



COUNTRY PRIVATE SECTOR DIAGNOSTIC

CREATING MARKETS IN JAMAICA

Repositioning for Private Sector-led Sustainable Growth

May 2022



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ACKNOWLEDGMENTS

This Country Private Sector Diagnostic was prepared by a team co-led by Denny Lewis-Bynoe (International Finance Corporation [IFC]), Rohan Longmore (World Bank), Thomas Haven (World Bank), and Priyam Saraf (World Bank). The team includes Maria Carolina Salazar Pardo (consultant); Luiz Felipe Almeida, Miguel Pereira Mendes, Tehmina Nawab (IFC); Arnau Gallard-Agusti (consultant, agriculture); and Rejo Sam (consultant, outsourcing services).

The team is grateful for valuable insights, guidance, and technical inputs from: Christina Wiederer, Israel Osorio-Rodarte, Lamiaa Bennis, Michael Ferrantino (trade and logistics); Allen Forlemu, Fadwa Bennani, John Martin Wilson, José Ángel Villalobos, Maximilien Heimann (financial sector); Graciela Miralles, César Borja Galán Santos (competition); Andrew Beath, John Perrottet (tourism); Alejandro de la Campa, Amadou Dem, Christian Soto, Maria Paulina Mogollon, Nelissa Hines, Olivia Brouwer, Yago Larrey (investment climate); Arun Manuja, Deborah Watson, Leah April, Vinicius Lima Moura (governance); Himmat Singh Sandhu (digital development); Soulemane Fofana, Ashesh Prasann, Garry Charlier, Hira Channa, Jean Claude Balcet, Jose Masjuan, Leopoldo Sposata, Tania Kaddeche, Vincent Palmade, Winston Dawes (agriculture); Asha M. Williams, Clemente Avila Parra, Eliana Carolina Rubiano-Matulevich, Jose Romero (social protection and labor); Megan Meyer, Maja Murisic, Neha Mukhi, (energy and environment); Bevon Alvarez (infrastructure); Luciana Guimaraes Drummond e Silva, Michelle Ottey, Richard Cabello (public-private partnership); Ana Cristina Alonso Soria, Miguel Angel Jimenez Gallardo, and Sara Al Rowais (consultants).

The team is thankful for the leadership, guidance, and support of Lilia Burunciuc (Country Director, World Bank), Mona Haddad (Global Director, World Bank), Tahseen Sayed (Senior Adviser, World Bank), Martin Spicer (Regional Director, IFC), Robert Taliencio (Regional Director, World Bank), Judith Green (Country Manager, IFC), Ozan Sevimli (Resident Representative, World Bank), Yira Mascaro (Practice Manager, World Bank), Tatiana Nenova (Manager, IFC), Doerte Doemeland (Practice Manager, World Bank), Javier Suarez (Program Leader, World Bank), Vickram Cuttaree (Program Leader, World Bank), Alejandro Alvarez de la Campa (Manager, IFC), Karlene Francis (Senior Operations Officer), Takiyah Tabia De Four (Associate Investment Analyst), and the team including Paula Marcela Houser (Program Assistant, World Bank) and Veynu Siewrattan (Program Assistant, IFC) who made all the arrangements needed for the extensive series of mission meetings and provided crucial administrative support. The team is grateful for comments provided by peer reviewers Alberto Criscuolo, Blair Lapres, Niraj Shah, Martin Molinuevo, Robert Johann Utz, and Siddhartha Raja. Paul Holtz (consultant) edited the report. A team at Designed for Humans LLC led by Patrick Ibay copy edited and designed the visuals and layout.

Finally, the team is sincerely grateful for excellent contributions from representatives of Jamaica's public and private sectors.

EXECUTIVE SUMMARY

The World Bank Group prepared this Country Private Sector Diagnostic (CPSD) for Jamaica as part of ongoing efforts to boost private sector participation in key sectors over the next three to five years. Weighed down by structural constraints, Jamaica's real gross domestic product (GDP) expanded at an annual rate of less than 1 percent over the last three decades and economic activities remain concentrated in few sectors. The stock of public debt is among the highest in the region, which limits government's capacity to provide complementary public goods for growth. This report identifies ways to reduce cross-cutting constraints to private investment, with a focus on making agriculture and outsourcing services more competitive. Jamaica has an opportunity to produce high-value horticulture crops for export to existing and new markets. In outsourcing, the country can leverage its success with call centers to move toward higher-value services including knowledge process outsourcing (KPO), information technology outsourcing, and eventually digital services for creative industries.

This CPSD comes at a crucial time in the country's push to find new private sector opportunities to assist with the recovery from the fall in economic activity caused by the COVID-19 pandemic. COVID-19 has exacerbated vulnerabilities in Jamaica's development, reversing some of the gains achieved over the past decade, including increasing public debt and amplifying weaknesses in health, education, and information and communication technology systems. Real GDP is estimated to have contracted by a historic 10 percent in 2020. Tourism, which accounted for nearly a third of GDP in 2014–19, was among the sectors hit hardest—resulting in job losses that have likely increased poverty and inequality. Nevertheless, green shoots exist in horticulture and outsourcing, which are at the center of the government's private sector development strategies. Sustainable, inclusive recovery from the pandemic over the next three to five years will require investment in climate adaptation and resilience, diversifying into sectors with strong potential for growth and job creation, and building on Jamaica's geographic and climatic advantages.

Improving the business climate is critical to boost investment in a sustainable recovery.

The domestic private sector continues to face constraints, including business regulations, trade procedures, access to finance, worker skills, energy costs, and transport and logistics, undermining short-term recovery efforts and long-term competitiveness. Accordingly, this report focuses on interventions that could have major impacts and are likely to be feasible in the context of government's capacity and available resources over the near to medium term.

Country context

As a small island off the North American coast, Jamaica faces unique development opportunities and constraints. Jamaica has been a beacon of political stability, liberty, and cultural influence. It is a leader in the Caribbean in terms of its infrastructure assets—including airports, seaports, and ground transportation—coupled with digital connectivity, proximity to North America, and brand recognition in major markets. These assets have also strengthened the platform for the development of its tourism, creative, and outsourcing services sectors and can serve as a base for other

industries to develop. Its geography confers advantages and makes it an attractive tourism destination. Economic growth has been historically low, and most workers are in services. Jamaica faces many challenges typical of small island developing states, including limited export diversification and exposure to natural disasters.

The COVID-19 pandemic led to a contraction in economic activity in Jamaica, disproportionately impacting tourism—which generates a large share of direct and indirect jobs. The contraction was caused by a sharp drop in external demand and private consumption, reflecting the near closure of international travel and a marked slowdown in domestic demand. On the supply side, services contracted because of the disruption of tourism and related services. Industry was held back by disruptions in domestic production linked to the pandemic and the temporary closure of Jamaica's largest aluminum refinery. In July 2020, unemployment reached 12.6 percent—the highest level in recent years—hitting women and young people especially hard and is likely to have increased poverty. A surge in remittances, which increased by 20 percent in 2020, helped cushion the impact of the pandemic. Poverty has traditionally been very sensitive to changes in remittances which supplement the income of many households in Jamaica.

The impact of the pandemic on Jamaica's economy is exacerbated by climate change. With approximately 90 percent of Jamaica's US\$14 billion GDP produced within its coastal zone, Jamaica is particularly vulnerable to climate change, including rising sea levels and temperatures, more frequent and severe natural disasters, such as hurricanes, tropical storms, floods, and droughts.¹ These have adverse implications for key economic and climate sensitive sectors, such as tourism and agriculture. Climate shocks affect both crop production and infrastructure assets, with poverty implications. Long-term climate change impacts, including changing precipitation patterns and increasing temperatures, affect the reliability of water resources needed for food production and negatively impact the livelihoods of local communities. As such, climate-informed policies form a central part of private sector development and Jamaica's efforts to restore growth.

State of the private sector

Jamaica's private sector exhibits a dualistic structure with a few large, often multisectoral, successful firms and many micro, small, and medium enterprises (MSMEs). Although large firms contribute significantly to GDP, they account for just under a third of jobs. They are most active in tourism, finance, electricity, and agro-processing. MSMEs, on the other hand, provide more than two-thirds of jobs and are mostly engaged in wholesale, accommodation and food services, and agriculture. International trade is primarily conducted by large firms and some successful MSMEs, many of which are not linked into global value chains (GVCs) and have low local value-added components. Only 4.5 percent of small firms are involved in exports, compared with 33.5 percent of large ones.

Most firms in Jamaica are young, with limited export activity, high dependence on imports, and low innovation capacity. The most recent World Bank Enterprise Survey found that half of all Jamaican firms were less than 15 years old.² Only 16 percent of formal firms were involved in exports, below the average for other upper-middle-income countries, while 74 percent of manufacturing firms imported from abroad, above the average of comparator countries. Extensive dependence on imported inputs reflects, among other things, Jamaica's high production costs and limited innovation.

Firm productivity in Jamaica is closely correlated to size and ownership structure. Large foreign-owned companies and retail enterprises are the most productive in terms of sales per worker. Firms in manufacturing and other services are the least productive. Small firms and domestic companies also exhibit low productivity.

Cross-cutting constraints to private sector growth

Jamaica has struggled to improve its business regulatory environment, and weaknesses in competition, tax, land, and other policies remain. Limited competition undermines firm innovation and affects the prices, reliability, and penetration of network services such as telecommunications and energy. Lack of pro-competition regulation in key sectors, the prevalence of state-owned enterprises, and weak competition enforcement are contributing factors. The tax structure is complex, and there are shortcomings with land titling. There is also substantial room for improvement in e-government services for firms. The government has prioritized regulatory reform, with several important initiatives planned or underway. Examples include rationalization of the tax code, revisions to mediation frameworks and online court proceedings, and the establishment of a public office to oversee insolvency proceedings.

High trade costs have hampered the growth of Jamaican exports. The time and costs to export and import are relatively high in Jamaica because of high and multiple taxes and fees, weak coordination among agencies, absence of an integrated, harmonized framework for border agencies, prevalence of manual processes, and low capacity of firms to implement international requirements, among other factors. Jamaica's trade practices limit domestic firms' ability to integrate with GVCs and create market distortions. Export growth has stagnated, making it imperative to intensify efforts to increase participation in international markets and leverage preferential market access conditions with key trade partners. The government is working to facilitate trade, including by improving cooperation among border agencies, risk management in border clearance, and customs regulations and data systems.

MSMEs consider access to finance a major constraint, but substantial opportunities exist to improve alternative financing sources and digital financial services. Only about a quarter of Jamaican MSMEs have a bank loan or line of credit, compared with a regional average of nearly half in Latin America and the Caribbean. Furthermore, the local financial sector is shallow, with low levels of domestic credit to the private sector. The recent microfinance law and regulation is a first step toward regulating the microfinance segment and should pave the way for further market expansion. Alternative sources of financing—such as leasing, factoring, and venture capital—are also underdeveloped, and MSMEs have limited or no access to digital financial services (financial technology [or fintech]). Fintech could cut costs and facilitate access to credit and payment systems for MSMEs. To promote it, changes are needed in regulations, as are active policies to promote its use.

Employers have trouble finding workers with the requisite skills, particularly in higher-value services. Contributing factors include a limited number of tertiary graduates in key fields (such as computer science, programming, and engineering), brain drain, and lack of occupation-specific and socio-emotional skills. Various government and nongovernmental agencies offer labor market initiatives, most of which are implemented in collaboration with the National Training Agency's Human Employment and Resource Training Trust. The government has tried to encourage Jamaica's large, relatively well-educated diaspora to return, but the domestic job market offers insufficient incentives. Overcoming skill mismatches, particularly in higher-value activities, requires strengthening links between education and training provider on the one hand and future private sector needs on the other.

Energy costs are high relative to peer countries and the world, constricting the competitiveness of local firms. High costs are partly due to limited use of renewables, system losses and the terms of contracts with foreign providers of fuel oil and natural gas. MSMEs are disproportionately affected by the high costs and occasional outages. Renewable energy and energy efficiency are becoming increasingly important to the government and its development partners. Reforms that stimulate investment in renewable energy would lower costs and accelerate decarbonization. Firms would also benefit from reforms that increase efficiency and reduce system losses.

Jamaica's public transport infrastructure is relatively developed, but shortcomings in logistics services raise costs and make it harder for MSMEs to export. Jamaica's airports, ports, and highways rank among the best in the Caribbean. However, Jamaica's tradeable sectors—especially agriculture—face four categories of logistics challenges. These include: (1) high costs of logistics due to low-capacity utilization of trucks as a large share of trucks are filled only for a one-way trip and/or not filled to capacity, thus shippers pay for the unused capacity; (2) limited third-party cold chain logistics, which include refrigerated trucking and cold storage, creating a lost opportunity to preserve or extend the shelf life of agriculture products; (3) lack of skills and know-how across the logistics sector, especially for agriculture; and (4) delays in full digitalization of border processing. Opportunities for strengthening transport and logistics lie in promoting the digitalization of logistics services to help optimize utilization through digital logistics platforms; developing specialized logistics skills, especially for agriculture; and continuing the digitalization of border processing (the single window, Port Community System) for better efficiency across borders.

Accelerated technological adoption, innovation and digitalization have the potential to transform Jamaica's economy. Jamaica already hosts a burgeoning business process outsourcing (BPO) services industry. Further technological advancement through, among other things, access to affordable high-speed internet connectivity, would create opportunities, including broadening e-commerce, application-based activities (for example, shared economy transactions), and fintech. An ecosystem to incentivize the use of digital financial services, with broad reach, is necessary to accelerate financial inclusion of MSMEs. This needs to be complemented by a range of demand-side measures such as e-governance initiatives, revision of laws and regulations in support of the digital economy, and strengthening of digital literacy and skills. Digitalization of logistics services could help reduce trade costs and informality, while increasing traceability of cross-border activities.

Identifying sector opportunities

The country has potential to unlock income-generating opportunities for growth. Much of the country's rich endowment of natural and human capital remains untapped, despite Jamaica's advantageous geographical location. Greater private participation in sectors with significant untapped potential could accelerate economic growth and development, with enhanced job creation, productivity, and other positive spillovers. This CPSD examines two such sectors, which have also been identified by the government as priority areas: agriculture and outsourcing. Agriculture accounts for 15 percent of jobs and outsourcing accounts for about 3 percent of jobs in the country.³ The emerging prospects in these two sectors could attract private investment to spur recovery and growth, with the necessary reforms. They also hold significant potential to contribute to greener, inclusive, and sustainable growth, while increasing diversification and boosting labor productivity.

Agriculture, with a focus on high-value goods

Agriculture is a major pillar of Jamaica's economy. In 2019, the sector contributed 7 percent of GDP. Two main types of producers exist. The first is a small group of large commercial plantations that produce monoculture crops, such as sugar or coffee, for export. The second is a large group of small mixed-crop farms that produce goods mostly for household consumption or sale in the domestic market. Small farms account for 41 percent of Jamaica's 400,000 hectares of agricultural land, with most operating on plots of two hectares or less. The country's agroclimatic conditions allow it to cultivate many crops, including high-value horticulture (fruits, vegetables, and spices). Unlike other Caribbean countries, which face constraints in expanding agricultural production, Jamaica has large amounts of unused land: more than a third of agricultural land lays idle. Some of this land could produce high-value horticulture crops and offers opportunities for investment and expansion to export to existing and new markets.

Jamaican exports are concentrated in terms of both markets and products, with high-value horticulture crops offering the best opportunity for export diversification.

Because of its size and firm scale, the country would face difficulties competing with regional and global powerhouses in agriculture products with high returns to scale. It will be imperative for Jamaica to nurture transformative investments—through domestic or international firms—that can produce goods at reasonable scale and of consistent quality. The experiences of selected exporters show that Jamaica could be a leading player in high-value niche exports. Global growth in demand for high-value horticulture products offers Jamaica an opportunity to increase its exports in this segment, which includes strawberries, pineapples, avocados, mangoes, citrus fruits, specialty vegetables, dry peppers, ginger, and turmeric. Moreover, more than two-thirds of Jamaica's agrifood exports go to Canada, the United Kingdom, and the United States, indicating an opportunity to diversify export markets, including within the Caribbean.

Additional reforms are needed to boost the competitiveness of the horticulture sector.

Constraints are related to adapting to climate change, access to land, links to markets, research and development and extension services, logistics and postharvest infrastructure (such as cold storage and warehousing), food safety, access to finance, among others. Strong coordination—both within the government and between the public and private sectors—is needed to develop horticulture, with a clear action plan and accountability for who is responsible for implementing each action.

Outsourcing, with a focus on evolving toward higher-value services

Although Jamaica has established itself as a preeminent BPO services destination in the Caribbean, it needs to develop higher-value services to stay competitive. The country's proximity to North American markets, sizeable English-speaking workforce, and cost competitiveness have favored the development of BPO services. Government estimates suggest that revenue from the sector nearly doubled between 2016 and 2021, from US\$400 million to about US\$780 million. Similarly, employment jumped from 17,000 direct employees in 2015 operating in 30 companies to more than 44,000 people in 2021 in 95 domestic and international firms.

Though the sector is positioned to continue to grow over the short term, it faces significant risks from increasing automation and competition including from other

countries. Jamaica can increase its market share in KPO by specializing in higher-value services and positioning itself in global markets for digital services such as business research, content creation, and mobile and web development. Doing so will require capitalizing on comparative advantages such as language skills, similar time zone and proximity to North American markets, a large pool of trainable tertiary-educated workers, proactive government support, reforms under consideration in digital infrastructure, and presence in the BPO services sector. This will require change: refreshing laws and regulations, investing in digital skills, and addressing deficiencies in digital infrastructure.

...

The Jamaica CPSP is forward-looking, focusing on key issues for effective action to boost the growth of the private sector. The analysis highlights entry points where policy intervention can contribute to breaking the current low-growth and low productivity trend in Jamaica. Key recommendations to unlock potential in agriculture and outsourcing services are outlined in table E.1. Clear and comprehensive implementation plans would be needed for these and other reforms, as gaps in implementation can hamper reform effectiveness.

Notes

1. USAID (2017).
2. The World Bank Enterprise Surveys, <http://www.enterprisesurveys.org>.
3. The share of agriculture is based on October 2021 data for agriculture, forestry, and fishing from STATIN (see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>); the share of outsourcing is based on 2021 data for BPO employment from the JIS (see <https://jis.gov.jm/jobs-increase-by-15-in-bpo-sector/>).

Reference

USAID (United States Agency for International Development). 2017. "Climate Risk Profile: Jamaica." Fact Sheet, USAID, Washington, DC. <https://www.climatelinks.org/resources/climate-risk-profile-jamaica>.

TABLE E.1. Selected recommendations to overcome key sectoral constraints

Constraint	Recommendations	Short term (1–2 years)	Medium term (3–5 years)
AGRICULTURE			
Weak connections to markets and links between actors in agricultural value chains	Continue strengthening partnerships and alliances between producers and their capacity to deliver products of reliable quality and quantity to buyers (including through producer-buyer contracts)	●	
	Support use of e-commerce and digital platforms to connect producers, offtakers, and end markets	●	
	Strengthen market intelligence to help producers and exporters understand demand, including from tourism and regional markets	●	
Lack of postharvest and food quality and safety infrastructure	Explore public-private partnerships and public investment options for postharvest infrastructure that meets national and international safety and quality standards	●	
	Invest in digital infrastructure to support traceability systems		●
Underdeveloped financial services for agriculture	Facilitate access to finance, especially for climate-smart agriculture and small farmers—for example, by expanding lines of credit and guarantees	●	
	Encourage banks and microfinance institutions to expand their agriculture lending portfolios—for example through training and use of financial technology		●
OUTSOURCING			
Limited human capital to drive higher-value outsourcing services	Augment existing skills development initiatives by implementing a multitier training program that includes: (1) business process outsourcing services segment training, (2) higher-value services training, and (3) digital skills development		●
	Develop a platform-based online training solution to provide training modules across key industry segments and skill requirements	●	
Digital infrastructure is expensive and limits competitiveness	Improving telecommunication sector's competitiveness in terms of cost and quality by:		
	— Review and reform the Telecommunications Act to align with current market trends, technologies, and international good practices, and implement the associated regulatory frameworks to promote competition and investment in broadband markets		●
	— Support cost reduction and ease of development of digital infrastructure measures such as infrastructure sharing, easing right of way authorizations and permit procedures, and enabling nondiscriminatory access to upstream networks (international connectivity)		●
	— Upgrade work from home regulations—widen its applicability to the business process outsourcing services sector and to the Special Economic Zone (SEZ) Act	●	
Onerous regulatory requirements and gaps	The SEZ Authority should consider adopting a multiuse cluster approach towards the development (or approval) of SEZs and technology parks		
	Allow domestic businesses to operate in the zones without availing tax exemptions	●	
	Allow for flexibility in utilization of nonprocessing area (dual usage) by developers for creating additional social infrastructure		

ABBREVIATIONS AND ACRONYMS

3G	third-generation
4G	fourth-generation
AI	artificial intelligence
BPO	business process outsourcing
CAGR	compound annual growth rate
CPSD	Country Private Sector Diagnostic
FTC	the Fair Trading Commission
GDP	gross domestic product
GVC	global value chain
HEART	Human Employment and Resource Training Trust
ICT	information and communication technology
IMF	International Monetary Fund
IPPs	independent power producers
IT	information technology
ITO	information technology outsourcing
JAMPRO	Jamaica Promotions Corporation
JIS	Jamaica Information Service
JPS	Jamaica Public Service Company
KPO	knowledge process outsourcing
MSMEs	micro, small, and medium enterprises
OECD	Organisation for Economic Co-operation and Development
PMR	Product Market Regulation
PPP	public-private partnership
R&D	research and development
RCA	revealed comparative advantage
SEZ	special economic zone
SMEs	small and medium enterprises
SOE	state-owned enterprise
STATIN	Statistical Institute of Jamaica
UNCTAD	United Nations Conference on Trade and Development
WEF	World Economic Forum

1

COUNTRY CONTEXT

1.1

Socioeconomic indicators and the economic impacts of COVID-19

Jamaica, the largest, most populous island in the English-speaking Caribbean, has relatively good infrastructure but high vulnerability to natural disasters and climate change. The island's 10,991 square kilometers feature a lush topography of mountains, rainforests, and reef-lined beaches. It is about 1,300 kilometers from the United States and has good transport infrastructure including airports, seaports, and ground transportation. About 11 percent of land is estimated to be arable.¹ Its vast surrounding ocean has modest marine fertility but also makes it highly vulnerable to natural disasters (such as hurricanes and flooding) and to the effects of climate change. Jamaica has about 3 million inhabitants, 1.28 million of whom work—making it the largest labor force among English-speaking Caribbean countries.² Moreover, the share of the working-age population (ages 15–64) is 68 percent and has been rising.³

Governance and macroeconomic stability have improved in recent years. Political power has changed hands regularly and peacefully between the two main political parties and politically motivated violence is rare. Over the past decade Jamaica has also established a credible macroeconomic framework, with public debt plummeting by 50 percentage points between 2013 and the start of the COVID-19 pandemic. The government's successful effort to consolidate its fiscal balances spans two political administrations and remains anchored to a social partnership, the Economic Programme Oversight Committee, which is comprised of public, private, and civil society stakeholders.⁴ The country also boasts very good human development indicators. Health outcomes have been good, with life expectancy of 76 years and limited child stunting partly reflecting decades of investments in early childhood development programs. The country's adult mortality rate compares favorably with other Latin American and Caribbean countries, with 87 percent of 15-year-olds surviving to age 60.⁵

Low economic growth has persisted for several decades accompanied by high public debt. Real gross domestic product (GDP) has grown by an average of 0.8 percent a year since 1990—far below the 3.6 percent for aspirational peers and 2.7 percent for the Latin American and Caribbean region.⁶ In the early 1990s, financial liberalization fueled an acceleration in growth, but this was stymied by a domestic financial crisis that led to a deep recession and significant build up in public debt in the second half of the decade. A modest recovery occurred in 2001–07 before the 2008 global financial crisis triggered another recession, which exacerbated weak domestic economic performance, raised debt levels, and contributed to an average annual economic contraction of 0.8 percent over the next five years. Since 2013, real GDP growth has averaged 0.9 percent a year, coinciding with successive stabilization programs led by the International Monetary Fund. Still, over the past three decades even Jamaica's best-performing sectors—tourism, transport, storage, communications—grew slower than they did in several regional peers.⁷

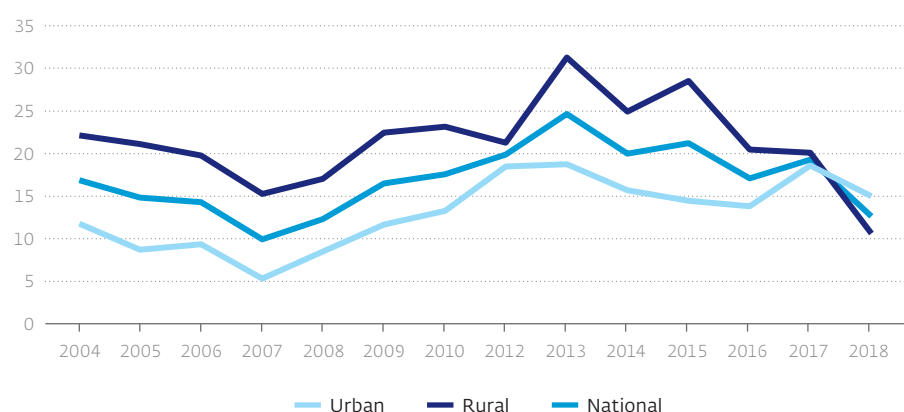
COVID-19 led to a deep contraction in economic activity, with a disproportionate impact on the country's tourism sector. In 2020, real GDP fell a record 10 percent,⁸ driven by the near shutdown in international travel and a marked slump in domestic private consumption. On the supply side, services contracted due to the curtailing of tourism and related services. Industry was hindered by disruptions in domestic production linked to the crisis and the temporary closure of Jamaica's largest aluminum refinery. In July 2020, unemployment jumped to 12.6 percent—the highest level in recent years—women and young people were hit especially hard, increasing the poverty rate for the year to 23 percent.⁹

The government has advanced reforms to stem the negative impacts of the pandemic, but fiscal space will be constrained in the medium term. The government created the COVID-19 Allocation of Resources for Employees program to protect poor and vulnerable workers who lost their jobs, as well as several initiatives to help businesses and support a rapid, sustainable recovery. The adjustments in fiscal policy that allowed the government to respond to the pandemic are likely to have further tightened fiscal space given the government's goal of reducing public debt to 60 percent of GDP or lower by 2028.

Achieving sustainable long-term economic growth in Jamaica will require unprecedented transformative change. If Jamaica is to achieve high-income status by 2030, a strong recovery from COVID-19 and a sharp, sustained acceleration in economic growth are needed. This will require getting more out of existing industries such as tourism, promoting higher-value-added products and services, and moving the country toward innovation-driven development. Among other things, efforts are needed to strengthen the business environment, enhance economic infrastructure, increase energy security and efficiency, increase use of information and communication technology, and promote internationally competitive industry structures. To address many of these issues the government must find innovative financing solutions including the use of public private partnerships (see box 3.2).

Before the pandemic, the poverty rate was at its lowest in 10 years and shared prosperity seemed to respond strongly to economic growth. In 2018, Jamaica's official poverty rate was 12.6 percent—6.7 percentage points less than the year before (figure 1.1). Those in the bottom 40 percent of the income distribution saw their incomes shrink by more than 6 percent a year between 2007 and 2013, while the average Jamaican experienced a 4 percent annual drop. But as the economy started to recover between 2013 and 2016, the average income of the bottom 40 percent grew much faster (7.1 percent a year) than that of the average Jamaican (2.0 percent) and faster than in the

FIGURE 1.1. Poverty rates in Jamaica, 2004–18 (%)



SOURCE: STATIN, Jamaica Survey of Living Conditions 2018; Dominican Republic Central Bank, Labor Force Survey 2020; LAC Equity Lab 2020; World Bank, World Development Indicators 2020; World Bank Group staff estimates.

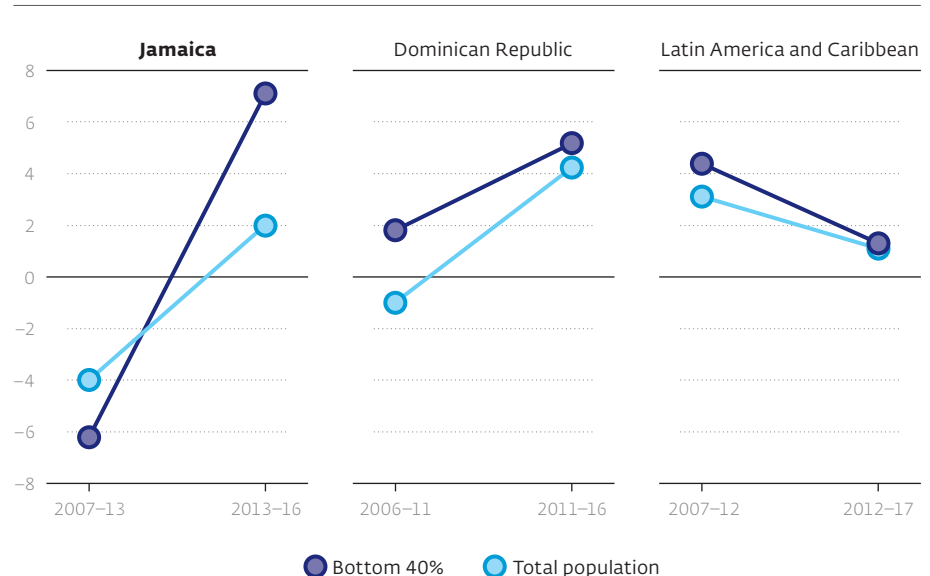
Dominican Republic and the rest of the Latin America and the Caribbean region—suggesting that shared prosperity was responding strongly to the country’s growth (figure 1.2). In 2018, Jamaica’s GDP per capita was US\$8,690 (measured using purchasing power parity), lower than that of its regional peers.

Recent changes in unemployment affected women and men unevenly, and youth employment was hard-hit during the pandemic. In January 2020—before COVID-19—Jamaica’s unemployment rate was at a record low: 7.3 percent. But the economy has recovered a large share of the job losses associated with the pandemic. In April 2021 (latest data available), the unemployment rate was 9 percent, more than 3 percentage points lower than in July 2020. Despite having higher levels of educational attainment, Jamaican women have lower participation and weaker outcomes in the labor market than do men. Women are more likely to enroll in tertiary education but less likely to choose fields like engineering.¹⁰ In 2019, the ratio of female to male labor force participation was 82.3. In April 2021, unemployment was 7.5 percent for men and 10.8 percent for women. During the first year of COVID-19 (between April 2020 and 2021) the gender gap in youth employment more than doubled, from 3.2 to 6.9 percentage points.¹¹ Moreover, women’s salaries tend to be 70–80 percent of men’s across sectors and occupations.¹² And sex segregation persists across the work force, with women dominating some sectors (such as commerce and services) and occupational groups and men in others (such as construction, agriculture, and fisheries).

An uneven legal framework has adversely impacted female participation in the labor market. Jamaica scores quite low on some indicators in the World Bank Group’s Women, Business and the Law 2020 (table 1.1). Performance on the parenthood indicator (which evaluates laws affecting women working after having children) and the workplace indicator (which analyzes laws affecting women’s decisions to enter and remain in the labor force) are in the bottom quartile. Less than 25 percent of firms have women in management positions.¹³ No laws specifically prohibit discrimination in employment based on gender. On workplace sexual harassment, the Sexual Harassment (Protection and Prevention) Act of 2021 was recently passed.

FIGURE 1.2. Recent changes in consumption or income

Jamaica, the Dominican Republic, and Latin America and the Caribbean, annual per capita growth (%)



SOURCE: STATIN, Jamaica Survey of Living Conditions 2018; Dominican Republic Central Bank, Labor Force Survey 2020; LAC Equity Lab 2020; World Bank, World Development Indicators 2020; World Bank Group staff estimates.
NOTE: Data measures changes in consumption in Jamaica and changes in income for the Dominican Republic and Latin America and Caribbean.

TABLE 1.1. Jamaica's performance on Women, Business and the Law 2020 indicators

Indicator	Score
Mobility	100
Workplace	25
Pay	50
Marriage	100
Parenthood	20
Entrepreneurship	75
Assets	100
Pensions	75
Overall index score	68.1

SOURCE: World Bank Group 2020.

NOTE: Women, Business and the Law analyzes laws and regulations affecting women's economic inclusion in 190 economies by tallying responses to questions posed to various entities about the eight indicators listed above. Overall index scores are then calculated by taking the average for each indicator, with 100 being the highest possible score. For Jamaica, the data refer to the laws and regulations applicable in Kingston, the main business city. Different rules may apply in other jurisdictions.

1.2

Productivity, trade, and investment in Jamaica

High investment and favorable demographics have not had the expected impact on growth and productivity. Investment in Jamaica, as measured by gross fixed capital formation, has averaged more than 24 percent of GDP since 1990 and compares favorably with regional peers, including Barbados and the Dominican Republic.¹⁴ Most investments have been directed toward enclave sectors such as mining and tourism and to a lesser extent public infrastructure. In parallel, demographic changes have been positive, with the working-age population as a share of the total population rising from 58 percent in 1991 to more than 64 percent in 2017.¹⁵ But the gains from demographic changes and labor force participation rates were offset by pervasively negative productivity growth—partly due to low value-added and low-complexity production in sectors such as agriculture and tourism.

Structural transformation has been rapid, with a growing concentration in services, where productivity has been low.¹⁶ In 2019, services accounted for over 70 percent of GDP, up from 57 percent in 1990.¹⁷ Tourism is Jamaica's most important sector, accounting for an estimated 32 percent of GDP in 2018 (directly and indirectly; see box 1.1). Two-thirds of the labor force is employed in services, with tourism and related services providing 43 percent of these jobs.¹⁸ In October 2021, agriculture accounted for 15 percent of jobs and manufacturing accounted for 6 percent.¹⁹ Within services, aside from tourism, the main activities are wholesale and retail trade, government services, finance and insurance services, and transport and communications.

Merchandise exports have grown steadily in recent years, but towards less complex goods. In 2020, the Observatory of Economic Complexity ranked Jamaica as the 92nd most complex country on its Economic Complexity Index—down from 74th a decade before.²⁰ Over the past five years, nonoil exports have grown by 4.3 percent a year, outpacing the global average. Although the country has diversified its exports, it has been towards products of lower complexity. In 2000, goods such as knit socks, t-shirts, and sweaters accounted for more than 14 percent of exports. Bauxite (aluminum ore and oxide) represented 49 percent, sugar 5 percent, alcohol 2.4 percent, coffee 2 percent, and bananas 1.5 percent. In 2019, aluminum and oil-related products accounted for more than 69 percent of exports and alcohol 4.6 percent.²¹

BOX 1.1. Tourism: a leading contributor to GDP, job creation, and foreign revenue—with high vulnerabilities

In 2018, tourism directly and indirectly accounted for more than 30 percent of Jamaica's gross domestic product, supplied 50 percent of foreign exchange earnings, and employed 31 percent of the country's workforce. Though considered mature, the sector continues to grow. During 2008–18, tourism's contribution to Jamaica's economy grew by an average of 1.8 percent a year, more than the 0.8 percent in Barbados but less than the 5.4 percent in the Dominican Republic. In 2009–19, tourism accounted for 23 percent of the country's foreign direct investment and in 2019 for 53 percent of goods and services exports.

This high dependence on tourism exacerbated COVID-19's impact on Jamaica's economy. In 2020, tourist arrivals were 1.3 million—a nearly 70 percent drop from 2019. Similarly, in 2020, tourism earnings were US\$1.3 billion, a 63 percent decline from the year before. In the fiscal year April 2020 to March 2021, the government lost more than

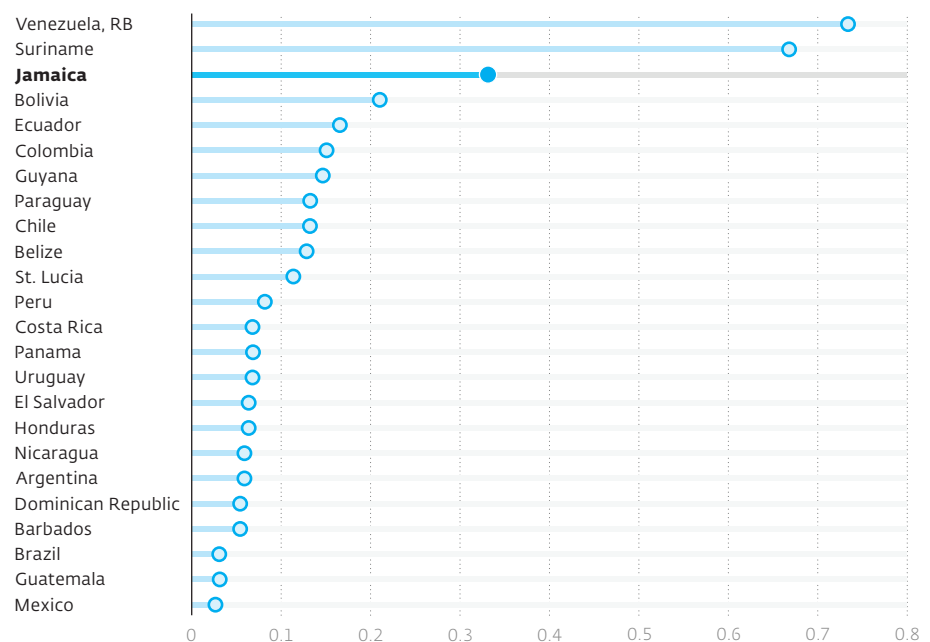
US\$300 million in direct tourism revenue from taxes and fees imposed on airports, cruises, accommodations, general consumption, and other areas. This sharp drop poses large risks to the preservation of jobs, especially among micro, small, and medium enterprises. Finally, tourism is extremely vulnerable to climate change impacts, including the increased frequency and severity of natural disasters.

SOURCE: WTTC 2019; Bank of Jamaica 2021; UNWTO 2020. Information of impacts of COVID in the tourism sector is from the presentation by the Minister of Tourism, Hon. Edmund Bartlett, CD, MP, to the Parliament in April 2021. Available at: <https://jis.gov.jm/media/2021/04/Min.-Bartlett-Sectoral.pdf>. Information related to jobs associated to the sector and earnings was complemented with the Minister's briefing notes for the wellness tourism roundtable in June 2020. Available at: <https://www.mot.gov.jm/speeches/briefing-notes-minister-tourism-hon-edmund-bartlett-wellness-tourism-roundtable-sunday-14>.

Merchandise exports are concentrated in a few commodities and markets. Diversified small states tend to experience lower output volatility and higher growth than other small states.²² Yet, Jamaica has the third most concentrated export basket among Caribbean and Latin American countries, with a Herfindahl index of 34.5 percent (figure 1.3). Moreover, more than 80 percent of its exports and imports go to or come from the United States (45 percent), European Union (25 percent), and Canada (12 percent).

FIGURE 1.3. Herfindahl index of export concentration

Jamaica and selected Caribbean and Latin American countries, 2015 (%)

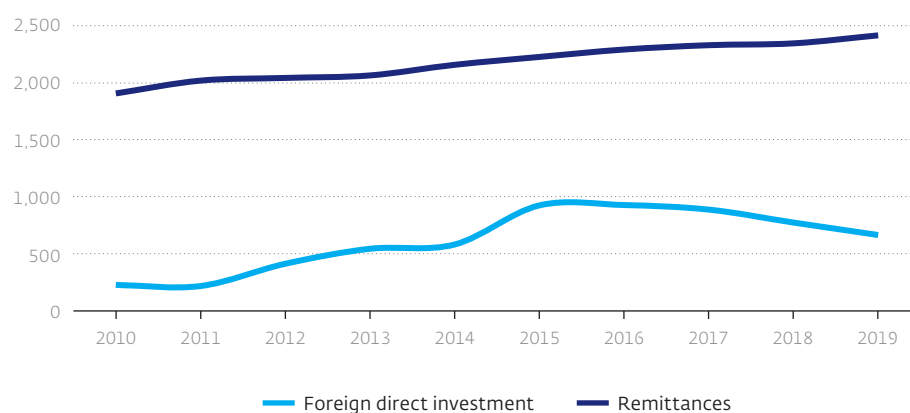


SOURCE: OECD 2018, based on data from COMTRADE.

Foreign direct investment (FDI) is a key driver of economic growth. During 2014–18, FDI averaged more than US\$700 million a year. In 2019, foreign inflows to Jamaica accounted for US\$665 million, a five-year low, dropping 14 percent when compared to 2018 (figure 1.4). Canada and the United States accounted for 60 percent of these inflows. FDI in Jamaica is concentrated in construction (38 percent), tourism (28 percent), and business services (15 percent). Remittances are also a major source of external financing, considerably exceeding FDI (see figure 1.4).

Growth has been undermined by limited diversification, vulnerability to external shocks, and inconsistent management of its natural resources. The Jamaican economy's dependence on Canada and the United States exposes the country to external economic shocks such as sudden slowdowns in visitor arrivals, remittances, and FDI. Moreover, the focus of its tourism product—sun, sea, and sand built around the all-inclusive resort concept—is at risk from rising competition from safer destinations and new market trends that require authentic travel experiences. In parallel, with approximately 90 percent of Jamaica's GDP generated in coastal areas,²³ the country's biodiversity is under severe pressure as poor solid waste management practices and pollution, including from tourism, are threatening the sustainability of its natural environment.²⁴ Limited implementation of environmental standards is a growing challenge for livelihoods, especially in tourism and fisheries, and public health.

FIGURE 1.4. Foreign direct investment and remittances in Jamaica
2010–19 (US\$ millions)



SOURCE: UNCTAD.

Notes

1. World Development Indicators Database, see <https://data.worldbank.org/indicator/AG.LND.ARBL.ZS?locations=JM>.
2. Romero (2019).
3. Based on population statistics from STATIN, see https://statinja.gov.jm/Demo_SocialStats/PopulationStats.aspx.
4. The Economic Programme Oversight Committee was formed in 2013 to monitor implementation of Jamaica's economic reforms under the country's agreement with the IMF. The committee receives information from the government to assess and report on government performance relative to targets.
5. Based on new births, deaths, and marriages data from STATIN, see https://statinja.gov.jm/Demo_SocialStats/newbirthdeathmarriage.aspx.
6. Aspirational peers are upper-middle-income and high-income countries with populations under 10 million where tourism accounts for more than 30 percent of exports, general government gross debt is 60–95 percent of nominal GDP, and the Country Policy and Institutional Assessment score is 3.6 or more (1 = low; 6 = high). For Jamaica, this group includes Croatia, Mauritius, Montenegro, and Seychelles.

7. World Bank Group staff estimates based on data from the Planning Institute of Jamaica, see <https://www.pioj.gov.jm/insights-and-outlook/jamstats/>.
8. Based on annual GDP data from STATIN, see <https://statinja.gov.jm/NationalAccounting/Annual/NewAnnualGDP.aspx>.
9. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
10. World Bank Group staff estimates based on data from the International Labour Organization's ILOSTAT database.
11. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
12. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
13. Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>. Although the last Enterprise Survey for Jamaica was conducted in 2011, discussions with STATIN and the institute's work suggest that trends are largely unchanged.
14. World Bank World Development Indicators database, see <https://data.worldbank.org/indicator/NE.GDI.FTOT.ZS?locations=JM>.
15. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
16. Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>.
17. Based on annual GDP data from STATIN, see <https://statinja.gov.jm/NationalAccounting/Annual/NewAnnualGDP.aspx>.
18. WTTC (2020).
19. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
20. Based on trade data from the Observatory of Economic Complexity, see <https://oec.world/>.
21. Oil exports refers to the resale of imported fuel to the travel industry, including aviation and shipping.
22. McIntyre and others (2018).
23. USAID (2017).
24. Sanders and others (2020).

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STATE OF THE PRIVATE SECTOR

Jamaica's private sector exhibits a dualistic structure with a few large, often multisectoral, successful firms and many micro, small, and medium enterprises (MSMEs).

Large firms—with number of employees greater than 99—contribute significantly to gross domestic product (GDP), but represent only 31.2 percent of jobs.¹ They are most active in tourism, finance, electricity, and agro-processing.² MSMEs, on the other hand, represent 68.8 percent of jobs and are most active in wholesale, accommodation and food services, and agriculture. Most international trade is conducted by large firms and a few MSMEs, many of which are not linked into global value chains and have low levels of local value-added components. In 2011, only 4.5 percent of small firms were involved in exports, compared with 33.5 percent of large firms. This compares unfavorably with the average for Latin America and the Caribbean, where, in 2016, about 9 percent of small firms and 26 percent of large ones were exporters, according to World Bank Group Enterprise Surveys.

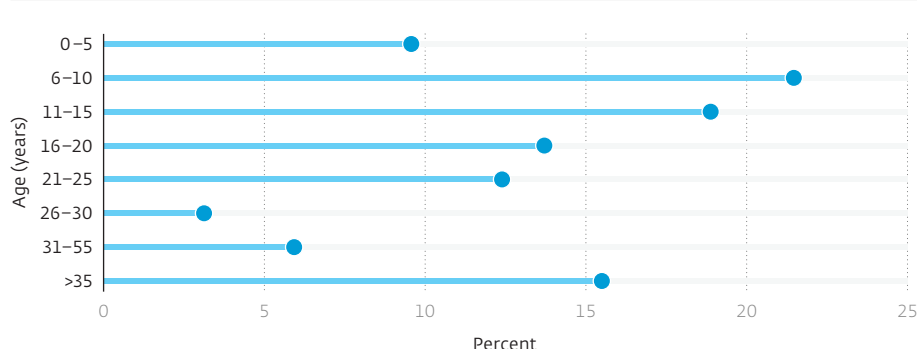
Most firms are young and have limited export activity, high dependence on imports, and low innovation capacity.

In 2011, half of all Jamaican firms were less than 15 years old (figure 2.1). Only 16 percent of formal firms were engaged in exports, below the level in other upper-middle-income countries, while 74 percent of manufacturing firms imported inputs or supplies from abroad, above the average for comparators (figure 2.2). Extensive dependence on imports reflects, among other things, the high cost of production in Jamaica, as well as limited innovation. Moreover, technology adoption by MSMEs is lagging. Among 141 countries, the World Economic Forum's 2019 Global Competitiveness Index ranked Jamaica 83rd on innovation capacity and 93rd on information, communications, and technology (ICT) adoption.³

Firm productivity is closely correlated with size and ownership structure. Large domestic foreign-owned companies, as well as retail enterprises, are the most productive (as measured by sales per worker). Firms engaged in manufacturing and in other services are the least productive. Small firms and domestic companies also exhibit low productivity. Firms exhibit large disparities in innovation, with 56 percent of large ones and 77 percent of exporters reporting having invested in research and development compared with 10 percent of small firms and 12 percent of nonexporters.⁴ Most agricultural activities are conducted by micro and small farmers, with a few large, vertically integrated agro-processors. Micro and small firms also account for most wholesale and retail traders and restaurant services. Construction; transportation, storage, and communications; manufacturing; and real estate, rent, and business activities tend to have a wider distribution of firm sizes, including some medium and large firms.⁵

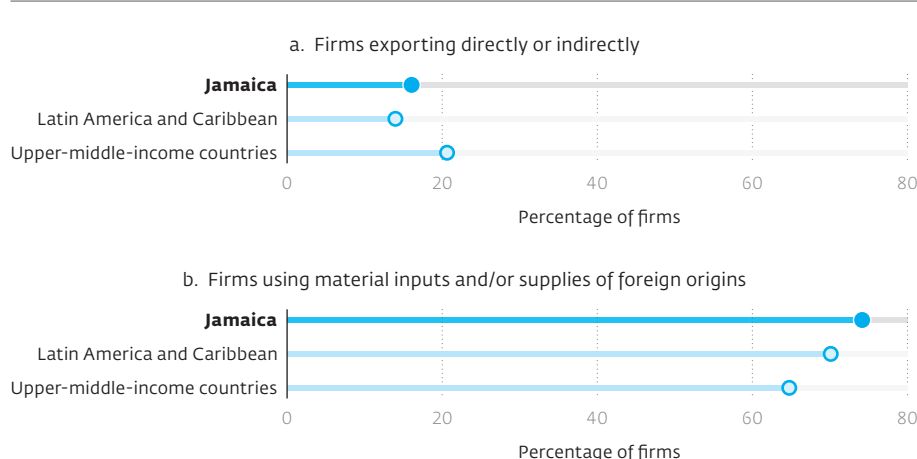
Digitalization could raise productivity. The use of ICT is indicative of a country's development status and the readiness of its enterprises to integrate with the digital economy. In 2011, only 36 percent of small firms reported having their own website, compared with 78 percent of large ones, and only 67 percent of small firms used email to communicate with clients or suppliers, compared with 96 percent of large ones.^{6, 7} These shares have likely increased since then, if only because COVID-19 has increased the use of ICT. Still, expanding access to ICT and providing ICT skills training could help Jamaican firms innovate by transferring knowledge, thereby boosting productivity.

FIGURE 2.1. Distribution of Jamaican firms, by age, 2011



SOURCE: Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>.

FIGURE 2.2. Export and import activity among firms, 2011



SOURCE: Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>.

Few links exist between large firms and MSMEs, particularly in tourism. Firms involved in tourism import most inputs they need to operate. A 2019 survey found that such firms were less likely to buy domestically produced goods—both agricultural and manufactured—because of low and inconsistent supply and quality, high prices, and limited information.⁸

Informal firms account for 35–44 percent of Jamaica's GDP and are mainly involved in low-productivity, labor-intensive activities like wholesale and retail trade.⁹ In Jamaica, informality in doing business is often considered the norm. A 2017 labor force survey found that, outside agriculture, 47 percent of workers are in the informal sector.¹⁰ About 60 percent of informal workers are engaged in small-scale wholesale or retail trade, and 15 percent in agricultural activities.¹¹ Informality is more prevalent in areas with lower population densities: in rural areas 55 percent of nonagricultural jobs were informal in 2017, compared with 38 percent for the Kingston metro area.¹² Most informal firms are small and uncompetitive, with low ICT adoption and export orientation. International evidence suggests that opportunities for export growth and integration with GVCs often trigger firms to formalize.

Firms' ability to navigate constraints is closely linked with their size. Consultations with Jamaican firms conducted for this diagnostic between March and August 2021 found that large ones appeared able to overcome many of the issues that bind MSMEs. Most large firms have high liquidity, easy access to finance (equity or credit), diverse investment opportunities, the ability to hire staff to navigate bureaucracy, and the capacity to absorb extra costs related to security and energy. MSMEs, on the other

hand, have limited access to finance, scarce skilled labor (in both quantity and quality), and are more affected by crime, energy costs, and bureaucracy. For example, while MSMEs consider energy costs prohibitive, many large firms have been able to invest in the high upfront costs of solar power—lowering their electricity bills over time. Similarly, large firms do not consider crime a major issue, but for MSMEs this is a salient problem that generates high costs and risks. A significant number of MSMEs also face strong barriers when dealing with regulatory bodies, reflecting capacity constraints, lack of information, and high compliance costs.

COVID-19 has been hard on all firms—especially MSMEs. A 2020 World Bank Group survey of more than 100,000 businesses in 51 countries found that small firms reported far more financial constraints as a result of COVID-19 than did larger ones. The survey also revealed that MSMEs have increasingly relied on digital solutions in response to the shock. And while the demand shock affected all firms regardless of age, productivity, or size, MSMEs seem to have been more severely affected because of structural weaknesses such as limited access to credit, low savings, informality, and weak managerial capacity.¹³ Two-thirds of the 150,000 jobs lost in Jamaica between January and July 2020 were of service workers and elementary occupations—and two-thirds of those workers are estimated to have been in the bottom 60 percent of the welfare distribution in 2018.¹⁴

Notes

1. Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>.
2. JSE (2021).
3. WEF (2019).
4. World Bank Group 2011.
5. Nugent and Schmid (2014).
6. Based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>.
7. These disparities are uneven among regional peers. In Barbados, 64 percent of small firms and 88 percent of large ones reported having their own website, while in Trinidad and Tobago (one of Jamaica's regional competitors in the outsourcing market), 24 percent of small firms and 45 percent of large firms indicated having their own website. All the small and large firms surveyed in Barbados reported using email to communicate with clients or suppliers, compared with 76 percent of small firms and 98 percent of large ones in Trinidad and Tobago (based on World Bank Jamaica Enterprise Survey 2010 data, see <https://microdata.worldbank.org/index.php/catalog/1085>).
8. Center for Leadership and Governance (2019).
9. Shik, Boyce, and De Salvo (2017).
10. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
11. World Bank 2019.
12. World Bank Group staff estimates based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.
13. Apedo-Amah and others (2020).
14. Based on labor force data from STATIN, see <https://statinja.gov.jm/LabourForce/NewLFS.aspx>.

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3

CROSS-CUTTING CONSTRAINTS TO PRIVATE SECTOR GROWTH

This section assesses the main cross-cutting constraints facing Jamaica's private sector—which, if addressed, can help create an environment conducive to trade, investment, and growth. These constraints are crime and violence, weaknesses in competition and business regulation, inefficient trade processes and procedures, lack of access to finance for micro, small, and medium enterprises (MSMEs), labor skills mismatches and shortages, an inefficient electricity sector, and underdeveloped logistics services. Addressing these constraints will increase the competitiveness of all sectors, including agriculture, outsourcing services, tourism, among others. The government has been actively working to improve in many of these areas, but much remains to be done.

3.1

Crime and violence

Stakeholders consistently cite crime and violence as key barriers to doing business.

Widespread crime and violence affect Jamaica's economy in many ways, undermining growth. Crime and violence deter investment, undermine productivity, and significantly raise business costs because of essential investments in security and losses in worker productivity.¹ In some sectors, like tourism, crime and violence limit the scope for deepening links with the wider economy—as with the development of enclave resorts to protect tourists. The tangible and intangible costs of crime and violence represent a heavy tax, hindering all aspects of social and economic growth in Jamaica.

Crime and violence are anchored in structural social problems that are difficult for the government to mitigate. The government of Jamaica spends 1.4–2.4 percent of GDP on crime-related matters,² yet the problem persists. Out of 141 countries, the country ranks 135th on organized crime and 140th on homicide rate in the World Economic Forum's 2019 Global Competitiveness Report.³ Limited opportunities, weak social contract, and slow legal and judicial reforms to the criminal justice system have given rise to gangs and garrisons. Over the past decade, gang violence accounted for more than half of the country's homicides.⁴ Gangs also commit more than half of assaults and robberies.⁵

Most homicide victims are male, young, uneducated, and poor, undermining the potential of the labor force. Some 90 percent of Jamaica's homicide victims and perpetrators are male.⁶ Although homicides disproportionately affect young people, not all age groups are proportionally affected. For example, 15- to 24-year-olds account for 19.5 percent of the population and 20.4 percent of homicides—while 25- to 35-year-olds represent 5.8 percent of the population and account for 27.0 percent of homicides.⁷ In Jamaica, crime and unemployment are closely linked, with higher murder rates among young men not in employment, education, or training—a pattern consistent with a large body of research linking unemployment to crime.⁸

Successive governments have taken multiple approaches to control crime and violence and to foster social justice.

These interventions include legislative actions such as declaring states of emergency and changing legislation, organizational adjustments such as restructuring the police chain of command and increasing the number and resources of police officers, and judiciary efforts to bring entire gangs before the courts rather than individual members. These initiatives have sparked an increase in state-sponsored social interventions including through the National Consensus on Crime which came into effect in 2020. In recent years, more resources have also been allocated to national security.⁹ In 2021, the Major Organized Crime and Anti-Corruption Agency was established as an independent and autonomous law enforcement agency outside the Jamaica Constabulary Force and was granted the investigators' powers-of-arrest.

In 2020, the Crime Consensus Monitoring and Oversight Committee was established to set goals for mitigating crime. The independent committee, comprising nonpartisan stakeholders from the private sector, civil society, academia, and the political directorate, is chaired by the Jamaica Chamber of Commerce. Its priorities include:¹⁰

- Providing training on community policing.
- Setting standards for Correctional Services facilities, including human capital requirements.
- Recruiting 1,000 additional police officers.
- Approving outstanding regulations for the Major Organized Crime and Anti-Corruption Agency.
- Developing a fully integrated, island-wide radio and data communications network.

Although this Country Private Sector Diagnostic (CPSD) recognizes crime as a major constraint on growth, crime is not a focus of its recommendations because addressing it will require foundational changes in social norms that go beyond this Diagnostic's three- to five-year horizon.

3.2

Weaknesses in competition and business regulation

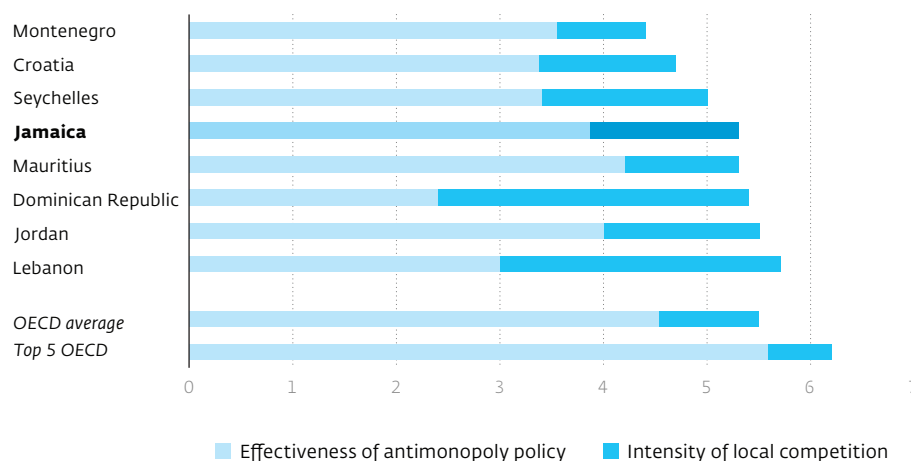
Competition in Jamaican markets—essential to driving innovation and growth—is perceived to be slightly weaker compared to peers.

Jamaica lags structural and aspirational comparators such as Jordan and Mauritius both in terms of intensity of local competition as well as effectiveness of antimonopoly policy, showing room for improvement (figure 3.1). Limited competition appears to stem from a lack of pro-competition regulation in key economic sectors, distortions arising from unequal treatment of market operators [especially state-owned enterprises (SOEs)], and limited enforcement against anticompetitive practices.

Private markets have several restrictions on competition. Product Market Regulation (PMR) indicators for Jamaica show the extent to which public policies promote or inhibit market forces in product markets.¹¹ and ¹² Although Jamaica has better overall PMR scores than some other countries in the region, its regulations are more restrictive on competition than those of other regional peers (such as Costa Rica and the Dominican Republic; figure 3.2). Jamaica's PMR inhibits competition through state control across markets and high barriers to entrepreneurship, trade, and investment. For example, according to the PMR indicators, the state is heavily involved in business operations, startups face steep administrative burdens, and incumbents may receive regulatory protection (figure 3.3).

FIGURE 3.1. Intensity of domestic competition and effectiveness of antimonopoly policy

Jamaica and selected countries, 2017



SOURCE: WEF 2017.

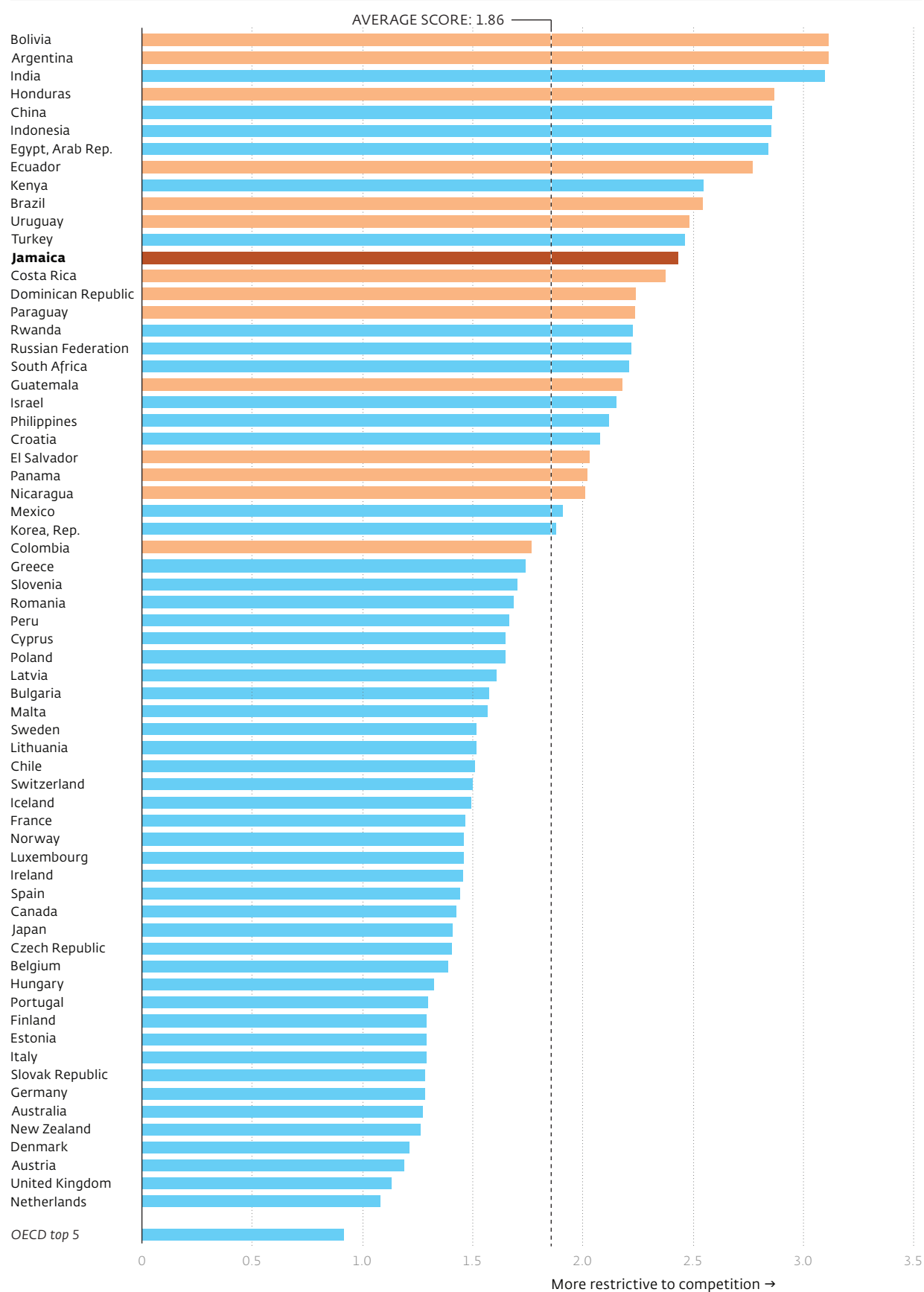
NOTE: Scale is 1–7, from low to high competition; OECD = Organisation for Economic Co-operation and Development.

SOEs are present in a few enabling sectors. Apart from participation in infrastructure sectors where public ownership is more common, Jamaica's SOEs are present in sectors typically served by private operators such as housing, hotels, and sport and recreational facilities, among others (table 3.1).¹³

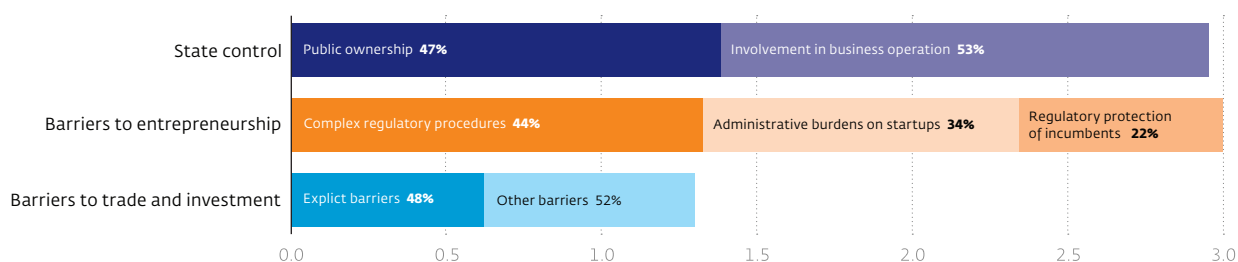
Private operators can face an unlevel playing field when competing with SOEs. In 2016, amendments to the Public Bodies Management and Accountability Act established new financial and corporate governance requirements (such as the obligation to separate commercial and noncommercial in their accounts, achieving a commercial rate of return, and a prohibition to receive direct grants or loans from the state funds for the operations of SOEs). Nevertheless, public operators still benefit from legal and de facto advantages.¹⁴ Available information suggests a number of gaps in terms of competitive neutrality:¹⁵ (i) in some cases, SOEs do not comply with the financial and reporting obligations provided by the Public Bodies Management and Accountability Act; (ii) the Public Bodies Management and Accountability Act (Article 2B) provides for a forbearance clause that enables the government to exempt any company from the application of the act, which may pose a risk to the effective enforcement of these rules; (iii) SOEs may benefit from financial advantages such as public guarantees with approval of the Parliament (Article 5A); and (iv) the government seems to regularly subsidize SOEs' debt and absorb their losses.¹⁶

Regulatory barriers to entry and lack of third-party access to network industries seem to protect incumbents, hindering market contestability. For instance, in the electricity sector, the Jamaica Public Service Company (JPS)—a vertically integrated private operator of the national grid—retains exclusive rights not only over the transmission, but also over the distribution of electricity.¹⁷ In addition, third-party access rules are not mandated in the law, which may allow the JPS to leverage its market power over the transmission segment to restrict entry or expansion in upstream markets open to competition.¹⁸ In telecommunications, significant efforts have been made to promote competition in the country. For instance, the government has recently awarded a telecommunications license to a third mobile operator and further reforms are being considered to foster infrastructure sharing. However, unbundling of the local loop and access to essential infrastructure—such as towers, ducts, and poles—are not fully implemented yet.¹⁹ In the mobile sector, assignment of available spectrum does not seem to be data-driven, which has triggered ongoing discussions to reform the current system. In transport, SOEs are granted exclusive rights to operate ports.

FIGURE 3.2. Economywide Product Market Regulation scores



SOURCE: World Bank Group Competition Policy team analysis based on OECD–World Bank Group Product Market Regulation indicators.
 NOTE: Latin America and Caribbean countries are marked in orange; OECD = Organisation for Economic Co-operation and Development.

FIGURE 3.3. Anticompetitive restrictions and constraints on private sector activity in Jamaica**a. Product market regulations indicators****b. Breakdown of each indicator**

SOURCE: World Bank Group Competition Policy team analysis based on Organisation for Economic Co-operation and Development–World Bank Group Product Market Regulation indicators.

TABLE 3.1. Presence of state-owned enterprises in selected sectors

Sector	Active state-owned enterprises
Post basic and courier services	Postal Corporation of Jamaica
Operation of railroad infrastructure	Jamaica Railway Corporation
Operation of air transportation infrastructure	Airports Authority of Jamaica
Operation of road infrastructure	National Road Operating and Constructing Company
Water collection, treatment, and supply	National Water Commission Runaway Bay Water Company Limited Central Wastewater Treatment Company Rural Water Supply Company Limited
Manufacture of refined petroleum products	Petrojam Limited
Manufacture of basic metals	Jamaica Ultimate Tyre Company Limited Clarendon Alumina Production Limited
Accommodation, food, and beverage service activities	National Hotel and Properties Limited Housing Agency of Jamaica Milk River Hotel and Spa Tourism Product Development Company
Other urban, suburban, and interurban passenger transport	Jamaica Urban Transit Company Montego Bay Metro Company Limited
Insurance, reinsurance, and pension funding	National Export-Import Bank of Jamaica Limited Development Bank of Jamaica Limited
Human health activities	University Hospital of the West Indies

SOURCE: Data as of September 2020 from Register of Active Public Bodies of the Government of Jamaica.

NOTE: Sector classification is based on the 2013 Markets and Competition Organisation for Economic Co-operation and Development–World Bank Group Product Market Regulation questionnaire.

Limited implementation of pro-competition regulations in the telecommunications sector can have a negative impact on prices, reliability, penetration, and service adoption.²⁰

In June 2020, 95 percent of Jamaica's population was covered by 3G networks and 90 percent by 4G, compared with the Latin America and the Caribbean averages of 94 percent and 86 percent, respectively. Despite this nearly universal coverage, unique mobile penetration in the country was 67 percent (the lowest level in the English-speaking Caribbean), and unique mobile internet penetration was 48 percent—compared with the regional averages of 70 percent and 53 percent, respectively. Similarly, adoption of fixed broadband services is just 36 percent, compared with 75–85 percent in Barbados, St. Vincent and the Grenadines, and Trinidad and Tobago. Moreover, adoption of information and communication technology (ICT) in production remains low (see section 2), limiting economic transformation through closer integration with global technological value chains.

Regulatory and institutional shortcomings hinder enforcement of competition. The Fair Competition Act allows the Ministry of Industry, Commerce, Agriculture, and Fisheries to exempt specific practices and even sectors from the scope of the law, without providing for any limitation. In this context, broad exclusions from the application of competition rules have the potential to allow for anticompetitive behavior to remain unpunished and thus should be limited to exceptional circumstances. Other exemptions provided by the Fair Competition Act, such as the exclusion of professional associations' activities from the application of the Act, could facilitate anticompetitive agreements in certain sectors. Moreover, the Fair Trading Commission (FTC)—the agency responsible for monitoring competition—carries out extensive advocacy work in a broad range of sectors. However, their limited powers to impose administrative fines,²¹ the low amount of the fines,²² and lack of cartel detection tools such as leniency procedures may create an enforcement gap in sanctioning and eliminating cartels, which are the most harmful practices for competition.²³ Although the FTC has analyzed some mergers in recent years, the lack of a formal ex ante procedure to analyze and approve mergers hinders its power to curb the negative effects of market consolidation.

Improvements are also needed in other areas of business regulation, such as taxes and land titling.

The tax structure is plagued with discretionary waivers and permits that lower tax revenues, create distortions in the allocation of capital, and make investments less productive. Private agents consulted mentioned the multiplicity of tax structures across sectors and a corresponding number of tax regulating bodies whose funding adds to the costs of doing business. According to consultations with selected companies in the real estate sector, low taxes paid by the owners of strategically located unused properties and problems with property titles are perceived as deterrents to new investments in real estate and tourism. Many commercial properties in Jamaica, according to interviewed stakeholders, lack a current title, suggesting, among other things, a need to improve commercial property registration.²⁴ Furthermore, the World Bank's Enterprise Survey 2010 found that a larger share of small firms (64.9 percent) were expected to give "gifts" to get construction permits than medium ones (40.2 percent).²⁵

Broad reform of business regulation is central to Jamaica's private sector development strategy, and several important initiatives are planned or underway.

Led by the National Competitiveness Council and the Jamaica Promotions Corporation, reform efforts include integrating the various tax codes to simplify processes for companies, revising mediation frameworks and online court proceedings, creating a public entity for insolvency proceedings, and developing and implementing training for the legal and business communities in support of the reform agenda. Information campaigns to explain regulatory changes and new procedures

are essential to the efficient adoption of any reform. Ongoing government efforts to eliminate some anticompetitive restrictions in infrastructure sectors are a positive step. In telecommunications, for example, the government is considering rules for infrastructure sharing that would facilitate the entry of new operators—particularly internet service providers and mobile virtual network operators—without the need to duplicate existing infrastructure.²⁶ The government has also made significant progress on rationalizing SOEs. The 2016 Policy on the Categorization and Rationalization of Public Bodies made recommendations for mergers, privatization, and closure of SOEs. Following this general plan, in 2018, the government signed a 25-year concession for managing and developing the Norman Manley International Airport in Kingston, and, in 2019, it privatized a wind farm and a toll highway.²⁷

The government has been strengthening its investment climate reform program.

Reforms involve trading across borders, dealing with construction permits, registering property, resolving insolvency, paying taxes, getting credit, starting a business, enforcing contracts, getting electricity, and protecting minority investors. On trading across borders, reforms are focused on reengineering border regulatory agencies and their regulation. On simplifying tax payments, efforts are consolidating four payroll taxes into one and improving audits. An application portal for construction permits and the National Spatial Data Collection System are being developed, and the government is implementing an electronic land titling program. Some of these reforms are expected to have short-term impacts that will contribute to the COVID-19 response (insolvency, trade facilitation), while others will have longer-term impacts that support post-COVID economic recovery.

A comprehensive competition policy agenda is a crucial next step, with a focus on embedding competition principles and lifting entry barriers across sectors—notably in network industries and regulated professions. Competitive neutrality should be fostered in markets where SOEs compete with private operators by limiting any undue advantages to SOEs and ensuring compliance with existing rules. Another priority is promoting market contestability through effective enforcement of the Fair Competition Act and development of secondary legislation to clarify and limit exclusions from the act. It will also be important to formalize the FTC's procedures for assessing the competitive impacts of mergers (even on a voluntary basis) and enhance sanctioning and cooperation mechanisms with national courts in the identification and elimination of competition violations.

Government agencies have been adopting digital tools to deliver services. Most small island developing states experience constraints in e-government development related to their small size, remoteness, and dispersion (in the case of island archipelagos). Jamaica, however, moved from the middle-level group of the United Nations 2018 E-government Development Index to the high-level group in 2020 (ranked 114th out of 193 countries). Infrastructure and human capital development are more advanced than online services provision in Jamaica.²⁸ Recognizing the importance of the issue, particularly during the pandemic, the government has accelerated its investment in a digital government agenda, with a focus on online services platforms. With support from development partners, the government has been implementing a Public Sector Modernisation Programme, digitizing business registration and other government services (in addition to construction permits and land titling), implementing a Human Capital Management Enterprise System, identifying legislative and regulatory measures needed to accelerate the digitalization of the public sector, and developing the Government of Jamaica Electronic Procurement system. Moreover, the government is looking at transitioning to online mediation for court cases.

3-3

Inefficient trade processes and procedures

Jamaican trade policy is focused on generating revenue, while providing incentives to local producers. Trade policy makes the Jamaican Customs Agency one of the major revenue-generating entities of the government, accounting for approximately 40 percent of tax receipts.²⁹ Significant import duties are applied to certain agricultural products (chicken, vegetables) and consumer goods. Most imported items, in commercial quantity, are also subject to a 21.5 percent General Consumption Tax. As a Caribbean Community member state, Jamaica can apply a Common External Tariff to imports from countries outside the organization. The Common External Tariff typically ranges between 10–20 percent. While protectionist trade policy can hinder the development of some sectors, exporters cite structural problems as the more serious bottlenecks for their expansion. Examples include lack of access to credit, violence, expensive electricity, poor transport connectivity, and high trade costs. In 1995, Jamaica exported US\$1.66 billion of goods, but, by 2019, exports only amounted to US\$1.85 billion in nominal terms. During the same period, other countries in the region experienced faster growth of merchandise exports. For instance, the Dominican Republic increased their nominal exports from US\$3.85 billion in 1995 to US\$10.1 billion in 2019; Costa Rica went from US\$3.4 billion in 1995 to US\$13 billion in 2019.

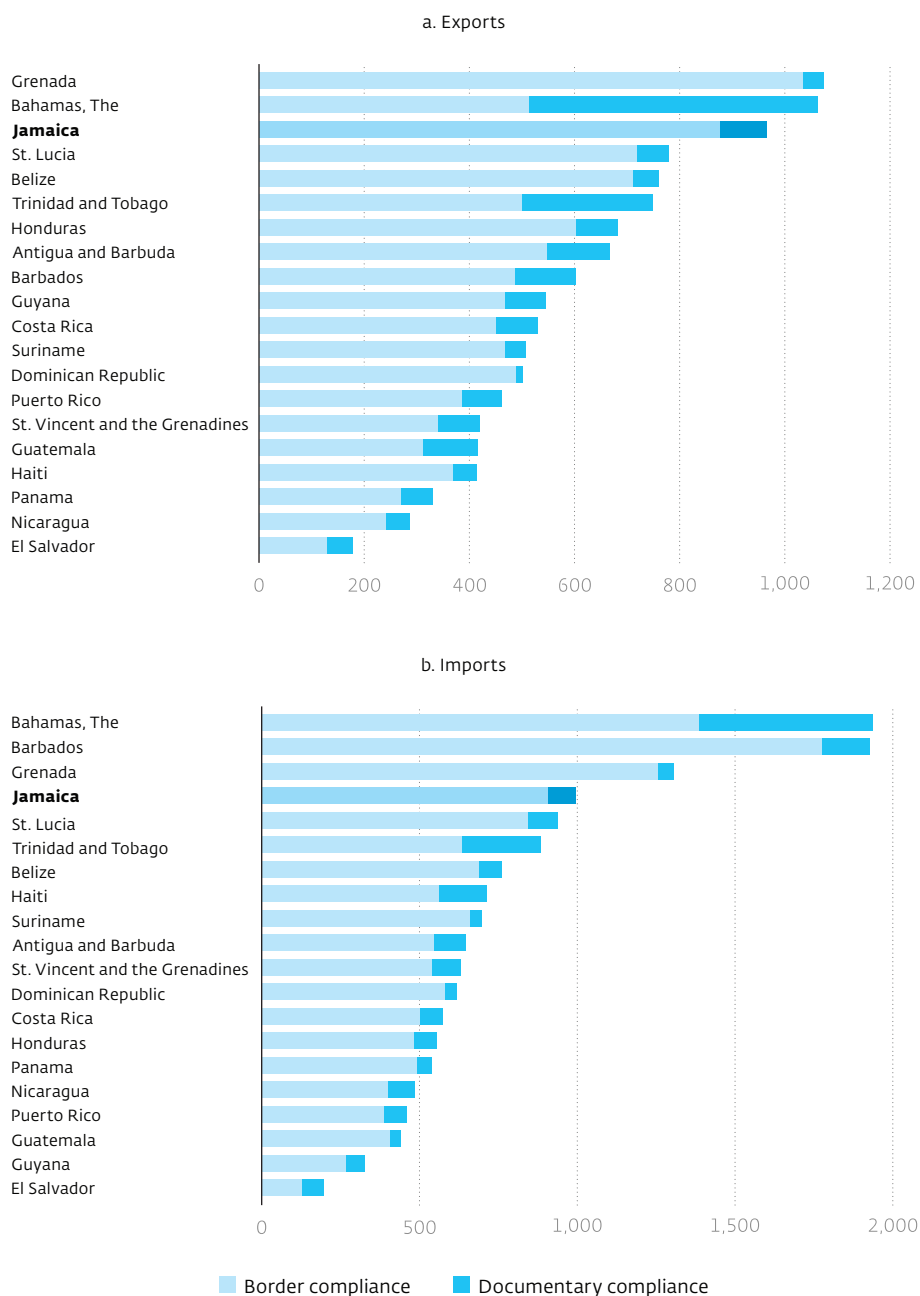
High trade costs inhibit Jamaica from realizing its export potential. In 2019, Jamaican firms faced the third-highest export compliance costs and fourth-highest import compliance costs among Caribbean and Central America countries (figures 3.4a and 3.4b). The cost to export was US\$876 for border compliance and US\$90 for document compliance. To import, the border cost was US\$906 and the document compliance cost was US\$90. Trade compliance costs tend to be lower in Central American countries than in Caribbean countries, yet other Caribbean countries have managed to cut these costs to comparable levels. Such efforts make exporters more competitive and allow importers to get inputs for local production more cheaply and quickly.

Trade procedures are long and complicated, particularly for small and medium enterprises (SMEs). In Jamaica, it takes an average of 13.1 days to clear direct exports through customs and 7.5 days for imports.³⁰ Jamaica ranks 101st among 141 countries in border clearance efficiency, below regional peers such as the Dominican Republic.³¹ And this data does not take into account the additional time required to obtain agriculture-specific trade documents. The high costs of trade and delays in Jamaica reflect high levels of physical inspections; high and multiple taxes and fees; lack of coordination among agencies; a multiplicity of licenses, permits, and certificates; absence of an integrated, harmonized framework for border agencies; the prevalence of manual processes; and low capacity among firms to meet international requirements. Technical and nontechnical barriers to trade and long procedures hit smaller firms and new market entrants especially hard. COVID-19 has further raised costs and reduced the reliability and predictability of international logistics.

The government is pursuing a bold trade facilitation agenda to become a world-class logistics hub and stimulate economic growth through trade. The government is pursuing a bold trade facilitation agenda to become a world-class logistics hub and stimulate economic growth through trade. Efforts have focused on ensuring compliance with the World Trade Organization's Trade Facilitation Agreement, modernizing the national trade environment, increasing coordination among border agencies, fostering the use of risk management in border clearance, and integrating border regulatory agencies into the United Nations Conference on Trade and Development's Automated System for Customs Data (more commonly known ASYCUDA World) to lower trade-related transaction costs for firms. These efforts have already cut clearance times for goods, reduced the time required for export and import documentary compliance, and greatly expanded the use of risk management

FIGURE 3.4. Export and import costs

Jamaica and other countries in the Caribbean and Central America, 2019 (US\$)



SOURCE: World Bank TCdata360 database.

systems. In addition, the government is moving toward full implementation of the Jamaica Single Window for Trade to improve interconnectivity among border regulatory agencies and create a more seamless regulatory environment for trade. A new customs bill has been submitted to Parliament for adoption. Given the importance of special economic zones (SEZs) in promoting trade and positioning Jamaica as a logistics hub, this new legislation and associated regulations being prepared will also seek to create a more predictable environment for zone operators and align the SEZs Act and regulations with the new customs regulations.³²

The government is also modernizing port logistics. In 2016, the government launched the Jamaica Port Community System, which is operated by the Jamaica Port

Authority. The system optimizes, manages, and automates port and logistics processes through a single submission of data and connection of transport and logistics chains. The system has rolled out services for import manifests, transshipment, and electronic processing of export manifests and ceased the processing of dock receipts for export shipments. Because the Port Community System centralizes and optimizes manifest submissions across ports, shipping agents (and by extension exporters) are expected to experience fewer errors when submitting documents. Customs will benefit from on-time submissions across its valuation and risk management processes, allowing for more proactive use of the manifest information. (See section 4.2 for recommendations to improve transport and logistics.)

3.4

Lack of access to finance for micro, small, and medium-size enterprises

Nearly half of Jamaica's MSMEs consider access to finance a major constraint. Though most MSMEs have access to checking or savings accounts, only 27 percent have a bank loan or line of credit—compared with the 48 percent average for Latin America and the Caribbean.³³ More than 40 percent of Jamaican firms—and 47 percent of MSMEs—consider access to finance to be a limitation, compared with an average 32 percent in the region.³⁴ These disparities can be explained by several factors, including (i) banks' perception that MSMEs are high risk due to information asymmetries and the high level of informality in the sector; (ii) lack of adequate traditional collateral owned by MSMEs that banks require; (iii) few bank strategies, processes, lending methodologies, and financial instruments to lend to MSMEs; and (iv) lack of reliable financial statements for MSMEs that makes it difficult for banks to assess risks. However, when MSMEs do manage to access credit, they usually pay double-digit interest rates. Accordingly, most tend to use their own funds or alternative sources of credit, delaying expansion and eroding productivity and competitiveness. In contrast, private sector consultations indicate that access to finance is not a serious constraint for large firms and in some sectors (construction, digital services) there may be an oversupply of capital, both internal and external.

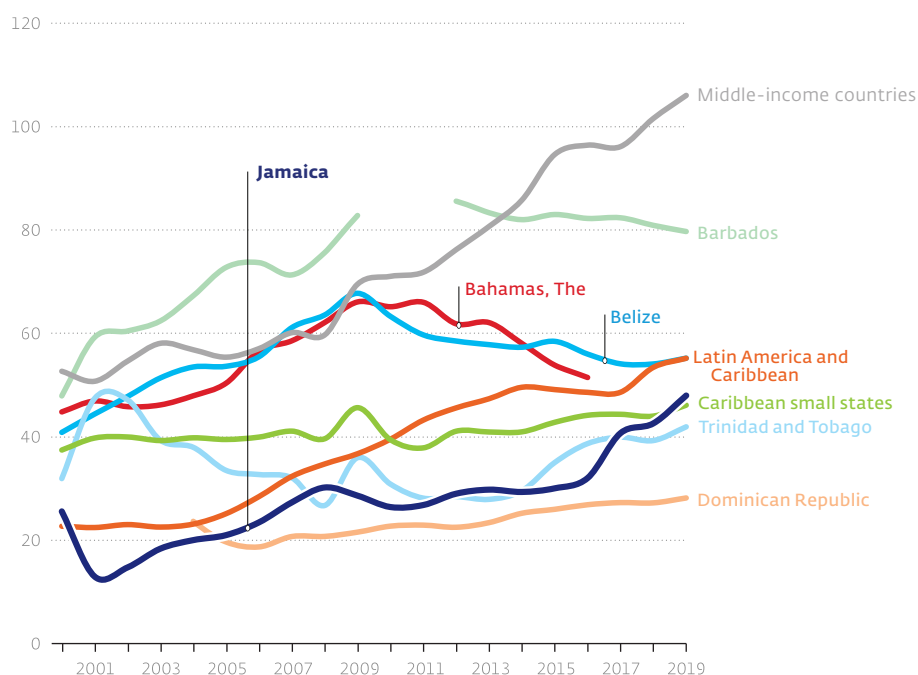
Jamaica's financial sector is shallow, with lower domestic credit to the private sector than some regional peers. The country's ratio of domestic private credit to GDP rose from 26 percent in 2010 to 48 percent in 2019, but was still below the average for Latin America and the Caribbean (55 percent)—and far below the average for middle-income countries (106 percent; figure 3.5). Financial deepening in Jamaica has been slow partly because of inconsistent policies, external shocks, and financial crises.³⁵ Difficulties in accessing external credit markets forced the government to rely on the domestic financial market to meet its large funding needs—crowding out the private sector. During 2000–16, Jamaica had the highest average share of domestic financing to the public sector among Caribbean countries.³⁶

The recent microfinance law and regulation is a first step toward regulating the microfinance segment and should pave the way for further market expansion. The Microcredit Act, which went into effect in July 2021, aims at licensing and regulating microcredit institutions that provide financing to individuals and MSMEs. It also ensures that there is a consumer protection and integrity framework for the microfinance subsector to lend responsibly, including transparency around interest rate setting by microcredit institutions. The Bank of Jamaica handles general administration of the Act and supervises microcredit institutions.

MSMEs have few other sources of financing that offer appropriate risk coverage. Factoring is underdeveloped, seemingly because of how the practice has evolved

FIGURE 3.5. Credit to the private sector

Jamaica and other Latin American and Caribbean countries, 2000–19 (% of GDP)



SOURCE: World Bank World Development Indicators.

rather than legal inefficiencies.³⁷ Leasing is sometimes used given ambiguities in the legal framework. Financial technology (or fintech) innovations and services—such as mobile payments, digital credit through e-commerce, and peer-to-peer lending—are underdeveloped including aspects related to the regulatory framework, remote client authentication, and use of QR codes for digital payments. Venture capital is in its early development, and very few firms are listed on the Jamaican Stock Exchange for SMEs (Junior Market). There is limited equity, debt financing, and risk capital for SMEs, most of which are financed using their own resources. The government is working to improve access to credit for MSMEs through a project that supports partial credit guarantees for MSME loans from financial institutions, the launch of reverse factoring, and an equity fund for MSMEs. These instruments are expected to launch by early 2022.

Limited supply of digital financing solutions imposes extra time requirements and costs on MSMEs. As a result, MSMEs must persist with traditional sources of financing such as banks or drop accounts, which entail higher interest rates, complex procedures, and long application processing times. Moreover, cash transactions are preferred over digital ones. Jamaica has a Payments Law and several relevant regulations that would benefit from amendments to regulate nonbank payment service providers and incorporate new trends. It can follow the European Union's Payment Services Directive 2, which was designed to foster safer, more innovative payment services, as a template. The interoperability of payment systems and instruments is also important to drive their use and needs to be further improved in Jamaica. An ecosystem that encourages the broad use of digital financial services is needed to accelerate the financial inclusion of MSMEs and maximize the outcomes of social protection programs, while enabling the shift toward e-commerce and away from in-person cash transactions.

Regulatory and policy changes are needed to drive the use of digital financial services by MSMEs. Jamaica's policies in the fintech space are encouraging (for example, the Bank of Jamaica's Fintech Regulatory Sandbox and Central Bank Digital Currency),

but more support is needed to attract investments. Laws need to provide legal clarity and an enabling environment for innovation while balancing the responsible development of fintech firms with continued stability and integrity. Jamaica's bank-centric financial system offers limited regulatory space for nonbank providers of payment services. Clarifying the regulatory and supervisory framework for nonbank payments service providers would support further development of fintech in the country. Regulatory clarity is also needed to implement open banking and increase the use of application programming interfaces, crowdfunding, outsourcing, and data protection. Fintech regulation can help ensure that risks are effectively monitored and mitigated by the authorities. In addition, gaps in the payments infrastructure need to be closed, including by implementing a fast payments system and by enhancing the interoperability of transaction accounts. Policies should also promote the use of digital financial services, such as by exploring the rollout of electronic know-your-customer procedures using biometrics or other means to authenticate clients remotely, using QR codes as a low-cost acceptance infrastructure for digital payments, and digitalization of large-volume and recurrent payments (such as government payments). Given Jamaica's low knowledge base on digital financial services, improving diagnostics and analytics would be beneficial in the short term. This could be followed by technical assistance and investment support in the medium term to support its implementation. Box 3.1 presents an example of digital financial services regulation from Mexico.

BOX 3.1. Example of digital financial services regulation: Mexico's fintech law

In 2018, Mexico enacted an exclusive and comprehensive law on financial technology (or fintech), the first country in Latin America to do so. The law's main objective is to provide regulatory certainty to investors, consumers, and participants. It also addresses issues regarding consumer data protection, cyber security, privacy concerns, money laundering, and illicit operation financing. The law was a joint effort between the Ministry of Finance, the Bank of Mexico, financial supervisory authorities, and members of the fintech industry. The fintech law establishes the regulatory framework of two main types of financial technology institutions (FTIs): electronic payment institutions and collective finance institutions (also known as crowdfunding institutions). Electronic payment institutions may engage in the issuance, administration, and transmission of electronic payment funds through digital applications. Collective finance institutions may offer services like debt crowdfunding, equity crowdfunding, joint ownership, and royalties crowdfunding. Both types of FTI must apply for a license with the Comisión Nacional Bancaria y de Valores (a supervisory agency) to operate. Potential FTIs are subject to a variety of compliance checks in the areas of cyber security, transparency, service availability, data privacy, customer protection, know-your-customer, transaction monitoring, customer profiling, screening obligations, anti-money-laundering reporting, and fraud prevention. In addition, the fintech law establishes a regulatory sandbox and provisions for open banking. The regulatory sandbox is available for both licensed and nonlicensed companies and allows the limited test of innovative financial services under the surveillance of the financial authorities. The provisions on open banking establish the development of APIs for sharing data with other financial entities. This will allow financial institutions to share their clients' financial and transactional information with other institutions (only by explicit consent of the data owner). To support the fintech law, an enabling secondary regulation came into effect on September 10, 2018. It established the requirements and documentation necessary to operate as an FTI. From the point of view of fintech firms, the law has some restrictions that could curb entrepreneurship and innovation in the country. In addition, fintech firms note that the law does not change the rules on their relationship with banks, which they consider to be stringent.

SOURCE: Cantú and Ulloa 2020.

3.5

Labor skills mismatches and shortages

Falling labor productivity and shortages of skilled workers have impeded the development of an efficient job market. During 2010–19, output per worker in Jamaica declined by an average of 1.1 percent a year, while in key regional peers, it increased. In particular, the country’s services sector has lagged those of neighboring countries as well as global peers. Between 1993 and 2017, Jamaica’s annual growth in services labor productivity was –0.97 percent, putting it at 97th out of 101 countries.³⁸ Moreover, shortcomings in human capital associated with a “brain drain” of skilled workers and weaknesses in education outcomes contribute to rising wage costs, with negative effects on external competitiveness.

More specialized, tertiary-educated workers are needed to develop higher-value services. In 2018, Jamaica’s tertiary institutions produced 17,551 graduates. Of those graduates, 42 percent received degrees in business or management and accounting—and just 4 percent in computer science or programming and 2 percent in engineering, both of which are in great demand for higher-value outsourcing services. On a bright note, tertiary institution enrollments have increased. Between 2016 and 2018, the number of graduates rose 15 percent, largely in education and business.³⁹

Employers find it hard to recruit appropriately skilled workers. In a 2018 survey, 84 percent of employers said that recruiting appropriately skilled persons was a major challenge.⁴⁰ The main underlying problems for recruitment are the limited number of candidates with occupation-specific skills and soft skills (for example, leadership, customer service, communication, and emotional intelligence). Companies engaged in agriculture, technology, creative fields, and tourism experience this problem more than those in education, construction, manufacturing, health care, and mining. Interviews with Scotia Bank highlighted that only 30 percent of job candidates had the required skills.⁴¹ Despite Jamaica ranking above regional peers in the skills of the current workforce (60th out of 141 countries) and the skills of the future workforce (74th out of 141 countries), high-growth sectors face difficulties when recruiting.⁴² The digital services and outsourcing sector, which has created more than 44,000 direct and 88,000 indirect jobs, is especially constrained by the short supply of skilled labor. Such shortages may limit the growth of information technology business process outsourcing in the long run.

Leading firms in sectors such as tourism and business process outsourcing are internalizing the costs of training to create their own labor pools. Firms that provide on-the-job training do so when it is critical to their productivity—and when productivity is critical to their survival.⁴³ Though this enables firms to fill vacancies more efficiently, it increases the cost of operating in Jamaica. Still, spending on worker training is low: only 26 percent of firms in Jamaica offer training compared to 51 percent, on average, in Latin America and the Caribbean overall.⁴⁴ During consultations, a leader in knowledge process outsourcing mentioned that companies have reached out to local colleges and invested in tailored certificate programs for such outsourcing. There is scope to better match tertiary diploma and degree programs with private sector demand.

The job market does not capitalize on the potential of Jamaica’s diaspora. Jamaicans living abroad are equivalent to nearly half of the country’s population and are well educated given the high migration of tertiary graduates.⁴⁵ A 2017 survey of the Jamaican diaspora found that 58 percent of respondents reported having a tertiary education, with 29 percent having a first degree, 23 percent a master’s degree, and 6 percent a doctoral degree. The most common area of specialization was entrepreneurship (12 percent), followed by education (11 percent) and medicine (9

percent). Most of those surveyed were in Canada, the United Kingdom, and the United States.⁴⁶ The government has made various efforts to facilitate reintegration of the diaspora, but the domestic job market does not offer the conditions and opportunities needed to incentivize their return.

The government has launched several initiatives aimed at transforming tertiary education and improving the future workforce. A high-level Education Transformation Committee is reviewing the education system and will make recommendations for improvements. Jamaica also offers skills training through the Housing, Opportunity, Production, and Employment (HOPE) program. The program targets 18- to 24-year-olds who are not in school, unemployed, and not participating in training and offers training in life skills, citizenship, work ethics, discipline, volunteerism, entrepreneurship, and technical skills. After completing training, participants serve as apprentices for up to a year in a specific skill area, for which they receive a stipend with a savings component. In July 2021, the minister of education announced a five-year digital skills program benefiting more than 150,000 students in partnership with Microsoft.⁴⁷

Various government and nongovernment agencies offer labor market programs. Most of these initiatives are implemented in coordination with the National Training Agency—part of the Human Employment and Resource Training Trust (HEART)—which is mandated to train and certify the Jamaican workforce to meet international standards. The agency offers vocational training and placement services and produces regular industry-specific reports that assess skill needs. There is some duplication in employment services, with both HEART and the Ministry of Labor and Social Security in running labor market information systems that provide job information, counseling, and placement services. Jamaica has limited capacity for online skills development. Though HEART provides online training, it does not have sufficient technical capabilities to expand it over multiple locations and programs.

Several international organizations have supported government efforts to strengthen the labor market. Technical assistance has been provided on skills and labor market programs to reduce unemployment and recommended priority areas for reform to improve labor market outcomes. A 2021 public expenditure review of the education sector includes detailed recommendations on how to improve education outcomes, which can help close the skills gap and raise the quality the workforce.⁴⁸ Technical assistance on social registries and adaptive social protection to build the resilience of poor and vulnerable households by investing in their capacity to prepare for, cope with, and adapt to shocks. The government's plans to introduce unemployment insurance for all contributors to the National Insurance Scheme and to make it universal for all workers.⁴⁹ Another program focused on developing human capital to meet the expected future demand for technicians, professionals, and entrepreneurs in sustainable energy and information and communication technology. The program involved training educators to strengthen sustainable energy curriculums, training students and professionals, strengthening university-industry partnerships, and creating an online portal to link students, education providers, and industry.

Efforts to overcome skills mismatches—especially in high-value economic activities—should focus on finetuning existing institutions and systems, making labor market programs more responsive to private sector demand, and strengthening labor market monitoring and evaluation. These efforts should:

- Anticipate areas of job growth based on stronger connections with employers and investors, and through strategic sector promotion efforts.
- Deepen collaboration with industry boards and private sector leaders on curriculum design and training delivery.

- Develop tailored, demand-driven programs for existing and future labor demand. Explore additional opportunities for digital learning as a flexible source of continuous learning or for acquiring skills.^{50, 51} E-learning programs must come with appropriate support to ensure correct use and optimal outcomes.
- Strengthen coordination among training providers (to reduce fragmentation) and improve information available to institutions, job seekers, and employers.
- Improve and increase the use of monitoring and evaluation for labor market interventions.

These activities should be complemented by broader social protection measures (such as unemployment insurance) and the introduction of social programs to improve the marketability of at-risk youth.⁵²

3.6

Inefficient electricity sector

Electricity is expensive, services are unreliable, and system losses are substantial.

Jamaica's electricity tariffs are among the highest in the Caribbean—and indeed, the world—undermining firms' competitiveness and the country's ability to attract foreign direct investment. Out of 146 countries, Jamaica stands at 142nd with the highest charges.^{53, 54} High energy prices reflect the terms of contracts with foreign providers of heavy fuel oil and natural gas. Most of these contracts were established on a long-term basis and Jamaica has little power to renegotiate. Some 81 percent of firms experience electrical outages, compared with 59 percent for Latin America and the Caribbean countries on average.⁵⁵ System losses consume 26 percent of the electricity produced, exceeding the regulatory maximum of 17.5 percent. These include both technical losses in transmission and distribution (9 percent of the electricity produced) and nontechnical factors such as theft (17 percent) and affect the continuity of services. In 2013, such losses cost ratepayers US\$43.5 million.⁵⁶

High costs and low quality of electricity hit MSMEs especially hard. Many of the large Jamaican firms consulted for this diagnostic have invested in alternative infrastructure (such as solar power) to lower electricity costs and ensure continuity in services (see section 2). By contrast, the MSMEs consulted said they had to adjust their cost structures and production cycles based on the cost and availability of public utility services—undermining their ability to expand and hence productivity. In addition, larger and best-in-class firms are able to pass high electricity costs on to consumers, while many small firms cannot afford to do so.

The JPS—most of which is owned by foreign entities— dominates the electricity sector, with exclusive rights to transmission and distribution.⁵⁷ The JPS also owns about two-thirds of Jamaica's installed generation capacity. Third-party access is not legally mandated, so the JPS can control transmission—in effect, restricting entry and expansion in upstream markets that are legally open to competition.

A minor share of electricity generation comes from IPPs, which are increasingly moving toward renewables. There are seven IPPs operating in Jamaica (with another IPP signed but not yet constructed) supplying approximately 37 percent of installed capacity. Renewable energy comprises about 30 percent of the total IPP installed capacity.⁵⁸ However, by 2025, approximately 75 percent of new installed capacity is expected to come from renewable energy technologies predominantly through public-private partnerships (PPPs). Jamaica has some experience with PPPs in the energy sector (see box 3.2). The General Procurement Entity, established under the Electricity Act of 2015, has a mandate to procure all future IPPs and is currently establishing its procurement framework, including the specific guidelines for renewable energy. The General Procurement Entity's first competitive tender

BOX 3.2. Public-private partnerships: a pathway to improve infrastructure services

Building modern, sustainable, and reliable infrastructure is critical for boosting economic growth and shared prosperity through offering new economic opportunities and facilitating investment in human capital. Public-private partnerships (PPPs) can be a tool to get quality infrastructure services to more people. When designed well and implemented in a balanced regulatory environment, PPPs can bring greater efficiency and sustainability to the provision of public services.

Countries with limited fiscal space have utilized PPPs as an alternative source of funding to allow for necessary infrastructure investments. Constrained by high public debt and limited fiscal room, Jamaica has utilized PPPs to address the funding gap and to increase its infrastructure investments. The country has successfully developed over 30 PPP and privatization (PPP&P) transactions, with recent transactions concentrated in a few sectors including transport and energy. Notably, the Sangster International Airport, now about halfway into a 30-year concession, has undergone a series of expansions and improvements that have resulted in increased passenger traffic and revenues. The Jamaica Highway 2000 toll road project is the largest PPP project in the English-speaking Caribbean. The transaction for a 30-year concession to finance, expand, operate, maintain, and transfer the Kingston Container Terminal closed in 2016. Jamaica has also developed several independent power producer transactions in the energy sector.

Jamaica has the most successful PPP&P program in the Caribbean region, reflecting continued improvements in the underlined policy framework. But there is scope for further refinements. The overarching PPP policy has been amended from time to time to incorporate lessons learned from previous transactions as well as to align with international best practices. Overall fiscal management has also improved including through the introduction of fiscal rules and the promotion of a robust framework for managing fiscal commitments and contingent liabilities. Nevertheless, there is scope to further improve the enabling PPP&Ps environment, which has proven to be a bottleneck for the implementation of the country's program. This includes addressing weaknesses in the upstream aspects of PPP project development including the need to strengthen the legal and procurement frameworks, as well as incorporating climate change risks into PPP contracts and its general understanding of PPP risks. Adjustments at the sector levels may also be necessary. For example, in energy, there is scope to improve its regulation to allow the injection of power into the grid from self-generators. For the internet communication technology sector, the development of new regulations to allow for competition and to create an independent regulator is essential. This assessment is also corroborated by the World Bank's Benchmarking Infrastructure Development 2020 Report, in which Jamaica's PPP program scored 52nd out of 100 countries in project preparation, 59th on management of contracts, and 72nd on its procurement process.

is expected to be launched in late 2022. International financial institutions are supporting the preparation of the General Procurement Entity's procurement framework, and providing technical assistance that will support the General Procurement Entity's capacity to implement the framework.

Initiatives by the government and development partners place a growing focus on renewables and energy efficiency, including by improving access to finance for the sector. The government's plans to add capacity to reach its renewable energy targets are described in Jamaica's Integrated Resource Plan 2020.⁵⁹ The Development Bank of Jamaica manages several credit lines aimed at increasing the capacity of private banks to make loans for energy efficiency and renewable energy projects. These credit lines cover up to 90 percent of project costs and are aimed at small and medium investments, as opposed to the conventional asset finance of large investments. The bank also offers a partial credit guarantee program, accepting renewable energy equipment as collateral for loans. In 2021, the U.S. Agency for International Development launched the US\$4 million Jamaica Energy Resilience Alliance to

foster renewable energy and reduce barriers to renewable energy and battery storage adoption, among other things.

Reforms that encourage investment in generation, particularly in renewable energy, could lower costs and contribute to decarbonization. They could also help Jamaica achieve its goal of producing more than 50 percent of its electricity from renewable sources by 2030. Investments can be made through IPPs for utility-scale generation. Moreover, scaling up distributed generation can improve resilience to climate change impacts (such as more frequent and intense hurricanes). These reforms include:

- **Permitting procedures.** Streamlining permitting procedures could eliminate a major source of investment risk in renewable energy generation, as well as improve grid interconnection and participation of IPPs.
- **Procurement.** Replacing aging thermal generation with renewable energy through competitive procurement by IPPs could lower the cost of supply, increase competitiveness, and reduce emissions. Private investment in renewables can be encouraged by providing risk mitigation mechanisms to make projects more bankable, standardizing tender documents, and bundling smaller transactions to reduce transaction costs.
- **Grid infrastructure.** Modernizing grid controls and communications, coupled with energy storage, could increase the penetration of renewable energy.

Reforms that boost efficiency and limit system losses can also cut electricity costs for firms. Lowering prices will require making power generation more efficient and reducing grid losses, both of which fall short of international standards. Among other things, legal and institutional changes are needed to incentivize reductions in system losses. Jamaica is trying to make electricity provision more efficient by implementing an online system for the Governmental Electrical Regulator and by reducing the time it takes to obtain an electrical connection. Some sectors can also achieve significant added energy savings. For example, the bauxite and alumina industry is one of Jamaica's largest energy consumers yet has no equipment efficiency standards.⁶⁰ Efficiency upgrades in the hotels and tourism industry provide another largely untapped opportunity for energy cost savings.⁶¹

Development of eco-industrial parks is another possible opportunity to increase energy and resource efficiency. Eco-industrial parks are managed industrial areas that promote cross-industry and community collaboration for common benefits related to economic, social, and environmental performance.⁶² They help industry reduce costs and increase competitiveness through more efficient use of energy, water, raw materials, and chemicals, while minimizing greenhouse gas emissions. The most adopted technologies among eco-industrial parks globally relate to renewable energy and water treatment.

3.7

Underdeveloped logistics services

Jamaica has developed infrastructure such as airports, ports, and ground transportation, but faces challenges in rural connectivity. According to the International Air Transport Association, Jamaica's air connectivity score increased 67 percent between 2009 and 2019 to reach 32,234, which is higher than the Bahamas and Trinidad and Tobago, but lower than the Dominican Republic.⁶³ Jamaica ranks 54th out of 181 countries in the United Nations Conference on Trade and Development's Liner Shipping Connectivity Index, which captures how well countries are connected to global shipping networks.⁶⁴ Jamaica's index score of 36 is substantially lower than those of competitors such as Panama (50), Colombia (49), and Mexico (47). The World Economic Forum ranks the quality of Jamaica's road infrastructure at 74th out of

141 countries and its road connectivity at 108th.⁶⁵ The Sangster International Airport, now about halfway into a 30-year concession, has undergone expansions and improvements that have increased passenger traffic and revenues, but cargo use remains low. Although the country's highways have been improved through the Highway 2000 toll road project—the largest PPP project in the English-speaking Caribbean—costing US\$1.3 billion, rural roads constrain the country's logistics corridors, especially those connecting agricultural production to ports. Natural disasters and lack of financing have contributed to the poor state of roads. Poor roads, especially in rural areas, increase transaction costs and make agriculture less competitive.⁶⁶

Prevalence of manual processes in logistics hinders the country's export potential, especially in agriculture. In 2018, the World Bank's Logistics Performance Index ranked Jamaica 113th out of 160 countries, lagging regional comparators such as Costa Rica, the Dominican Republic, Mexico, and Panama.⁶⁷ Jamaica ranked particularly low on its ability to track and trace consignments (112th) and on timeliness of shipments reaching consignees within scheduled or expected delivery times (121st). In addition, the index's indicators suggest that digitalization and skills are low across the logistics sector. Customs and border procedures and trade facilitation policies are also important for logistics performance (see section 3.3).

Trucking costs are high because shippers pay for unused distances and capacity and technology use for process optimization is low, among other factors. Inefficient use of trucking equipment is a key logistical issue, with a large share of trucks filled only for one-way trips, not filled to full capacity, or both.⁶⁸ Intra-island trucking is dominated by individual owner-drivers, many of whom lack market information on the size of trucks and functions needed by businesses, and do not use technology to optimize routes and processes. Truck leases (including for refrigerated trucks) are difficult to finance for logistics companies in the absence of invoice financing because owners of goods typically only pay after 60 days or even more. Not enough small vans are available to cater to the needs of small farmers and retailers, which results in trucks not being fully filled—generating higher costs for shippers. Some shippers prefer to have exclusive use of trucks, especially for temperature-controlled cargo. Fear of contamination is a risk in agriculture, with shippers of goods preferring higher transportation costs over food safety risks. Consultations with the private sector also indicated a shortage in the right type and size of refrigerated trucking. During discussions with representatives from the manufacturing and trucking industry, the depreciation of the Jamaican dollar against the U.S. dollar was highlighted as a factor driving up operational costs (fuel, equipment, and trucks and spare parts are subject to high import duties [around 100%] in addition to the sales taxes). COVID-19 has reduced truckers' profitability, with lower prices linked to unused truck capacity and higher fuel and other variable costs. All these factors also deter new investments in the trucking industry.

Third-party warehousing services are in short supply—especially temperature-controlled facilities to handle perishables. Discussions with manufacturers indicate that this shortage is especially hard on smaller farmers and processors. The availability of temperature-controlled conditions can increase the shelf-life of perishables, for example, mangoes could last two to three weeks if stored at 13 degrees Celsius versus two days if left at 43 degrees Celsius.⁶⁹ Further, the COVID-19 pandemic has affected logistics for agriculture by increasing time to market because of delays in ship and plane schedules, or even cancellations. Although ocean freight is used for products with longer shelf life, air freight is vital for high-value perishables. Therefore, temperature-controlled warehouses are important to support exports of perishable goods. Large companies own and operate postharvesting facilities and temperature-controlled warehouses—nearly 90 percent of cold storage is privately owned, according to discussions with agriculture manufacturers and farmers—

while smaller ones outsource these functions. Consultations with representatives of agribusiness manufacturers found that large companies are unlikely to offer unused storage capacity to smaller farmers and processors because of food safety risks. Moreover, the available data on warehousing availability and market needs are outdated. Warehousing real estate is concentrated in Kingston, Montego Bay, St. Catherine, and St. Thomas. The government is promoting a network of SEZs with warehousing facilities, which include the Montego Bay Free Zone (a multiple-entity zone with 24,535 square meters for warehousing and manufacturing activities) and the Lydford Logistics Limited (a single-entity zone with nearly 17,000 square meters of manufacturing and storage warehouses for agribusiness).⁷⁰

Jamaica's logistics sector can benefit from promoting technology adoption, strengthening human resources, and expanding infrastructure and equipment use.

The government can promote the digitalization of logistics services through digital logistics platforms and e-commerce. Skills related to logistics and supply chain management, including agricultural and temperature-controlled logistics, must be strengthened. The Logistics Hub Initiative Master Plan can be updated to further support better road connectivity and climate-resilient infrastructure, to ensure that the network of SEZs is designed based on a market analysis of supply chain needs reflecting current and upcoming trends, and to provide competitive conditions that attract shipping lines and international investors in third-party logistics. To facilitate trade, the government should continue the digitalization of border processing (through the single window, Port Community System) to boost efficiency across borders, and ensure that the Customs Act enables all transshipment scenarios as well as smooth processing for international transportation (see section 3.2).

TABLE 3.2. Recommendations to overcome key cross-cutting constraints

Issue	Constraint	Recommendations	Short term (1–2 years)	Medium term (3–5 years)
Weaknesses in competition and business regulation	Limited enforcement against anticompetitive practices	Enhance mechanisms to identify and sanction competition violations	•	
		Formalize the Fair Trading Commission's procedures for assessing the competitive impact of mergers	•	•
		Amend the Fair Competition Act to address exemptions		•
	Unlevel playing field between state-owned enterprises and private operators	Limit undue advantages to state-owned enterprises (when they compete with private operators) and ensure compliance with competition rules		•
	Shortcomings in pro-competitive regulation in network industries	Ensure access to essential facilities through third-party access regulation (electricity and telecom)	•	•
		Ensure the effective unbundling of the local loop (telecom)	•	
		Assign available spectrum through open, transparent, and nondiscriminatory process (telecom)	•	
	Limited land titles deter investment	Expand land titling efforts, including electronic titling	•	
	Lack of data on firms' characteristics, needs, and business environment conditions	Improve data collection and analysis of business characteristics and environment for evidence-based policy making		•
Lack of access to finance for micro, small, and medium enterprises (MSMEs)	Lack of financing adapted to MSME risk profiles	Continue developing financial instruments for MSMEs, including partial credit guarantee schemes, reverse factoring, and equity funds	•	
	Underdeveloped digital financial services	Clarify regulations for different types of fintech, such as nonbank payment service providers (short term), open banking, use of application programming interfaces, and crowdfunding		•
		Promote the use of digital financial services, such as by facilitating remote client authentication, using QR codes for digital payments, and digitizing high-volume, recurrent payments (such as government payments)		•
Labor skill mismatches and shortages	Disconnect between private sector needs and supply of education and training	Strengthen connections between education and training providers and employers, investors, and strategic sector promotion efforts to develop vocational, certificate, and degree programs that meet the needs of current and future private sector demand	•	•
	Inefficient organization and lack of information on active labor market programs (ALMPs)	Improve coordination among government ALMPs to reduce fragmentation and duplication	•	
		Increase information on available ALMPs to institutions, employers, and jobseekers	•	
		Monitor and evaluate ALMPs to improve their effectiveness	•	
Inefficient electricity sector	High electricity costs	Encourage investments in renewable energy to reduce costs and emissions, including by streamlining permitting procedures for renewable energy generation to reduce investment risk for independent power producers (IPPs), facilitating competitive procurement by IPPs, standardizing tender documents, and bundling smaller transactions to lower transaction costs, and improving electricity infrastructure to better absorb variable renewable energy	•	

(Table continues next page)

TABLE 3.2 (continued)

Issue	Constraint	Recommendations	Short term (1–2 years)	Medium term (3–5 years)
	Limited climate change adaptation and mitigation	Scale up distributed generation to improve resilience to climate change impacts	•	
	High system losses	Adjust the legal and institutional framework to encourage reductions in system losses		•
	Inefficient energy consumption	Develop energy efficiency standards for equipment and promote energy efficiency upgrades	•	
Underdeveloped logistics services	Inefficient logistics services	Promote the digitalization of logistics services through digital platforms and e-commerce	•	
	Lack of specialized logistics skills	Strengthen skills related to logistics and supply chain management, including agricultural and temperature-controlled logistics	•	
	Inefficient border procedures and systems	Continue the digitalization of border processing and implement new customs regulations to reduce the time and costs of trading across borders	•	
	Planning for the future	Update the Logistics Hub Initiative Master Plan to consider transport infrastructure developments, the potential rise of e-commerce, future agriculture, and climate-resilient infrastructure needs		•

NOTE: Short- and medium-term sequencing takes into account feasibility of implementation, including government capacity and fiscal resources.

Notes

1. Jaitman and Ivan (2017); OSAC (2020).
2. Harriott and Jones (2016).
3. WEF (2019).
4. CAPRI (2020).
5. Jackson (2016).
6. Harriott and Jones (2016).
7. Harriott and Jones (2016).
8. Abdel Jalil and others (2018); Davis and Heller (2017; Andresen (2012).
9. OSAC (2020).
10. The last three actions have been delayed by budgetary, administrative, and COVID-related issues.
11. OECD (2021).
12. The Product Market Regulation database contains a detailed set of internationally comparable indicators that measure the extent to which regulations on the books foster or limit firm entry and competition in areas of the product market where competition is viable. The indicators are derived from answers to more than 1,000 questions based on a 2018 questionnaire. Some answers to the questionnaire are quantitative, others are qualitative.
13. For instance, Independence Park Ltd. is active in the management of sporting and recreational facilities (for more information, see <https://jis.gov.jm/government/agencies/independence-park-limited/>).
14. KSP-IDB (2017).
15. Competitive neutrality is a principle according to which all enterprises, public or private, domestic or foreign, should face the same set of rules, and where government's contact, ownership or involvement in the marketplace, in fact or in law, does not confer an undue competitive advantage on any actual or potential market participant.
16. For instance, Clarendon Alumina Production Limited (CAP), National Water Commission (NWC), and Jamaica Urban Transit Company (JUTC) have produced losses for several years. In 2013, CAP's aggregate debt represented 2.5 percent of Jamaica's GDP, while NWC and JUTC's debt amounted to 3.5 percent of GDP.
17. Articles 6 and 10 of the Electricity Act, 2015. Marubeni Corporation of Japan and Korea East-West Power (EWP) jointly own 80 percent shares in the Jamaica Public Service Company Ltd. Nineteen percent of the shares are owned by the Government of Jamaica, while the remaining 1 percent is held by minority shareholders.

18. There is an obligation in the 2015 Electricity Act for the single buyer to have an accounting separation between generation, transmission, and distribution activities.
19. Jamaica, Office of Utilities Regulation (OUR). 2017. Notice of Proposed Rulemaking - Infrastructure Sharing. OUR, Kingston.
20. A similar situation exists for electricity and energy (see section 4.1). Data in this paragraph are from TeleGeography Global Comms Database and GSMA Intelligence.
21. The Fair Trading Commission (FTC) cannot directly impose administrative fines; only Jamaican courts can do so. This can lead to limited use of economic sanctions that deter anticompetitive behavior. The lack of sanctioning capacity also prevents the FTC from collecting necessary data for market studies. Moreover, the FTC's limited powers to control anticompetitive effects of mergers hinders its ability to curb negative effects of market consolidation—though that has not prevented the FTC from analyzing some mergers in recent years.
22. According to Article 47 of the Fair Trade Act, maximum fines for competition infringements cannot exceed one million dollars in the case of an individual and five million dollars for firms.
23. The Ministry of Industry, Commerce, Agriculture, and Fisheries has broad powers to influence the FTC's activities, such as requesting the start of investigations in a sector or to give general directions based on public interest considerations (see Articles 5 b and 9 of the Fair Competition Act).
24. IDB (2012).
25. World Bank Jamaica Enterprise Survey 2010.
26. Similarly, in transport, the 2018 Road Traffic Act lifted restrictions on providing road freight services, eliminating the ability of incumbents to oppose the entry of new operators.
27. U.S. Department of State (2020).
28. United Nations E-Government Development Index database.
29. ITA (2021).
30. World Bank TCdata360 database.
31. WEF (2019).
32. The World Bank Group will provide technical assistance to support drafting of regulations that, among other things, enable faster and simpler processes for entry to and exit from special economic zones, create clear rules for the movement of goods by zone operators between and within customs-controlled areas, and provide guidance on the conferral of “authorized economic operator” status on zone enterprises, including
33. developers, operators, and end users.
34. World Bank (2021b).
35. World Bank Jamaica Enterprise Survey 2010.
36. Mooney (2018).
37. Mooney (2018).
38. Jamaica uses a common law legal system that has no specific factoring law but allows factoring on assignments. The way that factoring has developed in Jamaican practice favors formal assignment by both the supplier of goods or services (called the assignor) and the payor of invoices (called the account debtor), which limits assignments in the market to reverse factoring. Practices in other economies with similar legal systems permit assignment without the need for the account debtor to agree to the assignment, which in turn permits traditional factoring. Moreover, the Securities Interest in Personal Property Securities Act expressly allows assignment of accounts receivable and is a robust (though underused) framework. Consequently, even though factoring/assignments of accounts receivable is permitted and regulated by the act, it appears that the market (including banks) has not significantly developed and employed this financing product.
39. World Bank (2020).
40. Estimated values using data gathered during consultations.
41. STATIN (2018).
42. World Bank (2019).
43. WEF (2019).
44. Saraf (2017).
45. World Bank Jamaica Enterprise Survey 2010.
46. IOM (2018).
47. IOM (2017).
48. JIS (2021).
49. World Bank Group (2021).
50. Related to informality, a recent World Bank Public Expenditure Review found that even though the National Insurance Scheme is mandatory, 54 percent of workers ages 18–59, and 77 percent of those in the poorest quintile, have never contributed to it.
51. World Bank Group (2021).
52. For instance, the government has initiated a free online training program for tourism workers affected by the negative impact of COVID-19 (Travel Pulse 2020; Linton 2020).
53. Callen (2021).
54. GlobalPetrolPrices.com Electricity Prices database.
55. Countries where electricity is higher than in Jamaica: Belgium, Bermuda, Denmark, and Germany.

56. World Bank Jamaica Enterprise Survey 2010.
57. USAID (2019).
58. Marubeni Corporation of Japan and Korea East-West Power of South Korea jointly own 80 percent of shares in the JPS, while the Jamaican government owns 19 percent and minority shareholders the remaining 1 percent. Electricity production has been liberalized to allow generation by private producers for their own use or for sale to the national grid (MEM 2009).
59. IPPs are typically done through PPPs. See box 3.2 for a discussion of Jamaica's experience with PPPs.
60. MSET (2020).
61. Worldwatch Institute (2013).
62. JPS (2018).
63. UNIDO, WBG, and GIZ (2021).
64. IATA (2020).
65. UNCTAD Liner Shipping Connectivity Index database.
66. WEF (2019).
67. USAID (2018).
68. World Bank Logistics Performance Index, see <https://lpi.worldbank.org/international/global>.
69. During consultations, a representative from the trucking industry said that making full use of trucks on round trips could cut costs for shippers by up to 40 percent.
70. Kitinoja (2013).
71. The Montego Bay Free Zone covers 55,762 square meters, with 56 percent allocated to ICT activities and 44 percent to manufacturing and warehousing activities (see <http://www.mbfz-jamaica.com/index.php?page=investors.php>). Lydford Logistics Limited is a third-party logistics provider specializing in agricultural and food processing (see <https://www.jseza.com/sez/lydford-logistics-limited/#>).

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4

IDENTIFYING SECTOR OPPORTUNITIES

This section assesses two sectors—high-value agriculture and outsourcing services—with strong potential for upgrading and creating more and better jobs. Assessments of each sector covers their characteristics, opportunities, and constraints. Detailed recommendations are then provided for achieving the sectors’ growth potential over the next three to five years. High-value agriculture and outsourcing services were chosen based on their:

- Potential contributions to sustainable, inclusive, green growth.
- Potential for enhancing productivity and contributing to economic diversification.
- Feasibility of implementation.
- Contributions—direct or indirect—to tourism.

Both sectors show potential to upgrade into higher-value goods and services. In agriculture, Jamaica has an opportunity to produce high-value horticulture crops—fruits, vegetables, and spices—for export to new and existing markets and competitive import replacement of selected products can be a steppingstone. In outsourcing services, Jamaica can leverage its successful experience with call centers and business process outsourcing (BPO) to move to higher-value segments, including knowledge process outsourcing (KPO) and information technology outsourcing (ITO). This could create better-paying jobs and counterbalance automation trends affecting lower-value call center and BPO services. Although tourism was not selected for an in-depth assessment, its links to the selected sectors is examined.

4.1

Agriculture

4.1.1

Sector overview

Agriculture is a key sector of the Jamaican economy, particularly for employment and food security. In 2019, agriculture accounted for 7 percent of GDP and 15 percent of employment, while 44 percent of the island's 2.9 million inhabitants lived in rural areas.¹ Meanwhile, Jamaica's imports of agri-food—that is, food produced agriculturally, as opposed to through hunting, fishing, gathering, and so on—were more than three times its exports, which led to a negative agri-food trade balance of US\$837.1 million (5.1 percent of GDP).² Given this dependence on food imports, the government has pursued various agriculture import substitution policies in recent years. The slowdown in trade during the early stages of the COVID-19 pandemic increased worries about food security.³

Agriculture is among the priority sectors in the government's long-term development strategy, but support for it is not optimal. Jamaica's long-term national development plan, Vision 2030 Jamaica, identifies agriculture as one of nine internationally competitive industries. The plan aims to support agriculture through institutions like the Agro Investment Corporation and support for agricultural credit, infrastructure, and research and development (R&D). Traditionally, most government support for agriculture has been concentrated in a small number of subsectors including poultry, meat, and sugar.⁴ Meanwhile, subsectors that are competitive (based on trade data)—such as oranges and coffee—have not received support or have been taxed. Misaligned incentives could distort production decisions.

Jamaica's dualistic agricultural production system is dominated by small-scale farming. On the one hand, a small group of large commercial plantations produce monoculture crops, such as sugar or coffee, for export markets. On the other, a large group of small mixed crop farms, backed by strong farming traditions in the country, produce goods mostly for household consumption or sale in the domestic market.⁵ Small farms occupy 41 percent of the country's 440,000 hectares of agricultural land.⁶ About 80 percent of farmers operate plots of 2 hectares or less, and nearly 70 percent operate plots of less than 1 hectare.⁷

Jamaica could grow a wide range of crops and has available land for expanding production. Jamaica's good agro-climatic conditions allow it to cultivate many crops, which includes high-value horticulture items. Unlike other countries in the Caribbean, which face constraints in expanding agricultural production, Jamaica has large amounts of seemingly unused land, with more than a third of agricultural land laying idle.⁸ The closure of sugar plantations that could not compete with producers such as in Colombia and Mexico has left large plots available for investments.

Expanding and modernizing horticulture production could generate substantial economic benefits. Jamaica would substantially increase employment and agricultural gross production value in the next decade if it expands agricultural production (by making use of idle land) and improves production methods (by adopting modern technology). In 2015–19, Jamaica's crop gross production value totaled US\$1.7 billion. If the area for agricultural production is expanded by 84,000 hectares (60 percent of the idle land) and focused on fruits, vegetables, and spices—which have much higher values per land unit—it could generate an additional US\$0.6 billion.⁹ Such an increase in production, in crops that are labor intensive and gender sensitive, could create 110,000 new jobs in production and upstream and downstream activities.¹⁰ In addition, if Jamaica improves production methods and reaches average Central American yields for fruits, vegetables, and roots (currently at 76 percent of the Central American average), it could increase crop gross production value by US\$338 million. In 2021, the Ministry of Agriculture and Fisheries, in collaboration

with the National Land Agency, started to allocate unused lands for farming and food production.¹¹

Opportunities exist for export diversification and import replacement, but several challenges limit the potential of agriculture. Jamaica is well positioned to expand its exports of high-value agricultural items. It also has opportunities to competitively replace its imports with local production, both for local consumers and the tourism industry. However, Jamaica's agriculture sector is constrained by land issues, weak connections to markets and links between actors in agriculture value chains, knowledge and regulatory systems that inadequately promote innovation, limited postharvest and food quality and safety infrastructure, underdeveloped financial services, access to inputs, and vulnerability to climate change. But there is significant political momentum to work on and think more strategically about agriculture.

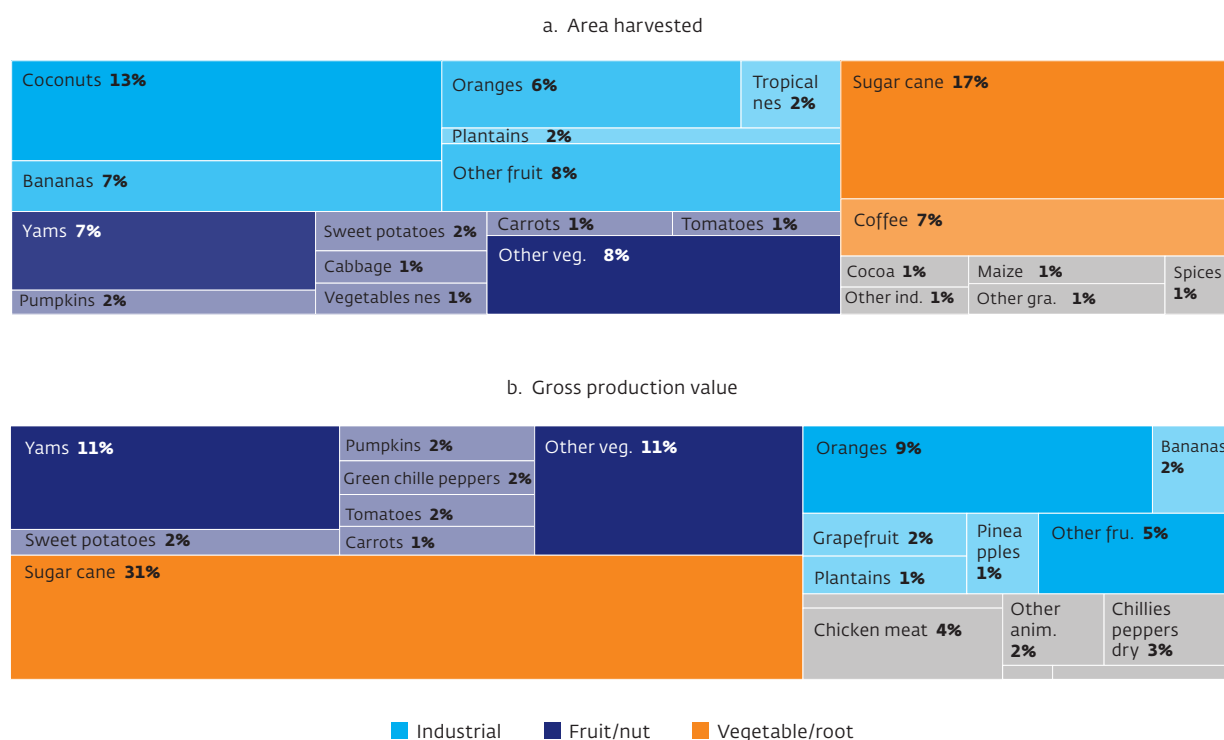
PERFORMANCE

Sugar cane generate about one third of gross production value, with horticulture responsible for another three-fifths of the total. Even though sugar cane production has decreased in recent years, it remains Jamaica's largest agricultural crop, occupying 18 percent of available agricultural land and generating 32 percent of gross production value during 2015–19 (figure 4.1). Meanwhile, horticulture items occupied 69 percent of Jamaica's harvested land and generated more than 60 percent of gross production value.

Yields have decreased for many products and remain lower than those of competitors. During 2000–19, yields shrank for selected crops and livestock items (sugar cane, cocoa, bananas, pineapples, papayas, some other tropical fruits) and rose for others (sweet potatoes, yams, coffee).¹² Average yields for these selected items were lower

FIGURE 4.1. Crop area harvested and gross production value in Jamaica

Percentage total, 2015–19



SOURCE: World Bank Group staff calculations based on data from Food and Agriculture Organization of the United Nations FAOSTAT database.

than those of regional competitors (except for grapefruit, dried peppers, yams, and tropical fruits). Several factors contribute to Jamaica's low yields, including limited use of modern agricultural inputs such as certified seed and fertilizer, limited access to water, substandard farming practices, and product losses because of climate events.

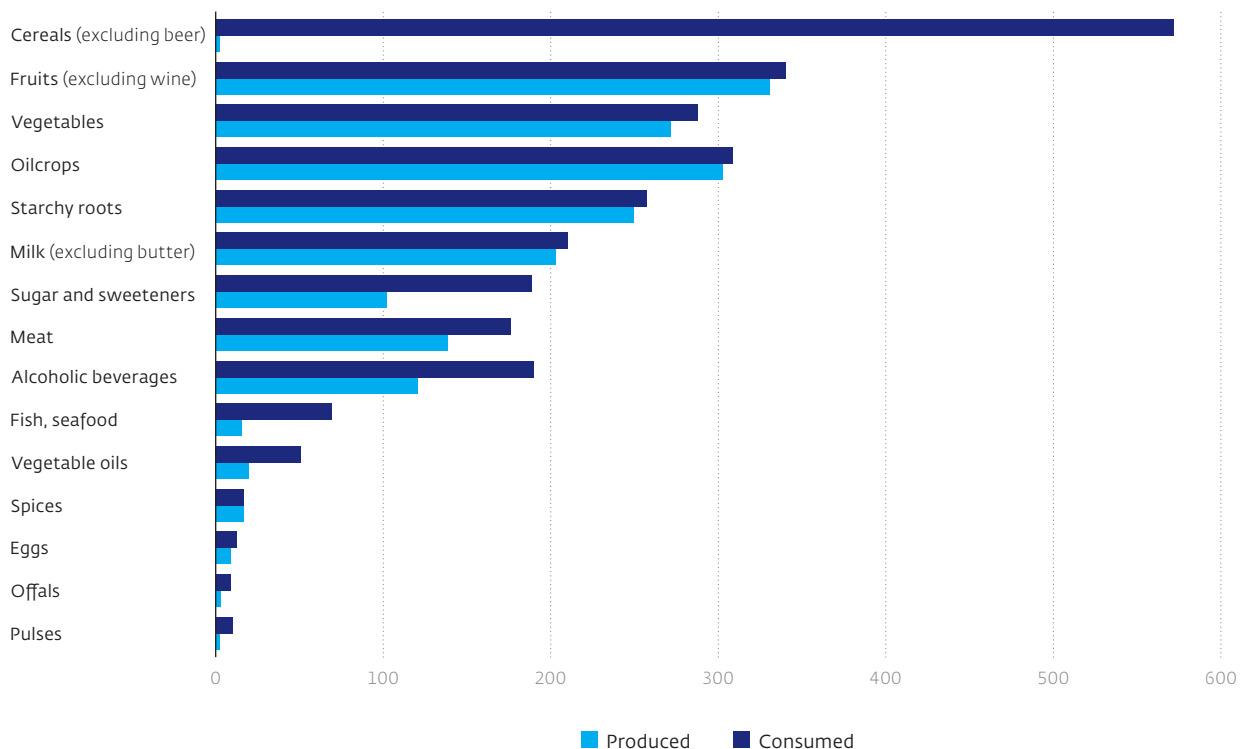
Jamaica does not satisfy its domestic food demand with local production and depends on imports for several items. During 2014–18, domestic production of all food groups did not meet domestic consumption. Import dependence for cereals was absolute and was high for sugar and sweeteners, meat, alcoholic beverages, fish and seafood, vegetable oils, and pulses (figure 4.2). For other categories, almost all consumption was met with local production.

Nearly a quarter of Jamaica's exports are agri-food items and top export items cost more per metric ton than those of its competitors. Agri-food accounts for 22.4 percent of Jamaica's exports and 18.9 percent of its imports. Foodstuffs, beverages, and tobacco are the largest agri-food categories for both exports and imports. Jamaica receives higher prices per metric ton for top agri-food exports than do regional and global competitors, which is often an indication of good quality. In 2019, export values per metric ton were higher than those of regional competitors for almost all top agri-food export items except sugar, alcoholic beverages under 80 percent of alcoholic content, some food preparations, and animal feed.¹³ Jamaica's coffee prices were higher because Jamaican Blue Mountain coffee is one of the world's rarest, most expensive coffees.

COVID-19 has had fewer effects on agriculture than other sectors such as tourism, in line with global trends.¹⁴ But the impacts have not been negligible. After hotels, restaurants, tourist attractions, schools, and entertainment venues were closed,

FIGURE 4.2. Food consumption and production in Jamaica, 2014–18

Metric tons, thousands



SOURCE: World Bank Group staff calculations based on data from Food and Agriculture Organization of the United Nations FAOSTAT database.

several horticulture crops

were hit particularly hard. For example, honeydew melons are produced almost exclusively for the hospitality industry, causing massive losses for producers.¹⁵ In addition, local stores that depend on food imports have been negatively affected by delays in product deliveries. The country's dependence on food imports, coupled with losses in tourism earnings, have reduced foreign exchange buffers and increased concerns about food security, leading to increased government interest in agri-food import replacement policies. At the same time, lower tax earnings from tourism have reduced the budget available for support services and programs to alleviate the situation.¹⁶ Moreover, agriculture's dependence on imported inputs (such as fertilizers and agrochemicals) has been felt through reduced supplies and higher costs—making it significantly more expensive to produce agricultural goods and reducing profits.¹⁷ The pandemic also forced the sector to increase its digitalization and e-commerce efforts. The stakeholders consulted said that business-to-business and business-to-consumer e-commerce is still incipient but holds promise for matching buyers and sellers of agricultural products.

TECHNOLOGY ADOPTION

Farmers make little use of advanced technologies. Small farmers have limited access to high-quality inputs such as adapted germplasm, improved seed and planting materials, animal genetic materials, and improved animal feed. They also lack access to and capacity to use better practices and technologies, such as data on climate- and soil-adapted crops, climate information, and climate-resilient technologies and infrastructure. And the technical capacity of extension workers, particularly on climate-resilient agriculture, needs to be strengthened.¹⁸ The Rural Economic Development Initiative, financed by the World Bank with technical support from the Food and Agriculture Organization, is promoting technology adoption in irrigation, water storage, greenhouses, livestock production, and processing plants.¹⁹

4.1.2

Opportunities for expanding markets

MAKING AGRICULTURE MORE COMPETITIVE

The competitiveness of agricultural products can be measured using two main indicators: farm yield and revealed comparative advantage (RCA).²⁰ Farm yield is not a perfect indicator because it does not include production costs, profitability, and other aspects, but it is generally considered a good proxy for farm competitiveness. When producers focus on quality, yields can fall. But that reduction can be compensated by higher production and RCA values. RCA is a good indicator of a country's relative advantage as evidenced by trade flows. Results for both indicators can be affected by distortions such as subsidized inputs that raise farm productivity. A low RCA with a high yield ratio could indicate more robust domestic demand for a commodity (relative to competing exporters of that commodity), inability to expand production, and challenges between “farm to port” that reduce global trade competitiveness despite high farm competitiveness. While a low yield ratio with high RCA could reflect policy factors (such as subsidies or dominance of state-owned enterprises) that contribute to global trade competitiveness even though farm productivity is low.

Jamaica is highly competitive in the horticulture segment, as illustrated by several crops. Its yields exceed global ones for items including dry chiles and peppers, plantains, spices, tropical fruits, and yams. Jamaica has a high RCA in kola nuts, papayas, spices, sweet potatoes, and yams (table 4.1). Commodities with high yields but low RCA include grapefruit, plantains, and sheep meat. Chicken meat, papayas, and sugar cane have low yields but high RCA, suggesting possible distortions created by policy support.

TABLE 4.1. Farm yields and revealed comparative advantage for Jamaican agricultural products

		YIELD	
		High	Low
RCA	High	Chilies/peppers, dry Coconuts Eggs Kola nuts Pumpkins/squash Spices, nes Sweet potatoes Tropical fruits, nes Yams	Cabbages Chicken meat Chilies/peppers, green Coffee Ginger Oranges Papayas Sugar cane Tangerines/mandarins
	Low	Beeswax Cassava Grapefruit Okra Plantains Sheep meat String beans	Avocados Bananas Beans Carrots Cauliflowers Cocoa Cow milk Cucumbers Honey Eggplants Lettuce Onions Pig meat Pineapple Potatoes Spinach Tomatoes

SOURCE: World Bank Group staff analysis based on Food and Agriculture Organization and United Nations Comtrade database.
 NOTE: RCA = revealed comparative advantage; nes = not elsewhere specified.

This Diagnostic combines competitiveness and economic impact measures to rate the attractiveness of agricultural subsectors. The competitiveness score is based on yields and RCA.²¹ The economic impact is calculated using a combination of production, trade, and growth data.²² The combined score assigns a 60 percent weighting to competitiveness and 40 percent to economic impact. Higher production values can result in higher employment (particularly for women because agriculture tends to be gender friendly), stronger links with downstream industries and micro, small, and medium enterprises (MSMEs), and, sometimes, improved environmental impact because higher quality requirements that lead to higher per unit values often imply better environmental practices in production. High export values contribute to positive trade balances and foreign currency gains. High import values show economic leakages but signal the opportunity for competitive import replacements. High growth rates indicate growth opportunities. Horticulture products account for more than half of the highest joint competitiveness and economic impact scores (figure 4.3). The high production and export values of sugar cane (including rum and sugar cane spirits) and the high production and import values of animal products also result in relatively high scores.

Jamaica shows investment promise in horticulture products. These products have a negative trade balance and are in high demand from hotels. There are also enormous opportunities to export these goods to regional and international markets, where demand is growing. Jamaica is well-positioned to compete in this sector—provided it resolves some of the challenges limiting its growth. Jamaica's small size and

FIGURE 4.3. Prioritization of agricultural products based on competitiveness and economic impact

Competitiveness score			Economic impact score		Composite prioritization incorporating competitiveness and economic impact	
1	Yams	0.59	Sugar cane	0.48	Yams	0.43
2	Beeswax	0.50	Fish	0.25	Kola nuts	0.32
3	Kola nuts	0.50	Yams	0.19	Chillies and peppers, dry	0.31
4	Chilies & peppers, dry	0.48	Meat, chicken	0.14	Beeswax	0.29
5	Plantains and others	0.22	Maize	0.14	Sugar cane	0.23
6	Spices nes	0.21	Meat, cattle	0.12	Plantains and others	0.16
7	Okra	0.21	Milk, whole fresh cow	0.09	Fish	0.15
8	Fruit, tropical fresh nes	0.19	Wheat	0.09	Spices nes	0.14
9	Cow peas, dry	0.15	Coffee, green	0.09	Fruit, tropical fresh nes	0.13
10	Cassava	0.14	Oranges	0.09	Okra	0.13
11	Sweet potatoes	0.13	Sweet potatoes	0.09	Cow peas, dry	0.12
12	Meat, sheep	0.11	Pineapples	0.09	Sweet potatoes	0.11
13	Roots and tubers nes	0.11	Cow peas, dry	0.08	Meat, cattle	0.11
14	Pumpkins, squash	0.11	Plantains	0.08	Meat, chicken	0.11
15	Meat, goat	0.11	Grapes	0.08	Cassava	0.08
16	Pigeon peas	0.11	Chilies peppers, dry	0.07	Coffee, green	0.08
17	Tobacco	0.10	Groundnuts	0.07	Pumpkins, squash and gourds	0.08
18	Meat, cattle	0.10	Avocados	0.07	Milk, whole fresh cow	0.07
19	Beans, dry	0.10	Bananas	0.06	Crustaceans	0.07
20	Eggs, hen, in shell	0.10	Crustaceans	0.06	Pineapples	0.07
21	Coconuts	0.09	Vegetables, fresh nes	0.05	Papayas	0.07
22	Grapefruit (inc. pomelos)	0.09	Kola nuts	0.05	Maize	0.06
23	Papayas	0.09	Onions, dry	0.05	Roots and tubers nes	0.06
24	String beans	0.09	Fruit tropic. fresh nes	0.04	Pigeon peas	0.06
25	Molluscs	0.08	Cabbages brassicas	0.04	Beans, dry	0.06
26	Crustaceans	0.08	Spices nes	0.04	Groundnuts, with shell	0.06
27	Meat, chicken	0.08	Spinach	0.04	Vegetables, fresh nes	0.06
28	Fish	0.08	Eggplants	0.04	Coconuts	0.06
29	Lemons and limes	0.08	Lettuce and chicory	0.03	Oranges	0.06
30	Coffee, green	0.07	Chilies peppers green	0.03	Avocados	0.06

SOURCE: World Bank Group staff analysis based on Food and Agriculture Organization and United Nations Comtrade database.

NOTE: Yellow indicates horticulture (fruits, vegetables, spices), blue indicates livestock, orange indicates grains, and light blue indicates industrial crops.

small farms make it difficult to compete internationally on most crops, for which competitiveness is based solely on scale. But horticulture goods, particularly high-value items, are labor intensive and benefit from small production units. Moreover, these crops can generate three times more jobs in the fields than do cash crops and additional jobs in both upstream and downstream sectors.²³ International examples of horticulture success stories are highlighted in box 4.1.

BOX 4.1. Horticulture success stories

Horticulture offers developing countries an interesting avenue for generating employment, increasing earnings, and expanding and diversifying exports. Horticulture success stories can be found in several African countries, including Côte d'Ivoire, Ethiopia, Kenya, Senegal, and Uganda. The governments of these countries enabled their horticulture sectors using several tools. They have provided stable policies and good investment climate, have had limited direct government intervention in horticulture markets, and promoted the participation of private and international investments.

Ethiopia, for example, facilitated access to finance by offering government loans to horticultural producers at lending rates of 6–7 percent, in contrast, rates in other African countries were 13–15 percent. In Senegal, the government promoted cost-effective infrastructure projects, such as small-scale irrigation schemes, which proved to reduce long-term dependency on aid. While Kenya and Côte d'Ivoire improved their transport infrastructure and international connectivity, reducing the cost and duration of transport of horticulture goods to major markets like the European Union. They also supported research and extension in horticulture goods, promoted the exchange of market information and encouraged coordination among farmers, traders, and processors via several mechanisms including contract farming or marketing cooperatives. Assisting farmers in establishing links with exporters was also instrumental in expanding the horticulture sectors in these countries.

SOURCES: Minot and Ngigi 2004; UNCTAD 2012.

INTEGRATING WITH TRADE AND GLOBAL VALUE CHAINS

High-value horticulture crops offer the best opportunity for export diversification.

Jamaica's exports are concentrated in terms of both markets and products. Because of its size and firm scale, the country face difficulties competing with regional and global powerhouses on agriculture products with high returns to scale. It will be imperative for Jamaica to nurture transformative investments—through domestic or international firms—that can produce goods at reasonable scale and of consistent quality. The experiences of selected global players show that Jamaica could be a leading player in high-value niche exports. Global growth in demand for horticulture products offers Jamaica an opportunity to increase exports in this high-value sector. Many items with the highest global demand growth can be grown in Jamaica, including strawberries, pineapples, avocados, mangoes, citrus fruits, specialty vegetables, dry peppers, ginger, and turmeric. Moreover, more than two-thirds of Jamaica's agri-food exports go to Canada, the United Kingdom, and the United States indicating an opportunity to diversify export markets, including within the Caribbean.

Addressing leakages in tourism offers another opportunity to replace high-value imports with local production.

These leakages refer to the tourism revenue lost to other countries through imports of food and services, infrastructure, use of foreign workers, transfer pricing, promotional spending, foreign travel agents, tax exemptions, and so on. Such leakages from agricultural imports by the tourism sector are estimated to be US\$10–30 million a year.²⁴ In 2018, imported food items accounted for 16.5 percent of hotel food spending, while animal products represented about 60 percent, with the rest composed almost entirely of horticulture items including Irish potatoes, cabbage, lettuce, leeks, mushrooms, strawberries, and watermelons. Leakages also came from processed items, mostly beer, wine, cheese, and fruit juices. These findings are similar to those of the International Finance Corporation's Jamaica Agricultural Supply Chain Linkages Project, which estimated that import substitution opportunities for sales of horticulture crops to the tourism sector were US\$15.8 million a year.²⁵ Although these numbers are relatively small compared to potential export markets, competitive production for domestic

consumption could be a steppingstone toward future exporting. Recognizing this opportunity, the government has been working to boost local production and strengthen the links between agriculture and tourism.

Further developing the opportunities offered by tourism will require closer links with the hospitality industry. Jamaican farmers have limited links to the hospitality sector, including hotels, restaurants, and cruises.²⁶ and ²⁷ On the supply side, most farmers do not have the capacity to consistently provide hotels with the quantity and quality of products they require, or lack the ability to accept the payment terms offered by hotels and, instead, they prefer to sell to traders who pay cash on delivery. Farmers also lack timely, detailed market information to make informed strategic and operational decisions about what and how to produce. On the demand side, issues are related to the structure of the tourism sector. During stakeholder consultations, it was highlighted that hotel operators, particularly foreign ones, lack the networks needed to establish effective local supply relations. Furthermore, purchase managers might have incentives to buy products based on cost (instead of quality or local label) or from preapproved suppliers through global purchasing agreements. Finally, enclave tourism—resulting from the “sun, sea, and sand” model as well as Jamaica’s high crime rates—has led to enclosed hotel systems with all-inclusive meal plans, few connections to their surroundings, and food purchases consolidated through middlemen rather than numerous providers.

HORTICULTURE STRATEGIC ANALYSIS AND OPTIONS

Shifts in the horticulture industry provide opportunities for Jamaican producers. To succeed in horticulture, Jamaica needs to understand trends affecting the sector. Global demand for food—particularly high-value horticulture crops—is growing. Consumers are becoming more health conscious and interested in nutrition-rich fruits and vegetables. And they are becoming increasingly interested in products that generate social benefits. Jamaica could satisfy this demand by boosting agricultural production and improving product quality and differentiation. To do so, it must adapt to industry trends, including the need to consolidate operations, improve logistics, and adopt internationally recognized food quality and safety standards. Understanding the strategic segments of the horticulture industry would allow Jamaica to identify successful strategies for product categories where it can be globally competitive.²⁸

Jamaica can produce higher-value horticulture crops. The horticulture items with the highest trade deficits and patterns in global demand indicate that Jamaica can increase production of highly perishable calorie-driven and nutrition-driven crops. Most of the country’s horticulture exports to its top export markets—the United States followed by Canada—are less perishable calorie-driven items, including melons and roots. Although exports of these items have grown in recent years, growth has also occurred for highly perishable calorie- and nutrition-driven items such as avocados, berries, cabbage, and cauliflower. Several of Jamaica’s most imported horticulture items fall in the less perishable calorie-driven category, including potatoes, onions, and watermelons. Other frequently imported items are highly perishable, and some are considered nutritional super foods, such as blackberries, cranberries, and raspberries. There is a close correlation between perishability and prices, indicating that these items are higher in value. Jamaica could expand production of these items, which are labor intensive and usually grown in smaller plots. But competition in this segment is closely linked to proximity to the end market, so logistics are of extreme importance.

Highly perishable daily use and nutrition-driven crops are the most attractive options for Jamaica, provided competitiveness factors such as logistics and product differentiation are met. Jamaica has a trade deficit in daily use and nutrition-driven horticulture

items including cauliflower, broccoli, asparagus, mushrooms, and berries. Meanwhile, demand for these products is growing in Canada and the United States, as well as globally. These developments offer an opportunity for Jamaica to start with import replacement and eventually export. Such items are especially attractive to Jamaica because they offer higher margins and because fresh and perishable produce are often more labor intensive, offering the potential to create jobs and give small farmers the opportunity to participate in an industry otherwise dominated by scale. The fruits and vegetables with potential include avocados, cauliflower, and broccoli. Other items, like berries, show promise for domestic demand in the hospitality industry and can be competitive because of their high perishability. But logistics demands for such products might be too high for Jamaica to be competitive at the global scale. Jamaica could tackle the large world growth in demand for spices and is well-positioned to produce crops including chiles, ginger, and turmeric.

INCREASING AVAILABLE LAND FOR AGRICULTURE

Jamaica has extensive unused agricultural land available for investment. The closure of sugar plantations has left large amounts of publicly owned land available for investors. To attract investments, the government has implemented an agro-park project that aims to convert 8,094 hectares of unused land—about 6 percent of the total—into production. But lack of financial resources is hindering its development. Since 2019, Jamaica's Agro-Investment Corporation has managed seven agro-parks on about 1,600 hectares. These well-defined land parcels are intended to integrate several agricultural value chains, from preproduction to postharvesting and marketing. They can be publicly or privately owned, but the Agro-Investment Corporation oversees the provision of infrastructure. The development of agro-parks has suffered from lack of proper infrastructure, including roads, water, energy, drainage, and service support.²⁹

Jamaica can learn from Peru's experience on land auctions. Peru successfully auctioned public lands to large, transformative firms, attracting foreign direct investment and becoming a leader in the production of high-value agricultural products such as avocados, artichokes, asparagus, and quinoa.³⁰ and ³¹ The country's 2000 Law for the Promotion of Investment in Agriculture established several incentives for private investors in agriculture—including a 15 percent income tax, nearly half the rate in other sectors. Most private agricultural investments were attracted through public-private partnerships for agricultural land development at scale. Jamaica can learn from Peru's experiences and leverage its unused land toward products where it can be globally competitive.

4.1.3

Challenges: What Constrains the Growth of Horticulture?

The main factors hindering horticulture in Jamaica are crime, public policies, production systems, knowledge systems, access to inputs, access to finance and insurance, infrastructure, food quality and safety, and climate change.

CRIME

Crime and larceny raise costs for farmers. Jamaica is one of the world's most violent countries, which increases costs and risks in all sectors. Although crime is not a focus of this CPSD, it is important to note that farm theft is a major concern, particularly for horticulture crops during peak pricing, and disproportionately affects small players in terms of cost absorption capacity. There is scope for boosting public sector efforts to prevent such theft and for dissuading the sale of stolen items at wholesale and retail points,³² for example, through traceability systems (see 4.1.3.4), through

greater information sharing between the Minister of Agriculture and Fisheries' Praedial Larceny Prevention Unit and the Jamaica Constabulary Force, and, lastly, through the enforcement of provisions in the Criminal Justice (Suppression of Criminal Organisations) (Amendment) Act of 2021, which builds on the Praedial Larceny Act of 2000 and ensures harsher penalties for praedial larceny crimes.³³

PUBLIC POLICIES

Government support for agriculture is high but has not been targeted appropriately.

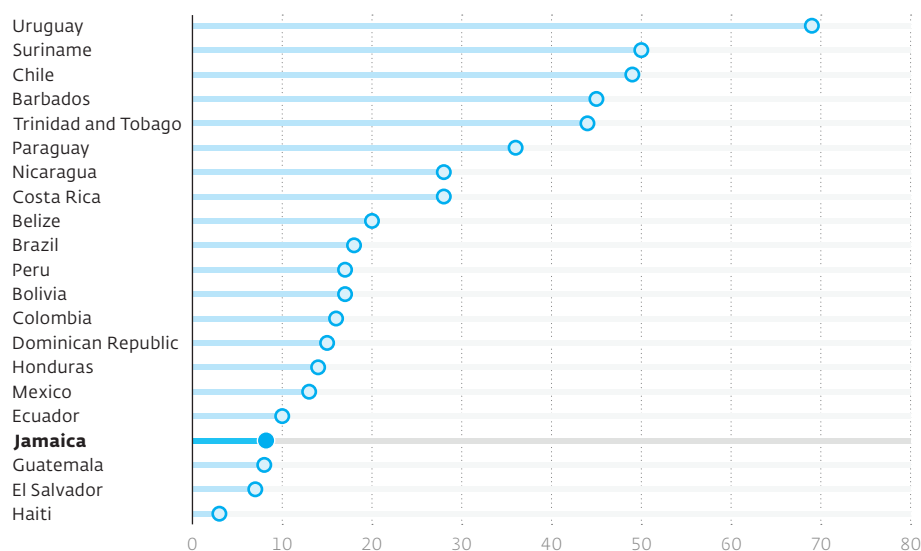
Although Jamaica's support for agriculture is high by international standards and among the highest in Latin America and the Caribbean,³⁴ most of this support has gone to a small number of subsectors. Not all supported subsectors seem to have long-term prospects for sustainable growth. The subsectors that are competitive based on trade data—such as coffee and oranges—have not received support or have been taxed. This is concerning because incentive systems influence production decisions. Moreover, price supports may end up hurting the poorest members of society, because consumers pay higher prices than they otherwise would. There is scope for increasing the proportion of less distortive forms of support that would contribute to the sector's long-term competitiveness and growth, such as general services (which include research, development, training, inspection, marketing, and promotion).

Support has been low for agriculture services crucial to product upgrading. The Jamaican government's support for general agricultural services—such as knowledge generation and transfer, R&D, and product safety and control—is among the lowest in Latin America and the Caribbean (figure 4.4). Yet the government sees agriculture as a top priority, particularly in the wake of COVID-19. Accordingly, it is considering a shift from its traditional approach to agriculture policy to position the sector strategically in global value chains.

Export licenses raise operating costs and discourage exporters. Jamaica requires export licenses for exporters of several commodities, including spices.³⁵ These licenses are provided by commodity boards such as the Jamaican Agricultural Commodities Regulatory Board, which oversees the regulation, promotion, standardization, and

FIGURE 4.4. General government support for agricultural services

Jamaica and selected Latin America and the Caribbean countries, 2012–14 (% of total support)



SOURCE: IDB 2017.

development of these commodities. The stakeholders interviewed said that licenses cost US\$1,000 to US\$2,000 a year and are required for producers harvesting more than 5 kilograms of certain crops. That is a high cost for most small farmers, excluding them from the export market.

PRODUCTION SYSTEMS

Lack of aggregation in production undermines productivity and competitiveness.

Although a small group of large commercial producers follow modern business models, 70 percent of Jamaica's agricultural production occurs on farms of 1 hectare or less. Most small farmers use traditional production methods, and lack of financial resources and equipment limit their operations. Many are inefficient and cannot achieve best practices for raising productivity and meeting quality standards.³⁶ According to the stakeholders interviewed, efforts have been made to promote aggregation and build cooperatives, but are perceived to usually not last long because trust and leadership are lacking. Most of the stakeholders believe in the aggregation capacity of large farms, which can serve as anchors for smaller producers. The Second Rural Economic Development Initiative (supported by the World Bank) is supporting efforts to better integrate agricultural enterprises into productive partnerships or "alliances" with more reliable links to buyers and markets.³⁷

Investments are limited by lack of land titles and information on available land. Almost half of Jamaica's land parcels lack titles, limiting the use of farmland as collateral and reducing incentives to invest in farm improvements. Of the approximately 650,000 land parcels in Jamaica, an estimated 45 percent are documented with registered titles.³⁸ Obtaining titles is expensive, which discourages farmers from registering their properties and limits access to finance.³⁹ Paradoxically, given the amount of unused land, identifying available land is a significant obstacle to expand production. To overcome these issues, the National Investment Policy recommends creating a "land bank"—a comprehensive database that would give entrepreneurs access to information on available land for lease or sale, including location, resources, and other details—to facilitate new agriculture ventures. Under a project supported by the World Bank Group, the Ministry of Economic Growth and Job Creation, the Jamaica Promotions Corporation (JAMPRO), and the Planning Institute of Jamaica have jointly started drafting a framework for such a bank, which is expected to be fully functional by 2027.

KNOWLEDGE SYSTEMS

R&D capacity is insufficient. Innovation and product development are key to being competitive in horticulture, particularly for high-value nutritional crops or spices that compete on product differentiation. Jamaica's weak agricultural productivity relative to competitors highlights the need for increasing competitiveness through R&D. But R&D to raise production and productivity is insufficient and poorly funded compared with regional competitors. And because agricultural education in Jamaica is disconnected from modern challenges and private sector needs, qualified R&D staff are in short supply.⁴⁰ Several of the stakeholders interviewed raised this issue, emphasizing the need to research new crops and varieties adapted to Jamaica's climate and soils, as well as to changing climate conditions. They also indicated the need to investigate better production techniques and agricultural infrastructure and equipment—such as greenhouses, improved irrigation systems, and climate-resilient structures—to boost yields and productivity in horticulture.

Essential extension and advisory services lack capacity and funding. The Rural Agricultural Development Authority is the main institution providing extension and advisory services to farmers. It delivers agronomic knowledge and agricultural marketing information, collects data on demand and supply in some local markets,

and allocates rural development budget transfers.⁴¹ Its scope covers most relevant areas of a good extension institution. But financial limitations and insufficient, overburdened staff limit its coverage and impact.

Better country promotion and market intelligence are needed. JAMPRO promotes agriculture exports and investment opportunities. The main policy leading the sector, Vision 2030 Jamaica, seeks to foster a country brand, develop “geographic indications,”⁴² and create an “Eat Jamaican” campaign to promote consumption of local foods.⁴³ Yet government support for marketing and promotion accounts for less than 1 percent of spending on agricultural general services.⁴⁴ Several stakeholders interviewed said that efforts to promote Jamaica outside of traditional markets and to build a strong country brand for mainstream products could be improved. Only a few products, such as coffee with the Blue Mountain label, enjoy brand premiums. They also said that market intelligence efforts to understand destination market demands and requirements are limited, and such information often does not reach farmers. This information is crucial for horticulture products competing on differentiation, to understand preferences on products, varieties, physical attributes, certifications, labels, packaging requirements, and so on. It is also essential to understand competitors’ harvest and supply times, so that products can be positioned in the right markets at the right times. Finally, better marketing and promotion could help establish long-term relationships with domestic hotels.

ACCESS TO INPUTS

Most of the stakeholders interviewed for this Diagnostic considered access to labor a problem. Complaints referred both to low-skilled workers and to those lacking skills ranging from operating on-farm or agro-processing machinery and knowledge on marketing, food standards, or engineering. For horticulture, it is important that workers understand production and harvest methods, postharvest handling, quality requirements, and other elements that determine product market value.

High-quality inputs—including seed, planting materials, fertilizers, agrochemicals, and animal feed—are imported and too expensive for most small farmers. Horticulture requires high-quality certified seed and planting materials to produce competitive varieties. Good-quality plant nutrition and soil management products are needed for adequate productivity. Input prices in global markets have become increasingly volatile, which makes agricultural activities riskier in Jamaica given high levels of import dependence. Several government and donor projects distribute inputs to farmers free of charge, but eligibility criteria are sometimes unclear and performance evaluations are missing.⁴⁵ Most of the stakeholders interviewed said that prices are prohibitive for small farmers—seed, for example, can account for 25–40 percent of production costs—which results in limited use of inputs or the reuse of seed and planting materials, lowering productivity.

Weak regulations and inefficient product registration procedures slow the adoption of modern agricultural inputs. Most of the stakeholders interviewed cited difficulties with the introduction of new seed, planting materials, fertilizers, and agrochemicals. The steps required (legally or in practice) to be allowed to sell new agricultural products can reportedly take one to two years. For example, registration of agrochemicals is done by brand, manufacturer, and package size instead of by active ingredient or active ingredient category. And testing data from foreign registries is not accepted because Jamaica is not party to regional agreements for establishing common procedures or accepting foreign testing data, such as those from the European Union and Central America.⁴⁶ Furthermore, plant breeders’ rights are not protected,⁴⁷ which makes horticulture investors unlikely to choose Jamaica as a production market.⁴⁸ Given limited local capacity to develop new products, introducing foreign organic and chemical products into the market is essential for Jamaica to remain competitive, particularly in subsectors like horticulture.

Packaging materials are costly and accessing them is inconsistent. Given Jamaica's size, its packaging sector is underdeveloped. Most companies rely on imported materials, raising production costs. The stakeholders interviewed mentioned access to packaging materials as an issue: delivery can take several months and materials are sometimes bought from different manufacturers, affecting product branding and consistency. Moreover, packaging materials have been in short supply because of COVID-19, which has led to unpredictable shipping schedules (especially from Asia westbound), shortages of maritime containers, and sharp increases in container shipping rates.

ACCESS TO FINANCE AND INSURANCE

Farmers and MSMEs have scant access to formal loans. Challenges with access to finance for MSMEs in general are covered in section 3.3. This section focuses on issues relevant to agriculture. Only 10 percent of farmers—mainly large plantations of traditional crops—have access to credit from a regulated financial institution. Except for the largest companies, all the stakeholders interviewed cited difficulties in getting loans as a major impediment to expanding operations. Obstacles include high interest rates (14–20 percent), short loan maturities (3–5 years) for crops (which particularly affects fruit crops; papaya trees, for example, can take 5–7 years to start producing fruit and avocados up to 15 years if planted from seed), issues with collateral, and banks showing little interest in their business. Part of the problem is the lack of binding formal contracts between buyers and sellers of agricultural products, which creates a higher perception of risk from financial institutions.

Financial products and services for agriculture are underdeveloped. Microfinance institutions and credit unions have limited knowledge about agricultural lending and their agricultural loan performance has been uneven. Alternative sources of financing relevant to agriculture—such as leasing, factoring, and trade finance—are limited. An electronic movable collateral registry was established in 2014, but movable collateral markets (including a warehouse receipts system) are not functioning.

Farmers and agribusinesses have limited access to risk-based financing. Jamaican farmers and agribusinesses are exposed to natural disasters, face volatile supplies, and often lack property rights to land and physical assets. These issues significantly increase their risk profiles, limiting their access to finance. Farmers lose about 40 percent of their production to bad weather, pests and diseases, theft, spoilage, and quality rejects.⁴⁹ Two lines of work need attention to reduce risks. First, better risk assessment tools—such as data and artificial intelligence—could be used, tailored to agriculture (sub)sector characteristics. Second, coordinated efforts could be made to manage, decrease, and transfer residual risks to acceptable levels so that they can operate profitably. These efforts will require government to set public policies on various fronts (for example, physical risk mitigation, risk financing strategy, among others), risk transfer businesses (for example, insurers, reinsurers, and capital markets specialists) and the agriculture sector (to bear part of the risk).

Insurance legislation for agriculture is mainly confined to the 1949 Coconut Insurance Act; no other significant crop insurance programs exist.⁵⁰ The Act provides for the establishment of coconut insurance funds and the power to impose a charge on coconuts and copra exported or sold for export. The extent to which this insurance is used is unknown. A coffee crop insurance scheme has been dissolved. GraceKennedy offers microinsurance based on measured rainfall, but the product has limited coverage.

In 2018, the government started developing a crop loss and farm insurance program. A concept document setting out financing for the program has been developed and stakeholder consultations have commenced. Still, insurance coverage for agricultural activities remains elusive. The Insurance Association of Jamaica, along with the regulator, Financial Services Commission of Jamaica, has been

developing a framework for microinsurance products. In July 2021, Grace Kennedy, in collaboration with the Ministry of Agriculture and Fisheries, launched a weather insurance product that offers wind, rain, and drought protection for Jamaican farmers and fishers. In addition, the government is looking to introduce microinsurance as part of overall policy safeguards against climate and weather-related risks, focusing on micro and small enterprises.

INFRASTRUCTURE

Irrigation infrastructure is inadequate. Most horticulture crops require irrigation to minimize plant stress, and proper timing of water applications during appropriate periods can increase the yields and quality of most horticulture crops. Yet only 2 percent of Jamaica's land area has irrigation infrastructure.⁵¹ Reservoir capacity and access to water is insufficient to mitigate the effects of droughts and other climate change events faced by farmers, lowering productivity.⁵² Moreover, modern irrigation systems are hardly used. For example, most irrigated ginger plots use flooding or sprinklers instead of drip irrigation.⁵³ Making matters worse, Jamaica's groundwater sources are increasingly polluted because of bad environmental practices in mining and poor management of soil nutrition and plant protection in farming.⁵⁴

Postharvest handling facilities are in short supply and few have international accreditations. Postharvest infrastructure is essential in horticulture. It prevents postharvest losses, makes agricultural products more nutritious and valuable, creates market opportunities, and can create jobs. Jamaica lacks sufficient warehousing facilities, especially temperature-controlled ones for perishable goods, as well as the right types and sizes of refrigerated trucking. The lack of adequate postharvest infrastructure, including precooling and cooling facilities and cold storage services, becomes apparent when examining food losses in Jamaica. Between harvest and commercialization, such losses account for 20–40 percent of crops, compared to 15 percent in Latin America and the Caribbean.⁵⁵ Postharvest infrastructure and logistics, such as investments in infrastructure and transportation, including in technology for storage and cooling, can play an important role in reducing losses and spoilage, and along the supply chain, discarded food could also be managed productively for composting and energy recovery.⁵⁶

FOOD QUALITY AND SAFETY

Policies for food safety are institutionally fragmented and regulations do not follow international standards. Food safety mechanisms are essential to ensure the safety and high quality of horticultural products along the value chain. Microbiological or chemical hazards can sometimes arise, presenting a risk to consumers. Jamaica's food safety is supervised by the ministries of agriculture, health, and commerce and regulated by many acts and regulations. Institutional and regulatory coordination is weak, and gaps and overlaps result in lack of compliance and enforcement.⁵⁷ In 2010, the National Agricultural Health and Food Safety Coordinating Committee was established, but currently it is not coordinating food safety efforts. Jamaica has a dual food safety system, with national standards compulsory for all producers and international standards encouraged for exporters. Compliance with international food safety norms would increase farmers' access to high-end markets both domestically and abroad.⁵⁸

Traceability is also a challenge. Traceability systems are important to guarantee food origins and remove unsafe or questionable foods from the distribution system. They can also help fight farm larceny. But national traceability systems are weak.⁵⁹ According to stakeholders interviewed, most small and medium enterprises (SMEs) do not have in-house traceability systems or understand traceability only as tracing

products from agro-processing facilities to retailers and consumers. The best-organized, larger agro-processors have in-house traceability systems, but at most they can trace products back to the region of origin.

Certification infrastructure for the primary and processing sectors is weak and procedures for obtaining certificates are onerous and expensive.

Products must be certified to gain access to high-income country markets. Most retailers in these markets have set global certification standards (for example, Good Agricultural Practices, Hazard Analysis Critical Control Point, Safe Quality Food, and Food Safety System Certification) as minimum requirements. But opportunities to obtain an international certification are limited.

CLIMATE CHANGE

Climate change poses a serious threat to Jamaican agriculture. Jamaica is the third most exposed country in the world to many climate change impacts; more than 96 percent of the country's GDP and population at risk of two or more hazards.⁶⁰ In recent decades, extreme weather events—including hurricanes, droughts, and floods—have caused major agricultural losses and reduced yields.⁶¹ Between 1994 and 2010, the agriculture sector suffered nearly US\$100 million in damages and losses because of major climate events.⁶² With rising climate change events, the frequency and intensity of disasters will only increase, impacting other constraints such as irrigation infrastructure and production systems. Changes in temperatures, rain patterns, water availability, and sea levels and salinity will affect agriculture, forestry, and fisheries.⁶³ By 2050, Jamaica's annual rainfall is predicted to be 700–800 millimeters lower (33–38 percent of the current total) and its annual mean temperature to rise by 2.0–2.1 Celsius degrees.⁶⁴

Farmers have been slow adapting to climate change. The government has developed several projects to reduce greenhouse gas emissions, capture carbon, and enhance climate resilience. For instance, the Second Rural Economic Development Initiative (supported by the World Bank) provides matching grants for climate-resilience agriculture investments. The Technical Centre for Agricultural and Rural Cooperation and the Rural Agricultural Development Authority have established a partnership to enhance farmers' resilience to climate events, providing climate information and early warning systems through forecasts and smartphone applications.⁶⁵ The impact of this effort is evident from an assessment of Jamaica's 2014 drought: farmers who did not use the climate information system lost 72 percent of their produce, compared with 39 percent for those who did. (See box 4.2 for more details on how climate information systems can be beneficial for agriculture.) Although such initiatives are positive steps, investments in agricultural infrastructure to reduce the impacts of increasing climate variability and change remain limited.⁶⁶ Furthermore, lack of technical support and lack of access to finance to invest in on-farm climate-resilient infrastructure limit effective responses to climate change impacts. For example, more efficient water-use practices for sustainable agriculture, such as water harvesting, storage, and management, would mitigate the negative effects of climate change. The Food and Agriculture Organization recently proposed the ADAPT-Jamaica project to improve landscape resilience, agricultural production, and awareness of climate-resilient agricultural practices. If implemented, the project would reach more than 100,000 small farmers.⁶⁷

LINKS TO OTHER CROSS-CUTTING CONSTRAINTS

All the cross-cutting constraints covered in section 3 are relevant for agriculture. Crime, available skills, and access to finance for agriculture were previously discussed. Efficient trade procedures, transport infrastructure, and logistics services are needed for the competitive export of horticulture products, especially highly perishable ones.

BOX 4.2. Climate information systems for agriculture

Changes in seasonality, climate extremes and climate-driven pests and diseases are increasingly affecting production and threatening agricultural livelihoods. Thus, countries need to develop stronger information and early-warning systems to improve their capacity when it comes to national adaptation planning, farm planning, and the prioritization of climate investments in agriculture.

Data from observations of weather, climate variability, and climate change can be compiled into multiple kinds of information and services. In terms of weather, it is important to gather information on areas including days suitable for fieldwork, heat indices for livestock, fire danger ratings, pest and disease forecasts, or cyclones and storms affecting safety at sea. On climate variability, key aspects to consider include crop-yield forecasts, average dates of beginning and end of rainy season or frost dates, and drought indices and warnings. Lastly, on climate change effects, it is important to build maps of changes in agro-ecological zoning, analyses of future crop impacts, long-term changes in sea temperatures and salinities affecting fish migration and abundance, among others.

The Food and Agriculture Organization is implementing a project on climate data systems and services in several countries across different areas of the world, such as Indonesia, Malawi, Morocco, Mozambique, North Macedonia, Pakistan, Paraguay, Peru, the Philippines, Rwanda, Senegal, Uruguay and Zambia. This offers interesting examples of capacity building that Jamaica could potentially leverage.

SOURCES: FAO 2019, 2020a, and 2020b.

Affordable and reliable electricity, particularly in rural areas, is gaining importance for horticulture production. Technology used in production (including modern irrigation mechanisms and lighted greenhouses) and postharvest infrastructure (including washing and cold storage facilities) require electricity.

4.1.4

Recommendations

Horticulture—daily use crops, high-nutrition perishable goods, and spices—offers Jamaica opportunities to boost value added and create more and better jobs in agriculture. To be competitive in this subsector, Jamaica must address constraints related to climate change, access to land, links with markets, innovation, postharvest infrastructure, food safety, access to finance, and so on. Strong coordination—both within the government and between the public and private sectors—is needed to develop horticulture, with a clear action plan and accountability for who handles implementing each action (such as through regular progress reports to a coordination council).

Growth opportunities can originate from two fronts: larger players and their potential for transformative formal investments and smaller players moving to high-value products. There are large amounts of unutilized land that could be put into production by larger investors (for example, through land auctions), resulting in a substantial boost to the sector. While relatively more difficult to achieve, moving smaller producers to higher-value products would offer the potential to create better jobs and contribute to inclusive growth. There are synergies between the two fronts, as improvements that would support larger players (for example, infrastructure and logistics) would also contribute to the competitiveness of smaller farmers. Recommendations for expanding private investment in agriculture along both fronts are summarized in table 4.2.

Issues requiring deeper analysis include, among others, access to land, the introduction of new products, and postharvest infrastructure and logistics. For land, issues involving auctions of public land, development of the land bank, and land titling

TABLE 4.2. Recommendations for boosting private investment in agriculture*

Constraint	Recommendations	Short term (1–2 years)	Medium term (3–5 years)	Responsible entities
Threat of climate change to agricultural production	Scale up technical support and access to finance (for instance, by encouraging financial institutions to green their portfolios) for climate-smart agriculture practices such as greenhouses, drip irrigation, and more resilient seed varieties*	●		Ministry of Agriculture and Fisheries Rural Agricultural Development Authority
	Improve climate-related data systems— for example, on productivity and on projected impacts of climate events on land plots		●	
Lack of access to land to expand production	Explore options to auction underused public land to agriculture investors	●		Ministry of Agriculture and Fisheries
	Promote long-term leasing of agricultural land to facilitate investments in infrastructure and equipment	●		Ministry of Justice Agro-Investment Corporation
	Make it easier and cheaper to obtain land titles (which will help increase with access to finance, by allowing land to be used as collateral)	●		
	Assess the attractiveness of each agro-park for investors—for example, in terms of soil quality, access to water and energy, irrigation, potential social and environmental issues, connectivity to markets, and support services (short term). Pursue public-private partnerships to upgrade the most attractive agro-parks		●	
Weak connections to markets and links between actors in agri-value chains	Continue strengthening partnerships and alliances between producers and their capacity to deliver products of reliable quality and quantity to buyers (including through producer-buyer contracts)	●		Ministry of Agriculture and Fisheries Jamaica Promotions Corporation
	Support use of ecommerce and digital platforms to connect producers, offtakers, and end markets	●		Ministry of Tourism
	Support use of ecommerce and digital platforms to connect producers, offtakers, and end markets	●		
	Continue to strengthen links with tourism—for example, through networking events (such as fairs), partnerships with hotels seeking to differentiate their offerings by providing authentic Jamaican foods, and online matching platforms		●	
	Strengthen market intelligence to help producers and exporters understand destination market demand, including from regional markets	●		
Knowledge and regulatory system constraints on innovation	Improve R&D capacity and agriculture education, including for products (such as new varieties) and practices (such as new farming methods to reduce water use) that support market competitiveness and climate resilience		●	

(Table continues next page)

TABLE 4.2 (continued)

Constraint	Recommendations	Short term (1–2 years)	Medium term (3–5 years)	Responsible entities
Lack of postharvest and food quality and safety infrastructure	Consider research and knowledge exchange partnerships with regional governments in similar situations and with international research centers	●	●	Ministry of Agriculture and Fisheries Rural Agricultural Development Authority
	Improve funding and capacity of extension services, including for new products and practices, food quality and safety, and marketing. Explore information and communication technology tools to disseminate knowledge		●	
	Explore public-private partnerships and public investment with private management options for postharvest infrastructure that meets safety and quality standards required by national and international markets (including cold storage facilities)	●		Ministry of Agriculture and Fisheries Jamaica Promotions Corporation
	Modernize food safety legislation	●		Bureau of Standards Jamaica
	Expand awareness of food safety requirements and certifications—for example, through a digital platform and training, particularly for exporters		●	Jamaica National Agency for Accreditation
Underdeveloped financial services for agriculture	Invest in digital infrastructure to support traceability systems		●	
	Facilitate access to finance for small farmers—for example, by expanding lines of credit and guarantees	●		Ministry of Agriculture and Fisheries
	Encourage banks and microfinance institutions to expand their agriculture lending portfolios—for example through training, technical assistance, and use of fintech		●	Ministry of Economy Bank of Jamaica
	Provide capacity building to micro, small, and medium enterprises to help them access green finance mechanisms		●	

NOTE: Short- and medium-term sequencing takes into account feasibility of implementation, including government capacity and fiscal resources.

*This is a focus area of the ongoing World Bank Group Second Rural Economic Development Initiative Project (REDI II, PI66279).

could be explored further. For new products, Jamaica's capacity to develop new horticulture products seems limited, implying that it must import new, innovative products to keep up with market dynamics. Further analysis of the country's policies and regulations on the introduction of new varieties and plant nutrition products might be useful. Postharvest handling and logistics are key to making Jamaica's horticulture more competitive. Further study of the country's postharvest handling, transportation, and storage capacity can provide insights on how to support the development of public-private partnerships in postharvest activities, and private investments in agri-logistics. Quantifying the scale and impact of any government distortions in agriculture, for example through direct subsidies, minimum support prices, export/import tariffs, quotas, and targeted credit schemes, can also be useful. Options for insurance products for horticulture would merit further exploration. Finally, other agriculture subsectors—such as fisheries, livestock, and cereals—can also be assessed to identify their economic potential.

4.2

Outsourcing

Outsourcing refers to the provision of business services by a third party or from a different location, leveraging information and communication technology (ICT) to gain cost, technical, and business advantages. Historically, the sector is broadly classified into two categories—ITO and BPO services based on the type of services. However, the emergence of digital technologies has now given rise to an entirely new category—digital services—as well as adding new services into the ITO and BPO categories (figure 4.5). Outsourcing has evolved beyond traditional ITO and BPO, which largely focused on customer support, back-office services, and remote IT support. Digital technologies—such as automation/process automation, robotics process automation, artificial intelligence (AI), cloud, internet of things, machine learning, blockchain, big data, and 5G—have significantly altered traditional outsourcing service delivery models. ITO and BPO are increasingly driven by digital technologies, “as a Service,” and platform-based models that include services like data analytics and digital solutions.

4.2.1

Sector overview

Jamaica has established itself as a preeminent hub for BPO in the Caribbean but needs to develop higher-value services to stay competitive. The country’s proximity to North American markets, scalable English-speaking workforce, and cost competitiveness have favored the development of the BPO services sector—leading to steady expansion in terms of revenue and employment. Total revenue nearly doubled between 2016 and the year ending in June 2021, from US\$400 million to US\$780 million, (Smith 2021b). Similarly, employment in the sector grew by a CAGR of 20 percent between 2015 and 2021, from 30 companies and 17,000 direct employees to more than 95 domestic and international firms employing 44,000 people (figure 4.6).

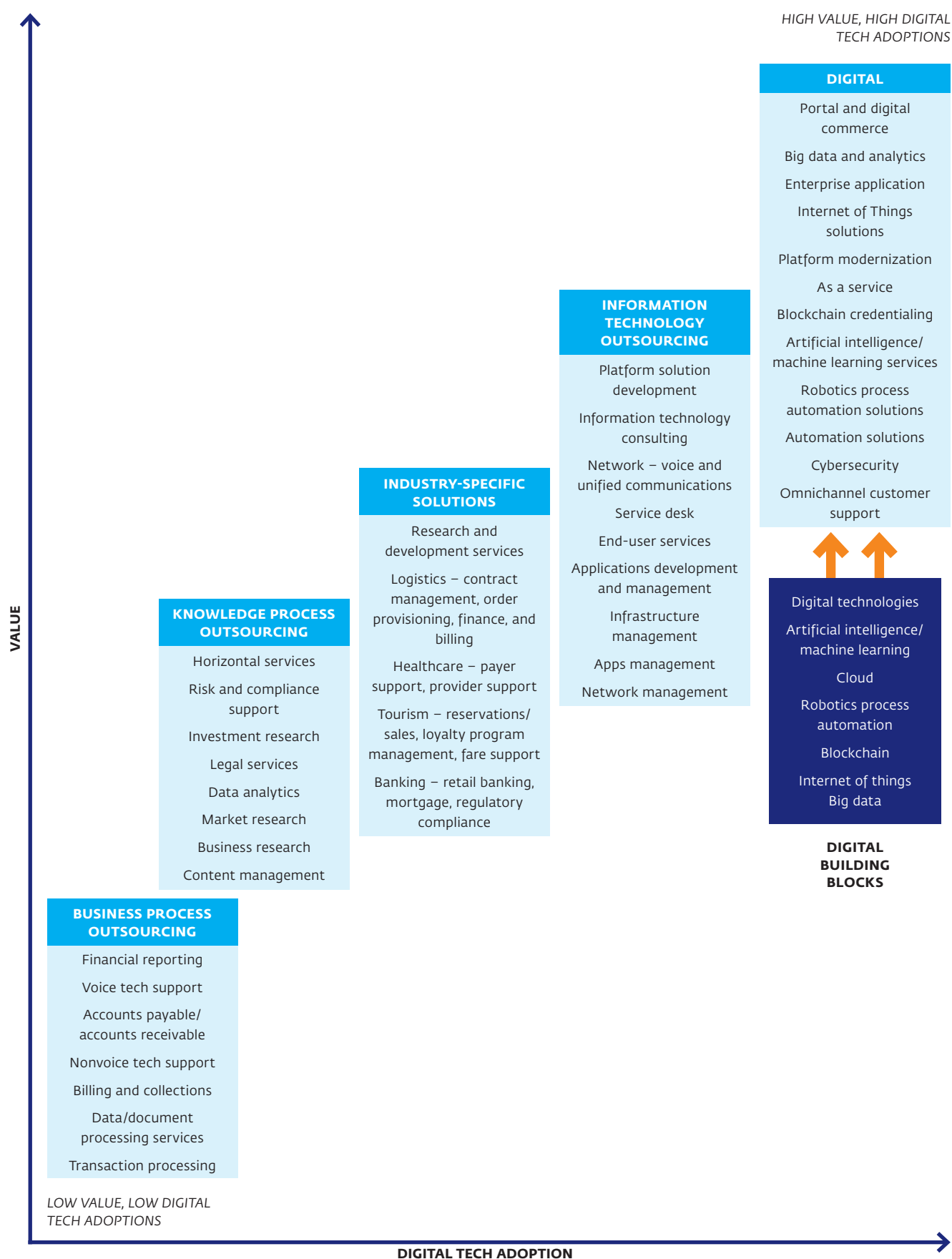
The BPO services sector has shown resilience throughout the COVID-19 pandemic, with a rapid recovery in jobs. During the early stages of the pandemic (March to May 2020), almost 7,000 employees in the sector were furloughed or terminated.⁶⁸ But that was soon followed by a sharp recovery as service providers and end clients realigned their business practices to reflect the effects of the pandemic. Between May 2020 and March 2021, the sector not only recovered but also posted 15 percent growth in jobs.⁶⁹

Although the sector is positioned to continue growing over the short term, it faces significant risks to its future viability associated with automation, use of AI, and growing competition. Thus, Jamaica must create conditions, especially with respect to skills, to develop higher-value services and remain a competitive destination for digital services.

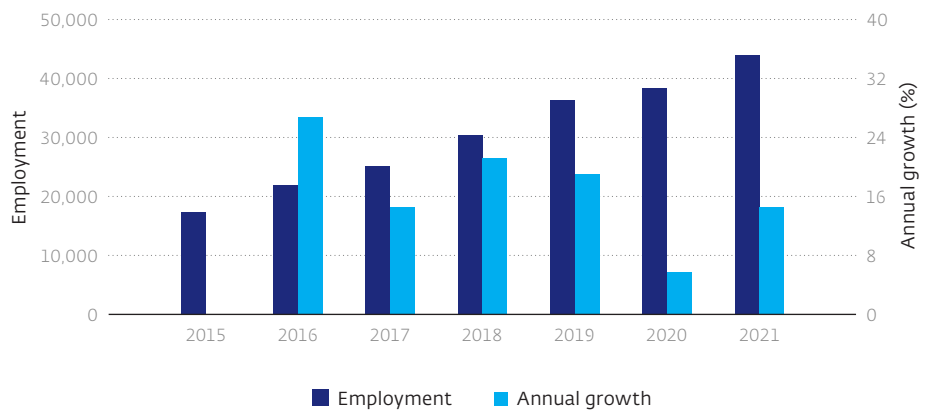
The global outsourcing services landscape has changed rapidly with the emergence of new delivery locations. As mature locations move up the maturity curve by offering more complex, higher-value services, they become less competitive at lower-value services (which depend more on low-cost labor). Jamaica is considered a low- to medium-value, low- to medium-complexity destination for global outsourcing services (figure 4.7). It performs better than regional peers such as Belize and Trinidad and Tobago but lags in both complexity and value relative to countries like Costa Rica and the Dominican Republic. There is potential—and ambition—for Jamaica to move up the global outsourcing services value chain in the next few years, provided it can address the skills and technological requirements for higher value services.

Latin America and the Caribbean is one of the most competitive outsourcing regions, with more than 15 countries, including Jamaica, which identified outsourcing as a key focus sector for attracting foreign investment. The region benefits from its proximity

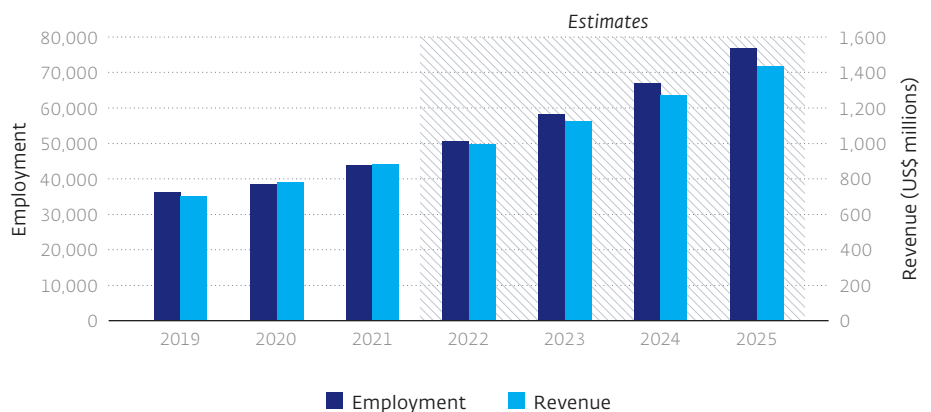
FIGURE 4.5. Types of outsourcing services



SOURCE: World Bank Group staff.

FIGURE 4.6. Employment and growth in Jamaica's contact center and business process outsourcing, 2015–21

source: Industry data collated from information provided by the Office of the Prime Minister.

FIGURE 4.7. Employment and revenue growth in Jamaica's outsourcing services, 2019–25

sources: Jamaica Information Services, Global Services Association of Jamaica, Historical Sector Data.
NOTE: Data for 2021–25 are projections.

to North American markets, growing demand for bilingual services, and fast-growing domestic markets, as well as a growing digital SMEs segment in most locations. It also offers significant savings compared to more mature destinations thanks to lower wages, real estate, infrastructure, and travel costs, tax incentives, and a skilled workforce. Leading global companies such as American Express, Citibank, General Motors, Genpact, Intel, and Wipro have invested in call centers, offshore delivery centers, and BPO and shared service centers across the region. Wages in Latin America and the Caribbean are about 30 percent lower than in Western Europe and the United States.⁷⁹ The region also has a large pool of young, skilled workers capable of providing outsourcing services to English- and Spanish-speaking customers.

Technological shifts in global outsourcing mean that locations focused on cost advantages will increasingly see diminishing returns as the industry moves toward a value-based model. Locations with strong digital capacity development initiatives are better positioned to mitigate the disruptive effects of new technologies and locations. To stay competitive, outsourcing destinations must train workers on digital skills that are in demand. Higher-value knowledge and technology services require workers with stronger cognitive, technical, and sector- or industry-specific skills, allowing service

providers to charge more. For KPO services like market research, charges range from US\$12 to US\$25 an hour—while for application development services, rates run as high as US\$50 to US\$60 an hour (depending on the location). The outsourcing market in Latin America and the Caribbean is undergoing a transformation from a cost- and labor-centric, low-value/high-volume model to a complex, technology-centric and higher skilled sector. Mature outsourcing locations such as Colombia, Costa Rica, and Guatemala are increasingly focused on higher-value digital and KPO services (box 4.3), while Jamaica remains at the lower-value end of services.

Although Jamaica's BPO services industry will continue to grow, largely driven by global service providers, most of the BPO services in Jamaica are low margin and will likely continue to form the core of the country's outsourcing sector in the short to medium term. Global companies bring ashore global practices and technologies to deliver digitally driven customer services and back-office solutions. Traditional customer and voice services fall at the lower end of the revenue spectrum, usually generating US\$2 to US\$4 an hour per worker. Because of these low margins, service providers often have to employ hundreds of workers to make significant revenues. Projections for 2021–25 indicate that employment in the industry⁷¹ will grow by an average of 13 percent a year, from around 44,000, in 2021, to more than 76,000, in 2025 (figure 4.8). Revenue is expected to grow by an average of 15 percent a year, from US\$881 million, in 2021, to more than US\$1,400 million, in 2025.⁷²

Multinational service providers dominate Jamaica's outsourcing market, shaping the direction of the industry. Since the industry's inception, these providers have played a key role in its growth. International firms operating in the country include a mix of third-party providers. These companies were among the first to identify Jamaica's potential as a nearshore destination, committing significant investments and, working with the government to develop the BPO services ecosystem.

BOX 4.3. Costa Rica's transformation into a multifunctional business destination

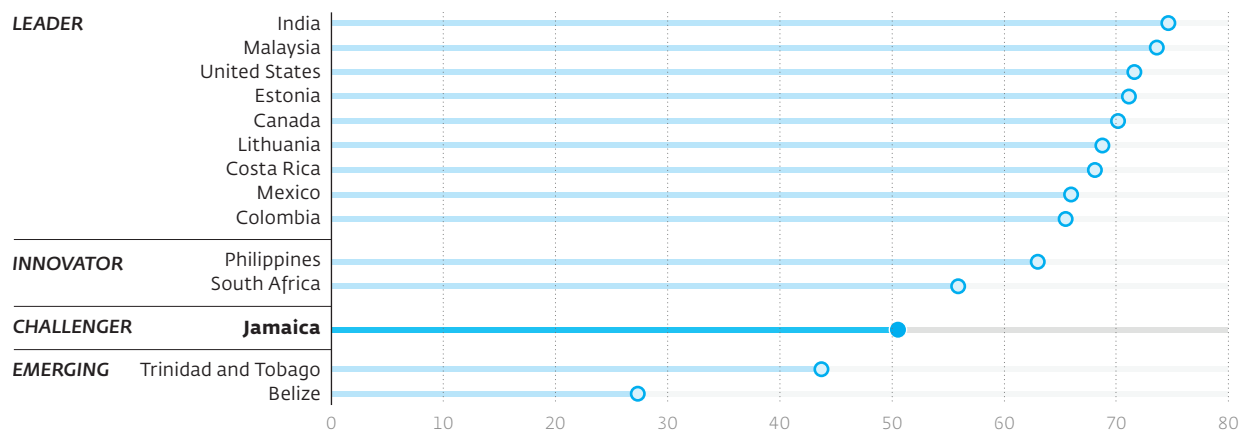
Starting as a call center destination in 2000, Costa Rica has evolved to offer other outsourcing solutions ranging from contact centers to knowledge and research and development (R&D) services. The country is one of Latin America and the Caribbean's top exporters of high value-added services, with more than 63,000 workers in knowledge services in 2019. At the same time, business processing accounted for about 45 percent of service exports—a larger share than tourism (40 percent) and nearly twice the average for Organisation for Economic Co-operation and Development countries (27 percent). Deloitte considers Costa Rica the world's fifth top destination for business services, with knowledge-intensive service exports earning more than US\$4.7 billion in 2019.

Global technology firms such as IBM, Intel, Microsoft, and VMware have established R&D centers, global shared services centers, and supply chain planning service centers in the country. These companies have helped Costa Rica become a hub for information technology business transformation and financial services in the Americas.

To foster the development of its innovation ecosystem, in 1972, Costa Rica created a National Council for Scientific and Technological Research and a National Innovation Policy. Since then, the country has developed 16 services parks and business centers specifically for outsourcing services. In addition to financial incentives, Costa Rica offers educational incentives and works with companies to assess their needs and demands. Key industry development initiatives include 10 services-focused free zone parks, free skill development programs from the National Training Institute in 60 locations, fiscal and nonfiscal incentives, and training programs for 50,000 people with two to three years of experience with digital technology to support digital services delivery during COVID-19.

SOURCE: CINDE 2021; UN COMTRADE data.

FIGURE 4.8. Digital Competitiveness Index 2021



SOURCE: Avasant Digital Competitiveness Index.

Few domestic BPO service providers have managed to scale up their operations to serve large global clients. An exception is a Jamaican-owned BPO firm with more than 4,300 employees across nine Caribbean countries. The firm started operations in Jamaica with just nine employees in 2011, and more than 70 percent of its employees are still based in the country. Jamaica's digital ecosystem does include promising startups that can grow to become regional leaders, even though most might have to develop a multilocation delivery model to ensure continued growth and access to skilled workers. Another successful example is an international BPO firm with operations in Jamaica, described in box 4.4.

Outsourcing contributes to female labor force participation. According to the Global Services Association of Jamaica, women account for about 60 percent of outsourcing employees. The work environment, including factors such as safety and security, makes the sector attractive to Jamaican women. Female employment in the sector

BOX 4.4. A global services operations in Jamaica: private sector-led growth evolving with industry needs

One of the global leaders in business process management and optimizing the customer-experience lifecycle is operating in Jamaica, and has been since 2012. The company has more than 37,000 employees and 61 service delivery operations across seven countries.

The firm's decision to locate in Jamaica reflects its multilocation service delivery strategy. Starting small and providing customer care services from Kingston, the company's Jamaican operations are now its third largest after India and the Philippines, with more than 4,200 employees in five delivery centers. The firm's Jamaican operations have been essential to its profitability and made strong contributions to the country's economy. In 2021, it hired more than 1,000 new employees and registered a 25 percent increase in revenue in Jamaica, despite the disruptions caused by COVID-19.

The firm has expanded its Jamaican operations from traditional back-office services—like customer care, product support, health care claims, and nonvoice support—to higher-value ones including industry vertical-specific support. For example, in health care, it provides end-to-end services from Jamaica involving benefits and eligibility (1,200 employees), claims management (800), clinical intake and prior authorization (350), and network database management (80). The firm plans to increase its focus on higher-value services delivery from Jamaica but has been limited by a lack of trained workers.

SOURCE: Interview with global services provider operating in Jamaica, 2021.

is expected to increase as new delivery models, including work from home, make it easier for more women to join the workforce.

4.2.2

Opportunities for expanding markets

Jamaica's BPO sector can evolve from mainly providing CC services into an industry that spans the entire value chain, including complex services like ITO and KPO. Further developing outsourcing could open new growth paths and provide opportunities to move up the outsourcing value chain, in line with both global demand and domestic capabilities. The sector could offer digitally driven services by supplementing existing offerings. A pool of tertiary graduates (domestic and foreign), even though small, could support the growth of higher-value knowledge-based services. Participation by foreign service providers has expanded over the years—proof of their confidence in Jamaica as a suitable service delivery location. Jamaica is also ideal for projects requiring similar time zone operations with the United States.

The government has played an active role in developing outsourcing, implementing measures to attract investments in higher-value services. The Global Services Sector Development Team, established by the Jamaica Promotions Corporation, supports holistic development of outsourcing—with a focus on higher-value knowledge process services. The outsourcing industry has been guided by a five-year strategy adopted in 2015 with four priority initiatives:

- Improving policies and incentives, including finalizing legislation for special economic zones (SEZs), developing data protection legislation, establishing access to working capital, and finalizing eligibility requirements for the Income Tax Relief Act.
- Enhancing the ability of the labor market to implement management training programs, establish finishing schools and apprenticeship programs, offer training incentives, and develop a national training strategy.
- Developing infrastructure, including the Naggo Head Technology Park in Portmore, and ensuring competitive electricity rates.
- Increasing market penetration by contracting a broker, launching a targeted marketing campaign, supporting the Jamaica Investment Forum, and fostering more effective participation at industry events.

The government offers comprehensive incentives for BPO operations under the 2015 SEZ Act and 2013 Fiscal Incentives Act. The exemptions and lower taxes offered under the SEZ Act have proven attractive to existing and prospective investors. Key incentives include discounted corporate income tax, asset tax relief, employment tax credit, and exemption from income tax on dividends and capital allowances. The Fiscal Incentives Act provides for employment tax credit and exemption from income tax on capital allowances. These financial benefits help lower service delivery costs, even though firms can only benefit from one of the two acts.

Jamaica can sustain its competitiveness and value proposition in BPO services with its affordable workers, reliable international connectivity, and improved macroeconomic environment. Jamaica has a large, trainable pool of skilled workers that can cater to sector requirements while preserving cost benefits in the short to medium term. The country has maintained labor arbitrage as a low-cost destination supported by various public and private skill development programs. Strong international connectivity—thanks to the tourism sector—ensures reliable accessibility to delivery sites relative to other nearshore locations. Widespread private and public real estate options allow for easy office expansions. Jamaica successfully concluded an economic reform program with the International Monetary Fund and implemented reforms that make it easier to do business, increasing investor confidence in the country.

Considering the socioeconomic impact, foreign exchange earnings capacity, and employment potential, especially among the youth, the country has been focusing on developing the sector through strategic interventions domestically as well as collaborating with multilateral agencies for technical and financial support. This includes a five-year, US\$15 million special program, initiated in 2019, to develop the local outsourcing sector (referred as the Global Services Sector).⁷³

Jamaica could foster global market niches focused on high-end digital services. Higher-value services refer to those that yield higher revenue per employee or per seat. The need to move to higher-value services range from responding to global industry shifts to increasing revenue generation for government and enhanced quality of jobs. Some of the higher-value outsourcing services with the greatest potential for Jamaica were identified from an assessment of domestic and external factors (table 4.3). On the domestic side, the factors include the ability to leverage existing subsegment strengths, existing trainable talent pool (short term), domestic capacity to scale the resources to provide the services (long term), training and capacity development requirements, and capacity to offer standalone services. On the external side, the factors include the global demand for the services, ability to compete cost effectively at a global level, and competition within the subsegment, that is, competing locations. In the short term, Jamaica could develop KPO lines of services such as market and business research, followed by omnichannel customer services (see table 4.3). With the availability of more qualified workers, Jamaica could enter mobile and web development services. Creative industries, including by leveraging synergies with Jamaica's arts and music industry, could be pursued as well but only as part of a long-term development strategy given existing gaps in skills and technical capacity needed to scale this subsegment.

As part of the broader KPO services, Jamaica has the potential to provide legal process outsourcing and medical BPO services owing to its affinity to the British legal system and medical university programs, and has started to expand in these areas (see box 4.4). However, it lacks the scale required to compete effectively against some of the established legal and medical outsourcing locations like India and the Philippines.

4.2.3

Challenges: what constrains the growth of outsourcing services?

The main issues limiting the growth of BPO in Jamaica are weaknesses in human capital, infrastructure, and regulation.

HUMAN CAPITAL

Jamaica's shortage of certain skilled workers and extensive skills mismatches undermine the development of higher-value outsourcing services. Although Jamaica has a large pool of trainable tertiary-educated workers, there is a relatively low annual addition of such workers in the fields needed for Jamaica to move up in the outsourcing services value chain. In 2018, only 709 graduates of tertiary education (4 percent of the total) received degrees in computer science or programming and just 248 (2 percent of the total) in engineering.⁷⁴ Although enrolment in tertiary level institutions continue to increase (15 percent between 2016 and 2018), graduates are mainly in the education and business fields, and would require additional training to work in this sector. Various companies engaged in outsourcing also cited the unreadiness of university graduates for the workplace. Recent initiatives to improve skills, such as the Human Employment and Resource Training Trust/National Training Agency (HEART) and Global Services Sector Project, can increase the volume of suitably skilled persons for the outsourcing sector over time.

TABLE 4.3. Proposed higher-value services for Jamaican outsourcing

Service segment	Potential service lines	Requisite skills and qualifications	Jamaica's standing
Knowledge processes	Market research, with a focus on collecting, analyzing, and presenting end-user feedback and data. One of the main activities, conducting primary research (such as first-hand interviews for data gathering), could be a natural extension of Jamaica's voice-based business process outsourcing (BPO) capabilities.	Computer skills (such as Microsoft Excel) Telephone conversation skills Statistical platform knowledge (limited to senior roles) Contact center experience University degree	Companies could retrain contact center employees, including using e-learning platforms, to support market research including surveys, interviews, and data collection. Potential - High
	Business and financial research, with a focus on providing support for business decision-making, including customer and market intelligence, competitive intelligence, risk and compliance, financial data analysis, price and risk analysis forecasting, and marketing and sales support.	Advanced computer skills (such as Microsoft Excel and PowerPoint) University degree, preferably in statistics, computer science, accounting and finance, social sciences, business administration, or communications	A large share of university graduates has degrees in business, finance and accounting, or communications, so Jamaica can provide a steady supply of qualified workers to strengthen this segment. Already, KPMG has set up a small unit in Jamaica that provides finance and accounting support to its regional operations. Potential - High
	Content creation and management across digital and print mediums including publishing, content development, moderation, and editorial services, document design, reporting, proofreading, and e-learning.	Advanced computer skills (such as Microsoft Excel and PowerPoint) Desktop publishing Graphic design University degree, preferably in education, language, or communications	Jamaica is an English-speaking country, which positions it to develop global digital content for training, online education, business communications, marketing and promotion, among others. Potential - High
Business processes	Omnichannel customer services, a digital customer engagement model that enables seamless customer service across multiple communication channels—chat, email, text, and social media—in a centralized online environment. The growth of this segment will be driven directly by existing service providers as end clients are increasingly moving towards omnichannel solutions.	Computer skills (such as Microsoft Excel) Telephone conversation skills Typing skills High school degree	Contact centers already provide customer services across multiple channels. Jamaica can retrain voice-based workers to support customers across various channels, helping the voice-based segment move up the value chain. Potential - High
IT services	Mobile and web development services, including postdevelopment maintenance and management. Cross-platform mobile applications and web services are in high demand globally and by domestic and regional enterprises as part of their digitalization strategies. Custom app and web development services require intimate understanding of consumer behavior and client environments and so provide an advantage for local providers over offshore competitors.	University degree, technical diploma, or global technical certification	Jamaica must develop its information technology (IT) landscape to support the development of BPO, which is increasingly technology driven. IT skills can also help diversify toward non-BPO services. Potential - Medium

(Table continues next page)

TABLE 4.3 (continued)

Service segment	Potential service lines	Requisite skills and qualifications	Jamaica's standing
Creative industries	<p>Animation and gaming, including 2D and 3D design, visual effects, conceptualization, and production and postproduction support.</p> <p>Marketing and advertising, including digital production, brand and marketing strategy development, online marketing and social media intelligence and reporting, ecommerce, virtual and augmented reality, artificial intelligence, and user experience integration.</p> <p>Engineering and design, including building information modeling, digital twin technologies, 3D graphic design and analytics, and 3D printing.</p>	Technical diploma	<p>The industries offer opportunities that can be pursued as part of a long-term outsourcing development strategy.</p> <p>Potential - Low</p>

The lack of qualified workers has contributed to higher labor costs in Jamaica's BPO sector. In the 2015/16 financial year, the average basic hourly pay for an entry-level customer service representative was about US\$2.75 and for a technical support position was about US\$3.00. But, in 2018, those rates went up to US\$3.75 and US\$5.00, respectively.⁷⁵ In addition to employee salaries, organizations must pay about 13 percent in payroll taxes and statutory deductions. The limited pipeline of candidates with general technical skills and in-demand skills or certifications has widened wage disparities. Jamaica benefits from significant labor arbitrage in the call center segment and will likely continue to reap those benefits in the short term. But such benefits shrink for higher-value IT and digital services, reflecting a direct correlation between wage rates and the size of the talent pool.

Initially leveraging foreign talent for higher-value services can seed the development of the local skill pool. Like the approach taken to develop the BPO services segment, attracting foreign talent into the domestic higher-value services segment during its initial growth phase can create a base for training local resources. Thus, a program to attract international talent to Jamaica within the higher-value services segments could be considered. This includes easing visa requirements and providing short- and medium-term work visas to freelance workers, as well as intercompany transfers. Such an approach will not only help bridge the short- to medium-term skill gap (2–5 years), but also contribute to the development of the local higher-value services through knowledge transfer, technical capacity development, and training.

DIGITAL INFRASTRUCTURE

Although digital infrastructure and connectivity—particularly in commercial centers such as SEZs—is serving existing voice-based outsourcing services, a well-developed broadband market is essential for Jamaica to move up the value chain. Jamaica's telecommunications sector is highly concentrated, with a de facto duopoly. It is governed by outdated laws and regulations that limit the Office of Utilities Regulation's ability to foster investment and competition. Globally, more competitive markets are associated with better market outcomes, such as access to and adoption of broadband services by individuals and businesses. Digital connectivity is significantly more expensive in Jamaica than in other nearshore locations, for both institutional and retail consumers (table 4.4). Larger market players can benefit from

TABLE 4.4. Average monthly telecommunications and electricity costs

Jamaica and its regional peers, 2021 (US\$)

Element	Colombia	Costa Rica	Dominican Republic	Jamaica
TELECOMMUNICATIONS				
Dedicated 10-megabyte link with U.S. connectivity	250	500	500	2,000
Broadband	24.63	42.43	26.78	46.06
1 gigabyte of mobile data	1.06	2.36	1.51	2.74
ELECTRICITY				
Per kilowatt-hour	0.14	0.19	0.14	0.24

SOURCE: World Bank Group staff estimates; Cable UK (<https://www.cable.co.uk/mobiles/worldwide-data-pricing/>) Note: Dedicated telecom link rates are negotiated directly by service providers with telecom operators.

scale to offset high connectivity costs, but those costs may deter market entry by smaller investors.

COVID-19 has changed how individuals and businesses use the internet, which highlights the importance of high-speed connectivity to support remote work—a potential long-term consideration for the outsourcing industry. The quality of digital connectivity in Jamaica lags its income peers, ranking 96th out of 180 countries on average fixed broadband download speed.⁷⁶ Operators have not invested in modern technology, such as fiber optics, outside major urban areas. Globally, firms in the KPO industry—which can operate in remote work environments in countries with high-quality connectivity—are offering employees the permanent option of working from home. The level of development of Jamaica's broadband market is reducing the country's competitiveness relative to other nearshore locations with cheaper, lower-cost, partially remote work environments.

Improvements in the enabling environment and market structure for outsourcing could spur needed investments in digital infrastructure to support the industry's growth and progression up the value chain. The government recently licensed a third mobile operator that intends to enter the market offering only 4G services. The government also announced the National Broadband Initiative, intended to extend the fiber-optic broadband infrastructure to all of Jamaica.⁷⁷ Returns on these investments, as well as market outcomes for outsourcing, could be significantly improved through supportive enabling environment improvements such as infrastructure sharing, access and competition regulation and defining the various wholesale and retail markets of the broadband value chain—international wholesale, domestic wholesale, and retail—to allow for competition regulation in each market independently. The telecommunications sector's development in the coming years will directly affect the outsourcing industry's potential to progress to higher-end services.

PUBLIC POLICY AND REGULATORY REQUIREMENTS

SEZ administrative processes and reporting requirements are onerous. The exemptions and lower taxes offered under the SEZ Act have been attractive incentives for investors. But there have been multiple reports of administrative challenges in engaging with the Jamaica SEZ Authority, leading to protracted application processes and cumbersome compliance requirements. Jamaica must ensure that the administrative burdens of following SEZ requirements do not outweigh their benefits. This is particularly relevant for smaller companies, which might not have enough resources to follow SEZ requirements. Continued difficulties will increase lead times

for investors and impose more administrative burdens that could reduce Jamaica's appeal as an investment destination.

Revision of the national development plan—Vision 2030 Jamaica—and ICT policies to meet industry standards are needed. ICT policies appear outdated because of rapid technological developments over the past decade. Such policies should make digital adoption a priority at the national level and assess it across sectors. Vision 2030, finalized in 2009, makes no specific mention of BPO, but the government has decided to review the 2030 goals to take into account the impact of COVID-19. The national outsourcing strategy for 2015–20 focused on contact centers and other lower-value services. The new strategy, for 2020–25, puts more emphasis on higher-value services. Jamaica would benefit from aligning its ICT policies and digital strategies with changing industry requirements. It must also work towards a broader incentive plan that will support the overall growth of the sector (as opposed to benefiting selected companies and firms or creating market distortions as with SEZs).

Labor market regulation needs to adjust to the changing nature of work. The outsourcing industry is increasingly shifting toward working from home arrangements, prompted by COVID-19 and related lockdowns. As working from home becomes more common, Jamaica's labor regulations should be amended to accommodate remote service delivery while safeguarding both employers and employees.

Growth of domestic SMEs could be encouraged through partnership opportunities and export promotion activities. Many SMEs offer a range of services such as software development, managed IT services, quality assurance, remote penetration testing, application development, and so on, and are integral to positioning Jamaica towards higher-value services. The growth of existing domestic SMEs across all services segments (BPO, KPO) can be supported by proactively positioning local service providers for partnership opportunities—both domestic and foreign—as part of branding and promotion initiatives. Similar programs exist for other sectors under the JAMPRO Export MAX program that could be expanded to cover outsourcing services. An SME-focused services export toolkit could also be developed, covering topics such as international financial transactions, market information, and documentary or regulatory requirements.

The outsourcing sector can benefit from more tailored office space environments. In Jamaica, like many countries, BPO services companies utilize a mix of government-operated business parks and private ventures to house their operations. The Jamaican SEZ ecosystem and associated real estate evolved as a replacement for the textile industry and continues to focus on scale-based development, that is, repurposing large warehouse space and making it suitable for large BPO operations. However, globally, the concept of ICT parks has evolved significantly to become more complex to include universities, higher education institutions, R&D institutions, companies, support services, government services, and financial institutions. Jamaican public and private sector developers must focus on a cluster development approach that accommodates all such segments as well as different size of operations.

A broad-based approach to developing an innovation ecosystem must be considered. One element could be developing two to three incubation facilities for use by domestic SMEs for a specific time period. Facilities should not only provide real estate, telecommunications connectivity, and other related infrastructure support, but also training and mentorship, business management support, and so on. Facilities can be modular to allow companies of varying size to be accommodated at the same time. They can be operated through partnership models, for instance, with local private firms to provide infrastructure support and with foreign partners to provide access to global value chains, capital, and networks. Over the longer term, these incubation facilities can evolve into centers of excellence to support innovation and to provide technology access for product and solution development, among others.

4.2.4

Recommendations

Enabling Jamaica's outsourcing sector to move from low-cost services to higher-value knowledge- and technology-intensive services will require developing an appropriate ecosystem. Such an ecosystem will help reposition Jamaica as a credible nearshore high-value services destination capable of providing end-to-end services across the outsourcing value chain. Therefore, it is important to ensure that Jamaica remains relevant and grows in a rapidly evolving sector. Key recommendations for supporting market growth and investment are listed in table 4.5.

TABLE 4.5. Recommendations for increasing growth and investment in Jamaican outsourcing

Constraints	Recommendations	Short term (1–2 years)	Medium term (3–5 years)	Implementing agencies
Limited human capital to drive higher value outsourcing services	Augment existing skills development programs by implementing multitier training program that supports the training and skill development needs across the various subsegments of the sector and across various skill segments. The proposed training program can be divided into three broad segments (see figure 4.9 for details): <ul style="list-style-type: none"> — Level 1 – BPO services segment training: this broad-based training program could act as the base of the skill development pyramid and should focus on creating a larger talent pool. The training can be a mix of virtual (app based) and classroom training and should focus on basic sector skills — Level 2 – higher value services training: focus on developing skills required to support higher value services. This segment would have a much smaller training base (as compared to the BPO services segment) and could focus on providing supplemental training to tertiary school graduates and diploma holders to supplement formal education with industry specific skills. — Level 3 – digital skills development: offer intensive technical skills training to a much smaller audience with prior experience in information technology (IT) and digital services. This segment should specifically focus on developing digital skills and should include programming, cyber security, data analytics, artificial intelligence and machine learning, blockchain solution development, among others. 			Ministry of Education, Youth and Information supported by the Ministry of Science, Energy and Technology
	Develop a platform-based online training solution to provide training modules across key industry segments and skill requirements. At an initial stage, the online training platform should cater to broad-based training similar to those provided for the BPO services segment.			Ministry of Science, Energy and Technology
	Design a large-scale virtual skill development program covering key skills identified based on industry requirements to create a stable pool of trained resources. The program should aim to train 400–500 resources and ideally be short-term (3–6 months) duration to ensure faster return to market. Key steps towards the roll out of the program: <ul style="list-style-type: none"> — Conduct a skill needs assessment to identify key 			Ministry of Science, Energy and Technology

(Table continues next page)

TABLE 4.5 (continued)

Constraints	Recommendations	Short term (1–2 years)	Medium term (3–5 years)	Implementing agencies
	<p>skill requirement based on industry requirements.</p> <ul style="list-style-type: none"> — Service providers to identify resources for the program. — Partner with global training platforms to access and roll out best of breed training modules, assessments and certifications providing global validity. — Develop feedback loop with service providers on posttraining performance. <p>Develop a talent attraction program encouraging international resources to pursue their careers in Jamaica. This would entail easing of requirements for hiring foreign resources, streamlining visa/work permit approval processes.</p>			Ministry of Foreign Affairs and Foreign Trade Supported by Ministry of Science, Energy and Technology
High cost of digital infrastructure limiting competitiveness	<p>Improving the telecommunication sector's competitiveness both in terms of cost as well as quality by:</p> <ul style="list-style-type: none"> — Reviewing and reforming the Telecommunications Act to align with current market trends, technologies and international good practices, and implementing the associated regulatory frameworks to promote competition and investment in broadband markets. — Supporting cost reduction and ease of development of digital infrastructure measures such as infrastructure sharing, easing right of way authorizations and permit procedures, and enabling nondiscriminatory access to upstream networks (international connectivity). — Support universal access to broadband connectivity in currently unserved areas through innovative models including public-private partnerships to fill financing viability gaps in connecting such areas. — Outsourcing sector specific: support adoption of broadband connectivity by small and medium enterprises (SMEs) through incentives such as equipment and "accessibility" grants to cover the cost of telecommunications hardware, cabling, and monthly recurring charges. 			Ministry of Science, Energy and Technology
Onerous regulatory requirements and other gaps	<p>Upgrade work from home regulations—widen the applicability of the regulations to the BPO services sector and the Special Economic Zone (SEZ) Act.</p> <p>The SEZ Authority should move SEZ processes (application, approval, submissions) online to make the process transparent and less time consuming.</p>			<p>Ministry of Labour supported by the Ministry of Science, Energy and Technology, the Global Services Association of Jamaica, or relevant industry body</p> <p>SEZ Authority supported by the Global Services Association of Jamaica, or relevant industry body</p>

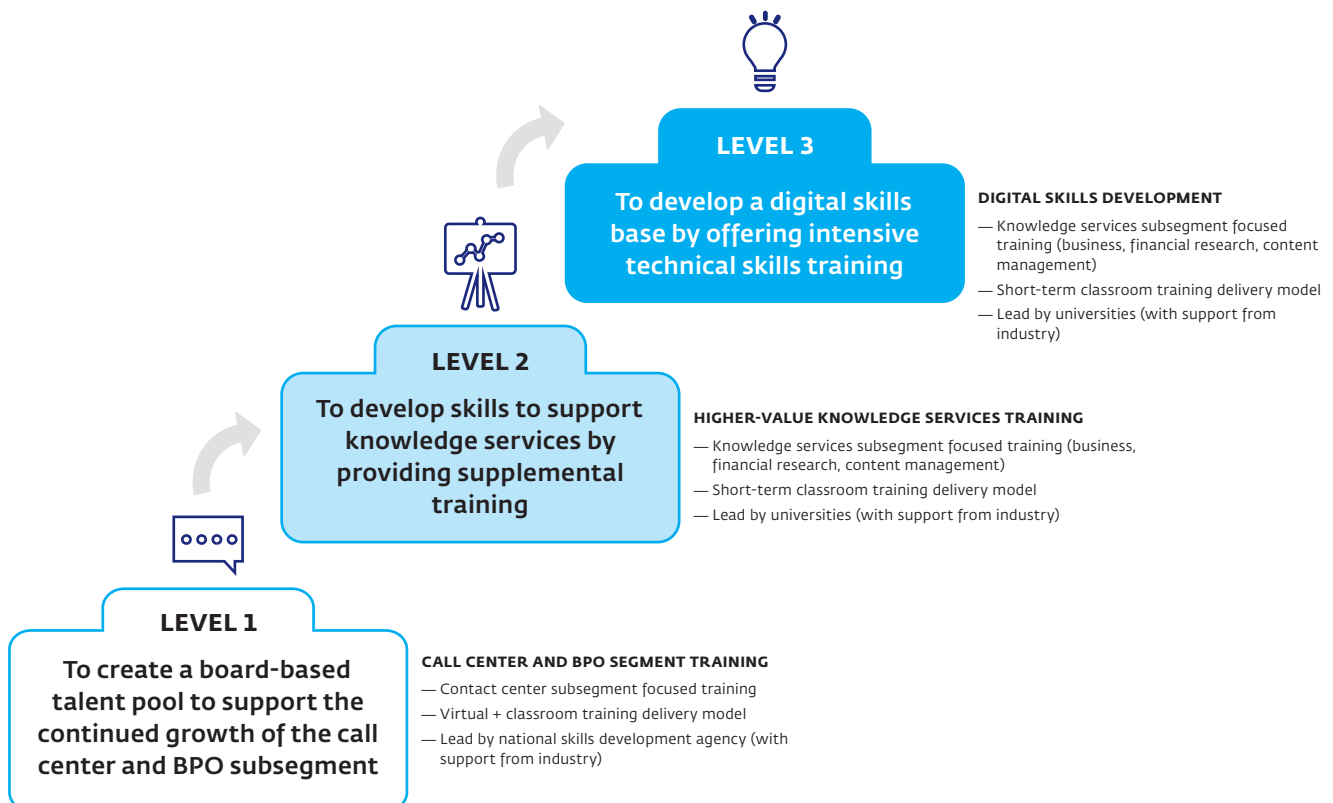
(Table continues next page)

TABLE 4.5 (continued)

Constraints	Recommendations	Short term (1–2 years)	Medium term (3–5 years)	Implementing agencies
	The SEZ Authority should consider adopting a multiuse cluster approach towards the development (or approval) of SEZs and technology parks. — Allow domestic businesses to operate from the zones without availing tax exemptions — Allow for flexibility in utilization of nonprocessing area (dual usage) by developers for creating additional social infrastructure.	●		SEZ Authority and the Ministry of Finance supported by the Global Services Association of Jamaica or relevant industry body, Ministry of Economic Growth and Job Creation
	Strengthen the IT and Data Protection Act to cover work from home requirements and cybersecurity.		●	Ministry of Science, Energy and Technology supported by the Ministry of Labour
Lack of tailored SME support initiatives	Include specific initiatives for the outsourcing sector in existing SME support programs.	●		Ministry of Economic Growth and Job Creation supported by the Global Services Association of Jamaica, or relevant industry body
	Develop the innovation ecosystem, for example, through incubation facilities.		●	
	Export promotion support.	●		

NOTE: Short- and medium-term sequencing takes into account feasibility of implementation, including government capacity and fiscal resources.

FIGURE 4.9. Multitier skill development program



SOURCE: Jamaica CPSD team.
NOTE: BPO = business process outsourcing

Notes

1. World Development Indicators dataset.
2. World Bank Group staff estimates using data from the United Nations Comtrade database.
3. Bennett (2020).
4. FAO and CDB (2020).
5. Selvaraju (2013).
6. JAMPRO (2018).
7. Ewing-Chow (2020).
8. JAMPRO (2018); Ewing-Chow (2020).
9. Assumptions are based on the use of 84,000 hectares of idle land, with 50 percent of it used for vegetables and roots at US\$18,654 a hectare (2015–19 average), 40 percent for fruits at US\$8,997 a hectare, and 10 percent for spices at US\$37,895 per hectare, and calculating that 44.5 percent of the used land will be harvested (current percentage).
10. Assumption is based on 2.4 laborers per hectare in horticulture.
11. Angus (2021).
12. Items were selected based on area harvested and production value. They also represent different food groups (fruit, cereals, livestock, and so on) and different commercial uses (exports and domestic consumption).
13. World Bank Group staff estimates using data from the United Nations Comtrade database and the International Trade Centre's Trade Map (<http://trademap.org>).
14. World Bank (2020b).
15. Fresh Plaza (2021).
16. Ewing-Chow (2020).
17. FAO (2020).
18. GCF (2020).
19. Vaqué (2017).
20. A caveat to using RCA is that the data utilized is retrospective and both farm yield and RCA are vulnerable to market distortions.
21. The competitiveness score = 50 percent * (Jamaica yield / global average yield) + 50 percent * RCA.
22. The economic impact score combines the following parameters, with the weightings for each shown in parentheses: current value of production (25 percent), current value of unprocessed exports (10 percent), current value of processed exports (25 percent), growth in value of exports (5 percent), growth in production (5 percent), value of global trade (10 percent), growth in value of global trade (5 percent), value of imports (10 percent), and growth in value of imports (5 percent).
23. Other food items—including alcoholic beverages, fish and crustaceans, livestock products, and coffee—had good competitiveness and economic impact scores but were not selected for deeper analysis. The data and sector consultations suggested that those subsectors have fewer opportunities for transformational investments and sustainable production.
24. Center for Leadership and Governance (2019).
25. IFC (2020).
26. FAO (2019).
27. Jamaica Observer (2018).
28. The horticulture sector can be segmented based on market demand and solutions offered to those markets. In terms of demand, consumers are split into four categories based on what drives their product selection: calories (to meet basic needs), nutrition (to meet caloric needs with products that deliver nutritional benefits), convenience (to satisfy consumption), and taste (to satisfy an experience). In terms of supply, solutions offered to the market are defined around product perishability and the need to deliver products more frequently.
29. AIC (2020).
30. FAO (2007).
31. For instance, between 1995—around the time land auctions were introduced—and 2019, asparagus exports increased from US\$22 million to US\$377 million, while artichokes (fresh and preserved) grew from around US\$10 million to US\$265 million. Avocados and quinoa went from not being exported in 1995 to exports of US\$759 million and US\$125 million in 2020, respectively (International Trade Centre Trade Map).
32. This point was made by the stakeholders interviewed and cited in Jamaica Observer (2018).
33. For the Criminal Justice (Suppression of Criminal Organisations) (Amendment) Act of 2021, see <https://japarliament.gov.jm/attachments/article/339/Criminal-Justice--Suppression-of-Criminal-Organizations---Amendment--Act--2021-long-form.pdf>.
34. Shik, Boyce, and De Salvo (2017).
35. Shik, Boyce, and De Salvo (2017).
36. FAO (2019a).
37. Efforts related to building supply chain links have also been made by the Jamaica Business Fund. The fund is supported by the government's Foundations for Competitiveness and Growth

- Project, which is financed by the World Bank. The fund supports capabilities upgrading of small and medium enterprises in specific supply chains (including agriculture), with the aim to increase output and product quality and thus sales to buyer/anchor firms.
38. Global Property Guide (2007); Gentzkow (1998); Stanfield, Barthel, and Williams (2003).
 39. Gainer (2017).
 40. Shik, Boyce, and De Salvo (2017).
 41. FAO and CDB (2019).
 42. Geographic indication identifies a good as originating in the territory of a specific country or a region in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.
 43. Shik, Boyce, and De Salvo (2017).
 44. Shik, Boyce, and De Salvo (2017).
 45. Shik, Boyce, and De Salvo (2017).
 46. World Bank Group Enabling the Business of Agriculture database.
 47. MICAF (2019).
 48. Plant breeders' rights (also known as plant variety rights) are granted to breeders of new plant varieties, which gives them exclusive control over the propagation (including seed, cuttings, divisions, and tissue culture) and harvest (cut flowers, fruit, foliage) material for a number of years.
 49. JAMPRO (2018).
 50. Axco (2019).
 51. FAO and CDB (2019).
 52. FAO (2021a).
 53. FAO (2021a).
 54. FAO (2015).
 55. FAO (2018); Williams (2017).
 56. World Bank (2020a).
 57. MoAF (2013).
 58. CDB (2020); FAO (2019).
 59. FAO and CDB (2020).
 60. Ewing-Chow (2020).
 61. Shik, Boyce, and De Salvo (2017); FAO (2015).
 62. IICA (2018).
 63. Selvaraju (2013).
 64. Ewing-Chow (2020).
 65. Ewing-Chow (2020).
 66. Selvaraju (2013).
 67. Ewing-Chow (2020).
 68. Smith (2020a).
 69. Smith (2021b).
 70. Wipro (2021).
 71. The non-BPO services segments of the industry are a negligible portion of the overall market both in revenue and employment terms.
 72. Jamaica Promotions Corporation, Global Services Sector Development Team estimates.
 73. The Global Services Sector Project is funded by the Inter-American Development Bank with the main objectives to improve the skills development system in the sector, particularly in higher value-added jobs and to strengthen Jamaica's capacity to attract investment and increase exports. For more information, see <https://dobusinessjamaica.com/invest/sectors/global-services-sector-project/>.
 74. Aggregated data from public and private universities in Jamaica.
 75. Global Services Association of Jamaica survey.
 76. For the Speedtest Global Index, see <https://www.speedtest.net/global-index>.
 77. Smith (2021a).

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