



COUNTRY PRIVATE SECTOR DIAGNOSTIC

CREATING MARKETS IN ECUADOR

Fostering a Dynamic and Resilient Private Sector

September 2021



WORLD BANK GROUP

THE WORLD BANK
IBRD · IDA

IFC International
Finance Corporation

About IFC

IFC—a member of the World Bank Group—is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2021, IFC committed a record \$31.5 billion to private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity as economies grapple with the impacts of the COVID-19 pandemic. For more information, visit www.ifc.org.

© International Finance Corporation 2021. All rights reserved.
2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433
www.ifc.org

The material in this work is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. IFC does not guarantee the accuracy, reliability or completeness of the content included in this work, or for the conclusions or judgments described herein, and accepts no responsibility or liability for any omissions or errors (including, without limitation, typographical errors and technical errors) in the content whatsoever or for reliance thereon. The findings, interpretations, views, and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the Executive Directors of the International Finance Corporation or of the International Bank for Reconstruction and Development (the World Bank) or the governments they represent.

Cover Photos: World Bank/Flickr

CONTENTS

ACKNOWLEDGMENTS	V
ABBREVIATION LIST	VI
EXECUTIVE SUMMARY	IX
1. COUNTRY CONTEXT	1
A. Macroeconomic Conditions	1
B. Ecuador's Private Sector: Context and Main Challenges	6
Private Sector Firm Characteristics and Dynamics	6
Trade Competitiveness	9
Attracting Foreign Direct Investment	12
2. CROSS-CUTTING CHALLENGES	15
A. Trade Policy Challenges	15
Trade Policy	16
Export Promotion	17
Quality and Standards Compliance	17
B. Investment Policy Challenges	18
Foreign Direct Investment	18
Bilateral Investment Treaties	19
Foreign Currency Exit Tax (Impuesto a la Salida de Divisas)	20
Institutional Organization of Promotion Activities	20
C. The Public-Private Partnership Framework	21
D. Labor Market Challenges	23
Opportunities to Lift Barriers to Private Sector Development	25
E. Competition Restrictions	26
F. The Financial Sector	30
Access to Finance and Financial Inclusion	31
Fintech	33
G. Digital Infrastructure and Services	34
H. Doing Business Challenges	36

3. SECTOR ANALYSES	41
Why These Sectors?	41
A. Medium- and Large-Scale Mining in Ecuador	43
Mineral Potential and Mining Investments	44
The Current State of Mining in Ecuador	47
Policy and Regulatory Constraints	49
Enforcement of the Regulatory Framework	55
Fiscal Regime and Tax Administration	55
Social and Environmental Risks	59
Community and Broader Economic Impacts	64
Conclusions and Recommendations	66
B. Agribusiness Export Competitiveness: Food Safety Issues	73
Introduction	73
Performance of the Perishables Export Value Chains	74
Cross-Cutting Constraints Holding Back Competitiveness	81
Sector-Specific Constraints	82
Recommendations for Perishable Export-Oriented Value Chains	85
C. Transportation and Logistics for Perishable Agricultural Exports	91
Introduction	91
Land Transportation	93
Maritime Transportation	100
Air Transportation	107
Warehousing, Logistics Platforms, and Third-Party Logistics Providers	109
D. Tourism	114
Introduction	114
Ecuador’s Tourism Profile	116
Comparative Competitiveness	125
Ecuador’s Marketing and Branding	126
Ecuador’s Tourism Supply	127
Regulatory and enabling environment	136
Recommendations	141
REFERENCES	145
APPENDIXES	153
Appendix A. Multiplier Analysis	153
Appendix B. Distinction between Artisanal, Small-, Medium-, and Large-Scale Mining	156
Appendix C. Ecuador’s “Subasta y Remate” Auction Process	158
Appendix D. Formalization of Artisanal Mining and Fight against Illegal Mining	160
Appendix E. Challenges to Large-Scale Mining Development in Colombia	161
Appendix F. Food Safety Requirements to Access Export Markets	163
NOTE	166

ACKNOWLEDGMENTS

The Ecuador Country Private Sector Diagnostic (CPSD) was co-led by Zeinab Partow (IFC), Gonzalo Varela, and Mariana Vijil (both World Bank) and included contributions from Javier Aguilar (mining), Lucia Casal (trade and private sector), Magaly Clavijo (transportation and logistics), Paulo De Sa (mining), Esteban Ferro (private sector), Ernesto Franco Temple (doing business), Adam Stern (transportation and logistics), Julian Velez (food safety), Jessica Victor (doing business), and Paloma Zapata (tourism). In addition, the team is thankful for the sector-specific, in-depth knowledge and guidance provided by Juan Carlos Alvarez, Oliver Braedt, Tania Begazo Gomez, Richard Cabello, Marcelo Castellanos, Barbara Cunha, Helena De La Torre, Luz Diaz Rios, Juan Gonzalo Flores, Allen Forlemu, Jasmine Helme, Shoghik Hovhannisyan, Indu John-Abraham, Bernard Micallef, Graciela Miralles, Sergio Olivieri, Nathalie Picarelli, Carlos Pinto, John Pollner, Santiago Porta, Daniel Reyes, Pedro Luis Rodriguez, Juan Jose Rossel, Kirstin Ingrid Roster, Aniruddha Roy, Heinz Rudolph, Edgar Saravia, Miguel Toledo, Ana Maria Torres, Remi Trier, Louise Twining-Ward, and Eduardo Wallentin. The team is grateful for the valuable comments provided by peer reviewers Alberto Criscuolo, Indu John-Abraham, Virginia Lasio, Aniruddha Roy, Frank Sader, and Peter Siegenthaler. The team also thanks Katia Arguello, Alexandra Del Castillo, Maria Caridad Gutierrez, and Paula Andrea Ramos for administrative support to missions in Quito and Guayaquil.

The team is grateful for the ongoing support and guidance during the preparation of the CPSD by World Bank Practice Managers Jorge Araujo (Latin America and Caribbean (LAC) Macroeconomics, Trade and Investment Practice), Marialisa Motta, Zafer Mustafaoglu and Yira Mascaro (LAC Finance, Competitiveness and Innovation Practice (FCI)), and Damien Shiels (LAC FCI, International Finance Corporation (IFC)), by Elizabeth Marcano (Country Manager, IFC), Tatiana Nenova (Manager LAC Team, Country Economics and Engagement, IFC) and by Mona Haddad (Director, Country Economics and Engagement, IFC), Alberto Rodriguez (Country Director, World Bank), Marianne Fay (Country Director, World Bank) and Gabriel Goldschmidt (Regional Director, LAC IFC).

ABBREVIATION LIST

ANT	Agencia Nacional de Tránsito
APG	Port Authority of Guayaquil
ARCERNNR	Agencia de Regulación y Control de Energía y Recursos Naturales no Renovables
ARCH	Agencia de Regulación y Control Hidrocarburífero
ARCOM	Agencia de Regulación y Control Minero
ASM	artisanal and small-scale mining
BIESS	Banco del Instituto Ecuatoriano de Seguridad Social
CA	controlled atmosphere
CAF	Development Bank of Latin America (Corporación Andina de Fomento)
CAGR	compound annual growth rate
CAN	Andean Community of Nations
CELEC EP	Corporación Eléctrica del Ecuador
CIP	International Potato Center
CNT	Corporación Nacional de Telecomunicaciones
CONPAPA	Small Producers of Potatoes Consortium
CPSD	Country Private Sector Diagnostic
DMO	destination marketing organization.
DPF	Development Program Financing
EFF	Extended Fund Facility
EIA	environmental impact assessment
EITI	Extractive Industries Transparency Initiative
ENAMI	Empresa Nacional Minera del Ecuador
EU	European Union
FDA	Food and Drug Administration
FDI	foreign direct investment
FDN	Fruta del Norte
FLAR	Latin American Reserve Fund
FOB	free on board
FSMA	Food Safety Modernization Act
FTA	free trade agreement
GAD	Gobierno Autónomo Descentralizado
GAP	good agricultural practices
GDP	gross domestic product
GMP	good manufacturing practices
GPS	Global Positioning System
HACCP	Hazard Analysis and Critical Control Points
HOSO	head on/shell on

ICSID	International Center for Settlement of Investment Disputes
ICT	information and communication technology
IDB	Inter-American Development Bank
IESS	Instituto Ecuatoriano de Seguridad Social
IIGE	Instituto de Investigación Geológico y Energético
IMF	International Monetary Fund
INEC	Instituto Nacional de Estadística y Censos
INIAP	National Autonomous Institute of Agricultural Research
INP	National Fishing Institute
ISD	Impuesto a la Salida de Divisas
IQF	Individual Quick Freezing
LDA	local development agreement
LSCI	Liner Shipping Connectivity Index
MAE	Ministerio del Ambiente
MARCO	Minga Foundation for Rural Action and Cooperation
MERNNR	Ministry of Energy and Nonrenewable Natural Resources
MINTUR	Ministerio de Turismo
NGO	nongovernmental organization
NFPS	Non-Financial Public Sector
OECD	Organisation for Economic Co-operation and Development
PMA	environmental management plan
PMR	Product Market Regulation
PPCA	participatory productive chain approach
PPI	Policy Perception Index
PPP	public-private partnership
RCA	revealed comparative advantage
RISE	Régimen Impositivo Simplificado Ecuatoriano
RUC	road user cost
SCD	systematic country diagnostic
SCPM	Superintendencia de Control del Poder de Mercado
SENAGUA	Secretaría Nacional del Agua
SGM	Sistema de Gestión Minera
SME	small or medium enterprise
SNAP	Sistema Nacional de Áreas Protegidas
SOE	state-owned enterprise
SPS	sanitary and phytosanitary
SRI	Servicio de Rentas Internas
SUIA	Unified Environmental Information System
TEU	twenty-foot equivalent unit
TFP	total factor productivity
TPG	Terminal Portuario de Guayaquil
TTCI	Travel and Tourism Competitive Index

UNCTAD	United Nations Conference on Trade and Development
VAT	value added tax
VC	venture capital
WDI	World Development Indicators
WEF	World Economic Forum
WITS	World Integrated Trade Solutions
WTO	World Trade Organization
WTTC	World Travel and Tourism Council

EXECUTIVE SUMMARY

This Country Private Sector Diagnostic (CPSD) is a joint International Finance Corporation–World Bank effort to highlight the constraints, as well as the opportunities, facing the private sector in Ecuador. A review is particularly timely because the policy dialogue in the country has shifted, with the government paying greater attention to the needs of the private sector, including by committing to create space for private activity to expand its role in the economy. The decline in oil prices in recent years has ushered in more challenging economic times for the country, underscoring the need for economic diversification, crowding in private investment, and creating a more hospitable business climate. Ultimately, Ecuador’s growth prospects and its ability to create high-quality jobs depend on the extent to which its private sector leads the way in increasing productivity.

This report reflects the early impacts of the COVID-19 pandemic, and the current understanding regarding the potential fallout of the crisis on the country and on the private sector. The CPSD’s analysis and recommendations remain as, if not more, valid in the context of the pandemic and of an eventual recovery. A dynamic and resilient private sector is necessary if Ecuador is to break the low-growth trajectory it finds itself in today. The CPSD argues that tackling some of the major obstacles facing the private sector—ensuring a stable and predictable policy environment, improving the incentives for trade and investment, enhancing the playing field in terms of competition, strengthening the capacity of the financial system to support private sector-led growth, and implementing labor regulations that allow employees and firms to respond more flexibly to changing circumstances—is essential to job creation, firm performance, investment, and productivity. These actions are as critical—and more urgent—in times of crisis and especially afterwards to pave the way for a vigorous and sustainable recovery. Similarly, the sectors assessed by the CPSD—mining and perishable agricultural exports—continue to hold promise for the country. And while tourism is one of the sectors hardest hit across the globe by the COVID-19 crisis, crafting a strategy that effectively addresses the obstacles that prevent the tourism sector from attaining its potential is a necessary investment for a strong recovery—and a good use of what is likely to be a transitional period until travel recommences. This is especially the case for regulations that carry a low fiscal cost and that have the potential to open up the sector over the medium-term

Ecuador's abundant natural capital hints at its potential, not always well-exploited today, for continued development and dynamism. Oil plays a central role in Ecuador's economy; it accounted for half of the country's exports and a third of fiscal revenues during the boom years. Mineral reserves, particularly gold, copper, and silver but also rare earth, lithium, uranium, and iron, are sparking significant investor enthusiasm. Exceptionally rich and diverse ecosystems—coastal areas, highlands, and the Amazon—have made the country the number one producer of bananas in the world, the second-largest producer of shrimp, and the number four producer of tuna, cocoa beans, and cut flowers. This diversity, combined with fertile soils, also allows Ecuador to produce a wide variety of fruits and vegetables in and out of season, giving it a comparative advantage in international markets. In turn, this diversity has also helped the development of tourism in Ecuador, centered on the iconic Galapagos Islands, which has become Ecuador's main service export. Prior to the COVID-19 crisis, tourism had been growing rapidly—albeit from a low base—and offers yet another potential source of growth and exports for the future. Past investments in infrastructure, particularly roads and power, provide a good base for upgrading and expansion.

Until relatively recently, based on these riches, Ecuador had enjoyed robust growth and strong social gains, with booming oil revenues and brisk public investment. The country's economic growth averaged 4.3 percent between 2001 and 2014, higher than that of many countries in the region, and it enabled a consistent improvement in welfare. Poverty rates fell from near 37 percent in 2007 to 22.5 percent in 2014. The income of the poorest 40 percent of Ecuadorians grew by close to 7 percent per year during this period, substantially faster than the average of 4 percent per year for the population as a whole. Also, public investment in basic services contributed to a significant improvement in nonmonetary measures of welfare.

Plummeting global oil prices in 2014, however, revealed the underlying vulnerabilities of the Ecuadorian economy, including a lack of diversification, strongly procyclical economic policy, and a poor investment climate. The abrupt decline in oil revenues highlighted the weaknesses of a growth model that relied on windfall revenues to finance unsustainable current and capital spending. Because it has a dollarized economy, Ecuador needed to support its currency and guard against the outflow of dollars, which led to policies that hampered the movement of capital and constrained imports with tariff barriers. These policies added to the burdens of the import substitution strategy that Ecuador had been following since 2007.

The country's gross domestic product (GDP) growth has been subdued in recent years, averaging 0.5 percent during the 2015–10 period; the COVID-19 pandemic has further worsened conditions and brought about an unprecedented economic contraction. Lockdowns, plummeting oil prices, reduced capital inflows and remittances, and shrinking domestic and global demand have led to forecasts of a significant economic contraction on the order of 10 percent in 2020. The government has responded quickly by rolling out temporary programs to support vulnerable segments of the population. However, unemployment increased from about 3.9 percent at the end of 2019 to 13.3 percent in the second quarter of this year, underemployment rose from 17 to 35 percent, and labor participation fell from 62 to 59 percent. Around a fifth of individuals have lost their jobs since COVID-19 hit the country, and poverty rates, which had increased slightly in the past five years due to slow growth and a tight fiscal position, are expected to soar: the World Bank estimates that more than 1.5 million Ecuadorians could fall back into poverty in 2020.

With the fall in government income from oil since 2014, Ecuador's fiscal and current account deficits rose, and its international reserves declined to precariously low levels; the COVID-19 pandemic has increased these pressures considerably. The deficit is now expected to reach nine percent of GDP in 2020, despite continued fiscal consolidation efforts, as low oil prices dampen economic activity and tax deferrals reduce revenues. Ecuador's dollarization regime is expected to keep inflation weak, but it overburdens fiscal policy response. The government cut capital expenditures by close to a third and applied austerity measures to generate fiscal space to deal with the pandemic; low fuel imports have reduced the subsidy bill.¹ Despite these efforts, rigidities in current expenditures, combined with COVID-19 related expenses (such as health services, emergency transfers, and unemployment benefits), partially offset consolidation efforts, generating a significant financing gap. To address financing needs, the authorities successfully renegotiated debt with bondholders and China, mobilized other sources of financing, and signed a new medium-term program with the IMF for a US\$6.5 billion facility to support the country during the pandemic and underpin the ongoing reform agenda.

Clearly, the government does not have the resources to use countercyclical policy to jump-start the economy: sustained economic growth in Ecuador demands a more dynamic private sector and a smart state footprint in the economy. Marshaling the private sector is all the more crucial given that Ecuador is a dollarized economy. Without the ability to rely on inflation or currency devaluation to spur exports, productivity growth becomes virtually the country's only means of driving economic growth. For private activity to regain its dynamism, the footprint of the state on the economy will have to shrink, although the state's capacity to regulate and to protect the gains in poverty and equity will need to expand—more so given the impact of the COVID-19 pandemic on livelihoods.

Private investment in Ecuador has been undermined by a number of constraints that affect most firms, as reflected in the cross-cutting challenges section of this CPSD. Perhaps the most common theme that emerges across sectors is the uncertainty caused by sudden swings in policy and the legal and regulatory instability that these changes generate. Ecuador's regulatory instability is itself the result of a piecemeal approach to policymaking and a lack of clear strategies in many areas. This instability deters long-term, hard-to-reverse investments, limiting the scope for large-scale transformational or innovation-intensive projects led by the private sector. Other important cross-cutting limitations covered in this report include (a) trade and investment restrictions, including the country's framework for public-private partnerships (PPPs); (b) challenges related to labor market rigidities; (c) weaknesses in the country's competition framework, including a preponderant presence of state-owned enterprises (SOEs); (d) a shallow, overregulated financial sector that has not fulfilled its role as an intermediary in support of private investment, and (e) cumbersome, complex regulations and procedures for firms trying to do business.

The Ecuadorian government has already embarked on an ambitious reform program and has made progress in alleviating a number of restrictions on private activity. The Productive Development Law has been particularly significant: it will reintroduce international arbitration for investment contracts of more than US\$10 million and strengthen the limited-liability principle for firms, and its corresponding resolution includes mechanisms to phase out the capital exit tax for exporters and for new investments. The law also ends direct and indirect lending from the central bank of Ecuador to the government. The approved Entrepreneurship and Innovation Law creates a simplified regime for registering a corporation (which will facilitate firm entry and formalization), opens the possibility to create new labor contract modalities for young firms, and regulates crowdfunding platforms, among other changes. An agreement with the European Free Trade Association is under implementation, and other resolutions reduce or eliminate tariffs (including compound ones) in selected products such as agricultural inputs, cellphones and computers, and remove a number of nontariff barriers. These latter measures have helped maintain food production chains in the COVID-19 crisis and will support food exports in the post-crisis. The elimination of ad-valorem import tariffs on computers and cellphones reduces the cost of the ICT consumption basket, supporting the adoption of more productive technology, improving connectivity during the COVID-19 containment period, and facilitating teleworking and firm operational continuity through digital platforms.

Tackling the remaining key constraints could foster a more dynamic and resilient private sector, better equipped to weather economic shocks such as the COVID-19 crisis, reestablish productive relations in the post-crisis period, and facilitate the reallocation of resources in support of critical productivity growth. Prime among these constraints are disincentives to trade and investment. Ecuador's antiexport bias is reflected in (a) high tariffs that induce firms to focus on internal markets and make it costly to source intermediates from abroad; (b) a complex and dispersed tariff regime, which had until recently relied on ad-hoc measures such as a customs import tax based on merchandise weight; and (c) temporary balance-of-payments safeguards that raise the cost of intermediate and capital goods for firms.² In addition, until recently, increasing nontariff barriers further raised trade costs. Similarly, the impact of policy constraints on investment is reflected in Ecuador's low rate of private investment, which has stagnated at 13 percent of GDP, and in the country's limited inflows of foreign direct investment (FDI), which, at less than one percent of GDP on average since 2006, are the lowest among Ecuador's peers. The country's five percent capital exit tax (which the government is currently reviewing) deters capital entry. A lack of bilateral investment and double taxation treaties with many FDI-source countries reduces investor incentives and elevates costs. Disincentives to FDI not only reduce the capital available for investment, but also deprive the economy of a means to efficiently acquire new technologies, learn of and adopt best practices, and upgrade skills and human capital.

Firms face labor market rigidities that limit productivity gains by hampering their ability to respond to economic fluctuations and impeding the movement of workers. Rising wages have been an important component in improving welfare and reducing poverty in Ecuador. Nevertheless, minimum and average wage increases have exceeded productivity gains, and the country's minimum wage and nonwage benefits are high relative to those of its peers. Barriers to part-time and temporary employment persist, and Ecuador's costs of dismissal are the highest in Latin America. By making entry and operating costs unaffordable for many potential formal firms, labor market policies may also be unintentionally encouraging informality and reducing job creation. They also prevent efficient allocation of labor to the most productive uses and impede the growth of the best-performing firms. This is evident in the high proportion of Ecuadorian firms that stay small.

Competition in Ecuador's domestic markets is undermined by the weak application of competitive neutrality principles—particularly to SOEs and public banks. Strategic sectors are reserved for state-owned or -controlled enterprises, including segments such as electricity generation where services could be provided by the private sector, and frequently are in other countries. The state also invests in other markets that are traditionally left to the private sector, such as cement, pharmaceuticals, information and communication technology (ICT), and air transportation. Although state participation in many sectors is not unusual, competitive neutrality needs to be supported to ensure high social returns, especially when efficient private sector participation is viable. Moreover, complex regulatory procedures create barriers to firm entry and competition in Ecuador; such regulations include a system of licenses and permits for specific markets, and rules in network sectors that favor incumbents (World Bank 2018b).

The Ecuadorian financial sector's role in supporting private sector-led growth has been limited, further encumbering firm productivity and growth. The sector is shallow, with low levels of private credit to GDP (standing at 29 percent of GDP in Ecuador versus 49 percent on average in Latin America and the Caribbean). A risk-averse attitude following the 1999 financial crisis has been amplified by complex liquidity regulations, interest rate caps, and directed credit toward strategic sectors and actors. Under these conditions, small and medium enterprises (SMEs) find accessing finance particularly difficult, although public banks are filling some of the needs of smaller firms. That being said, public banks also benefit from more lax regulation, and do not compete on a level playing field with private banks. Ecuador's capital markets are underdeveloped, and venture and start-up financing are almost nonexistent. Improving access to credit would raise aggregate productivity by facilitating the expansion of the best-performing firms and investment in capital and technology. It could also strengthen the incentives for firms to formalize. The financial sector is critical to the mitigation of the economic impact of the COVID-19 pandemic on firms and households, and to economic reactivation post-crisis.

Ecuadorian firms also face a difficult environment for doing business. Regulations are enacted with little consultation with the private sector. Frequent changes in tax rates and cumbersome procedures for paying taxes inject further uncertainty into investment decisions. Opening and closing a business is difficult, and the time and cost involved are high compared to regional peers. Insolvency regulations are cumbersome—the proceedings take more than five years on average, compared to less than three years on average in other countries in the region—preventing entrepreneurs from repaying creditors and recovering assets to reallocate to other activities. The government has taken positive first steps to address some of these barriers and its measures will help support business continuity during the COVID-19 crisis as well as new economic activity in the post crisis period.

The cross-cutting constraints identified above impact numerous economic sectors that can be key drivers of growth. This CPSD looks at four of them: (a) mining; (b) perishable agricultural exports, with a focus on fruits and vegetables as well as fisheries and related food safety standards; (c) logistics and transportation for perishable goods; and (d) tourism. We chose these sectors because of the presence of existing capabilities on which Ecuador can build, and because of the sectors' potential to generate significant GDP, employment or export revenues. These sectors also experience clear policy and regulatory constraints, the removal of which could lead to greater participation of the private sector for greater development impact. The selection of these sectors is not meant to be prescriptive; in other words, these are by no means the only sectors in the Ecuadorian economy that would benefit from improved regulation and a greater role for the private sector. They do, however, provide concrete examples of how the cross-cutting constraints considered in the CPSD have affected important areas of economic activity in Ecuador.

Ecuador's geological potential is vast but underdeveloped. Although the Ecuadorian government is promoting large, strategic private investment in the mining sector, serious regulatory challenges persist that not only deter investment but may also reduce the likelihood that mining can benefit Ecuadorians. Moreover, Ecuador's great biological, social, and ethnic diversity creates the opportunity and the obligation for the country to pursue "green growth mining," associating large scale projects with biodiversity conservation and community development. For this potential to materialize, however, legal, regulatory, and institutional constraints need to be addressed. Mining, like other sectors in the country's economy, suffers from legal uncertainty caused by frequent changes in regulations and from a lack of a coherent vision for the sector. Inflexible labor regulations that are not designed with the sector's unique needs in mind are a further complication. The country's mining and environmental institutions need to be strengthened, and regulation of the two sectors needs to be better aligned. Improving royalty collection and allocation, ensuring enhanced transparency, and fostering domestic spillovers can all help to ensure that mining in Ecuador makes a positive

contribution to sustainable and inclusive growth. Enhancing citizen participation and consultation is essential to the success and fruition of mining investments, as has already become apparent from the delays in some major investments in the sector. The COVID-19 pandemic is impacting the global demand for minerals and delaying investments, but these are expected to rebound gradually as the crisis wanes. In Ecuador, although mines have been among those most affected in Latin America by lockdown measures, with operations reduced to minimum levels from mid-March to end-June, the country's mining exports have increased in 2020 relative to 2019. Official projections are for US\$840 million in mining exports in 2020, about 50 percent higher than exports in 2019. In addition to greater exported volumes, prices have been resilient for copper (where demand has grown due to new industry applications), and the price of gold has risen given its role as a countercyclical safe haven.³

Ecuador exports significantly more fruit and fishery products than its much larger neighbors, Colombia and Peru. The country boasts significant private sector know-how in some value chains. Important advantages and opportunities in the production of fruits, vegetables, and fishery products can be harnessed to further grow these exports. These opportunities include the possibility for off-season production; a focus on organics; and greater use of modern, cold-chain, post-harvest technologies to allow the export of perishables to more distant markets. Ecuador's exports are nevertheless constrained by a lack of infrastructure and institutional capacity as well as by broader macro-level constraints. The latter include labor market rigidities that raise costs; limited FDI in value chains that require economies of scale to be competitive; lower preferential market access than its main competitors; poor access to finance, which reduces the ability of producers to invest and expand; and cumbersome procedures for the importing of inputs and the exporting of production. Bottlenecks specific to the fruit and fisheries sectors include poor capacity to comply with international sanitary and phytosanitary norms and standards (especially among smallholder farmers and fishermen) and an absence of mutual recognition agreements, a lack of packing and cold storage facilities, and insufficient airfreight space. Productivity gaps compared with its main international competitors further constrain growth in export competitiveness in Ecuador. The sector has also been affected by the COVID-19 outbreak as lockdowns impacted the work force, and as demand for Ecuador's main products initially faltered across a number of markets and logistical delays hit exports. Ecuador's shrimp exports to China (the market for 65 percent of the country's shrimp exports), for instance, were disrupted by the suspension of exports from three Ecuadorian companies for the alleged detection of traces of COVID-19 on the surface of packaging. This, and falling prices mean that growth expectations in the industry have been scaled back from 20 percent to six percent in 2020.⁴ Banana exports were also higher (by seven percent) in January-September 2020 over 2019. The COVID-19 pandemic has highlighted the importance of Ecuadorian firms' investments in new food and biosecurity standards.

Land, maritime transportation, and airfreight are all important modes of exporting agricultural produce in Ecuador. The COVID-19 pandemic has impacted the transport of agricultural products. The obstruction of border crossings and delays at ports and in customs have hampered sector exports.⁵ Beyond the current crisis, land transportation in Ecuador is constrained by factors such as high import tariffs on trucks and parts and a lengthy process to register new trucks, both disincentives to investing in fleet modernization. Labor costs are high and represent 22 percent of vehicle operating costs, compared with 10 and 6 percent in Colombia and Peru, respectively. Import barriers raise transportation and logistics costs by undermining balanced trade, which leads to vessels and containers increasingly coming back empty. Sector-specific concerns include the poor quality of many tertiary roads, an important issue for perishables because transportation from farms to packing facilities is usually on unrefrigerated trucks. A scarcity of qualified drivers also affects the export of perishable products because of their vulnerability to delays and to breaks in the cold chain (in cases where it is used). There are also significant opportunities for Ecuadorian transporters to increase efficiency by using ICT for cargo-matching systems, thus reducing the share of empty backhauls and lowering transportation rates. Greater cross-border trade can also be encouraged by harmonizing national regulations with those of the Andean Community of Nations (CAN).

In maritime transportation, the concessioning of Ecuador's public ports over the past two decades has significantly improved port infrastructure and connectivity to global shipping networks, although some difficulties remain. These difficulties include draft limitations at the port of Guayaquil, although plans are being made to dredge the port's channel to allow larger vessels to call on Ecuador. A brand-new deep-water terminal is also being built at Posorja with a 50-year concession. An overvalued real exchange rate and high labor costs contribute to higher port charges in Ecuador relative to peers. High concession fees at the port of Guayaquil add to these costs, impacting competitiveness and leading shipping lines to carry out services such as container repair and refueling outside Ecuador, a lost opportunity for the country.

In air transportation, the success of the country's open-sky policy will depend on the level of ambition of the bilateral agreements to be negotiated. Until its liquidation in May 2020, the protection of the Ecuadorian national carrier had reduced competition. Adding to costs are Ecuador's airport taxes and fees, which are some of the highest in the region, as well as its jet fuel prices, also some of the highest in LAC. Such costs limit the potential for low-cost carriers to expand their business in Ecuador, ultimately reducing competition. Investment in cold-storage infrastructure and palletizers at the Quito airport and improvements to the Guayaquil airport are also needed in order to reduce losses and delays in the export of perishables.

Tourism is Ecuador's fourth-largest nonpetroleum export and its largest service export, contributing more than 5 percent of the country's GDP. Prior to the COVID-19 pandemic, it had been experiencing robust growth. Nevertheless, tourism revenues in Ecuador continue to be concentrated around the Galapagos Islands, with limited spillovers to other areas and segments of high potential. Furthermore, over time, the average number of tourists visiting Ecuador has increased only slightly, with a shift toward tourists from relatively poorer countries. The sector is affected by several of the horizontal constraints noted above, including the lack of regulatory stability, labor market rigidities, a difficult business environment, and costly financing—a crucial challenge for the hotel industry, which is intensive in capital and requires long-term financing. Bottlenecks specific to the sector include a lack of skills and difficulties in accessing qualified labor, weak brand identity and inconsistency in marketing and promotional investments, and the relatively low connectivity of the country and the high cost of flights to it. The low priority accorded to the tourism sector in the government's agenda has at times forced it to compete with the energy sector for the same natural resources and sites; should the growth of the mining sector accelerate it will also likely compete with tourism. The COVID-19 crisis has underscored the need for a comprehensive strategy for the sector. As is the case with other countries in South America, where tourism revenues have declined precipitously (e.g. by 99.6 percent in the month of June 2020 relative to the same month in 2019), tourism in Ecuador has come to a near-standstill. The number of tourists to the Galapagos Islands, Ecuador's prime destination, has declined from an average 22,000 per month prior to the pandemic, to 1,232 in October 2020. A number of working committees have been created to reactivate the sector, and Ecuador received its World Travel and Tourism Council (WTTC) Safe Travels Stamp in August.⁶ A vision for the tourism sector, along with higher priority for it in Government strategy, is needed to ensure that a sustainable recovery in the sector can be achieved.

HIGH-PRIORITY CROSS-CUTTING POLICY RECOMMENDATIONS

(More detailed policy recommendations can be found in the following chapters)

CROSS-CUTTING AREA	RECOMMENDATIONS	TIME FRAME	STATUS
Trade policy	<ul style="list-style-type: none"> • Rationalize tariffs and nontariff barriers, gradually phasing out compound tariffs and other import duties 	MT	Partially implemented
	<ul style="list-style-type: none"> • Develop a framework for export promotion 	MT	Not implemented
Investment policy	<ul style="list-style-type: none"> • Set timetable for gradual removal of the foreign currency exit tax, substituting its revenues with less distortionary taxes. 	ST	In process
	<ul style="list-style-type: none"> • Strengthen the PPP framework by introducing a comprehensive PPP law addressing the remaining gaps and shortcomings of current legislation. 	ST	
	<ul style="list-style-type: none"> • Establish a sound institutional framework for PPPs. 		Under consideration
Labor market	<ul style="list-style-type: none"> • Align labor costs with productivity by linking minimum wage increases to inflation and productivity gains. 	S-MT	Not implemented
	<ul style="list-style-type: none"> • Reform labor regulations to continue to increase flexibility, by reinstating term and part-time contracts and expanding these for all sectors. 	ST	Partially implemented
	<ul style="list-style-type: none"> • Rationalize dismissal costs by imposing cap on severance payments and reducing payments for voluntary resignation. 	ST	Under consideration
	<ul style="list-style-type: none"> • Reduce the minimum mandatory profit-sharing rate from the current 15 percent. 	S-MT	Not implemented
Enhancing competition	<ul style="list-style-type: none"> • Improve enforcement of the competition law, in particular, of its anticompetitive enforcement. 	MT	Not implemented
	<ul style="list-style-type: none"> • Lift barriers to entry and rivalry and enable competition in the segments of network industries where competition is viable. 	S-MT	
	<ul style="list-style-type: none"> • Assess the impact of regulation prior to its adoption 	MT	
	<ul style="list-style-type: none"> • Review rationale for State participation in economic activities that can be effectively & efficiently provided by the private sector 	MT	
Financial sector	<ul style="list-style-type: none"> • Level the playing field in terms of regulation and supervision of private banks, public banks, and cooperatives. 	S-MT	Under consideration
	<ul style="list-style-type: none"> • Gradually reduce financial distortions by consolidating credit segments and adopting flexible interest rate ceilings 	S-MT	Under implementation
	<ul style="list-style-type: none"> • Develop a risk-based and proportional legal and regulatory framework for non-bank payment service providers, to increase competition and foster development of digital financial services. 	S-MT	Under consideration
Digital infrastructure and services	<ul style="list-style-type: none"> • Revise the telecommunications tax policy to reduce prices and incentivize adoption. 	MT	Not implemented
	<ul style="list-style-type: none"> • Promote regulation regarding infrastructure sharing. 	MT	
	<ul style="list-style-type: none"> • Review the spectrum allocation framework 	ST	
	<ul style="list-style-type: none"> • Address the dominance of CNT (an SOE) in the fixed segment. 	MT	

Improving the climate for doing business	Resolving insolvency: Establish effective reorganization proceedings, including an expedited framework for SMEs; facilitate out-of-court resolution; invest in the capacity of the relevant institutions to handle insolvency cases.	ST S-MT	Under consideration
---	---	------------	---------------------

Note: CNT = Corporación Nacional de Telecomunicaciones; IESS = Instituto Ecuatoriano de Seguridad Social; PPP = public-private partnership; SME = small or medium enterprise; SOE = state-owned enterprise; SRI = Servicio de Rentas Internas.

HIGH-PRIORITY SECTOR RECOMMENDATIONS

The matrices that follow contain some high-level, sector-specific recommendations. Significantly more background and detail supporting these recommendations can be found in the sector assessments in chapter 3 of this report. All of these recommendations are judged to be high priority. Their time frame, however, varies; some recommendations are considered achievable in the short term, while others are medium-term goals. Even the latter, however, are important to embark upon in the near future.

Mining

RECOMMENDATION	TIME FRAME	STATUS
Develop a shared vision for the sector covering the range of activity, from artisanal to large-scale mining.	MT	Not implemented
Consider developing a new mining code aligning mining and environmental regulation and the application of collective rights.	MT	Not implemented
Introduce differentiated licensing requirements according to an activity's impact.	MT	Not implemented
Strengthen mining institutions and information , especially ARCERNNR and IIGE, and rationalize the role of ENAMI	ST-MT	Not implemented
Develop a unified information system		
Create an autonomous environmental licensing agency.	MT	Not implemented
Enhance citizen participation and consultation	ST-MT	Not implemented
Promote local content and benefit policies , avoiding the proliferation of enclave operations.	MT	Not implemented
Improve royalty collection and revenue sharing by improving the exchange of information between SRI and ARCERNNR	ST-MT	Not implemented

Note: ARCERNNR = Agencia de Regulación y Control Minero; ENAMI = Empresa Nacional Minera del Ecuador; IIGE = Instituto de Investigación Geológico y Energético; SRI = Servicio de Rentas Internas.

Agribusiness Exports: Food Safety

RECOMMENDATION	TIME FRAME	STATUS
Support export diversification by incentivizing organic production, negotiate bilateral trade agreements, and using shelf-life enhancing technologies	ST-MT	Not implemented
Motivate associative action to benefit from economies of scale and to overcome coordination failures and incentivize investments.	MT	Not implemented
Improve skills and their availability regarding international standards of quality certification and cold-chain management.	MT	Not implemented
Upgrade services and infrastructure to ensure export quality	Medium term	Not implemented
Improve the risk-management system to reduce the number of physical inspections likelihood of product damage	ST	Not implemented
Strengthen the capacity and resources available to agencies providing services to exporters (Agrocalidad and ProEcuador).	MT	Not implemented
Adapt the existing food safety system to new U.S. requirements that will come into effect in 2022, including by implementing a traceability system and strengthening the institutional capabilities of Agrocalidad	ST	Under implementation

Note: SPS = sanitary and phytosanitary.

Transportation and Logistics for Agricultural Exports

RECOMMENDATION	TIME FRAME	STATUS
Prepare National Strategic Plan for Logistics and Accessibility to set institutional objectives, strategic investment plan and monitoring.	ST	Not implemented
Attract investment in logistics platforms at key freight corridor nodes by fostering economies of scale at production and aggregation stages.	MT	
Modernize the transportation fleet by reducing costs for fleet renewal (such as import barriers for trucks and auto parts).	ST	
Create a road freight exchange platform for transportation and logistics operators to use to reduce empty hauls.	MT	
Increase agility by improving the border control agency's inspection procedures and increasing interagency coordination	ST	
Facilitate cross-border road freight transportation by harmonizing national regulations among CAN nations.	MT	Not implemented
Increase competition in transport services by leveling playing field between port terminal operators and deepening liberalization of air transportation services.	MT	
Upgrade the skills of transportation and logistics operators , especially in cold-chain management.	MT	

Note: CAN = Andean Community of Nations.

Tourism

RECOMMENDATION	TIME FRAME	STATUS
Establish an autonomous tourism board (or destination marketing organization).	MT	Not implemented
Enhance the business environment by tackling high barriers to setting up and operating a business; lowering barriers to FDI; and addressing labor regulation concerns, including seasonality and working hours.	MT	
Develop niche markets and invest in the “Ecuador brand” by: capitalizing on Ecuador’s tremendous diversity in bird species ; focusing on the adventure travel market; capitalizing on the growing global interest in food tourism	MT	
Improve environmental performance by strengthening conservation efforts and adopting sustainability standards for the sector.	MT	
Address connectivity barriers within the country	MT	
Enhance international connectivity by tackling numerous constraints, especially high airline operating costs.	MT	
Prioritize the acquisition and development of tourism skills.	MT	

Note: FDI = foreign direct investment.

1. COUNTRY CONTEXT

A. MACROECONOMIC CONDITIONS

Ecuador is in the midst of a challenging shift from a relatively closed economy with weak private activity to one where resources are more efficiently allocated and where the private sector can play a larger role, alongside the public sector, in driving economic growth, productivity, and job creation.⁷ Imbalances generated over the past decade need to be corrected, and incentives must be adjusted to support growth and strengthen the country's fiscal accounts. This has to be done while protecting and building on the substantial social achievements of recent years. A vibrant, dynamic private sector is critical to this effort, because state-led activity alone cannot ensure the levels of production and jobs that are needed to return the country to sustainable economic development. The recession brought about by the fallout from the COVID-19 pandemic underscores the challenge and the need for strong private activity in the recovery phase, alongside public sector support to households and firms impacted by the crisis.

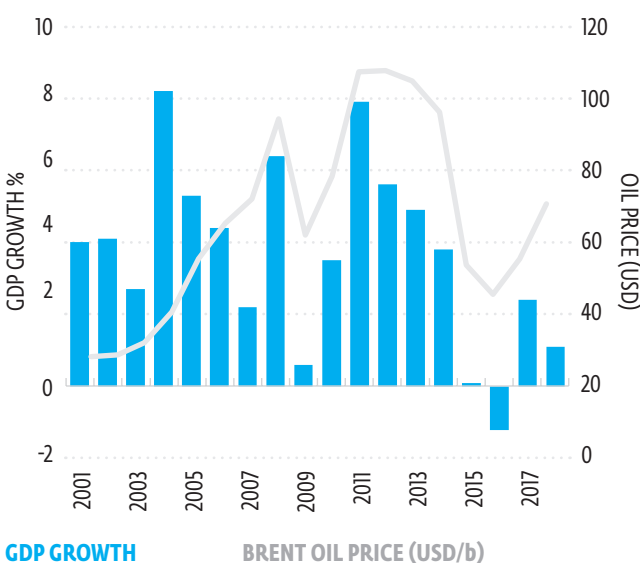
Over much of the past two decades, until 2014, Ecuador has enjoyed robust growth and strong social gains. The country's economic growth averaged 4.5 percent between 2001 and 2014, higher than in many countries in the LAC region, and enabled a consistent improvement in welfare. Poverty rates fell from near 37.0 percent in 2007 to 22.5 percent in 2014. The income of the poorest 40 percent of Ecuadorians grew by close to 7 percent per year during this period, substantially faster than the average of 4 percent growth among the population as a whole. Rising wages and other labor regulations played a role in this growth, as did higher public transfers. Also, public investment in basic services, including free public health services, education, water, sanitation, and electricity, contributed to a significant improvement in nonmonetary measures of welfare.⁸

Following a major financial crisis in late 1999, stabilization and dollarization in 2000 led to an economic boom in the early years of the decade. Then, in 2007, as the international price of oil reached new highs, Ecuador, an oil exporter, saw soaring public revenues and spending (Figure 1.1). The public sector's footprint in the economy doubled, from around 20 percent of gross domestic product (GDP) in 2000 to 44 percent in 2014. Oil revenues were channeled into social and infrastructure spending—capital spending expanded by about 9.5 percentage points of GDP between 2006 and 2014—but also fed other expenditures, including fuel subsidies. During the latter years of the oil boom, Ecuador's real exchange rate appreciated continuously (it is estimated to have been overvalued by 20 percent in 2014 [IMF 2015]) as domestic demand and labor costs surged, eroding the private sector's competitiveness relative to that of many of the country's trading partners.

In addition to the appreciation of the real exchange rate, Ecuador’s investment climate was undermined by a litany of measures that accompanied the expansion of the public sector. Regulatory uncertainty, changes to the labor code, high costs to open and close businesses, high tariffs and other constraints on imports, and distortions in financial markets affected the productivity of the private sector and eroded the competitiveness of tradable sectors. Foreign investor interest was affected by changes in the structure of oil contracts that allowed the government to retain a higher share of revenues during the oil price boom at the same time as Ecuador withdrew from International Center for Settlement of Investment Disputes (ICSID). The government also dismantled its sovereign oil fund and entered into a selective debt default despite benign external conditions.

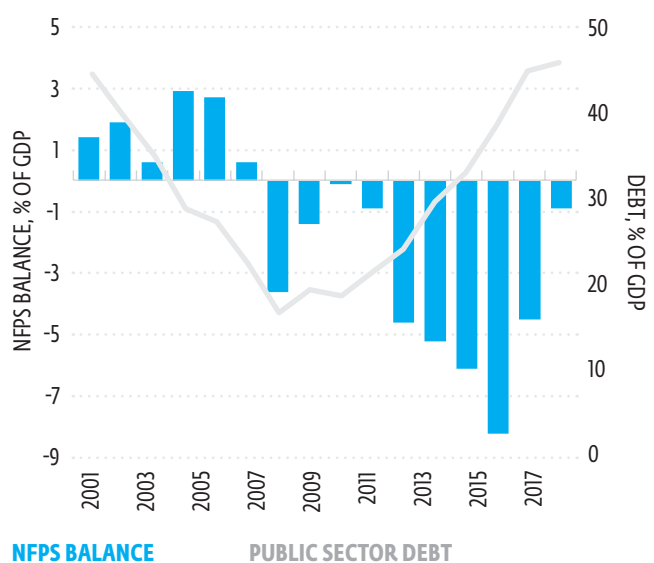
When oil prices fell in 2014, Ecuador was particularly vulnerable, because it had not built sufficient fiscal buffers during boom years and it was ill-prepared to weather the downturn. Dollarization meant that the government had limited policy flexibility as the external environment became more challenging. Moreover, public sector expansion during the boom years had been financed not only by oil revenues but also by dissaving and external funding. International reserves fell to just 1.3 months of imports in 2018, while public sector debt expanded rapidly, from 17 percent of GDP in 2012 to 27 percent in 2014 and 46 percent in 2018 (Figure 1.2). The selective default and lack of macroeconomic buffers increased the country’s risk ratings, limiting its access to the external funding needed to smooth the inevitable fiscal and external adjustments. With few options, the government resorted to large cuts in investment spending (Figure 1.3) and to costly methods of financing, which had a strong negative effect on activity. The stagnant private sector, with its competitiveness eroded by real exchange rate appreciation and labor and price rigidities and weakened by policy instability and a poor investment climate, was unable to offset the decline in public sector demand (Figure 1.4).

FIGURE 1.1. GDP GROWTH HAS FOLLOWED OIL PRICES

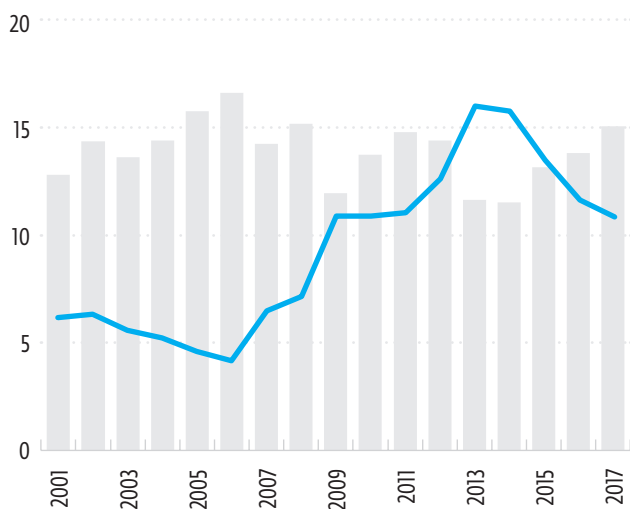


Source: World Bank.
 Note: GDP = gross domestic product.

FIGURE 1.2. PUBLIC SECTOR DEFICITS AND DEBT HAVE CLIMBED

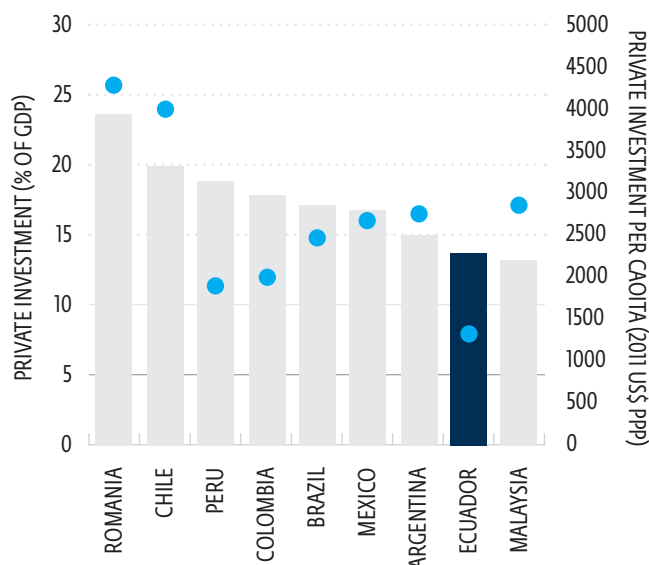


Source: IMF and World Bank.
 Note: GDP = gross domestic product; NFPS =

FIGURE 1.3. PUBLIC AND PRIVATE INVESTMENT

PUBLIC INVESTMENT PRIVATE INVESTMENT

Source: Central Bank of Ecuador.

FIGURE 1.4. PRIVATE INVESTMENT IN ECUADOR AND PEERS

PRIVATE INVESTMENT PRIVATE INVESTMENT PC

Source: World Bank SCD

Note: GDP = gross domestic product; pc = per capita; PPP = purchasing power parity.

The COVID-19 crisis has compounded existing policy challenges in Ecuador.

Ecuador was an early COVID-19 hotspot, with high case and death counts relative to neighboring countries in April and May of 2020. The daily death toll has since declined, but pressure on the health system and the economy persists. In contrast to many other emerging economies, and because the country entered the crisis on a weak footing with very thin buffers, Ecuador introduced austerity measures, including cuts in nonpriority spending, to create space to respond to the pandemic and the drop in oil prices. Containment measures, expenditure constraints, and external shocks caused the economic activity index to drop 14 percent in annual terms in the first half of 2020, and a contraction of 11 percent is projected for the full year. The weak economy has also contributed to subdued annual average inflation, which has fallen even close to zero over the first ten months of 2020, and to a smaller current account surplus as the demand for imports plummets. Unemployment increased from 3.8 percent in the fourth quarter of 2019 to 13.3 percent in the second quarter of 2020. The worsening of labor market conditions helped push the poverty rate, measured at the Upper-Middle Income threshold, up to 25 percent in 2019 versus 24 percent in 2018; it is forecast to exceed 32 percent this year.

Fiscal pressures led the authorities to seek relief from creditors. The non-financial public sector deficit had held steady at 3.2 percent of GDP in 2019 as efforts to narrow it were undermined by lower-than-anticipated tax and oil revenues. The COVID-19 crisis and oil price drop have strained public finances, as weaker revenues and greater spending needs on health services and social support are driving a significant widening of the fiscal deficit and an increase in government funding needs. The authorities have responded by securing increased financing from multilateral lenders, including US\$6.5 billion from the IMF with the approval of a new, heavily front-loaded 27-month Extended Fund Facility (EFF) in October 2020. The government also successfully completed a bond exchange with the participation of 98 percent of holders of US\$17.4 billion of Ecuador's global bonds. The new bonds provide substantial liquidity relief by extending the average maturity of Ecuador's external bonds by 10 years to 2040, carrying coupons with lower interest rates and beginning principal amortizations in 2026. Ecuador has also reprofiled bilateral debt with China and anticipates additional financing from that source in the near-term. Nevertheless, an expanding fiscal deficit (now expected to reach nine percent of GDP in 2020) is leading to a rapid accumulation of debt. Public debt will climb to near 70 percent of GDP in 2020, from 52 percent last year. Adapting to this challenging context requires a solid medium-term reform program to continue addressing macro-fiscal imbalances and ensure the sustainability of future growth. Given the lack of resources to pursue countercyclical fiscal policy, a more dynamic contribution to growth by the private sector, supported by an improved business environment, is essential to reactivate the economy and spur productivity.

The government has made significant progress in improving Ecuador's business environment in the past three years. In addition to implementing reform to cushion the impact of the COVID-19 pandemic on the vulnerable, it has sought to bring greater flexibility to price setting in wages and interest rates; these measures should contribute to labor market resilience and to improved access to finance for households and SMEs. The Productive Development Law has also been particularly significant. This law, approved in August 2018, is a first step toward more business-friendly legislation. It introduces international arbitration for investment contracts of more than US\$10 million (although the constitution of Ecuador allows arbitration only within the Latin American region). The law also strengthened the limited liability principle for firms, and its corresponding resolution includes mechanisms to phase out the capital exit tax, which would benefit exporters and new investments. Third, the law ended direct and indirect lending by the central bank of Ecuador to the public sector. The Entrepreneurship and Innovation Law created a simplified regime for registering a corporation, facilitating firm entry and formalization, opened the possibility to create new labor contract modalities for young firms, and regulated crowdfunding platforms. In the oil sector, the state-owned enterprise (SOE) PetroAmazonas has signed oil service contracts that replace fixed payments with variable fees based on international oil prices, and the government introduced a law to reinstate production-sharing contracts. The authorities also started implementation of a European free trade agreement in 2018.

Restoring Ecuador's competitiveness by addressing some of its fundamental supply-side constraints is a major medium term challenge for Ecuador. This goal is essential to increasing productivity and restoring competitiveness, particularly given Ecuador's fully dollarized economy (its real effective exchange rate is estimated to be overvalued by approximately 30 percent [IMF 2020]). Key reforms to buttress productivity and competitiveness include (a) labor market reforms; (b) increasing financial sector resilience and easing capital market regulations to improve the investment environment; (c) simplifying the tax regime; (d) negotiating trade and investment agreements with Canada, Japan, the Pacific Alliance (Chile, Colombia, Mexico, and Peru), and the United States, among others; (e) creating a legal framework for the development of the country's entrepreneurship and innovation ecosystem and working to address its main doing-business constraints; and (f) continuing to improve the legal framework for public-private partnerships (PPPs). The government's reform program is supported by a joint effort of the international community to help Ecuador meet its financing needs over the coming years. These efforts include a series of three Development Policy Loans from the World Bank; a 27-month IMF EFF; and financing packages from the Development Bank of Latin America (CAF), the Inter-American Development Bank (IDB), and the Latin American Reserve Fund (FLAR).

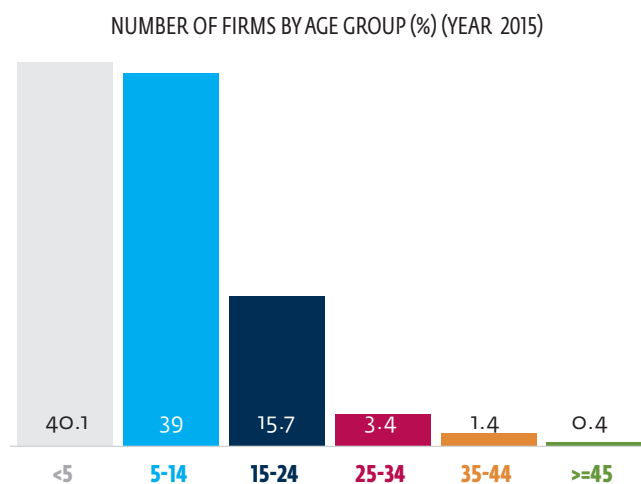
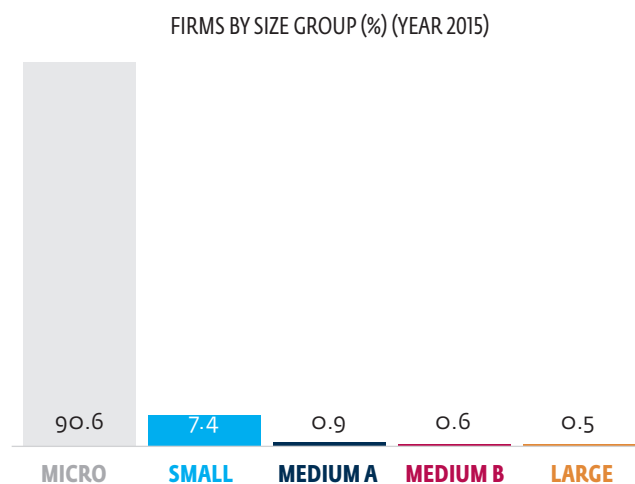
The measures taken over the past three years and, of equal importance, the changing attitude in Ecuador toward the private sector, have contributed to an uptick in private investment that is already cushioning the impacts on economic activity of cuts in public investment. Although capital expenditure by the nonfinancial public sector dropped by about nine percent of GDP (from 15 percent to 6 percent) between 2014 and 2018, overall gross capital formation decreased by only 2 percent (from 27 percent to 25 percent) over the same period, because policies since 2017 have supported an improvement in the investment climate for private firms. Nevertheless, Ecuador's prospects for economic growth remain subdued in the near term: the country experienced a marked slowdown in GDP growth, to just 1.4 percent, in 2018, and lower rates are projected for the coming three years.

B. ECUADOR'S PRIVATE SECTOR: CONTEXT AND MAIN CHALLENGES

This section provides a snapshot of Ecuador's private sector. It starts with an analysis of private sector firms' characteristics and dynamics. It then assesses the outcomes of Ecuador's private sector in international markets as well as examines Ecuador's patterns of foreign direct investment (FDI) attraction. Both exports and FDI are key to increasing productivity because they incentivize the reallocation of resources to high-productivity activities and provide platforms for learning. This section argues that (a) firms in Ecuador are overwhelmingly young and small, and they struggle to grow over time; (b) it is Ecuador's (few) large firms that drive economic activity and employment growth; (c) Ecuador's export dynamism has been low in recent years, with exports concentrated in key sectors including agricultural commodities and oil; (d) Ecuadorian exporters struggle to diversify and survive in international markets, and (e) FDI inflows have not managed to dramatically transform the production structure of the Ecuadorian economy and have lost ground in terms of their share of GDP.

Private Sector Firm Characteristics and Dynamics

Private sector firms in Ecuador are overwhelmingly young and small, and they struggle to grow over time.⁹ More than 18 percent of firms in 2015 were new entrants, and nearly 40 percent were less than five years old (Figure 1.5). Most firms (over 90 percent) are microenterprises,¹⁰ 7 percent are small, and the remaining 2 percent are either medium or large firms.¹¹ Only a few firms grow to any significant degree during their life cycle (Table 1.1). Between 2010 and 2015, only 1.7 percent of microfirms were able to grow beyond the US\$100,000 threshold. Most of these microfirms remained the same size, and many died (exited the market); a similar pattern holds for small firms. Twenty percent of medium-sized firms become larger. Of the 2,795 large firms in 2010, 70 percent remained large, whereas 10 percent became smaller and 20 percent died. Perhaps due to the economic downturn Ecuador experienced in 2012–16, the survival rate of firm cohorts has declined. The one-year survival rate of entrants fell from 84 percent in 2010 to 77 percent in 2014; similarly, the three-year survival rate of entrants, which was 65 percent in 2010, fell to 52 percent by 2012 (table 1.2).

FIGURE 1.5. MOST FIRMS IN ECUADOR ARE YOUNG AND SMALL**a. Number of firms by age group, %, 2015****b. Number of firms by size group, %, 2015**

Source: World Bank calculations using National Institute of Statistics and Census (INEC) 2015 business registry.

TABLE 1.1. FEW ECUADORIAN FIRMS GROW

TRANSITION MATRIX

		YEAR 2015						TOTAL
		MICRO	SMALL	MEDIUM A	MEDIUM B	LARGE	EXITERS	
YEAR 2010	MICRO	54.2%	1.6%	0.1%	0.0%	0.0%	44.1%	100%
	SMALL	10.8%	42.3%	5.5%	1.6%	0.3%	39.6%	100%
	MEDIUM A	3.0%	16.1%	27.9%	20.9%	3.7%	28.4%	100%
	MEDIUM B	2.0%	5.7%	9.8%	36.8%	19.9%	25.8%	100%
	LARGE	1.0%	2.7%	1.7%	5.2%	69.9%	19.5%	100%

Source: World Bank calculations using (INEC) 2015 business registry.

TABLE 1.2. SURVIVAL RATES HAVE DECLINED

SURVIVAL OF FIRMS BY COHORS						
	2010	2011	2012	2013	2014	2015
Entrants	100%	100%	100%	100%	100%	100%
1	84%	80%	79%	81%	77%	
2	78%	69%	63%	60%		
3	65%	58%	52%			
4	55%	51%				
5	48%					

Source: World Bank calculations using (INEC) 2015 business registry.

Economic activity is highly concentrated among the few large firms in the country.

One half of one percent of all Ecuadorian firms in 2015 were large firms, but these firms were responsible for 73 percent of total sales and 42 percent of employment. The few businesses that do grow (or start large) may come to dominate economic activity in a sector, coexisting with many very small and unproductive firms that constantly struggle to survive. This dualism, with a few large firms, many small firms, and few firms in between, is a key characteristic of the Ecuadorian private sector.

To be sure, production concentration is not necessarily bad. For example, Freund and Pierola (2015) show that export sectors grow faster when exporter concentration is rising. The “export superstars,” large firms that account for a big share of a country’s exports, are dynamic and tend to be better positioned to profit from export opportunities and to compete in demanding international markets.¹² Indeed, increases in market shares for large dynamic firms can be a driving force for aggregate productivity growth—as long as these firms are the most productive ones (in other words, as long as markets allocate resources efficiently).

Despite this dualism in the Ecuadorian economy, it appears domestic competition in many sectors has increased. Indeed, the Herfindahl index,¹³ a measure of market concentration, declined between 2009 and 2015 in several sectors, including agriculture, accommodations, entertainment, and food and beverages services (activities indirectly related to tourism). The exceptions to this pattern are sectors where SOEs are dominant, such as cement, water and energy distribution, public services, and information and communication technology (ICT) services. Some activities within other sectors also appear to be characterized by concentrated market power, including several manufacturing activities related to metals, food, household devices and nondurable goods, and fertilizers (Ferro and Vijil 2019). Further analysis is needed to better understand the drivers of changes in market concentration in Ecuador and to ascertain the role of distortions relative to the role of market forces.¹⁴

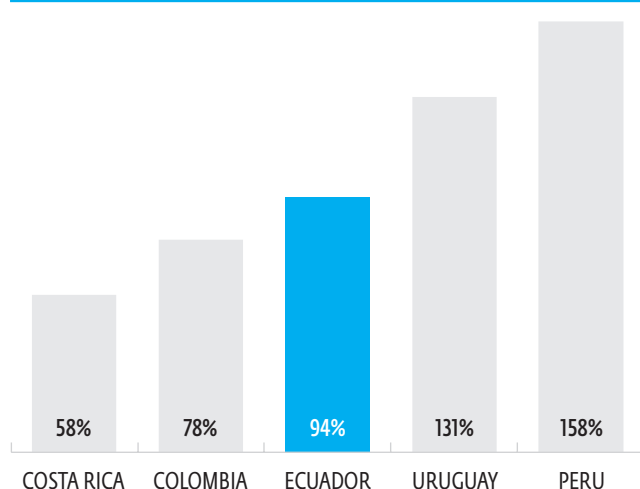
Moreover, firms' capacity to innovate, and thus to foster productivity growth, is low in Ecuador. The Global Innovation Index ranks Ecuador 100th out of 128 countries, highlighting the country's particular weaknesses with respect to business sophistication and knowledge outputs. Although public spending on research and development increased fivefold between 2003 and 2013, this increase did not generate any increase in private spending on innovation, indicating a limited partnership between the public and private sectors in this respect and weak private sector ownership of public initiatives (Rubalcaba and 2017). Evidence suggests that firms in Ecuador possess insufficient capacity to improve their productivity by absorbing imported knowledge and technology (Fernandes and Gavilanes 2017), possibly due to a limited use of complementary specialized services. Indeed, Ecuadorian exporters tend to introduce relatively fewer knowledge-intensive business services in their exports compared to those of Chile, Colombia, or Peru (Rubalcaba and others, 2016).

Trade Competitiveness

In a small economy such as Ecuador's, unlocking private sector growth requires leveraging of export markets. It is useful, therefore, to examine the competitiveness of Ecuador's private sector through the lens of export performance: export markets are highly competitive, and sustained success in them is likely to be grounded in productivity.

Over the past decade, Ecuador's exports have grown, but its global market share has remained unchanged. Between 2005 and 2017, Ecuador's goods exports increased by 94 percent, reaching US\$19.1 billion, or 19 percent of its GDP. But although its growth was faster than that of Colombia or Costa Rica, it was largely on par with world average export growth (figure 1.6). Thus, Ecuador's global market share did not change: in 2005, one of every thousand dollars traded globally came from Ecuador; the same was the case in 2017 (table 1.3). Recent analysis by the IMF suggests that, indeed, Ecuador's export performance is subpar when compared with other countries of similar size and with similar FDI inflows, quality of institutions, and effective real exchange rates (IMF 2019a).

FIGURE 1.6. EXPORT GROWTH



Source: World Integrated Trade Solutions (WITS) database, World Bank.

TABLE 1.3. EXPORT MARKET SHARES (PERCENT)

	2005	2010	2017
Colombia	0.2%	0.3%	0.2%
Costa Rica	0.1%	0.1%	0.1%
Ecuador	0.1%	0.1%	0.1%
Peru	0.2%	0.2%	0.3%
Uruguay	0.04%	0.05%	0.1%

Source: World Integrated Trade Solutions (WITS) database, World Bank.

Although Ecuador did diversify its markets reach somewhat, the composition of its exports remained virtually unchanged, with a few exceptions. This stasis is due in part to a supercycle of commodity prices that kept Ecuador from diversifying away from primary products, coupled with policy decisions that increased production costs for those venturing into more complex production processes. Although Ecuadorian exporters introduced 225 new products into the export mix and reached 21 new markets in the past 12 years (tables 1.4 and 1.5), Ecuador's export basket remains largely unchanged. Petroleum, bananas, shrimp, and tuna continue to enjoy the highest revealed comparative advantages today, as was the case 21 years ago (WB CEM). The bulk of Ecuadorian exports are food commodities and petroleum products, and Ecuador's ICT export shares fell from 1.46 percent in 2005 to 1.19 percent in 2016. Tourism, however, did expand its share of exports from 3.6 to 6.8 percent during this period. (See the tourism analysis in chapter 3.)

TABLE 1.4. NUMBER OF PRODUCTS

	2005	2010	2017
Colombia	3,675	3,457	3,482
Costa Rica	2,770	2,967	2,942
Ecuador	2,130	2,427	2,355
Peru	3,338	3,333	3,367
Uruguay	1,833	1,884	1,913

Source: World Integrated Trade Solutions (WITS) database, World Bank.

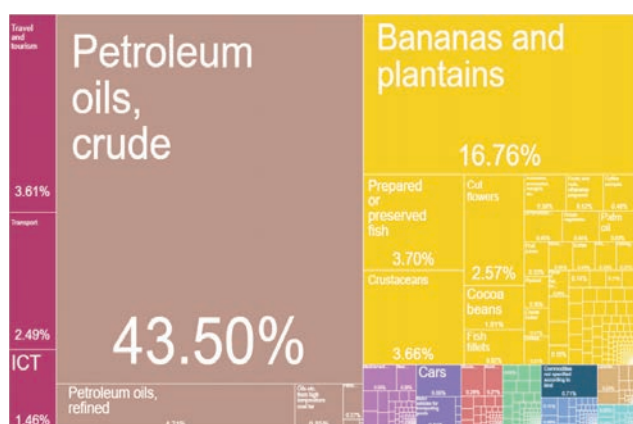
TABLE 1.5. NUMBER OF MARKETS

	2005	2010	2017
Colombia	170	173	183
Costa Rica	139	148	149
Ecuador	138	148	159
Peru	170	171	173
Uruguay	149	166	160

Source: World Integrated Trade Solutions (WITS) database, World Bank.

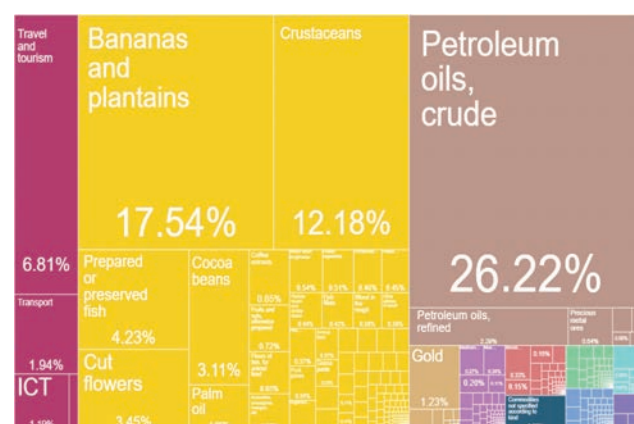
Within food products, there are efforts to increase value added in exports (tables 1.6 and 1.7). One example is Ecuador's artisanal chocolate producers, who have differentiated their products through fair trade initiatives and by adding GPS coordinates to their packaging in order to enhance the consumer experience. These producers have also used tourism as a promotion platform for their products. For example, República del Cacao, one manufacturer with six stores in Ecuador, is planning to expand to Peru and Chile, as well as to high-end supermarkets in the United States.

TABLE 1.6. ECUADOR'S EXPORT COMPOSITION, 2005



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. <http://www.atlas.cid.harvard.edu>

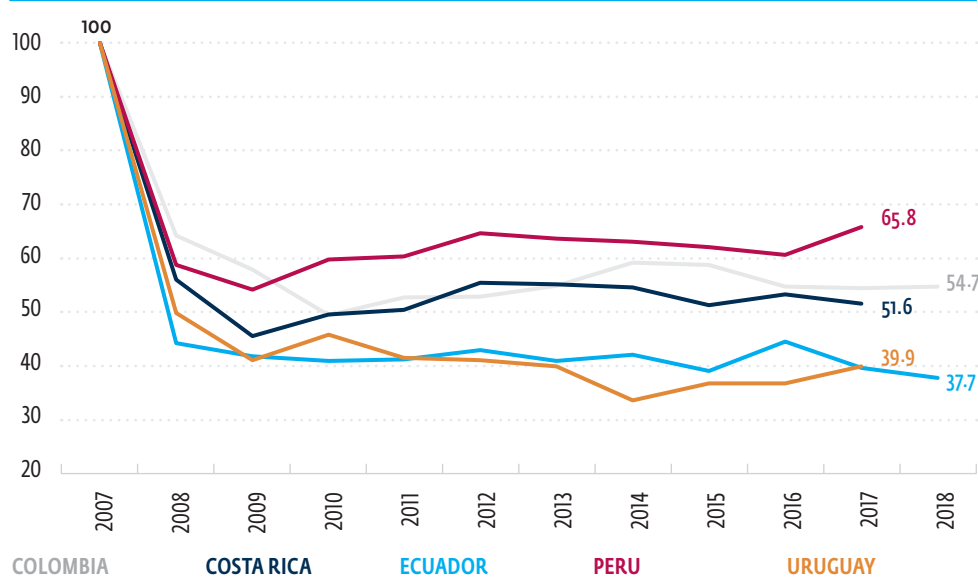
TABLE 1.7. ECUADOR'S EXPORT COMPOSITION, 2016



Source: The Growth Lab at Harvard University. The Atlas of Economic Complexity. <http://www.atlas.cid.harvard.edu>

The survival rate of Ecuador's exported products is low relative to those of peers, and its exporters face disproportionately high fixed costs to export and exhibit with low productivity. Out of every 100 new export flows begun in 2007, only 44 were active one year later, and only 38 were active 10 years later, the lowest survival rate among comparators. This, coupled with the finding presented in Table 1.2 regarding Ecuador's low firm survival rates overall, suggests that few of the country's firms are productive enough to enter export markets. Following Melitz (2003), the finding could also indicate disproportionately high fixed costs to export in Ecuador relative to peers, meaning that firms have to be more productive than those in other countries in order to start exporting. This hypothesis is supported by evidence indicating that compared to its peers, Ecuador has fewer exporters, lower entry rates, and larger firms upon entry (World Bank 2019).

FIGURE 1.7. EXPORTED PRODUCT SURVIVAL



Source: World Integrated Trade Solutions (WITS) database, World Bank.

Attracting Foreign Direct Investment

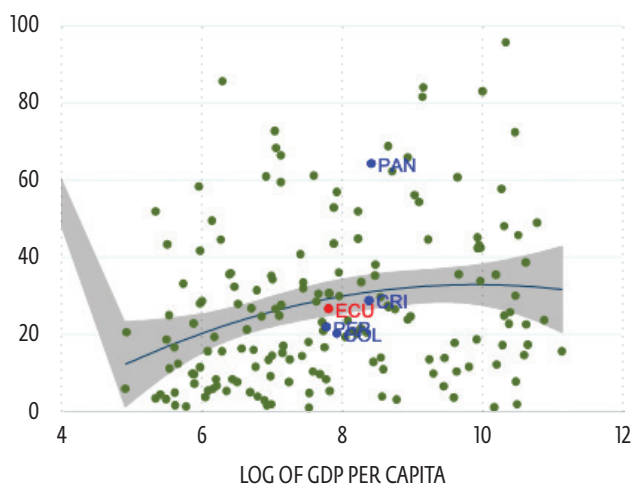
Attracting FDI is crucial to the dynamism of Ecuador’s private sector¹⁵. Not only does FDI help finance current account deficits—particularly important in a dollarized economy such as Ecuador’s—but it also increases competition and is associated with increased export competitiveness and productivity upgrades.

Since the turn of the century, Ecuador’s FDI stocks as a share of GDP have fallen from 26.8 percent in 2002 to 16.9 percent in 2017. Today, Ecuador’s FDI inflows, at 0.9 percent of GDP, are some of the lowest in the region. FDI in the country also declined as a share of exports of goods and services—from close to 12.8 percent in 2002 to about 2.8 percent in 2017. Ecuador’s low competitiveness in attracting FDI is reflected in Figure 1.8, which compares the country’s FDI stocks with those of Andean Community of Nations (CAN) and with what would be expected given Ecuador’s level of economic development.

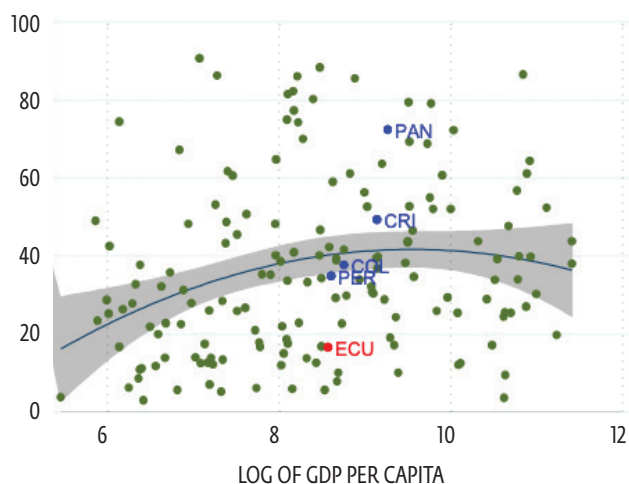
The sources of FDI inflows into Ecuador have changed substantially over the past 15 years (figure 1.9). During the 2002–06 period, 82.6 percent of its net FDI flows originated in the Americas. The main source of net FDI inflows was Brazil (26.7 percent), followed by several Caribbean tax havens such as the Cayman Islands, Panama, and the Bahamas. The United States was also an important source of FDI during this period. Patterns shifted between 2007 and 2017, when FDI flows from this region and the United States fell by nearly 50 percent while those from the European Union (EU) increased substantially; flows from China also grew rapidly.

FIGURE 1.8. FDI STOCK RELATIVE TO LEVELS OF ECONOMIC DEVELOPMENT

a. FDI stock, average, 2000–06



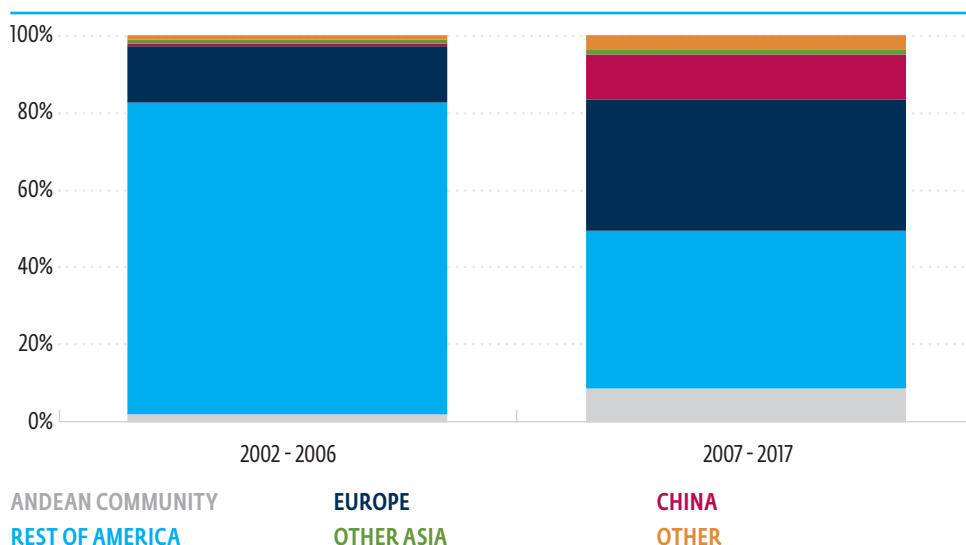
b. FDI stock, average, 2007–17



Source: Ferro and Reyes 2019, using UNCTAD’s FDI statics and the World Bank’s WDI database.

Note: This figure shows the 2000–06 average of FDI stock as a proportion of GDP for all countries relative to their respective GDP per capita. Ecuador is represented in red, and its regional and income comparators are shown in blue (Colombia, Costa Rica, Panama, and Peru). The shaded region represents the expected FDI according to a country’s level of economic development. FDI = foreign direct investment; GDP = gross domestic product; UNCTAD = United Nations Conference on Trade and Development; WDI = World Development Indicators.

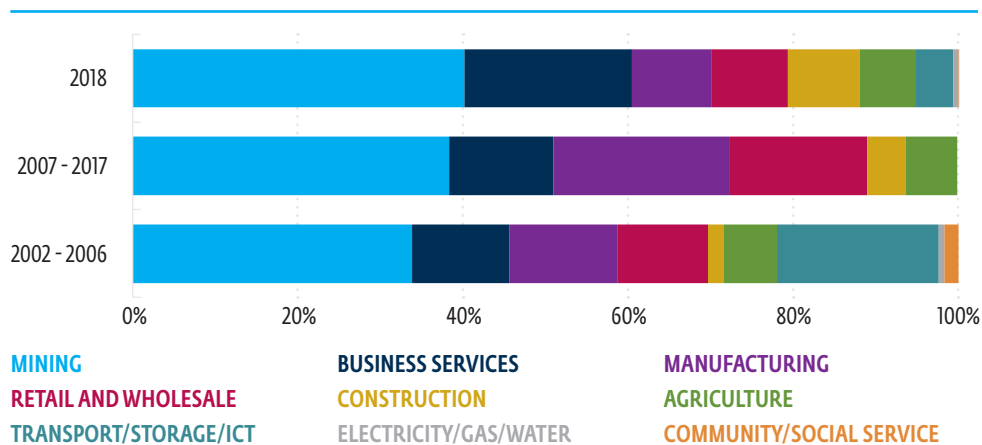
FIGURE 1.9. COMPOSITION OF FDI INFLOWS BY REGION OF ORIGIN, 2002–06 VERSUS 2007–17



Source: Central Bank of Ecuador.
 Note: FDI = foreign direct investment.

Extractives have been the main recipient of FDI in Ecuador. Net FDI into the sector increased from one third of all inflows in the period from 2002 to 2006 to 38.3 percent from 2007 to 2017 and to 40.2 percent in 2019. The intensity of FDI into other sectors also changed over the past 15 years. Between 2002 and 2006, logistics and communications, manufacturing, business services, and retail and wholesale received 55.3 percent of net FDI. Between 2007 and 2017, manufacturing received the most FDI (after mining). Retail and wholesale, business services, and agriculture attracted 21.2, 16.7, and 6.3 percent of net FDI, respectively. And in the first three trimesters of 2018, Ecuador was able to attract substantially more FDI to its business services sector, which now makes up one-fifth of FDI flows (Figure 1.).

FIGURE 1.10. VARIATION IN THE SHARE OF FDI INFLOWS BY ECONOMIC SECTOR



Source: Ferro and Reyes 2019, based on data from the Central Bank of Ecuador.
 Note: Data are available only for the first three trimesters of 2018. FDI = foreign direct investment; ICT = information and communication technology.

The challenges to Ecuador's ability to increase export performance and attract FDI involve several factors, including regulatory conditions that have increased uncertainty as well as costs for investors. These factors will be discussed in the next section.

2. CROSS-CUTTING CHALLENGES

This section builds on the existing knowledge on Ecuador produced by the World Bank and others, especially the Systematic Country Diagnostic ¹⁶ (World Bank 2018b) and systematic interviews with the private and public sectors during field work conducted for this study between March 2018 and May 2019. The section identifies cross-cutting constraints that impede private sector growth, focusing on (a) trade policy, (b) investment policy, (c) the framework for PPPs, (d) labor market rigidities, (e) competition restrictions, (f) the financial sector, (g) digital infrastructure, and (h) the ease of doing business. Although these are not the only relevant constraints, the analysis conducted identifies them as the most pressing ones.

For Ecuador to continue growing at a pace that allows it to maintain the social progress of the past 18 years, it will need to find new engines of growth. As the country's public sector downsizes due to fiscal imperatives, and as the country faces less favorable external conditions, the private sector will need to play a more prominent role in driving growth. For this shift to be successful, conditions need to support private sector investment, trade, and job creation. This change will involve integrating Ecuador's economy with the rest of the world by instituting policies that attract foreign investments, reducing barriers to trade, aligning labor costs and regulations to the needs of a productive and modern economy, strengthening the role of the financial sector, and improving the business climate.

A. TRADE POLICY CHALLENGES

There are three policy levers that can help boost Ecuador's export competitiveness: (a) trade policy, (b) trade promotion, and (c) upgrading support to firms for compliance with international standards. Although many factors matter to trade competitiveness, including labor costs and regulations, access to skilled labor, real effective exchange rate overvaluation, and energy costs, we focus here on these three specific policy levers because they particularly affect exporters compared with other producers in Ecuador. (Logistics is also a crucial factor, covered in a specific sector analysis in chapter C.) These constraints were identified through extensive interviews with Ecuador's private sector conducted during field work for the preparation of this report, and they are supported by a review of the existing literature on trade competitiveness in Ecuador.

Trade Policy

Ecuador has an antiexport bias, reflected in high tariffs and a complex and dispersed tariff regime. Ecuador's average simple tariff increased between 2011 and 2018, from 9.3 to 10.9 percent. However, compound tariffs and a temporary balance-of-payments safeguard policy raised the average nominal protection rate to greater than 40 percent across all tariff lines in 2016 (World Bank 2019d).¹⁷ An additional five percent capital exit tax further pressures the cost structure of importing firms. However, evidence shows that about half of Ecuador's imports are used as inputs to the country's exports. Increases in import duties mean higher production costs for exporters who incorporate foreign technology or intermediates in their processes. Although exporters should have access to duty drawbacks on intermediates used for exporting, anecdotal evidence points to the complexity and discretionality of the drawback process.

Increasing nontariff barriers to trade, some of which addressed legitimate concerns, have deepened the antiexport bias and increased production costs. Since 2012, Ecuador has also increased regulation of products that could be sold domestically by instituting mandatory technical norms and sanitary and phytosanitary standards. Although such measures addressed legitimate public policy objectives (i.e., health, environmental, and safety concerns), some were not aligned to international standards or best practices and led to an increase in specific trade concerns raised against Ecuador by other trade partners at the World Trade Organization (WTO). In addition, the application of domestic standards that differ from international ones imposes additional costs on firms that use the domestic market as a platform for experimentation prior to exporting. A step toward improving export competitiveness was taken in 2018: the obligation for importers to prove compliance with national technical requirements prior to the arrival of the goods was eliminated for a number of goods (including intermediary inputs such as packaging materials) and replaced by a posteriori risk-based controls.¹⁸

The antiexport bias of Ecuador's trade policy, reflected in the country's effective protection (including compound tariffs), has a significant effect on exports. Ferro and Vijil (2019) show that effective protection reduces exports, as well as sectoral total factor productivity (TFP) and value-added growth, by leading to a misallocation of resources in the economy. This finding suggests that reducing Ecuador's compound tariffs and other import duties can improve productivity growth by allowing resources to be reallocated toward more productive activities. In 2019, implemented regulations substantially reduced compound tariffs and eliminated ad-valorem tariffs on several imported goods, including agricultural inputs, cellphones and computers.

Ecuador also needs to seek increased market access for its products. Since Colombia, Peru, and other Central American countries signed free trade agreements with the United States, Ecuador's exports have lost market share in that country. The ratification of a trade agreement with the EU in 2017 was therefore an important step toward improving Ecuador's competitiveness and access to markets, as is its potential membership in the Pacific Alliance Agreement. The latter could have a significant economic impact, because member countries of that agreement account for almost 20 percent of Ecuador's nonoil exports and more than 25 percent of its nonoil imports. Estimates suggest that the decision to remain outside the agreement reduced Ecuador's overall exports by 16 percent, corresponding to US\$600 million per year (World Bank 2019d). Ecuador has also recently agreed on the terms of reference for joining the

Pacific alliance, and has signed the first phase of a commercial agreement with the United States. The latter trade deal addresses a limited number of areas but could be part of a larger agreement to be negotiated in the future.

Export Promotion

An improved framework for export promotion in Ecuador will help reduce exporters' costs, particularly those associated with seeking new markets. A sizable expense faced by exporters is that of obtaining information about what foreign markets demand, what specifications they are willing to pay for, and how much are they willing to pay for them. Therefore, countries with strong export bases tend to also have strong export promotion agencies that provide this information to exporters, match global buyers with local suppliers, and, in some cases, support exporters in upgrading their capabilities, with positive results for small and medium exporters.¹⁹

Tourism may be a useful platform for effective export promotion for Ecuador.

Exporters need to leverage tourism as a platform to promote Ecuador's food products—for which the country has its strongest revealed comparative advantage. Tourism brings the “international trade fair” home, reducing promotion costs for exporters, and allows Ecuadorian firms to learn about foreigners' tastes and their willingness to pay much more cheaply than if they had to hire foreign international consultants (Reis and Varela 2013). In addition, concerted efforts need to be made to strengthen Ecuador's brand, which could lead to increases in both trade and tourism. In this regard, the recent merger of Ecuador's export and investment promotion agencies and the new agency's location within a vice-ministry in the Ministry of Production, Commerce, Investment, and Fisheries calls for a careful assessment of the export promotion mandate and its alignment with international best practices.

Quality and Standards Compliance

Given the importance of food-related exports to Ecuador's export basket, the country's ability to upgrade to higher value-added products depends on its success in improving quality and complying with social and environmental standards that are highly valued by consumers in high-income countries. However, the Ecuadorian private sector's capacity to comply with these standards is low, and considerable gaps remain in the country's National Quality Infrastructure. For example, only 7 percent of firms in Ecuador possess an internationally recognized quality certification, compared with 14 and 21 percent in Peru and Colombia, respectively. Agencies that carry out conformity assessments in Ecuador can provide certifications for only 36 percent of technical regulations. The fair-trade movement, embraced by República del Cacao, as mentioned above, is one such example. Broader efforts are needed in this area, particularly considering the EU-Ecuador agreement ratified in 2017, which includes commitments on the enforcement of labor and environmental standards. If Ecuador is to fully capitalize on the potential of that agreement, its infrastructure for certification of standards compliance needs to be ready and available for small, medium, and large exporters alike, as well as for upstream farmers who are often the ones that need to implement the necessary changes in production processes. (The food safety sector analysis in chapter 3 delves more deeply into standards issues.)

B. INVESTMENT POLICY CHALLENGES

Foreign Direct Investment

In addition to being a source of capital investment, FDI offers indirect benefits to a country, such as the rapid and efficient transfer and adoption of best practices across borders and the upgrading of skills and human capital. FDI is also associated with the acquisition of new technologies and competitive upgrading, contributions to international trade integration, and increased tax revenues. FDI can provide a relatively stable and low-risk form of finance for development in capital-poor countries. However, to achieve the positive impacts of FDI on its economy, a country must adopt a general framework of reasonable regulations that are neither unduly burdensome nor arbitrary and establish a level and competitive playing field without special protections (World Bank 2019).

Introducing a consistent regulatory framework to support investment and address perceived risks could help unleash private investment, especially foreign investment, and bring about positive productivity spillovers. The challenges in Ecuador's business environment are reflected in the low rate of private investment in the economy (as seen in figure 1.4). Although the country is open to FDI in most sectors—except those categorized as “strategic” or reserved for the state—its private investment per capita and FDI as a share of GDP are among the lowest among its structural and regional peers. A number of policy constraints contribute to hampering investment, including the absence of bilateral investment and double taxation treaties with many FDI-source countries; the country's relatively few free trade agreements; and its withdrawal from the World Bank's arbitration court, ICSID, in 2009. Other measures, including the foreign currency exit tax, inject further uncertainty into Ecuador's investment climate. Finally, Ecuador's recent episodes of default and contract renegotiation add to the overall perception of risk among investors. These constraints have changed the character of FDI in Ecuador over the years: it has become increasingly project- and contract-based, focusing on high-risk/high-return projects rather than investments that contribute to a shift in the broader investment climate. The current administration is making an important change to correct this trend in order to capitalize on the potential gains associated with FDI.

The government of Ecuador is reforming investment legislation. The new Organic Law for Productive Promotion, Investment Attraction, Employment Generation, and Fiscal Stability and Balance (the Productive Development Law, for short), passed in August 2018, introduces substantial amendments to several laws in order to encourage investment in the country. These amendments include (a) income tax and corresponding estimated tax exemptions for new investments made in strategic sectors, basic industries, or locations other than Quito and Guayaquil; (b) exemption from the five percent foreign currency exit tax (Impuesto a la Salida de Divisas, or ISD) for international dividend distribution provided that 50 percent of the company's profits are reinvested in Ecuador (the latter are exempt from income tax); and (c) a zero percent value added tax (VAT) on raw materials and supplies for agriculture, livestock, aquaculture, and fishing industries, whether imported or purchased in the local market. Similarly, machinery and spare parts for agriculture, aquaculture, and fishing industries pay a zero percent VAT.

Some of the main policy challenges still facing investors are outlined below.

Bilateral Investment Treaties

Ecuador unilaterally terminated its 25 bilateral investment agreements. The absence of bilateral investment (and double taxation) treaties with many FDI-source countries reduces investor certainty and raises their costs. Article 422 of Ecuador's 2008 Constitution prohibits the state from establishing treaties or other international instruments in which international arbitration clauses imply a ceding of sovereign jurisdiction in contractual or commercial disputes signed with international private entities. Ecuador thus withdrew from the ICSID; it also terminated nine bilateral investment treaties in 2009 that included dispute-resolution clauses based on ICSID mechanisms. In May 2017, the 16 remaining bilateral investment treaties were terminated (Reyes and Ferro 2019).²⁰

These restrictions have increased the perceived risks of investing in the Ecuadorian private sector, because international investors and financiers are interested in fair settlement systems that include the possibility of international arbitration. The restrictions are a particular constraint to large investment projects, such as in the oil sector and in infrastructure, and they are becoming a constraint as Ecuador progresses with complementary reforms to enable private sector participation in these segments.²¹

More recently, signaling a shift in favor of enhancing the protection of investor rights, the attorney general's office ruled that Ecuador would recognize rulings issued by arbitral tribunals based in Latin America. Following the enactment of the Productive Development Law, all contracts for large investments (more than US\$10 million) must now include an international arbitration clause (at tribunals based in Latin America), which is reviewed by the attorney general's office to ensure it is consistent with the law. To reinforce this reform, the minister of production, trade, investments, and fishing also signed a memorandum of understanding with a regional arbitration center in which both parties recognized each other. In this memorandum, the government committed to participate in arbitration following high standards of transparency, and the center agreed to be prepared to offer services as requested (World Bank 2019). This solution certainly improves on the previous situation, in which only arbitration in Ecuador was recognized; however, it remains somewhat suboptimal, because most international banks and financial institutions prefer international arbitration in New York, London, or Singapore given these locations' history and expertise. The current solution is a deliberate policy trade-off by the administration, in which the first-best solution was not politically feasible or available.

Foreign Currency Exit Tax (Impuesto a la Salida de Divisas)

In the aftermath of the global financial crisis, Ecuador introduced a tax on capital outflows. The objective of the tax was ostensibly to control the outflow of dollars from the country, balance the financial account of the balance of payments, and safeguard the country's dollarization regime. Other objectives were to prevent short-term capital flight and to incentivize companies to reinvest profits in their Ecuadorian activities. The tax affects all types of outgoing payments and transfers.²² The ISD stood at 0.5 percent when introduced in 2009, but it gradually rose to 5 percent by 2011, where it remains today. Since 2012, the ISD has generated US\$1 billion annually on average, and it is the third-largest source of tax revenue for the Ecuadorian government, after value added taxes and income taxes.

The government is gradually eliminating the ISD in order to incentivize local and foreign investment. A number of important ISD exceptions for the productive sector were implemented in 2018, in addition to the one noted above. Interest and capital payments on long-term foreign loans for production with an interest rate below the local reference rate are exempt. Exceptions are also made for dividend distribution abroad by national or foreign companies domiciled in Ecuador in favor of non-resident individuals or companies.²³ And, finally, exporters who import raw materials and capital for their production processes are eligible for an income tax credit for ISD payment. The authorities are keeping a delicate balance by gradually eliminating the tax, given the importance of the ISD to public revenue.

Institutional Organization of Promotion Activities

There is scope to improve the institutional setup of Ecuador's foreign investment (and export) promotion activities. The recent institutional restructuring of the Ministry of Production, Commerce, Investment, and Fisheries entailed the reallocation of export and investment promotion duties into a new Vice-Ministry of Promotion. This institutional arrangement is relatively unique, and it may undermine the effectiveness of the country's export and investment promotion. Not only is the export and investment promotion budget reduced, but also the vice-ministry's mandate now obligates it to respond to internal requests from the government, limiting its capacity to interact with the private sector as necessary. It is crucial that export and investment promotion units maintain an active channel of communication with the private sector and that their mandate is aligned with international best practices.

C. THE PUBLIC-PRIVATE PARTNERSHIP FRAMEWORK

Private sector participation in infrastructure in Ecuador has been limited in recent years, confined largely to maintenance and some construction of new works by concessionaires. This is despite the approval, between 2011 and 2019, of at least 13 decrees, a law (in 2015²⁴), and various resolutions related to private participation in infrastructure. The country's lack of an appropriate regulatory and institutional setting has limited its use of PPPs to mobilize the private finance needed for infrastructure investment. A proper framework can help sustain priority investments, ensure the management and maintenance of assets, and guarantee the efficient provision of services. The most progress in incorporating private capital and operations has been made in the port sector: concessions for the ports of Posorja, Bolivar, and Manta were awarded in 2016. Since 2015, however, the Ecuadorian government has become increasingly interested in the potential of PPPs to help meet Ecuador's infrastructure needs.

Under certain conditions, PPPs can contribute to expanded and improved provision of key public services in Ecuador. They can also create fiscal space if risk allocation is well designed. And, with successful financial closure, they can alleviate balance-of-payments concerns. Today, line ministries, public enterprises, and subnational governments in Ecuador see PPPs as the means to expand and improve service delivery under tight fiscal constraints, and a multitude of projects are being considered for potential PPPs.²⁵ However, although PPPs can alleviate short-term liquidity constraints, unless they are well managed they will not resolve, and they may even exacerbate, fiscal sustainability issues. Similarly, without a strong capacity to identify, structure, and monitor such projects, the value for money of PPPs may be disappointing.

Ecuador needs a sound legal and institutional framework for PPPs in order to fulfill its aspirations, and a recently-issued a decree²⁶ addresses some of the shortcomings of the prior framework. The new decree is a step forward, and defines PPPs and delegated management contracts, or agreements whereby the rights and obligations of the delegating public entity and a private party are set, includes a framework to process unsolicited proposals, and attempts to clarify an institutional framework, among other themes. Nevertheless, some important shortcomings persist. Various laws continue to overlap or contradict each other on important issues, including the role of the PPP Committee, and fall short on important aspects. For instance, different PPP regimes apply to different sectors and government institutions and the presidency continues to enjoy significant discretion to approve unsolicited proposals. Moreover, a law, rather than a decree, with its greater enforceability and clarity, is required for a number of key aspects of a robust PPP framework, in order to generate the needed confidence, guarantees and predictability for private investors. These aspects include: the creation of a new institutional design, with a leadership role in the Ministry of Economy and Finance (MEF), as well as the specific obligations for the delegating public entities, whose compliance is critical to the success of any PPP program; the generation of specific obligations in the MEF regarding the management and accounting of explicit and contingent fiscal commitments, as well as the management of fiscal risks, in order to ensure the fiscal sustainability of Ecuador's PPP program and support the offer of minimum guarantees to investors and investment banks; and establishing the needed institutional platforms to ensure an adequate system of control and supervision of works and levels of operation and maintenance.

An appropriate incentive structure for PPPs, including how risk will be allocated between the public and private sectors, is also important. Although they are frequently applied to PPPs, corporate tax incentives and tax exemptions are not the key drivers of a PPP's bankability; PPP projects typically require private debt financing for about 70 percent of total costs. Without an appropriate framework to allocate risk between the private and public sectors, the financial costs of a PPP in Ecuador may end up too high. In this regard, many countries (including neighboring Colombia) are designing financial products that enhance the bankability of PPPs in other ways—rather than directly, through fiscal payments, guarantees, or contingency liabilities—such as by issuing explicit partial credit risk guarantees for risks retained by the government or by providing temporary liquidity to the sponsor to pay bondholders and creditors in the event that a risk materializes before the project's income stream is available.

While considering the appropriate risk allocation mechanisms, the value for money of PPPs in Ecuador also needs to be reviewed, and this review is intimately linked to fiscal management and country risk. Overall financing costs may offset the efficiency gains that the private sector brings to infrastructure investment. This is because the financing costs of a PPP must price in all the risks associated with the project and add these to the sovereign risk spreads, which are currently very high for Ecuador. The “value for money” of a PPPs under these conditions may fall into negative territory. A credible PPP program in Ecuador would therefore not only require a strong legal and institutional framework but also chart a credible fiscal path that could lead to a reduction of sovereign spreads—particularly at long tenures.

D. LABOR MARKET CHALLENGES

The labor market in Ecuador has been characterized by an abundance of changes in labor regulations over time.²⁷ The Ecuadorian labor code has undergone multiple modifications since 2006, primarily related to employment protection.²⁸ In 2008, outsourcing, intermediation, and hourly labor contracts were restricted by constitutional mandate, and outsourcing was allowed only for complementary activities (such as security, catering, delivery, and cleaning).²⁹ In 2010, provisions for social security and economic benefits were made mandatory for all workers. In 2011, the failure to affiliate workers with social security was criminalized. In 2013, a new labor code was introduced that restricted overtime work and further extended social security access. In 2015, the Law for Labor Justice imposed additional constraints, including the banning of fixed-term employment contracts, which had allowed employers to hire a worker for one year with the possibility of renewing the contract for a second year. The Law also reduced the probationary period for employees from 12 months to 90 days.

Since 2018, numerous regulations were introduced:

- The profit-sharing arrangement by which employees were entitled to 15 percent of net profits generated by firms was reinstated by the Constitutional Court. In 2015, a compensation limit per worker of 24 times the basic salary was established, with the difference turned over to the government.
- New contracts were implemented for selected sectors, including agriculture (flowers, bananas, and livestock), manufacturing (textiles, food and beverages, plastic, furniture, and others) and services (tourism and software development and services). These contracts allowed for more flexibility to hire workers by the hour, day, or week. Each sector has its own specific regulations, including the type of activities that are covered by the regulations, the wage structure, the working hours/days, and benefits. Specific regulations for contracts in the Galapagos Islands (for boats and cruise ships), including allowances for a cumulative workday, reduced labor market rigidities by recognizing the needs of the tourism sector. This type of regulation could be extended to other sectors, such as mining, that require greater flexibility and tailoring to specific conditions. However, surcharges exist for hourly wages, making these arrangements still costly for firms.
 - Regulations were established for contract (permanent) part-time work. Under this type of contract, workers can be employed for less than 8 hours per day, 40 hours per week, or 160 hours per month.
 - An objective, pre-defined formula was adopted to make changes to the minimum wage. This formula can be used to inform tripartite negotiations between workers, employers, and the government, and to adjust the minimum wage in case these negotiations do not achieve an agreement on minimum wage adjustment.

- Programs targeted to youth were also established. Mi Primer Empleo (My First Job) is a four-year program in which firms may offer paid six-month internships to university students. The government covers 50 percent of the internship cost (wages and social security benefits). If the firm hires the intern after the sixth month, the remaining 50 percent of the benefit that was incurred by the firm is paid by the government. The Empleo Joven (Youth Jobs) program covers 50 percent of the basic salary and 100 percent of social security contributions for firms that hire youth between the ages of 18 and 26 years who have only basic education and no work experience.

Despite these initiatives, Ecuador’s labor market remains rigid. This rigidity restricts the private sector’s ability to adapt rapidly to changing market conditions. Nonwage costs are high and are determined as a fixed rate of wages, and compliance is burdensome. Significant barriers to hourly hiring persist despite the government’s recent moves toward increasing flexibility, as previously mentioned. The cost of dismissing personnel is higher in Ecuador than in any other Latin American country. Severance payments for a worker with five years of tenure are twice as high as the Latin American average and 1.5 times higher than the average for Ecuador’s regional peers (World Bank 2019). Severance must be paid whenever an employment relationship ends, even when an employee voluntarily resigns. This requirement hampers firms’ ability to respond to economic slowdowns and delays the recovery in hiring after a downturn.

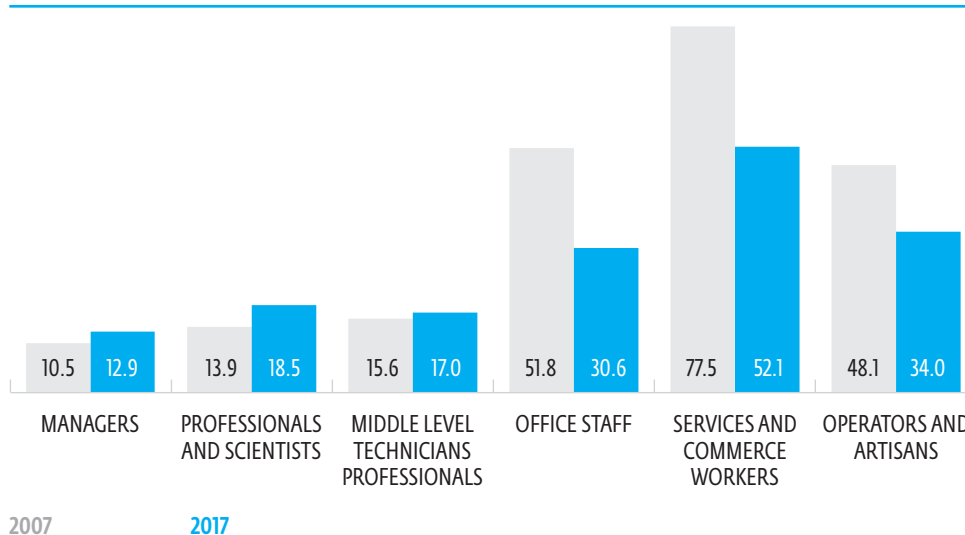
Ecuadorian firms are responding to labor market rigidity by adopting labor-saving technologies and by increasing their reliance on informal labor. The net entry rate of workers into the social security registry has been falling since 2012, and it became negative in 2015. This statistic provides clear evidence of rising informality. The share of informal workers who earn less than the minimum wage has increased continuously, reaching nearly three-fifths of the working population in 2017. The increase in informality after 2014 is attributed to rigidities in the labor market—namely, high minimum wages and strong restrictions on hiring, firing, and reducing hours worked. The labor market is segmented between workers locked into long-term contracts with benefits and workers with informal contracts and minimal, if any, benefits.

Rising underemployment and informality have undermined labor productivity growth in Ecuador since 2014. As economic and labor market conditions deteriorated, more people reentered the labor force than in the preceding years. However, most of those people engaged in low-quality jobs, especially the young, the elderly, women, and rural and indigenous workers. These low-quality jobs offered fewer hours per week and/or lower salaries than better-quality ones. Although the educational gap is almost negligible between genders, women are more constrained than men in accessing better-quality jobs, as is reflected in their higher informality and underemployment rates and lower labor incomes.

In addition to using more informal labor, more Ecuadorian firms are also choosing to be informal. This informality has been driven by the time and costs involved in registering a new business, in addition to other burdensome regulations and policy uncertainties. Constraints on access to formal credit also weaken the incentives for informal firms to comply with tax, legal, and social security provisions.³⁰ As a result, unfair competition from the informal sector is considered a major constraint to businesses, even large companies. In response, firms are resorting to informality in

order to adjust to economic cycles and remain competitive. By making operating costs unaffordable for many formal firms, restrictive labor markets impede the efficient allocation of labor across firms, which, in turn, constrains productivity gains.

FIGURE 2.1. PUBLIC SECTOR WAGE PREMIUM (RELATIVE TO PRIVATE SECTOR WAGES) IN ECUADOR, BY OCCUPATIONAL GROUP, 2007 AND 2017



Source: Olivieri and Chelela 2019.

Opportunities to Lift Barriers to Private Sector Development

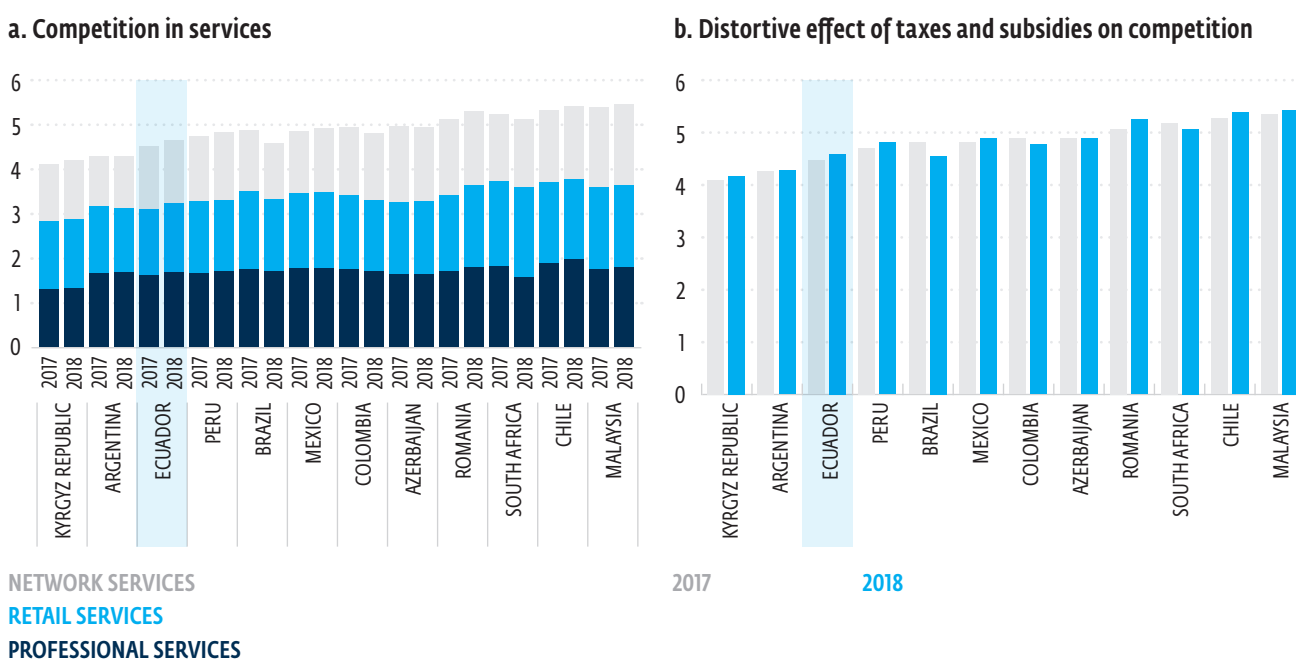
Aligning labor costs with productivity would help firms remain competitive without resorting to informality. Minimum wages in Ecuador are relatively high, which raises labor costs. The ratio of the minimum wage to value added per worker, or unit labor costs, increased to 0.6 in 2016, making it the third highest in the region. The minimum wage that was set at the median labor income in 2009 has grown approximately 8.5 percent in real terms since then. It now represents five times the poverty threshold income. Public sector pressure on the labor market raises another challenge to creating and maintaining quality jobs in the private sector. Depending on the activity in question, the average public sector wage can be up to 52 percent higher than that found in the formal private sector for an individual with the same characteristics (gender, education level, and experience) (figure 2.1). This discrepancy puts pressure on the private sector to match public sector wages, and it may reduce the pool of workers willing to work in the private sector as well as the number of potential entrepreneurs.

Modernizing labor regulations to meet the fast past of economic change is important. Such modernization would need to be accompanied by appropriate safety nets for vulnerable workers. There are important trade-offs associated with increasing flexibility in the labor market. On one hand, increased flexibility allows the private sector to adapt more rapidly to changing conditions linked to business cycles and to changing technologies of production; it therefore reduces the cost of creating new formal positions and encourages workers and firms to find more productive matches. On the other hand, labor market flexibility transfers risk from the employer to the employee, leaving some workers more vulnerable to shocks. Therefore, flexibility must be accompanied by provisions to protect vulnerable workers.

E. COMPETITION RESTRICTIONS

Competition in Ecuadorian service markets is perceived to be weak, and the distortive effect of taxes and subsidies on competition appears to be substantial. Greater competition in key upstream service sectors is essential to spurring entrepreneurship and innovation not only in service sectors but also in downstream sectors (such as in manufacturing) that rely intensively on upstream service sectors as inputs. Ecuador ranked 93rd out of 140 in 2018 in the perceived degree of competition in service markets, lagging behind most of its regional and structural peers (WEF 2018; see Figure). Government interventions in markets can generate distortive effects on competition and lead to poor market outcomes: the distortive effect of taxes and subsidies on competition, for instance, is perceived to be high in Ecuador (the country ranked 135th out of 140 in this category in 2018). Improving market competition in Ecuador is essential not only to spurring entrepreneurship, improving resource allocation, enhancing productivity and innovation, and benefiting consumers but also to achieving economic diversification away from oil.

FIGURE 2.2. ECUADOR RANKINGS IN GLOBAL COMPETITIVENESS, 2017 AND 2018

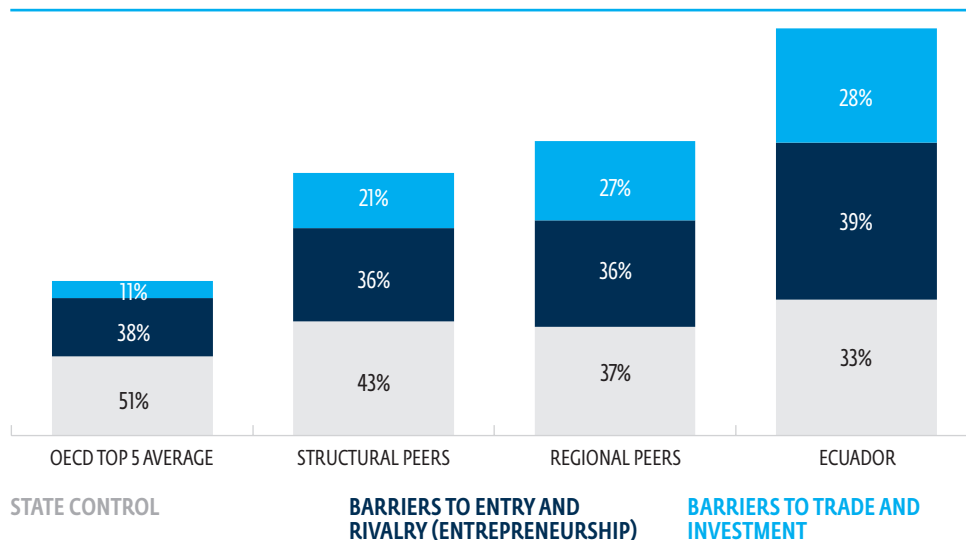


Source: WEF 2017a, 2018.

Note: Countries are ranked on a scale of 1 to 7, with 7 representing the best conditions and 1 the worst.

Direct and indirect government interventions in markets tend to stifle competition in Ecuador. The Organisation for Economic Co-operation and Development (OECD) Product Market Regulation Indicator suggests that Ecuador is relatively restrictive to competition in comparison with its regional and structural peers (figure 2.3).³¹ Barriers to entry and rivalry drive Ecuador’s overall regulatory restrictiveness. These restrictions include complex regulatory procedures—rigid labor regulations and complex tax regulations—and rules in network sectors that favor incumbents and do not enable equally or more efficient firms to enter and compete in segments where competition is otherwise viable. Energy, telecommunications, transportation, and water are “strategic sectors” reserved for SOEs, although private sector participation is allowed by exception. SOEs in some of these sectors face lower tax burdens and can receive financing (such as government guarantees) not available to private companies. Although state participation in some sectors (such as energy, nonrenewable natural resources, transportation, and water) is not unusual, competitive neutrality needs to be guaranteed, especially if efficient private sector participation is viable.

FIGURE 2.3. OECD PRODUCT MARKET REGULATION INDICATOR



Source: Markets and Competition OECD-World Bank Group PMR Indicators for Ecuador as of 2013–14, OECD PMR database, and OECD-World Bank Group PMR database for non-OECD countries.

Note: This indicator is measured in absolute values from 0 to 6; higher values are associated with regulations more restrictive to competition. “Structural peers” include Colombia, Peru, Romania, and South Africa, and “regional peers” include Chile, Colombia, Mexico, Peru, Brazil, and Argentina. OECD = Organisation for Economic Co-operation and Development; PMR = Product Market Regulation.

In Ecuador, the state controls all segments of the electricity sector and has a strong presence in the railway, air transportation, and telecommunications sectors. The state regulates and controls the entire electricity sector, including segments that are typically provided by the private sector efficiently. The SOE Corporación Eléctrica del Ecuador (CELEC EP) generates more than 80 percent of the country's electricity. Private investment in this sector, which can be allowed by exception, is almost nonexistent. There is no third-party access to the electricity transmission grid. Despite improvements in the past decade, getting electricity is still more costly in Ecuador than in most structural and regional peers. There is also no private participation in the delivery of water services. Transportation is another strategic sector per constitutional mandate. The state controls the railway sector and some of the major port terminals, and it has 50 percent of domestic market share in the airline sector through the state-owned airline TAME.

The telecommunications sector in Ecuador faces certain competition constraints: although the state controls fixed-line communications, the mobile communications sector is dominated by two large operators. Telecommunications is also a strategic sector per constitutional mandate. Two large operators dominate the mobile communications sector, while the state controls fixed-line communications through an SOE. Fiber optic infrastructure, however, is helping to develop competition in internet services. By law, private telecommunications companies (cellular and fixed-line telephone service, internet service, and subscription television) with more than 30 percent of market share must pay a tax consisting of a percentage of their revenue to the government.

Public banks have a strong presence in various sectors of the Ecuadorian economy. There is some overlap in the segments served by commercial banks and public banks, and commercial banks provide—by regulation—a significant part of the funding for public banks.³² One public bank, Banco del Instituto Ecuatoriano de Seguridad Social (BIESS), is a strong competitor in the household segment of the market, and it targets clients from the formal sector. As discussed in the next section, public banks are not required to follow financial performance requirements, and some of them receive direct financing from the deposit insurance fund (World Bank 2019).

The Competition Law, its enforcement, and Ecuador's institutional setup all need to be reviewed in order to enhance detection, deterrence, and prevention of anticompetitive conduct and market concentration. Ecuador has had a comprehensive competition policy framework since 2011 (the LORCPM), but its anticartel enforcement can be strengthened. For instance, hardcore cartels—those that engage in price fixing, market sharing, and bid rigging—are not considered illegal, per se, but are prohibited as “restrictive agreements” whose anticompetitive effects in the market need to be proven (according to article 11 of the LORCPM). Recent jurisprudence by Ecuador's Supreme Court (Corte Nacional de Justicia) has confirmed that the Superintendencia de Control del Poder de Mercado (SCPM) cannot apply a per se rule to cartel agreements, although this is the approach followed by most competition laws. Cartel detection and prosecution are difficult because of weaknesses in the use of key enforcement tools, such as leniency and dawn raids, to gather evidence and build solid investigations. Leniency applications have not been concluded successfully, and previous handling of applications may have stifled incentives for others to come forward. The SCPM has not conducted any dawn raids, nor has it used fines to sanction and effectively deter anticompetitive practices.

Significant restrictions on large firms can chill competition in key markets. Large firms in Ecuador are not able to assess whether their conduct may be deemed anticompetitive. The definition of anticompetitive conduct does not clearly distinguish between conduct that is per se harmful and conduct that needs to be evaluated against the efficiencies it may achieve. Also, Ecuador's criteria for evaluating unilateral conduct are not aligned with international best practices. In other words, practices considered an abuse of dominance in Ecuador would be considered legitimate in other countries of the region and beyond. This discrepancy creates an additional concern for multinationals that may be dissuaded from participating in Ecuadorian markets by the lack of clarity of the country's competition framework.

Lack of predictability regarding the obligation to notify about mergers affects legal certainty for the private sector. The use of qualitative merger notification thresholds based on market share is problematic, because firms may not be able to anticipate the market definitions of the Superintendencia. Its merger thresholds allow for different interpretations depending on the definition of the relevant market, creating uncertainty for investors. To avoid this, merger thresholds need to be based on objectively quantifiable criteria such as turnover or the size of the operation. In addition, merger thresholds should be aggregate as well as individual to avoid notifications about mergers with trivial market effects.

Finally, Ecuador's institutional set-up is not favorable for ensuring predictable law enforcement. **Coordination** between the SCPM and the Regulation Board of the Competition Law, which is entrusted with proposing and enacting secondary legislation for the application of the LORCPM and other industry-specific regulation, needs to be strengthened in order to improve alignment in the exercise of their regulatory competencies.

F. THE FINANCIAL SECTOR

Banks account for nearly 50 percent of the financial system’s assets, 60 percent of credit, and 90 percent of the system’s liabilities to the public. Private banks account for about 80 percent of the banking system’s assets, and their Herfindahl-Hirschman index of concentration stands at less than 1500 (1478 in 2017), indicating a relatively competitive environment. Public banks have gained importance in the provision of financial services over the past decade, and they account for about 8 percent of credit operations by the financial system.³³ The Ecuadorian banking system is considered to be stable and well-capitalized. Despite recent improvements, compared to private banks, public banks (and cooperatives) are subject to weaker regulatory requirements and oversight, contributing to lower performance and relatively higher risk associated with them.

Nonbank financial institutions, particularly savings and credit cooperatives, also play an important role in the financial system. These institutions tend to serve segments of the population and regions of the country that are unserved or underserved by the banking system. Although cooperatives appear to have low systemic importance, a number of small institutions do face challenges. Problems in this sector could have a high social impact, because savings and credit cooperatives tend to serve the poorest segments of the population (World Bank 2018b; IMF 2019a). However, this segment is experiencing a consolidation process because of recent regulatory changes and improved supervision (World Bank 2020).

Ecuador’s capital markets are underdeveloped compared to those in the LAC region, with limited participation of institutional investors. The fragmentation of the capital market into two exchanges (Quito and Guayaquil) impairs liquidity and imposes high transaction costs, slowing the development of the capital market overall.³⁴ Moreover, the relative lack of institutional investors also hampers the development of the market. Private pension funds allocate an important share of their portfolio to government bonds, while the insurance market is small, lagging those of regional peers in terms of assets and insurance spending as a percentage of GDP. Government efforts to spur integration of Quito’s and Guayaquil’s stock exchanges have so far been unsuccessful.

The financial sector’s role in supporting private sector–led growth has been limited. The sector is shallow: domestic credit to the private sector (as percentage of GDP) stands at 42.8 percent in Ecuador in 2019, compared to 51.4 percent in Colombia, 45 percent in Peru, and 51.2 percent on average in LAC (table 2.1). Some of this shallowness has been caused by the crowding out of the private sector by the public sector. Requirements that banks place a substantial portion of their liquidity at the Central Bank, which subsequently loans the funds to the government via “investments” in public sector bonds, mean that government has, in effect, been borrowing from the private sector. Central Bank financing has been particularly significant since the 2014 decline in oil prices, which impacted government revenues. To make room for banks to finance private activity, the government will need to avoid crowding out private sector capital and credit growth. In 2018, legislative and other steps were taken to put an end to new Central Bank financing of the government and to the quasifiscal activities of the Central Bank. The authorities intend to go further to bolster the Central Bank’s autonomy and governance arrangements and to strengthen its financial stability oversight function (IMF 2019b). Reforms to halt Central Bank financing should have a positive impact on financial intermediation in the Ecuadorian economy.

TABLE 2.1. SELECTED FINANCIAL SECTOR DATA (LATEST YEAR AVAILABLE), % OF GDP

	FINANCIAL SYSTEM DEPOSITS	DOMESTIC CREDIT TO PRIVATE SECTOR	STOCK MARKET CAPITALIZATION
Ecuador	31.1	29.2	6.7
Colombia	23.6	47.5	37.4
Peru	36.8	37.4	43.6

Source: Global Financial Development, World Development Indicators and Global Financial Inclusion databases, World Bank Group.

Beyond the complex system of liquidity regulations, other regulatory constraints limit financial sector intermediation. Caps on the interest rates that private banks can charge on their loans discourage lending to riskier borrowers—including micro- and small enterprises—who are thus credit-rationed in formal credit markets. Additionally, the government, through the Central Bank, directs banks' credit allocations toward selected economic actors and sectors, such as public corporations and firms in the mortgage sector (World Bank 2018b). These interventions have compounded the sector's inherently conservative stance to risk (as a result of the 1999 financial crisis). Dollarization, the lack of a lender of last resort, and Central Bank control of a significant portion of the system's liquidity further amplify banks' reluctance to significantly increase their exposure to private borrowers. Some steps to fix this situation include the recent approval of a policy reform that disallows Central Bank financing of public banks (which can also help to level the playing field between private and public banks in terms of costs of funding) and eases some liquidity regulations (which may serve to increase the resources available for financial intermediation).³⁵

Access to Finance and Financial Inclusion

Businesses in Ecuador, particularly small and medium enterprises (SMEs), unsurprisingly consider access to finance to be an important obstacle to investment and to innovation. This is despite relatively high and rising levels of banking penetration in the general population that are above those of some neighboring countries (table 2.2).³⁶ The use of banks by Ecuadorian firms to finance investments is lower than average for the region and for similar-income countries, while access to long-term finance is low even among large companies; as noted above, Ecuador's financial system is, overall, shallow.

SMEs in Ecuador face particular difficulties in accessing financing (Neira Burneo 2016; see also table 2.3). The tenors offered by private sector banks are short, usually less than two years, and few products are tailored to small businesses, because higher administrative costs lead banks to prefer to work with large corporate clients. Moreover, there are no SME-focused banks in Ecuador. Large corporations are catered to by private banks, and microenterprises are served by microfinance institutions, leaving the SME segment underserved. However, public banks do appear to be responding to the gaps left by the private banks, offering longer tenors and service in regions that are not traditionally served by the private sector. The availability of venture capital in Ecuador is similarly limited. Interest rate caps on loans to SMEs add to the reluctance of banks to work with smaller firms. However, the Government of Ecuador has taken initial steps for interest rate flexibilization by a consolidation of the credit segments from 22 to 13, which will simplify interest rate management, and the introduction of a new, flexible methodology for determining interest rate ceilings. Credit information is incomplete and mechanisms for rectifying the information lack transparency. Regarding secured transactions, the lack of a comprehensive institutional and regulatory frameworks for movable collaterals is a further constraint.

TABLE 2.2. FINANCIAL INCLUSION

	HOLD AN ACCOUNT AT A FORMAL FINANCIAL INSTITUTION (AGE 15+)		BORROWED TO START, OPERATE, OR EXPAND A FARM OR BUSINESS (AGE 15+)	
	2014	2017	2014	2017
Ecuador	46.2	51.2	5.6	6.9
Colombia	39.0	45.8	10.2	10.9
Peru	29.0	42.6	6.8	8.2
Latin America and the Caribbean	51.9	55.1	6.0	5.7
World	62.0	68.5	7.1	6.4

Source: Global Financial Inclusion Database, World Bank Group.

TABLE 2.3. RANKINGS ON SME FINANCE AND VC AVAILABILITY

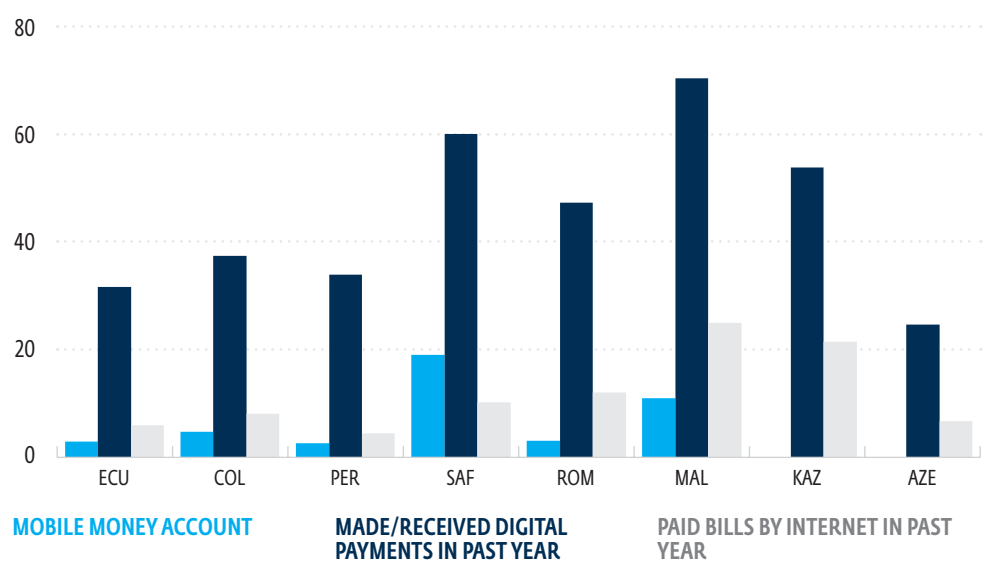
	FINANCING OF SMES	VENTURE CAPITAL AVAILABILITY
Ecuador	102	113
Colombia	84	71
Peru	79	70

Source: WEF 2017a, 2018.

Note: The rankings are out of 140 countries. SME = small or medium enterprise; VC = venture capital.

Ecuador lags most of its peers in mobile account ownership and in the use of digital payments (Figure 2.4). Although financial inclusion starts with having an account, its benefits come from actively using that account—for saving money, managing risk, or receiving or making payments. Just three percent of the adult population of Ecuador had a mobile money account in 2017, six percent had paid bills over the internet, and less than a third had made or received a digital payment over the past year (the global average is 52 percent).³⁷ There is absence of a regulatory framework for non-bank e-money issuers. Filling these gaps can make a big difference in financial inclusion as well as efficiency (Global Findex Database 2017).

FIGURE 2.4. MOBILE MONEY AND DIGITAL PAYMENTS



Source: World Bank, Global Findex database, 2017.

Note: No data for Kazakhstan or Azerbaijan on mobile money accounts.

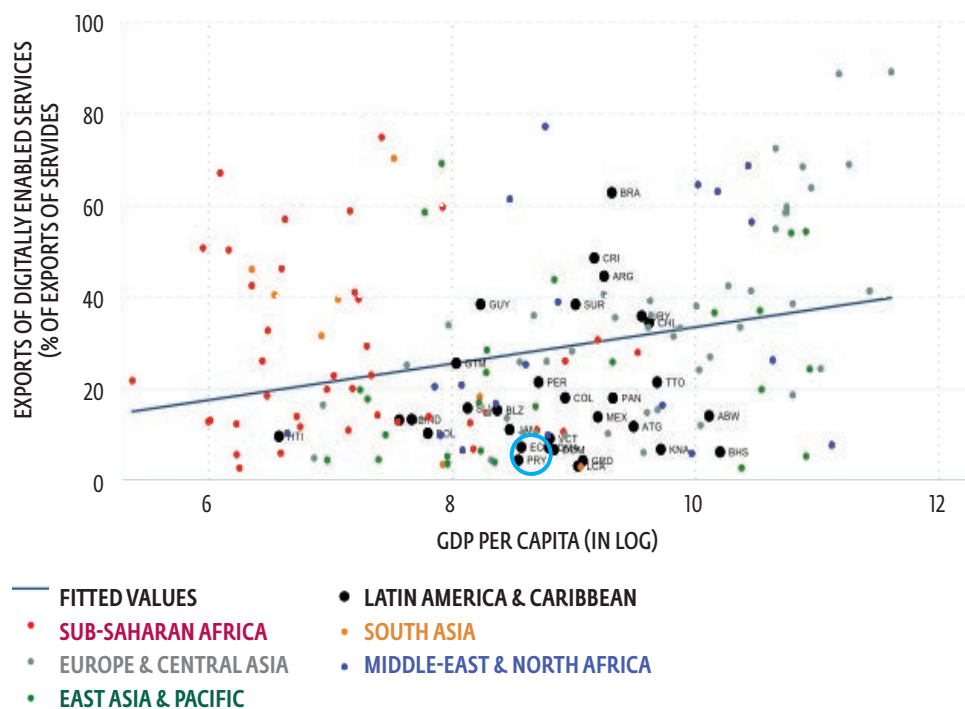
Fintech

Ecuador's nascent financial technology (fintech) sector comprised just more than 30 start-ups in 2017. Unlike those of other LAC countries, Ecuador's fintech sector has focused mainly on enterprise (business-to-business) solutions. Categories that have received attention from fintech companies in neighboring countries, such as lending and payments and remittances, represent only 3 and 16 percent of fintech start-ups in Ecuador. These categories appear to be ripe for investment and growth, given the characteristics of Ecuador's financial system noted earlier in this report. Policies and legislation that promote the entrepreneurship ecosystem (including those related to becoming a third party provider) would enhance the growth of Ecuador's fintech sector (Fintech Radar Ecuador 2017). In that regard, the Entrepreneurship and Innovation law enacted in 2020 covering crowdfunding platforms opens the door for the development of the sector.

G. DIGITAL INFRASTRUCTURE AND SERVICES

Despite significant improvements during the past decade, mobile and internet penetration rates in Ecuador remain below those of its peers, and their growth might encounter infrastructure challenges. The number of unique mobile subscribers in Ecuador has grown from 7.2 million in 2008 to 12.3 million in 2019; the unique subscriber mobile penetration rate now stands at 70 percent, below those of Uruguay (84 percent) and Costa Rica (78 percent), although it is approaching those of Peru (73 percent) and Colombia (71 percent). Regarding unique subscribers to mobile internet, Ecuador's penetration rate (49 percent) is at the lower end of the regional ranking but is similar to those of Bolivia, Colombia, Paraguay, and Peru. The market penetration for 4G was 47% in 2019. Fixed broadband penetration in Ecuador reached 37% of households in 2019 (Telegiography), however, Ecuador still performs below the regional average (46% of households) and especially below Costa Rica (58%) and Uruguay (82%). These two countries are building a comparative advantage in exports of digitally enabled services, an industry that Ecuador intends to develop. Mobile broadband speeds are among the fastest in the region, with an average speed of 22.7 Mbps, although its speed for fixed broadband (26.3 Mbps) is among the lowest in the region (SpeedTest).

Affordability of telecommunication services is an issue in Ecuador, possibly because of a high telecommunications tax burden. Ecuador scores 55.9 out of 100 on the GSMA's affordability index (with higher scores indicating stronger performance; GSMA 2019), trailing Uruguay, Peru, Chile, and Mexico in the LAC region, although Latin America as a whole comes in second to last (ahead of Africa) globally in terms of affordability. Prices in Ecuador were higher (in terms of 2017 purchasing power parity) than in Colombia, Costa Rica, Mexico and Peru for most of the baskets.³⁸ High prices might be partially explained by the telecommunications tax burden, which is higher in Ecuador than in the rest of the region, especially the percentage of mobile revenue that goes to operators' payments (GSM 2018). Ecuador's mobile-specific taxes, which are equivalent to 14 percent of total mobile operators' revenue, are also significantly higher than in other countries in the region. Such costs might disincentivize the consumption and provision of mobile services by households and firms, and they may limit operators' ability to increase infrastructure investment.

FIGURE 2.5. EXPORTS OF DIGITALLY ENABLED SERVICES IN 2017

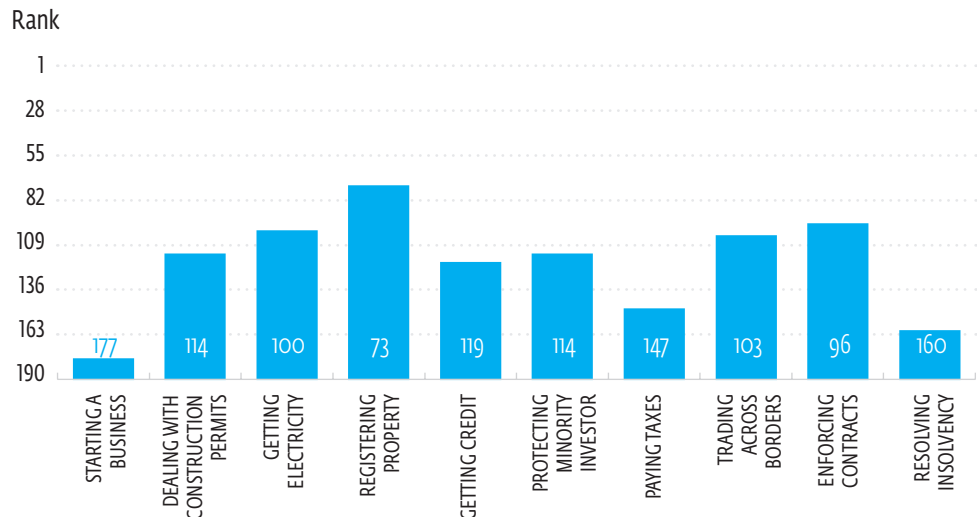
Source: United Nations Conference on Trade and Development.

Ecuador lags its peers on digital adoption, especially by households. Fifty-seven percent of the Ecuadorian population uses the internet in 2018, below the Latin American average of 62 percent. The World Bank's 2016 digital adoption index suggests that Ecuador significantly lags its peers in the adoption of digital technologies.³⁹ For firms, the use of digital technologies (such as website ownership) is in line with Ecuador's income per capita; and unlike in some economies, there is only a limited gap between small and large firms in the level of adoption and use (World Bank Enterprise Surveys). By 2015, 98 percent of firms were using mobile phones for a productive purpose, and the use of social networks continues to increase. Also, 97 percent of firms have access to the internet (mostly through fixed broadband). However, only 14 percent and 9 percent of firms bought and sold online in 2016, and more than 40 percent of Ecuadorian formal firms with more than 4 employees see inadequate telecommunications as a major obstacle to their operations. Relatively high prices and low quality of telecommunications services, especially those affecting internet provision (including 4G coverage and fixed broadband download speed), may therefore be constraining firms' supply and demand of digital technologies for productive purposes. These constraints can delay the implementation of the government's strategy to build a comparative advantage in the export of digitally enabled services, an industry where Ecuador currently performs poorly relative to peers such as Argentina, Brazil, Costa Rica, and Uruguay (figure 2.5).

H. DOING BUSINESS CHALLENGES

According to the Doing Business 2020 report, Ecuador's overall ease of doing business falls just below the country average for Latin America. The country ranks 129th of 190 economies worldwide and 21st of 32 economies in the Latin America and the Caribbean region. The ease of doing business score in Ecuador is 57.7 out of 100 points (where 100 corresponds to the best practices), staying fairly consistent over the last several years and falling 1.4 points below the regional average for 2020. In 6 out of 10 indicators, Ecuador ranks below the regional average, and it lags considerably behind its two neighbors and main competitors, Colombia and Peru (which are third and sixth ranked in the region).

In particular, obstacles to starting a business, paying taxes, and resolving insolvency are constraining productivity growth in Ecuador. The 2020 Doing Business assessment shows that Ecuador is lagging significantly behind best practices in Starting a Business (where it is ranked at 177th), Paying Taxes (147rd), and Resolving Insolvency (160th) (figure 2.6). Entrepreneurial decisions are shaped by costs associated with entry, exit, and firm operations. Entrepreneurs are more willing to enter new markets, experiment and innovate, and invest in new growth opportunities if they face low entry and exit costs and have legal assurances that such costs will not increase in the future. However, it takes 48.5 days for an entrepreneur in Ecuador to start a business, almost twice the LAC average and five times the average for OECD high-income countries. It also takes 664 hours per year for a corporation to file taxes, twice the average time in Latin America and four times the average in OECD high-income countries, mostly because of the time spent on filings related to employer-paid social security contributions. Time spent paying the corporate income tax is also substantial because of the numerous incentive schemes under the tax. Additionally, Ecuador has a relatively distortionary model for tax advances. It features a combination of assets, profits, and deductions, under which, for instance, it becomes possible for the minimum tax advance to not correspond to a firm's tax liability for profits (World Bank 2019d). Lastly, insolvency proceedings in Ecuador take more than five years to resolve, compared to an average of just less than three years for the Latin America and the Caribbean region and 1.7 years in the OECD. The insolvency recovery rate in Ecuador averages just 18.3 cents on the U.S. dollar, about half the regional average and less than a quarter that of the OECD. Resolving insolvency remains a key challenge in Ecuador, because the lengthy process delays resource reallocation from low-productivity firms to more-productive ones.

FIGURE 2.6. RANKINGS ON DOING BUSINESS INDICATORS**Rankings on Doing Business topics - Ecuador**

Source: World Bank 2020 Doing Business Report .

The government is pursuing efforts to improve Ecuador’s performance on the *Doing Business* indicators. This work is being led by the Ministry of Production, Foreign Trade, and Investments. In 2018, a reform memorandum was updated and four topic-specific action plans were developed in areas that have been identified as priorities by the government on the basis of their potential for improvement and the political climate for reform. These areas are Trading across Borders, Protecting Minority Investors, Enforcing Contracts, and Transparency and Access to Information. These areas of reform are a good start toward reducing cross-cutting constraints for private sector investment. However, in the medium term, addressing the three main constraints noted above would be of paramount importance to fostering private investment and improving the allocation of resources among firms.

The government is also reviewing the priority reforms that could reduce doing business constraints. Among these constraints are the costs to register a business. Changes to the Companies Law allow companies to register within a simplified regime (“simplified stock companies”); this regime should reduce the time and fixed costs for registering a business, especially for small firms, and facilitate the registry of start-ups.⁴⁰ Regarding taxes, the tax administration enjoys strong enforcement capacity and is thus pursuing paperless processes. For instance, electronic tax billing has been implemented for all large firms. In the short term, a process-mapping of the procedures and requested information for both Servicio de Rentas Internas (SRI) and Instituto Ecuatoriano de Seguridad Social (IESS) could be conducted in order to identify the main bottlenecks and streamline the processes for filing and paying taxes to the SRI and for filing and paying social security contributions to the IESS. In the medium term, rationalizing tax expenditures and simplifying regulations for employer-paid social security contributions would also expedite the taxpaying process. Similarly, conducting a process-mapping exercise for insolvency cases to identify bottlenecks and assess aggregate nonperforming loan levels is a priority for the short term. Establishing effective reorganization proceedings, including an expedited framework for SMEs, and promoting reorganization as the preferred method for resolving insolvency could

be pursued in the medium term. Designing and adopting guidelines that facilitate out-of-court resolutions and investing in the capacity to handle insolvency cases of the relevant institutions in Ecuador is also a medium-term priority.

This report's recommendations are summarized in the following table (2.4), organized by cross-cutting area.

TABLE 2.4. SUMMARY OF KEY POLICY RECOMMENDATIONS BY CROSS-CUTTING AREA

CROSS-CUTTING AREA	RECOMMENDATIONS	TIME FRAME	STATUS
Trade policy	Rationalize tariffs and nontariff barriers to reduce the antiexport bias of trade policy, and minimize and set time bounds for the use of ad-hoc measures such as balance-of-payments safeguards.	Medium term	Partially implemented
	Develop a framework for export promotion to reduce exporters' costs, particularly those associated with seeking new markets, relying on international best practices and leveraging tourism as a platform of promotion. Consider linking global buyers with local sellers and investing in country branding.	Medium term	Not implemented
Investment policy	Set a timetable for the gradual removal of the foreign currency exit tax , substituting its revenues with less distortionary taxes. (Ecuador's effective tax rates are lower than those of regional peers.)	Short term	Law approved; regulation in process
	Introduce a comprehensive PPP law that addresses the key shortcomings and contradictions of existing legislation , enables the creation of a robust institutional framework, and the generation of specific obligations regarding the management and accounting of explicit and contingent fiscal commitments and risks.	Short term	Not implemented
	Establish a sound institutional framework for PPPs , including the creation of PPP units and processes.	Short term	Under Consideration
Labor market	Reform labor regulations to increase flexibility in order to meet the fast pace of economic change: <ul style="list-style-type: none"> • Reinstate term contracts for all economic sectors • Reinstate part-time contracts for all economic sectors 	Short term	Under consideration
	Rationalize dismissal costs: <ul style="list-style-type: none"> • Impose a cap on severance payments • Reduce or eliminate payments for voluntary resignation 	Short term	Under consideration
	Reduce minimum mandatory profit-sharing rate from the current 15 percent, and exempt firms in the first years of operation from mandatory profit sharing, or apply a much-reduced rate.	Short to medium term	Not implemented

Enhancing competition	Improve the effectiveness of LORCPM (Ley Orgánica de Regulación y Control del Poder de Mercado) enforcement , particularly anticartel enforcement.	Medium term	Not implemented
	Lift barriers to entry and rivalry in key service sectors and enable competition in the segments of network industries where competition is viable. <ul style="list-style-type: none"> Review licenses and permits that may constitute barriers to entry and competition. Ensure competitive neutrality in network sectors where the state has a large presence (such as eliminate preferred access to finance and inequality in taxation). 	Short to medium term	Not implemented
	Assess the impact of regulation prior to adoption in order to avoid potentially inefficient means of achieving public policy goals.	Medium term	Not implemented
	Review the rationale and design of government participation in economic activities that can be provided efficiently by the private sector.	Medium term	Not implemented
Financial sector	Level the playing field in terms of supervision of private banks, public banks, and cooperatives. This change is important not only for the health and stability of the system but also to increase competition in the sector. Similarly, strengthening regulatory institutions and reducing regulatory distortions can help direct financial resources toward more productive investments and unleash productivity gains.	Short to medium term	Under consideration
	Gradually consolidating credit segments and adopting flexible interest rate ceilings would allow financial institutions to allocate resources more effectively. A ceiling on interest rates for borrowing distorts the allocation of financial resources and limits access to financial services for riskier segments, particularly small- and medium-sized enterprises, even when potentially high returns are expected.	Short to medium term	Under implementation
	Develop a risk-based and proportional legal and regulatory framework for non-bank payment service providers , including non-bank electronic money issuers. This will likely increase competition and foster the development of digital financial services.	Short to medium term	Under consideration

Digital infrastructure and services	Revise the telecommunications tax policy , especially mobile-specific taxes, in order to reduce prices and incentivize adoption.	Medium term	Not implemented
	Promote greater firm adoption and use of digital technologies.	Medium term	Not implemented
	Review the spectrum allocation framework to enable operators, who are severely limited in this respect, to grow their service base for end-users.	Short term	Not implemented
	Address the dominance of CNT (a state-owned enterprise) in the fixed segment , and, more broadly, promote regulation that is neutral to all operators.	Medium term	Not implemented
Improving the climate for doing business	Registering a business:		Implemented
	<ul style="list-style-type: none"> • Modify the Companies Law to allow registration under a simplified regime. This change should reduce the time and cost to register, especially for small firms and start-ups. 	Short to medium term	
	Collecting taxes:	Short term	Not implemented
	<ul style="list-style-type: none"> • Conduct a process mapping of procedures and required information for both the SRI and the IESS in order to identify bottlenecks. • Simplify regulations for the payment of employer-paid social security contributions. Rationalize tax expenditures.	Medium term Medium term	
	Resolving insolvency:	Short term	Under consideration
	<ul style="list-style-type: none"> • Conduct a process-mapping exercise to identify bottlenecks and assess aggregate nonperforming loan levels. • Establish effective reorganization proceedings, including an expedited framework for small and medium enterprises, and promote reorganization as the preferred method for resolving insolvency. • Design and adopt guidelines that facilitate out-of-court resolutions; invest in the capacity of the relevant institutions to handle insolvency cases. 	Medium term	

Note: CNT = Corporación Nacional de Telecomunicaciones; IESS = Instituto Ecuatoriano de Seguridad Social; PPP = public-private partnership; SRI = Servicio de Rentas Internas.

3. SECTOR ANALYSES

This section identifies four sectors that—because of their potential for growth, generation of foreign exchange, or employment—have the potential to turn the private sector into an engine of development for Ecuador. These sectors are (a) medium- and large-scale mining; (b) exports of fruits, vegetables, and fisheries and related food safety issues; (c) transport and logistics for perishable agriculture; and (d) tourism. This chapter presents analyses delving into these sectors’ characteristics and main constraints and makes recommendations to unlock their growth.

WHY THESE SECTORS?

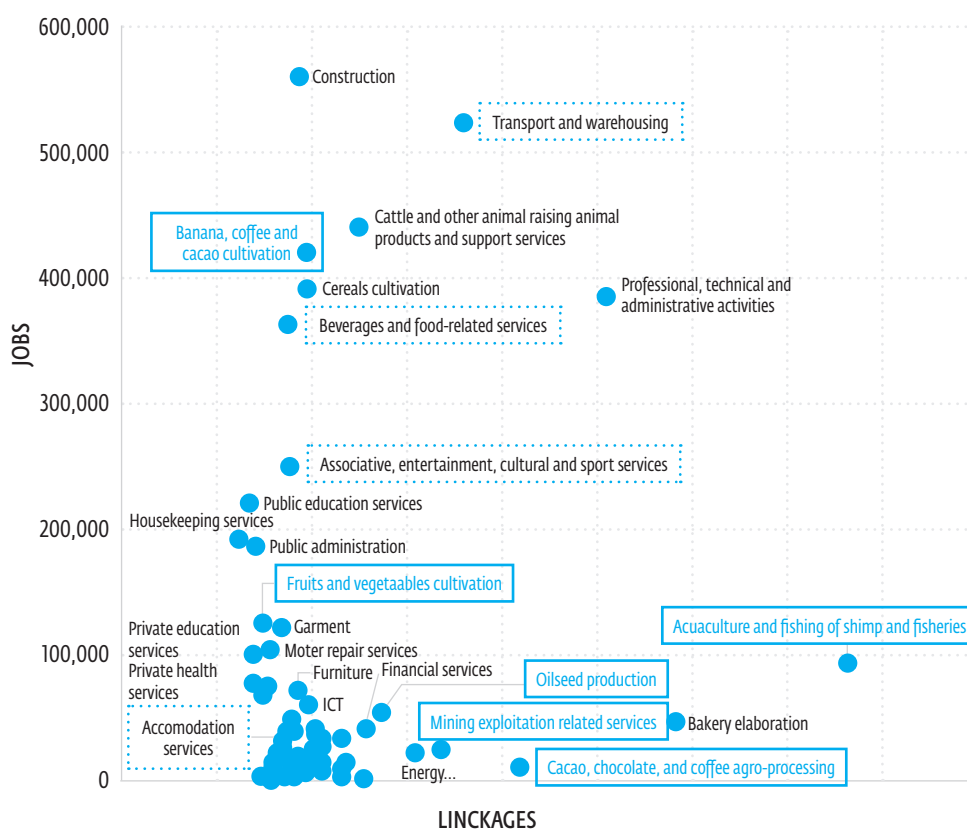
Priority was given to sectors in which Ecuador already has capabilities upon which to build as well as to sectors that have the potential to generate significant GDP, employment, or export revenues. These sectors include medium- and large-scale mining, export-oriented agriculture, transport and logistics for agriculture, and tourism. These four sectors were selected for further analysis because they also experience clear policy and regulatory constraints, the removal of which could lead to greater participation of the private sector for greater development impact. The selection of these sectors is not meant to be prescriptive; in other words, these are by no means the only sectors in the Ecuadorian economy that would benefit from improved regulation and a greater role for the private sector. They do, however, provide concrete examples of how the cross-cutting constraints considered in the previous chapter have affected economic activity in Ecuador. The selection of these sectors is supported by extensive interviews with private and public sector stakeholders conducted during the preparation of the CPSD.

The four sectors selected for deeper analysis contribute in different ways to the Ecuadorian economy. Figure 3.1 illustrates various sectors’ job-creating potential, export orientation, and links with the rest of the economy. For instance, transportation is one of the most job-intensive sectors in the Ecuadorian economy, employing more than 500,000 workers; it has also ranked second only to the communications sector in terms of inward FDI in recent years. Despite significant investments in the sector, transport and logistics constraints are an important factor impeding the development of the agribusiness sector. Tourism accounts for a similarly significant number of jobs (more than 700,000) as well as links to the rest of the economy (Croes and Rivera 2017), but it remains a relatively unexploited sector of the economy. Aquaculture is one of the sectors with the most extensive links to the rest of the economy, and it boasts increasing revealed comparative advantage (RCA), with exports growing at 10 percent annually since 2010.

Promoting food safety for highly perishable agricultural products, especially for fresh fruits and vegetables and for fisheries, is a priority to achieve higher export competitiveness. Despite significant improvements since 2012, Ecuador suffers more than other countries from import rejections in the European Union (EU) market caused by noncompliance with food safety standards, breaks in the cold chain, and excessive use of pesticides and fertilizers, among other problems. The private sector faces inefficiencies in inspections and quality certification from the sanitary and phytosanitary national agency that limit its access to foreign markets. Temperature-controlled transportation and logistics services seem to be lacking. This absence affects the reputation of Ecuadorian exporters of perishable goods in foreign markets, limits the integration of small producers into value chains, and impedes Ecuador’s export diversification toward higher value-added food-related products.

Transportation and logistics challenges in Ecuador are important factors impeding the development of the country’s agribusiness sector, and overcoming these challenges could be transformational to the country. Although Ecuador has a good network of roads, high labor costs and low efficiency of transport and logistics services raise the trade costs faced by exporters and importers. Understanding the key obstacles faced by operators and users of the various modes of transportation can help to identify policy levers to increase export competitiveness.

FIGURE 3.1. SECTOR LINKS, EXPORT ORIENTATION, AND JOBS



Source: Data from the government of Ecuador, 2016.

Note: Direct export sectors are framed in solid green boxes, and indirect ones are framed in dotted green ones. The retail and wholesale services sector is not shown in the figure because of scale.

Tourism is one of the largest and fastest-growing sectors in the world and an important sector in Ecuador. It contributes a sizable share of the country's GDP and accounted for more than 700,000 jobs and for 76 percent of service exports in 2015. The sector has large multiplier effects on the Ecuadorian economy and has the potential to foster poverty reduction (Croes and Rivera 2017). The number of international visitors to Ecuador more than doubled over the period 2002–14, and spending per visitor is rising, suggesting improvements in the quality or variety of services. However, the bulk of tourism receipts (around 80 percent) are associated with visitors to the Galapagos Islands, with very limited spillovers to destinations or activities in the rest of the country. A careful analysis of the challenges faced by the sector helps illuminate strategies for diversifying tourism export receipts as well as for increasing expenditure per tourist.

The subsections below present sectoral analyses of medium- and large-scale mining, food safety issues in agriculture, transport and logistics for agriculture, and tourism in turn.

A. MEDIUM- AND LARGE-SCALE MINING IN ECUADOR

Blessed with exceptional geology; competitive costs for many key inputs such as electricity, fuel, and freight; and relatively high-quality infrastructure,⁴¹ Ecuador offers several world-class gold and copper projects. Promising indications also suggest the existence of sizable extractable reserves of antimony, iron ore, and silver (Vella 2019). In the past two years, 28 international mining companies, including BHP Billiton, Newcrest, Codelco, and Anglo American, have established entities in Ecuador to pursue investment opportunities. The Ecuadorian government is keen to rebuild the mining sector and sees it as a future pillar of growth in the economy. The target is to double the sector's direct contributions to GDP, from less than 2 percent in recent years to 4 percent in 2021.

For mining to fulfill its potential as a driver of sustainable growth, Ecuador needs to invest in building its capacity to work with the mining industry. Policy commitment is required in several critical areas. A national vision regarding the development of the sector is needed in order to break the cycle of legal and regulatory uncertainty. As noted earlier in this report, this uncertainty is a cross-cutting constraint affecting the entire Ecuadorian private sector, and mining is no exception. Piecemeal reforms and the lack of a comprehensive strategy for the sector have hindered its development. Institutional capacity to govern the sector, which is just as essential a component, is also currently lacking. Furthermore, gaps in the legal and regulatory framework for mining create uncertainty for investors while encouraging opportunism and socially and environmentally irresponsible activity. Rigid labor regulations that are inappropriate for the sector add to the complexity of the business environment.

The current government has indicated its readiness to make the investments necessary to ensure that mining can be a driver of environmentally, socially, and economically responsible growth. A timeframe for adherence to the Extractive Industries Transparency Initiative (EITI) was set, and the country formally joined the EITI in October 2020. The government recently approved a new Mining Policy (Política Pública Minera) and is in the process of updating and managing its mining cadaster with the objective of reopening it in the near future. It is also considering ways to strengthen the capacity of ARCERNNR and SRI to handle issues related to taxation of fiscal revenues in the sector.

The remaining agenda is long. This section presents the current status and the potential of the mining sector in Ecuador and reviews its main elements, including the legal framework, key institutions and their capacities, and social and environmental risks. The section's main recommendations are presented in some detail at the end. They stress the importance of the following:

1. Developing a shared vision for the sector that spans the spectrum from artisanal mining to large-scale mining;
2. Strengthening mining and environmental institutions and aligning mining and environmental regulation;
3. Enhancing citizen participation and consultation mechanisms, ensuring access to information, and fortifying accountability systems;
4. Improving royalty collection and revenue sharing through stricter operational guidelines and control procedures as well as increased transparency in the allocation of mining royalties;
5. Promoting local content and beneficiation policies in order to avoid proliferation of enclave operations.

Mineral Potential and Mining Investments

The Andean region is geologically highly prospective, and Ecuador is one of the few countries that remains relatively untapped by international mining companies in an otherwise well-explored continent. Ecuador is strategically located in the copper belt extending from Chile and Peru into Colombia and Panama. Long considered unattractive for international mining investments because of restrictive policies, Ecuador's reputation has dramatically improved since 2016. Ecuador's mineral potential is best appreciated by reviewing the quality of the portfolio of projects under development and the most promising exploration targets. Table 3.1 lists the five major projects identified by the government as strategic priorities for development, and indicates the locations of the major projects, which are at different stages of development.

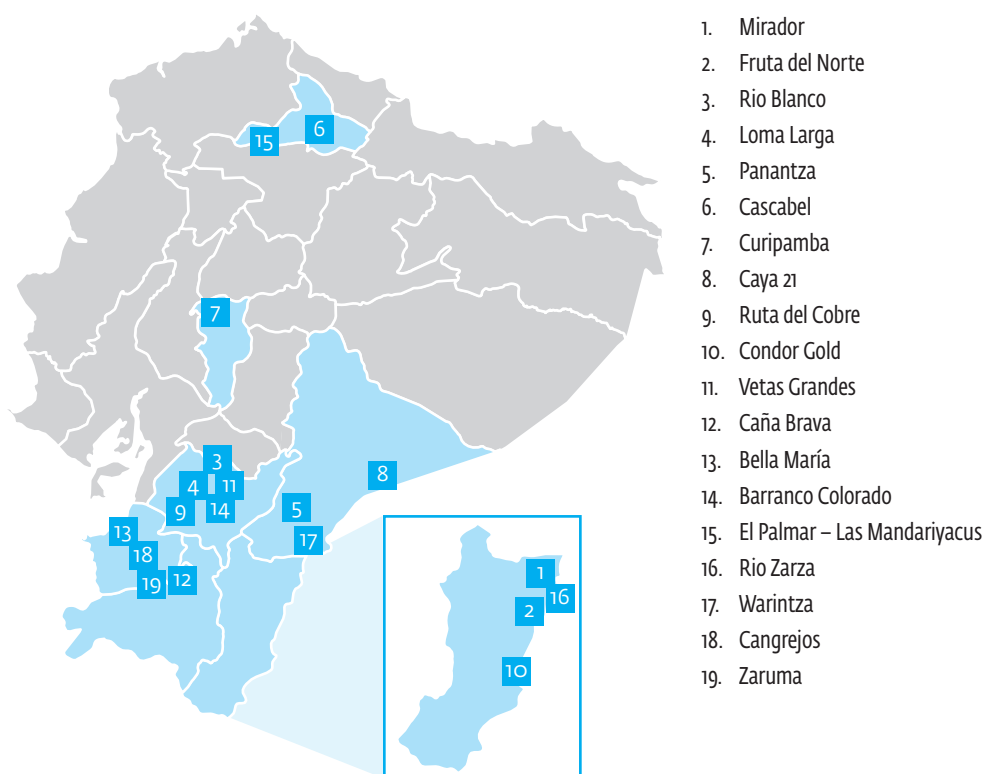
TABLE 3.1. STRATEGIC PRIORITIES

	RIO BLANCO	FRUTA DEL NORTE*	MIRADOR*	LOMA LARGA**	SAN CARLOS/PANANTZA
Company	Ecuagoldmining S.A.	Aurelian Gold	Ecuacorriente S.A. (ECSA)	INV Minerals Ecuador	Explorcobres S.A. (EXSA)
Shareholders	Junefield Resources (China)	Lundin Gold (Canada)	CRCC-Tonguan Investment (China)	INV Metals (Canada)	Ecuacorriente S.A. (ECSA) (China)
Location	Azuay	Zamora Chinchipe	Zamora Chinchipe	Azuay	Morona Santiago
Annual production	Gold: 1.57 t (50,000 oz); silver: 10 t (320,000 oz)	Gold: 9.33 t (300,000 oz); silver: 11.5 t (370,000 oz)	Copper: 94,000 t; gold: 1.8 t.	Gold: 4.7 t (150,000 oz)	Copper: 209,000 t; gold: 22,800 oz; silver: 1,110,000 oz.
Investment (US\$, millions)	89	1,240	2,015	380	1,230
Annual exports (US\$, millions)	60	450	1,100	180	TBD
Fiscal revenue (life of product, US\$, millions)	173	1,523	5,790	TBD	TBD
Employment (production phase)	Direct: 220; indirect: 660	Direct: 900; indirect: 2,700	Direct: 977; indirect: 2931	TBD	TBD

Note: * = under construction; ** = prefeasibility stage; TBD = to be determined.

Source: LePan 2017.

FIGURE 3.2. INTERNATIONAL MINING PROJECTS AND THEIR LOCATIONS



Source: LePan 2017.

Large mining projects in Ecuador are slated to begin production in the coming year. The first large-scale mining project to begin production was Fruta del Norte (FDN), which began to operate in late 2019, followed by the Mirador copper mine, both in the Zamora-Chinchipe province. The Rio Blanco gold mine in Azuay should follow soon after. A second generation of projects (more than 14) at various stages of exploration has been identified by the government as highly promising over the medium term. These projects consist mostly of copper and gold deposits, but they also include silver, zinc, lead, and molybdenum deposits.⁴² A third generation of projects awarded between 2016 and 2017 and representing US\$1.3 billion in investment commitments remains in the early stages of exploration, beset by delays in obtaining environmental licenses. An illustration of the “buzz” around Ecuador is the recent report of extraordinary results indicating the existence of a deposit that, according to experts, is discovered only once every 10 years around the world. However, a lack of appropriate national and regional studies and updated and integrated geodata means that understanding of the country's mineral potential is still incomplete.

The Current State of Mining in Ecuador

The economic contribution of the mining sector to the Ecuadorian economy is expected to increase dramatically in the near future as large strategic projects—mainly in gold and copper mining—begin production. Projections point to US\$4.6 billion in new investments, US\$3.7 billion in mineral exports (versus 2017 levels of US\$270 million), and US\$1.3 billion in government revenues through 2021 (Table 8.2).⁴³ In terms of annual mineral production, the five strategic projects, once operating, are expected to produce well over an *additional* half million ounces of gold per year (versus a total of 198,600 ounces produced in the country in 2017), an additional 1.8 million ounces of silver per year (versus around 30,000 ounces in 2016), more than 300,000 tons of copper per year, and 1,400 tons of molybdenum. The numbers are impressive, although they will have to be revised downwards given the delays in the construction of some projects. Three of Ecuador’s five strategic projects are currently suspended pending the resolution of social and environmental lawsuits.

The mining sector has contributed between 1.5 and 2 percent of Ecuador’s GDP in recent years. Export revenues declined from a peak of just over US\$1 billion in 2014 to US\$270 million in 2017, equivalent to 1.4 percent of total exports (figure 3.3). Gold output has fluctuated between 2.9 and 8.7 tons in the 2000–17 period (figure 3.4). By value, gold production in 2017 stood at US\$219 million, and that of gold concentrate stood at US\$7.7 million.

TABLE 8.2. PROJECTED MEDIUM-TERM ECONOMIC CONTRIBUTION OF MINING, MILLIONS OF US\$

	2014–16	2017–21	2022–25	TOTAL
Investment	483	4,599	5,305	9,904
Exports	894	3,697	7,764	11,461
Taxes	547	1,326	2,240	3,566

Source: Illescas 2018.

FIGURE 3.3. MINING EXPORTS (USD MILLION)

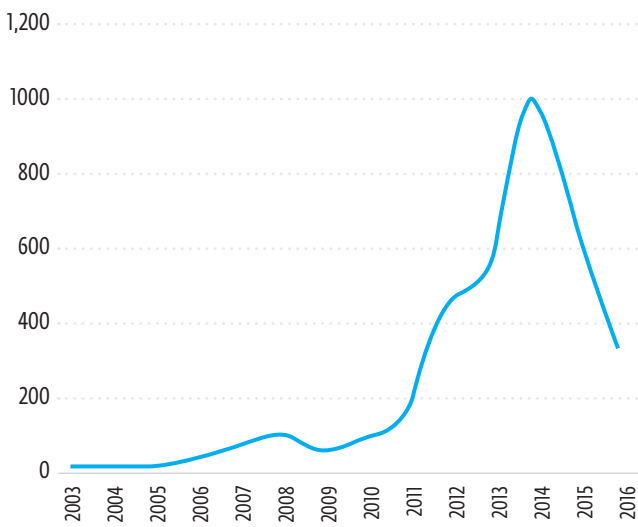
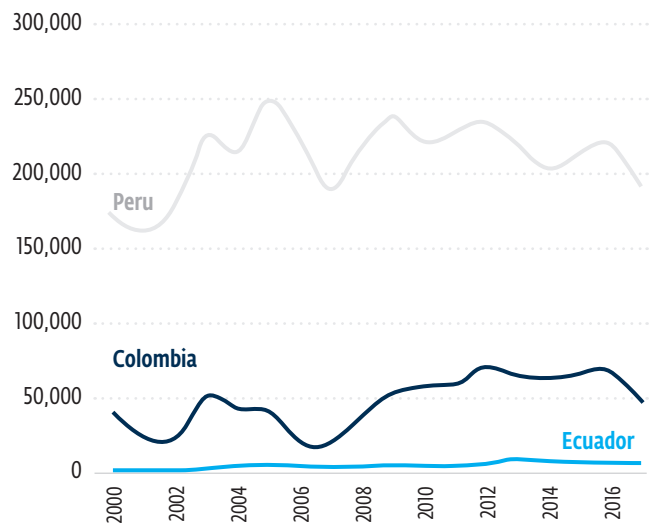


FIGURE 3.4. GOLD PRODUCTION (TONS)



Source: ARCERNNR.

Until today, most mining has been a small-scale and artisanal activity in Ecuador, much of it informal. In metallic mining, activities are focused on gold production and processing. Formal employment in the sector was put at 32,819 in 2010.⁴⁴ About 14,000 of these jobs are in small-scale mining activities (see appendix B for a definition of the various types of mining in Ecuador). It is difficult to know how many people in Ecuador depend on artisanal mining, although a 2012 estimate put the number at 100,000 artisanal gold miners in about 1000 artisanal gold operations (UNEP, 2012). According to the mining sector regulator, ARCERNNR, small-scale mining is responsible for an estimated 89 percent of gold production in Ecuador, with artisanal mining contributing the remaining 11 percent.

Artisanal and small-scale mining (ASM) is characterized by low productivity, limited access to modern technology and equipment, a lack of capital, and flouting of environmental regulations.⁴⁵ Ecuador's policy for artisanal mining over the past two decades has attempted to scale up artisanal miners into small-scale miners and formalize them into organized groups. However, a great deal of mining is still done without regularized mining titles or compliance with environmental regulations. In some recent cases, the government has pressed for the legalization of informal miners in areas under concession. For more details on the formalization of artisanal mining and the fight against illegal mining in Ecuador, see appendix D.

Policy and Regulatory Constraints

Instability of mining policy

Mining policy in Ecuador has undergone numerous shifts and reversals over the past three decades, from a system that granted concessions on a first come, first served principle (the 1991 Mining Code) to the Mining Mandate of 2008 that extinguished concessions without compensation. The absence of a clear national mining policy that is stable across governments is a strong disincentive to investment, given the large and long-term nature of mining investments.

The 1991 Mining Law facilitated the concession of large areas of land, unleashing the potential for large-scale operations and leading to a boom in exploration in the country. Many promising projects were identified, some of which are under development today. In 2001, a new regulation eliminated some concessions terms and royalty payments by mining companies. Thousands of mining concessions for exploration were issued in the following years, but the limited capacity of the mining authority led to a proliferation of operations without mining titles or environmental permits, triggering increased conflict across the country.

However, under the Correa administration that came to power in 2007, new legal frameworks and institutions were created to strengthen the role of the state and increase the capture of revenue arising from the extractive sectors. In reaction to criticism that the government had lost control of mining activities and was unable to regulate and mitigate their negative impacts, Constituent Mandate No. 6, commonly referred to as the Mining Mandate, was issued in 2008. It extinguished, without compensation, more than 2,000 concessions in the exploration phase and that, as of December 31, 2007, had not made any investment in the development of the project or had incurred other impediments or delays. The following year, the 2009 Mining Law created the sector's current institutions, including the sector ministry, the regulatory agency (ARCERNNR), the geological survey (National Institute of Geological, Mining, and Metallurgical Research), and the national mining company (ENAMI EP). However, the law established unattractive fiscal terms for private investors, leading to a dramatic decline in interest in the sector. The law prescribed that for any given project, the state's benefits must always be higher than those of private companies; thus, in addition to a royalty payment⁴⁶ and an income tax, the concessionaire also had to pay a windfall profits tax and a tax adjustment (*ajuste soberano*) that allowed the state to capture at least 50.1 percent of the project's benefits.

With the fall in oil prices that began in 2014, Ecuador's mining policy shifted dramatically again. Recognizing Ecuador's geological potential, and hoping to turn mining into a major export and a source of fiscal revenue, the government prioritized the development of large-scale mining. In light of the delays in developing the strategic mining projects, and following the breakdown of key negotiations for a large mining investment, major sector reforms were undertaken. These reforms culminated in the creation of a stand-alone Ministry of Mines in 2015, the reopening of the mining cadaster in March 2016—after its closure for eight years—and the introduction of some flexibility into the tax regime. An innovative auction system was launched in 2016, which led to the approval of 138 new concessions that year. In 2017, after the FDN investment contract with the Canadian company Lundin Gold was signed and the project's economic model was published, mining investors rushed to Ecuador, and 137 new concessions were awarded, resulting in US\$1.1 billion of investment commitments in exploration.

The Ecuadorian government is currently making significant efforts to attract foreign investment and promote the development of large-scale mining. There are no specific restrictions on foreign investors beyond the obligation to create an Ecuadorian subsidiary. The number of permits needed to obtain a mining concession fell from 10 to just 2: an environmental license and a water use permit. Notwithstanding, some nonsector legislation still needs to be adapted to enable the rapid growth of mining, including cumbersome labor laws that require Ministry of Labor approval before any changes can be made to workers' underground shifts. The government's efforts have been rewarded with strong interest on the part of large mining firms: companies including Anglo American, BHP, Fortescue, Newmont, Hancock, and Newcrest have opened offices in Ecuador and are actively looking for exploration targets.

In terms of perceptions, progress has been slower. In 2018, Ecuador scored 59.7 points on the Fraser Institute's Investment Attractiveness Index, ranking 56th out of 83 countries, although its score has been climbing consistently. Despite good geological potential, Ecuador scores poorly on the Policy Perception Index (PPI). In 2017, the country scored 51.64 points, ranking 72nd out of 83 countries. This score no doubt reflects mining policy prior to the 2014 reforms and fails to incorporate the most recent changes. It should be noted, however, that the country's PPI score has increased steadily from 23.54 in 2013. That said, the mining cadaster was closed again in December 2017; it remains closed today, contradicting the government's assertion to mining investors that Ecuador is open for business. In 2018 the government decided to merge the Ministry of Mines with the Ministry of Energy and later the mining agency ARCOM was merged with the oil agency ARCH, to establish the new joint agency for non-renewable natural resources ARCERNNR.

Ecuador is generally heading in the right direction in terms of legal and regulatory reform, as key legislation continues to be amended in a way that facilitates private sector investments. In early 2020, the government approved a new mining policy. However, the piecemeal approach to regulatory reform and the frequent changes that are introduced, sometimes in contradictory directions, create legal uncertainty. It would be useful to compile changes in a new mining code while also introducing the adjustments needed to continue to improve the legal and regulatory framework for mining.

Transparency and efficiency of the titling process

Clarity and transparency of licensing procedures are paramount to the ordered development of mineral resources. The terms and conditions of the allocation of mineral rights are a key factor in determining a country's attractiveness to private investors. An essential objective of mining legislation is to avoid overlapping applications and superposition of rights, protecting titleholders through the granting of exclusive rights to carry out the activities defined in their permits. Legislation also defines the government's policy for the industry, establishing procedures to select quality investors and drive away speculators and less-reliable operators. Another concern is to reduce discretion and potential arbitrariness in the decision-making process, enhancing transparency and impersonal rules whenever possible. The titling process can also facilitate the achievement of associated policy objectives, such as high social and environmental standards, job creation, skills enhancement, and local economic development. Mistakes made during the allocation process are difficult to correct and may impose high costs on the country. The country took an important step forward in addressing transparency issues in the mining sector by joining EITI in October 2020.

Since the promulgation of the 2009 Mining Law, concessions for medium- and large-scale metallic mining in Ecuador are no longer awarded using the "first come, first served" principle.⁴⁷ Allocation currently happens through a unique bidding-based system called *subasta y remate*, with clearly defined procedures and sealed bids and completed by a Swiss challenge mechanism.⁴⁸ (See appendix C for a description of the auction system.) The *subasta* method, a public bidding process, applies to new areas, and the *remate*, a public auction, is used for areas where previous concessions have been returned to the state.⁴⁹ The mining authority can also award new metallic mining concessions directly to national and foreign state-owned companies. Thus, the SOE ENAMI was granted preferential rights to select which new areas would be allocated—including for the use of private mining companies—outside the auction system. The same preferential treatment can be given to other foreign SOEs at the minister's discretion. This provision appears to be more ideological than based on actual performance worldwide. Thus, the State-owned Enterprise (SOE) ENAMI was granted preferential rights to select new areas that would be allocated – including for the use of private mining companies – outside the auction system.

The new auction system saw significant uptake until the closure of the cadaster in December 2017, but it has also led to some concentration in the award of concessions. Between 2016 and December 2017, 995 requests in 21 batches were made using this auction methodology, of which about 28 percent have been granted to 33 companies for a total of 1.05 million hectares and US\$1.3 billion in investment. Neither the auction rules nor legislation establishes any limitations on the number of licenses or the area held per titleholder. As a result, several companies have been awarded many concessions. Some companies have proposed very high investment amounts, and there is a risk that the current auction methodology is facilitating the acquisition of concessions for speculative purposes, particularly because the legislation neither mandates firm investment obligations nor applies penalties for noncompliance. The only current sanction is the return of the concession.⁵⁰ Going forward, the vice-ministry of mining will seek to fine-tune the auction system to increase fairness and competition and to toughen the sanctions for companies that do not comply with investment commitments. As of May 2019, none of the 275 concessions auctioned and granted during the previous two years had moved to advanced exploration (figure 3.5); the major bottlenecks have been the requirement to submit an environmental impact assessment (EIA) in order to obtain the required environmental license and the restriction on “scout drilling” during the initial exploration phase.⁵¹ We will return to this topic later in the report.

FIGURE 3.5. STAGES IN THE DEVELOPMENT OF A MINING PROJECT, AS PRESCRIBED IN THE MINING LAW

4 years	INITIAL EXPLORATION
4 years	ADVANCED EXPLORATION (RESOURCE EVALUATION)
2-4 years	ECONOMIC EVALUATION (FEASIBILITY)
1-3 years	DEVELOPMENT AND CONSTRUCTION
	PREPRODUCTION
> 8 year	PRODUCTION

Source: ARCERNR.

Although the closure of the mining cadaster and the difficulties encountered in starting operations pose reputational risks for Ecuador, a series of issues must be considered before the cadaster is reopened. The success of the previous rounds of auctions, in which the entry costs were overall relatively low, could be threatened by the perception that the government is not consistent in implementing its mining policy and is not committed to providing the required conditions for the development of the industry. Notwithstanding, the following issues need to be considered before the reopening of the mining cadaster: (a) consideration of the political calendar; (b) revision and adjustment of the investment commitments made during the previous rounds of auctions; (c) fine-tuning of the auction conditions to set realistic investment

commitments and reduce speculation; (d) unambiguous definition of the areas where mining activities can take place; and (e) facilitation of access to and development of field operations (through measures such as land negotiation, citizen participation, consultation, and benefit-sharing).

In addition, the treatment accorded to ENAMI and other foreign SOEs should be reviewed in the interest of establishing a level playing field for investors. ENAMI operates under less stringent processes and procedures for investing in the mining sector than those prescribed in the Mining Law. This discretion affects the transparency and coherence of the permitting system. ENAMI's right of first choice and its exemption from paying surface rental fees create unfair competition and undermine the idea of a level playing field. These advantages are also extended to the SOEs of other countries.

The Mining Law also obligates private companies to negotiate a mining contract with the government before beginning the construction stage;⁵² this requirement creates uncertainty and disincentives for investment. No other major mining country in Latin America has such a requirement. This negotiation sets the terms, conditions, and deadlines for the construction, extraction, transportation, and commercialization stages of the project, as well as determining details such as the percent amount of benefit sharing between the government and the investor (the *ajuste soberano*), the royalty rates, and the amount of the royalties that must be prepaid. In addition, it ratifies tax stability, exonerates of the foreign exchange tax (the ISD), and ratifies any applicable bilateral investment treaty. However, recent changes in legislation have substantially reduced the scope of what can be negotiated at this stage: (a) the sovereign adjustment is now not negotiated but calculated using a formula;⁵³ (b) the royalty will no longer be negotiated, after the changes introduced in September 2018; (c) the advance payment of the royalty is still negotiated, but even that amount could be regulated by a formula. International best practice indicates that these negotiations should be replaced by an adhesion contract (*contrato de adhesión*) with nonnegotiable, predefined terms and conditions.

BOX 3.2. STRATEGY FOR THE AUCTION PROCESS

The periods when Ecuador's mining cadaster was closed were traditionally times of expansion of illegal mining activities. The reopening of the cadaster after proper cleanup would give a positive signal for investors but could also serve as an opportunity for the government to be more strategic about the auction system.

For example, the system could be updated to facilitate the selection of stronger companies. Prolonged periods of adverse investment conditions in Ecuador have caused the best mining companies to flee the country. Only junior companies with very high tolerance of risk were able to operate in Ecuador until the recent changes in the mining policy. However, these junior companies respond

to a set of incentives that sometimes prevent them from taking a long-term view of mineral development or adopting the strictest sustainability procedures. The junior companies, dependent on frequent fundraising to continue their exploration work, rely on the quick and successful development of their projects to be able to access sources of funding. They tend to delay as much as possible key procedures like detailed environmental studies and consultation processes, preferably until after a significant discovery. They are less concerned with their relationships with the administration and neighboring communities, given their shorter time horizons and that most of them do not have the financial depth to move into the development phase.

On the other hand, the major mining companies that recently reentered the country can adopt a long-term vision for investment in the country. They have sophisticated risk assessment and due diligence procedures and tend to prefer greenfield exploration projects with a long time horizon. They also tend to develop relationships of trust with the mining and environmental administrations as well as with the impacted communities.

By increasing environmental and social requirements, the auction system could incentivize companies to adopt best international practices and standards, tilting the decisions toward the selection of responsible companies that are more likely to minimize the social and environmental impacts of their projects, conserve biodiversity, and develop good-citizen partnerships with neighboring communities. The system could also provide incentives to companies to increase the percentage of goods and services they procure nationally and locally. The auction system could also be instrumental to

mitigating mining conflicts by clearly selecting priority areas for mining development while excluding sites with high degrees of environmental fragility, hydrological sensitivity, sociopolitical conflict, or tourism potential. This selection would ideally be conducted through a participative process involving relevant central government agencies as well as subnational governments and communities potentially affected by mining development.

For the selected areas, the government could conduct preliminary baseline environmental work, land-use planning with subnational governments, and consultation with local communities in order to facilitate the adjustment of specific environmental and social requirements to the auctioned areas and prepare education and communication campaigns to reach out to the affected population. The government could also consider updating its environmental impact assessment requirements to reflect International Finance Corporation Performance Standards.

Improving the quality of the registry system is needed to strengthen the performance of the mining cadaster. ARCERNNR keeps a public registry of mining concessions on a digital information system (the Sistema de Gestión Minera, or SGM).⁵⁴ However, recurrent deficiencies in the information system—the information is digitized but not systematized—make the cadaster vulnerable, and occasional security breaches having been reported. This disorganization has at times led to conflicts between the information available on paper at the Vice Ministry and the cadaster’s digital data. The system is also limited in its ability to treat information and produce reports. The cadaster is currently being cleaned to revoke inactive concessions and remove from the registry areas that were requested but not awarded yet continue to appear on the map as unavailable for award. The cleanup is advancing, and the system update should be completed in the second half of 2019. Over 2,000 “ghost licenses,” representing about 9 percent of the landmass, were erased from the cadaster, and areas incorrectly identified as concessions have been returned to the planning and granting process.

The cadaster has other weaknesses, including limited sharing of information with MAE and poor compliance with prescribed deadlines. For example, renunciation of concession areas by private companies reportedly takes an average of 18 months. Another problem is the attempts by some operators to avoid the auction process by requesting several contiguous small-scale mining permits (which can be granted directly on a “first come, first served” basis) and then requesting to incorporate them into a medium-scale concession.

Enforcement of the Regulatory Framework

Key government institutions

The new institutional framework put in place by the 2009 Mining Law sought to uphold a model that combines a ministry as the director of the mining policy; an independent entity that regulates, monitors, and controls the sector; a public company for the exploration of minerals; and an institute that contributes to the development of the sector (box 3.3). This institutional policy was complemented by the creation of a Ministry of Coordination of Strategic Sectors, since disbanded, which was responsible for articulating the work of all entities related to strategic sectors, including the oil and mining industry. In the case of extractive industries, the coordination role was delegated to a Sector Coordination Council (Consejo de Coordinación Sectorial) for infrastructure and habitat under MERNNR. This council has a political, technical, and coordination role and is mandated with the budgetary and physical monitoring of the execution of public projects.

ARCERNNR is the sector's regulator and the technical secretariat of the concession award process, but its institutional capacity is hindered by its lack of staff and financial autonomy. The agency does not have proper budget funding and cannot spend the revenue it raises through surface rental fees and fines. It has been losing qualified staff, and its lack of technicians with knowledge of mining is evident, particularly in the debilitated mining inspection process. Reports are filed with ARCERNNR, but the reporting requirements are poorly enforced, and sanction mechanisms are very weak.

Fiscal Regime and Tax Administration

Competitiveness of the fiscal regime

Governments need to calibrate carefully the overall tax burden imposed on the extraction of mineral deposits given the massive capital investments and long gestation periods these projects require. And because mining is a global industry, tax regimes must be aligned with those of other countries with similar geological endowments and that are competing for investment in the market, and they should reflect the business and risk climate of the country. A poor enabling environment and high taxes will reduce mining investment. On the other hand, if tax revenues are slow to emerge, it will feed the perception that taxes are too low and that private companies are capturing windfall gains, which may generate frustration or even lead to nationalization of assets in periods of high commodity prices.

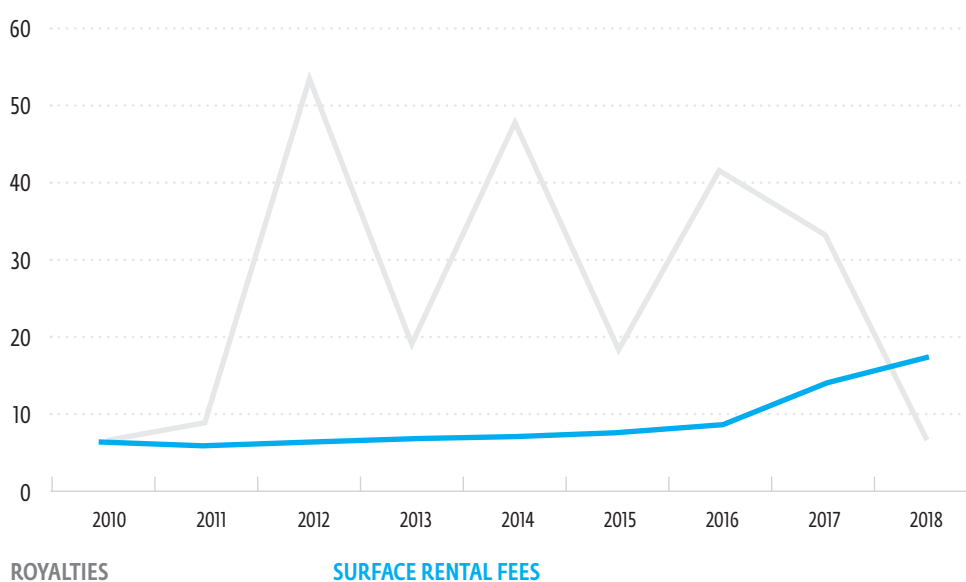
BOX 3.3. KEY GOVERNMENT INSTITUTIONS IN THE MINING SECTOR

<p>ARCERNNR</p> <p>SECTOR REGULATOR</p> <p>Agencia de Regulación y Control de Energía y Recursos Naturales no Renovables</p> <ul style="list-style-type: none"> • ARCERNNR is the technical secretariat of the concession award process. It issues reports based upon which the minister of MERNNR grants and extinguishes concessions and authorizations for the installation and operation of beneficiation plants. • Its board is chaired by the minister of MERNNR and includes a delegate of the president of the republic (currently the minister of the environment), and the planning secretary. • ARCERNNR conducts mining inspections and audits. 	<p>MERNNR</p> <p>SECTOR MINISTRY</p> <p>Ministry of Energy and Nonrenewable Natural Resources</p> <ul style="list-style-type: none"> • The minister of MERNNR is responsible for executing, planning, and administering government policy on extractive industries and for the granting and extinction of mining rights. • The vice minister of mines is responsible for the formulation, implementation, and evaluation of mining policy; the administration of mining rights; and the signing of mining contracts. 	<p>ENAMI</p> <p>PUBLIC ENTERPRISE</p> <p>Empresa Nacional Minera</p> <ul style="list-style-type: none"> • ENAMI has a technical team of 8, holds 30 concessions, and is promoting 11 exploration projects. • The company has been unable to leverage the concessions it has obtained, partly due to rules of association between public and private companies that are not adapted to the mining industry. • ENAMI is currently starved for money, and its annual business plan is not always fully implemented.
<p>MAE</p> <p>Ministerio del Ambiente - Ministry of Environment</p> <ul style="list-style-type: none"> • MAE is responsible for coordinating the formulation and execution of the country's environmental policy and, since absorbing SENAGUA (the National Water Secretariat), it is also responsible for coordinating the formulation and execution of the country's environmental policy with regard to water. 	<p>IIGE</p> <p>Instituto de Investigación Geológica y Energético - Geological Institute</p> <ul style="list-style-type: none"> • Created in 2018, IIGE is responsible for generating, systematizing, and managing geological information; conducting the geological survey; and creating national maps. It carries out research, technical development, and innovation activities in geological, mining, and metallurgical matters. 	<p>GADS</p> <p>Gobiernos Autonomos Descentralizados - Local Governments</p> <ul style="list-style-type: none"> • Among other responsibilities, and in coordination with the central government, GADs (a) maintain up-to-date records of the mining authorizations that have been granted in their jurisdictions and (b) inform the corresponding authorities about illegal mining activities.

The main objective of the tax regime is to optimize the government’s fiscal receipts over the life of each project while maintaining the ability to attract investments in order to generate a continuous flow of revenue over the long term. Other policy objectives include ensuring that revenues arrive dependably and during the early stages of the project and minimizing opportunities for tax evasion. The fiscal regime for mining in Ecuador comprises various tax instruments, including royalties, prepaid royalties, corporate income tax, sovereign adjustments, state and employee benefits, surface rental fees, and a VAT. Figure 3.6 shows that for the time being (that is, before the start of production by a large-scale project), tax revenues from Ecuador’s mining sector are extremely sensitive to the prepayment of royalties.

Until recently, Ecuador had one of the highest government takes in the mining industry. Reforms and incentives approved between 2014 and 2018 have improved the economics of mining projects: according to Wood Mackenzie,⁵⁵ these changes have allowed Ecuador to reduce its tax burden to within the competitive range for its region. In the case of copper, the government take went from 30 percent of gross revenues in 2014 to 23 percent in 2016; for gold, it went from 27 percent of gross revenues in 2014 to 21 percent in 2016. Reforms have included the introduction of tax stability contracts (2014); accelerated depreciation of 5–10 years (2014); an exemption from the foreign exchange exit tax (ISD, 2014); a VAT refund for the export of minerals (effective 2018); limited applicability of the capital gains tax to transactions that are greater than 20 percent of the company's value (introduced in 2015); and abolishment of the windfall profits tax (effective 2018).

FIGURE 3.6. MINING SECTOR REVENUES



Source: ARCERNNR.

Note: Figures are current as of April 2018.

BOX 3.4. COMPONENTS OF ECUADOR'S MINING FISCAL REGIME

- **Royalties** are payments made to the state for making mineral resources available to a company for a specified period. Royalty rates were revised in June 2018 and currently amount to 3–8 percent of net income for medium- and large-scale mining and 3 percent of net income for small-scale mining. Artisanal mining is exempt. Royalties provide revenues from the start of production but are insensitive to profit, making them regressive. In response, countries like Chile and Peru have adopted sliding-scale or profit-based royalties.
- **Prepaid royalties** are advance payment consisting of a one-off, up-front, lump-sum payment or a schedule of several payments negotiated at contract signature. This payment may be discounted from the royalties that the concessionaire must pay from the start of production. Requiring concessionaires to pay a certain amount of royalties prior to the generation of income is innovative and can be used to ensure that surrounding communities benefit early in the project's life cycle. Expectations created in the period between the beginning of project construction and initial production are often at the origin of community conflicts.
- **Corporate income tax**: 22 percent of corporate income is subject to tax. The definition of the taxable base is very important, and it requires clear rules for cost deductions, a calibrated depreciation regime, and a policy for ring-fencing. In Ecuador, the depreciation period is between 5 and 10 years, based on the preference of the company. Tax stability contracts are offered without an additional premium for a period of 15 years and are renewable for up to 15 years, or for the period of the qualified title.
- **Sovereign Adjustment** (Ajuste Soberano): The Ecuadorian Constitution requires that the government receive at least 50 percent of the benefits of nonrenewable resource projects. Under the new formula, the Sovereign Adjustment will be paid if the present value of the company's cumulative benefits (considering capital and risk costs) exceeds the value of the government's cumulative benefits.
- **State and employee benefits**: Under Ecuadorian law, private companies must pay 15 percent of the income that is subject to corporate income tax to their workers. In the case of the mining industry, because of the vast sums involved, the employees' share was reduced to 3 percent of profits, with the remaining 12 percent reverting to the state for distribution in the project areas.
- **Surface rental fees** (*patentes*) are fees levied on the issuance of a license or permit proportional to the area occupied. They increase depending on the development stage of the concession and with the number of years the license is held. Revenues go to the single treasury account, contributing to the financing of the general state budget.
- **Value Added Tax (VAT)**: 12 percent is reimbursable for mining exports beginning in 2018.

Tax administration

Effective tax administration is complex, and tax authorities' limited understanding of the basic principles of mining accounting can lead to some investors benefiting from tax loopholes. These loopholes include (a) poor definition of the corporate income tax base, taxable revenues, and deductible costs; (b) overly generous depreciation regimes; (c) inadequate ring-fencing of operations at the project level or for the entire sector; (d) poorly designed loss-carried-forward incentives; (e) transfer pricing (transactions among related entities below market prices); and (f) other tax-avoidance and base-erosion mechanisms like thin capitalization and excessive payments for headquarters' overheads and fees. Other concerns include ineffective control of the grades of products sold and lack of proper accounting of subproducts contained in the main concentrate or metal. Ecuador's tax administration authority, the SRI, controls exploration expenditures by companies and conducts tax audits.

Several concerns emerge related to mining tax administration at ARCERNNR and SRI. Royalties are collected based on the voluntary declarations of titleholders, overseen by ARCERNNR. There are some weaknesses in the oversight of the collection of royalties: (a) companies self-declare their sales without proper control, which risks systematic under-declaration of the quantity and the quality of minerals sold, such as gold production from tailings; (b) control of the treatment plants by the laboratories is weak; (c) export controls are fragile, especially in the case of gold; and (d) ARCERNNR informs SRI about the country's mineral production, but the systems of the two institutions are not interconnected, which increases their vulnerability to errors. Other major concerns are the absence of a state policy to combat smuggling and money laundering in the gold value chain and the need to improve coordination among government institutions (including MERNNR, the public prosecutor, the police, and the armed forces).

Social and Environmental Risks

Environmental and social impacts

Ecuador is one of the countries with the greatest biological wealth in the world, and it became the first country to enshrine the rights of nature in its constitution. There is significant overlap between the country's areas of high biodiversity and those with the most important metallic deposits. The latter are located in the eastern and western foothills of the Andes mountain range and in the El Cónдор mountain range in the Ecuadorian Amazon. These areas are characterized by high biodiversity and environmental fragility, they are the origin of important watercourses, and they form the main watersheds of the south of the country. Due to their relative isolation, they have significant areas of primary forest and are sparsely populated. The environmental impacts of mining in these areas cannot be reduced to the direct effects of the projects; one must also consider the transformation in the use of territory, social organization, and the use of resources as well as the relative increase in the cost of living and the changes to economic livelihoods brought about by mining development.

Perhaps because large-scale mining is a new activity in Ecuador, its environmental and social impacts have not always been properly identified, prevented, mitigated, or offset. The complexity and lack of regulation of consultation processes with ethnic groups have led to legal insecurity and project delays. This confusion has at times translated into conflicts between the local populations and the mining companies.⁵⁶ Since the 1990s, social mobilization to prevent the development of mining activities in the exploration phase has led to systematic delays in the development of medium- and large-scale projects. Types of conflicts include (a) artisanal and informal miners invading concessions held by mining companies; (b) communities opposing mining activities in fragile ecosystems or near protected areas; (c) real or perceived environmental contamination affecting local populations or activities such as agriculture; and (d) conflicts stemming from the lack of regulations to implement free, prior, and informed consent processes with indigenous and Afro-Ecuadorian peoples.

Bottlenecks and challenges in environmental licensing

Clarity in the definition of protected areas

There is a lack of clarity in Ecuador in the definition of protected areas where, by law, the extraction of nonrenewable mineral resources is prohibited.⁵⁷ This confusion has resulted in significant delays in the issuing of environmental certificates to concessionaires and has led to conflict between miners and communities. Ecuador possesses a national system of protected areas covering 26 percent of its land area, higher than the LAC region's average (23.3 percent).⁵⁸ Ecuador's system of protected lands is heterogeneous, including both (a) the National System of Protected Areas (Sistema Nacional de Áreas Protegidas, SNAP) and (b) a mosaic of areas of forest and protective vegetation (*bosques protectores*), as well as public or privately managed protected forest reserves, generally of smaller extension. Forests within SNAP cannot be used for commercial purposes but may be used for subsistence by indigenous communities. Protective forests outside SNAP, on the other hand, are a combination of production and conservation forests that includes protected forest reserves managed by the state and protective forests managed by private landowners and indigenous groups. There is a particular lack of clarity as to the status of mining outside SNAP reserves (i.e., in protective forests). This confusion has been exacerbated by the results of a nationwide advisory referendum conducted in February 2018, in which a proposal to forbid metal mining in all its phases in protected areas, "intangibles zones,"⁵⁹ and urban centers was supported by a majority of voters.⁶⁰

Harmonization between mining permits and environmental licensing

As mentioned in appendix B, the 2009 Mining Law provides a detailed classification of mining operations in terms of their size (artisanal, small-scale, medium-scale and large-scale). Each type of mining is associated with environmental responsibilities that become more stringent with increasing size, as follows:

- For artisanal mining, an environmental register needs to be submitted and approved.
- For small-scale mining, a single environmental license is required, and once it is granted the concessionaire can explore and exploit simultaneously.
- For medium- and large-scale metallic mining, an environmental declaration needs to be approved for the initial exploration stage. An environmental study is required to obtain an environmental license prior to the start of activities for each subsequent phase along the value chain (advanced exploration, exploitation, beneficiation, smelting, refining, and commercialization). These studies are evaluated and approved by MAE.

Greater harmonization is needed between the mining permits at various stages of a project and the required environmental studies. The requirement for environmental studies at each project stage appears to be inflexible, not adapted to the anticipated impacts of mining activity. A key bottleneck in the process has been the requirement to submit a full EIA in order to perform nonsystematic drilling (also known as “scout drilling”), which in Ecuador had only been permitted in the advanced exploration stage (stage 2). The severe delays—up to four years⁶¹—in obtaining the environmental licenses from MAE in order to begin this nonsystematic drilling have led some titleholders to begin procedures to relinquish their concessions because they are unable to fulfill their time-bound investment commitments. The delay in obtaining environmental licenses explains why, as of today, none of the 275 concessions auctioned and granted during the two previous years had moved to the advanced exploration stage. In response, the minister of MERNNR enacted a ministerial agreement which would allow nonsystematic drilling during the initial exploration phase⁶² in exchange for stricter environmental conditions.⁶³ As of October 2018, however, MAE had not yet applied the new regulation.

Interviews with MAE indicate that the institution believes that in order to streamline the environmental licensing process, more flexibility is needed. This flexibility includes being able to (a) change the terms of reference, including by adapting them to the specifics of each project; (b) introduce differentiated licensing requirements according to an activity’s impact. In addition, it is necessary to enhance institutional capacity and to reduce discretion in the EIA evaluation process. A true differentiation in environmental tools according to the impacts of the proposed activity, as is done, for instance, in Peru, seems to be needed.⁶⁴ In practical terms, Rio Blanco and Mirador, the most advanced strategic projects, have had to submit three environmental impact studies each (at the advanced exploration, exploitation, and beneficiation phases).

Another bottleneck is the process of obtaining water use permits from MAE (which now controls SENAGUA, the ex-National Water Secretariat). The time required to issue these permits is set in the legislation at three months, but in practice they take about 18 months to obtain. Moreover, water quality standards are general rather than adapted to the contaminants generated by mining activities or the baseline conditions of the basins in which they are located.

Environmental management plans and mine closures

Legislation regarding the closure of mines is vague, poorly understood, and not strictly enforced. Plans, schedules, and budgets for the partial and then final closure and definitive abandonment of operations are generated by the environmental management plan (PMA) derived from the EIA.⁶⁵ Mine closure plans must include information on investments and activities for the rehabilitation of the area affected by the mining activity. Mining companies must submit a plan for closing operations two years prior to the closure or total abandonment of operations, including information on the recovery of the area, confirmation of compliance with legislation, evaluation of social impacts, compensation plans, and financial guarantees, as well as a plan for the development of new economic activities. However, the mine closure plan is often a very short document lacking in technical engineering specifications.

Bottlenecks and challenges in the consultation processes

Prior consultation (*consulta previa*)

Instruments for community consultation in Ecuador are poorly regulated, and there is generalized confusion between them.⁶⁶ The two key instruments for community consultation in the extractive industries are prior consultation (*consulta previa*), and the EIA participation process (Proceso de Participación Social). In addition, public consultation (*referenda*) processes are enshrined in the Constitution as part of the participation of citizens in the democracy. However, these are not part of the normal consultation process for mining activities.

Indigenous communities must be consulted prior to authorizing any mining activity, including initial exploration.⁶⁷ The collective rights of indigenous communities, nationalities, and peoples are recognized in the Constitution, the Mining Law, environmental regulations, and the Organic Law of Citizen Participation, among others. The Mining Law (article 87) establishes that the state is responsible for implementing the processes of social participation and consultation prior to mining development and at its own expense (not that of the mining companies). The duration of the consultation is expected to be 30 days, although the process is usually far longer, including 6 months of preparation and 12 months of follow-up.

However, prior consultation in Ecuador is a nonbinding instrument. The Mining Law does not specify a tool to conduct negotiations between the communities, the state, and the companies that can generate mandatory commitments for the parties. Moreover, the Mining Law states that, “in the event that a consultation process results in a majority opposition from the respective community, the decision to develop the project will be adopted by reasoned resolution of the sector minister” (article 87). The Ecuadorian government has yet to approve a regulatory instrument that would allow an effective application in the mining sector of the constitutional precept for prior consultation.⁶⁸ Another obstacle to instituting prior consultation is that not all indigenous peoples’ territories have been demarcated. This lack of information has encouraged interpretations that undermine the right to prior consultation, which have, in turn, affected the legal security of mining, the processes of governance with indigenous people, and, therefore, the development of projects of national interest.

Legal uncertainty is amplified by recent court judgments on some projects that have ordered mandatory, retroactive prior consultations. Nevertheless, there is often little clarity regarding where or when prior consultation needs to take place, or with and by whom. Despite these hurdles and this ambiguity, there are cases of good dialogue with the impacted communities. For example, in one project, thematic dialogue tables have been formed, and have included local governments and interested national ministries, communities, and companies. This type of experience needs to be more consistently implemented.

[Citizen participation, access to information, and transparency](#)

Despite the institutionalization of citizen participation in the 2008 Constitution, there has been limited progress in this area in the extractive industries. For participation to be meaningful, it needs to engage key stakeholders and take place along the entire life cycle of the project. Currently, the main legal framework that regulates access to information and the transparency of public sector entities is the 2004 Organic Law on Transparency and Access to Information. According to the law, entities that receive state funds must publicly disseminate information related to precontractual processes, contracts, results of audits, budgets, credit, travel expenses, acquisition of assets, forms for procedures, and amounts of per diems, among other topics. The body responsible for verifying and monitoring compliance and promotion of the law is the Ombudsman's Office.

In Ecuador, access to information regarding the mining industry has been limited. Although the 2009 Mining Law includes among its articles the right to information, participation, and consultation, important information such as contracts and financial data in general is limited and accessing it is difficult. The same applies to environmental information: EIAs are not easily available. However, SUIA does disclose high-quality information on protected areas. In this context, the EITI could play an important role as a platform to facilitate access to key sector information and as a space for multi-stakeholder dialogue with clearly defined outputs.

Community and Broader Economic Impacts

Revenue sharing

A significant portion of mining revenues in Ecuador are expected to be used to benefit the communities directly affected by the mining activity. According to the Mining Law (article 93), a minimum of 60 percent of royalties is to be invested in productive projects and sustainable local development. This development is to take place through the GADs, or municipal governments and parish councils, in the areas of influence of mining projects according to community priorities. In some cases, 50 percent of these revenues are assigned to the governing bodies of indigenous communities. The funds for the GADs are allocated to individual projects, which, once approved, are included in the development plans of the respective levels of government and harmonized with the National Development Plan. The resources are then transferred to Ecuador Estratégico, a public sector enterprise created in September 2011 whose mandate is to plan, design, evaluate, prioritize, finance, and execute social, territorial, and productive investments in the areas of influence of strategic mining projects. The funding sources of Ecuador Estratégico are: (a) mining royalties; (b) 12 percent of the profits of large-scale mining projects and 5 percent of small-scale ones; (c) 3 percent of the sales of minerals exploited; and (d) surplus income of public companies such as ENAMI. An estimated US\$140 million was invested in mining provinces through the end of 2017; these funds are expected to result in 400 social projects with 600,000 beneficiaries (Illescas 2018).

In practice, this process has been plagued by the lack of transparency and efficiency problems. The traceability of expenses is limited. Ecuador Estratégico currently receives a minimal allocation compared with what it has received in previous years. Moreover, its mandate has changed to cover topics and geographic areas that, for the most part, have little relation to mining projects. The company is currently in the liquidation phase, and a transition model is being designed for execution by the GADs.

Local content promotion

Ecuador has few domestic industries with the capacity to meet the needs of mining sector. Most domestic companies, particularly small businesses, fail to meet the standards set by extractive companies. In a number of contracts, for instance, the government negotiated preferences for Ecuadorian companies in the procurement of products and services but limited those preferences to the cases where local companies were able to offer the same quality, price, and availability as imports.

Although legislation sets out provisions regarding local employment quotas and skills development, the lack of specific strategies and incentives concerning these topics reflects the low priority accorded to the development of horizontal and vertical links around extractive industries. For example, there is no strategy to ensure coordination of demand needs from the mining companies regarding the quality and quantity of goods and services required for their production processes, on one side, and national, regional, and local suppliers, on the other. Not surprisingly, outcomes regarding skills development and national industry participation are poor. Furthermore, the Ecuadorian business environment, which has tended to protect national industry and small businesses, did not create the conditions to enhance their productivity and international competitiveness.

Interesting opportunities for knowledge transfers to mining are emerging from other sectors, such as infrastructure construction and the oil and steel industries. The knowledge transferred covers, among other topics, detailed engineering; construction services and public works; procurement, construction, and maintenance; metallic construction; manufactured products; mining, engineering, environmental, transportation, and maintenance services; and machinery, spare parts, and components.

At the local level, the case of Fruta del Norte illustrates the opportunities available. Chile's Mas Errazuriz partnered 50/50 with the Ecuadorian company Semaica to become Lundin Gold's key contractors for portals and soft tunneling work and for the development of the twin declines in preparation for operations. Moreover, Lundin Gold proactively created eight thematic tables, each meeting once every six weeks, to identify opportunities for local purchases. A local purchase strategy was developed that included certification of suppliers (for insurance, industrial safety, standards, and so on). Opportunities for local businesses have already been developed in areas such as hardware stores, transportation, and catering. In September 2018, local purchases reached US\$3 million (approximately 50 percent of the municipality's GDP). The monthly average during construction was about US\$2.2 million. FDN is now adapting its strategy to the operations phase.

A related issue is domestic value addition through local beneficiation. The Ecuadorian government may be missing opportunities to increase value addition in the country by freely allowing the export of concentrates when the minerals could easily be beneficiated locally. For that to happen, however, companies would need to overcome some environmental constraints.

Skills

High-level and specialized technical education for mining (vocational training) is in short supply in Ecuador, despite the obligation in the Mining Law (article 75) for mining companies to hire 80 percent Ecuadorian personnel. Because large-scale mining is new to Ecuador, technical knowledge about it is almost nonexistent in the country. There are few national universities that offer curricular courses related to the mining sector, and Ecuador does not have enough local technical workers to cover the growing demand of the mining sector. Private companies must therefore train their Ecuadorian personnel. These capacity-building programs, however, tend to focus on areas such as security, occupational health, equipment management, and risk reduction rather than on technical and managerial issues.

Conclusions and Recommendations

From a government perspective, promoting mining development requires the ability to formulate, implement, and evaluate public policies integrating at least three key elements:

- A clear and stable legal and regulatory framework granting legal security for investments in the sector, including transparent and nondiscretionary procedures for the allocation of mineral rights, planned and agreed upon with environmental and subnational authorities.
- Strong institutions that are agile in their response times and that strictly enforce mining and environmental regulations and standards.
- Fiscal terms that attract investments, generate a sustainable flow of tax revenues over the long term, and are effective under low as well as high commodity prices.

Ecuador has achieved substantial improvements in all three areas since 2014, but the competitiveness of its mining sector continues to be harmed by several shortcomings. These shortcomings include: (a) the legal insecurity created by frequent changes in leadership and in the rules governing the sector, (b) institutional and regulatory weaknesses, and (c) a lack of policy alignment and coordination between government agencies. Assuming macroeconomic stability, the difference in the attractiveness to private investors of the mining sectors of various countries lies in the coherence and predictability of the sectors' legal and regulatory frameworks, the quality of the relevant regulatory institutions, and the alignment of the fiscal regimes with the business cycles. These factors de-risk investments and reduce the “hurdle rate” for the approval of new projects by investors.

Three critical, simultaneous transitions are taking place in Ecuadorian mining: (a) the mining sector may replace the hydrocarbon sector as the country's main driver for economic growth, (b) the country is currently shifting from a predominantly small-scale mining sector to a large-scale industrial mining sector, and (c) the sector's governance is shifting from top-down to a more democratic and inclusive version.

Ecuador's mining policy is also in a state of flux. Although mining policy formulation was previously entrusted to the presidency and enforced by the mining authority, it is now scattered among different stakeholders and requires greater sector leadership backed by the presidency. Under the previous model, policies were strictly enforced but legislative requirements were not always observed, high-level standards were often not met, and the system of checks and balances was deficient. Today, liberalization of state controls and the promotion of dialogue and stakeholder engagement were obtained at the cost of legal security, governability, and efficiency.

These transitions are stoking divisions between central government institutions, with different groups promoting or opposing the shift to large-scale mining. They are also leading to misalignment between central policies that aim to attract large mining investments, on one hand, and subnational governments, which have often opposed mining due to concerns over indigenous rights and the environment, on the other. The central government's top-down decisions are becoming difficult to implement, with intricate regulatory requirements and administrative bottlenecks—such as in the procedures associated with environmental licensing and consultation—contributing to delays in projects and undermining trust among stakeholders.

The project approval process has become highly politicized. The prevailing narrative is one of harm—although this harm has been caused primarily by continued illegal mining. The government’s approach would be strengthened by not trying to manage technical issues politically; similarly, some companies need to refrain from lobbying the authorities to discretionarily unblock the development of their individual projects when those projects do not meet the required standards. To overcome the current resistance to mining, Ecuador needs a mining policy based on education, participation, and inclusion and built upon institutionalized mechanisms of coordination between the central and local governments, companies, and communities. This policy could take the form of institutionalized platforms managed jointly by MERNNR and MAE, the establishment of a complaint ombudsman and conflict resolution mechanisms, and the strengthening of community leaders. Another priority is to bridge the information gap: for an effective dialogue, MERNNR needs to educate other institutions and the population about mining’s technical processes and standards, the regulatory framework, and communities’ rights and to involve local communities in discussions about the risks and benefits of mining activities.

Although the government is focusing on administrative reforms to transform the mining sector into a generator of tax revenues, its attention has not yet extended to formulating a long-term mining policy in broad consultation with relevant stakeholders, nor to allocating the financial resources to invest in building strong institutions to implement such a policy. Ecuador would benefit from a robust institutional framework assigning clear roles and responsibilities to government institutions, including sector ministries,⁶⁹ regulatory agencies, state-owned companies, and subnational governments. The quality of institutions can be measured through promptness in decision-making, enhanced inter-ministerial coordination, reduced discretion and corruption, quality of enforcement, and sustainable financial autonomy. The recently approved “Nueva Política Pública Minera del Ecuador 2019–2030” is a positive step toward formulating long-term policy and offers an opportunity to the government, industry, and civil society to advance a more focused dialogue and more meaningful engagement and to build consensus around the responsible and sustainable use of mineral resources in Ecuador.

Ecuador is not a mining country. It has great biological, social, and ethnic diversity, and benchmarking its mining policy with that of countries like Chile and Peru is perhaps not appropriate. The future seems to be pointing toward “green growth mining” instead, associating large-scale projects with biodiversity conservation and community development.⁷⁰ Ecuador should be looking for examples in which mining has leveraged biodiversity conservation and forestry management, as was sometimes the case in Brazil, or in which strong mining activity has been developed within sensitive environments in a sustainable way, as in Finland and Sweden. Attracting foreign investment into mining must be reconciled with other national development priorities: conserving natural resources and striking the right balance between promoting and maintaining sector competitiveness and contributing to the development of other economic activities. (See appendix E for a discussion of recent mining developments in Colombia.)

This report proposes several areas for the improvement of mining sector governance from a multisector, multilevel, and multi-stakeholder perspective:

1. **Developing a shared vision.** Mining is considered a strategic sector in Ecuador's Constitution, but the sector policy has been significantly influenced by Ecuador's experience with oil. There is no state vision for large-scale mining yet—and only limited capacity within the country to manage it—while the problems caused by artisanal and small-scale mining have been neglected for too long.
2. **Applying policies consistently and continuing to improve the legal and regulatory framework for the sector.** The piecemeal approach to regulatory reform and the frequent changes introduced in the regulations, sometimes in contradictory ways, create legal uncertainty. It would be useful to compile all these changes into a new mining code, giving priority to aligning mining and environmental regulations and to regulating the application of the collective rights of indigenous, Afro-Ecuadorian, and local peoples and communities.
3. **Aligning mining and environmental regulations** by enacting joint mining-environmental legislation coordinating the granting of environmental licenses, water licenses, and mining permits; abolishing the definition of the stages of operations along the value chain and their respective environmental requirements; and introducing differentiated licensing requirements proportional to the impact of the activities in question.
4. **Strengthening mining institutions.** Clear priorities include (a) improving ARCERNNR's efficiency at granting mining titles and reinforcing its inspection function; (b) ensuring IIGE's sustainability by leveraging geological data to promote investments; (c) developing a unified information system that updates and consolidates all data relevant to the sector; and (d) restraining ENAMI's potential for unfair competition by extinguishing its right of preference and not authorizing new agreements between it and private companies.
5. **Strengthening environmental institutions.** To strengthen the environmental authority, an autonomous environmental licensing agency could be created and equipped with an integrated public information system on mining and environmental matters. The agency could be jointly managed with ARCERNNR, leading to a one-stop shop for the processing of applications for mining titles and environmental licenses.
6. **Enhancing citizen participation and consultation.** Mining's potential contribution to the development of affected communities can be undermined by gaps in legislation (especially regarding collective rights), a lack of information at multiple levels on the scope of projects, and still-precarious accountability systems. Legislation can be updated to improve citizen and community participation.
7. **Improving royalty collection and revenue sharing:** Exchange of information between SRI and ARCERNNR could be improved through stricter operational guidelines and control procedures. The allocation of mining royalties could be made more transparent and could include more incentives for sector promotion.
8. **Promoting local content and beneficiation policies.** Given the intensity of capital use in mining, Ecuador needs to put in place interventions to avoid the proliferation of enclave operations. Although its focus has traditionally been on the exploration and production segments, its attention should now shift toward using mining to promote sector value chains, cross-sector links, and economic diversification. A first step would be to develop explicit public policies encouraging and incentivizing the use of local inputs.

TABLE 3.5. SPECIFIC RECOMMENDATIONS FOR THE MINING SECTOR

Titling	Reduce the maximum area and production capacity allowed for small-scale mining operations to facilitate the enforcement of regulations.
	Eliminate the classification of mining activity into stages of operations along the value chain, or, at a minimum, merge the two stages of exploration.
	Before reopening the cadaster (an essential step to attracting foreign investors and discouraging illegal mining), finish cleaning up the mining titles and make the mining information system more secure. A new information system will be essential to securing the efficiency of the cadaster's operations.
	Replace contract negotiations with an adhesion contract (<i>contrato de adhesión</i>) with nonnegotiable, predefined terms and conditions. Negotiations create uncertainty and are a barrier to private investment.
	Update current labor laws to accommodate the requirements of a large-scale modern industrial mining sector. This can be done without undermining labor conditions.
Institutions	In preparation for a future one-stop shop (<i>ventanilla única</i>) for environmental license applications (as exists in Peru), create a unified information system for the mining authority capable of interconnecting all its agencies and exchanging regular information with the Unified Environmental Information System (SUIA).
	Consider granting true financial autonomy to the Agencia de Regulación y Control Minero (ARCERNNR), such as by earmarking a percentage of royalty income for mining inspection, as is done in Colombia, or of surface rent, as in Peru.
	Update Ecuador's geological and geophysical information, which today covers only 40 percent of the nation's territory. Funding for the collection of new data could come from earmarked royalties (as in Colombia), surface rent (as in Peru), or the proceedings from auctioning concessions. Furthermore, the geodata contained in the annual exploration reports that mining companies submit to ARCERNNR should be transmitted to the Instituto de Investigación Geológico y Energético (IIGE) and used on a confidential basis.
	In the short term, authorize no new agreements between the Empresa Nacional Minera del Ecuador (ENAMI) and private companies; in the long term, consider doing away with ENAMI's right of preference.
	Consider redirecting ENAMI to play a more important role in the professionalization of small-scale miners and the formalization of illegal mining (as does the Chilean state-owned company) by helping to improve their technical standards and environmental practices.

Fight money laundering in gold production by defining a high-level state policy as well as enhancing coordination among government institutions (the Ministry of Energy and Nonrenewable Natural Resources, the public prosecutor, the police, the armed forces, and so on). This is also a fiscal concern.

Strengthen the Special Commission for the Control of Illegal Mining to combat active centers of illegal mining and prevent its expansion into other regions. Illegal mining is a barrier to investment, because antimining groups use this mining to mobilize against large-scale operations. And, most importantly, it causes serious environmental pollution, abusive engagement with communities, and broader corruption in society.

Fiscal regime

Consider introducing sliding-scale royalties or profit-based royalties (as in Chile and Peru) to combat the regressive nature of royalties.

Consider adopting “*obras por impuestos*” (works-for-tax) schemes, such as in Peru, which could help to improve development outcomes from social investment and encourage proper accounting by government agencies.

Improve the collection of royalties by enhancing the interconnection of ARCERNNR and the Servicio de Rentas Internas’s information systems in areas such as production declarations by mining companies and gold export controls.

Environmental stewardship

Strengthen the Environmental Licensing Authority. Efficient environmental licensing and oversight of operations call for the creation of an autonomous licensing agency, specialized in the evaluation and monitoring of environmental and social impacts, in order to increase professionalization.⁷¹

Improve coordination between environmental and mining institutions. A single window (one-stop shop) for environmental licensing has been adopted in countries like Peru,⁷² and it could also be considered in Ecuador

Align environmental licensing and mining permitting. Better harmonization between environmental licenses and mining permits is needed in order to introduce a true differentiation of environmental tools according to the impacts of the proposed activity. The backlog at the Ministerio del Ambiente (MAE) calls for the unification of the environmental impact assessment process, with only one environmental decision per project, preferably before the construction phase. Exploration could have a lighter environmental tool with strengthened initial screening criteria, while environmental licensing in sensitive areas could have higher requirements.

Update joint environmental and mining legislation through a participatory process, involving all interested stakeholders, in the form of a joint mining and environmental regulation diploma, as in Peru.⁷³ Consider introducing specific laws for mine closure, enhanced security of tailings dams, and the management of environmental liabilities, as well as introducing updated technical norms and quality standards for the management of tailings, discharges, and emissions.

Introduce real financial guarantee instruments for mine closures or serious environmental damage. It is good practice to require companies to establish these guarantees early on. It may be carried out under specific rules, such as through payments made ahead of closure based on estimates of future decommissioning costs and placed in an escrow account at an approved bank.

Develop baseline studies of cumulative impacts at the national level. For lack of publicly available, systematized information, excessive time and money are invested in baseline studies, to the detriment of mitigation strategies and impact management. Moreover, the cumulative impacts on the environment of the multiplicity of operations that can occur in the same area cannot be detected at the level of individual projects, and the current evaluation system does not consider this situation.

Clarify the legal criteria that define areas excluded to mining. The current definition, in the exclusive competence of MAE, creates legal insecurity. It would be useful to clarify it with MAE and clearly demarcate such areas in SUIA and in the mining cadaster.

Social issues

Urgently enact regulations for prior consultation (*consulta previa*). Indigenous peoples should be consulted in the early stages of development, not only when the need to obtain community approval arises. To strengthen credibility, rather than having this process regulated by the sector minister, who has the final decision on the outcome, a separate, specialized institution could be empowered to manage the process (as in Colombia and Peru). Prior consultation should also be adapted to small-scale mining.

Introduce mandatory commitments between communities, the government, and companies. Regulation of prior consultation is an opportunity to introduce mandatory instruments that would lead to written agreements and commitments between these parties. The results of and agreements made during consultation process could be institutionalized in the form of local development agreements (LDAs) between communities and mining companies (such as Canada's Impact Benefit Agreements [IBAs]). The LDAs could promote links with the regional economy and foster the development of local and national suppliers, services, infrastructure, and skills. (Those of Chile are good examples.) They should also promote gender equity. These commitments could be negotiated in association with the granting of the environmental license prior to the construction phase. The outcomes could be incorporated into the project's environmental management plan and serve as the basis for a permanent company-community dialogue process, as part of the company's program of relations with the community.

Enforce public access standards to environmental and social impact assessments and environmental management plans. All relevant documentation should be made public on the internet.

**Community
and broader
impacts**

Increase the transparency and effectiveness of the distribution of mining revenues by building capacity in municipal governments and parish councils to prepare productive projects and sustainable local development plans.

Develop guidance regarding national industry participation and skills development as the basis for a policy facilitating the development of clusters of mining suppliers. For example, light regulation could be enacted to incentivize mining companies to enhance the abilities of local suppliers to meet their standards. Alternatively, incentives and commitments could be introduced in the terms of reference of the auctions of mining concessions.

Designate a governmental institution to assume the role of champion and promoter of local sourcing. It could start, for example, by collecting, collating, and publishing information on the demand needs of the mining industry.

Make long-term efforts to enhance the quality of national institutes and encourage them to become accredited to grant certification in industrial processes. The human factor is essential to the success of the mining industry, and it takes many years of costly effort to build a competitive workforce in mining, including at the managerial level, in high-skill positions (such as geologists and mining engineers), and at intermediate levels, where the role of technical and vocational training cannot be overemphasized.

B. AGRIBUSINESS EXPORT COMPETITIVENESS: FOOD SAFETY ISSUES

Introduction

Agribusiness constitutes the second largest currency-generating sector in the Ecuadorian economy after oil, and it has registered increasing productivity. The sector, which includes agriculture, livestock, forestry, fisheries, and agroindustry has shown solid growth during the the 2010s”, expanding at a faster pace than total GDP. Exports have multiplied more than threefold (from US\$3 billion free on board (FOB) in 2007 to US\$10 billion FOB in 2017). The sector represents 85 percent of Ecuador’s nonoil exports; 14 of the country’s 20 most exported products in 2017, after oil, are in agribusiness. The sector’s main products include banana and other fruits and vegetables, shrimp, tuna and other fish (including those transformed into fish preparations for human consumption or animal feed), flowers, and cocoa extract and concentrates. Ecuador’s long-term agriculture total factor productivity growth ranks in the middle of its regional peers (IDB 2015), but this growth has improved during the past decade. As a result, the sector now represents 13 percent of Ecuador’s GDP (the highest share relative to regional peers). Based on 2017 figures, agribusiness comprises 37 percent of total employment in the country (Ecuador National Labor Survey). Although net inflows of FDI for agriculture, forestry, hunting, and fisheries tend to be relatively small, they reached an exceptional peak of US\$125 million in 2017 (the 2nd highest sector) due to one very large transaction.

The country boasts a significant comparative advantage in the production of fruits, vegetables, and fishery products, which can be harnessed to further expand exports. Ecuador has a well-established revealed comparative advantage in the export of fresh fruits and vegetables and in the blue economy, industries that contribute significantly to job creation and export diversification.⁷⁴ Although the country’s basket of traditionally exported goods has not changed significantly in recent years, Ecuador’s revealed comparative advantage in these products has increased. The country exports significantly more fruits (US\$3.9 billion in 2016) and fish products (US\$2.9 billion in 2016) than its much larger neighbors, Colombia and Peru. Ecuador also shows potential in emerging exports such as vegetables, fruits, and oils. Among the most important sources of comparative advantage for Ecuador are its fertile soils and favorable agroclimatic conditions that allow the off-season production of a wide variety of high-value crops. There is also significant private sector expertise in this industry; success has been achieved in the export of bananas (no. 1 producer globally in 2017), shrimp (no. 2 in 2017), flowers (no. 3 in 2017), and tuna (no. 2 in 2017). The country has relatively good primary road infrastructure and lower transport and logistics costs than other nearby countries because of shorter inland distances from farm to exit border posts. In a few cases, PPPs linking small farmers to domestic consumers have been successfully extended to profitable export-oriented ventures, and they could be further strengthened to incentivize product diversification (particularly as a platform for nontraditional products), value addition, and entry and expansion into export markets. The recent EU trade agreement is expected to provide larger and more stable market access opportunities for Ecuador’s agrifood products in the coming years (ECLAC 2017).

Because export competitiveness in perishables is highly dependent on the ability to efficiently move goods from production to international markets, the subsequent chapter of this report assesses the efficiency of transportation and logistics services Ecuador. The significant development of fisheries and exotic fruit exports has led to a diversification in the demand for transportation modes and ports of exit and for multimodal solutions to respond to the specific needs of these new value chains. Ecuador's exporters can take advantage of high-demand windows in developed countries by selling when the supply is low and prices are high. Such a strategy depends on the existence of the following: (a) the possibility to optimize transportation modes to deliver during short windows of time; (b) access to agglomeration centers near production sites that allow small producers of high-value, low-volume products (that is, those who are unable to fill an entire truck or container) access to ports in order to reduce internal travel costs; and (c) full continuity of the cold chain in order to reduce spoilage .

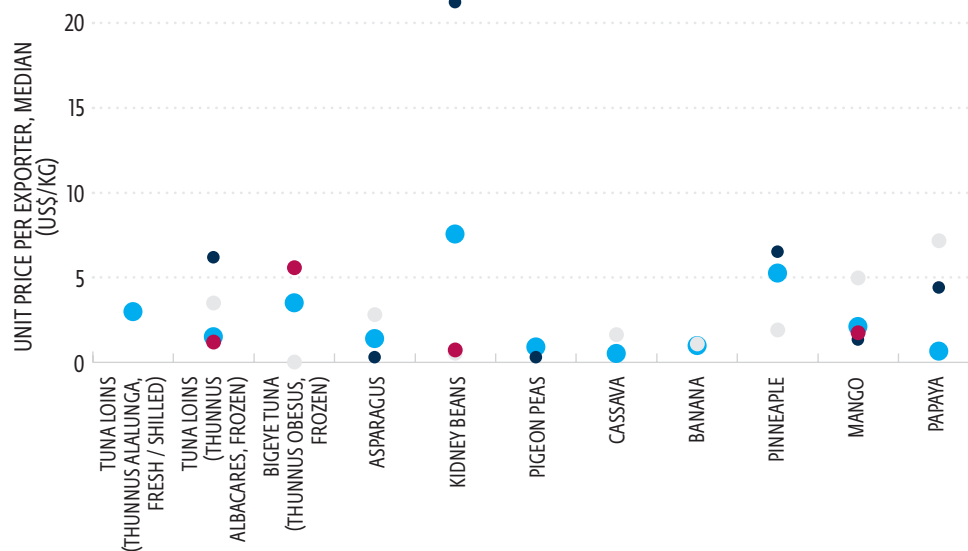
Recent reforms in Ecuador could have a positive impact on private investment in agriculture. In August 2018, the new Organic Law for Productive Promotion, Investment Attraction, Employment Generation, and Fiscal Stability and Balance included measures that benefit the agriculture sector. For instance, new investments from new and existing companies in strategic sectors, including agriculture, food processing, and forestry, in areas outside of Quito and Guayaquil are exempt from paying the income tax and its corresponding estimated tax for 12 years. Moreover, agriculture, livestock, aquaculture, and fishing industries benefit from a zero percent VAT on raw materials and supplies imported or purchased in the local market and a similar benefit for machinery and spare parts for agriculture, aquaculture, and fishing.

Performance of the Perishables Export Value Chains

Although Ecuador is the largest global exporter of bananas and among the most productive countries worldwide for that product, efficiency gaps remain relative to its competitors. Banana exports represented 19 percent of Ecuador's total export basket in 2017 (including oil), and the country's revealed comparative advantage increased between 2013 and 2017. Bananas are produced mostly in the El Oro, Guayas, and Los Rios regions and are usually planted as a unique crop (not in association with other products). According to FAO (2017) and ESPAC (2018) data, with 40.3 (Million Tons -MT-/Hectare) in 2017, Ecuador's productivity is below that of its main competitors, Costa Rica (56.8) and Guatemala (48.3), but above that of Peru (34.8) and the Philippines (12.7). Ecuador could also move up in the quality ladder, as the unit price earned by the median Ecuadorian exporter of bananas in the United States is lower than that earned by the median exporter from Costa Rica (figure 3.7).

Mangoes, pineapples, and papayas, the most exported traditional fruits after bananas, have been stable but relatively minor exports for Ecuador, and the country is at a disadvantage relative to competitors in terms of productivity and market proximity to the United States. Productivity in Ecuador for all of these fruits is somewhat lower than in its main competitors, and the median Ecuadorian exporter of these fruits earns less than his or her counterpart in competing export countries.⁷⁵

FIGURE 3.7. UNIT EXPORT PRICES FOR THE MEDIAN ECUADORIAN EXPORTER IN THE MAIN DESTINATION MARKET



ECUADOR

1ST COMPETITOR IN PRIMARY DESTINATION MARKET

2ND COMPETITOR IN PRIMARY DESTINATION MARKET

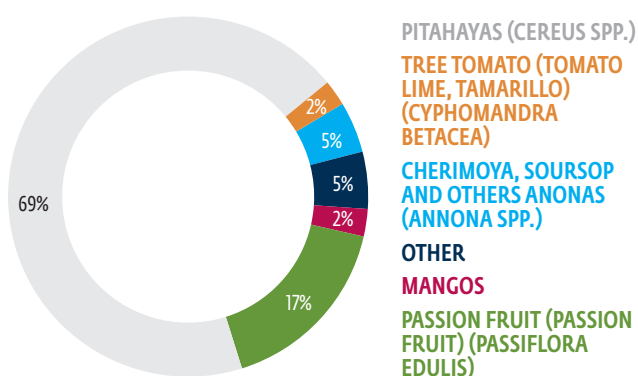
3RD COMPETITOR IN PRIMARY DESTINATION MARKET

Source: World Bank Exporter Dynamics Database (average, 2010–14).

The efficiency of the port of Guayaquil and its maritime connectivity, as well as the use of technologies that maximize shelf life during sea transportation, are key factors determining the competitiveness of these high-volume, low-value fruits. Bananas, mangoes, pineapples, and papayas are exported mainly by sea through the port of Guayaquil (except for some mangoes exported by air through Quito). These products have a relatively short domestic travel distance from farm to port of exit (except for pineapples produced in Las Sierras and Amazonia). Most large producers have modern packing facilities and follow proper packing and postharvest practices. The supply chain is relatively short because producers are located close to maritime ports and farmers mostly sell container loads (40 ft) to foreign buyers on an FOB basis. The reefer (cold) containers used for shipping to international markets are deployed to the packing sheds by the shipping lines, where they are loaded with the product.

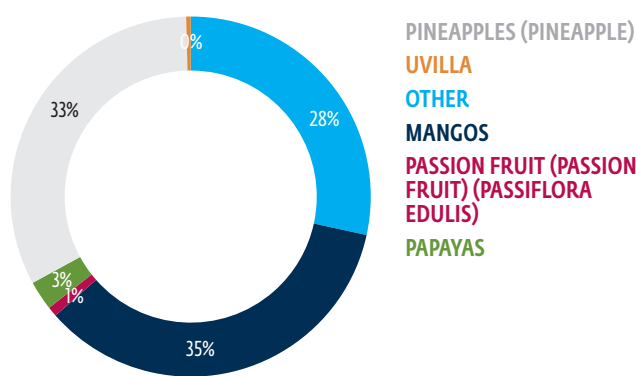
Ecuador is seeing increases in its revealed comparative advantage in exotic fruits such as pitahaya (dragon fruit), passion fruit, and goldenberries, all of which are high-value, low-volume exports. Ecuador can exploit high-demand windows in international markets because agroclimatic conditions allow the off-season production of a wide variety of high-value crops, which fetch significantly higher prices. Passion fruit exports have grown significantly, moving from US\$0.5 million to more than US\$4 million between 2013 and 2017, and are mainly to Canada, the EU, Malaysia, the Middle East, Russia, and the United States. Pitahaya exports have grown from US\$0.7 million to US\$7 million between 2013 and 2016 and are mainly to Canada, the EU, Hong Kong, Indonesia, the Middle East, and Singapore. Strawberry and goldenberry (uvilla) exports are also growing. The latter are produced mainly on the coast, with a few producers in the highlands; most of the farmers combine their production with other plantations.

FIGURE 3.8. FRUITS EXPORTED THROUGH THE QUITO AIRPORT



Source: Customs data, average, 2015–17.

FIGURE 3.9. FRUITS EXPORTS THROUGH THE GUAYAQUIL PORT



Source: Customs data, average, 2015–17.

High-value, low-volume fruit exports are highly dependent on airfreight transportation and appropriate packaging. Most exotic fruits are exported by air through Quito or Guayaquil (figures 3.8 and 3.9). Exporters must compete with other products, such as flowers, for limited airfreight shipping space, creating uncertainty and increasing their risk of missing a delivery deadline. This bottleneck is a key constraint for the development of exotic fruit, vegetable, and fresh fish exports. In addition to transportation limitations, packing facilities for these fruits are often rudimentary, although proper packing and postharvest practices seem to be used. The highlands (*la sierra*), where pineapples and some time-sensitive exotic fruits are produced, possess little cold chain infrastructure (World Food Logistics Organization 2014).

Ecuador is also gaining market share in the export of vegetables. The country's revealed comparative advantage for broccoli (fresh, chilled, or frozen), kidney beans, pigeon peas, asparagus, roots (such as taro and manioc), and vegetable preparations rose between 2013 and 2017. Exports of these products leave through the port of Guayaquil. After being one of the main global exporters of broccoli in the early 2000s, Ecuador's market share dropped in 2009, but it has increased again to close to 10 million tons in 2017. Broccoli is mainly exported to Canada, the EU, Japan, Mexico, the Middle East, Russia, and the United States. It is produced in the highlands (Cotopaxi, Chimborazo, Tungurahua, and Imbabura) as a single crop.⁷⁶ Ecuador could move up the quality ladder for kidney beans, seeing as the median Ecuadorian exporter to Colombia receives one-third of the unit price paid to the median Mexican exporter (figure 3.7). Manioc production is spread across most regions of the country and could also move up the export quality ladder. Although avocado export values are small (0.5 million in 2017) and Ecuador's market share for them has stagnated, they have the potential to grow. Indeed, agroclimatic conditions bring a comparative advantage for them, allowing Ecuador to export them to locations that are undersupplied at key periods of the year (i.e., to the United States from April to June and to Europe from October through January [Rueda 2018]).

Productivity in export-oriented vegetables remains significantly below that of Ecuador's main international competitors, and in some value chains with a concentration of smallholder farmers, scaling up is constrained by a limited capacity to meet quality requirements. Sufficient production data to conduct an international benchmarking is not available for several products, but productivity figures for asparagus, kidney beans, and roots indicate that Ecuador's performance is significantly below those of its main competitors. For instance, at 7–9 MT/H for fresh asparagus, Ecuador has difficulty competing with Peru, whose yields reach 14–18 MT/H.⁷⁷ Ecuadorian farmers tend to combine vegetable production with other crops (except for broccoli), suggesting that smallholder farmers are very present in these export-oriented vegetables' value chains. However, evidence for the broccoli value chain in Ecuador suggests that farmers' capacity to meet export quality requirements is among the main impediments to increasing production, because smallholder farmers' products are frequently rejected on the basis of quality, reducing the amounts they export in the following year and increasing their risk of dropping out entirely from the export value chain (Romero and Wollini 2015). Indeed, broccoli must be harvested on the day it flowers, otherwise it can go to waste from one day to the next, especially in warm weather. Broccoli must be cut one stalk at a time to eliminate all imperfections and obtain a perfect floret, requiring a large labor force. Once harvested, it must be processed immediately. The freezing process is thus crucial, and processing plants that perform the Individual Quick Freezing (IQF) process require a high investment, a decisive factor when new operations are launched (Hernandez, et al. 2010). The structure of the value chain, and the high capital investment required, thus favors anchor firm-supplier models.

Ecuador has several successful public-private partnerships that illustrate the benefits of market-driven innovation in agriculture (box 3.5. Moving up the value chain through public-private partnerships in innovation: The example of colored potato chips). Public innovation programs are responding to demand from the private sector and include: (a) genetic improvement of naranjilla, blueberry, and goldenberry; (b) fertilizer—especially organic—and biological control of pests; (c) analysis of the nutritional properties of fruits to be transformed into juice; and (d) disease control for bananas, cacao, coffee, and rice. Other areas with growing potential include in vitro seeds and plants, new seed varieties, plant genetic traceability, and detection of GMOs in food for human consumption. However, there may be a disconnect between research and application/extension services for farmers: only 11 percent of farmers received training for productive purposes in 2017, while 51 percent received technical assistance in that year (ESPAC 2017).

Organic production is also growing in Ecuador, especially for permanent crops such as fruits, cacao, and coffee. Nearly 12,000 farmers are registered and certified as organic producers.⁷⁸ In 2017, more than two percent of land cultivated with permanent crops used organic inputs (compared to more than 3 percent for transitory crops), more than 12 percent used a mix of organic and chemical inputs (compared to 11 percent for transitory crops), and 33 percent did not use any type of inputs (compared to 8 percent for transitory crops). Organic production is mainly concentrated in bananas, mangoes, goldenberries, coffee, cacao, vegetables, herbs, and quinoa.

BOX 3.5. MOVING UP THE VALUE CHAIN THROUGH PUBLIC-PRIVATE PARTNERSHIPS IN INNOVATION: THE EXAMPLE OF COLORED POTATO CHIPS

In 2010, through the joint work of the International Potato Center (CIP) and the Processed Food Industry (Inalproces S.A.), the idea of marketing native colored potatoes in Ecuador was born. A mixed alliance, made up of the Small Producers of Potatoes Consortium (CONPAPA), international organizations, CIP, local organizations (including the National Autonomous Institute of Agricultural Research [INIAP]), local nongovernmental organizations (including the Minga Foundation for Rural Action and Cooperation [MARCO]), and the private sector (Inalproces), was established to launch the value chain for the processing and marketing of colored potatoes locally and internationally. Two varieties of native potatoes were identified and found suitable for production by farmers of CONPAPA: Yana Shungo (“black heart”) and Puca Shungo (“red heart”).

The participatory productive chain approach (PPCA) generated by CIP was implemented; several publications were produced, and various events were organized to raise awareness of the initiative among producers of native potatoes and to secure

their involvement. The PPCA approach calls for the reinforcement of the associativity of producers and the establishment of platforms for the public and private sectors to interact in the development of value chains. In addition, it promotes direct production by growers for a specific market. Within this public-private alliance, Inalproces created the Kiwa brand of colored potato chips and began exporting it to the EU through the FairTrade initiative. The company was a finalist in the 2013 Changing Markets Award, a prize awarded by the German Corporation for International Cooperation to companies and organizations that are actively contributing to a greener and more inclusive world.

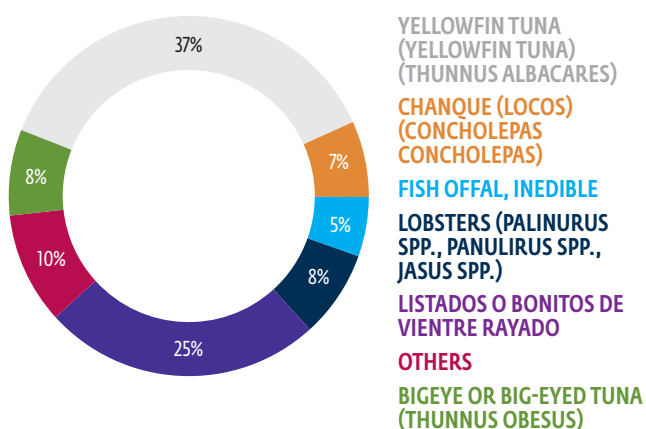
The alliance has grown, and it now includes 60 potato farmers growing under contract for Inalproces and still supported by CIP, INIAP, and MARCO. Inalproces has expanded its markets for conventionally grown colored potato chips and has obtained non-GMO and kosher certification for them. The company is also in the process of becoming organic-certified.

Source: Devaux 2016.

Ecuador's blue economy, composed of mostly shrimp, white fish, and tuna exports (and related transformed products), generated US\$3.2 billion in exports and represented 16 percent of Ecuador's export basket in 2017. Ecuador is the third-largest aquaculture producer in the LAC region, focusing on shrimp and tilapia (and trout, to a lesser extent). Shrimp is its main exported product, and Ecuador is the second-largest worldwide exporter of frozen shrimp in 2017, after India. Ecuadorian shrimp exports have a rising revealed comparative advantage, partly because of the recent opening of the Chinese market.⁷⁹ Unit prices earned by the median shrimp exporter in Ecuador to the United States are more than double those enjoyed by their competitors, reflecting the excellent quality of Ecuadorian shrimp. The value chain is composed of shrimp farms selling to processing plants, which freeze the product using IQF technology after a selection and cleaning operation. The plants sell to foreign buyers, mostly on a spot basis, either ex-plant or FOB. All processing plants use Hazard Analysis and Critical Control Points (HACCP)–certified procedures to ensure the safety of the commercial product, which is natural whole shrimp (head-on/shell-on, or HOSO). Tuna, fish filets, and whole and frozen fish (such as swordfish, mackerel, tilapia, and hake) are other major exports. Tilapia is losing market share, with exports falling by two-thirds between 2013 and 2017. Ecuadorian fish is exported mainly by sea, and mainly through the port of Guayaquil (figure 3.10). Lack of sufficient facilities to stock large quantities of fish and shrimp seems to affect the sale price of these goods, because they are sold on spot markets.

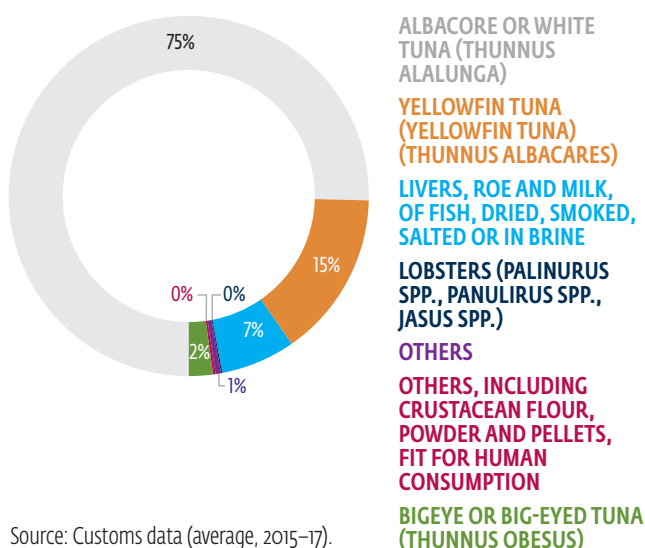
The white fish value chain includes a relatively larger proportion of small fishermen than those of other fisheries products, implying a positive impact on inclusion from export expansion. Increasing revealed comparative advantage for white fish exports (such as Mahi-Mahi or dorado fish) indicate that the subsector has the potential to grow and to become more competitive. Over 65 percent of mahi mahi landings is from artisanal fishers (Martinez-Ortiz & Guerrero-Verduga 2013). Fishermen work individually, in conjunction with a refrigerated mothership, or bring the iced product directly to shore to sell to processors. Processing includes making fillets for export and freezing them using conventional air blast technology. The processing operations use HACCP to comply with food safety standards. However, some small processors in the pond and fishing industry still lack HACCP certification (Subia Pinto 2018). In the case of fresh fish, fishermen deliver the product to exporters, who pack and chill the fish to be exported via airfreight (figure 3.11). Cargo goes in the belly of a plane from Guayaquil to Quito in order to be dispatched internationally from there. The fragmented white fish value chain, which includes artisanal vessels, complicates access to international markets because of heterogeneity in compliance with sanitary standards at the beginning of the chain, especially the risks of breaks in the cold chain.

FIGURE 3.10. FISHERIES EXPORTS THROUGH THE PORT OF GUAYAQUIL



Source: Customs data (average, 2015–17).

FIGURE 3.11. FISHERIES EXPORTS THROUGH THE GUAYAQUIL AIRPORT



Source: Customs data (average, 2015–17).

Ecuador is one of the main exporters of canned tuna and tuna loins. The industry is particularly focused on capturing the following species: yellowfin tuna (*Thunnus albacares*), bigeye tuna (*Thunnus obesus*), and skipjack and bonitos (*Katsuwonus pelamis*). Ecuadorian exporters could earn better prices for yellowfin and bigeye frozen tuna, because their prices for the median exporters to Spain and El Salvador, the respective main destination markets for the two types of fish, are lower than those received by their main competitors in those markets, including the Philippines and Spain, respectively. The industry generates approximately 24,000 direct and 120,000 indirect jobs, between capture and processing (Ministry of Trade 2017). The tuna industry also generates productive links with other activities, such as the processing of fishmeal. Tuna canneries are located along the coast (in Guayas, Manabi, and Santa Elena), with nearly 60 percent of exports coming from Manabi. Their production capacity (processing and packaging) consists of approximately 500,000 tons of raw tuna, with artisan fishery providing only about 3,000 tons per year. This value chain is highly capital intensive, requiring medium-to-large tuna vessels that fish more than 40 miles from shore. The sanitary certificate issued by the National Fishing Institute (INP) guarantees the traceability of fishery and aquaculture products from capture to harvest, reception, processing, storage, and shipping, in accordance with equivalent conditions used by the countries with which Ecuador has trade relations, and in conformity with the Codex Alimentarius standards. The INP must issue a HACCP certificate for each fishery and aquaculture processing establishment. This requirement is imposed by the national sanitary agency in charge of regulation, control, and surveillance (ARCSA) before issuing and renewing the establishment’s Good Manufacturing Practice certificate (Ministry of Trade 2017).

Cross-Cutting Constraints Holding Back Competitiveness

High production costs, insufficient access to international markets and to finance, and low levels of innovation were some of the policy priorities highlighted by the Ecuadorian agribusiness private sector. In 2017, the government collected feedback on the main issues that the private sector faced in terms of regulatory compliance. Close to 3,000 representatives of the private sector participated and highlighted numerous issues, among which 30 directly relate to the export of perishable products. Some of the main issues and requests related to taxation included (a) reducing the tax burden, including by phasing out the capital exit tax; (b) improving duty drawback compliance; and (c) strengthening export incentives. Financial needs included strengthening capital markets and improving access to financing for exporters. Suggestions on labor market regulations included increasing flexibility in hiring (i.e., allowing hourly positions). Simplification of paperwork and procedures was also highlighted. A policy to support competitiveness, including laboratories specializing in certification; capacity building for producers; and more resources for agricultural research, PPP innovations, and technology transfer, was another perceived need. Regarding access to markets, signing more trade agreements, including with Russia and the United States; ensuring proper implementation of the agreements already in place; and designing a trade policy and export performance strategy were highlighted as priorities.

Labor market rigidities, especially the difficulty of hiring seasonal and temporary workers and high firing costs, restrict the private sector's ability to adapt rapidly to changing market conditions. Nonwage costs in Ecuador are high by LAC standards, and compliance paperwork is burdensome. Indeed, Ecuadorian firms spend more time dealing with social security paperwork relative to their peers (WBES 2017). Recent efforts to facilitate hourly hiring for specific sectors have had limited uptake by firms. Also, the cost involved in dismissing personnel is higher in Ecuador than in any other Latin American country. This high cost hampers firms' ability to respond to economic slowdowns and delays hiring during recovery, and it makes it difficult for agribusinesses to adapt their employment structure to the crop harvesting cycle. The lack of flexibility in labor market regulations also has unintended consequences on workers, because firms are increasingly investing in labor-saving technologies to reduce labor costs (such as in the shrimp industry).

Ecuador suffers from a lack of preferential market access relative to its competitors coupled with a complex and highly protective structure, impairing its agribusiness competitiveness and value-added upgrading. Only two comprehensive free trade agreements have been signed by Ecuador, compared with 22, 13 and 8 signed respectively by Chile, Peru, and Colombia. Lack of mutual recognition of sanitary and phytosanitary standards, including with neighboring countries, also limits Ecuadorian exporters' access to markets. As agrifood exporters tend to depend on imports for between 40 and 70 percent of their inputs, tariff and nontariff barriers, as well as the capital exit tax, undermine their competitiveness. Agroindustries for which Ecuador has a revealed comparative advantage are relatively intensive in higher-quality imported intermediary inputs and technology-intensive capital goods. For instance, 67 percent of exporters of prepared or preserved fish and 40 percent of exporters of cocoa and other food preparations containing cocoa were also importers in 2017.

Lack of access to finance constrains farmers' abilities to align their production and harvesting practices to stringent export requirements. In 2017, 94 percent of farmers used their own funds to finance productive activities, three percent used funds from private commercial banks, and less than one percent used funds from cooperatives (ESPAC 2017). This low level of use of formal financing limits smallholder farmers' capacity to participate in export value chains that require more sophisticated production and harvesting practices and infrastructure in order to meet higher quality standards.

Exporters of perishable products also face domestic and international transportation and logistical challenges. Freight transportation services are highly fragmented and dominated by individual carriers and small companies. This fragmentation reduces the possibility of capitalizing on economies of scale, integrating logistic services, and maximizing the flow of information to customers. There is limited specialization in services, specifically in cold chain management, picking/packing processes, and inventory management in distribution centers, partly because of a lack of consolidation centers and associated infrastructure. Ecuador is connected to the maritime network mainly via branch lines (as opposed to main lines between hubs), putting it at a disadvantage compared to other countries, particularly when it comes to regional integration.⁸⁰ High air transportation costs and a lack of competition in the air cargo market also present a challenge (Vega 2011). Once Ecuador's Open Sky agreement is implemented through bilateral agreements, the liberalization of the air transportation sector is expected to foster an expansion in airfreight services in the country.⁸¹

Sector-Specific Constraints

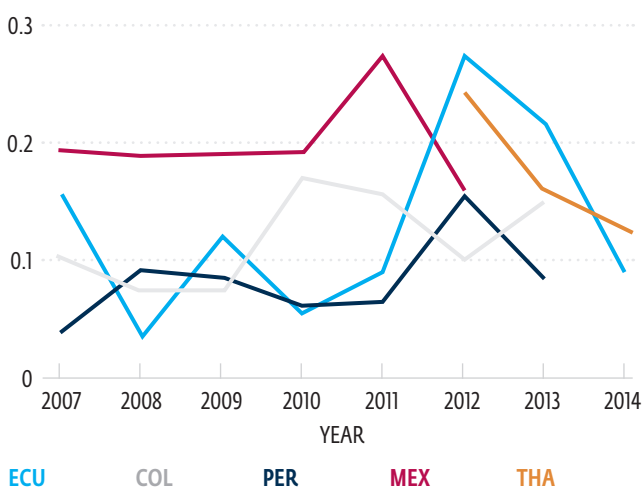
Despite significant improvements since 2012, Ecuador suffers relatively more than other countries from import rejections in the U.S. and EU markets because of noncompliance with food safety standards, breaks in the cold chain, and excess use of pesticides and fertilizers, among other issues (figures 3.12 and 3.13). For fruit and vegetable exports to both the United States and the EU, common reasons for rejection are poor hygienic conditions caused by ineffective controls, excessive rates of pesticide use, and mycotoxins and other microbiological contaminants (EU and U.S. 2007–17 data). For fish and fishery products, the choice of food and feed additives, bacterial contamination, poor hygienic conditions and control, the presence of heavy metals, adulteration, and missing documents, as well as rupture in the cold chain, are among the most usual causes for rejection (UNIDO 2012; EU 2007–17 data).

Although public efforts have been made to promote certification and strengthen the nation's quality infrastructure, low firm and farm adoption of internationally recognized quality standards is a main reasons for import rejections. If a food safety system is weak or faulty at the farm or fishing ground, the whole system becomes suspect, and it is very difficult, if not impossible, to make the food whole again along the supply chain. This is the main reason most resources in food safety need to be allocated at the primary production sites. Unfortunately, in Ecuador, coverage (the number of farmers, fishermen, and exporters certified) is deficient because of a lack of resources. Indeed, only 12 percent of Ecuadorian farmers have sufficient knowledge of

food safety issues, and just 7 percent of Ecuadorian firms possess an internationally recognized quality certification, compared with 21 percent in Colombia and 14 percent in Peru (ESPAC 2017 and World Bank Enterprise Surveys). This discrepancy may be caused by the high cost of such certification and a lack of access to finance by farmers and small and medium enterprises to fund the required changes in their production systems (World Bank 2016a).

FIGURE 3.12. UNIT REFUSAL RATES IN THE U.S. MARKET

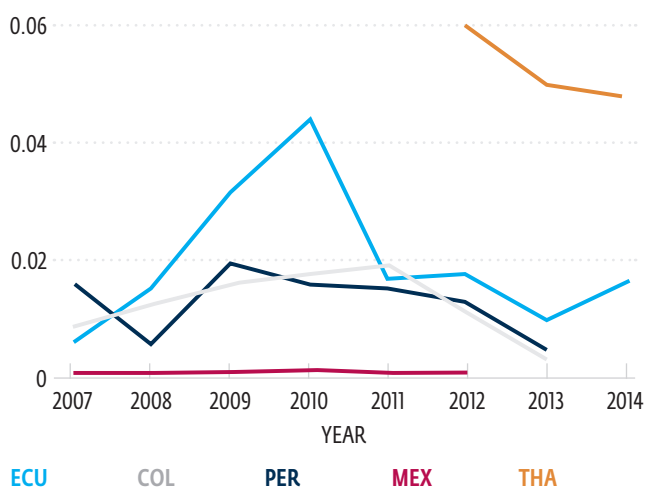
Unit Refusal Rates by Country



Source: U.S. FDA and exporter dynamics database.

FIGURE 3.13. UNIT REFUSAL RATES IN THE EU MARKET

Unit Refusal Rates by Country



Source: EU and exporter dynamics database.

Physical inspections at the Ecuadorian border by the antinarcotics police impact the quality of perishables exported. There is a relatively high risk of cargo contamination by drugs. Police reduce risk through a comprehensive physical inspection of a small percentage of containers upon arrival at ports and a faster inspection of about 15 percent of containers just before they are loaded onto vessels. Some containers are inspected twice, and sometimes containers that have been loaded onto vessels are taken down for physical inspection. Apart from reducing port efficiency, increasing logistics costs, and delaying shipments, these inspections can be especially damaging for reefer or controlled-atmosphere containers containing perishable products, because they break the cold chain, increase the risk of introducing forbidden pests, and often damage several cartons as well as the packing. Limited technology is used in these inspections, and there is little coordination with other border control agencies.

With more services being demanded by exporters in the past few years, public institutions have lacked the resources, especially information technology and human resources, required to guarantee efficient service delivery. Exporters face delays in obtaining export certificates, including phytosanitary certificates, mandated by importing countries. The process of registering pesticides is both cumbersome and lengthy even if the pesticides are approved by export markets, although recent regulations have reduced commercialization costs for chemical pesticides and registration costs for biopesticides applied to export-oriented crops. The lack of mutual recognition of quality standards in export markets is also among the main constraints faced by Ecuadorian exporters (World Bank, 2018b). Reforms are under way to require good agricultural practices (GAP) certification for exporters and producers in the country, and Ecuador's certification will be harmonized with the internationally recognized GlobalGAP certification so that certified farmers and exporters in Ecuador can receive official certification from the GlobalGAP organization (GLOBALGAP 2018). Such a policy is likely to foster quality upgrading, connection to global value chains, and technological progress as well as lowering costs of aligning production processes with international certifications. However, appropriate support, including through financial mechanisms, is necessary to ensure that compliance capacity does not become a limitation that excludes some firms and farmers from the market.

The implementation of minimum prices and the purchase of excess production in Ecuador tends to distort relative prices, and could be lowering the incentives to improve quality and to switch to higher-value but riskier crops. Ecuador intervenes in the marketing of certain agricultural products by establishing minimum support prices. In 2018, a minimum support price was applied to rice, bananas and plantains, coffee, maize (corn), quinoa, soy, wheat, cotton, sugar cane, and milk. For some of these products, including rice, maize, quinoa, soy, wheat, and coffee, a domestic crop absorption commitment was also required to ensure that the agroindustrial sector purchased all domestic production. Import quotas were temporarily established for rice, coffee, maize, quinoa, soy, and wheat as part of this system (WTO Secretariat 2019). The publicly-owned National Storage Unit buys products such as rice, yellow flint corn, and soy, guaranteeing the farmer the minimum support price throughout the year. Such measures are likely to induce oversupply irrespective of market demand, and they may reduce the incentive to innovate and diversify toward higher-value-added but riskier crops. Upstream segments of the value chain could also be losing competitiveness because of high prices or low product quality.⁸²

A lack of irrigation is likely to affect farm productivity. Although agriculture is the main consumer of freshwater in Ecuador (83 percent), only 32 percent of the surface cultivated for banana and cacao, two large export crops, was irrigated in 2017 (ESPAC 2017). Around 1.5 million hectares of agricultural land are irrigated, and although this land represents just 15 percent of the cultivated area, it makes up 70 percent of agricultural production. The most irrigation-intense crops in Ecuador are rice, bananas, sugar cane, horticulture, and maize. The bulk of irrigation relies on traditional methods such as flooding, which are characterized by low water efficiency and limited water storage capacity. This leads to comparatively low water productivity. Although Ecuador is, on average, rich in per capita water resources, regional and seasonal scarcities do occur. Regional and seasonal variation in precipitation patterns, the lack of a hydrological monitoring network, deforestation and poor land management, inefficient irrigation patterns, and altered precipitation patterns caused by climate change render many areas vulnerable to water stress. Six out of 70 water basins in the province of Manabí, and the south and east of the Gulf of Guayaquil, already experience water scarcity (World Bank 2018b).

Recommendations for Perishable Export-Oriented Value Chains

1. **Address productivity gaps relative to the main international competitors.** Ecuador is lagging behind competitors in aggregate yields per hectare for bananas, mangoes, pineapples, and some vegetables, such as asparagus and kidney beans. Identifying whether there is a similar trend for value produced and sold per hectare is needed, because Ecuador can position itself in more sophisticated segments of value chains by exporting relatively more crop varieties or organics with higher unit prices but lower yields (such as specialty coffee). Understanding the constraints to raising farmer productivity and the policies and programs needed to address them is a priority. For instance, productivity gaps seem more important at the smallholder level, and access to finance as well as agricultural extension related to technical training, pest management, and disease control and quality requirements appear to be critical needs. Labor market rigidities, however, may be relatively more constraining for the productivity growth of commercial farms.
2. **For high-volume, low-value products, a move into organic production to increase unit prices should be considered.** International demand for organic products is growing, and domestic opportunities are also increasing as the urban middle class grows and ecotourism hotels and restaurants develop. The organics market is a low-hanging fruit for Ecuador, especially for value chains that already have an export infrastructure, experience, and know-how in place. Exporters are already familiar with the United States and EU logistics, import norms, and regulations. Transitioning into organics would therefore require only the adoption of new production practices and international certifications.⁸³ Emerging farmers' associations selling in the domestic market are already using agroecological or bioecological production technologies. These associations are supported by nongovernmental organizations (NGOs) that have developed their own standards, certifications, research, and training centers (such as CINCA). These networks could be used as an anchor to

incentivize farmers to move into export-oriented organic production. However, although evidence regarding the impact on farmers' net investment returns of a move to organics remains mixed (Ibanez and Blackman 2016), conversion programs that incentivize cost-sharing for inspection, quality, and market access improvement services, as well as technical advice to improve productivity and quality, are key to ensuring that certification brings long-term benefits in terms of both price premiums and yield improvements (Lohr, 2001).⁸⁴

3. **For high-volume, low-value products, diversifying export markets and reaching more distant destinations using shelf life-enhancing technologies is recommended.** Ecuador could gain in competitiveness by exporting to markets where competitors, including Costa Rica and Mexico, have a smaller presence. For instance, the Ecuadorian fresh pineapple industry is diversifying its markets from the United States and the EU toward Argentina, Chile, and Uruguay.⁸⁵ Greater use of modern cold-chain post-harvest technologies (e.g., controlled atmosphere) can also allow the export of perishable products to more distant markets in Asia.⁸⁶ Trial shipments to test the technology and increase the confidence of exporters in their use would be a useful step.
4. **Strengthening producers' organizations in low-volume, high-value exotic fruits and vegetables would facilitate economies of scale and improve coordination.** Strengthening producers' organizations, including those participating in value chains through anchor firm-supplier models, could support smallholders' productivity and their ability to comply with stringent export quality controls. Producer groups have shown to be effective aggregators and good vehicles to access both output and input markets, negotiate good prices, and share larger investments in postharvest handling, aggregation, and processing, among other uses. Nevertheless, in Ecuador most of these groups lack the necessary skills and financial resources to implement key investments and procedures and lack the skills to market their goods. Following the example of flowers exporters, strengthening producer associations in the exotic fruit value chains could improve the predictability of access to airfreight transportation services, which is key for new exporters, for whom missing a deadline can have high reputational risk.⁸⁷ The network of associations of small farmers created with the 2008 Constitution could be strengthened to become an export platform for nontraditional products. This change would require investments in cold chain infrastructure, the construction of gathering centers, capacity building for agencies providing services to exporters, and the promotion of PPPs (models are already in place and could be built upon). (See box 3.6 for more information.) An understanding of the structure of the international value chain is key when assessing the feasibility of direct exports for smallholders. Indeed, for Ecuadorian exporters to remain competitive given volume and quality needs, smallholders may need to be linked to a large company.

5. **Strengthening fishermen’s associations would improve coordination and economies of scale in access to transport and logistics facilities as well as health, sanitary, and sustainability certifications.** The fragmented nature of the Ecuadorian white fish industry makes coordination between actors and the certification process needed to comply with strict traceability systems costly. Strengthening associativity is important if these small actors are to benefit from economies of scale in the use of shared infrastructure and the demand for certifications to access foreign markets. Because fresh fish has a higher unit price than frozen fish but requires more complex transport, logistics, and processing, improving infrastructure and building capacity is necessary for artisan fishers to move up the value chain.
6. **Investments at various stages of the value chains are needed to meet sanitary requirements in foreign markets, especially the United States.** Deeper collective action to promote public-private partnerships should be fostered in order to overcome problems, such as specific needs regarding infrastructure or logistics, sector quality standards, phytosanitary requirements, certifications, value chain tracking, and technical training. This action is particularly important today, because sanitary compliance increasingly starts at the farm (e.g., through standards such as the United States’ new Food Safety Modernization Act, GlobalGAP, and HACCP). This development puts at risk the capacity of small producers of primary products (such as fruit and vegetable producers, small fisherman) to participate in export-oriented value chains. (See also appendix F.)

For instance, the Food Safety Modernization Act (FSMA) in the United States establishes new food safety requirements that will enter into force in the next two to three years. Among the new requirements is the need to conduct a risk analysis from the farm to the consumer table. The Food and Drug Administration (or authorized third parties) will verify compliance with on-site inspections in exporting countries. To comply with the FSMA, Ecuador will need (a) a traceability system that is maintained across all stakeholders within the value chain, and (b) stronger institutional capabilities for Agrocalidad to conduct inspections and provide guidance to producers. Specific recommendations for Ecuador to comply with the FSMA include the following:

- Improving the risk-management system to reduce the number of physical inspections and the likelihood of product damage without compromising security. Antinarcotics police inspections increase the risk of product damage, including by breaking the cold chain. For instance, introducing an exchange of information between Customs and the police, improving scanning technology, and fostering the use of tracking and tracing systems by transportation and logistics operators would improve efficiency in control while still facilitating trade.

- Strengthening institutional capacity and allocating appropriate resources to agencies providing services to exporters (such as Agrocalidad, ProEcuador) in order to (a) improve inspection efficiency, (b) provide market intelligence and guidance on compliance with international sanitary and phytosanitary norms and standards (especially for smallholder farmers), and (c) promote the establishment of clusters or export organizations. Reducing subjectivity in the implementation of inspection manuals is needed, especially for products from emerging value chains or products that are relatively more complex to inspect. Factoring in the sales cycle (seasonality) of some value chains would also allow the anticipation of surges in demand and the efficient allocation of scarce public resources. An extensive training campaign is required to inform all concerned government entities and private sector actors of the new measures and to ensure compliance. The issuance of a phytosanitary certificate for export should be automatic for GAP-certified farmers and exporters, avoiding the delays that now affect the export process in Ecuador.
 - Incentivizing collective action to meet international standards by strengthening firms' networks in order to overcome sector-specific coordination failures. Frequent import rejections could have reputational effects and could even lead to market closure, such as was the case with Brazil nuts (box 3.6). For instance, collection points that comply with efficiency requirements for sanitary, transportation, and logistics services are lacking near Ecuador's production areas, primarily in the highlands, to serve small grower associations. The demand for GlobalGAP certification will grow significantly; thus, addressing the issue of lack of inspectors is key. Public-private partnerships could contribute to this effort, because most of the certifiers are private firms accredited by the GlobalGAP organization. Fostering economies of scale by increasing demand for such infrastructure and services in Ecuador through collective action could incentivize private sector investments in these areas.
7. **Improve skills for international quality standards certification and cold chain management.** Lack of knowledge and training in postharvest handling and, especially, in cold chain management is a major constraint in Ecuador's food safety system (Salazar Gonzales 2018). There are very few professionals trained in these fields to support the expected surge in exports. Because accredited certifiers are not available in Ecuador, Peruvian inspectors are brought in for preparation and European inspectors for certification, increasing certification costs. Transport and logistics operators, processors, wholesalers, distributors, and retailers in Ecuador need to know how to properly maintain the cold chain for chilled and frozen product handling and how to improve distribution and shipping practices. (See also the analysis of the transportation and logistics sector in the following section.)

BOX 3.6. SOLVING PUBLIC-PRIVATE COORDINATION PROBLEMS: THE CAUTIONARY TALE OF BRAZIL NUTS, AND THE PERSUASIVE CASE OF PERU'S MESAS EJECUTIVAS

Brazilian firms used to dominate the Brazil nut market—to such an extent that the product still carries the country's name. In July 1998, European Union (EU) authorities decided that beginning in 1999, they would enforce tighter sanitary standards, including permissible levels of aflatoxins (a carcinogenic substance produced by certain molds living on edible nuts). To retain access to the EU market, Brazilian producers would have to upgrade their capabilities; however, they were unable to work cooperatively and lost access to the market entirely. In contrast, Bolivian producers prevailed because they joined forces to revamp their manufacturing practices and meet EU sanitary standards—with firms and the government working together to mandate that all outgoing shipments be tested for aflatoxin and to acquire a lab to fulfill testing requirements. By 2010, 77 percent (in value) of all Brazil nuts consumed worldwide were processed in and exported from Bolivia.

In the period between December 2014 and May 2016, the Ministry of Production of Peru created eight mesas ejecutivas (MEs, or executive working groups): six industry-specific, or vertical (forestry, aquaculture, creative industries, textile, gastronomical, and agroexports), and two cross-industry, or horizontal (logistics and high-impact

entrepreneurship). MEs are public-private working groups that aim to identify and remove bottlenecks and add missing public inputs. The Peruvian government helps address identified public inputs, such as reduction of red tape, helps firms to comply with technical requirements for new export markets, invests in public infrastructure, and helps design industry-specific training programs—but does not provide tax exemptions or subsidized credit. For example, the forestry ME obtained coordination between several public entities across line ministries and different levels of government to solve specific jointly identified public good-type bottlenecks. The group's achievements include passing a new law and regulation recognizing plantation trees as crops, removing the requirement of a permit to extract wood from plantations, and reducing the registration time for plantation properties from up to one year to three days. A new protocol that applies the same timber resource standard at national, regional, and local levels of government has been passed. Investors and reforestation companies have started a process to establish, for the first time, a business association that represents their interests. And some of the largest global forest funds have started to invest in Peru.

Sources: Dutz 2018, based on Coslovsky 2014 and Ghezzi and Uttervulghé 2017.

TABLE 3.7. RECOMMENDATIONS

RECOMMENDATIONS		PRIORITY AND TIME FRAME	STATUS
Export diversification	Incentivize organic production to increase unit prices, especially for high-volume, low-value fruits and vegetables.	Medium term	Not implemented
	Diversify export markets by negotiating bilateral trade agreements, including mutual recognition of sanitary and phytosanitary measures; and using shelf life-enhancing technologies to reach more distant destinations.	Short to medium term	Under consideration
Farmer productivity growth	Identify the constraints to productivity growth and the policies and programs needed to address them, especially in terms of access to finance, labor regulations, and agricultural extension for technical training, pest management, and disease control and quality requirements.	Short term	Not implemented
Motivate collective action	Foster economies of scale in demand for transportation and logistics facilities, as well as health, sanitary, and sustainability certifications, through collective action to overcome sector-specific coordination failures and incentivize private sector participation in the required investments. Strengthening producers' organizations in low-volume, high-value exotic fruits and vegetables as well as fishermen's organizations in white fish is particularly needed.	Medium term	Not implemented
Skills	Improve skills for international quality standards certification and cold chain management	Medium term	Not implemented
Public agencies	Improve the risk-management system of the antinarcotics police to reduce the number of physical inspections and the likelihood of product damage, including breaks in the cold chain, without compromising security.	Short term	Not implemented
	Harmonize norms on pesticide use among the Community of Andean Nations countries, which have similar agroclimatic conditions, to reduce registry delays and costs that could lead to lower prices.	Short term	Under implementation
	Strengthen institutional capacity and allocate appropriate resources agencies providing services to exporters (e.g., Agrocalidad, and ProEcuador) in order to (a) improve inspection efficiency, (b) provide market intelligence and guidance on compliance with international sanitary and phytosanitary norms and standards (especially for smallholder farmers), and (c) promote the establishment of clusters and export organizations.	Short to medium term	Not implemented
	Act to bring Ecuador into compliance with the United States's Food Safety Modernization Act in the next three years by establishing (a) a traceability system maintained from the perspective of stakeholders within the value chain and (b) stronger institutional capabilities for Agrocalidad to conduct inspections and provide guidance to producers.	Short term	Under implementation

C. TRANSPORTATION AND LOGISTICS FOR PERISHABLE AGRICULTURAL EXPORTS

Introduction

Transportation and logistics offer untapped potential for job creation and domestic value addition in Ecuador. In 2019 the sector represented 7.3 percent of Ecuador GDP. Transport was the third industry by production just behind construction and commerce. Road transportation accounted for 26.1 percent of the total sector revenues, while aggregated water transportation items accounted for 19 percent, aggregated air transport (cargo and passengers) represented 9.3 percent, followed by logistics supporting activities (planning, design, support, distribution and storage) with 9.2 percent. It is one of the most job-intensive sectors in Ecuador, with more than 7,000 firms employing more than 520,000 workers, representing 6.5 percent of the entire country employment. As backbone services, transport and logistics also have among the densest links with the rest of the economy, especially with export-oriented goods' value chains. Transport has shown high correlation with Ecuador's GDP, with an average growth rate slightly higher than the country GDP since 2013. However, the growth rate of Ecuador's transport exports, at three percent per year between 2005 and 2015, also lags that of other sectors, suggesting that the industry has not been able to keep pace with the growing needs of other sectors.

Ecuador's export competitiveness is highly dependent on the timely availability at an affordable price of high-quality services and infrastructure that facilitate the movement of goods, especially perishables, from production to international markets. Ecuador benefits from exceptional agroclimatic conditions that allow it to produce off-season a wide variety of high-value crops. Exporters can take advantage of high-demand windows in developed countries by selling when the supply is low and prices are high. Such a strategy is highly dependent on the following conditions: (a) being able to optimize on short notice the transportation mode to deliver during short windows of time; (b) allowing small producers of high-value, low-volume products who are unable to fill an entire truck or container to access agglomeration centers near production sites, preferably close to the port, in order to reduce internal trade costs; and (c) reducing spoilage by ensuring full continuity of the cold chain.

Ecuador's export successes in bananas (it was the no. 1 producer globally in 2017), shrimp (no. 2 in 2017), flowers (no. 3 in 2017), cacao (no. 4 in 2017), and tuna (no. 2 in 2017) have enabled the development of transportation and logistics infrastructure and services that are benefiting emerging value chains. The port of Guayaquil and the airport of Quito (and, to a lesser extent, Guayaquil) have put in place infrastructure and services to respond to the needs of successfully established value chains. Such an environment can be harnessed to grow emerging value chains with increasing revealed comparative advantage. For instance, Ecuador exports significantly more fruits and fish products than its much larger neighbors, Colombia and Peru. For these products, land, maritime transportation, and airfreight are all important modes. Land transportation generally serves to get products from farms to packing stations and on to the airport or port. Maritime transportation is most often used for low-value, high-volume products (such as bananas, pineapples, mangos, papayas, and some fishery products). Air transport is preferred for high-value, low-volume exotic fruits as well as other fishery products.

The port of Guayaquil is the main point of exit for agriculture exports (in terms of both value and volume); the Quito airport is a key exit gate for high-value, low-volume agricultural exports; and land border posts with Colombia and Peru attract exports of animal feed and processed food. Guayaquil attracts 72 percent of the total country exports (with the remaining 28 percent equally shared between Puerto Bolivar and Quito airport and Tulcan). On average, for the period 2015–17, the port of Guayaquil attracted more than 90 percent of export value for most fishery products, fruits, vegetables, cocoa, and transformed food products. Products that also used alternative exit gates include fishery products, with more than 35 percent of the value being exported through the Guayaquil airport (usually with a trans-shipment in Quito before reaching the destination), close to 7 percent passing through the port of Manta, and 5 percent shipping out directly through Quito airport. For animal feed, 50 percent of the value is exported through the land border post with Peru, and less than 2 percent is exported through the land border post with Colombia (which also receives more than 10 percent of exports of flour and of fish meal). More than 10 percent of chocolate in terms of value is exported through the border post with Colombia, and close to 5 percent is exported through the airport in Quito. Close to 10 percent of fruit value is exported through the airport in Quito, and 2 percent is exported through the airport of Guayaquil. Regarding processed food, the land border post with Colombia sees close to 10 percent of the export value for prepared fish and sugar confections.

The significant development of Ecuador’s fisheries and exotic fruit exports has led to a diversification in the demand for transportation modes and ports of exit, spurring requests for multimodal solutions for the specific needs of these new value chains.

The substantial expansion of fisheries exports (mostly tuna) after 2006 diversified the demand for transportation modes and ports of exit. Most of the fisheries’ value started to be exported via the port of Guayaquil, while the port of Manta gained market share after 2012. The Guayaquil airport became the second port of exit in terms of value, but the Quito airport emerged as the main airfreight platform, because cargo tends to be transshipped there before leaving Ecuador. Likewise, the emergence of high-value, low-volume exports of exotic fruits (e.g., pitahaya and maracuja) since 2014 has led to a sustained increase in demand for airfreight services in Quito and, to a lesser extent, in Guayaquil. The diversity of modes of transport and port of exits requested by the producers and exporters in these new value chains requires tailored multimodal solutions.

The transport and logistics sector in Ecuador is attracting FDI through public-private partnerships (PPPs). After having received negative net FDI inflows since 2010, transportation, warehousing, and communications has registered a positive, albeit small, net inflow of US\$42 million on average per year since 2016 (BCE 2019). For instance, DP World has completed the first phase (US\$538 million of a total investment of US\$1.2 billion) of the deep-water port of Posorja, now operational. The project includes the development of a logistics zone. The Chilean operator SAAM, which has operated the Guayaquil port terminal (Terminal Portuario de Guayaquil,

or TPG) since 2006, has invested more than US\$76 million since 2016 to expand the port's container cargo capacity, reinforce infrastructure and equipment and enter the bulk cargo market. However, Ecuador lags significantly behind competitors on private investment in transportation channeled through PPPs, registering a commitment of US\$665 million in 2016 (for the widening and modernization of the Rio Siete-Huaquillas 95 km highway through a 30-year concession by Consur) after a nine-year absence of such private investment. In comparison, there were US\$2.7 billion and US\$1.4 billion of average annual private investment commitments in Colombia and Peru, respectively, for the same period.⁸⁸ Ecuador's gaps in adherence to the best regulatory PPP practices seem to be one of the country's major impediments to attracting more private investment, especially at the procurement stage.⁸⁹

Fostering economies of scale, PPPs, tourism, and developing logistics platforms are among the main priorities defined by the government of Ecuador in its 2013–37 Strategic Mobility Plan. The national plan includes several objectives across a 24-year horizon. The construction of infrastructure and services that foster economies of scale in the demand addressed to maritime ports, as well as within-country regional integration, are among the main priorities for 2020, while the construction of logistics platforms to transform Ecuador into a regional logistics hub (including for the Manta-Manaus corridor) is planned for 2037. However, the fiscal crisis of 2014 and the subsequent recession limited the capacity of the government of Ecuador to implement the strategy.

Land Transportation

Ecuador's road density and quality are similar to Colombia's and higher than Peru's, but challenges in network maintenance might erode its comparative advantage. With 18 km of roads per 100 km², Ecuador's road network density in 2015 was close to that of Colombia (19 km/km²) and higher than that of Peru (10 km/km²) (figure 3.14). Its overall road quality, measured as the percentage of paved roads in the total road network, registers a similar regional ranking (14.8 percent in Ecuador versus 14.4 percent in Colombia and 13.3 percent in Peru (World Development Indicators). Following significant investments in rehabilitation of the roads with the highest average daily traffic, by 2015 Ecuador's primary road network was also in better condition than those of regional peers, with 75 percent of the roads being in good condition, compared with 70 percent in Colombia and 55 percent in Peru (figure 3.15).⁹⁰ However, in an environment of fiscal pressure and downsizing of the state, maintaining the primary road network would require PPPs.⁹¹ Load monitoring practices for freight transportation operators could also be revised, seeing as the freight cargo weight is checked only at ports, and only the overall weight is assessed (not the weight per axle or weight distribution) while a documental review is being carried out on main roads.⁹² Because incorrect weight distribution along the truck can damage roads, overload practices could put at risk the large public investments that have been made in road rehabilitation in recent years.

FIGURE 3.14. ROAD DENSITY (KM/100 KM2)

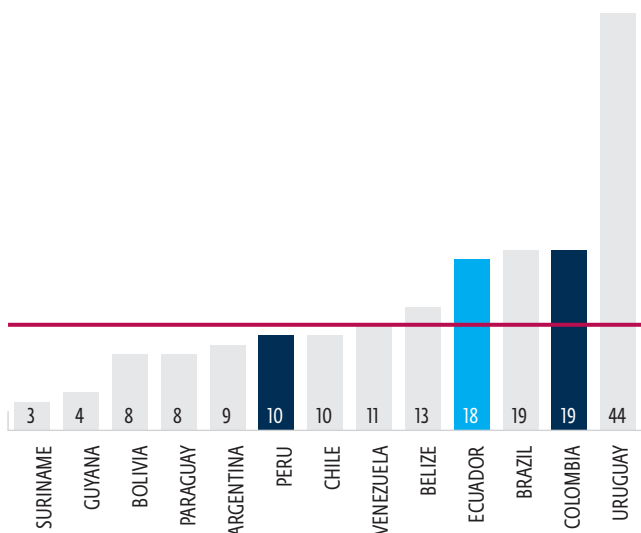
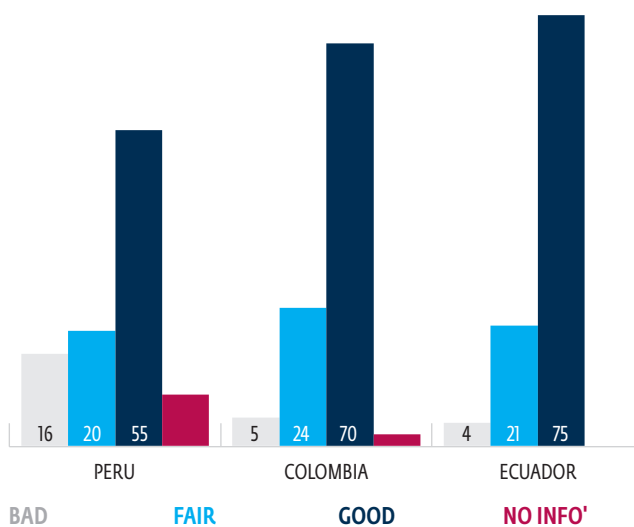


FIGURE 3.15. ROAD CONDITION (PRIMARY ROAD NETWORK, PERCENT)



Source: World Bank 2015, Ecuador Ministry of Transport 2018.

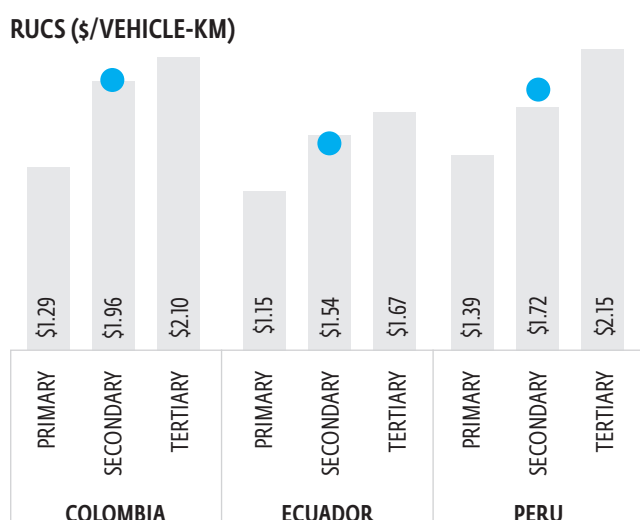
Ecuador’s road network covers a rough topography, and tertiary roads are often of poor quality, impacting the competitiveness of perishable exports produced in remote areas that face a “last mileage” accessibility bottleneck. Of Ecuador’s land area, 76 percent is hilly or mountainous, versus 69 percent in Peru and 45 percent in Colombia (World Bank 2015). Furthermore, only 64 percent of Ecuador’s overall public road network, including secondary and tertiary roads, had “good” or better conditions by 2018.⁹³ Only 52 percent of rural population are within two kms of an all-season road (Rural Accessibility Index). As the public rehabilitation program prioritized primary roads with high daily traffic, corridors registering relatively lower transit but that are highly relevant to market access for strategic products might have been left aside. A rough topography combined with unpaved roads in bad condition, causes delays, product losses, and increased transport costs from production zones to packing or agglomeration facilities (sometimes even impeding the access of containers to the production site, especially during the rainy season). Because the trip from the production site to the packing facility or the port of exit (such as an airport or port) tends to be done by unrefrigerated trucks, such infrastructure challenges constrain the competitiveness of producers and exporters of perishable goods located in remote areas.⁹⁴

Road freight transportation operators remain highly informal and fragmented. There are 6629 registered cargo transportation firms in Ecuador, and 421 cooperatives with almost 12,000 members. About 7 percent of firms working in transportation and logistics are road freight transportation operators. The number and availability of trucks, including trucks with refrigerated containers, has increased over time (INEC 2018). According to the Ecuadorian Ministry of Transport, the vehicle population is composed of 220,704 trucks, with 78 percent of them operating informally (without an operation permit). Many of these informal operators are man-and-his-truck companies (*hombre-camión*), and around 80 percent of these companies have trucks more than 10 years old, which are less efficient and remain underutilized. For heavy cargo there is an estimation of 53,770 vehicles with a regular permit that represent 39 percent of the total. The remaining 61 percent are informal either with a permit for other activity (23 percent) or with no authorization to operate (38 percent). Because the vehicle registration process and the technical vehicle reviews are performed in municipalities (GADs), which have heterogeneous capacities to verify standard compliance, some operators strategically select municipalities with lower capabilities in order to pass their tests.⁹⁵ This unfair competition from informal operators is putting pressure on formal firms, which pay taxes and other fees and have more environmentally friendly and safe fleets. To disincentivize exporters from using the services of informal operators, informal truckers have been restricted from entering primary zones in ports and airports. This measure is likely to favor formalization in the sector and improve security in such sensitive areas. The road transportation fleet in Ecuador is composed of 40 percent heavy trucks (much less than the 77 percent in Colombia but above the 32 percent in Peru), which suggests high fragmentation of transportation into small trucks. This is partly caused by the shorter distances from farm to port of exit, but it is also likely because of a lack of agglomeration centers near production sites. The regulatory framework offers little economic or regulatory incentive for operators to modify their “man-and-his-truck” operating model.

Road freight and logistics services operators in Ecuador have a limited use of ICT both for operational efficiency and government monitoring. This use began decades ago for fleet management, route optimization, tracking, energy efficiency, and maintenance and asset management (in addition to all-purpose technologies such as billing and human resource systems). Technologies have been constantly evolving: global positioning system (GPS), radio-frequency ID, cloud computing, wireless and mobile communication technologies, and the Internet of Things provide real-time visibility, efficient data exchange, optimized fleet management and repair, and improved flexibility to handle dynamic situations for trucking and for multimodal transportation in general. For transportation of perishable products, for instance, ICTs enable operators to access information on cargo temperature and humidity, allowing them to optimize these variables to the product transported and to identify any break in the cold chain. In Ecuador, ICT technology in trucking, such as GPS monitoring and the use of electronic seals for vehicle tracking, is used mostly for security purposes rather than to optimize cold chain management or operator efficiency (although some large companies interviewed are planning to implement ICT systems, such as fuel recording and maintenance and asset management systems, to improve their operations).⁹⁶ The government has limited real time information about road operators.

Despite relatively high labor and import costs, road user costs (RUCs) are lower in Ecuador than in regional peers. RUCs were much lower in Ecuador than in Colombia and Peru in all segments of the road network in 2015 (figure 3.16). Better-quality primary roads have also contributed to lowering RUCs in Ecuador, increasing speed and reducing fuel and maintenance costs. RUCs have likely also benefited from falling waiting times since June 2018, when port depots moved to a time-slot allocation system operating 24-7 (except for reefer depots).⁹⁷ Crew and maintenance labor represents a much higher percentage of operating costs in Ecuador (22 percent) than in Colombia (10 percent) and Peru (6 percent), because Ecuador has hourly wages 50 percent higher than its neighbors as well as higher nonwage labor costs. High import tariffs for new trucks, which range from 15 to 35 percent depending on specifications and axles, as well as for truck parts also raise RUCs by increasing fleet modernization and maintenance costs. Empty hauls caused by limited use of ICTs and consolidation infrastructure are also likely to increase RUCs. The lengthy procedures needed to obtain operating permits from ANT also affect operators' willingness to modernize their fleets, seeing as they cannot use their new trucks during the process, which can take up to four months (while interest rates, import duties, and other costs related to buying new units are paid upfront). Finally, although the Plan Renova scrapping program in place since 2008, which removed import tariffs, provided financial incentives, and granted subsidized loans for the purchase of new trucks, was a step in the right direction, frequent changes to the program's selection criteria and uncertainty in its implementation limited its effectiveness.⁹⁸

Road freight rates are lower in Ecuador than in competitors, including for reefer containers, partly because of shorter internal distances to travel, and container demand from banana exports. Rates range between 7 and 15 U.S. cents per ton/km for reefer containers, which is a competitive price for LAC, although higher than such prices in developed countries.⁹⁹ Exporters have an advantage in terms of distances, because Ecuador is a much smaller country than Colombia or Peru. Hence, the prices that Ecuadorian exporters pay for domestic road freight transportation from farm to border post are relatively lower than those of their competitors. If Ecuador could mitigate some of the challenges related to road haulage, such as the poor quality of roads near production zones, the burden of obtaining permits and licenses for fleet renewal, high import tariffs on trucks and parts, and limited information systems for trucking, freight costs could be further reduced.

FIGURE 3.16. AVERAGE ROAD USER COSTS, BY NETWORK**OVERALL AVERAGE**

Source: World Bank 2015. N.B. In Table 3.8., percentages do not add to 100 because of rounding.

TABLE 3.8. PERCENT OF ROAD USER COSTS, BY COST COMPONENT

COST COMPONENT	COLOMBIA %	ECUADOR %
Fuel	41	13
Lubricants	1	1
Tires	3	2
Maintenance: Parts	31	41
Maintenance: Labor	5	11
Crew	5	12
Depreciation	9	14
Interest	4	5

Vehicle Operating Costs

Cross-border road transport services

Cross-border road transportation has been liberalized within the CAN region, covering Bolivia, Colombia, Ecuador, and Peru. However, heterogeneous national regulations on size and weight limitations usually force operators to drop their cargo at the border crossings with Colombia and Peru (table 3.9). Delays and uncertainty at land border posts caused by customs, immigration, and agriculture inspections also constrain the increase of cross-border transportation services.

TABLE 3.9. NATIONAL REGULATIONS ON MAXIMUM SIZE AND WEIGHT FOR ROAD FREIGHT TRANSPORT

MAXIMUM ALLOWED	ECUADOR	COLOMBIA	PERU
Width (meters)	2.6	2.6	2.6
Height (meters)	4.3	4.4	4.1
Length (meters)	20.5	18.5	23
Simple rolled simple rear axle (tons)	7.0	6.0	7.0
Simple rolled double rear axle (tons)	11.0	11.0	11.0
Double rolled double rear axle (tons)	20.0	22.0	18.0
Triple rolled double rear axle (tons)	24.0	24.0	25.0
Gross weight (tons)	48	48	48

Source: Agreement 036 18/05/2012 for Ecuador, Resolution No. 004100/2001 and subsequent changes for Colombia, and DS-MTC 58/2003 for Peru.

Road safety remains a serious challenge in Ecuador. According to the World Health Organization (2015), Ecuador sees the second highest rate in South America of road traffic injuries and deaths.¹⁰⁰ The leading causes of these accidents include low road safety standards, little driver professionalism, and poor road quality. Although most of the primary road network has been improved, some sections remain in poor condition, as is the case for many secondary and tertiary roads (where safety is a concern, especially during the rainy season). In addition, road infrastructure gaps and the lack of standardization in road infrastructure design and signage seems to make driving chaotic (problems include insufficient passing bays, clear turnout or passing lanes, or escape ramps and deficient signage for road lines, acceleration, deceleration, and passing lanes). In addition to having insufficient standards and safety practices to mitigate risks, Ecuador lacks professional drivers and a strong safety culture; most accidents are caused by human errors (ANT 2018). In fact, most accidents are caused by urban passenger transport operators who drive with excess speed along selected routes in order to compete for passengers. (Accidents involving freight cargo are relatively less common and are most often caused by excess speed considering the cargo weight).

Policy recommendations for road freight transport

[Draft a National Strategic Plan for Logistics and Accessibility](#)

Ensuring public expenditure efficiency is critical in a context of fiscal constraints. A Strategic Plan for Logistics and Accessibility set institutional objectives to address the main sectoral challenges (e.g. sector atomization, lack of remote areas accessibility, high vehicle operating costs) through regulation, incentives to adopt new technologies and corporate structures, and an strategic investment plan in which the most important and impactful investments can be prioritized (e.g. rural roads with the highest potential to increase export competitiveness). It would also set instruments such as a set of indicators for regular monitoring and an annual survey for cargo transportation.

Reduce the cost of fleet renewal by lowering import barriers and expediting vehicle registry processes.

Reducing import barriers applied to new trucks and parts could reduce the costs for fleet renewal. Likewise, expediting the operating permit process would reduce the immobilization time between the submission of the request and the delivery of the permit, which can take several months.¹⁰¹ Because delays seem to be partly caused by human error when filling out the permit request information, the ANT is revising the permit process by identifying which information can be prefilled with administrative data already available from other institutions.

Foster firms' ICT adoption and use, including by creating a road freight exchange platform to address empty hauls.

Ecuador could promote firms' adoption of ICT solutions in order to improve compliance with vehicle safety standards, fulfillment of food safety standards (through monitoring of the cold chain), and inventory tracking, among other benefits. The creation of a road freight exchange platform to match supply and demand of multimodal transportation would particularly benefit the sector, by improving the allocation of cargo, optimizing load capacity, reducing empty trips, and potentially reducing prices. Such a system might also incentivize informal trucking companies to formalize or expand load consolidation centers. For example, electronic logistics marketplaces use cloud computing systems to link together carriers, shippers, and customers of multimodal transportation to trade services. One such service, Uber Freight, was launched in the United States in 2017; it provides a free app that matches trucking companies with shippers or loads to haul.

Incentivize private investment in cargo terminals by supporting economies of scale in service provision.

Attract private investment for the construction of a cargo terminal and transfer center near Quito or Guayaquil. The main purpose of such a center would be to consolidate cargo arriving aboard large, long-distance trucks from different cities and to deconsolidate and dispatch the cargo via smaller trucks to distribution centers (or other destinations) within the cities of Quito or Guayaquil. Warehousing and container cleaning and repair services, as well as other value-adding services, could be provided there. Such a terminal would reduce the number of large trucks needing to enter the cities and thus would reduce traffic congestion and pollution while increasing road safety and truck utilization. It could also end up reducing waiting times at terminals and, as a result, reduce the number of truckers hit with municipal fines (about US\$700) when waiting outside of port terminals. Such a cargo terminal was established outside of Bogota a decade ago to consolidate cargo from large, long-distance transport trucks coming from Colombian cities such as Cartagena, Cali, Buenaventura, and Medellin to redistribute to Bogota in smaller trucks. In Argentina, such a cargo transfer terminal was established outside of Buenos Aires in 2016.

Improve road safety by refining intelligent transportation systems, standardizing the training provided in driver education centers, improving signaling, and fostering firm ICT adoption and use.

Improving intelligent transportation systems is key to addressing road safety issues; and private sector provision and management of these systems could bring efficiency gains. Driver professionalism could be improved by standardizing the content of the theoretical and practical training provided in professional driver education centers. In addition to addressing road safety issues, this change would help trucking companies find professional drivers with expertise in cold chain management. The ANT is already planning to revise and standardize the curriculum of driving schools. Clarifying road signage, especially near urban centers, would also improve road safety. Raising civil society awareness of road safety through learning modules for schools could also be effective. Fostering the exchange of information between the ANT and municipalities and homogenizing the latter's capacity to conduct inspections could also reduce the number of vehicles in hazardous condition. Finally, road transportation operators' adoption and use of ICTs could also lead to better monitoring of drivers' habits (e.g., speed). For instance, the ANT is planning to add GPS devices to buses to track drivers' speed and build a risk-profiling system. The agency will subsequently send alert messages to transportation operators working with drivers that fail to comply with regulations.

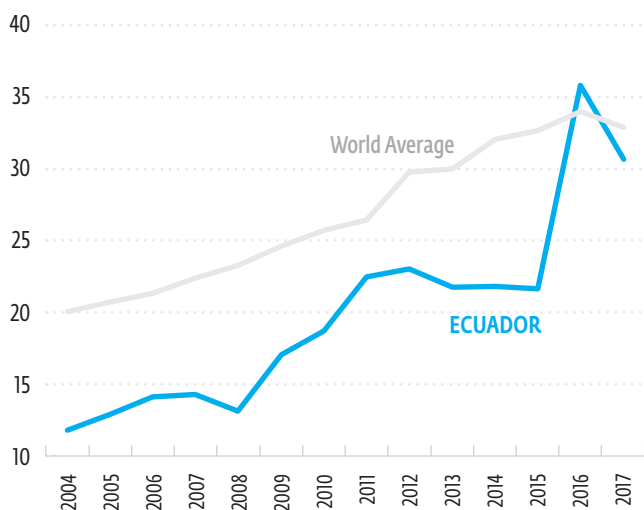
Facilitate cross-border road freight transportation by harmonizing national regulations within CAN.

Ecuador may benefit from developing a logistics corridor from the north of Peru to the Guayaquil area for the delivery of Peruvian perishables and other products from north Peru to the ports of Guayaquil and Puerto Bolivar or the Guayaquil airport. National norms on truck sizes and weight limitations could be harmonized within CAN in order to facilitate cross-border trade. The EU, for instance, revised national norms in 2014 to increase permitted length by 15 cm to accommodate 45-foot containers. In addition, it granted gasoline-efficient trucks permission to carry 1 ton above the permitted weight.

Maritime Transportation

Although Ecuador has achieved significant progress in maritime transportation, it has lower maritime connectivity than its regional peers (figures 3.17 and 3.18). Connectivity is pivotal for trade, because it impacts transportation costs and lead times, which in turn affect import costs and the competitiveness of Ecuadorian exports. Connectivity can be a key factor for opening new markets. The large volume of banana and shrimp containers Ecuador exports year-round is attractive for shipping lines because it guarantees continued business. This attraction benefits exporters of other products, including nontraditional agricultural products, by letting them leverage already-established shipping corridors. Some of the largest global container shipping lines stop at the port of Guayaquil, including Maersk and Mediterranean Shipping Company, and bring with them capacity, services, and global connectivity. For direct routes, Guayaquil generally has a 7-day advantage over Lima for exports to the United States and Europe (for example, SeaLand offers the fastest lead time to the United States, with 6 days to Miami, 10 days to Philadelphia, 12 days to New York, and 17 days to Los Angeles).¹⁰² Evidence confirmed by interviews with freight forwarders, international exporters, and importers in Miami suggest that maritime freight rates remain competitive in Ecuador relative to its peers (World Bank 2015).¹⁰³

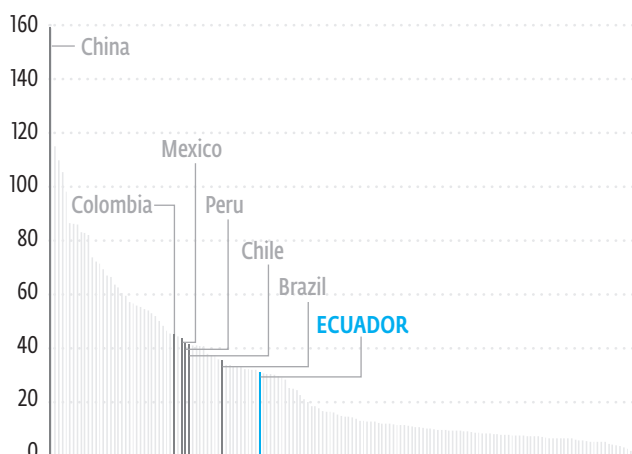
FIGURE 3.17. NOTABLE IMPROVEMENT IN LSCI, 2004–17



Source: UNCTAD.

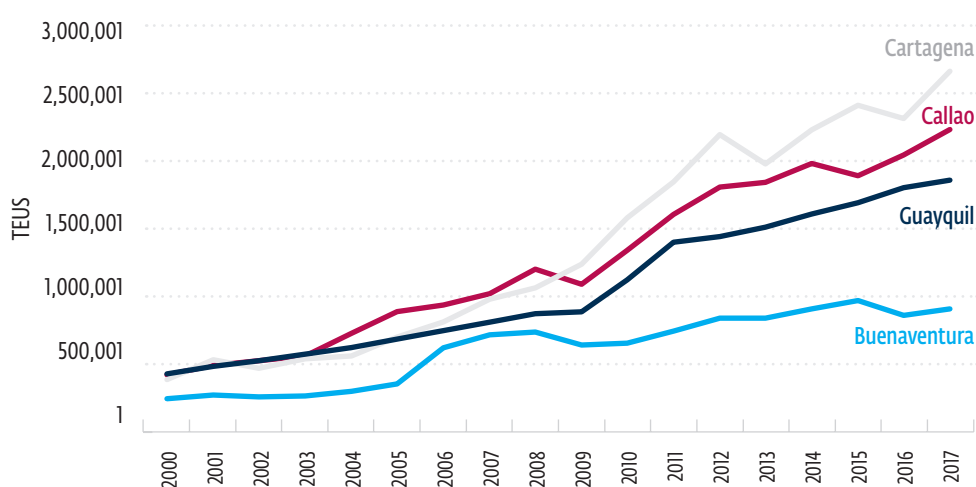
Note: The LSCI is based on five components of the maritime transport sector: the number of ships, their container-carrying capacity, the maximum vessel size, the number of services provided, and number of companies deploying container ships in a country's ports. LSCI = Liner Shipping Connectivity Index; UNCTAD = United Nations Conference on Trade and Development.

FIGURE 3.18. ECUADOR HAS LOWER SHIPPING CONNECTIVITY THAN REGIONAL COMPETITORS, LSCI, 2017



Container traffic in Guayaquil has seen strong growth, although it remains lower than in neighboring countries' ports. Ecuadorian ports handled close to 2 million twenty-foot equivalent units (TEUs) in 2017, 94 percent of which were handled at the port of Guayaquil, and the rest of which passed through the ports of Bolivar (4 percent) or Esmeraldas (2 percent). In comparison, Peru handled around 2.5 million TEUs and Colombia around 3.9 million TEUs in 2017 (figure 3.19). Colombia also has an advantage in maritime connectivity by having ports on both the Pacific (Buenaventura) and the Atlantic (Cartagena) coasts.

FIGURE 3.19. CONTAINER TRAFFIC FOR 2000–17



Source: ECLAC 2018.

Note: TEU = twenty-foot equivalent unit.

Ecuadorian exporters benefit from a maritime cold chain infrastructure and services (reefer containers and vessels) supplied in response to the boom of banana and shrimp exports. Ecuadorian exporters have access to reefer vessels, including through Del Monte Fresh Produce Company (a banana exporter) and SeaTrade. Such vessels specialize in perishable agricultural products and therefore are typically keener than most ships on accommodating the needs of specific fruits (such as by adding additional containers at the last minute depending on the fruit's maturity). Bananas typically go under the deck, while other fruits such as pineapples go inside containers. Reefer vessels usually pick up containers in Paita (containing blueberries, avocados, kiwis, asparagus, and bananas) before continuing to Europe, suggesting that Northern Peruvian exporters could be interested in shipping their products directly through Guayaquil if cross-border road transportation became more integrated. Connectivity and the transit time of this shipping option tend to be challenges for small exporters, because the first destination and unloading location is usually the port of the largest importer (typically bananas), and therefore the transit time may take longer for other products. Banana and shrimp export successes have also facilitated access to reefer containers. Because of the trade imbalance (99 percent of reefer containers handled at Contecon were used for exports in 2017), shipping lines need to constantly bring empty refrigerated containers back to Guayaquil, leading to higher freight rates. Banana and shrimp exporters typically have contracts with shipping lines, allowing them to guarantee the availability of reefers at good prices, while smaller exporters tend to face higher pricing and uncertain availability during peak times. A recent global shortage of reefer containers raised the freight cost by approximately 20 percent, which affected relatively more smaller exporters because they receive less priority.

The uptake of reefer containers using controlled atmosphere (CA) technology, driven by banana exporters, could help other exporters to reach more distant markets. Most fruits and vegetables continue to consume oxygen and produce carbon dioxide after being harvested, modifying product flavor, quality, color, and texture. By controlling oxygen, carbon dioxide, and ethylene levels, CA systems enhance refrigeration benefits by further slowing down produce respiration and ripening rates, extending shelf life. Although CA works for fruits and vegetables with high respiration rates, it is especially valuable for certain products, such as bananas and avocados. Hapag Lloyd, for example, began using CA in Ecuador at the demand of banana exporters shipping to Japan (approximately 12 percent of Hapag Lloyd's exported containers include the CA technology). A reefer container with such a system is approximately US\$1,000–1,500 (20–25 percent) more expensive than a regular reefer container.

Ecuador's port infrastructure improved significantly in recent years, surpassing the Latin America and the Caribbean average as well as that of regional peers.

According to the World Economic Forum index, Ecuador's score on the quality of port infrastructure increased significantly in the past decade, relatively more than those of its regional peers, and it surpassed the Latin America and the Caribbean average in 2013. Ecuador has more than a dozen port terminals, among which four are public terminals administered by port authorities and three are petrol port terminals overseen by a special superintendent.¹⁰⁴ The rest are private port terminals that are completely owned and operated by the private sector.

Draft limitations at the Guayaquil port have constrained the capacity of larger vessels to call on Ecuador, but a dredging is planned to deepen the existing access channel to 12.5 m. Because of lower water depth, the maximum draft allowed for entering the Port of Guayaquil's channel is 9.75 m. Although vessels with drafts less than 8.25 m can transit at any time without restrictions, the limitation is a challenge for larger vessels, creating inefficiencies for shipping lines and port operators. Large ships must carefully plan to arrive at the channel entrance a few hours before high water and then navigate to inner terminals (4–10 hours, depending on the terminal) during that time. If a vessel does not arrive on time, it must wait 12 hours until the next high-water window. Vessels must also navigate out of the channel during the high-water window, and thus port delays caused by terminal operators' efficiency or public border control agencies' physical inspections can cause significant challenges to shipping line operations. In October 2018, the Municipality of Guayaquil signed a 25-year performance-based concession agreement for the deepening, maintenance, and operation of the 95 km-long access channel to the port. The concessionaire will finance the dredging work to deepen the existing access channel, guaranteeing a new authorized draught of 12.5 m, as well as to deepen the Guayas River to an authorized draught of 7.5 m.¹⁰⁵

Guayaquil is the main maritime entry point in Ecuador. The Port Authority of Guayaquil (APG), under concession, is Ecuador's main container port terminal, with around 43 percent of containers being handled there (table 3.10). The port has an annual handling capacity of around 1.5 million TEUs and significant reefer capacity (3,465 electricity plugs). Seven shipping lines call the port—Maersk and Mediterranean Shipping Company represent about 80 percent of container cargo—with an average of 4,061 TEUs per vessel. Other shipping lines include CMA-CGM, Hapag Lloyd, and Hamburg Sud.¹⁰⁶ In addition, around ten private service port terminals are also located south of Guayaquil, among which TPG, Banana Puerto (containers and general cargo; mostly bananas, other refrigerated containers, and wood), and Fertisa (containers and general cargo; mainly bananas and fruit) are the largest.¹⁰⁷

TABLE 3.10. CONTAINER CARGO, 2017

PORT	TEUS			% PARTICIATION	
	IMPORTS	EXPORTS	TOTAL	IMPORTS	EXPORTS
APE (Esmeraldas)	21,182	19,776	40,958	2%	2%
APM (Manta)	0	4	4	0%	0%
APG (Contecon)	472,666	395,103	867,769	47%	40%
APPB (Bolivar)	42,059	47,105	89,164	4%	5%
Private Ports	468,741	535,081	1,003,822	47%	54%
Total	1,004,648	997,069	2,001,717	100%	100%

Source: Ministry of Transport.

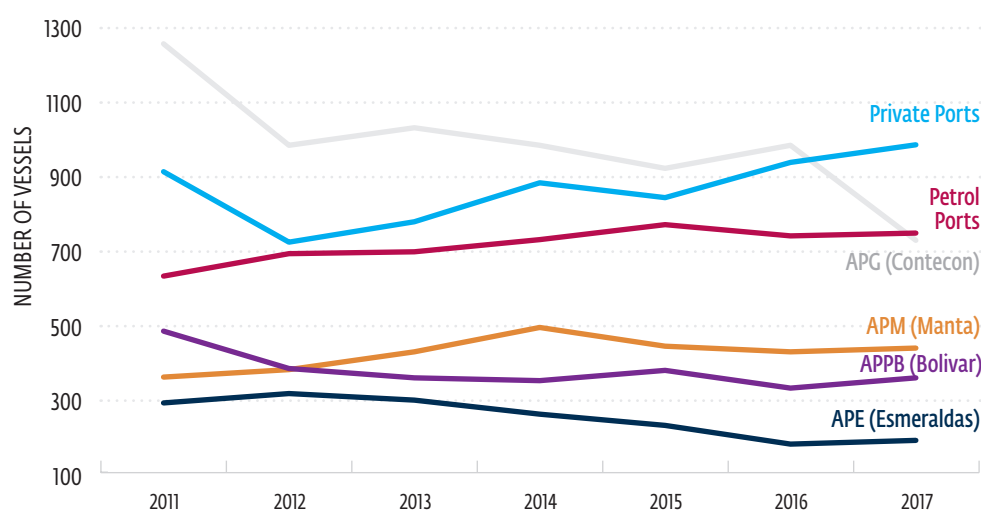
Note: APG represents Contecon and Andipuerto. (Contecon represents 75 percent of the volume.) TEU = twenty-foot equivalent unit.

Private port terminals are increasing their market share relative to public ones in terms of both vessels and trade flows. Export containers departing from private port terminals in Guayaquil have increased by 70 percent, while the weight passing through the public port terminal (APG) has declined by 35 percent since 2016. There has also been a significant increase in import volume through private port terminals. Likewise, these terminals have seen an increase in the number of vessels visiting them, while APG is experiencing a decline (figure 36).

Outside of Guayaquil, the port of Manta is a multipurpose port with direct sea access just one hour from the main international traffic route and 24 hours from the Panama Canal. In 2017, Manta was concessioned to Terminal Portuario de Manta, which is currently carrying out improvement projects. Manta handles mostly dry bulk, liquid bulk, general cargo, and vehicles, with a small number of containers for exports, including frozen fish. Imports represent 97 percent of the volume transported.

The port of Bolivar is located just 13 miles from the main international traffic route heading to and from the Panama Canal. In 2017, Bolivar was concessioned to Yilportecu for 50 years. The firm plans to invest US\$750 million in expansion, dredging, and other infrastructure investments. The port's current storage capacity of 4,800 dry and 1,600 reefer containers will also be expanded. Bolivar handles multipurpose and container vessels. In 2017 it handled close to 90,000 containers, 30 percent of which were reefers, mostly holding exports of bananas, mangoes, and shrimp. Bananas, which represent 99 percent of the export volume, were exported aboard reefer vessels (81 percent), and reefer containers (19 percent). Bolivar receives many imported fruits, including apples, oranges, pears, and grapes.

The port of Esmeraldas is a multipurpose port with direct sea access. It is operated by the port authority. Its import volume has been declining since 2001. The types of cargo handled at Esmeraldas include liquid bulk, dry bulk, general cargo, and vehicles. It handled 41,000 dry containers in 2017 by ships' gear. It has very limited capacity and operational efficiency for containers, low berth utilization, and small storage capacity for containers (only 2,000, with no reefer storage). No agricultural products are traded via Esmeraldas except for exports of palm oil.

FIGURE 3.20. INTERNATIONAL VESSEL CALLS BY PORT, 2017

Source: Ministry of Transport and Public Works.

Note: APG represents Contecon and Andipuerto. (Contecon represents 83 percent of the vessels.) Petrol ports include Balao, La Libertad, and El Salitral.

A brand-new deep-water port terminal being built at Posorja will potentially increase port terminal competition and maritime connectivity. A 50-year concession started on June 2016 for a greenfield investment in a port terminal in Posorja. The financial closure of the first phase of the project was achieved in 2018 for an investment of US\$377 million. The Posorja project will increase Ecuador's port capacity and foster competition with Guayaquil, because the new port will have no draft restriction to accommodate large vessels and will save time for vessels currently required to navigate the channel of the port of Guayaquil. Its relative competitiveness for main agriculture exports such as bananas and shrimp has yet to be determined, though, because exporters using Posorja will incur higher road freight transport costs. However, as Ecuador's liner shipping connectivity increases thanks to Posorja, higher port traffic and more competition are expected to lead to lower transportation and logistics costs, improving the competitiveness of Ecuadorian exporters.

Guayaquil has a higher port tariff than the competing ports of Cartagena, Buenaventura, and Callao. The berthing tariff is US\$1.14 per meter of length/hour at the Guayaquil port terminal, compared with \$0.68 at Cartagena Port Society, \$0.56 at Buenaventura Container Port Terminal, and \$0.75 at Callao (World Bank 2016a). Port charges include navigation fees and other fees paid to local or national authorities, the cost of services carried out by local authorities (such as piloting), berthing fees, fees for the use of cranes and stevedores, electricity costs for reefer containers, fuel prices, and labor costs. The charges are also impacted by competition with other terminals and by the infrastructure and efficiency (such as vessel size limitations, delays) available at each port. According to interviews, the average turnaround time in Guayaquil is around 18 hours, compared with 12 hours in Paita and 6–8 hours in European terminals. In Puerto Bolivar, turnaround time is around 24 hours; the port's other

challenges include deficiency of services and security. The Port of Guayaquil, TPG, lacks space for stacking containers, and the pier length is insufficient for two vessels with large length overall calling simultaneously. At NAPORTEC (a subsidiary of Dole Food Company), the pier length is also insufficient, and productivity is limited because the port has only two Gottwald cranes. These charges indirectly impact export costs, because shipping lines determine their terminal handling charges and other fees based on all these costs. An extra fee for bringing back empty reefers because of the trade imbalance is also likely included in terminal handling charges.

High port charges could be moving labor-intensive activities to neighboring competing ports, which means the industry is missing an opportunity to generate more jobs and domestic value added. In addition to operator efficiency in service provision, relatively high labor costs impact port charges. For instance, Ecuador's stevedoring charges are only about 5–6 percent cheaper on average than European stevedoring, possibly because of inefficiencies caused by organizational and infrastructure gaps. In addition, piloting and towing charges are more than 30 percent higher in Ecuador than at the Port of Paita (both services are provided exclusively by the port authority). Also, container stripping is at least 55 percent more expensive in Contecon than in Paita. Given the higher prices, shipping lines typically prefer to carry out nonessential services outside of Ecuador (such as container repair and fueling).

Policy recommendations for maritime transportation

- **Level the playing field between port terminal operators.**

Planned investments in Guayaquil and Posorja are likely to increase Ecuador's maritime connectivity and competition among terminals. As the concession agreement with Contecon is renegotiated, leveling the playing field in terms of fees could foster competition, incentivize innovation in service delivery, and ultimately lead to lower port charges.

- **Improve border control agencies' inspection processes and procedures at ports.**

Delays at ports because of inefficiencies by the various actors involved in the value chain can make a vessel lose its scheduled departing time. The high-water constraints make these delays even costlier in Ecuador. Improving border control agencies' risk-management practices by enhancing coordination between customs, the police, and agriculture inspection agents would help reduce delays and minimize the risk of disruptions to the cold chain. For instance, exchanging information between customs and the police, improving scanning technology, and fostering the use of tracking and tracing systems by transportation and logistics operators would improve efficiency while still facilitating trade.

Air Transportation

Airfreight has been driving Ecuador's air traffic growth. The country's annual growth rate for airfreight traffic reached 20 percent, and the amount transported by air increased from 5 to 58 million tons between 2008 and 2017 (surpassing 120 million tons per year in 2010–13 but falling after 2014). This expansion has been significantly faster than that of regional peers, although Ecuador's volumes remain lower in absolute terms (in 2017, there were 1,141 million tons of airfreight in Colombia and 316 million tons in Peru). Airfreight transportation in Ecuador has been fuelled by strong demand from exporters of time-sensitive goods, especially flowers and increasingly high-value fish and fruits. Passengers traffic's expansion has been muted, with a 4 percent annual growth rate for the same period (which is below Ecuador's neighbors' performance, despite Ecuador's significantly lower baseline in the number of passengers).

Although Ecuador has 21 airports, among which 4 are international and 17 are administered by the state, the low traffic at publicly managed airports offers limited PPP opportunities. Among the 21 airports, Quito, Guayaquil, and Baltra are under concession, while Cuenca is under a delegation contract. The three airports under concession have the most cargo and passenger traffic (figure 3.21 and table 3.11). A concession agreement for the Latacunga airport is under discussion. Ecuador's limited geographic size and heavy traffic in its international airports reduce opportunities for PPPs in the remaining public airports.

The Quito airport has introduced several improvements that have been well received by the private sector, while the Guayaquil airport is considered to be significantly less efficient. Remaining constraints at the Quito airport include insufficient palletizers and a lack of cold storage. Few cargo freight airplanes go to Guayaquil, because exports originating from the coast (such as mangoes, pitahayas, maracujas, and fish filets) are transported from Guayaquil to Quito in passenger airplanes to be agglomerated with flowers in Quito before leaving the country. This latter stage is a source of uncertainty for perishable goods exporters, whose cargo cannot be guaranteed space on the planes during peak flower season.

Air transportation policies in Ecuador are restrictive, limiting competition between airlines, the supply of routes at lower prices, and the frequency of flights. The number of departures by registered carriers worldwide has stagnated in Ecuador in the past decade, while annual growth rates in Colombia and Peru reached 5 percent per year. Low-cost carriers, key drivers of competition, have a small market share in Ecuador (1.2 percent of seats offered, compared with 11.2 percent and 9 percent in Costa Rica and Colombia, respectively; Fioravanti and others 2019). Ecuador has limited liberalization of air transportation services, but its adoption in 2017 of an open-skies policy could lead to improvements. Argentina, Mexico, and the United States are considered priorities for the negotiation of bilateral agreements. Evidence suggest that air liberalization between two countries leads to an increase in air transport capacity and demand, with the volume of traffic increasing by up to 30 percent (Piermartini and Rousová 2008). Although the impact for Ecuador will depend on the content of the bilateral agreements to be negotiated, this liberalization, once implemented, could expand Ecuador's air transportation sector and reduce prices, increasing the competitiveness of time-sensitive exports transported by dedicated airplanes or in the belly of commercial flights, as well as foster tourism.

Ecuador’s taxes and fees applied to passengers’ tickets are among the highest in the region, reducing the competitiveness of its airlines, limiting the potential for low-cost carriers to expand, and ultimately affecting the competitiveness of exports of goods and services. With fees of US\$180 per ticket in 2017, the Quito airport applies among the highest fees and taxes in Latin America, closely followed by Guayaquil, with fees of US\$157 per ticket. (For reference, Lima and Asuncion charge US\$120 and US\$40 per ticket, respectively). These taxes and fees increased substantially in Ecuador during the past decade, representing almost 90 percent of ticket costs by 2017.

Airport fees and jet fuel prices in Ecuador are also among the highest in the region. A significant increase in prices has been observed in Ecuador, and its airport fees have become much higher than those in neighbouring countries (figure 3.22). Among the largest increases, the landing fee in the Guayaquil airport for the A320 (and for the Boeing 767-300) increased from US\$8.86 (US\$9.60) per ton to US\$16.94 (US\$18.04) per ton between 2012 and 2017; and the fee in Quito increased from US\$10.74 (US\$11.64) per ton to 1 US\$7.09 (US\$17.51) per ton (IATA 2018).¹⁰⁸ The boarding bridge fee in Quito increased from US\$91.98 to US\$239.32 for the A320 (and from US\$153.31 to US\$234.64 for the Boeing 767-300). Ecuador also has among the highest jet fuel prices and is the only country that calculates jet fuel prices as a percentage of airport fees (other countries either have a fixed fee far below what Ecuador charges or don’t charge anything at all). The capital exit tax also erodes the competitiveness of Ecuador’s air transport services.

FIGURE 3.21. ECUADOR’S 21 AIRPORTS

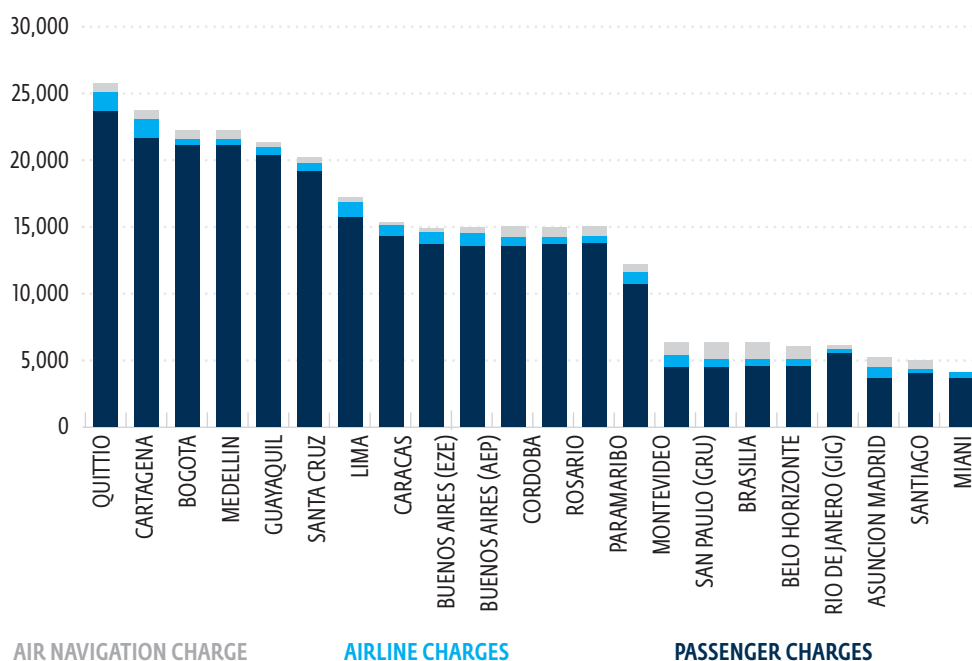


TABLE 3.11. TRAFFIC BY AIRPORT

	CARGO		
	PASSENGERS	(MEGATONS)	MOVEMENTS
Quito	4,866,427	213,688	54,799
Guayaquil	3,582,538	37,299	33,017
Baltra	483,107	5,088	4,472
Coca	123,061	50.26	1,826
Cuenca	299,085	136.9	3,294
Esmeraldas	72,910	14.75	1,022
Largo Agrio	44,291	48.8	816
Loja	118,391	129.54	1,935
Manta	176,089	127.05	2,773
Salinas	5,116	14.16	447
San Cristobal	157,215	2,026	1,498
Santa Rosa	49,099	72	1,268
Taisha	1,637	199	4,956
TOTAL	9,978,966	258.894	112,123

Source: Ministerio de Transporte y Obras Publicas.

Source: Ministerio de Transporte y Obras Publicas, with Dirección General de Aviación Civil 2017 data.

FIGURE 3.22. TOTAL COSTS PER OPERATION FOR INTERNATIONAL FLIGHTS

Source: IADB 2019.

Policy recommendations for air transportation

- Increase competition by deepening the liberalization of air transportation services and revising the fiscal policy toward passengers' tickets

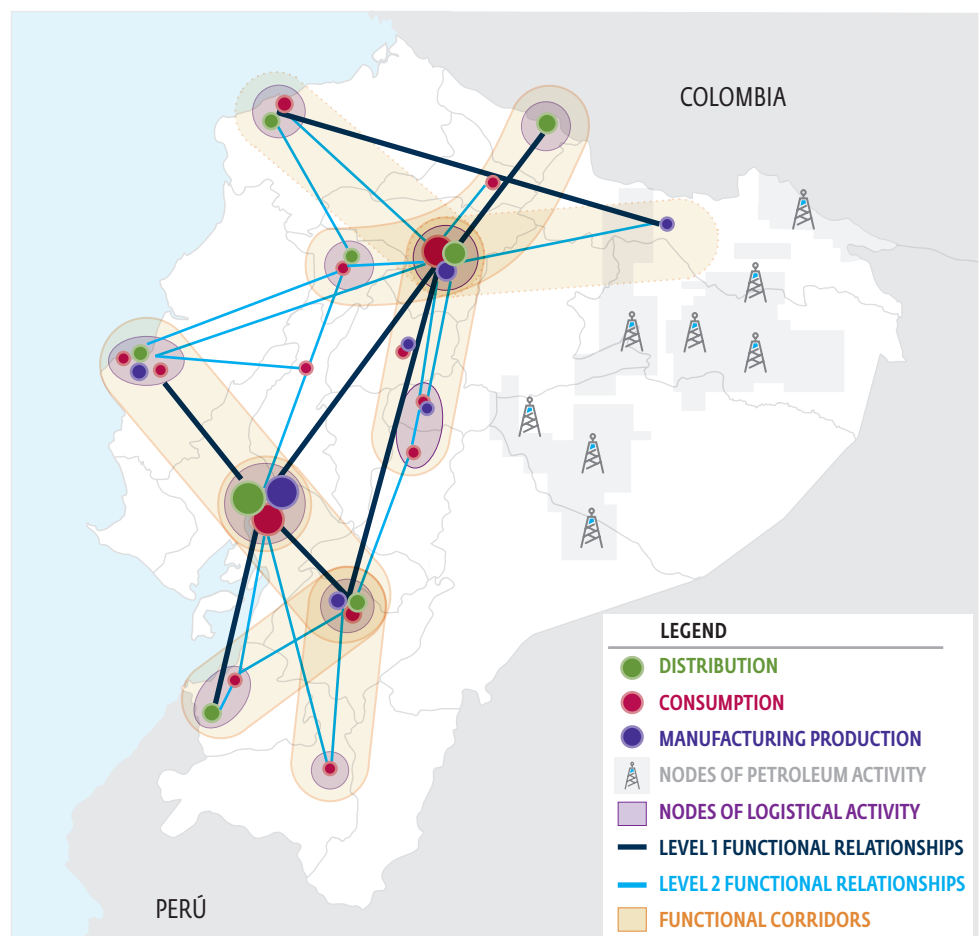
The success of the open sky policy at fostering the development of air transportation services will depend on the level of ambition of the bilateral agreements Ecuador forms. Prioritizing negotiations with countries with which Ecuador has a comparative advantage in merchandise and tourism exports could lead to gains in competitiveness. As a complement, Ecuador could reduce the fiscal pressure in terms of taxes, fees, and charges on passengers' tickets in order to increase traffic and attract low-cost carriers, which would increase competition and lower prices.

Warehousing, Logistics Platforms, and Third-Party Logistics Providers

Recognizing the lack of logistics platforms providing value-adding services in Ecuador, the country's 2013–37 Strategic Mobility Plan identified the need to build an enabling environment that renders such platforms profitable. The construction of logistics platforms to transform Ecuador into a regional logistics hub (including for the Manta-Manaus corridor) was planned by the government of Ecuador in its Strategic Mobility Plan for 2037. The strategy identifies nodes along logistics corridors for investment in logistics platforms (figure 3.23) and emphasizes the need to foster economies of scale in the demand addressed to maritime ports and airports and spur within-country regional integration in order to render such investment profitable.

Warehousing and other logistics services make limited use of ICTs for productive purposes. There are approximately 14 third-party logistics companies in Ecuador, the majority of which own two warehouses: one in Quito and the other in Guayaquil. The main customers are importers, who use them for storage and distribution of electronic goods, consumer goods (food, beverages, and personal care items), pharmaceuticals, and vehicle components. A small percentage of customers include freight forwarders and exporters. Most third-party logistics firms also offer distribution services, and 6 to 10 warehouses offer cold storage, mostly used for pharmaceutical products. None of them are used by exporters of fresh or frozen food, fruits, or vegetables. Indeed, as previously discussed, cargo typically goes from exporters' farms directly to the port or airport. There are ten bonded warehousing companies in Ecuador (four warehouses each are in Quito and Guayaquil). Bonded warehouses have strict control and security protocols, including cameras and alarms. Their services are offered to multiple clients and include, in addition to bonded warehousing, inventory management, labeling, picking, packing, and distribution to final clients. Warehouses and third-party logistics companies in Ecuador are not maximizing their use of information technology infrastructure for warehouse management. Investment in such technologies is low, and most companies develop their own in-house software or use a combination of basic software and Excel. Limited outsourcing of logistics services caused by “do it yourself” habits remains a constraint. Skills in supply-chain operations also seem to be lacking.

FIGURE 3.23. POTENTIAL NODES ALONG LOGISTICS CORRIDORS



Source: MTOP 2016.

A real concept of temperature-controlled third-party logistics has not been developed in Ecuador. Despite Ecuador's comparative advantage in exports of perishable goods, operators specialized in reefer transportation, frozen or refrigerated storage, packaging, and distribution services are lacking. Almost all Ecuador's infrastructure for cold storage and reefer transportation has been implemented without following a logistics service criterion or approach (World Food Logistics Program 2014). Transportation and logistics operators, processors, wholesalers, distributors, and retailers in Ecuador require knowledge on how to properly maintain the cold chain for chilled and frozen product handling, and how to improve distribution and shipping practices to reduce time and conserve energy. Training on cold storage management, inventory control, and refrigeration technology and mechanics are especially needed. (In particular, for the latter, technical experts must be brought in from Argentina, Brazil, Colombia, or Chile.) The capacity to avoid cross-contamination by using separate coolers dedicated to dairy, fresh meat, fresh poultry, and frozen products is also needed.

Policy recommendations for warehousing and other value-adding logistics services

- **Foster economies of scale at production and aggregation stages to attract investment in logistics platforms at key nodes of freight corridors.**

Building on the 2013–37 Strategic Mobility Plan, measuring the economies of scale that could be achieved in key corridors and for specific value chains could inform Ecuador about the profitability of logistics platforms, their ideal locations, and the types of services they could provide. Such analysis could inform an action plan oriented toward fostering economies of scale in production and aggregation for specific value chains (the demand side) and to improving the quality and variety of services offered by logistics operators (the supply side), including by adopting digital technologies and improving skills related to temperature-controlled transportation and logistics.

TABLE 3.12. RECOMMENDATIONS

RECOMMENDATIONS	TIME FRAME	STATUS
Cross-cutting policies	Short term	Under consideration
Reduce trade costs (including eliminating the capital exit tax) to lower the trade imbalance, and therefore container costs, as well as to lower air transportation costs.		
Attract investment in logistics platforms that provide value-adding services at nodes of key freight corridors by fostering economies of scale at the production and aggregation stages and by implementing economic policies that increase trade flows and export competitiveness.	Medium term	Not implemented
Reduce the cost of fleet renewal by lowering import barriers for trucks and auto parts.	Short term	Not implemented
Foster ICT adoption and use by exporters (such as controlled atmosphere technologies) and transportation and logistics operators and incentivize the creation of a road freight exchange platform to reduce empty hauls.	Short to medium term	Not implemented
Draft a National Strategic Plan for Logistics and Accessibility	Short term	Under consideration
Public agencies	Short term	Not implemented
Improve border control agencies' inspection processes, procedures, and interagency coordination and information exchange (especially for the antinarcotics police), particularly those regarding exports through maritime ports.		
Harmonize the guidelines and capabilities of municipalities for conducting technical vehicle reviews, and foster the exchange of information with the ANT.	Short to medium term	Not implemented
Expedite the ANT operating permit process to reduce vehicle immobilization time.	Short term	Under consideration

Cross-border road transportation	Facilitate cross-border road freight transportation by harmonizing national regulations within the CAN.	Short to medium term	Not implemented
Competition between port terminals	Level the playing field between port terminal operators as the concession agreement with Contecon is renegotiated.	Short term	Not implemented
	Foster productivity improvements in port operations and reduce labor costs to attract labor-intensive activities to Ecuador.	Medium term	Not implemented
Competition among air transportation services	Increase competition by deepening the liberalization of air transportation services and revising the fiscal policy toward air passengers' tickets. Prioritize negotiations with countries where Ecuador has a comparative advantage in goods and tourism exports.	Short to medium term	Under consideration
Road infrastructure	Improve road safety by improving road signaling, especially near urban centers.	Short term	Not implemented
	Improve road safety management through intelligent transport systems.	Short to medium term	Under consideration
Skills	Incentivize skill upgrading for transportation and logistics operators, especially in cold chain management. For instance, this change could be pursued for drivers as the curriculum for driver education centers is revised and standardized.	Short to medium term	Not implemented

Note: ANT = Agencia Nacional de Tránsito; CAN = Andean Community of Nations; ICT = information and communication technologies.

D. TOURISM

Introduction

Tourism plays an important and growing role in the Ecuadorian economy and is the country's third most important nonpetroleum export. However, growth in international tourism arrivals has remained low or stagnant over the past five years, while key competitors such as Costa Rica and Peru continue to enjoy growth and prosperity in the sector. Moreover, making up just five percent of the country's total economic activity, travel and tourism contributes less to Ecuador's GDP than it does in regional peers; Ecuador does not seem to be optimizing tourism to deliver economic development. Even prior to the pandemic, Ecuador's competitiveness ranking had fallen 13 places between 2017 and 2019, according to the WEF's Travel and Tourism Competitiveness Index (TTCI) (WEF, 2020). Today, the COVID-19 pandemic presents a major challenge to Ecuador's tourism industry. Yet, despite the current downturn, the long term prospects for the sector remain encouraging. Tourism has historically outperformed global GDP growth—before the COVID-19 outbreak, the sector had been experiencing an extended period of growth—and is likely to do so again once COVID-19 is controlled. For the sector to survive and recover, however, new means to shore up competitiveness in the sector will be needed. The crisis offers an opportunity for the industry to reset and build back better. Ecuador can take advantage of the hiatus in tourism to reset, boost its resiliency and prepare to outcompete others in the years ahead.

Numerous obstacles that continue to hinder the competitiveness and growth of tourism in Ecuador need to be addressed in the interim. The COVID-19 pandemic has, for instance, exposed problems with the health and hygiene system, making it more difficult to manage the virus, reopen and build back trust for travel. Investment or other solutions to spread health and related services into rural areas can, in addition to addressing the health needs of the population, open those destinations to more visitors and relieve pressure on more densely populated urban areas that may struggle to encourage tourism due to concerns over visitor congestion and the spread of viruses. Improving the business environment, as noted in earlier chapters of this reports, is important for the tourism sector in mitigating the impact of the crisis and progressing towards recovery. Business obstacles that companies operating in the country often face include relatively inefficient legal frameworks, low perceptions of market competitiveness, as well as long wait times and high costs of starting a business. Addressing these issues may help tourism businesses reduce costs, thereby giving them more room to weather the crisis and encourage future investment in the industry. Improvement to the business environment will be especially beneficial for the SMEs that drive so much of the tourism sector. (WEF, 2020)

In terms of opportunities, continued improvement in ICT readiness will play a fundamental role in making Ecuador's tourism sector more competitive, especially because the response to COVID-19 will likely further drive the use of ICT. Industry services are already increasingly dominated by online services and sharing economy players such as Airbnb, and customers increasingly access these online services via mobile devices and expect seamless travel experiences. Internet tools such as online platforms also enable locals and travelers to connect directly, cutting out intermediaries. This presents an opportunity for SMEs to reach beyond their local market and connect with the broader domestic and international markets, helping drive entrepreneurship, employment and inclusiveness. (WEF, 2020).

This report's main findings and recommendations are as follows:

Ecuador has a diverse array of natural and cultural attractions and is accessible to some of the fastest-growing adventure travel markets in the world. Nevertheless, it struggles to differentiate itself from competitors with similar product profiles.

In terms of tourism supply, Ecuador's greatest competitive advantages compared with its regional competitors are its price competitiveness and its ground infrastructure. However, Ecuador is at a competitive disadvantage when it comes to the quality of its tourism infrastructure and the human resources in the sector, and it suffers from a lack of standardization and weak quality standards.

Multiple business-environment constraints are negatively affecting tourism growth in Ecuador. The main constraints remain a weak brand identity and inconsistency in marketing and promotional investments; reduced availability of air connections and airline seats and high operational costs; labor market rigidities and limited access to qualified staff; the difficulty of doing business and the legal and tax burden; and high interest rates. And, finally, the tourism sector's low priority in the government's agenda compared with the energy sector has left it struggling to compete for same natural resources and sites.

Recommendations:

Destination management organization (tourism board)

- National-level regulation in Ecuador should establish a separate, autonomous tourism board, or destination marketing organization (DMO), supplied with professional marketing staff and leadership as well as representatives of the private sector at the board-of-directors level.
- The DMO should govern brand-use requirements, licensing, and change processes in order to maintain brand consistency and avoid politicization or dramatic changes in promotional strategies across different administrations.

Sustainable tourism product development

- Ecuador should strengthen its conservation efforts and adopt sustainability standards in order to improve its environmental performance.
- Ecuador should capitalize on the geographic proximity of its products and attractions. Lowering barriers to connectivity would complement this approach.
- To raise the quality of its tourism services, Ecuador needs to give priority to tourism skills development and actively promote FDI in the sector, which is currently at low levels compared with peer and aspirational countries. Increasing FDI in different modes, including nonequity modes—in particular, increasing brand penetration through franchises—will contribute to building up skills in the sector.

Business environment

- Tourism business in Ecuador should seek alliances with other industry associations to advocate for policies that promote and facilitate private sector development, investment, and competitiveness overall.
- If Ecuador hopes to improve its supply of tourism firms, the high barriers to setting up and operating a business must be reduced.
- Ecuador should lower barriers to FDI, with a focus on the tourism sector, and incentivize domestic investment by reducing the complexities of operating a tourism business.
- Ecuador should adjust its labor laws to allow the tourism sector the flexibility it needs to effectively operate under its unique market conditions.

Ecuador's Tourism Profile

Economic impacts

Tourism plays an important and increasing role in Ecuador's economy. In 2019, the travel and tourism sector contributed a total of US\$5.5 billion to the country's GDP, including indirect and induced impacts. This figure is 6.7 percent higher than in 2016 and reflects the industry's average growth of 4 percent per annum since 2013. Corresponding to 5.1 percent of the country's total economic activity, travel and tourism is now its third most important nonpetroleum export, behind bananas and plantains and shrimp. Prior to the Covid outbreak, the World Travel and Tourism Council (WTTC) had expected the sector to continue to grow at a rate of 4.3 percent over the next 10 years, forecasting a total contribution of US\$8.5 billion in 2028.

FIGURE 3.24. ECUADOR'S POSITION IN THE WTTC'S WORLD RANKINGS

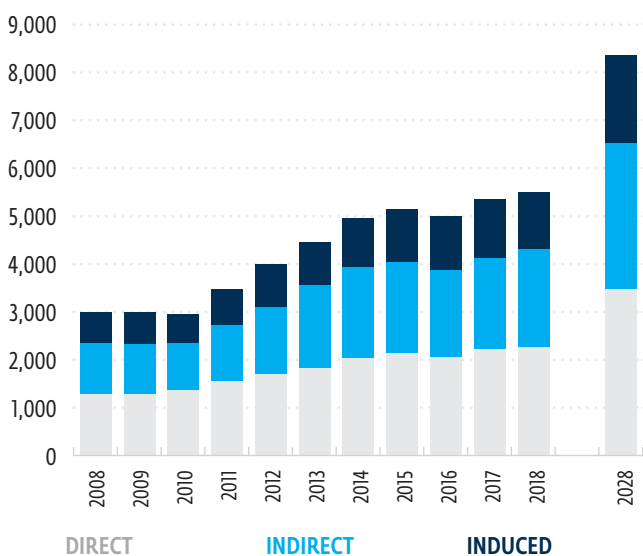
World Ranking (out of 185 Countries):

Relative importance of Travel & Tourism's total contribution to GDP

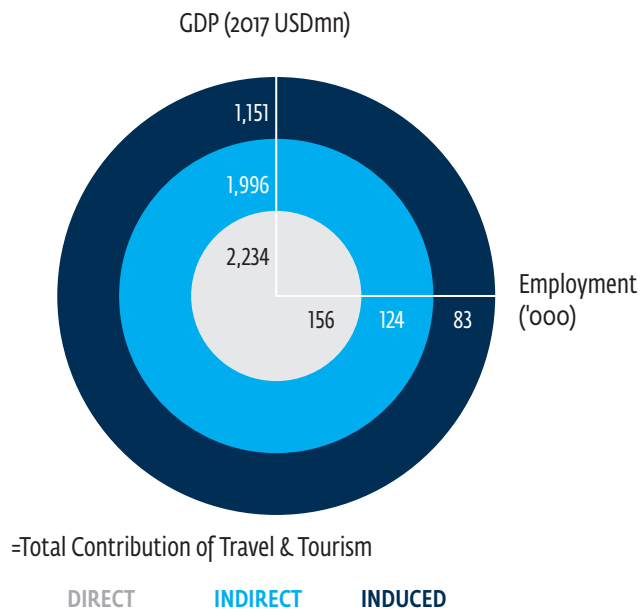


Total Contribution of Travel & Tourism GDP

2017 USDmn



Breakdown of Travel & Tourism's Total Contribution to GDP and Employment 2017



Source: WTTC, data on Ecuador from 2018.

Note: The WTTC rankings are out of 185 countries. WTTC = World Travel and Tourism Council.

Tourism is an important source of employment in Ecuador. In 2019, 408,800 people in Ecuador depended on tourism and its associated activities for employment—5.2 percent of the total labor force—about half of whom are considered direct employees of tourism companies (World Travel and Tourism Council, 2012).¹⁰⁹ Figure 3.25 shows the direct contribution of travel and tourism to employment since 2008; it dipped during the global economic recession in 2009–11 but has exhibited relatively stable growth since then. Most tourism jobs are located along the coast or in the Andes (the sierra) and are in the accommodations or food and beverage sectors. In addition, tourism benefits the poor in Ecuador (see box 3.7).

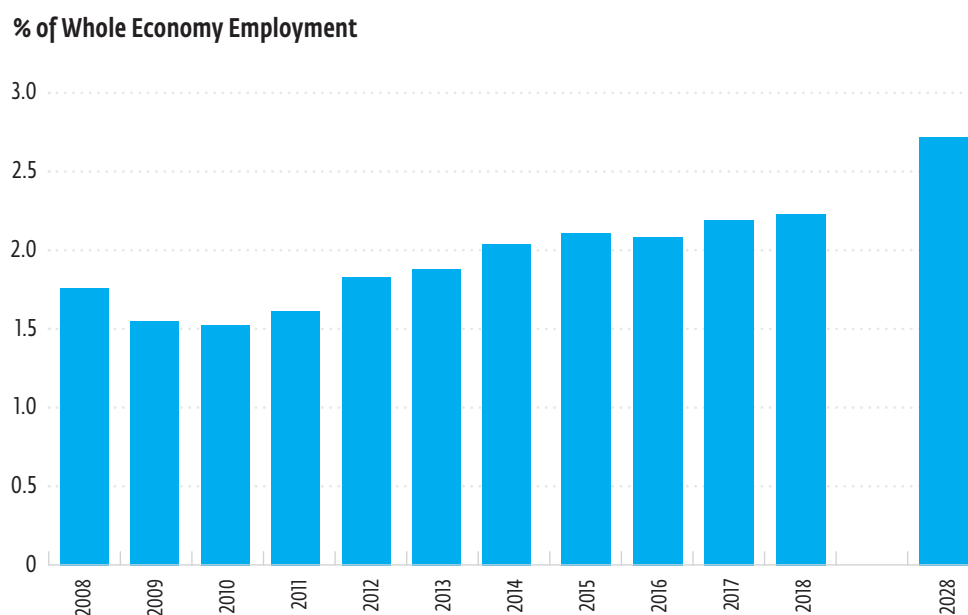
BOX 3.7. TOURISM IN ECUADOR IS PRO-POOR

Who benefits from tourism development in Ecuador? Although the tourism sector is clearly labor intensive and contributes substantially to employment, what does the evidence say about the distributional impact of growth in tourism exports? A recent study conducted by Croes and Rivera and published in a peer-reviewed economics journal found the following.

First, tourism has large multiplier effects on the Ecuadorian economy and has the potential to substantially benefit the poor. Second, the distributional effects of tourism development are spread across all household income categories

Source: Croes and Rivera 2017.

in both urban and rural areas. Third, increases in tourism exports (or, equivalently, in international tourism demand for Ecuador) benefit the lowest-income households the most: after a 10 percent increase in international tourism demand for Ecuador, the relative increase in the aggregate incomes of the lowest quintiles was higher than that of the highest quintile by nearly 31 percent, in both urban and rural areas. Therefore, tourism has the potential to reduce inequality in Ecuador; in this case, it is pro-poor. Its benefits to the poor seem to hinge on how and where tourists spend their money.

FIGURE 3.25. DIRECT CONTRIBUTION OF TRAVEL AND TOURISM TO EMPLOYMENT

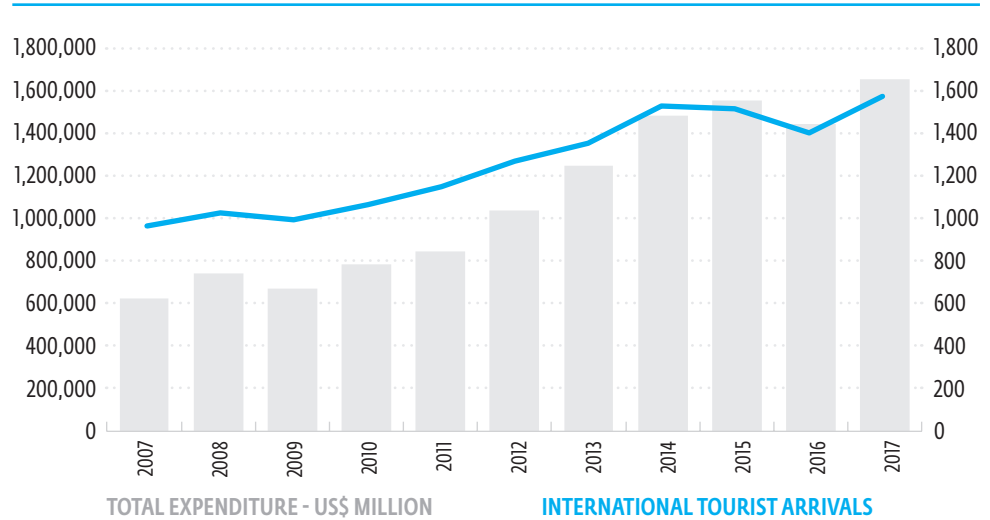
Source: WTTC 2018.

International arrivals and expenditures

Growth in international tourism arrivals has remained low or stagnant over the past five years. In 2017, Ecuador received 1.6 million international visitors, who generated a total of US\$1.66 billion in expenditure. With a compound annual growth rate (CAGR) of 5 percent since 2008, international visitor arrivals to Ecuador have grown slowly but steadily over the past decade, though they have slowed to a CAGR of 3 percent since 2012 (figure 3.26). The WTTC forecasts continued growth in international arrivals and exports, which will reach US\$2.93 million and US\$3.62 billion by 2028, respectively. However, Ecuador's growth in international arrivals is driven by a dramatic increase in visitors from the República Bolivariana de Venezuela. Owing to that country's internal crisis, Venezuelan visitors to Ecuador have increased sixfold since 2012, growing at an unprecedented CAGR of 36 percent over the period. Once we exclude Venezuelan visitors from the analysis (few of them are likely to be leisure tourists), growth in visitation has remained stagnant over the past 5 years (with a CAGR of -0.9 percent).

Despite limited growth in arrivals, expenditure per arrival is increasing. In 2012, international visitors to Ecuador spent an average of US\$91 per day. By 2016, this figure had increased to US\$135 per day, which, multiplied by the average stay length of seven days, generated an average expenditure of US\$946 per trip, similar to Peru's. Such increases suggest an improvement in the quality of Ecuador's offerings and the attraction of higher-end customers with greater spending capacity (see box 3.8).

FIGURE 3.26. VISITOR ARRIVALS AND EXPENDITURES, 2007–17



Source: UNWTO 2018.

Source markets

Ecuador’s most important source markets for tourism are Colombia, the United States, and Peru, representing 21 percent, 15 percent, and 9 percent, respectively, of market share in terms of volume. Nevertheless, special cases must be considered: Peru and Colombia represent flows of people mainly for work, business, family visits, and education rather than strictly tourism. Similar dynamics characterize the Venezuelan market (18 percent of market share), which, as discussed above, has increased rapidly over the past five years because of the country’s political-economic crisis.

In terms of holiday and leisure travel to Ecuador, the United States is by far the most significant inbound market, with 330,671 arrivals in 2017, and it should continue to be the focus of further market penetration. Argentina, Chile, China, and Germany all follow with market shares between 2 and 3 percent (30,000–45,000 visitors), as can be seen in figure 3.27. Argentine, Chilean, and U.S. arrivals have remained relatively stagnant over the past five years, while arrivals from Germany have grown at the modest rate of 2.1 percent during the period. (See box 3.8 for the implications of the changes in the origin of tourists as to the average income of tourists in Ecuador.)

The growth in Chinese arrivals is the most impressive. Although representing only 2 percent of arrivals, Chinese arrivals present a CAGR of 16 percent since 2012, most of which is attributable to the past two years. Just more than 30,000 Chinese tourists went to Ecuador in 2017. Although its distance still renders Latin America a relatively unpopular choice for Chinese travellers, the general profile of Chinese tourists is well aligned with Ecuador’s offerings. Chinese tourists tend to like visiting natural scenic attractions and spend more in-country than their non-Chinese counterparts (an attractive opportunity to increase tourism receipts). Additionally, since 2007, the country has maintained an economic and cooperative relationship with China, and in 2015 it dropped its visa requirements for Chinese travellers (Jing 2015).

FIGURE 3.27. INTERNATIONAL ARRIVALS TO ECUADOR BY NATIONALITY, 2017

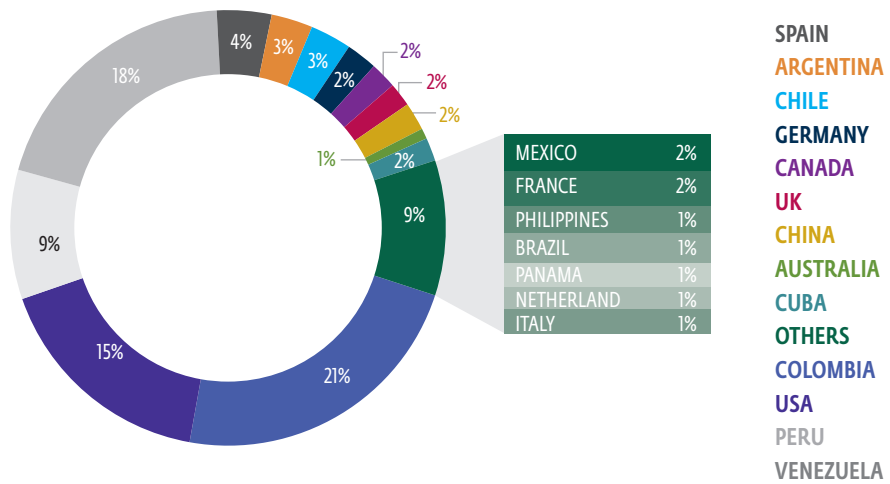
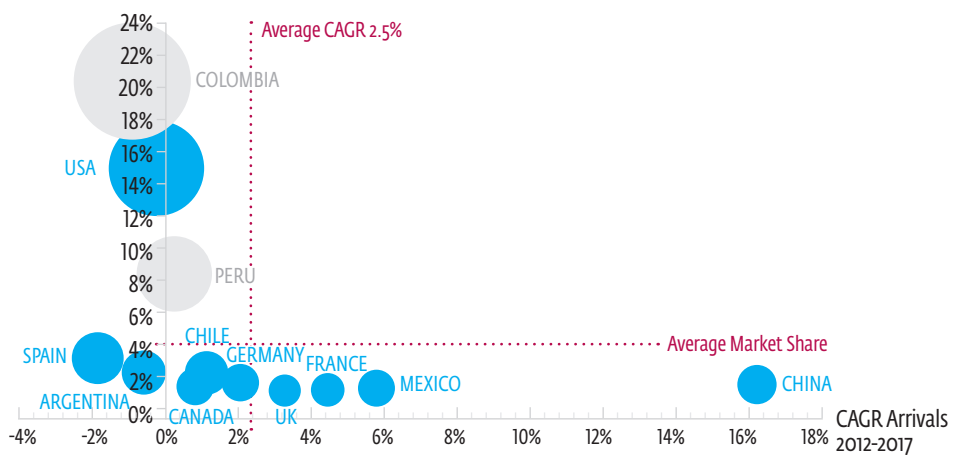


FIGURE 3.28. MARKET SHARE VERSUS CAGR FOR INTERNATIONAL ARRIVALS, 2012-17



**NEIGHBOR/TOURISM
LEISURE TRAVEL OUTBOUND MARKET**

Source: MINTUR 2018.

Note: Leisure travel outbound markets are identified in green, while neighbors or countries with less leisure-oriented tourism consumption patterns are in blue, CAGR = compound annual growth rate.

BOX 3.8. HOW HAS THE INCOME PER CAPITA OF THE AVERAGE TOURIST VISITING ECUADOR EVOLVED?

In order to increase tourism exports, it is crucial to both to attract more tourists and to increase expenditures per tourist. One could focus efforts on the latter and induce existing visitors to spend more of their disposable income, or one could focus efforts on the former and attract visitors with greater disposable incomes. Data reveal that tourists’ average daily expenditure increased substantially in Ecuador over the past five years. But how did the income of the average visitor change over time? We combined information on the origins of tourists in 2013 and in 2017 with information on income per capita in those origin countries to trace the average income of the average tourist who travels to Ecuador.

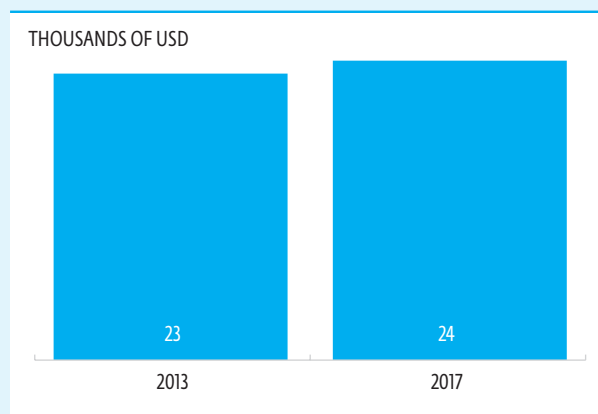
The average income of visitors to Ecuador increased by 4.5 percent in real terms between 2013 and 2017. In 2013, the average income of visitors to Ecuador was of US\$23,227, and in 2017, this figure had increased to US\$24,271 (figure B3.8.1). These numbers exclude travelers from the República Bolivariana de Venezuela and from Cuba, who may be misreported as tourists. A relevant question is how much of that increase of US\$1,043 over the period was caused by existing tourists becoming richer (i.e., the income effect), and how

much occurred because Ecuador was attracting a wealthier “basket” of tourists (i.e., the composition effect)? In other words, is the average income of tourists increasing because, say, Colombian visitors are getting richer, or is it increasing because Ecuador has become more attractive to tourists from richer countries? To answer that question, we held constant the composition of origin of tourists and traced their average income (to calculate the income effect), and then we held constant the average income and traced the changes in composition over time (to calculate the composition effect).

The increase in the average income of tourists to Ecuador was driven by Ecuador’s visitors becoming richer over time (the income effect) rather than by Ecuador attracting tourists from richer countries (the composition effect).

The income effect dominated the composition effect, increasing average tourist income by US\$1,446 between 2013 and 2017. In fact, the composition effect was negative, suggesting that the composition of Ecuador’s visitors shifted toward relatively poorer countries—lower shares of tourists came from Spain and the United States, thus driving down the average income of tourists (figure B3.8.2).

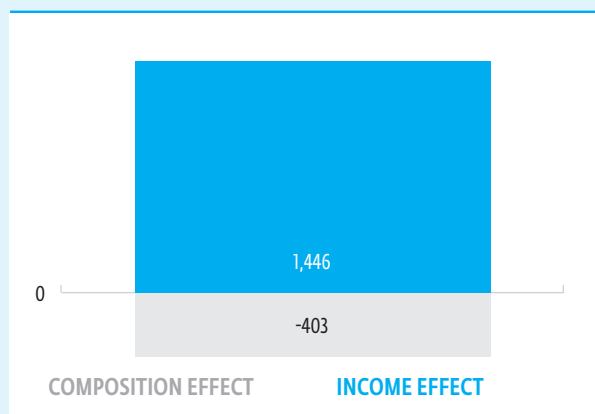
FIGURE B3.8.1. AVERAGE REAL INCOME OF TOURISTS VISITING ECUADOR



Source: WDI data on real GDP per capita and UNWTO data on tourist arrivals.

Source: WDI and UNWTO data.

FIGURE B3.8.2. DECOMPOSITION OF AVERAGE TOURIST INCOME INCREASE INTO INCOME AND COMPOSITION EFFECTS



Source: WDI data on real GDP per capita and UNWTO data on tourist arrivals.

Given their growth in arrivals to Ecuador and their global importance in terms of outbound tourism, China, France, Mexico, and the United Kingdom should be the focus of Ecuador's market cultivation (CBI 2017, 2020; Nielsen 2017). Figure 3.27 allows us to identify high-potential source markets for Ecuador by observing market share and CAGRs (2012–17).¹¹⁰ Given that no countries stand in the quadrant that represents the markets with the greatest potential (the upper right, with growth rates and market shares above average), we focused on the markets in the lower right quadrant, which despite representing low market shares grow faster than average: China, France, Mexico, and the United Kingdom. However, in terms of tourism expenditure and average length of stay, British and French tourists spend and stay on average twice as much as their Mexican counterparts (MINTUR 2018b).

Comparative performance

The relative importance of tourism in the Ecuadorian economy is limited compared with most other countries, although its importance is expected to improve in the next 10 years. With tourism making up only 5.4 percent of its total GDP, Ecuador ranks 156th out of 185 countries in terms of the relative size of its tourism industry. By contrast, the Latin American average is 8.6 percent, and competitors such as Costa Rica and Peru have tourism shares of 12.9 percent and 9.8 percent, respectively. At 12.5 percent (Costa Rica) and 8 percent (Peru) of total employment, tourism also contributes more to employment in those countries compared with Ecuador (5.1 percent); the regional average is 7.6 percent. At 10.6 percent of total exports, Ecuador does fare better in terms of visitor exports, exceeding Peru and both the regional and global averages. At 4.9 percent of total investment and 1.2 percent of GDP, investment in tourism in Ecuador is similar to that of its counterparts, a positive sign for the private sector.¹¹¹

The ability to increase international arrivals has been key to tourism growth in competitor countries; in contrast, arrivals to Ecuador have remained stagnant. As discussed above, international arrivals to Ecuador from key source markets have remained stagnant over the past five years despite arrivals increasing for most of Latin America. Costa Rica and Peru not only attract more than double and triple the number of international visitors, respectively, but also have grown their international arrivals at faster rates, particularly when we remove the República Bolivariana de Venezuela from the analysis. Both Costa Rica and Peru have also increased visitation from key leisure travel outbound markets such as France, the United Kingdom, and the United States at rates of 5–15 percent, while visitors to Ecuador from these markets have stagnated or increased more slowly. This discrepancy is in turn linked to Ecuador's challenges in attracting significant FDI into the sector. For example, the Financial Times' database of FDI projects announced by country and sector reveal that only 4 FDI projects were announced in Ecuador's tourism sector between 2003 and 2013, compared with 19 in Colombia, 13 in Costa Rica, and 8 in Peru.¹¹²

Nevertheless, there are some hopeful signs for the future. Recent and forecasted growth rates of tourism in Ecuador are comparable to or outpacing those of its competitors. Over the next 10 years, the WTTC forecasts that tourism in Ecuador will exceed the Latin American and global average growth rates in the areas of total contribution to GDP (4.3 percent versus 3.2 percent), total employment (3.6 percent versus 2 percent), total capital investment (4.4 percent versus 4.1 percent), and leisure spending (4.3 percent versus 3.2 percent) while matching pace in terms of visitor exports (5 percent versus 5.3 percent). (See also table 3.13.)

TABLE 3.13. RELATIVE IMPORTANCE AND GROWTH OF TOURISM IN ECUADOR VIS-A-VIS COMPETITORS

TOURISM MACRO INDICATORS	ECUADOR	PERU	COSTA RICA	LATIN AMERICA	GLOBAL
Tourism arrivals, 2017	1,608,473	4,032,000*	2,960,000	47,9000,000	1,323,000,000
5-year CAGR of international arrivals (2013–17), %	3.4 (-1 w/o Venezuela, RB)	5.0*	4.0	5.7	3.9
Key source markets (% share, 2016)	Colombia, 22 United States, 19 Venezuela, RB, 7	Chile, 28 United States, 16 Ecuador, 9	United States, 42 Nicaragua, 15 Canada, 6		
Tourism receipts (US\$, millions)	1,657	3,710	3,876*	41,989	1,179,000
Visitor exports as % of exports, 2017	10.6	9.2	20.3*	7.2	6.5
% of total employment, 2017	5.1	8.0	12.5*	7.6	9.9
Capital investment	4.9*	4.8	4.0	6.2	4.5
% contribution to total GDP, 2017	5.4	9.8	12.9*	8.6	10.4
5-year CAGR in % contribution to total GDP, 2013–17	2.8*	0.2	0.8	0.5	1.2
Projected annual growth to 2028 (total tourism contribution), %	4.3	4.5*	4.3	3.2	3.8

Source: WTTC 2018 and UNWTO data.

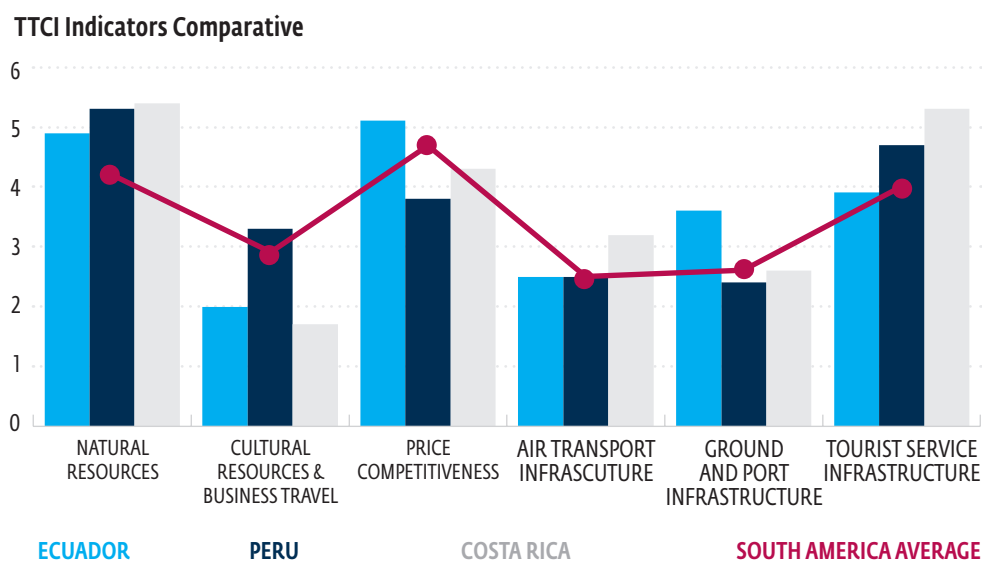
Note: * = highest comparative value. CAGR = compound annual growth rate; GDP = gross domestic product.

Comparative Competitiveness

Using the Adventure Tourism Development Index and key competitiveness indicators from the World Economic Forum (WEF)'s Travel and Tourism Competitive Index (TTCI) related to product, price competitiveness, and tourism infrastructure (scored from 0 to 7), we can observe Ecuador's position relative to its regional competitors (see figure 47 below).

In terms of tourism supply, Ecuador's greatest competitive advantages compared with its regional competitors are its price competitiveness and its ground infrastructure (figure 3.29). With a WEF TTCI score of 5.1, Ecuador's price competitiveness exceeds the regional average of 4.7 and Costa Rica's and Peru's scores of 4.3 and 3.8, respectively. The favorable price of Ecuador's accommodations drive its strong performance on this indicator. With a score well above the regional average of 2.6, Ecuador also outperforms its competitors in terms of ground infrastructure, for which its high-quality roads and small geographic area are favorable factors. However, transportation and tour operators in Ecuador require separate operational permits and licenses and are governed by different regulations. Few tour operators can integrate transportation into their offerings in a cost-effective manner, which affects tour service quality and pricing.

FIGURE 3.29. TTCI SELECT TOURISM SUPPLY INDICATORS, 2018



Source: WEF 2018.

Note: The TTCI indicators are scored from 0 (low performance) to 7 (high performance). TTCI = Travel and Tourism Competitive Index.

Ecuador is at a competitive disadvantage when it comes to the *quality* of its tourism infrastructure. The quality of Ecuador's tourism services is considered relatively poor despite their ample supply and competitive pricing. At 3.9, Ecuador scores just below the Latin American average but well below Peru (4.7) and Costa Rica (5.3).

Given that Ecuador's greatest competitive advantage lies in its incredible natural asset wealth, the country has a strong imperative to protect its heritage. Ecuador struggles in its environmental performance relative to competitors, ranking 87th out of 180 countries on the Environmental Performance index, compared with 30th for Costa Rica and 64th for Peru.¹¹³ It fares particularly poorly in the areas of threatened species protection and wastewater treatment. Although all three countries contain high levels of biodiversity, 13 percent of Ecuador's species are considered threatened, compared with 7.6 percent of Costa Rica's and 10 percent of Peru's. Protecting threatened species is an important component of the Adventure Travel Development Index's Adventure Activity Resources score, and therefore is a significant contributor to Ecuador's relatively poor performance in this index. Given the strong connection between tourism development, conservation of natural assets, and the iconic value of the Galapagos Islands, improving these ratings will be important to the long-term sustainability of tourism in Ecuador. For example, the country needs to develop a waste-management strategy for tourism.¹¹⁴

Ecuador's Marketing and Branding

Effective marketing, branding, and positioning are critical to attracting international visitors. Indeed, the 2016 Adventure Tourism Development Index found that a country's branding and cultural resources have a high degree of correlation with that country's international arrival numbers, suggesting that these are important differentiating factors for travelers.¹¹⁵

Limited and inconsistent investment in marketing and branding is one of the hindrances to competitiveness most commonly cited by the Ecuadorian private sector. When the entire government's budget was reduced in 2015–16 because of slumping oil prices, the budget of the Ministerio de Turismo (MINTUR) was slashed in half, and it reduced its promotion activities accordingly, compared with previous years. (In 2015, MINTUR had a budget of US\$54.5 million, but in 2016 its budget was reduced to US\$28.1 million, of which US\$7 million was dedicated to promotional campaigns). Ecuador allocates only 1.2 percent of its government budget to travel and tourism, while Costa Rica dedicates 6.3 percent and Peru dedicates 2.7 percent (table 3.14).

Ecuador does not currently have an autonomous tourism board (also known as a DMO) that includes private sector representation at the board-of-directors level. Instead, marketing and branding is governed by MINTUR, often politicized, and suffers from dramatic changes in promotional strategies across administrations. Consequently, Ecuador's country branding receives relatively poor ratings at both the regional and international levels. Meanwhile, its regional competitors have embarked on successful and ambitious branding and marketing campaigns. In the case of Peru, some of the key factors behind its brand success include an emphasis on its most iconic assets (Inca heritage); enhancing national pride and emblematic "Made in Peru" by compromising multiple industries (not just tourism) to promote the country; national (not just international) communication campaigns to appeal domestic; emphasis on digital media and strong licensing and ambassadors program with recognized companies and personalities who represent the Peru brand at national and international levels. Likewise, Costa Rica, which has a long record of consistent branding and investment in promotional campaigns to position the country globally, bases its success on public-private partnerships among its tourism board, which has its own independent budget sourced primarily from airfare charges.

TABLE 3.14. MARKETING AND BRANDING PERFORMANCE

INDICATOR			
Tourism govt. expenditure, % of govt. budget (WEF 2017b)	1.2 Rank: 122 out of 136	2.7 Rank: 82 out of 136	6.3* Rank: 27 out of 136
Country brand ranking (Bloom Consulting 2017)	78 of 193 globally; 19 of 46 in LAC	41* of 193 globally; 6* of 46 in LAC	46 of 193 globally; 9 of 46 in LAC
Country brand index (Future Brand 2016)	Didn't make global rankings; 15 of 20 in LAC	34 of 75 globally; 5 of 20 in LAC	22* of 75 globally; 6* of 20 in LAC
Effectiveness of marketing & branding to attract tourists (WEF 2017b)	Rank: 48 Score (1–7): 4.8	Rank: 39 Score (1–7): 4.9	Rank: 13* Score (1–7): 5.5

Sources: Bloom Consulting 2017; Future Brand 2016; WEF 2017b.

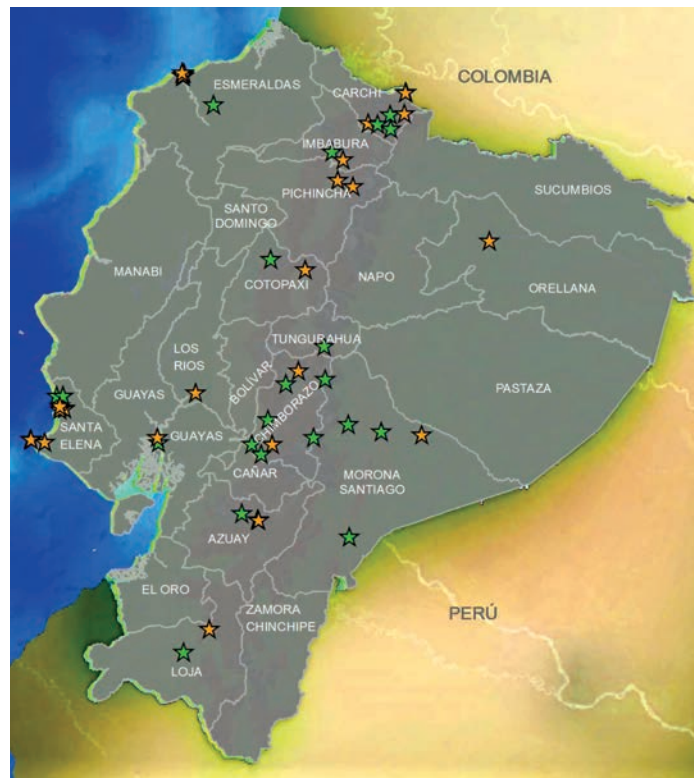
Note: * = highest comparative value. LAC = Latin America and the Caribbean; TTCI = Travel and Tourism Competitive Index; WEF = World Economic Forum.

Ecuador's Tourism Supply

Overview

As one of the world's few megadiverse countries, Ecuador is endowed with tremendous biodiversity and several attractive natural and cultural assets. It possesses multiple unique ecosystems concentrated in a small geographic area, ranging from coastal areas to high mountains to rainforests, 26 percent of which holds protected area status. It is home to 2,477 unique species, the world-renowned Galapagos Islands, and five UNESCO World Heritage Sites (the City of Quito, the Galapagos Islands, Sangay National Park, the Historic Centre of Santa Ana de los Ríos de Cuenca, and Qhapaq Ñan, the Andean road system). In 2017, WEF's TTCI ranked Ecuador 10th in the world out of 185 countries in terms of attractiveness of natural assets (WEF 2017b). A tourist attraction inventory conducted by MINTUR in 2004 registered more than 3,500 attractions.¹¹⁶ In the 2007 PLANDETUR (the National Strategic Tourism Development Master Plan's 2020 vision), 190 pilot tourist attractions were identified on which to focus planning efforts.¹¹⁷ In 2018, MINTUR published a revised methodology to identify and classify tourism attractions (MINTUR 2018a), and since then it has updated its inventory and published results on a monthly basis (figure 3.30). The latest data, from June 2018, contain 60 georeferenced attractions (58 percent cultural and 42 percent natural) in 16 provinces.¹¹⁸

FIGURE 3.30. PRINCIPAL TOURIST ATTRACTIONS PER MINTUR PRIORITIZATION



Source: MINTUR.

Note: Green stars correspond to natural attractions, and yellow stars to cultural attractions. The full map can be seen at https://servicios.turismo.gob.ec/descargas/InventarioAtractivosTuristicos/Mapa_avanceAtractivosTuristicos_may2018.jpg. MINTUR = Ministerio de Turismo.

In terms of destinations, since PLANDETUR was established, Ecuador has organized itself into four distinct natural regions, often referred to as “*mundos*,” or worlds. These worlds are relatively close in proximity and reflect the country’s four primary ecosystems (MINTUR, 2014).

- **Andes** (North Mountain Range, Central Mountain Range, Austro, South Border, and Quito Metropolitan District)
- **Galapagos Archipelago**
- **Amazon** (North Amazon and Central Amazon)
- **Coast** (North Coast, Central Coast, South Coast, and Guayaquil Metropolitan District)

Primary products and attractions

Ecuador's most mature, consolidated tourism products are primarily nature and adventure based, but cultural offerings are also a strong suit. The Galapagos Islands are without a doubt Ecuador's star attraction, offering a diversity of consolidated ecotourism and adventure products to high-end niche markets. With its strong colonial and indigenous heritage, the Andes contain most of the country's cultural offerings, as well as mountain-based nature and adventure tourism such as trekking, climbing, mountain biking, kayaking and rafting, horseback riding, and flora and fauna observation. The Ecuadorian Amazon is increasingly drawing tourists to its pristine nature and wildlife-viewing opportunities. Ecuador's Pacific coast boasts a more classic sun-and-surf profile, which attracts considerable numbers of domestic tourists, though the large coastal city of Guayaquil is more diverse in its offerings. Table 3.15 summarizes Ecuador's current star products and attractions by worlds, or *mundos*.

TABLE 3.15. PRIMARY TOURISM PRODUCTS AND ATTRACTIONS BY WORLDS, OR MUNDOS

	ANDES	GALAPAGOS	AMAZON	COAST
Star attractions (PLANDETUR)	Quito Cuenca Parque Nacional Sangay Otavalo Parque Nacional Cotopaxi La Avenida de Los Volcanes Bosque Nublado de Mindo Nambillo	Galapagos Islands	Parque Nacional Yasuní Reserva de Producción Faunística Cuyabeno Napo Wildlife Center Reserva Ecológica Kapawi	None
Star products and segments	Cultural: historical and architectural, indigenous heritage, handicrafts	Ecology and nature: wildlife viewing	Ecology and nature: Flora and fauna observation	Sun and surf
	Adventure: trekking, climbing, horseback riding, cycling downhill	Adventure: small cruises, sun and beaches, swimming, diving and snorkeling	Adventure: river cruising	Beaches, relaxation, swimming, surfing, boating
Growth products and segments	Food tourism: Andean cuisine, cacao Wellness and spas Flora: orchids Whitewater rafting and kayaking	Scientific tourism	Community tourism	Cultural: festivals, gastronomy (cacao), shopping

Source: Data from PLANDETUR and MINTUR.

Note: MINTUR = Ministerio de Turismo.

Product segments

Birdwatching, adventure tourism, and gastronomy are high-end niche segments with strong potential for Ecuador. Ecuador's existing nature tourism assets and products are well positioned to fulfil current market trends in key source markets, attract more visitors, and increase visitor spending. Nature tourism accounts for approximately 20 percent of all international travel, and birdwatching and adventure tourism are important components of this expanding market (CBI 2020b). They should be key focuses of further product development and marketing.

Nature/birdwatching

Birdwatching is a recreational activity that is enhanced and enriched by travel. An estimated 3 million international trips are taken each year for the primary purpose of birdwatching (Caribbean Tourism Organization n.d.). The most developed birdwatching markets are North America and the United Kingdom. The latter is home to the largest bird organization in Europe, the Royal Society for the Protection of Birds, which boasts 1 million members (CBI 2017). Other important markets include northern Europe and Scandinavia.

Standout species are known to make a considerable positive impact on local economies; where there are iconic or rare endemic species, birders will travel out of their way to view them. A recent study on the economic benefits of bird-based tourism in Colombia found that the number of birdwatchers visiting the country could be 14,978 annually, spending US\$46 million and generating US\$9 million in profits and 7,516 new jobs (Ocampo-Peñuela and Winton 2017).

The quality of birdlife is the number one factor determining a birdwatching destination's competitiveness in the European market. This factor includes bird species diversity and richness, birding infrastructure, general biodiversity, and the status of conservation activities. Three international standards (ISO 21101, 21102, and 21103) support more adventurous birdwatching tours.

Few countries in the world rival Ecuador's bird species diversity. Ecuador has recorded sightings of 1681 species of birds, 26 of which are endemic (MINTUR 2017b). The opportunities for further capitalizing on this segment therefore lie in developing the complementary infrastructure and services expected by such a high-end market, developing operational standards and policies that will support birdlife conservation, and targeting marketing to generate greater awareness among key source markets of Ecuador's offerings.

Adventure tourism

With 65 percent growth since 2012, and now valued at US\$263 billion, adventure tourism is one of the world's biggest tourism niche markets (Adventure Travel Trade Association 2016). As tourists increasingly seek new experiences and destinations, the adventure market is set to continue to expand—forecasted growth is 17.4 percent through 2023 (Allied Market Research 2018). Furthermore, there is a clear indication that the conventionally accepted definition of adventure tourism is significantly shifting. As a result, adventure tourists are demanding more socially responsible, authentic experiences alongside challenging physical activities that satisfy their quests for personal fulfillment and achievement. Consequently, leisure trips are increasingly encompassing some form of adventure activity (Adventure Travel Trade Association 2017c).

Adventure tourism is a lucrative sector, attracting high-value customers with an average expense per trip of US\$3,000 and per-day spending of about US\$314 in South America (Prince 2013). These rates are about two and a half times the average expenses of tourists in Ecuador. Tour operators additionally estimate that 65 percent of per-guest trip spending remains in the local region, and that adventure tourists spend up to US\$145 on local handicrafts or souvenirs. Reported per-day trip prices rose by 29 percent in South America from 2015 to 2017 (Adventure Travel Trade Association 2017a).

Given Ecuador's natural and cultural assets, the country can readily meet the increasing demand for adventure tourism. Ecuador's advantages in this market lie in the country's rich natural heritage, complemented by diverse cultural opportunities and a reputation for nonmass tourism. Ecuador is already considered one of the top up-and-coming adventure travel destinations for the European market, according to market research conducted by the Netherlands' Centre for the Promotion of Imports from Developing Countries. The most important factor to meet the needs of this market segment is compliance with safety and security standards (CBI 2020a). Luckily, Ecuador already has segment-specific technical norms for ten adventure activities that can help further guide quality and safety improvements to its offerings.¹¹⁹ Nevertheless, Ecuador stands to further improve its position in this market by improving its branding, because the 2016 Adventure Travel Development Index found that for Latin America, the specific factors that greatly influenced visitor arrivals were cultural resources and branding (Adventure Travel Trade Association 2016).

Gastronomy/food tourism

According to the World Food Travel Association (WFTA), food tourism generates US\$150 billion annually, and approximately 30 percent of tourist spending is devoted to food (Andina 2016). The economic impact of local and regional food tourism can be up to seven times greater than the original expense, with reverberations all the way down the supply chain. It is one of the fastest-growing segments in the tourism industry.

Drawing tourists from all over the world, gastronomy is now a US\$6.5 billion industry in Peru. Aided by a combination of domestic and global dynamics but catalysed by significant and consistent promotion, in just 15 years, Peruvian cuisine has gained global recognition among foodies and travellers alike, winning the World Tourism Award for “South America’s Leading Culinary Destination” yearly from 2012 to 2016.¹²⁰ One poll found that 39 percent of Peruvians consider gastronomy to be the principal source of national pride—ahead of the ruins of Machu Picchu, at 36 percent (Tegel 2016). Gastronomy has been the main driver of increased visitor stays and spending in Lima, which for most tourists was only a brief layover en route to Machu Picchu. The popularity of Peruvian cuisine has increased the country’s food and agricultural exports as well. For Peru, tourism acted as a platform for the growth and diversification of its food exports (Oxford Business Group 2016).

Ecuador should invest in skills development and marketing to elevate its nascent gastronomic sector. Ecuador shares many of the combinations and diversity of cultures and geography that make Peru’s gastronomic heritage so rich, while also possessing unique ingredients, products, and dishes that distinguish its national cuisine. By investing in specialized skills training for emerging chefs and restaurateurs and by integrating and highlighting primary products and gastronomic heritage in itineraries and promotion, Ecuador stands to capitalize on the growing global interest in food tourism generally and Andean cuisine in particular. Some experiences with specific food products show that the potential for growth exists. For example, República del Cacao has become an internationally known chocolate brand by leveraging tourism. Its products are branded as “the most authentic Latin American chocolates.” The company has opened own stores in Quito and the Galapagos Islands (in airports and main hotels) while also negotiating presence in high-end international supermarkets in the United States and Europe. Other chocolate manufacturers have followed its lead.

Transportation

Air

The Ecuadorian aviation sector—crucial for Ecuador’s tourism prospects, given the country’s source markets—supports 137,500 direct and indirect jobs, contributing US\$2 billion to the local economy in 2016 (Nicolas Larenas 2018). As of 2017, 20 different airlines operated flights originating in Ecuador, representing 129 million available international seat kilometers (total flight passenger capacity in kilometers) (WEF 2017c). The Quito and Guayaquil airports are served by direct international flights from 15 cities (six in North America, seven in Central and South America, and two in Europe). The budget carriers Spirit Airlines and JetBlue recently added service from the United States. However, total capacity dropped by 4.7 percent in 2017 to 2.57 million scheduled international departure seats, and domestic capacity dropped by 13.1 percent to 4.16 million seats.¹²¹

Ecuador's bilateral air service agreements are relatively open, ranked 22nd in the world in the World Economic Forum's 2017 index. In December 2017, Ecuador adopted an open skies policy, which seeks to liberalize air transportation, unlock new routes, and attract more international operators to the country. With recent upgrades, including the new Quito Mariscal Sucre airport, the quality of Ecuador's air transportation infrastructure is also relatively high compared to its competitors (WEF 2017c). The open skies policy is intended to boost the country's stagnant aviation sector and generate new investment opportunities. Already, dynamics are changing with the arrival and interest of operators such as Spirit Airlines and Condor, the return of VivaColombia, and a commercial air agreement with Canada.

However, complementary measures are needed to tap into the potential of the open skies policy. Anecdotal evidence collected during interviews for this analysis reveal that the open skies policy alone will not significantly move the needle unless it goes hand in hand with additional tax and legal reforms, tourism promotion, and incentives for airlines and import/export business. The government should seek to define a strategic development plan for the aviation sector that is aligned with tourism and import/export objectives. Additionally, it should seek to support small and local airlines in adapting to the new competitive landscape. International experience shows that in some cases, incentives may be warranted to attract new airlines or to increase airlift during the off season. For example, when the city of San Diego wanted to attract British Airways to its airport, the local tourism authorities considered covering certain losses on initial flights. And in some cases, tourist destinations do not impose landing charges during the off season to allow airlines to reduce their prices. A careful analysis of the costs and benefits of such incentives needs to be conducted in order to find the most effective and efficient strategy for Ecuador.

Ticket purchases for international air travel in Ecuador are subject to a high per-passenger tax. The ECODELTA tax charges a US\$50 per-passenger fee on all international flights originating in Ecuador, and the Potencia Turistica tax charges US\$10 per passenger to international flights bound for Ecuador. The income collected by these taxes was intended to contribute to Ecuador's marketing and promotion budget, but it now goes directly to the national treasury accounts. Although industry representatives have expressed concern over the potential disincentive the tax presents for airlines and travel agencies (or travelers themselves), competitor countries do have similar practices: Peru charges a US\$43 departure tax, US\$15 of which goes toward promotion, and Costa Rica charges US\$30 directly for promotion purposes. Nevertheless, all three countries do present relatively high access costs, with higher-than-average ticket taxes and airport charges. Ecuador has an opportunity to distinguish itself in this regard from its regional competitors. If the tax remains, the government should consider a mechanism to channel those revenues into tourism promotion.

Air travel in Ecuador is also subject to elevated operational costs because of country-specific regulations regarding price-setting for fuel. The Platts Global Jet Fuel Price Index is calculated based the Platts (a division of the McGraw-Hill Companies) proprietary daily assessment of major global trends and supply and demand centers, representing a broad view of global demand around the world. Most of the world uses the standard Platts price calculation when calculating jet fuel prices; however, Ecuador uses a different formula. According to the 2015 799 decree, EP PETROECUADOR defines jet fuel prices monthly on the basis of a weighted average that includes transportation costs, storage, commercialization, and a margin and tributes set by the governing public body. Additionally, it enforces a minimum jet fuel price of \$1.25 per gallon. According to Platts, the average jet fuel price in Latin American was \$2.70 per gallon in October 2018.¹²² In Ecuador, EP PETROECUADOR's jet fuel price for the same period was \$2.34 per gallon.¹²³

Ground

According to the TPCI, Ecuador has relatively high-quality roads. This road infrastructure quality is an advantage for supporting the multiproduct, multi-destination itineraries needed to viably expand and diversify Ecuador's tourism offerings. Nevertheless, tourism stakeholders cite a highly regulated and mobilized transportation sector as a barrier to such an expansion. Given that transportation and tour operators require separate operational permits and licenses and are governed by different regulations (see the following section on tourism providers), few tour operators can integrate transportation into their offerings in a cost-effective manner.

Tourism providers

Tourism businesses in Ecuador can be registered under the following categories, each governed by their own sector-specific regulations:

- Tour guides (continental)
- Tour guides (Galapagos)
- Accommodation
- Transportation (maritime and river)
- Transportation (air)
- Transportation (terrestrial, for tourism purposes)
- Food and beverage
- Travel agencies
- Community tourism centers

The number of tourism businesses in Ecuador has significantly increased in the past five years. In 2016, there were 25,931 tourism businesses registered with the Ministry of Tourism, up by 31 percent since 2012 (table 3.16). It is unclear how much of this growth consists of new businesses versus increased registration for existing ones. As can be observed in tables 3.16 and 3.17, most registered Ecuadorian tourism businesses are microenterprises (92 percent) and in the food and beverage sector. Only 10 tourism companies in the country are large, all of which are hotels. Accommodations and food and beverage businesses are concentrated on the coast and in the mountains, with only 8 percent in the Amazon.

TABLE 3.16. REGISTERED TOURISM BUSINESSES IN ECUADOR, 2012–16

ACTIVITY	TYPE	REGISTERED TOURISM BUSINESS (2012–16)				
		2012	2013	2014	2015	2016
Accommodation		4,334	4,672	5,189	5,488	5,177
Food and beverage		13,261	14,057	15,741	17,325	17,695
Transportation	Total	362	378	400	444	510
	Ground	211	211	213	235	254
	Maritime and river	91	104	127	146	190
	Air	60	63	60	63	66
Tour operators	Travel agencies	661	734	776	858	905
Intermediaries	Total	970	1,034	1,114	1,277	1,341
	International travel agencies, tour operators, and duals	779	830	880	999	1,044
	Event centers	175	188	215	260	280
	Convention centers	7	9	9	9	9
	Event organizers	9	7	10	9	8
Hot springs, recreation centers, skating centers, and so on		141	194	235	280	303
Total		19,729	21,069	23,455	25,672	25,931

Source: MINTUR 2017a

TABLE 3.17. REGISTERED TOURISM BUSINESSES BY ACTIVITY AND SIZE IN ECUADOR, 2016

ACTIVITY	BUSINESS SIZE			
	MICRO	SMALL	MEDIUM	LARGE
Accommodation	4,647	473	47	10
Food and beverage	16,290	1,380	25	
Intermediaries	2,130	108	8	
Recreation	276	25	2	
Transportation	448	56	6	

Source: Catastro Turístico Nacional Consolidado, Ministerio de Turismo (MINTUR).

Accommodations

Ecuador's hotels face challenges associated with profitability. Anecdotal evidence suggests that the average daily room rate for profitable five-star hotel operations is around US\$200 (with a room replacement cost of US\$200,000). However, daily rates in Ecuador are substantially below that figure: average daily rates were US\$117.40 and US\$74.50 for five- and four-star accommodations, respectively, in April 2018. Occupancy rates, which hover around 50 percent, are also relatively low. Over 90 percent of hotels are two- or three-star establishments, and only 53 are five-star establishments.¹²⁴ Both daily rates and occupancy are likely affected by the increased penetration of the sharing economy in Ecuador, including Airbnb, which, according to anecdotal evidence, has more than 300 listings in Quito.¹²⁵ This situation calls for investments in “smart” hotels, which reduce operation costs (and therefore the average room replacement cost) and combine the hotel business model with other facilities such as entertainment centers, conference centers, or office or apartment blocks.¹²⁶ Investments—mainly FDI—in this area have been low. Ecuador also struggles relative to its competitors in terms of the quality of its tourism infrastructure (it ranked 95th on this WEF TICI indicator, compared with 26th and 71st for Costa Rica and Peru, respectively). Private sector stakeholders corroborated these quality concerns during consultations, expressing concern over the availability of qualified human resources in the sector (see the discussion below) and the lack of standardization and weak quality standards.

Regulatory and enabling environment

Cross-sector considerations

Tourism businesses in Ecuador face many of the same business-environment constraints as their private sector counterparts in other industries. These constraints include barriers to starting and doing business, foreign investor openness, and taxation and incentives (some of which were discussed in the Cross-Cutting Constraints section of this report).

Business environment

Starting a business and doing business

The burden of starting a business in Ecuador weighs heavily on tourism entrepreneurs. Many of the concerns expressed by private sector stakeholders in interviews are corroborated by Ecuador's poor performance in business indices, both the World Bank's Doing Business 2020 (in which the country ranks 129th of 190 economies, compared with 74th for Costa Rica and 76th for Peru) and the business environment category of the World Economic Forum's TFCI 2019 (in which Ecuador ranks 125th of 140 countries). Starting a business in Ecuador costs an average of 21 percent of the average annual income—more than double the cost of starting a business in Costa Rica or Peru despite the countries' similar income levels.

These high barriers to general private enterprise in Ecuador must be addressed first and foremost. Streamlining, standardizing, and automating permitting, licensing, and other regulatory requirements, setting preferential interest rates, and relieving businesses of certain taxes and import duties are all mechanisms other countries have used to lower such barriers. For example, operational permits were mentioned as a barrier for Ecuadorian companies and, indeed, were identified in Ecuador's Doing Business report as by far the lengthiest administrative procedure. Ecuador could take advantage of Peru's recent efforts to improve in this area by replicating efforts made in Cusco in a high-priority tourism zone in Ecuador. This entailed simplifying, integrating, and automating the business registration process, which resulted in the removal of 150 unnecessary regulations, trimmed three years off the time required to start a business, and saved private companies \$760,000 in total. (World Bank 2016b).

The various subsectors in the tourism value chain are most greatly affected by the following business-environment factors:

Travel agents

- Inconsistent marketing investments, brand positioning, and presence in key international markets.
- High airlift and flight prices, including tourism taxes
- Ease of doing business constraints: difficulty of obtaining operational licenses, VATs for hiring local operators, complex regulatory environment

Airlines

- Difficulties in negotiating routes (although the open skies policy is a step forward)¹²⁷
- High cost of operations (jet fuel, airport services, and remittance taxes)

Accommodations

- Labor market rigidities: inflexibility of hiring practices, high cost of hiring temporary or seasonal employees
- Lack of access to qualified staff, language barriers
- Lack of access to appropriate financial vehicles, high interest rates
- Investment insecurity caused by changing policies and a weak regulatory environment

Food and beverages

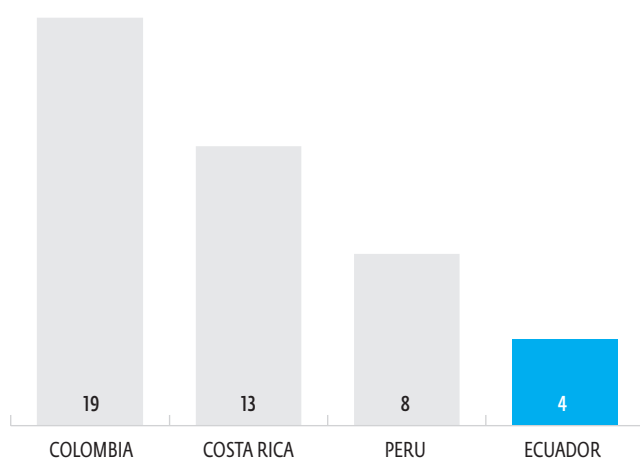
- Ease of doing business constraints: difficulty of obtaining operational licenses, complex regulatory environment
- Labor market rigidities: inflexibility of hiring practices, high cost of hiring temporary or seasonal employees
- Lack of access to qualified staff, language barriers

Tour operators

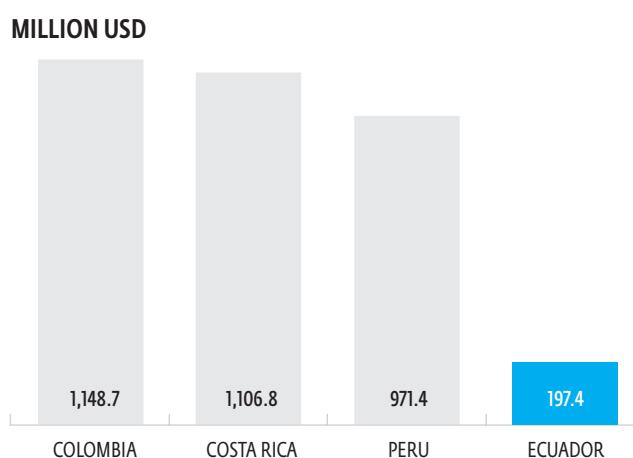
- Inconsistent marketing investments, brand positioning, and presence in key international markets.
- Ease of doing business constraints: difficulty of obtaining operational licenses, complex regulatory environment.
- Labor market rigidities: inflexibility of hiring practices, high cost of hiring temporary or seasonal employees, strict requirements for tour guide licenses
- Lack of access to qualified staff, language barriers
- Tourism transportation regulations

Foreign investment and openness

Ecuador is fairly open to foreign direct investment (FDI) in most sectors; however, contradictory and fluctuating policies have resulted in increased risks and high costs of doing business in the country. Ecuador's FDI inflows are low compared to those of other countries in Latin America partly as a result of this. For example, between 2003 and 2016, only 4 FDI projects were announced in Ecuador's tourism sector (as recorded in the FDI Markets database), substantially less than the 19 FDI projects announced in Colombia, the 13 in Costa Rica, and the 8 in Peru (figure 3.31). Ecuador also lags its comparators in terms of values of announced FDI: US\$197 million between 2003 and 2017, compared with US\$1,148 million in Costa Rica, US\$1,106 million in Peru, and US\$971 million in Colombia (figure 3.32). Part of the reason behind the lack of foreign investment in the tourism sector lies in Ecuador's regulatory constraints, including the country's frequent changes in policy, coupled with legal uncertainty resulting from inconsistent application and interpretation of existing laws, a high cost of doing business, and a weak judicial system. However, foreign investors are allowed to remit 100 percent of profits, subject to a 5 percent capital exit fee (see the cross-cutting constraints section on FDI restrictions earlier in this report), while local Ecuadorian companies are required to distribute 15 percent of pretax profits to their employees

FIGURE 3.31. NUMBER OF FOREIGN DIRECT INVESTMENT PROJECTS ANNOUNCED

Source: FDI Markets data, Financial Times.

FIGURE 3.32. VALUE OF FOREIGN DIRECT INVESTMENT PROJECTS ANNOUNCED

Source: FDI Markets data, Financial Times.

In contrast, Peru's general economic openness to foreign capital and trade has contributed to considerable gains for its private sector. As can be seen in international rankings, Peru performs relatively well, especially within Latin America, in the areas of business environment, competitiveness, and ease of doing business. According to the WEF's 2019 TCI, Peru ranks 44th of 140 countries in terms of the business impact of its rules on FDI. Ecuador, in contrast, comes in at 138th globally. Through its public-private partnership model, Peru has driven FDI up and improved efficiency. Investments in Peru have risen from US\$220 million in 2004 to US\$12 billion in 2014; FDI has also helped to improve overall efficiency and management of investments.

Taxation and incentives

Ecuador's preferential corporate tax rates for inbound tourism companies are a positive step. Although corporate tax rates in Ecuador were increased in January 2018 from 22 to 25 percent, the tourism sector benefited from an exemption—their corporate tax rate was actually reduced by actual 10 percent.¹²⁸ Still, during interviews with the private sector, taxation was presented as a burden for the sector, which faces multiple levels of taxes, including social security (12 percent), a remittance tax (5 percent), and municipality taxes. Peru places no sales taxes on exports, which includes most tourism services, and in 2001 it eliminated its sales tax on hotels, tourist packages, and restaurants.¹²⁹

Air ticket purchases for international air travel in Ecuador are subject to a high per-passenger tax. As mentioned above, The ECODELTA tax charges a US\$50 per passenger fee on all international flights originating in Ecuador, and the Potencia Turistica tax charges US\$10 per passenger on international flights bound to Ecuador. The income collected by these taxes was intended to contribute to Ecuador's marketing and promotion budget, but it now goes to national treasury accounts.

Human resources

Labor market

Ecuador's workforce lacks the specialized skills, service orientation, and professionalization that characterize quality tourism offerings and experiences. Ecuador's TTCI scores in these areas back up the results of stakeholder interviews that highlighted the lack of a qualified labor force and a service culture and extremely rigid hiring and firing regulations as constraints holding back Ecuador's tourism sector. Among its competitors, Peru shares similar challenges, but Costa Rica excels in these areas. Ecuador scores 4.2 in the human resources and labor market category of the 2017 TTCI index and ranks 95th, while Peru scores 4.7 and ranks 62nd and Costa Rica scores 4.9 and ranks 42nd.

Ecuador labor laws restrict the tourism sector's flexibility to effectively operate under its unique market conditions. The Law for Labor Justice and Recognition of Work in the Home that took effect in 2015 replaced fixed-term employment contracts with indefinite contracts and shortened the trial period for new jobs to 90 days (see the earlier section on cross-cutting constraints). Additionally, temporary employees hired only for events and peak seasons cost 35 percent more per hour than full-time employees. For the private sector, additional employee obligations increase with the number of full-time employees; for example, once a company grows to more than 30 employees, the employees gain the right to form a sector union.¹³⁰ These labor rigidities penalize private sector companies with additional cost burdens as they grow, diversify, and seek to maintain quality standards

Skills and training

In recent years, Ecuador has made some progress in providing the tourism sector with certification and training opportunities. The Technical Training Directorate within MINTUR has created e-learning modules aimed at increasing labor competence. However, higher education is still largely confined to the main cities of Quito and Guayaquil, alienating the portion of the labor market that does not have access to a city. Access to qualified labor remains an issue across the country; Ecuador ranks 81st in the world in the ease of finding skilled employees, while Costa Rica ranks 21st, according to the WEF's 2017 TTCI index.

To raise the quality of its tourism services, Ecuador needs to give priority to skills development. Competitor countries such as Costa Rica and Peru have demonstrated their emphasis on tourism by promoting skills development. Costa Rica established higher education programs for the sector, including a tourism university, and declared the English language and computer literacy as national priorities at all levels of education. Peru, in contrast, has launched various national tourism culture campaigns that aim to raise awareness of the importance of tourism and promote courtesy, respect, and friendliness toward tourists.¹³¹ Promoting FDI into the sector is an indirect way of developing skills, and a key challenge for Ecuador, which has one of the lowest levels of international brand penetration among hotel markets in the Latin America and Caribbean region.

Prioritization of travel and tourism

Public budget and investment

Although Ecuador's prioritization of tourism is improving, its aspirations are not currently supported with enough funding to implement change. Only 1.2 percent of government expenditures are directed to travel and tourism, compared with 2.7 percent in Peru and 6.3 percent in Costa Rica. Increases in budgetary allocations need to be preceded by a clear promotion and infrastructure development strategy for the sector that emerges from solid public-private dialogue.

Sector priorities

Much public and private sector interest, both domestic and foreign, has focused on Ecuador's considerable energy resources, against which tourism has struggled to compete for sustained attention and resources. Ecuador should further compare the benefits of each sector to jobs and sustainability. This data can prove useful when advocating for or making decisions about policy and investment choices.

Recommendations

Given that Ecuador's greatest competitive advantage lies in its wealth of natural assets, the country has a strong imperative to protect these assets. Ecuador should strengthen its conservation efforts and adopt sustainability standards to improve its environmental performance.

Although Ecuador possesses attractive natural assets and consolidated and emerging tourism products capable of attracting high-end, niche markets, so too do its regional competitors. Therefore, Ecuador should preserve its assets in the best state possible and capitalize on the geographic proximity of its products and attractions.

Lowering barriers to connectivity would complement such an integrated approach.

The price competitiveness of Ecuadorian road quality and accommodations is conducive to facilitating a multiproduct, multi-destination approach to tourism. Lowering additional barriers to connectivity, such as high airline operating costs, and resolving conflicts in the transportation sector would further enhance such a strategy.

Ecuador's most mature, consolidated tourism products are primarily nature and adventure based, with cultural offerings also a strong suit. Birdwatching, adventure tourism, and gastronomy are high-end niche market segments with strong potential for Ecuador.

Few other countries rival Ecuador in terms of bird species diversity. The opportunities to further capitalize on the birdwatching segment lie in developing complimentary infrastructure and services, developing operational standards and policies that will support birdlife conservation, and targeting marketing to generate greater awareness.

Ecuador's advantages in the adventure travel market lie in its rich natural heritage complemented with diverse cultural opportunities and a reputation for non-mass tourism. Ecuador should invest in further equipping this sector with complementary infrastructure and services and in capitalizing on the wealth of experience its local tour operators and guides already have. Ecuador stands to further improve its position in this market by improving its branding and communications and standing out as an unspoiled and safe destination.

Ecuador stands to capitalize on the growing global interest in food tourism in general and Andean cuisine in particular. Ecuador should invest in skills development and marketing to elevate its nascent gastronomic sector to capitalize on the unique ingredients, products, and dishes that distinguish Ecuadorian cuisine.

To grow in the opportunity niche segments, Ecuador should focus on the Chinese, French, German, and UK, and US source markets. Europe and the United States are the world's largest outbound markets for nature and adventure tourism. Although the U.S. market is the main source market for Ecuador, France, Germany, and the United Kingdom show consistent growth in arrivals for leisure purposes. Additionally, China's increasing trade relations with Ecuador, as well as China's growing middle class, pose a unique opportunity to further expand the country's Chinese travel market. In this respect, preparedness is crucial. Chinese tourists tend to make intensive use of apps with documentation about hotels and tourist sites (which would need to be in Chinese).

Ecuador should develop a coordinated targeted marketing strategy and action plan (with an assigned budget) that prioritizes the key markets and niche segments identified above. National-level regulation should establish a separate, autonomous tourism board, or DMO, financed directly by the already-established Mixed Fund for Tourism Promotion mechanisms and run by professional marketing staff and leadership, including representatives of the private sector at the board-of-directors level. Additionally, the DMO should govern brand-use requirements, licensing, and change processes in order to maintain brand consistency and avoid politicization or dramatic changes in promotional strategies across administrations.

Tourism businesses in Ecuador confront many of the same constraints as their private sector counterparts in other industries. They should therefore seek alliances with other industry associations to advocate for policies that promote and facilitate private sector development, investment, and competitiveness in general.

If Ecuador is to improve and increase its supply of tourist products, it must first and foremost address its high business-environment barriers to private sector enterprise. Streamlining, standardizing, and automating permitting, licensing, and other regulatory requirements; establishing preferential interest rates and tax incentives that incentivize diversification and priority geographies; and relieving firms of import duties are all mechanisms other countries have used to do so.

Ecuador should also seek to promote additional investment in tourism by lowering barriers to FDI and incentivizing domestic investment in the sector. Public-private partnerships can be an effective way to lower the private sector's tax burden and promote investment while still securing revenue for the state.

Ecuador should increase its flexibility in hiring practices and give priority to skills development. A higher priority should be given to quality assurance in the tourism sector by focusing on building tourism job skills, language skills, and a service-oriented culture. The country should also allow flexible hiring practices that meet the needs of the tourism sector's fluctuating market conditions in order to bring about a more competitive marketplace.

Although Ecuador's intentions toward the tourism industry are improving, concerted action and policy reforms are lacking. Much public and private sector interest, both domestic and foreign, has been focused on Ecuador's considerable energy resources, while tourism has struggled to attract sustained attention and resources. Ecuador should further examine the socioeconomic and environmental costs and benefits of pursuing tourism development over other alternatives, both in Ecuador and in neighboring countries. This data can prove useful when advocating for or making decisions about policy and investment choices.

TABLE 3.18. RECOMMENDATIONS FOR THE TOURISM SECTOR

RECOMMENDATION	TIME FRAME	STATUS
Institutional organization	Establish a separate, autonomous tourism board (or DMO) via national-level regulation, and equip the board with professional marketing staff and leadership, including private-sector representation at the board-of-directors level. The DMO should govern brand-use requirements, licensing, and change processes in order to maintain brand consistency and avoid politicization or dramatic changes in promotional strategies across different administrations	Medium term Not implemented
Sustainable tourism product development	Strengthen conservation efforts and adopt sustainability standards to improve its environmental performance.	Medium term Not implemented
	Capitalize on the geographic proximity of Ecuador's products and attractions. Lowering barriers to connectivity would complement such an integrated approach.	Medium term Not implemented
	Lower additional barriers, such as high airline operating costs, and resolve conflicts in the transportation sector in order to further enhance the integration strategy.	Medium term Not implemented
	Give priority to skills development in order to raise the quality of tourism services.	Medium term Not implemented

Niche markets	Capitalize on Ecuador's bird species diversity by developing infrastructure and services complimentary to birdwatching, developing operational standards and policy to support birdlife conservation, and targeting marketing to generate greater awareness.	Medium term	Not implemented
	Invest in the adventure travel sector by establishing complementary infrastructure and services and capitalizing on the wealth of experience local tour operators and guides already have. Ecuador stands to further improve its position in this market by improving its branding and communications and standing out as an unspoiled and safe destination.	Medium term	Not implemented
	Capitalize on the growing global interest in food tourism in general and Andean cuisine in particular by investing in skills development and marketing to elevate its nascent gastronomic sector (which should make use of the unique ingredients, products, and dishes that distinguish Ecuadorian cuisine).	Medium term	Not implemented
	Focus on the Chinese, French, German, U.K., and U.S. source markets when advertising Ecuador's opportunity niche segments. The country will need preparation to attract Chinese tourists, for example, digital platforms to provide tourist information in Chinese.	Medium term	Not implemented
Business environment	Tourism businesses in Ecuador should seek alliances with other industry associations to advocate for policies that promote and facilitate private sector development, investment, and competitiveness in general.	Medium term	Not implemented
	Reduce the high barriers to setting up and operating a business in order to improve the supply of tourism services.	Medium term	Not implemented
	Lower barriers to FDI with a specific focus on the tourism sector, and incentivize domestic investment by reducing the complexities of operating a tourism business and establishing a clear FDI promotion strategy for the sector.	Medium term	Not implemented
	Adjust the country's labor laws to allow the tourism sector the flexibility it needs to effectively operate under its unique market conditions.	Medium term	Partially implemented

Note: DMO = destination marketing organization; FDI = foreign direct investment.

REFERENCES

- Adventure Travel Trade Association. 2016. "Adventure Tourism Development Index: An Adventure Travel Scorecard. The 2016 Report." <http://www.adventureindex.travel/docs/ATDI16-web.pdf>.
- Adventure Travel Trade Association. 2017a. "2017 Adventure Travel Trends Snapshot." <https://www.adventuretravel.biz/research/2017-adventure-travel-trends-snapshot/>.
- Adventure Travel Trade Association. 2017b. "The New Adventure Traveler." <https://cdn.adventuretravel.biz/research/ATTA-New-Adventure-Traveler-Web.pdf>.
- Allied Market Research. 2018. "Global Adventure Tourism Market Expected to Reach \$1,335,738 Million by 2023-Allied Market Research." *Cision PR Newswire*, February 2. <https://www.prnewswire.com/news-releases/global-adventure-tourism-market-expected-to-reach-1335738-million-by-2023-allied-market-research-672335923.html>.
- Andina. 2016. "Peru Becomes World's Gastronomy Tourism Capital." Agencia Peruana de Noticias, April 28. <https://andina.pe/ingles/noticia.aspx?id=610276>.
- ANT (Agencia Nacional de Transito). 2018. Estadísticas de Siniestros de Transito. Quito, Ecuador. <https://www.ant.gob.ec/index.php/estadisticas>
- Autor, David, David Corn, Lawrence F. Katz, Christina Patterson, and John Van Reenen. 2017. "Concentrating on the Fall of the Labor Share." *American Economic Review Papers and Proceedings*, 107(5): 180–185.
- Barham, Bradford L., Mercedes Callenes, Seth Gitter, Jessa Lewis, and Jeremy Weber. 2011. "Fair Trade/Organic Coffee, Rural Livelihoods, and the 'Agrarian Question': Southern Mexican Coffee Families in Transition." *World Development*. Volume 39, Issue 1, pp. 134-145. <https://doi.org/10.1016/j.worlddev.2010.08.005>.
- BCE Banco Central del Ecuador. Balanza de Pagos. <https://www.bce.fin.ec/index.php/component/k2/item/298-inversi%C3%B3n-extranjera-directa>
- Bloom Consulting. 2017. Country Brand Ranking 2017-2018, Tourism Edition. Madrid. https://www.bloom-consulting.com/pdf/rankings/Bloom_Consulting_Country_Brand_Ranking_Tourism.pdf
- Branstetter, Lee, Francisco Lima, Lowell J. Taylor, and Ana Venancio. 2010. Do Entry Regulations Deter entrepreneurship and Job Creation ? Evidence from recent Reforms in Portugal. NBER Working Paper no. 16473. <https://www.nber.org/papers/w16473>.
- Bruhn, M. 2013. "A tale of two species: Revisiting the effect of registration reform on informal business owners in Mexico," *Journal of Development Economics*, Elsevier, vol. 103(C), pages 275-283.
- Cadot, O., A. Fernandes, J. Gourdon, and A. Mattoo. 2011. *Where to Spend the Next Million? Applying Impact Evaluation to Trade Assistance*. Washington, DC: World Bank.

Cárdenas, Mauricio and Sandra Rozo. 2009. “Informalidad empresarial en Colombia: problemas y soluciones,” *Revista Desarrollo y Sociedad*, Universidad de los Andes - CEDE. Bogotá

Caribbean Tourism Organization. n.d. “Bird Watching.” <https://www.onecaribbean.org/content/files/BirdwatchingCaribbeanNicheMarkets-2.pdf>.

Casey, David. 2018. “What Open Skies Will Mean for Ecuador.” *Routes Online*, January 12. <https://www.routesonline.com/news/29/breaking-news/276642/what-open-skies-will-mean-for-ecuador/>.

CBI (Centre for the Promotion of Imports). 2017. “Birdwatching Tourism from Europe.” Centre for the Promotion of Imports, Netherlands Enterprise Agency. <https://www.cbi.eu/market-information/tourism/nature-tourism/nature-eco-tourism-europe/>.

CBI. 2020a. “The European Market Potential for Adventure Tourism.” Centre for the Promotion of Imports, Netherlands Enterprise Agency. <https://www.cbi.eu/market-information/tourism/adventure-tourism/adventure-tourism-europe/>.

CBI. 2020b. “The European Market Potential for Nature and Ecotourism.” Centre for the Promotion of Imports, Netherlands Enterprise Agency. <https://www.cbi.eu/market-information/tourism/nature-tourism/nature-eco-tourism-europe/>.

Coslovsky, Salo V. 2014. “Economic Development without Pre-Requisites: How Bolivian Producers Met Strict Food Safety Standards and Dominated the Global Brazil-Nut Market.” *World Development* 54: 32–45.

Croes, R., and M. A. Rivera. 2017. “Tourism’s Potential to Benefit the Poor: A Social Accounting Matrix Model Applied to Ecuador.” *Tourism Economics* 23(1): 29–48.

Cruz, Marcio, Maurizio Bussolo, and Leonardo Iacovone. 2018. “Organizing knowledge to compete: Impacts of capacity building programs on firm organization.” *Journal of International Economics*. Volume 111, Pages 1-20. <https://doi.org/10.1016/j.jinteco.2017.12.001>.

Devaux, D. A. 2016. Director, CIP Latin America and the Caribbean.(Interview on June 19, 2016 ; J. Velez, Interviewer.

Dutz, Mark A. 2018. *Jobs and Growth: Brazil’s Productivity Agenda*. International Development in Focus. Washington, DC: World Bank.

ECLAC (Economic Commission for Latin America and the Caribbean). 2018. *Port activity report of Latin America and the Caribbean 2018*. ECLAC. <https://www.cepal.org/en/notes/port-activity-report-latin-america-and-caribbean-2018>

El Telégrafo de Guayaquil. 2018, June 21. Ecuador envió primera carga de papaya a EE.UU. p. 1. <https://www.eltelegrafo.com.ec/noticias/economia/4/papaya-ecuador-exportacion-eeuu>

ESPAE-ESPOL (Graduate School of Management de la Escuela Superior Politécnica del Litoral). 2017. *Estudios Industriales - Industria de Servicios de Logística*. <http://www.espae.espol.edu.ec/wp-content/uploads/2017/09/industrialogistica.pdf>

- Instituto Nacional de Estadística y Censos (Ecuador). 2017 and 2018. Encuesta de Superficie y Producción Agropecuaria Continua -ESPAC.
- Food and Agriculture Organization (FAO). 2017. FAOSTAT. <http://www.fao.org/faostat/en/#data/QC/visualize>
- Fernandez, J., and J. C. Gavilanes. 2017. “Learning-by-Importing in Emerging Innovation Systems: Evidence from Ecuador.” *Journal of International Trade and Economic Development* 26(1): 45–64. doi:10.1080/09638199.2016.1205121.
- Ferro, E., and M. Vijil. 2019. “Trade Protection and Productivity Growth: Effects of Compound Tariffs and Other Import Duties in Ecuador.” Mimeo.
- Fintech Radar Ecuador. 2017. “Fintech Radar Ecuador Identifies an Emerging Fintech Ecosystem in Ecuador with More Than 30 Startups.” *Finnovista*, March 30. <https://www.finnovista.com/en/radar/fintech-radar-ecuador-identifies-an-emerging-fintech-ecosystem-in-ecuador-with-more-than-30-startups/>.
- Fioravanti, R., E. A. Cafe, and E. Diez-Roux. 2019. Developing a More Efficient, Affordable and Safe Aviation Sector in Latin America and the Caribbean. InterAmerican Development Bank.
- Freund, Caroline and Martha Denisse Pierola. 2015. “Export Superstars.” *The Review of Economics and Statistics*, vol. 97, issue 5, 1023-1032.
- Future Brand. 2016. Country Brand Report Latin America. <https://www.futurebrand.com/futurebrand-country-index>.
- Ghezzi, Piero Eduardo, and Steve Utterwulge. 2017. “Public-Private Dialogue for Modern Industrial Policies: Towards a Solutions-Oriented Framework.” Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/222441504197210483/pdf/P162579-07-06-2017-1499370465883.pdf>.
- Global Findex Database. 2017. Measuring Financial Inclusion and the Fintech Revolution. Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. Washington, DC: World Bank. <https://globalfindex.worldbank.org/>
- GlobalGAP. 2018. Retrieved from GlobalGAP: www.globalgap.org
- GSMA(Global System for Mobile Communications). 2018. Reforming Mobile Sector Taxation in Ecuador: Unlocking Social and Economic Benefits Through Tax Reform in the Mobile Sector. <https://www.gsma.com/latinamerica/wp-content/uploads/2018/11/GSMA-2018-Ecuador-tax-study-EN.pdf>
- GSMA. 2019. Mobile Connectivity Index. <https://www.mobileconnectivityindex.com/#year=2019>
- Hernández, Ivan, Nathalie Cely, Francisco González, Ernesto Muñoz, and Iván Prieto. 2010. The Discovery of New Export Products in Ecuador. IDB Working Paper Series IDB-WP-165. InterAmerican Development Bank Department of Research and Chief Economist <https://publications.iadb.org/publications/english/document/The-Discovery-of-New-Export-Products-in-Ecuador.pdf>

IATA (International Air Transport Association). 2018. Estudio Comparativo de Costos Operativos de Aerolíneas en Aeropuertos del Ecuador, February 2018

Ibanez, Marcela and Allen Blackman. 2016. “Is Eco-Certification a Win-Win for Developing Country Agriculture?” *World Development*, Vol 82, pp.14-27, 2016. Elsevier.

IDB. 2015. (InterAmerican Development Bank. 2015. Freight and Logistics Yearbook Database. Washington, IADB. <https://publications.iadb.org/en/freight-transport-and-logistics-statistics-yearbook>.

Illescas, Rebeca. 2018. Perspectivas del sector Minero en el Ecuador. Presentation. http://servicios.industrias.gob.ec/site_foro_empresarial/ponencias/Panel2/8PPT_Ministra_Illescas.pdf.

IMF (International Monetary Fund). 2015. Ecuador Staff Report for the 2015 Article IV Consultation. IMF Country Report 15/289.

IMF. 2019a. Ecuador Staff Report for the 2019 Article IV Consultation. IMF Country Report 19/79.

IMF. 2019b. Ecuador. IMF Country Report 19/79. Ecuador Staff Report for the Second and Third Reviews under the Extended Fund Facility Arrangement and Request for a Waiver of Nonobservance and Modifications of Performance Criteria. IMF Country Report 19/379.

IMF. 2020. Request for an Extended Arrangement Under the Extended Fund Facility. IMF Country Report No. 20/286.

INEC (Instituto Nacional de Estadísticas y Censo). 2015. Directorio de Empresas. Quito.

INEC. 2018. Estadísticas de Transporte. <https://www.ecuadorencifras.gob.ec/estadisticas-de-transporte-2018/>

Jing, Li. 2015. “Ecuador Scraps Visa to Woo Chinese Tourists.” *China Daily*, April 20. Beijing http://usa.chinadaily.com.cn/world/2015-04/20/content_20475941.htm

Kaplan, David, Eduardo Piedra and Enrique Seira. 2011. “Entry regulation and business start-ups: Evidence from Mexico.” *Journal of Public Economics*, 2011, vol. 95, issue 11, 1501-1515

Kleemann, Linda & Abdulai, Awudu & Buss, Mareike. 2014. “Certification and Access to Export Markets: Adoption and Return on Investment of Organic-Certified Pineapple Farming in Ghana,” *World Development*, Elsevier, vol. 64(C), pages 79-92. Kleemann et al. 2014.

LePan, Nicholas. 2017. “Ecuador a Reformed Mining Jurisdiction?” *Mining Feeds*, November. <http://www.miningfeeds.com/2017/11/30/ecuador-a-reformed-mining-jurisdiction/>.

Lohr, Luanne. 2001. Factors Affecting International Demand and Trade in Organic Food Products." Faculty Series 16674, University of Georgia, Department of Agricultural and Applied Economics.

- Martinez, M. A. 2018. Presidente Ejecutivo EXPOFLORES; interview on June 20, 2018; J. Velez, Interviewer.
- Martinez-Ortiz, Jimmy, and Guerrero-Verduga, Pablo. 2013. Plan de accion nacional para la conservacion y el manejo del recurso dorado en Ecuador. Manta, Manabi-Ecuador: La Subsecretaría de Recursos Pesqueros- Viceministerio de Acuicultura y Pesca- Ministerio de Agricultura, Ganadería, Acuicultura y Pesca, las Políticas de Acuicultura y Pesca.
- Melitz, Marc J. 2003. "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity." *Econometrica*, Vol. 71, No. 6. (Nov., 2003), pp. 1695-1725. <http://links.jstor.org/sici?sici=0012-9682%28200311%2971%3A6%3C1695%3ATIOTOI%3E2.0.CO%3B2-Y>
- Ministry of Trade. 2017. Report of the Ecuadorean Tuna Sector. Quito. <https://www.produccion.gob.ec/wp-content/uploads/2019/06/Reporte-del-sector-atunero-ingles.pdf>
- Ministerio de Minería. 2016b. *Instructions for the Granting of Mining Concessions for Metallic Minerals*. Ministerial agreement no. 2016-002. Quito, Ecuador.
- MINTUR (Ministerio de Turismo). 2014. "Plan Integral de Marketing Turístico de Ecuador (PIMTE) 2014." Ministerio de Turismo, Quito. <http://www.competencias.gob.ec/wp-content/uploads/2017/06/c.-2014.-PLAN-INTEGRAL-MARKETING-TURISTICO.pdf>.
- MINTUR. 2017a. "MINTUR Boletín Estadísticas Turísticas 2012–2016." Ministerio de Turismo, Quito. <https://servicios.turismo.gob.ec/descargas/Turismo-cifras/AnuarioEstadistico/Boletin-Estadisticas-Turisticas-2012-2016.pdf>.
- MINTUR. 2017b. "Ecuador, tercer país con mayor diversidad de aves en el mundo." Press release, May 31. <https://www.turismo.gob.ec/ecuador-tercer-pais-con-mayor-diversidad-de-aves-en-el-mundo/>.
- MINTUR. 2018a. "Manual de Atractivos Turísticos." Ministerio de Turismo, Quito. <https://servicios.turismo.gob.ec/descargas/InventarioAtractivosTuristicos/MANUAL-ATRATIVOS-TURISTICOS.pdf>
- MINTUR. 2018b. "Perfiles de Turismo Internacional 2017." Ministerio de Turismo, Quito.
- MTOP (Ministerio de Transporte y Obras Publicas). 2016. Plan Estratégico de Movilidad (PEM) 2013 – 2037. Quito, Ecuador.
- Mullainathan, S. and P. Schnabl. 2010. "Does Less Market Entry Regulation Generate More Entrepreneurs? Evidence from a Regulatory Reform in Peru." In Josh Lerner and Antoinette Schoar, eds. *International Differences in Entrepreneurship*. NBER and University of Chicago Press.
- Nicolas Arenas. 2018. "Ecuadorian Aviation Market Analysis 2017." July 1. <https://www.nlarenas.com/en/2018/01/analysis-2017-ecuadorian-aviation-market/>.
- Neira Burneo, Sylvia. 2016. "Inclusión financiera de las pymes en el Ecuador." Serie Financiamiento para el Desarrollo, United Nations, Santiago. http://repositorio.cepal.org/bitstream/handle/11362/40726/1/S1601059_es.pdf.

- Nielsen. 2017. *Outbound Chinese tourism and consumption trends: 2017 Survey*. <https://www.nielsen.com/wp-content/uploads/sites/3/2019/05/outbound-chinese-tourism-and-consumption-trends.pdf>.
- Ocampo-Peñuela, Natalia, and R. Scott Winton. 2017. "Economic and Conservation Potential of Bird-Watching Tourism in Postconflict Colombia." *Tropical Conservation Science* 10. <https://journals.sagepub.com/doi/full/10.1177/1940082917733862>.
- Olivieri, S. and L. Chalela. 2019. "The Size and Evolution of Public-Sector Wage Premium in Ecuador." Mimeo. World Bank.
- Oxford Business Group. 2016. "Agricultural Exports on the Rise in Peru." *In The Report: Peru 2016*. <https://oxfordbusinessgroup.com/overview/fresh-horizons-agricultural-exports-are-taking-place-traditional-foreign-currency-earners>.
- Piermartini, R. and L. Rousova. 2008. "Liberalization of air Transport Services and Passenger Traffic." WTO Staff Working Papers ERSD-2008-06, World Trade Organization (WTO), Economic Research and Statistics Division.
- Prince, Russ Alan. 2013. "The Super-Rich Are Spending US\$4 Billion Per Year on Adventure Travel." *Forbes*, August 12. <https://www.forbes.com/sites/russalanprince/2013/08/12/the-super-rich-are-spending-us4-billion-per-year-on-adventure-travel/#3f7515e94e7e>.
- Redacción Gestión. 2015. "Ahora Perú: Cerca de US\$ 2,000 millones en inversiones hoteleras en espera por trabas burocráticas." *Gestión*, February 3. <https://gestion.pe/economia/peru-cerca-us-2-000-millones-inversiones-hoteleras-espera-trabas-burocraticas-79189-noticia/>.
- Reis, J. G., and G. Varela. 2013. "Can Tourism Encourage Better Export Performance and Diversification in Nepal?" *World Bank - Economic Premise* 127: 1–6.
- Reyes, D., and E. Ferro. 2019. *FDI in Ecuador*. Washington, DC: World Bank.
- Romero, C., and M. Wollini. 2015. "Supplier Dynamics in Horticultural Export Chains: Evidence from Ecuador." Revised version. GlobalFood Discussion Papers no. 71, Georg-August-Universitaet Goettingen, Göttingen, Germany.
- Rubalcaba, Luis, D. Gago, M. Ariano, and A. Tripathi. 2016. "Services and Innovation for the Competitiveness of the Ecuadorian Economy." World Bank Policy Research Working Paper 7767, World Bank, Washington, DC.
- Rubalcaba, Luis, Stefka Slavova, Maria Kim, Fernando Merino, Ernesto Franco Temple and Jessica Victor. 2017. Improving firms' innovation to foster productivity and diversification Innovation for productivity growth in Ecuador: Unlocking constraints through horizontal and cluster development policies. The World Bank. Report No: ACS22413. Washington, DC.
- Rueda, C. 2018. Interview on June 23, 2018 with Gerente General Agrícola Pura Vida y AGRINECUA; J. Velez, Interviewer.
- Salazar Gonzales, P. R. . 2018. Interview June 21, 2018, Assistant Professor – FIMCP; J. Velez, Interviewer.

Sekar, Sri, Kyle Lundin, Christopher Tucker, Joe Figueiredo, Silvana Tordo, and Javier Aguilar. 2019. "Building Resilience: A Green Growth Framework for Mobilizing Mining Investment." International Development in Focus report, World Bank Group, Washington, DC. <http://documents.worldbank.org/curated/en/689241556650241927/Building-Resilience-A-Green-Growth-Framework-for-Mobilizing-Mining-Investment>

Subia Pinto, E. D. 2018. Interview on June 18, 2018, Coordinador General Tecnico PRO ECUADOR; J. Velez, Interviewer.

Tegel, Simeon. 2016. "Why Peru's Gastronomy Is a Bigger Draw for Tourists than the Incas." Independent, January 10. <https://www.independent.co.uk/news/world/americas/why-perus-gastronomy-is-a-bigger-draw-for-tourists-than-the-incas-a6805026.html>.

United Nations Environment Programme. 2012. "Analysis of Formalization Approaches in the Artisanal and Small-Scale Gold Mining Sector Based on Experiences in Ecuador, Mongolia, Peru, Tanzania and Uganda." Geneva: UNEP.

UNIDO (United Nations Industrial Development Organization). 2012. Trade Standards Compliance Footprint – Import Rejection Analysis. https://www.unido.org/sites/default/files/2013-06/TSC_Footprint_Ecuador_0.pdf

Vega, H. L. "Transportation costs of fresh flowers: a comparison across major exporting countries." IDB Publications no. 48798, Inter-American Development Bank, Washington, DC.

Vella, Heidi. 2019. "Can Ecuador Achieve Its Bold Vision for Mining?" *Mining Times*, March 6. <https://www.mining-technology.com/features/ecuador-mining/>.

WEF (World Economic Forum). 2017a. Global Competitiveness Report 2017. Geneva: World Economic Forum.

WEF. 2017b. *The Travel & Tourism Competitiveness Report 2017*. World Economic Forum. <https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2017>.

WEF. 2017c. Travel and Tourism Competitiveness Index: Ecuador. World Economic Forum. <http://reports.weforum.org/travel-and-tourism-competitiveness-report-2017/country-profiles/#economy=ECU>.

WEF. 2018. Global Competitiveness Report 2018. Geneva: WEF.

Willer, H. A. 2018. The World of Organic Agriculture - Statistics and Emerging Trends 2018. Research Institute of Organic Agriculture FiBL and IFOAM - Organics International.

Wood Mackenzie. 2018. "El clima de inversión del Ecuador: mirando más allá." Investment Showroom Quito.

World Bank. 2015. Costos Portuarios y Marítimos en el Perú. https://cdn.www.gob.pe/uploads/document/file/31318/21945_Costos_Portuarios_Maritimos_Peru.pdf20180706-19116-1mw72s7.pdf

- World Bank. 2016a. “Ecuador: Country Economic Memorandum. Productivity Growth under Adverse Global Conditions.” Report no. 102745-EC, World Bank, Washington, DC
- World Bank. 2016b. “Peru: Easing Business Regulations in One of the World’s Most Famous Tourist Destinations.” November 1. <https://www.worldbank.org/en/results/2016/11/01/peru-easing-business-regulations-in-one-of-the-worlds-most-famous-tourist-destinations>.
- World Bank. 2017. World Bank Enterprise Surveys. World Bank.
- World Bank. 2018. Ecuador Forest Investment Program (P167752) - Project Information document/Integrated Safeguards Datasheet. Washington, DC.
- World Bank. 2018b. “Ecuador—Systematic Country Diagnostic (English).” World Bank, Washington, DC. <http://documents.worldbank.org/curated/en/835601530818848154/Ecuador-Systematic-Country-Diagnostic>.
- World Bank. 2019a. “Ecuador Inclusive and Sustainable Growth DPF.” World Bank, Washington, DC.
- World Bank. 2019b. Doing Business 2019. World Bank, Washington, DC. <https://www.doingbusiness.org/en/reports/global-reports/doing-business-2019>.
- World Bank. 2019c. “Doing Business 2019: Training for Reform—Ecuador” <http://documents.worldbank.org/curated/en/371841541088035932/Doing-Business-2019-Training-for-Reform-Ecuador>.
- World Bank. 2019d. “Macroeconomic Stability and Competitiveness Challenges.” World Bank, Washington, DC.
- World Bank. 2020. Financial Inclusion Diagnostic. April.
- World Food Logistics Organization. 2014. Cold Chain Assessment: Bolivia, Ecuador and Peru 2014. http://approlog.org/wp-content/uploads/2015/01/Cold-Chain-Assessment-in-Bolivia-Ecuador-and-Peru_FINAL.pdf
- World Trade Organization (WTO). 2018. Compendium of Tourism Statistics, Data 2012 – 2016, 2018 Edition, UNWTO, Madrid, DOI: <https://doi.org/10.18111/9789284419548>.
- WTO Secretariat. 2019. Ecuador Trade Policy Review. WT/TPR/S/383. https://www.wto.org/english/tratop_e/tpr_e/s383_e.pdf
- World Tourism Organization. 2018, Compendium of Tourism Statistics dataset [Electronic], UNWTO, Madrid, data updated on 15/01/2018.
- WTTC (World Travel and Tourism Council). 2018. Economic Impact Research -Ecuador. London.

APPENDIXES

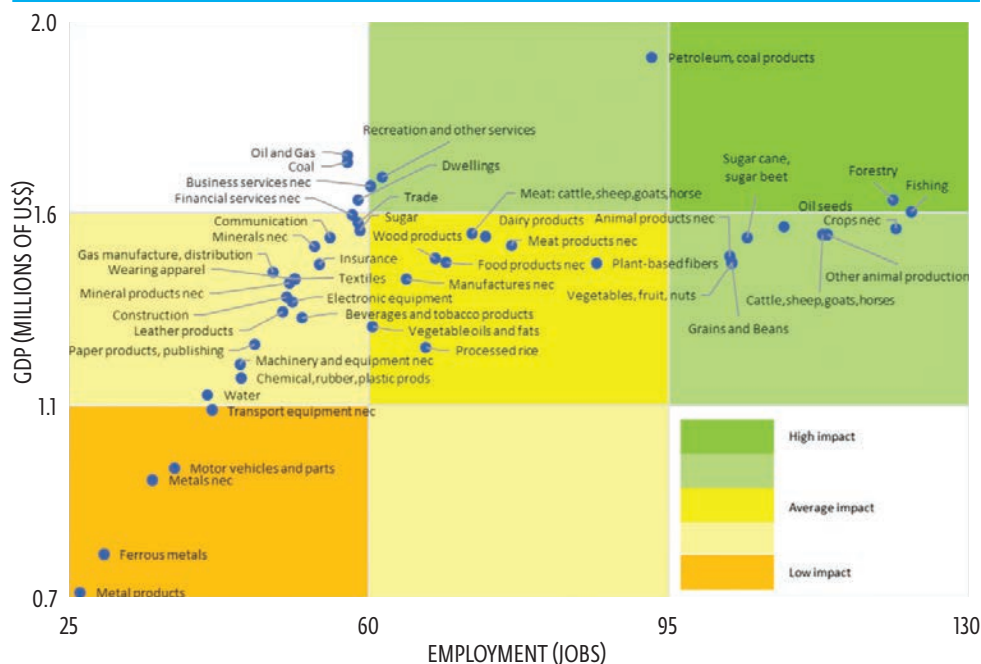
APPENDIX A. MULTIPLIER ANALYSIS

A multiplier analysis sheds some light on the impact of private investment on GDP and employment in Ecuador. Private investment in Ecuador will generate a different impact on the economy depending on the sector it is invested in, as computed by the Social Accounting Matrix multiplier approach. Figure A.1 shows sectoral multiplier effects on GDP and employment in Ecuador in response to an increase in sector revenues (or output) by US\$1 million.

The Social Accounting Matrix multiplier approach used here is based on strong assumptions, and the results reported below should be interpreted as approximations that provide only the orders of magnitude of the expected economic impacts of private investment. The multiplier approach also suggests that sectors with strong backward links and low import shares will return high GDP multipliers. Care in interpreting these results is obviously needed, however, because imports of intermediate and capital goods can contribute to enhancing the competitiveness of domestic firms by giving them access to improved technologies and know-how.

Mining, business, financial, and recreational services are among the few sectors with high GDP multipliers in Ecuador; they have large direct impacts on GDP despite their weak backward links with other sectors (figure A.1). Mining and related sectors such as petroleum products, oil and gas, and coal have high GDP multipliers, greater than 1.7. Other sectors with high GDP multipliers are nontradable service sectors such as business and financial services. Mining and services exhibit a high ratio of value addition to output (more than 60 percent) that is driven by the low cost of the sectors' intermediate goods relative to their revenue.

FIGURE A.1. GDP AND EMPLOYMENT MULTIPLIERS

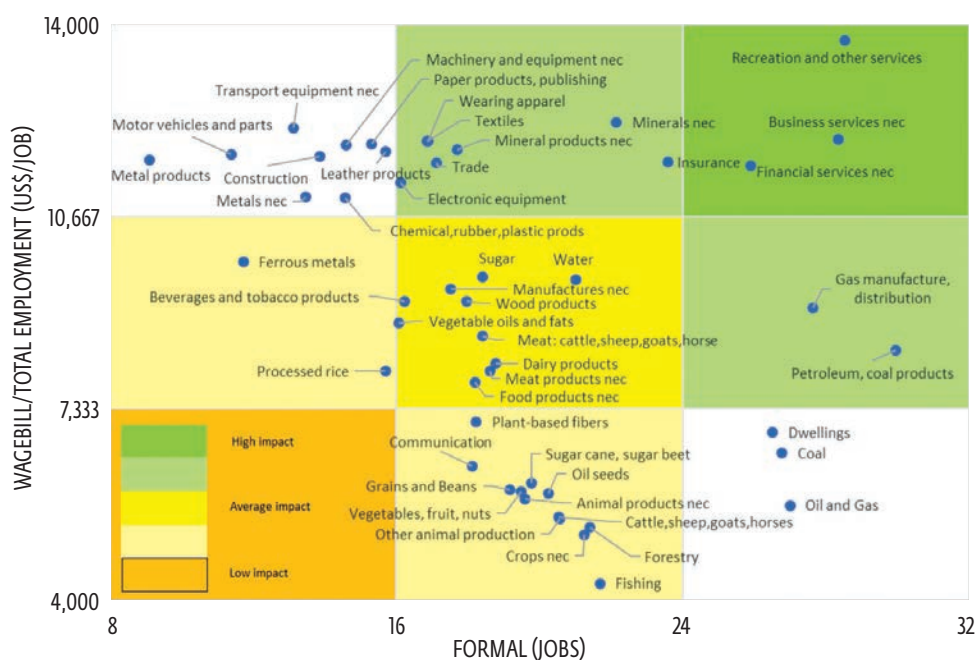


Note: nec =

Unlike in many other countries, high-productivity and capital-intensive manufacturing sectors in Ecuador do not have strong backward links with other sectors because of a high concentration of imported intermediate goods. Most food as well as nonfood manufacturing sectors have low GDP multipliers. Given these sectors’ high share of intermediate goods in production (16 percent of total output, much higher than in other sectors), the ratio of value added to output in these sectors is relatively small. And although indirect effects may be higher in these sectors than in others given interindustry links, these effects are also reduced by high import dependency.

Sectors related to agriculture, fishing, and forestry have moderate GDP multipliers but substantial employment multipliers. In fact, job creation in response to output changes is four times as high in agriculture as it is in manufacturing and services. Given the high level of informality in Ecuadorian agriculture, controlling for the quality of employment gives a better sense of the development impact and welfare implications of investment. When this is done (figure A.2), employment multipliers decline considerably (note the scale of the horizontal axis relative to that of figure A.1). The sectors creating the largest number of formal jobs per level of investment are recreation and related services, business and financial services, industries related to mining, and home construction.

FIGURE A.2. JOB QUALITY AND INVESTMENT



Investments in most sectors of the Ecuadorian economy generate similar economy-wide effects in terms of GDP when compared to the median effects observed in IFC client countries in the Latin America and the Caribbean region. The exceptions are mining, for which multipliers in Ecuador are higher, and metal products, for which they are lower.

APPENDIX B. DISTINCTION BETWEEN ARTISANAL, SMALL-, MEDIUM-, AND LARGE-SCALE MINING

- **Subsistence mining** is a very small-scale extractive activity carried out by marginal segments of the population to complement their monetary income, which is mainly derived from agriculture. This activity is represented by the “*platoneo*” of alluvial gold in secondary deposits on the banks of rivers and the extraction of sand and stone from primary deposits.
- **Artisanal mining** is carried out by individual, family, or associative organizations using simple and portable equipment destined to produce enough minerals to cover the basic needs of those that carry out the activity. Investment ranges from 200 to 400 basic salaries in an area of at most 4 hectares with a term of operation of 10 years. The maximum installed capacity of exploitation is 120 cubic meters per day for alluvial metallic mining, 50 tons per day for nonmetallic minerals, 50 tons per day for open-pit extraction of construction materials, and 100 cubic meters per day for alluvial extraction. Artisanal miners are not required to pay royalties; despite this, their activity is characterized by informality. Although traditionally labor-intensive and capital-constrained, artisanal mining has grown more mechanized and productive since the 1990s, and it has become a significant cause of environmental degradation. As of October 12, 2018, there were only 2,207 active artisanal mining permits and 1090 authorizations for artisanal extraction of construction materials. The Central Bank of Ecuador buys artisanal gold directly or through financial institutions duly authorized by it.
- **Small-scale mining** consists of legal extractive activities on a maximum concession of 300 hectares that is valid for 25 years. The maximum installed capacity for exploitation or beneficiation is 300 metric tons per day for underground operations, 1,000 tons per day for open-pit mining, 1,500 cubic meters per day for alluvial metallic mining, 1,000 cubic meters per day for nonmetallic minerals, 500 tons per day for open-pit extraction of construction materials, and 800 cubic meters per day for alluvial extraction.¹³² Small-scale mining typically uses intermediate technologies and adopts basic measures for the prevention and control of pollution. As of October 12, 2018, there were 956 active small-scale mining permits, of which 563 were for metallic minerals and 393 were for nonmetallic minerals.

Ecuador’s thresholds for small-scale mining are far too generous, and they exceed the general standards of small-scale mining in other countries. For instance, in Colombia the maximum authorized area for small-scale mining permits is 150 hectares, half as much as in Ecuador. The maximum installed capacity for underground operations there is 15,000 metric tons per year (equivalent to about 40 tons per day) for precious metals, substantially lower than in Ecuador). The same applies to open-pit operations—in Colombia, the limit is 50,000 tons/year (about 140 tons per day, compared with 1,000 tons per day in Ecuador)—and for alluvial metallic mining—which Colombia limits to 700 cubic meters per day (compared with 1,500 cubic meters per day in Ecuador).

- **Medium-scale mining** corresponds to activities on a maximum concession of 5,000 hectares that is valid for 25 years. The maximum installed capacity of exploitation or beneficiation is 1,000 metric tons per day for underground operations, 2,000 tons per day for open-pit mining, 3,000 cubic meters per day for alluvial metallic mining and for nonmetallic minerals, 1,000 tons per day for open-pit extraction of construction materials, and 2,000 cubic meters per day for alluvial extraction.
- **Large-scale mining** corresponds to extractive activities on a maximum concession of 5,000 hectares that is valid for 25 years and boasts production capacity above the limits for medium-scale operations. As of October 12, 2018, there were 526 active medium- and large-scale mining permits, of which 457 were for metallic minerals and 69 were for nonmetallic minerals.

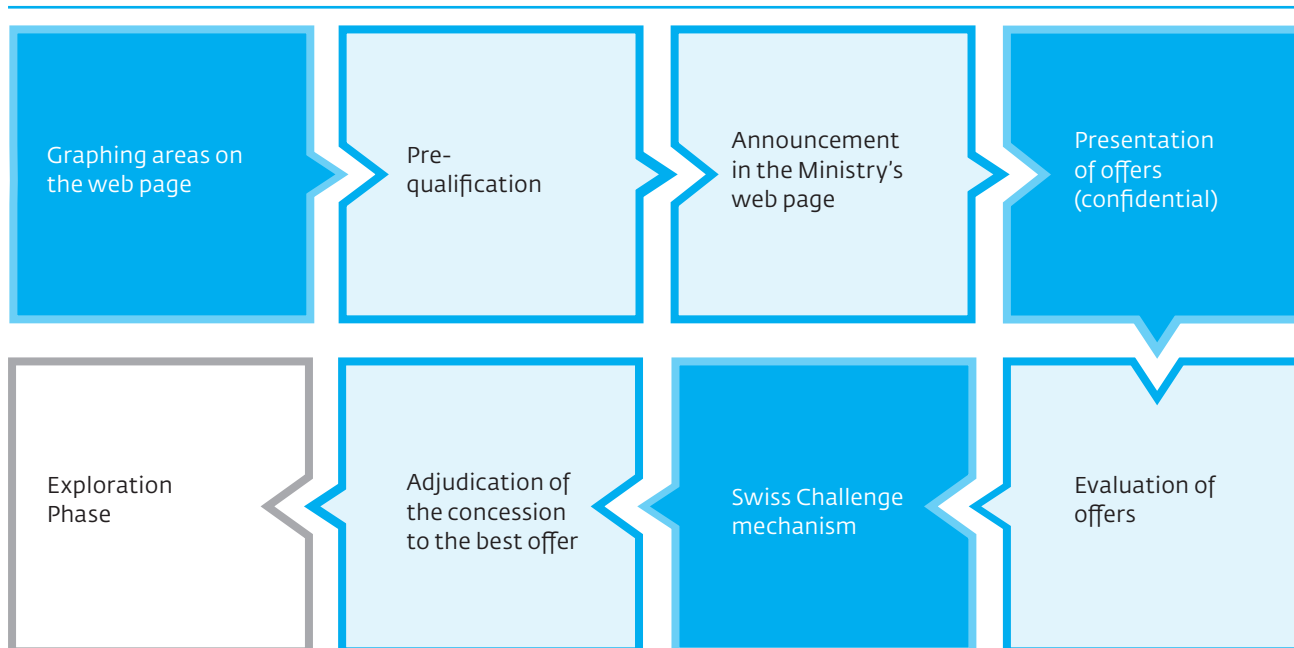
APPENDIX C. ECUADOR’S “SUBASTA Y REMATE” AUCTION PROCESS

Ecuador uses a sealed-bid permit round for the public bidding process (*subasta*). The requirements to enter this round include: (a) investor quality criteria (financial capacity,¹³³ technical capacity to meet the specifications of the Terms of Reference,¹³⁴ and judicial track record) and (b) minimum work programs in terms of expenditures per hectare.¹³⁵ Other obligations prescribed in the legislation include (a) reporting requirements, (b) specified working periods and environmental requirements for each stage of project development, (c) criteria for the relinquishment of areas, and (d) surface rental fees (*patentes*).

As it was implemented in 2016 and 2017, Ecuador’s “*subasta y remate*” process for auctioning mining concessions includes the following steps (shown in figure C.1):

- Mining companies request specific areas shown on the Ministry’s web page, which is based on information provided by the geologic survey. Required prequalification includes proof of financial capacity, the payment of a process fee, and the submission of a financial offer in a sealed envelope.
- Once the financial capacity of the proponent and the availability of the requested area are verified and approved by the minister, the requested areas are reserved by ARCERNNR until the completion of the auction process.
- An announcement is then posted on the Ministry website for a period of five days inviting interested parties to present competing offers against the original bid.
- Technical qualification of the new bidders is carried out using a quantitative ranking that is based on yes/no compliance criteria.
- Qualified interested parties receive the technical and economic terms of reference for the bid.

FIGURE C.1. STAGES IN THE AUCTIONING OF MINING PERMITS



Source: Ministry of Mines.

- The bidders submit their confidential proposals. When relevant, the bidders must also present environmental management plans.
- A technical commission evaluates the proposals. The sealed envelopes containing the financial offers for qualified proposals are opened publicly.
- Licenses are awarded on the basis of investment program commitments for the exploration phase.
- Under a Swiss challenge process, the company that first requested the area is granted the option to outbid the highest offer, if the latter is not more than double its initial proposal.
- The Ministry awards the concession to the highest bidder, issues the award report, and arranges for the registration of the concession in the mining registry.

APPENDIX D. FORMALIZATION OF ARTISANAL MINING AND FIGHT AGAINST ILLEGAL MINING

Ecuador's policy for artisanal mining over the past two decades has attempted to scale up artisanal miners into small-scale miners and formalize them in organized groups. However, a great deal of mining continues without regularized titles or compliance with environmental regulations. Despite the simplification of administrative procedures in order to facilitate compliance, artisanal miners still face several hurdles to formalization: the granting of mining rights can still be delayed, the mining cadaster is frequently closed, and prior consultations for small-scale and artisanal mining are often difficult to conduct.

These factors encourage artisanal and small-scale miners to operate without a mining permit, an environmental license, or a water permit and increase the incidence of illegal mining. Mechanized placer mining operations carried out by local mafias and money-laundering gangs intensified over the past ten years, especially in areas such as Zaruma and Portovelo (El Oro region) and La Merced de Buenos Aires (Imbabura region). Illegal networks for the distribution of inputs and production of minerals have emerged, generating opportunities to co-opt public entities and collect illicit revenues.

The Special Commission for the Control of Illegal Mining, created in 2011 through Executive Decree 754, is the central government's body in charge of coordinating the execution of activities designed to combat illegal mining. It has three main objectives: (a) combatting illegal mining and related activities; (b) controlling the import, export, transport, processing, and commercialization of precious minerals and any other type of transaction involving them; and (c) contributing to the formalization of mining and promoting social and environmental responsibility and the use of efficient methods and technologies.

Regulatory and institutional reforms introduced in 2015 failed to address the problem caused by illegal gold production and smuggling. Given the nature of gold, compliance with the law is difficult to enforce, especially when the relevant regulations have gaps and institutions are weak. For example, Ecuador lacks traceability of its illegal artisanal gold. The Central Bank records its purchases of artisanal gold, but most transactions among third parties are made in cash, and it is often very difficult to establish the origin of the mineral, the exact amount of production, its quality and sale value, and its final destination. Exporters of gold are required to justify its origin, but many traders produce falsified invoices or apply for concessions in order to claim that they are direct producers and merchants, even if their concessions are not in operation. The comparison of gold export numbers and gold production officially declared before the Central Bank of Ecuador or ARCERNNR in the period from 2010 to 2014 reveals that 70 percent of gold exports were of illicit origin (either because they were not declared or because their origin was unknown).

APPENDIX E. CHALLENGES TO LARGE-SCALE MINING DEVELOPMENT IN COLOMBIA

The 2010–14 Colombian National Development Plan defined mining as one of the four main drivers of the country’s economic growth. At the time, the central government made decisions and managed resources through a centralized model, limiting the role of subnational authorities and communities in mining policy. Law 1382 of 2010 introduced major reforms to the 2001 mining code to adapt it to the new policy. However, in May 2011, the Constitutional Court declared that law unconstitutional because it had been approved without prior consultation with indigenous peoples. Although the Court gave the government two years to produce a new law and to consult with indigenous peoples, the government failed to meet the deadline set by the court, and the 2001 mining code was reinstated in May 2013.

As a result, the Colombian government adopted a lower profile toward the mining sector and focused on supporting the most important projects. Because of institutional weaknesses, the Ministry of Mines became essentially a promoter of foreign investment, delegating to the mining companies the task of coordinating the development of their projects with subnational authorities and communities. However, the Constitutional Court examined the tension between centralism and decentralization in the management of the sector and blocked several initiatives because they challenged constitutional mandates that required consultation with indigenous peoples and coordination with subnational authorities when making decisions related to extractive activities.

The lack of alignment of interests within the state undermined the development of mining in Colombia. The absence of a common vision to formulate policies, institutional weaknesses in sector regulation and oversight, the limited presence of the state in mining areas, and subnational governments’ lack of information regarding mining activities in their territories degraded the sector’s relationships with communities and ethnic minorities and fueled antimining activism. This shift led to negative perceptions of the industry, which was associated with illegal operations, environmental degradation, and corruption in the spending of mining royalties.

Because many mining projects faced sharp resistance from local populations, the government was unable to meet its goal of turning the sector into a sustainable driver of growth. Colombia’s current business environment is plagued by uncertainty caused by Constitutional Court rulings that have battered the legal security needed to attract investments into the mining sector. Decisions have been applied retroactively, and acquired rights have not been recognized, leading to a flurry of complaints and, in some cases, to international arbitration.

These problems hindered the arrival of suitable mining operators and encouraged informality. The industry’s performance declined, few large-scale projects were launched, and a culture of impunity became prevalent among small-scale miners. These changes led to poor technical and environmental practices and a suboptimal size of operations, with disastrous impacts on the environment.

In its 2016 National Mining Policy, the Ministry of Mines and Energy listed the following challenges to mining in Colombia: (a) the absence of a shared vision for drafting a medium- to long-term sector policy, namely with regards to territorial planning; (b) a lack of legal security and a mining code that is not adapted to decentralization and causes social conflict in mining areas; (c) institutional weakness and poor coordination between mining and environmental authorities, leading to the delays in both mining and environmental procedures; (d) a need to enhance technical standards and enforce best practices in the industry and to regulate aspects of operations such as mine closures and site abandonment; (e) environmental and social impacts not being properly identified, prevented, mitigated, or compensated for, while the complexity and lack of regulation of consultation processes with ethnic groups and communities can lead to capture; and (f) high levels of criminality and informality and limited law enforcement in many production areas.

APPENDIX F. FOOD SAFETY REQUIREMENTS TO ACCESS EXPORT MARKETS

All importing countries in the developed world have food safety demands to protect their consumers; however, because the largest import markets for Ecuadorian products are the United States and the EU, only their food safety demands are reviewed below.

New U.S. Food Safety Modernization Act

The United States, through its Food and Drug Administration Agency (FDA), implemented a new Food Safety Modernization Act (FSMA) in 2011 that establishes new requirements to guarantee the safety of the food consumed in the United States, especially imported food. Among the act's new requirements are the following:

- A risk analysis from the farm to the consumer's table, which requires the implementation of a food safety management system in the food's country of origin
- The establishment of prevention strategies based on risk severity
- Verified compliance with these requirements

Under this act's mandate, the FDA will carry out on-site inspections in exporting countries, directly or through accredited third parties, to verify the exporters' food safety systems. In cases of noncompliance, the liability will be with the exporter; thus, a traceability system must be maintained at all times.

Among the requirements that exports of fresh agricultural products must meet under the FSMA are compliance with maximum levels of pesticides in food, endorsed by monitoring plans, and compliance with good agricultural practices (GAPs). Processed foods are required to comply with good manufacturing practices (GMPs), which include approved Hazard Analysis and Critical Control Points (HACCP), among other criteria.

The GAPs and GMPs must include (a) water quality and preservation, (b) manure management, (c) proper management of municipal organic waste, (d) good hygiene of workers, (e) appropriate sanitary facilities, (f) field health, (g) clean packing facilities, (h) integrated pest control management, (i) sanitary transportation, and (j) traceability.

The FDA also requests that GMPs include (a) compliance with personnel training; (b) an allergen control plan; (c) environmental control of pathogens, especially listeria; (d) cleaning and disinfection procedures; (e) compliance with international SPS; (f) applying GMPs to certain agricultural operations, such as the mango hot water treatment; (g) accessibility and maintenance of critical records; and (h) time and temperature control.

The main allergens that must be declared on the labels of foods destined for the U.S. market are (a) peanuts, (b) nuts, (c) milk, (d) eggs, (e) soybeans, (f) crustaceans, (g) fish, and (h) wheat.

Listeria, according to the FDA, can contaminate raw foods such as meat, poultry, fish, or shellfish; raw milk; or raw vegetables, or it can be harbored by elements of the environment, such as air conditioning, ice, cooling water, floors, walls, ceilings, aerial washing, pipe insulation, rubber seals in doors or cold rooms, and vacuum cleaners. Accordingly, companies must maintain stricter controls in those areas.

The new FSMA law grants greater power to the FDA to regulate the production and harvest of food, has national and international authority, and has the right to access records without requesting permits, in order to track traceability. The new law requires food suppliers to register their facilities and their own suppliers and to make sure those suppliers understand the norms and standards prescribed by the FSMA.

Inspections programs will be implemented as follows, according to the FDA categorization of risk: (a) companies with a high risk of harm, once every 6 to 18 months; (b) companies with a low risk of harm, once every 18 months to 3 years; (c) food storage centers, once every 3 to 4 years.

The traceability systems implemented must maintain regular monitoring and immediately follow up on cases of harmful events. At all times, records must be kept about the origin and distribution of all food. The system must be able to trace the distribution of products within the supply chain and give the FDA the authority to order withdrawals at the producer's own expense. Another requirement for exports is the sampling and analysis of products by certified and accredited laboratories and the delivery of results directly from the laboratory to the FDA. The Ecuadorian export industry must adapt to these practices if it wishes to maintain agricultural trade with the United States.

Europe's GlobalGAP

GAPs are the first and most important line of defense in a food safety system, because faulty farm practices can leave food tainted from the beginning. GAP certification assures prospective buyers that the certified farmers know of and implement the practices required to keep food clean, fresh, and healthy. There are several different GAP certifications among countries. However, at present, only one, GlobalGAP, is recognized internationally. Since its origin in 1997 as EUREGAP, an initiative of retailers belonging to the Euro-Retailers Produce Working Group, GlobalGAP has become the leading farm-level international standard for food safety; sustainable production methods; protection of environmental, worker, and animal welfare; and responsible use of water, compound feed, and plant propagation materials. In 2007, EUREGAP was renamed GlobalGAP. Although GlobalGAP is a private standard, it is recognized by governments worldwide, and many countries, such as Ecuador, are homogenizing their GAP systems to conform with GlobalGAP standards. In addition, many countries are adapting GlobalGAP standards to create their own systems, using names such as ChinaGAP, ChileGAP, and KenyaGAP.

Hazard Analysis and Critical Control Points

Beyond the farm, the pond, or the fishing grounds, GMPs and good commercial practices make sure that food is delivered safe to the final consumer. The most important GMP certification is HACCP, a systematic preventive approach to securing food from biological, chemical, and physical hazards in production processes. HACCP is the standard GMP for the aquaculture and fish industry in Ecuador, and it works together with good fishing practices to provide the first line of defense for food safety in ponds and fish products.

NOTES

- 1 Ecuador introduced fiscal adjustment measures to create space for priority spending and quickly introduced containment measures against the spread of the virus. The Government announced exception cash transfers, distributed food baskets, enhanced credit measures, deferment of taxes and payroll contributions, and deferred credit obligations. However, Ecuador's tight fiscal position, dollarized economy, and constrained access to external financing limit the scope and size of the policy response.
- 2 Both measures have recently been removed.
- 3 <https://www.bnamericas.com/en/features/covid-19-hits-mining-megaproject-ramp-ups>. BNAmericas, "COVID-19 hits mining megaproject ramp-ups" published June 26, 2020, viewed November 30, 2020.
- 4 Global Aquaculture Alliance. 5 October 2020. "Ecuador's shrimp industry clearing numerous hurdles in 2020" <https://www.aquaculturealliance.org/advocate/ecuadors-shrimp-industry-clearing-numerous-hurdles-in-2020/>
- 5 Exporting sectors were exempted from the movement restrictions between municipalities that were imposed between March and September 2020. Nevertheless, logistics costs have climbed due to the implementation of measures of personal protection and introduction of biosafety equipment, additional labor costs to workers who have had to work overtime to cover absences, and the hiring of private transportation services to move workers to and from plants.
- 6 The global Safe Travels protocols were created by the WTTC for use by the Travel and Tourism sector as best practice guidelines to help restart and speed up the recovery of the sector in the wake of COVID-19. The global protocols are designed to help to rebuild confidence among travellers, and within the sector, so safe travel can resume once restrictions are eased. They provide consistency to destination authorities as well as guidance to travel providers, operators, & travellers, about the new approach to health & hygiene in the post COVID-19 world. (WTTC)
- 7 This section is based on the World Bank systematic country diagnostic (SCD) and Development Program Financing (DPF), as well as on the recent International Monetary Fund (IMF) program document for the Extended Fund Facility (EFF).
- 8 Expected years of schooling, for example, increased from 12.4 in 2000 to 14 in 2015. Infant mortality rates declined from 28.4 per 1,000 live births to 18.4 over the same period (United Nations).
- 9 Some of the reasons explaining the slow growth of Ecuadorian firms will be dealt with in the following section on cross-cutting constraints, including an antiexport bias of trade policy that dampens prospects for regional and global integration to tap into economies of scale, labor rigidities and access-to-finance challenges that make it difficult for new firms to scale up, and overall difficulties associated with the country's investment climate.
- 10 Microenterprises are firms with annual sales less than US\$100,000; small firms have annual sales between US\$100,001 and US\$1 million; medium type A firms have annual sales between US\$1 million and 2 million; medium type B firms have annual sales between US\$2 million and 5 million; and large firms have annual sales more than US\$5 million.
- 11 The firm data on which this section is based relies on the 2015 business registry (Directorio Empresarial) published by the National Institute of Statistics and Census (INEC). This directory includes the 843,509 firms that meet at least one of the following criteria: (a) reported sales to the SRI, (b) reported affiliated workers to IESS, and (c) enrolled in the Régimen Impositivo Simplificado Ecuatoriano (RISE) program, a simplified tax system that aims to formalize firms that have annual sales less than US\$60,000 and that do not report affiliated workers. Firms reporting both sales and affiliated workers in 2015 number 87,303, or 10.3 percent of the total. The analysis in this section focuses on these active firms.
- 12 In a similar vein, Autor and others (2017) examine a cross-country dataset and show that increased sectoral concentration is associated with faster productivity growth (because concentration is driven by an expansion of market shares among the most productive firms).
- 13 The Herfindahl index is calculated by squaring the market share of each firm competing in a narrowly defined market (at the level of a 6-digit International Standard Industrial Classification code) and then averaging the results at a broader sector level.
- 14 Ferro and Vijil (2019) look at the role that tariff protection has on resource allocation, trying to identify the extent to which tariffs distort the flow of resources into productive sectors. They find evidence that compound tariffs—which are effectively barriers to competition—are associated with misallocation of resources and reduced sector productivity growth.
- 15 This section draws heavily from Ferro and Reyes 2019.
- 16 The SCD's second pillar addresses challenges and opportunities to private sector development. Prime among them are aligning labor costs to productivity, modernizing labor regulations, and increasing the effectiveness of safety nets; integrating the Ecuadorian economy with the rest of the world by revamping policies to attract foreign investments and by reducing barriers to trade; reducing costs and uncertainties associated with business regulations and their enforcement; and reducing distortions associated with financial regulation and strengthening regulatory institutions.

- 17 Between 2015 and 2017, Ecuador imposed balance-of-payments safeguards (*salvaguardias*) consisting of import tariffs between 5 and 45 percent on 38 percent of products (representing 31 percent of imports recorded in 2014), particularly consumer goods and raw materials. Ecuador also applies compound tariffs to 5 percent of tariff lines (418 10-digit Harmonized lines), primarily clothing, which almost doubles the nominal protection rate when converted into ad valorem equivalents.
- 18 On November 26, 2018, the Ecuadorian government eliminated Resolution 116 of 2013, which required that importers prove compliance with 50 national technical requirements covering 259 tariff lines prior to arrival, and replaced it with a posteriori control following a risk-management strategy. The list of goods covered by the controls includes household consumption goods that weigh relatively more in the expenditure structure of poor households, such as dairy and derivatives, cooking oil, coffee, meat derivatives, and energy-efficient appliances, as well as products used as inputs by other sectors, including packaging materials and cement.
- 19 For a review of the evidence on the effectiveness of export promotion to increase export competitiveness, see Cadot and others (2011). More recently, Cruz and others (2018) show that providing coaching and consulting management to small and medium exporters in Brazil resulted in improvements in the firms' organization, which is in turn associated with a greater probability of the firms becoming exporters.
- 20 These treaties were with Argentina, Bolivia, Canada, Chile, China, France, Germany, Italy, the Netherlands, Peru, Spain, Sweden, Switzerland, the República Bolivariana de Venezuela, the United Kingdom, and the United States.
- 21 For example, the government modified the Hydrocarbons Law to introduce production sharing agreements for new exploration and production contracts in the oil sector, which sets favorable conditions to attract private investment to this sector. The government is also working on setting a regulatory framework and institutional arrangements to manage PPPs. Combined, these reforms can have a large impact on mobilizing private investment (World Bank 2019d).
- 22 In addition, the tax law stipulates that any payment made abroad by an Ecuadorian entity is assumed to be made with "local" resources unless the ISD had already been paid on the funds, even when funds are already abroad. Similarly, any revenue received by Ecuadorian exporters but not transferred into Ecuador is also liable to the ISD.
- 23 This exception applies provided that the company or the natural person is not domiciled in a tax haven or lower-tax jurisdiction.
- 24 Ley Orgánica de Incentivos para Asociaciones Público-Privadas.
- 25 In 2018, there were 13 transportation infrastructure projects being structured by the concessions unit of the Ministry of PWT, and 82 municipalities, including the city of Quito and its SOEs, were contemplating an additional 320 potential projects. The Ministry of Production has prioritized six sectors to be supported by PPPs.
- 26 Decree No. 1190, issued in November 2020.
- 27 This section draws heavily from Ecuador's Systematic Country Diagnostic (World Bank 2018b).
- 28 The Ecuadorian labor code is originally from 1938, with an encoding in December 2005.
- 29 Constitutional Mandate No. 8 established that complementary services and technical services could still be provided through outsourcing. For complementary services, however, a scheme of profit-sharing with the workers providing the complementary services was established, putting them on an equal level with direct employees of the firm.
- 30 The criminalization of the failure to register workers with social security drove a significant increase in affiliation out of fear of penal sanctions. However, since the deceleration of economic activity in 2016, informality has gained ground.
- 31 Product Market Regulation is a data tool made by the Organisation for Economic Co-operation and Development (OECD) and applied since 1996 to OECD and enhanced engagement countries. Jointly with the World Bank, the OECD extended the database to cover almost 20 developing countries. It captures the main characteristics of economic and administrative regulations that affect how markets of products (goods and services) function.
- 32 Ecuador has three public banks, one public agency that acts as a second-tier bank for cooperatives, and one public investment bank that manages the resources of the social security system. The Corporación Nacional de Finanzas Populares y Solidarias and BanEcuador focus on the consumption and microfinance segments; the Corporación Financiera Nacional focuses on SMEs and the corporate segment; the Banco de Desarrollo del Ecuador supports infrastructure projects and subnational governments; and the BIESS supports social security beneficiaries in the segments of consumption and housing.
- 33 Ecuador's public financial institutions include one commercial bank, Banco del Pacífico, and two development banks, Banco de Desarrollo del Ecuador and Banco BanEcuador. The Ecuadorian BIESS provides mortgages and unsecured loans to IESS contributors.
- 34 The capital market was further fragmented in 2014 by creation of a specialized stock exchange for public companies (SOEs).
- 35 The effective liquidity of commercial banks would be increased by interpreting their investments in the Liquidity Fund, which serves a lender-of-last-resort function, as domestic liquidity when calculating the Domestic Liquidity Requirement.

- 36 Financial inclusion in Ecuador has been boosted by the Bono de Desarrollo Humano, a conditional cash transfer program. This program gives beneficiaries the option to receive cash transfers on special bank cards. The option has helped to improve the financial literacy of beneficiaries, bringing the financial system closer to beneficiaries, and to improve their access to credit: beneficiaries can take out microloans against the future proceeds of the cash transfer program.
- 37 Mobile money, as traditionally defined, does not exist in Ecuador as non-banks cannot provide store-of-value transaction accounts.
- 38 These baskets include fixed broadband, mobile cellular, mobile broadband prepaid handset-based packages (500 Mega Bites), and mobile broadband postpaid computer-based packages (1 Giga Bites).
- 39 The *business* subindex of this index measures the quality of digital infrastructure needed for e-commerce and other business functions, including the number of secure servers and the amount of international internet bandwidth, as well as the percentage of businesses with websites (as a proxy for their more general online business activities). The *people* subindex measures the extent and quality of individuals' connections to the digital world, including their access to mobile/cellular phones, basic internet, and mobile and fixed broadband. And the *government* subindex measures the adoption of core administrative systems to automate and streamline government activities as well as digital identification systems and online services that allow the government to better serve the public.
- 40 Research in Colombia (Cárdenas and Rozo 2009), Mexico (Bruhn 2013; Kaplan and others 2011), Peru (Mullainathan and Schnabl 2010), and Portugal (Branstetter and others 2010) documented an increase in business registration rates following business registration reforms.
- 41 However, as the transportation and logistics sector analysis will demonstrate, there are still gaps in the policy framework, competitiveness, tertiary roads, and logistics services.
- 42 "Currently, the target minerals in Ecuador are gold, silver and copper. However, there is a huge potential in other minerals such as lithium, rare earth, potash, iron, uranium and coal."Lexology, Mining in Ecuador, July 4, 2019: https://webcache.googleusercontent.com/search?q=cache:fyz_GNNZCfUJ:https://www.lexology.com/library/detail.aspx%3Fg%3Da64f43ba-37cf-4b1b-a523-2da91b2b8c48+&cd=2&hl=en&ct=clnk&gl=us
- 43 These figures come from a Wood Mackenzie report to the government of Ecuador, as presented by the government in the beginning of 2018.
- 44 Census figures do not include informal miners.
- 45 Tailings management is a major environmental problem in metallic small-scale mining in Ecuador. Many such operations discharge their tailings, waste produced after the separation process, into ravines and rivers. High levels of pollution have been recorded in fluvial systems because of the extraction of gold, as shown by the presence of sediments, the partial deterioration of the banks, and scattered debris in the whole mining area. Artisanal miners are obligated to obtain an environmental registry by submitting an environmental record and a simplified environmental management plan through the digital Unified Environmental Information System (SUIA). However, the monitoring and environmental control of small-scale activities is weak.
- 46 This royalty payment was equivalent to a percentage of the sale of the main mineral and secondary minerals not less than 5 percent and not greater than 8 percent.
- 47 The first come, first served principle is the one most frequently used in Latin America, and it is especially well suited for areas that are largely unexplored. However, in areas with high potential, or where geological data is already available, mining rights can be granted on a competitive bidding basis. It is thus very important to invest in the generation of quality geological data and make that data available to investors. This function is usually the responsibility of the national geological survey.
- 48 The concession regime for small-scale metal mining involves a petition processes for underground works of 4–300 hectares and for open-pit works of 6–300 hectares and a tender process if the area under concession is between 300 and 500 hectares. Auctions apply only to concessions with an area greater than 500 hectares.
- 49 For more information, see Ministerio de Minería 2016b.
- 50 ARCERNNR may cancel a mining title if the concessionaire has not requested either to start the exploitation phase or to renew the term of the concession in the framework of the mining exploitation contract (Article 106 of the Mining Law).
- 51 The government has recently issued a change to regulations (through a ministerial agreement, or *acuerdo ministerial*) allowing scout drilling during the initial exploration phase.
- 52 See Article 41 of the Mining Law.
- 53 See Registro Oficial Suplemento 385 of November 28, 2014, 3.
- 54 The SGM is an automated mining management system developed and programmed through a process tool called Business Process. It comprises 26 procedures for the administration of mining rights, cadaster updates, and monitoring and inspection of operations. The main shortcoming of SGM is conceptual: its design does not differentiate between mining property and mining activity, which makes management of the information on mining concessions extremely complex.
- 55 Wood Mackenzie (2018) provides a comparison of Ecuador's fiscal burden for mining with those of other countries in Latin America (Brazil, Chile, Colombia, Mexico, and Peru). The government take was calculated based on present values and assumes long-term prices of US\$3.50 per pound for copper and US\$1,353 per ounce for gold.

- 56 Unlike in countries like Peru, in Ecuador there is no official record of socioenvironmental conflicts, and no public entity treats them officially. In practice, there is no process or entity in charge of dealing with this issue or of intervening comprehensively in conflict processes generated by the presence of extractive industries.
- 57 This prohibition applies except in the case of a declaration of national interest by the president of the republic.
- 58 Although Ecuador today has a higher-than-average percentage of forested areas for the region, the annual rate of deforestation is also higher than average for the region (World Bank 2018).
- 59 "Intangible zones" are areas of high cultural and biological importance to indigenous communities. Mining activities are prohibited there.
- 60 There is a procedure to evaluate the possible overlap of mining activities with areas of high biodiversity but not with reserved areas. When requesting a mining concession, the applicant must obtain intersection certificate from MAE to confirm that the area does not overlap with a protected area (of the SNAP), a state-protected forest or a protective forest. If there is no overlap with SNAP but some overlap with a protective forest, the applicant must request an environmental forestry certification from MAE's National Forest Directorate prior to the environmental licensing process.
- 61 MAE points out that, on average, each EIA is about 10,000 pages long. At one point there were reportedly 190 mining EIAs in process and 2,000 paralyzed procedures; today, a remediation plan is underway.
- 62 The maximum number of drilling platforms allowed per concession is 40 (20 in environmentally fragile areas).
- 63 Companies cannot start initial exploration activities until they have obtained environmental certificates from MAE and water licenses from SENAGUA and have conducted consultations to introduce the project to the affected communities. A relatively simple environmental study is required at this initial exploration stage.
- 64 The environmental management system in Peru requests one of three different instruments in proportion to the intervention: a "statement of environmental impact," a semi-detailed EIA, and a full EIA.
- 65 The PMA also details the processes of prevention, mitigation, remediation, and repair of the impacts identified in the study, including a detailed contingency plan in which those responsible for the plan's application and the response times are determined. Mining concessionaires must submit an annual progress report to MAE regarding their compliance with the PMA. Monitoring reports must be submitted semi-annually in the exploration phase and quarterly during the exploitation, beneficiation, smelting, and refining phases. The PMA also serves as the basis for environmental audits that are carried out annually to start and then semi-annually.
- 66 The Constitutional Court established the difference between the environmental consultation, the pre-legislative consultation, and the free, prior, and informed consent consultation. However, the Mining Law only addresses the environmental consultation.
- 67 Indigenous populations are represented politically at the national level by the Confederation of Indigenous Nationalities of Ecuador. Another group that advocates for the welfare of the indigenous population is the Confederation of Indigenous Nationalities of the Ecuadorian Amazon. The Amazon region is home to 24.1 percent of Ecuador's indigenous population.
- 68 A new ministerial agreement that regulates the provisions of the Constitution regarding the right to prior consultation of mining project communities is planned for late 2018. For hydrocarbon projects, there is a regulation regarding the methodology for carrying out prior consultations in an affected community. To allow for the bidding process for oil blocks in the Amazon region, Executive Decree 1247 was issued on July 19, 2012; it regulates the implementation of free, prior, and informed consent in the bidding and assignment processes of areas and hydrocarbon blocks.
- 69 Relevant ministries include MEF, SRI, BCE, MAE, MAGAP, MCPEC, MRL, MIPRO, SENPLADES, and the health and education ministries.
- 70 The Energy & Extractives Global Practice at the World Bank recently issued a green growth framework for mobilizing mining investment (Sekar and others 2019).
- 71 In Colombia, Law 1444 of 2011 created the Autoridad Nacional de Licencias Ambientales, a technical body with administrative and financial autonomy dedicated to the granting of environmental licenses and permits.
- 72 In Peru, the Law of the National Environmental Impact System and Law 29,968, which created the National Environmental Certification Service (SENACE), are the main regulatory framework for environmental management. See <https://www.senace.gob.pe/>.
- 73 Peru's is known as Environmental Protection and Management Regulation—Mining (Supreme Decree No. 040-2014-EM).
- 74 The revealed comparative advantage is defined as the ratio of a country's exports of a good to the world's exports of that good divided by that country's share of exports of all manufactured goods in the world exports of all manufactured goods. A value of the index above (or below) one is interpreted as a revealed comparative advantage (or comparative disadvantage) for the good.

- 75 Mangoes saw a small increase in revealed comparative advantage between 2013 and 2017, with the Canada, Chile, the EU, Japan, New Zealand, and the United States being the main exports markets. Ecuador has significantly lower productivity (4.4 MT/h) than its main competitors, including Brazil (17.9), Peru (16.3), and Mexico (10.6). Ecuador could also move up in the quality ladder relative to its main competitors, as the unit price earned by the median Ecuadorian mango exporter in the United States is less than half that received by the median exporter from Peru (figure 3.7). Mangoes are mainly produced in Guayas as a unique crop. Pineapples experienced a small increase in revealed comparative advantage between 2013 and 2017, and Ecuador's main export markets for them include Argentina, Chile, the EU, Russia, and Uruguay. With 30.7 MT/h, Ecuador also has significantly lower productivity than its main competitors, including Costa Rica (68.2), Mexico (44.9), and the Philippines (40). Ecuadorian exporters could also catch up in quality with Colombians, their main competitors in the Chilean market. More than two-thirds of Ecuadorian pineapples are produced in Santo Domingo de los Tsachilas (Las Sierras), 28 percent in Guayas (La Costa), and 5 percent in Sucumbíos (Amazonia). Producers have a slight tendency to associate their pineapple production with other products. Papayas have registered a small decrease in revealed comparative advantage, and at 12.8 MT/h, Ecuador has significantly lower productivity than its main competitors, including Mexico (56.6), Brazil (46.9), and Guatemala (31.5). In the Netherlands, unit prices earned by the median Ecuadorian exporter are four and seven times lower than those earned by the median exporters from Brazil and Thailand, respectively.
- 76 Kidney beans and pigeon peas are produced in the highlands and along the coast: Azuay, Chimborazo, and Los Ríos are the main production locations for kidney beans, and Chimborazo, Imbabura, Los Ríos, and Guayas are the main locations for pigeon peas.
- 77 The Peruvian asparagus industry developed in fertile valleys along the west coast with plenty of water, while Ecuador's production was established all the way from the coastal plains to the high sierra (elevations up to 4,000 m) in very diverse growing conditions, often with scarce water.
- 78 See also the list of registered farmers certified by Agrocalidad by 2017. https://www.agrocalidad.gob.ec/?page_id=39148.
- 79 However, China has imposed a temporary ban on three Ecuadorian companies after detecting shrimp diseases in the companies' shrimp products.
- 80 For example, it takes 24 to 45 days to ship goods by sea from Ecuador to Brazil and 18 to 25 days to ship them to Buenos Aires, with a weekly frequency of shipments. In addition, containers come back almost empty because of the unbalanced trade between some regional partners, increasing the container return fees for shippers (ECLAC 2018).
- 81 See Presidential Decree 256, December 27, 2017.
- 82 Price controls for bananas have led to lower export competitiveness, because international buyers went to other suppliers when fixed prices in Ecuador were higher than the international competition. In many instances, banana farmers chose to circumvent the fixed prices to protect their volumes and keep loyal buyers.
- 83 The U.S. and EU organic markets have become a high-volume proposition for certified growers and exporters. For instance, the rapid growth of the U.S. organic market has been followed by an increasing gap between local organic acreage and organic food sales, suggesting a domestic undersupply. A similar trend is observed in the EU (Willer 2018).
- 84 In Ghana, organic certification adopted by small-scale pineapple farmers yields a significantly higher return on investment than GlobalGAP certification, mainly because of the price premium on the organic market (Kleemann and others 2014). Adopting Fair Trade and organic production brought higher benefits through yield improvement more than through price premiums in Mexico, because conversion to organic farming was usually accompanied by assistance as to technology and management practices (Barham and others 2011).
- 85 The main reason for this realignment was the oversupply of pineapples from Costa Rica, the number one producer in the world, which brought low prices in the United States and pushed producers such as Ecuador out of the market. The development of papaya exports from Ecuador has also been hampered by phytosanitary requirements from the United States demanding that papayas be treated in hot water tanks to control fruit flies. The first shipment approved by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service under a new protocol involving Agrocalidad, the papaya producers association (Corpapaya), and the agency was sent by Agro Industria Rilesa S.A. on June 20, 2018, after negotiations lasting more than 20 years, according to the exporter (Actualidad 2018).
- 86 Controlled atmosphere is a well-established and relatively old technology used extensively by the banana industry in many countries, including Ecuador. It is also used for a wide variety of fruits, pineapple among them. Costa Rican exporters are taking advantage of such technology to ship pineapples to the Far East, mostly to Japan.
- 87 Flower exporters are coordinating the use of services and infrastructure among themselves in response to the increasing demand for airfreight transport services (Martinez 2018).
- 88 These figures come from the World Bank PPP database. Public-private partnerships in transportation (current US\$) refers to commitments to infrastructure projects in transportation that have reached financial closure and directly or indirectly serve the public.
- 89 See World Bank Procuring Infrastructure PPPs database for 2018.

- 90 Investment is still required in those road sections with high daily traffic, such as expanding the number of lanes in some high-traffic highways.
- 91 Local governments are responsible for constructing and maintaining some roads (nonprimary) in their districts.
- 92 According to Ecuador's Ministry of Transport, there are seven weighing stations (two fixed and five mobile) across the country.
- 93 Ecuador has been hiring microfirms to rehabilitate rural roads, which is a good practice that is also being done in neighboring countries, including Colombia and Peru.
- 94 In many cases, reefer containers serve not only as transportation methods but also as cold storage. Large producers tend to call for refrigerated containers from the farm gate, but those trucks often face challenges in easily accessing the farms.
- 95 Some municipalities conduct only visual reviews for lack of capacity to do any more. Data on kilometers traveled are not shared by municipalities with the national transit agency (ANT).
- 96 For instance, the information collected by these GPS devices is not systematically monitored by operators, partly because of a lack of skills but also because of limited demand for such value-adding services from users.
- 97 Depots moved from opening Monday through Friday from 8:00 to 24:00 (with a late fee after 17:00) and Saturday from 8:00 to 12:00 to opening on a 24-7 model (except for reefer depots, where long wait times—ranging from 2 to 5 hours when picking up reefers—are still reported because of limited hours of operation). Today, truck waiting average around 50 minutes at gates and 40 minutes in/out at TPG, Contecon, and [[AQ: Spell out this abbreviation.]] (NAPORTEC); however, at Fertisa, waiting times can range from 2 to 4 hours. At airports, waiting times are less of an issue except during peak times. Waiting times at pickup or delivery points, ranging on average from 4 to 12 hours, depend on the type of cargo, the customers' equipment, and the operators' experience.
- 98 From 2008 to 2015, the amount issued to truck owners for scrap certificates totalled US\$129.2 million (for 18,624 vehicles). As the fiscal crisis emerged in 2015, the sudden stop of the Plan Renova lowered the profitability of operators who invested in fleet renewal but were not compensated.
- 99 These figures represent inland trucking freight prices for a 40-foot refrigerated container. The quotes are based on interviews with a large freight forwarder in Ecuador.
- 100 The World Health Organization estimates the road traffic deaths per 100,000 population in Ecuador to be 20.1, compared with 16.8 in Colombia, 13.9 in Peru, and 12.4 in Chile.
- 101 This figure is according to truck drivers interviewed as well as the road transport association.
- 102 Owned by Maersk, SeaLand is a shipping line dedicated to the intra-American market.
- 103 An international benchmarking of maritime freight rates is difficult to produce, because shipping lines' published rates may vary substantially from negotiated rates with individual companies and companies' rates may vary substantially. For instance, large exporters with large and continuous volumes, such as banana and shrimp exporters, pay better rates than smaller exporters. Freight rates may also vary based on supply and demand, such as during peak shipping times globally or for products in Ecuador and neighboring countries.
- 104 The four public port terminals are Autoridad Portuaria de Esmeraldas (APE), which is operated by the public authority, and Autoridad Portuaria de Manta (APM), Autoridad Portuaria de Guayaquil (APG), and Autoridad Portuaria de Puerto Bolívar (APPB), which are operated by the private sector through a landlord model. The three petrol port terminals are operated by the Superintendencia del Terminal Petrolero de Balao, the Superintendencia del Terminal Petrolero de La Libertad, and the Superintendencia del Terminal Petrolero de El Salitral.
- 105 The capital dredging works in the maritime channel will be executed in less than 12 months. The dredging of the Guayas River will be completed within three years.
- 106 Since the start of its 20-year concession in 2007, Contecon has invested about \$347 million in infrastructure, equipment, and system improvements (e.g., dredging a berth to 9.5 m; purchasing 6 gantry cranes and 23 RTGs; and establishing a container services area that provides reefer cleaning, fumigation, repair, and temperature setup). The operator has further investment plans, including building cold storage and additional berth dredging.
- 107 Fertigran represents 59 percent of TEUs, Banana Port represents 30 percent, and Fertisa represents 12 percent. With regard to the number of vessels calling on private ports in 2017, Banana Port and Fertigran represented 29 percent each, while Fertisa represented 28 percent.
- 108 The landing, parking, and boarding bridge fees for airlines are given per two-hour turnaround.
- 109 Note that the figures vary slightly depending on the data source. Ecuador's Encuesta Nacional de Empleo, Subempleo y Desempleo cited 484,948 jobs in tourism in 2016, while the Ministry of Tourism uses data from registered businesses only, resulting in a direct-employment figure of 137,647, relatively similar to the WTTC's.

- 110 Only the most important source markets for Ecuador (25,000 visitors a year or more) are considered. The República Bolivariana de Venezuela is excluded from this analysis.
- 111 <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2018/ecuador2018.pdf>
- 112 The FDI Markets database, collected by the Financial Times, does not incorporate all FDI projects, only those publicly announced. Still, it is a good indicator of the extent to which FDI is flowing into a country, and it displays high correlations with realized FDI investments.
- 113 For more information, see <https://epi.envirocenter.yale.edu/epi-topline>.
- 114 Among other things, this strategy should include a plan to tackle single-use plastic, which has detrimental environmental effects.
- 115 The Adventure Tourism Development Indexes can be viewed at <http://www.adventureindex.travel/downloads.html>.
- 116 The full list of attractions can be accessed here: <https://servicios.turismo.gob.ec/descargas/InventarioAtractivosTuristicos/Matriz-Inventario-de-Atractivos-2004.pdf>.
- 117 The full list of pilot tourist attractions can be accessed here: <https://servicios.turismo.gob.ec/descargas/InventarioAtractivosTuristicos/Matriz-atractivos-turisticos-pilotaje-2016.pdf>.
- 118 <https://www.turismo.gob.ec/mintur-continua-con-la-actualizacion-del-inventario-de-atractivos-turisticos/>
- 119 These standards are available at <http://www.optur.org/normas-tecnicas-turismo-aventura.html>.
- 120 Peru won again in 2018 and 2019. For more information on this award, see <https://www.worldtravelawards.com/award-south-americas-leading-culinary-destination-2019>.
- 121 This change is likely to have been affected by the earthquake that took place in 2016. For more information, see Casey (2018).
- 122 For Latin American price data, see <https://www.iata.org/publications/economics/fuel-monitor/Pages/index.aspx>.
- 123 For Ecuadorian price data, see <https://www.eppetroecuador.ec/wp-content/uploads/downloads/2018/10/ESTRUCTURA-DE-PRECIOS-OCTUBRE-2018-MENSUAL-SNI-25-AL-31-DE-OCTUBRE-2018-1.pdf>.
- 124 Data from 2016 shows that there are 5,177 accommodation businesses in Ecuador, with a combined capacity of 96,717 rooms and 224,317 beds.
- 125 For more information, see the following bulletin (in Spanish): https://servicios.turismo.gob.ec/descargas/Turismo-cifras/Boletin/Boletin_Abril-2018.pdf.
- 126 An example of an innovative solution in accommodations is the business model of the Decameron group, which also operates in the coast of Ecuador and brings the "all-inclusive" modality to the middle classes.
- 127 In 2018, several new airlines started operations and existing ones, such as Aeromexico, increased their frequency of flights.
- 128 <https://taxnews.ey.com/news/2018-0199-ecuador-amends-its-tax-law>
- 129 For more information, see the Economist Intelligence Unit's 2008 Peru: Commerce Report.
- 130 <https://www.export.gov/article?id=Ecuador-Labor>
- 131 For more information, see Peru's general law on tourism, available here (in Spanish): https://www.mincetur.gob.pe/wp-content/uploads/documentos/turismo/funciones_y_normatividad/normatividad/essna/reglamento_ley_general_de_turismo.pdf.
- 132 According to the Mining Law, each municipality must regulate, authorize, and control the extraction of construction materials within its territory. No contract must be signed for exploration for these materials, only for the materials' exploitation (article 143). The Mining Law also establishes that the state may freely exploit this type of material for the construction of public works.
- 133 Financial capacity is demonstrated through balance sheets, income statements, bank certificates, mining operations abroad, or awards of previous concessions of similar amounts. Economic documents must be equivalent to 5 percent of the proposed economic investment commitment for the requested area.
- 134 Technical capacity must be demonstrated by the presentation of (a) general experience on the part of the bidder, its parent company, or its subsidiaries and (b) the work plan for the project at hand.
- 135 The minimum expenditure is US\$5 per hectare in the first two years of the initial exploration period and US\$10 per hectare in the two subsequent years.

IFC

2121 Pennsylvania Avenue, N.W.
Washington, D.C. 20433 U.S.A.

CONTACTS

Zeinab Partow

zpartow@ifc.org

Mariana Vijil

mvijil@worldbank.org

ifc.org



WORLD BANK GROUP

THE WORLD BANK
1818 - 18A



International
Finance Corporation