (e.g., construction and agriculture). Not surprisingly, inequality has increased, with the widening gap between the earnings of rich and poor workers mirroring large disparities in human capital and educational attainment. Moreover, despite high spending on social protection benefits and the broader Social Compact, taxes and transfers have not proven to be effective in redistributing income to compensate for these disparities. Consequently, rising inequality offset the poverty-reducing impact of growth in the late 2000s, and reversed what should have been a decline in poverty between 2010 and 2014, with poverty increasing by 0.4 percentage points instead of falling by a projected three percentage points during the post-crisis "recovery" period.

Second, although GDP has grown steadily in recent years, especially compared to the Latin American Region as a whole, Costa Rica performance is not comparable to the top regional performers. Unlike the top regional performers (Chile, Panama, and Uruguay) Costa Rica's per capita GDP had not shown any signs of convergence towards the US level in the last 25 years. For example, in 1990, Costa Rica per capita income was 13 percent of the US level, approximately as it is today. At the same time, the per capita GDP of Chile, Panama, and Uruguay have increased form 13, 12 and 9 percent of the US per capita GDP in 1990 to 21, 17 and 17 percent today respectively. Production costs that weaken the country's competitiveness prevent Costa Rica from joining the top growth performers. These productions costs are affected by relatively high wages that limit the country competitiveness in low value added sectors, as well as by a number of investment-climate related factors such as

rising electricity costs, weak infrastructure, and burdensome regulations.

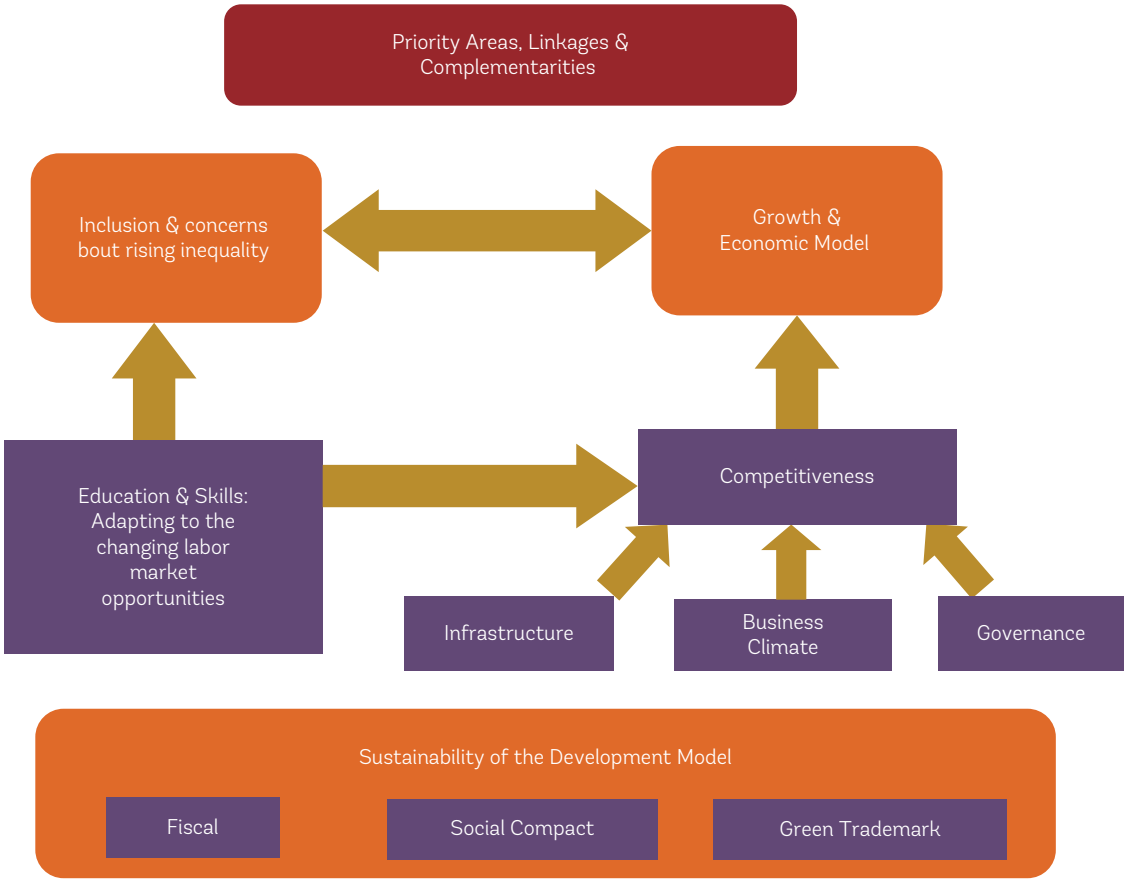
And third, fiscal pressures threaten to undermine the sustainability of the country's Social Compact and Green Trademark, and prevent it from undertaking much needed investments in public infrastructure. Without fiscal consolidation, the deficit could push public debt to unsustainable levels and threaten the country's economic, social, and environmental gains. The fiscal situation has deteriorated substantially since the global crisis, with the overall deficit of the Central Government growing to 5.6 percent of GDP in 2013, and is projected to have surpassed six percent in 2014 and to reach 6.6 in 2015. In tandem, public debt increased from 25 percent of GDP in 2008 to 37 percent in 2013, with projections of 63 percent by 2019 unless corrective measures are implemented. This recent deterioration stems from counter-cyclical measures under-taken during the crisis and structural forces that will require actions on multiple fronts.

Moreover, the current political landscape and institutional framework add an additional layer of complexity for approving and implementing key reforms needed to address these emerging challenges. The shift from a two-party to a multi-party system in the last fifteen years has resulted in more complex and lengthy reform processes. The delays and difficulties in passing comprehensive and meaningful reforms, particularly on sensitive issues such as tax reform, has resulted in a mismatch between the demands of the population and the "political delivery". This is an increasing concern given the growing need to react and adapt quickly to changing global developments. Likewise, capacity constraints, related to weak sectoral planning and bureaucratic inefficiencies, also affect the ability of the public sector to implement policies and execute public investment projects.

Several threads weave across this "trilogy" of challenges for inclusion, growth, and sustainability—and point to priority areas for action. One thread involves the interactions between inequality and growth, which hinge on the mismatch of skills and jobs. Another strand is the dual challenge of maintaining competitiveness of high value-added sectors, while enhancing the viability of traditional low value-added sectors. Mounting fiscal pressures threaten the sustainability of the Social Compact and Green Trademark. Finally, the challenges of governance also weave across the development agenda, limiting the capacity of the public sector to adopt reforms, deliver services, and execute infrastructure projects. These inter-connected challenges highlight a number of priority areas that Costa Rica needs to address to continue on a sustainable and inclusive growth path.

These links highlight a number of complementary priority areas for Costa Rica to continue on a sustainable and inclusive growth path. As in other countries, the list of policy areas that could potentially help make progress toward poverty reduction and shared prosperity is long. Through a combination of diagnostics, benchmarking, and internal and external consultations, this Systematic Country Diagnostic (SCD) refines the long list to identify a set of cross-cutting areas with strong linkages and complementarities. These include: strengthening the education and training systems, boosting competitiveness and reducing the infrastructure deficit, strengthening governance, and undertaking a variety of measures to ensure the sustainability of the fiscal situation, the Social Compact, and the Green Trademark (figure 6.1).

FIGURE 6.1 Priority Areas, Linkages, and Complementarities



Education and skills. Costa Rica needs to build a skilled workforce to supports its trajectory towards a high value-added economy and to reduce the skills-income gap. With fewer than half of young adults graduating from secondary school, and with performance on test scores falling, Costa Rica's labor supply does not appear to be well adapted to generate the skills needed for the labor market. Thus, building a more skilled workforce will ensure that the country remains competitive in high value-added sectors, and that more workers can access these better paying jobs, including those in the bottom 40 percent of the population. As these changes are structural, for the most part they are also long term in nature. Workers cannot just "acquire an education overnight." As such, tackling these challenges will require a three-pronged approach: (i) strengthening the quality, retention, and relevance of the education system (from pre-school through secondary school)—which will help build the skills of

"tomorrow's workers"; (ii) improving the quality and relevance of tertiary education; and (iii) strengthening the technical training system for the workforce.

Bold actions are needed to overhaul Costa Rica's education system. Given the country's level of development and high education spending, the education system seriously underperforms in quality (as demonstrated by test results), retention (low completion rates), and relevance (as indicated by low returns to training and lower levels of education). Although high rates of secondary school dropout are a *symptom* of the broader challenges in the system, imbalances in the allocation of public spending favor primary (41 percent) and tertiary education (32 percent) with relatively little allocated to the secondary level (27 percent). Indeed, both the share of public spending and the allocation per student in secondary education are low by international standards and given Costa Rica's level of development. Moreover, inequities in learning outcomes start early in life—and affect motivation and abilities to learn throughout the school years. In addition to rebalancing spending towards secondary school and early childhood development, Costa Rica needs to strengthen teacher quality and improve accountability through regular monitoring with standardized learning assessments, and a more effective governance and incentive framework.

Given the high-skilled profile of job opportunities in Costa Rica, systemic efforts are also needed to enhance the quality and relevance of tertiary education. Currently, the tertiary education system is heavily biased towards social science and humanities, and produces few STEM (Science, Technology, Engineering and Mathematics) graduates, further contributing to the skills shortage in high value-added sectors. Moreover, outdated and bureaucratic procedures for recognizing foreign degrees create obstacles for Costa Rica to "import" the skills needed to sustain its high value-added growth model. Quality and accountability mechanisms are also needed, with performance agreements with public universities and quality accreditation standards for both university and non-university tertiary education.

Finally, the country needs to expand the offering and relevance of technical training, which is the most direct way to build the skills of the current workforce. Again, stronger quality standards, certification of technical programs, and accountability of training institutes could help. The National Learning Institute (INA) could also improve coordination with private-sector employers to design market-relevant curricula and course offerings so as to better respond to the needs of the growing sectors of the economy.

Competitiveness and the business climate. Boosting growth and inclusion in the labor market requires confronting the dual challenge of maintaining competitiveness of high value-added sectors, while improving the viability of low value-added sectors. For instance, improving the integration of export-oriented and domestic firms through backward linkages could sustain the growth among small and medium enterprises (SMEs), generating jobs in mid- and low-skilled occupations. This can be done by lowering operation costs to improve the productivity of labor and counterbalance the high labor costs in Costa Rica compared to its neighbors, for example by lowering the costs of doing business through regulatory simplification.

Infrastructure. Reducing the infrastructure deficit would increase competitiveness, growth, and environmental sustainability. Costa Rica's historical efforts to build an extensive network of infrastructure in nearly all productive service areas (water, sanitation, transport, electricity, and telecommunications) are clear from the infrastructure stock: the country has two times the road and three times the rail density of the average middle-income country; access to electricity is nearly universal; and mobile penetration is higher than the OECD average. Yet, the near freeze in public infrastructure investment until the 1990s, as well as recent fiscal constraints, have taken a toll on the country's ability to upgrade and maintain its infrastructure. Further, the government has faced significant challenges in executing infrastructure investment in a timely manner. As a result, today roads and ports have among the lowest quality marks in the LAC region. Electricity prices have doubled since 2007 due to weather related variable hydroelectric output, causing increased use of thermal units and high operating costs, among other factors. This infrastructure deficit reduces the potential of local firms to grow and create jobs, and this is true in particular for firms that operate outside Free Trade Zones (FTZs). In addition, the country needs to improve its waste management and clean energy production capabilities to be able to reduce GHG emissions, and water and soil pollution. Infrastructure improvement poses a number of tradeoffs, including the need to intervene in protected areas (in the case of clean energy production), as well as the need to control the current fiscal deficit. Given the necessity of continuing to invest in infrastructure, and the reality of fiscal constraints, Costa Rica must look for options for private sector participation in the maintenance and upgrading of its infrastructure.

Both growth *and* inclusion would benefit from the many complementarities involved in improving education, competitiveness, and infrastructure. A well-educated workforce with relevant skills is fundamental for sustaining economic growth and increasing productivity. In parallel, closing the education gap between the poor and non-poor is also highly relevant for inclusion by providing opportunities those in the bottom 40 percent. Lowering the costs of doing business will boost competitiveness across various sectors. Furthermore, increasing infrastructure spending would stimulate construction, thereby creating more jobs for the large stock of low-skilled workers.

At the same time, actions are needed to ensure the sustainability of Costa Rica's development model:

- *Fiscal Sustainability:* Improving the fiscal stance to restore sustainability requires reforms to manage expenditures and increase revenues. On the expenditure front, these include containing the wage bill of the consolidated public sector, as public sector wages, both in government and more so in state-owned enterprises and other public institutions, are well above the private sector at all employment categories; and reviewing the fiscal sustainability of the pension system, particularly of special pension regimes in the public sector. In addition, a comprehensive reform of the budgetary process is needed to increase efficiency and transparency in all public sector entities. Finally, curtailing the earmarking of revenues, which cover more than half of primary spending, would make

the budgetary process more flexible. Comprehensive reforms are also needed to increase revenues. For example, the 1,259 tax exemptions approved since 1953 that comprise almost six percent of GDP need to be thoroughly reviewed. Curtailing those exemptions would make the tax system more rational and progressive, as well as produce higher revenues. This reform is essential for restoring sustainability to the fiscal accounts, which is a necessary condition for achieving Costa Rica's economic and social objectives.

- *Social Sustainability:* In addition to strengthening education, priority areas for sustaining the Social Compact including health and social protection. Costa Rica needs to modernize its universal health system to improve quality by: (i) strengthening the health care model to enhance capacity to adapt to demographic and epidemiological change while ensuring quality and timeliness of service delivery; (ii) improving the financial model of budget and resource allocation; and (iii) improving the management model for the health system for accountability, efficiency, and performance. The country also needs to increase the effectiveness of social protection programs by (i) harmonizing eligibility criteria and social information systems; (ii) improving performance monitoring and evaluation; and (iii) reducing institutional and program fragmentation.
- *Environmental Sustainability:* To sustain its celebrated "Green Trademark," Costa Rica needs to balance environmental and natural resource management goals, by: (i) reviewing the sustainability of the PES mechanism for conservation; (ii) modernizing water and solid waste treatment (infrastructure, service delivery, regulatory framework, capacity); (iii) increasing the supply of renewable energy by making regulations on the use of protected areas more flexible; (iv) implementing a comprehensive transport policy, including measures to reduce growth of demand for energy associated with transport; (v) reinforcing regulation and oversight of agro-chemical use and incentivizing the expansion of "green" (organic) agriculture; and (vi) improving territorial planning, land management, and management of natural and man-made disasters.

Governance. Progress in all the priority areas discussed above hinges on improving the capacity of the public sector to plan and implement policies, execute public investment projects, deliver services, and increase accountability. Despite Costa Rica's good governance levels compared to the rest of the LAC region, there is a growing perception of low effectiveness of government institutions. Cumbersome regulations, in many cases resulting from lack of coordination among institutions, make the process of starting and running a business—particularly a non-FTZ small or medium enterprise—more challenging. Low levels of transparency and accountability lower the efficiency of public spending. The current political landscape, where political minorities have the power to delay votes, further reduces the margin for approving and implementing needed reforms. The need to improve governance is apparent in all priority areas, for instance by increasing accountability in the education sector (e.g., by tracking student achievement to reward teacher and school performance).

Employment creation would benefit from streamlining business regulations as well as the public procurement and investment processes to improve infrastructure. A more consolidated budget, fewer tax exemptions, and more control over spending by autonomous institutions could greatly help to reduce the current fiscal deficit, and would improve the capacity to monitor results of public spending. In turn, results-based management would help to boost the efficiency of public spending, for example, enforcing the use of common information systems and modernizing the M&E frameworks in the social sectors.

An agenda for knowledge. Finally, a number of knowledge gaps need to be filled to inform better policy decisions. Although there is a large and productive research and policy analysis community studying Costa Rica, there are a few issues where having further research and data collection would provide more information to help design more concrete policy reforms to tackle the issues presented above. For example, the specific factors driving secondary dropout are still not well understood. In the labor market, it is not clear whether the contraction of employment in agriculture, manufacturing and construction is of a cyclical or structural nature, and this has important implications for low-skilled unemployment. Likewise, although there are strong signs that reservation wages are high, there could be more studies to quantify this phenomenon better. To improve the efficiency of the public sector, it is crucial to identify the specific governance bottlenecks in executing infrastructure projects, as well as their cost implications. Also, the articulation mechanisms to improve the effectiveness of social programs need to be based on a thorough institutional mapping of social programs. Finally, environmental conservation needs to be better linked with economic activity, and a key knowledge gap in this regard is how to link sustainable production and rural landscapes to conservation.

Appendix A: Team Engagement and Consultation Process

The Systematic Country Diagnostic (SCD) core team followed a highly inclusive process in the development of the final product and the elaboration of the diagnostics. In this appendix, the collaborative steps followed towards the preparation of the draft document are detailed.

Team collaboration steps within the World Bank Group

March 2014—Initial Country Team brainstorming: The initial task team organized a half-day country team meeting to discuss the guidelines for SCD and to consult on an initial power-point on key challenges for adequate growth, inclusive growth, and sustainable growth.

April 21, 2014—Concept Note Review Meeting: The review meeting took place with a concept note that laid out the rationale, objectives, and approach for the task, as well as the work plan going forward. Some background papers were commissioned after the concept note review.

August/September 2014—Formulation of hypotheses: The SCD preparation process started with the formulation of a set of 10 general hypotheses around key areas for Costa Rica's growth and poverty reduction patterns based on the review of the literature. The country team and key specialists in specific areas provided feedback and comments on their validity as well as additional information to substantiate, refine, or change these hypotheses, or to dismiss them.

September/October 2014—Brainstorming sessions: the SCD team held two broad brainstorming sessions in which the participants discussed: (i) the revised hypotheses and proposed means of analyzing the knowledge gaps; and (ii) a draft of the overall SCD storyline that translated the hypotheses into a full structure around growth, inclusiveness, and sustainability following the SCD guidelines.

October/November 2014—Bilateral consultations: Several rounds of bilateral consultations with sectorial teams were held to focus on the remaining knowledge gaps that could be filled prior to the elaboration of the overall storyline.

December 2014—Quality Enhancement Review: Chaired by the Latin American and Caribbean (LAC) Chief Economist, the Quality Enhancement Review allowed the SCD team to received feedback on the storyline from peer reviewers.

February 2015—Prioritization workshop: A facilitated workshop with the broad Costa Rica Team was held with the objective of soliciting inputs on identified priority areas for growth, inclusion, and sustainability. Key constraints and solution areas were identified for each priority area. The discussion revolved around how to simplify the list of priority areas and which priorities were considered but discarded. At the end, there was consensus on the cross-cutting nature of the proposed priority areas, and some of them could be combined

to provide a better entry point with the government counterparts.

March 2015—Regional Operation Committee Decision Meeting: Chaired by the LAC Vice President, the Decision Meeting provided further feedback and guidance to the team.

Engagement with Costa Rica

The SCD preparation was accompanied by a consultation process in Costa Rica to ensure that key stakeholders provided inputs into the deliberations and shared early findings. A preparation mission was conducted during September 22–26, in which the SCD team participated in the "*Encerrona*" event organized with the counterparts in Costa Rica to discuss the World Bank engagement. The SCD team held meetings with counterparts in Costa Rica from the government, private sector, academia, and think tanks to get their views on the poverty and inequality trends, as well as on the growth pattern of Costa Rica. Two more consultation missions were carried out in November 2014 and January 2015.

Appendix B: Country Comparators

To benchmark Costa Rica's performance, this report uses six comparable groups of peers: Central American countries, Latin American peers, upper-middle-income countries, the average for the World, structural peers, and aspirational peers. Organisation for Economic Co-operation and Development (OECD) countries are used as "aspirational peers" given Costa Rica's ongoing accession talks to the OECD. 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 Costa Rica are adequate. The criteria and filters for selection were the following: (i) GDP per capita between US$5,500 and US$15,500, as Costa Rica is an upper-middle-income country; (ii) population between 2.5 million and 20 million people; (iii) CO_2 emissions: Costa Rica is one of the most environmentally sustainable countries in the world, and only countries with less than 5 CO_2 metric tons emissions (the world average) per capita were included in the selection process; (iv) geography, which often determines comparative advantage and in some cases historical similarities; landlocked economies and small island states were excluded, while several Central American countries were included; and (v) only non-fragile states were selected. The use of these criteria resulted in the following set of countries: Chile, Croatia, Dominican Republic, Lithuania, Panama, and Uruguay.

Country	GDP per capita ($US)	Population in 2014	CO_2 emissions (metric tons per capita)
Costa Rica	9,722	4.86	1.7
Structural peers			
Chile	15,205	17.71	4.2
Croatia	13,638	4.28	4.7
Dominican Republic	5,710	10.6	2.1
Lithuania	14,801	2.96	4.4
Panama	9,798	3.79	2.6
Uruguay	15,054	3.40	2.0

Source: Find my Friends Tool 2014.

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Costa Rica stands out for being among the most politically stable, progressive, prosperous, and environmentally conscious nations in the Latin America and the Caribbean region. Its development model has brought important economic, social, and environmental dividends, with sustained growth, upward mobility for a large share of the population, important gains in social indicators, and significant achievements in reforestation and conservation. However, there are a number of development challenges that need to be addressed to maintain the country's successful development path. This Systematic Country Diagnostic takes stock of the poverty, inequality, and growth trends, addressing the following questions:

- To what extent has the Costa Rican development model been *inclusive*?
- What has driven *growth* in Costa Rica in recent years, and what are the bottlenecks that need to be addressed?
- How *sustainable* is the development model of Costa Rica economically, socially, and environmentally?

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