OECD Development Pathways

Production Transformation Policy Review of the Dominican Republic

PRESERVING GROWTH, ACHIEVING RESILIENCE

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Foreword

The Production Transformation Policy Reviews (PTPRs) are an OECD policy assessment and guidance tool that supports policy makers in the creation and implementation of better strategies for transforming their economies. They benefit from international peer dialogue and discussions under the aegis of the OECD Initiative for Policy Dialogue on Global Value Chains, Production Transformation and Development.

The PTPR of the Dominican Republic involved a 15-month peer review process. It was requested by the National Competitiveness Council (CNC) and the Ministry of Industry, Trade, Micro and SMEs (MICM). It was carried out by the OECD Development Centre in co-operation with the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). It benefited from peer review by the Ministry of Agriculture of Brazil and the Reshoring Institute of the United States. It also benefited from feedback from the Peer Learning Group (PLG) of the PTPR of the Dominican Republic. The group met in Peru, hosted by the Ministry of Trade and Industry and included the participation of 48 international experts from 12 countries representing governments, private sector, universities and international organisations.

The PTPR of the Dominican Republic analyses the national strategy for economic transformation with a focus on agro-food and nearshoring. This report comes as the world grapples with a global public health emergency, the COVID-19 pandemic, which has also brought on a major economic crisis. There is no end to the questions facing the global economy at this moment. However, it stands to reason that, in the medium-term, demand will refocus on essential needs, creating major interruptions to most supply chains.

The PTPR process identified opportunities to strengthen local industrial capabilities and prioritise policy approaches in the coming years. Given these historic challenges, this review can be all the more relevant by providing an analysis of the overall national strategy, governance, and tools for transforming the economy of the Dominican Republic at a time of tremendous tragedy, stress and uncertainty.

Acknowledgements

The Production Transformation Policy Review (PTPR) of the Dominican Republic is the result of a 15-month in-depth policy review and consensus-building process.

The report has been produced by the OECD Development Centre in co-operation with the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). The report and the PTPR process have come together under the strategic guidance of Annalisa Primi, Head of the Structural Policies and Innovation Unit at the OECD Development Centre. Keith Nurse, President of Sir Arthur Lewis Community College and Senior Advisor to the Head of Structural Policies and Innovation Unit at the OECD Development Centre (from July to October 2019) contributed as senior lead analyst in the process. Manuel Toselli, Economist at the OECD Development Centre acted as PTPR co-ordinator and main analyst. Piergiuseppe Fortunato, Economic Affairs Officer (UNCTAD) and Nicolo Gligo, Economic Affairs Officer (ECLAC) led UNCTAD and ECLAC participation in the process respectively. Elisabeth Lambrecht and Vasiliki Mavroeidi contributed to the drafting. The report benefited from comments from Nadim Ahmad, Wanda Montero Cuello, Juan Vasquez (from OECD), and Alvaro Calderon, Marco Dini y Sebastian Herreros (ECLAC). Antonela Leiva and Jocelene Fouassier provided administrative support. Delphine Grandrieux co-ordinated the publication process. Aida Buendia and Irit Perry handled graphics for the report, which also benefited from editing by Carter Dougherty.

The authors are thankful to Rafael Paz, Executive Director of the CNC at the time of the implementation of the PTPR for leading the process and consensus-building activities in the Dominican Republic. Laura del Castillo, Executive Director of the CNC ad Interim as of March 2020, has taken up the project leadership. We are immensely grateful for her guidance and flexibility. The authors thank Minister of Industry, Trade Micro and SMEs (MICM) Nelson Toca for sharing knowledge, experience and support during the entire process and for participating in 13th Plenary Meetings in Cairo (Egypt) and sharing the experience of the Dominican Republic and the PTPR with the OECD Initiative on Global Value Chains (GVCs), Production Transformation and Development. We are also grateful to the former Minister of Economy and Planning (MEPyD) Isidoro Santana. The PTPR has benefited from the commitment and contribution of the Local Team led by Laura del Castillo. We are grateful to Rosario González Plaza and Hector Comas for the excellent organisational support. The Dominican Republic diplomatic authorities in France have been essential in ensuring effective project implementation and smooth contact with local counterparts. We are thankful to Ambassador Rosa Hernández de Grullón and particularly to the first secretary Melissa Marcelino.

Leveraging the wisdom and insights of colleagues around the world lies at the heart of the PTPR process. The PTPR of the Dominican Republic has been shaped and enriched by the contributions of international peers who actively participated in the field missions and contributed ideas to the review. We are grateful to Ambassador Carlos Márcio Cozendey, Daniela Arruda Benjamin and João Marcelo Conte Cornetet for the support and interest in the PTPR process. We thank the Ministry of Agriculture of Brazil and in particular Mariane Crespolini, Director of Sustainable Production and Irrigation, for participating as peer in the process. We are also grateful to the Reshoring Institute of the United States for participating as peer, in particular Rosemary Coates, Executive Director and Chairman of the Board of the Institute.

Valuable input originated at the PTPR Peer Learning Group hosted by the Government of Peru in April 2019, which saw the participation of 48 high-level representatives from 12 countries, 4 business associations and companies, 5 universities, 5 international organisations and 3 OECD directorates. We are thankful to the Ministry of Foreign Trade and Tourism of Peru; Luca Turello, Head of Agronomy Procurement Department, Illy; Isabella Falco, Director Department of Country Image of Promperu, Peru; Brian Daigle, International Trade Analyst at U.S. International Trade Commission (USITC) United States:; Johannes Dobinger, Representative in the Andean Region, UNIDO; Martin Peter, Director for Economic Development in Peru, Swiss State Secretariat for Economic Affairs (SECO), Switzerland; Charles Wessner, Professor of Global Innovation Policy, Georgetown University, United States; and Karl-Christian Göthner, Senior Expert, German National Metrology Institute (PTB), Germany.

The PTPR is the result of an extensive and open consultation with diverse stakeholders in the Dominican Republic.

- Two meetings of Task Force on Production Transformation steered the PTPR process. They were co-chaired by the CNC and MICM and composed by representatives from key government and implementation agencies, including MEPYD, the Ministry of Agriculture (MINAGRI), the Ministry of Higher Education, Science and Technology (MESCYT), the Industrial Development and Competitiveness Centre (PROINDUSTRIA), the Export and Investments Centre of the Dominican Republic (CEI-RD), the Industrial Property Right National Office (ONAPI) and the National Council of Free Trade Zones (CNZFE). The private sector participated to the task force with the National Council of Private Enterprise (CONEP), the Dominican Industrial Association (AIRD), the Agro Entrepreneurial Board (JAD) and the Dominican Association of Free Zones (ADOZONA).
- Two round tables for production transformation in the Dominican Republic. Participants discussed strategies, policy tools, and partnerships needed for sustaining the Dominican agro-food industry and to fostering nearshoring activities at two separate roundtables. Both events brought together 40 representatives of private and public sectors each. Strategic partners and leading companies have been key in sharing their views about the future and shaping the content of this report; in particular we thank the American Chamber of Commerce of the Dominican Republic (AMCHAMRD), Medtronic, Consorcio Citricos Dominicanos, Rica Group, and Rizek Cacao.
- Semi-structured interviews with more than 50 experts from business, government and academia in the Dominican Republic have been extremely relevant in shaping the report. In addition to the people mentioned above, we acknowledge the time and contributions of (by institutional alphabetical order): AIRD: Carlos Rodríguez Alvarez; CEI-RD: Marius de Leon, Tamara Vasquez and Victor Encarnacion; CNZFE: Luisa Fernandez Duran and Yarisol López; DGII: Hamlet Gutierrez; Grupo Rica Horacio Lombas; IDIAF: Rafael Pérez Duvergé; IIBI: Agripina Ramirez Sánchez; JAD: Claudia Chez; MEPYD: Isidoro Santana (Minister) and Martin Franco; MESCYT: Placido Gomez; MICM: the Vice-ministers Ignacio Méndez Fernández, Juan Tomás Monegro, Yahaira Sosa Machado and Marcelo Puello Avalo; MINAGRI: Osmar Benitez (Minister); Ministry of the Presidency: Zoraima Cuello and Diana Rivas Reyes; ONAPI: Ruth Alexandra Lockward; PROINDUSTRIA: Alma Fernández and Wilfredo Oliver.

Finally, this report would have not been possible without the contribution of key bodies in the Dominican Republic, in particular of CNC and MICM.

Editorial

No unique pathway to development exists. Each country's experience sheds light on what key factors explain success in different contexts and historical moments, including what role institutions and policies might have played.

In a complex and fast-changing global landscape, anticipating and adapting quickly to changes is critical to sustain growth and ensure that it benefits all of society. This is even more so true now that the COVID-19 outbreak has plunged countries worldwide in an unprecedented health emergency, giving rise to steep economic challenges.

Since 2017, the Production Transformation Policy Reviews (PTPRs) have supported governments in transforming their economies through policies, making them more resilient, green, and inclusive.

Throughout the last decade, the Dominican Republic has been the fastest growing economy in Latin America and the Caribbean. Despite its success, the country still runs the risk of becoming an enclave economy where a highly productive and export-oriented sector permanently co-exists with informal and low productive activities. Furthermore, with an economy relying on tourism, remittances and foreign direct investment (FDI), the country is highly exposed to the consequences of the current pandemic and global recession. It is therefore of outmost importance that, while facing the health emergency, the country also takes steps to mitigate the impact of the economic crisis and set the basis to progress towards more sustainable and inclusive development.

The *Production Transformation Policy Review (PTPR) of the Dominican Republic* adopts a forward-looking framework to assess the country's readiness to embrace change and identifies priorities for future reforms. It looks with particular attention to the future of agro-food and nearshoring industries, which the ongoing global crisis might significantly affect. More broadly, this report contributes to the debate on strategic and long-run policy planning, and the importance of policy making to reduce vulnerability, increase resilience, and cushion the impact of external shocks in the economy.

Mario Pezzini

Director, OECD Development Centre and Special Advisor to the OECD Secretary-General on Development

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Director, Globalisation and Sustainable Development, UNCTAD

Table of contents

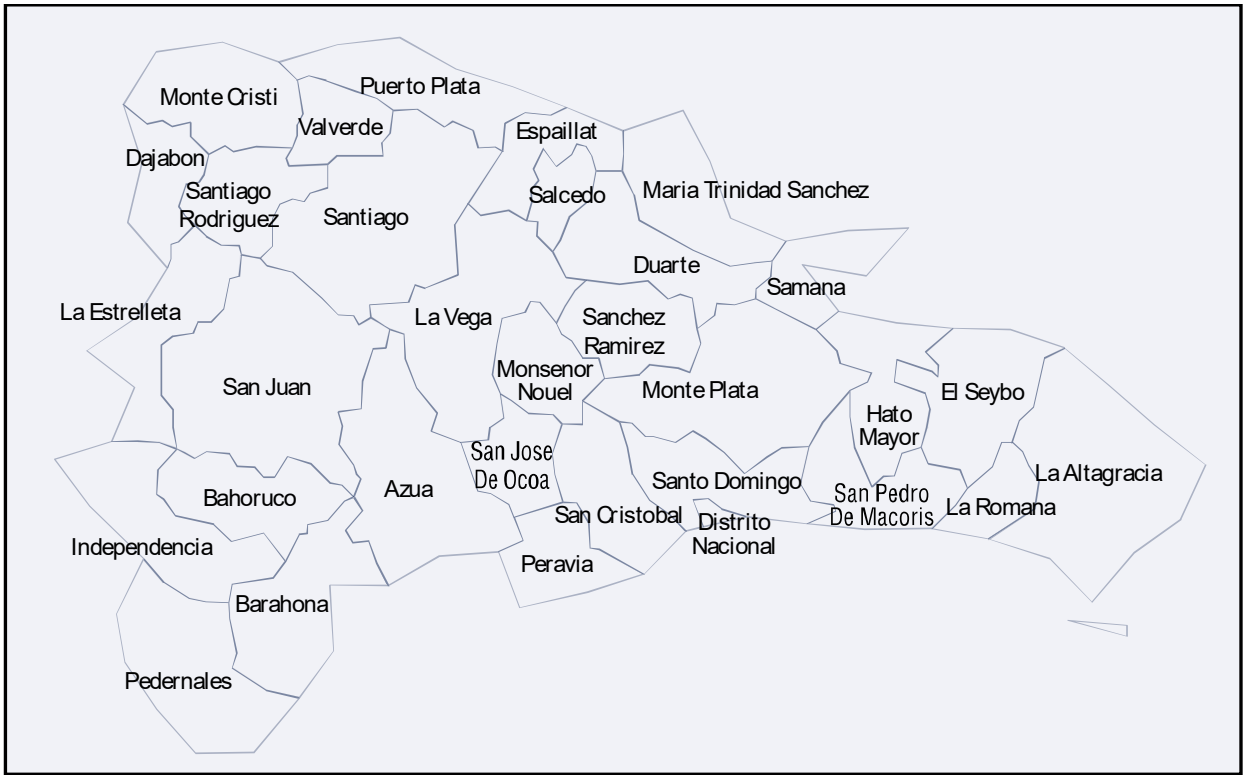
FIGURES

TABLES

Country profile

The Dominican Republic is a unitary country. It includes 31 provinces and the National District where the national capital, Santo Domingo, is located (Figure 1). The 31 provinces are divided into 158 municipalities. The president appoints the governors of the provinces with the exception of the National District, in which the citizens elect the governor. The country has a population of 10.8 million in 2018, an increase of 2.4 million since 2000. The most populous city in the country is the capital, Santo Domingo, with 1.4 million inhabitants.

Figure 1. Administrative provinces of the Dominican Republic



Note: The map included herein is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Table 1. Main economic indicators of the Dominican Republic, 1970-2019

	1970	1980	1990	2000	2010	2019[1]
Population						
Population, total (millions)	4.5	5.8	7.2	8.6	9.9	10.6[2]
Labour force, total (millions)	...	...	2.8	3.6	4.3	5.2
Unemployment, total (% of total labour force) (national estimate)	...	...	...	6.4	5.2	5.6
Employment-to-population ratio	...	…	…	54.8	53.8	60
Aggregate economy						
GDP, million USD (constant 2010)	...	…	19 232	36 322	53 860	81 805[2]
GDP, million USD current	1 485.5	6 761.3	7 073.7	24 305.1	53 982.9	85 555.2[2]
GDP per capita, USD current	329.9	1 163.9	984.7	2 838.5	5 453.9	8 051[2]
GDP per capita USD (constant prices and PPP 2010)	…	…	5 477.1	8 200.4	11 132.6	14 880[2]
GDP growth (average previous 10 years)	6.2	7.2	2.5	6.0	4.7	5.6[2]
Gross fixed capital formation (% of GDP)	16.6	23.4	23.1	25.1	25.2	21.9[2]
Inflation, consumer prices (annual %)	3.8	16.8	50.5	7.7	6.2	3.3[2]
External sector						
Trade (% of GDP)	45.9	54.4	69.2	79.3	56	54
Exports of goods and services (million USD constant 2010 prices)	2 606.2	5 619.1	5 495.9	11 282.6	1 2241	18 502.9[2]
Imports of goods and services (million USD constant 2010 prices)	3 663.6	6 223.8	6 345.5	14 832.6	17 989.4	21 104.1[2]
High-technology exports (% of total exports)	...	...	...	…	2.3	7.7[2]
(% of manufactured exports)						13.7[2]
Economic activities						
Agriculture, forestry, and fishing, value added, million USD constant 2010 prices (% of gross value added)	1 019.2 (13.4)	1 420.8 (9.07)	1 481.2 (7.5)	1 967.3 (6.0)	3 269.9 (6.5)	4 399.3[2] (6.1)
Industry (including construction) value added, million USD constant 2010 prices (% of gross value added)	1 805.1 (13.8)	4 261.1 (27.2)	5 456.8 (27.5)	10 974.5 (33.6)	15 073.9 (29.9)	23 221.9 (32.4)
Of which manufacturing (% of gross value added)	1 459 (19.2)	2 889.8 (18.5)	3 555.9 (17.9)	6 432.1 (19.7)	8 242.7 (16.4)	10 421.6 (13)
Services value added, million USD constant 2010 prices (% of GDP)	4 379.4 (39.8)	9 058.2 (43.1)	12 004 (47.7)	19 908.5 (52.1)	32 008 (59.3)	43 962.6 (59.8)
Total natural resources rents (% of GDP)	0.7	3.2	2.0	0.7	0.2	…
Energy						
Electricity production from renewable sources, excluding hydroelectric (% of total)	…	2.3[3]	0.7	0.2	0.2	…
Electricity production from hydroelectric sources (% of total renewable sources)	…	17.1	9.4	8.9	11.8	…
Renewable energy consumption (% of total final energy consumption)	…	…	28.0	18.4	16.9	…
Renewable electricity output (% of total electricity output)	…	…	10.1	9.2	11.9	…
ICT indicators						
Fixed broadband subscriptions (per 100 people)	...	...	...	…	3.9	7.3[2]
Mobile cellular subscriptions (per 100 people)	...	...	0.1	8.2	89.9	81.5[2]

Note: **1.** estimated value, **2.** 2018, **3.** 1975.

Source: OECD National accounts, IE Statistics, International Telecommunication Union, World Telecommunication/ICT Development Report and database, United Nations Comtrade database, ILOSTAT database, International Monetary Fund, International Financial Statistics, United Nations Education, Scientific, and Cultural Organization (UNESCO) Institute for Statistics and World Bank Statistics.

Abbreviations and acronyms

ADOZONA	Dominican Association of SEZs
AIRD	Dominican Republic Industries Association
ANATER	National Agency of Technical Assistance and Rural Extension
ANII	National Innovation and Research Agency of Uruguay
ASCM	Agreement on Subsidies and Countervailing Measures
CAFTA-DR	Dominican Republic-Central America Free Trade Agreement
CEDAF	Centre for Agriculture and Forestry Development
CEI-RD	Export and Investments Centre of the Dominican Republic
CFI	Industrial Development Corporation
CIAT	International Advisory Commission of Science and Technology
CIDT	Council for Innovation and Technological Development
CIS	Community Innovation Surveys
CNC	National Competitiveness Council
CNZFE	National Council of Free Trade Zones
CODOCA	Dominican Council for Quality
CONARE	National Council for State Reform
CONEP	National Council of Private Enterprise
CONESCYT	National Council of Higher Education, Science and Technology
CONFUTUR	Tourism Promotion Council
CONIAF	National Agricultural and Forestry Research Council
DIGENOR	General Direction for Norms and Quality System
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
EDF	European Development Fund
EMBRAPA	Brazilian Agricultural Research Corporation
EPA	Economic Partnership Agreement
ESR	export share requirement
EU	European Union

FAO	Food and Agriculture Organization
FDI	Foreign direct investment
FEDA	Special Fund for the Agricultural Development
FONDEC	Competitiveness Fund
FONIAF	National Agricultural and Forestry Research Fund
FONTAGRO	Latin America's Regional Fund for Agricultural Technology
FTAs	Free trade agreements
FTZs	Free Trade Zones
GDP	Gross domestic product
GFCF	Gross fixed capital formation
GVCs	Global value chains
IADB	Inter-American Development Bank
ICT	information and communication technology
IDIAF	Dominican Institute of Agricultural and Forestry Research
IIBI	National Institute for Biotechnology and Industry
INDOCAL	Dominican Institute for Quality
INFOTEP	National Institute of Vocational Technical Training
IP	Intellectual Property
JAD	Agro Entrepreneurial board of the Dominican Republic
KOICA	Korea International Cooperation Agency
LAC	Latin America and the Caribbean
MEPyD	Ministry of Economy, Planning and Development
MESCyT	Ministry of Higher Education, Science and Technology
MFA	Multifiber Agreement
MICM	Ministry of Industry, Trade and Micro and SMEs
MINAGRI	Ministry of Agriculture
MSMEs	Micro, small and medium enterprises
NDS	National Development Strategy
NIST	United States National Institute of Standards and Technology
ODAC	Dominican Accreditation Body
OECD	Organisation for Economic Co-operation and Development
ONE	Dominican National Statistical Office
PROMIPYME	National Council for the Promotion and Support of Micro, Small and Medium Enterprises
PTB	German National Metrology Institute
PUCMM	Pontifical Catholic University

R&D	Research and development
RICYT	Ibero-American Network for Science and Technology Indicators
SBIR	Small Business Innovation Research Program
SIDOCAL	Dominican System of Quality
SINASSAN	National System for Food and Nutrition Independency and Safety
SNESCYT	National System for Higher Education, Science and Technology
SNIDT	National System of Innovation and Technological Development
STI	Science technology and innovation
TFP	Total factor productivity
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
USDA	United States Agency for International Development
WB	World Bank
WTO	World Trade Organisation

Executive summary

The Dominican Republic, though the fastest-growing economy in Latin America and the Caribbean since 2010, cannot afford complacency. The country has made notable strides over the past two decades in diversifying its trade and investment structure. However, it still lacks a production base that is diverse and innovative enough to create resiliency to external shocks. From 98 trading partners in 2000, the Dominican Republic expanded up to 147 by 2017. The United States remains the principal economic partner, but went from accounting up 75% of Dominican exports to slightly more than 50% between 2000 and 2019. The Dominican Republic has expanded its investment network by receiving investments from new countries and in new industries, such as medical devices. Tourism has come to play a vital role in the economy. From 2000 to 2018, the number of tourists more than doubled from 3.3 to 7.2 million. The country is now the main destination for tourism in the Caribbean, attracting 24.1% of the total number of visitors in 2018, and the fourth most popular destination in the Latin America, after Argentina, Brazil and Chile. The industry poses challenges about energy, water use and waste management, and the COVID-19 pandemic has created an urgent need to cushion the short and medium-term impact on the sector.

Economies that have benefited from globalisation have common traits that the Dominican Republic could emulate. Reducing dependency on a single market, managing complex trade networks, strengthening regional ties, and branding themselves as reliable, high quality trade and manufacturing partners, are some of these characteristics. In the Dominican Republic, FTZs have not yet become a driver of local development and, on average, local sourcing has declined. Between 2005 and 2018, the share of inputs sourced locally by firms located in FTZs decreased from 22% to 18%. In the case of some of the newly installed activities in the FTZs, such as medical devices, there is no ready-made local industrial base from which to source, as the industry is new. Small companies have unexploited potential to drive growth in the Dominican Republic. Micro, small and medium-sized firms are less export-oriented than their peers in OECD countries are. These firms employ 65% of the total work force, contribute to 40% of total value added and account for 23% of domestic exports, while in OECD countries these firms account for 40% of total exports. In addition, the majority of these firms in the Dominican Republic are micro, which increases their fragility and vulnerability to crises.

The COVID-19 crisis may accelerate existing global trends and as such makes more urgent addressing structural weaknesses that lurked beneath the surface well before the pandemic. This situation demands an unprecedented policy effort to ensure a prompt and effective health response, and to guarantee short-term support for workers and firms. Dominican labour costs are competitive at a time when labour costs are no more crucial for location decisions of MNEs. Labour costs are at 6% of those in the United States and are lower than in China, however markets will increasingly value sustainability and social inclusiveness and accountability. In addition, countries worldwide are shifting their attention towards the need to rebuild domestic manufacturing capabilities in their economies, a trend which was present before COVID-19 and which the current crisis is magnifying.

The agro-food industry is a mainstay of the Dominican Republic's economy. Alongside coping with COVID-19, the industry and its stakeholders must grapple with changing demands, as consumers are reorienting choices, with new safety measures in the workplace for small farmers and logistics operators,

and with challenges in importing and exporting. Value chains will tend to be shorter, the use of digital technologies for traceability and transparency will increase, and firms will face growing domestic demand as they tap into regional markets. Increasing innovation capacity, improving country branding and enabling small farmers to navigate change through modernised extension services will remain key to success.

As part of the national development vision for 2030, the Dominican Republic has implemented reforms that can underpin a new growth model. It has developed a digital agenda with a budget of USD 133 million mostly to fast track the use of digital technologies in schools. A new online platform offers a one-stop shop for the administrative procedures required to start a business, under the auspices of the National Competitiveness Council. The national quality infrastructure system has also improved. However, the policy mix still leans heavily on indirect financial support in the form of special fiscal regimes. While this has well served the economy to attract investment and foster over time the development of new activities in the economy, including recently the creative industries, the policy mix would require an update to unleash the local entrepreneurial potential and foster innovation.

The enduring challenge will be updating the country's development model through targeted reforms. Specifically, the Dominican Republic needs to pursue three goals:

Strengthening its governance capacity to anticipate and adapt to change. Planning involves not only the decision on what to do and how do to it. Planning is increasingly linked to the capacity to identify possible outcomes, clarify what is desirable and what is risky, and having back-up plans to act in case of sudden and unexpected changes. National leadership needs to value prospective work and to ensure co-ordination and consultation with stakeholders. The ongoing crisis has shown that even good is not enough. Governments need to communicate their vision effectively, maintain an open dialogue with citizens and stimulate individual responses to challenges in line with collective interest. The Dominican Republic counts with a planning ministry. The country should strengthen its prospective and foresight functions. Strengthening planning would also require shifting towards a place-based approach to policy making and developing a system for territorial development.

Diversifying its trade and investment base and increasing regional economic ties. The country would need to align the FDI policy with the national development strategy by complementing incentive packages with targeted tools to foster local industrial development. The country would also benefit from an institutional upgrading. The Dominican Republic counts with multiple bodies that deal with FDI, fully empowering one agency would be a critical step forward. Existing institutions, as the Centre for export promotion and investment attraction, could perform this function if properly modernised and reformed. The agency in charge needs to be able to operate quickly, have timely access to decision-making and needs a qualified staff well aware of private sector's challenges.

Boosting innovation by filling institutional gaps and mobilising long-term financing. While there is consensus that innovation matters for development, the country falls short in terms of institutions, funding mechanisms, and overall policy mix to foster start-up development and innovation. The country needs an agile, small and with a clearly assigned budget innovation agency. Innovation funding should be multi-year and the processes for funding disbursement should be fast and transparent. The country needs long-term financing for production development. A properly functioning development bank would be a desirable step forward. Bandex could perform this function if properly reformed to offer long-term financing for production development, innovation and exports. This requires careful due diligence and institutional design and a neat division of labour with existing commercial banks.

The economic outlook for trade, tourism and investment is highly uncertain. The Dominican Republic must prepare for a world in which resilience will be critical. Diversifying economically, innovating, and better sharing the gains of growth are key steps forward. A committed government, a cohesive society and a private business community willing to invest and take risks are essential to succeed.

Assessment and recommendations

The Dominican Republic, though the fastest-growing economy in Latin America and the Caribbean since 2010, cannot afford complacency. The COVID-19 crisis may accelerate existing global trends that created the need for reforms addressing structural weaknesses that lurked beneath the surface well before the pandemic. The current situation demands an unprecedented policy effort to ensure a prompt and effective health response, and to guarantee short-term support for workers and firms. The enduring challenge will be updating the country's development model through targeted reforms. Specifically, the Dominican Republic needs to pursue three goals: 1) Strengthening its governance capacity to anticipate and adapt to change; 2) Diversifying its trade and investment base and increasing regional economic ties; and 3) Boosting innovation by filling institutional gaps and mobilising long-term financing.

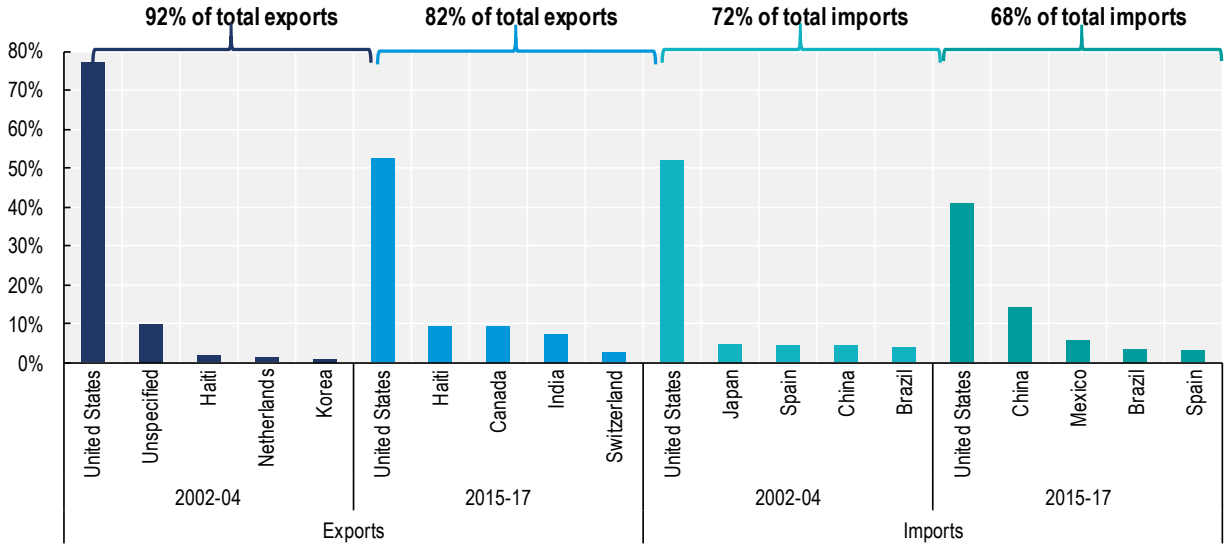
> *The Dominican Republic has made notable strides over the past two decades in diversifying its trade and investment base. However, it lacks a base that is diverse and innovative enough to create resilience to external shocks, whether those shocks relate to economic – or public health – conditions*

The country can look back on 20 years of progress from being a relatively isolated island economy to one integrated into global developments and trends, a change that is mostly a blessing but – as the current pandemic demonstrates – can also be a curse. How the Dominican Republican can continue to benefit from the good, while warding off the bad should be a central matter of concern for policy makers in the coming years.

From 98 different trading partners in 2000, the Dominican Republic expanded to include 147 by 2017, a solid feat. Equally importantly, the United States went from taking up 75% of Dominican exports to slightly more than 50% (Figure 0.1). It simultaneously deepened the relationship and lessened its dependence on its mighty neighbour in the north. The Dominican Republic has also expanded its investment network by receiving investment in new industries, such as medical devices, and by formalising a diplomatic relationship with the People's Republic of China (hereafter "China") in 2019, opening up new possibilities. Other new investors have also started to emerge in the last decade, notably Brazil and Turkey.

Figure 0.1. Dominican Republic's top 5 trading partners, 2002-04 and 2015-17

Share of total gross merchandise exports and imports



Source: Authors' elaboration based on UN Comtrade database, 2019 https://comtrade.un.org/.

The United States remains the main investor in the country, accounting for 23% of total FDI in the economy, but its relevance is 5% less than in 2010-14. Three sectors account for 95% of all FDI from the United States: manufacturing is the first, accounting for 65% of the FDI from the United States, followed by customer and market services (20%) and business services (10%). This pattern shows a stark difference with neighbouring Costa Rica, a somewhat comparable economy that since the 2000s has focused on attracting knowledge-intensive FDI. In fact, manufacturing accounts for 31% of all FDI from the United States, followed by customer and market services (15%), and R&D (13%). The top three sectors account for 65% of FDI from the United States, a full 35 percentage points less than the Dominican Republic. Furthermore, the Dominican Republic captures only 0.8% of the total investment flows within Latin America and the Caribbean while Costa Rica reaches 4.6%.

Tourism has come to play a vital role in the economy. From 2000 to 2018 the number of tourists more than doubled from 3.3 to 7.2 million. The country is now the main destination for tourism in the Caribbean, attracting 24.1% of the total number of visitors in 2018, and the fourth most popular destination in Latin America, after Argentina, Brazil and Chile. But the industry poses challenges with regards to energy, water use and waste management. And the COVID-19 pandemic has created an urgent need to cushion the short and medium-term impact on the sector.

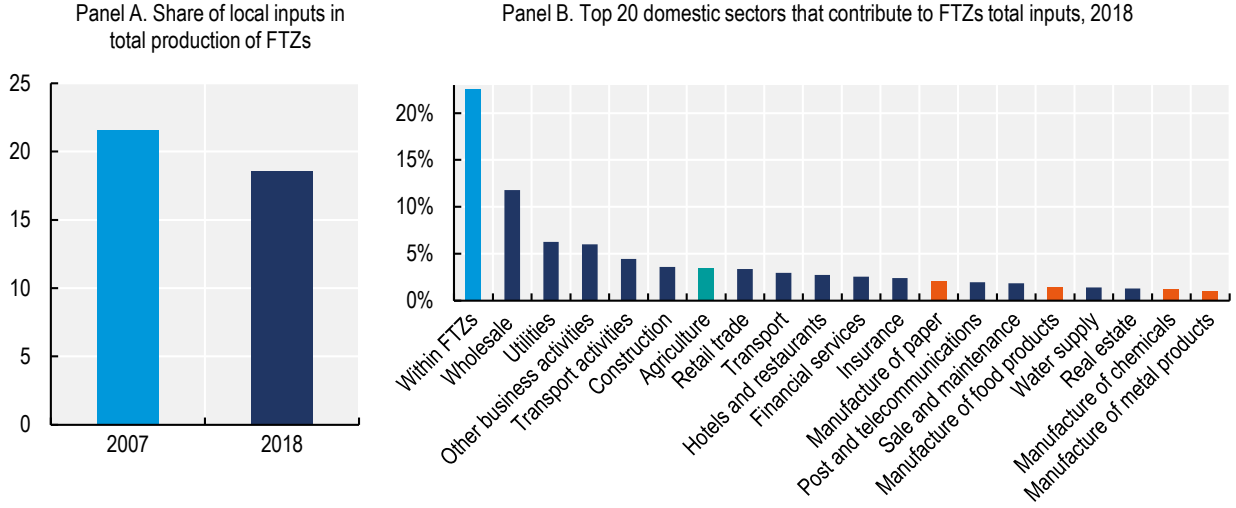
The country's Free Trade Zones (FTZs) have changed in nature, after having been established in the late 1960s mostly to attract assembly operations in textiles and garment and electronics. From 1995 to 2017, the share of exports from FTZs on total exports decreased from 80% to 56% from 1995 to 2017. The expiration of the multilateral system of apparel quotes radically altered the global trade conditions in the sector, inducing a reconfiguration of Dominican FTZs towards services and other activities.

Economies that have benefited from globalisation have common traits that the Dominican Republic could emulate. Reducing dependency on a single market, managing complex trade networks, strengthening regional ties, and branding themselves as reliable, high-quality trade and manufacturing partners, are some of those characteristics.

The Dominican Republic has a small trade network, loosely connected to regional value chains when compared with, for example, Singapore. Only 8 countries account for over 1% of total intermediate exports from the Dominican Republic, versus 18 for Singapore. Moreover, while Singapore is highly connected to regional partners, the Dominican Republic imports mostly from the United States and to lesser extent from China, and exports predominantly to the United States. In contrast, Singapore can reap the benefits of the dense value chains that have developed in Asia.

FTZs have not yet become a driver of local development and, on average, local sourcing has declined. Firms operating in garment and textiles source 28% of their inputs locally, and new industries tend to rely less on local providers (Figure 0.2). Between 2005 and 2018, the share of inputs sourced locally by firms located in FTZs decreased from 22% to 18%. In the case of some of the newly installed activities in the FTZs, such as medical devices, there is no ready-made local industrial base from which to source, as the industry is new. In fact, the firms operating in the FTZs in medical devices, source only 3% of their inputs locally.

Figure 0.2. What are firms in the FTZs sourcing locally in the Dominican Republic?



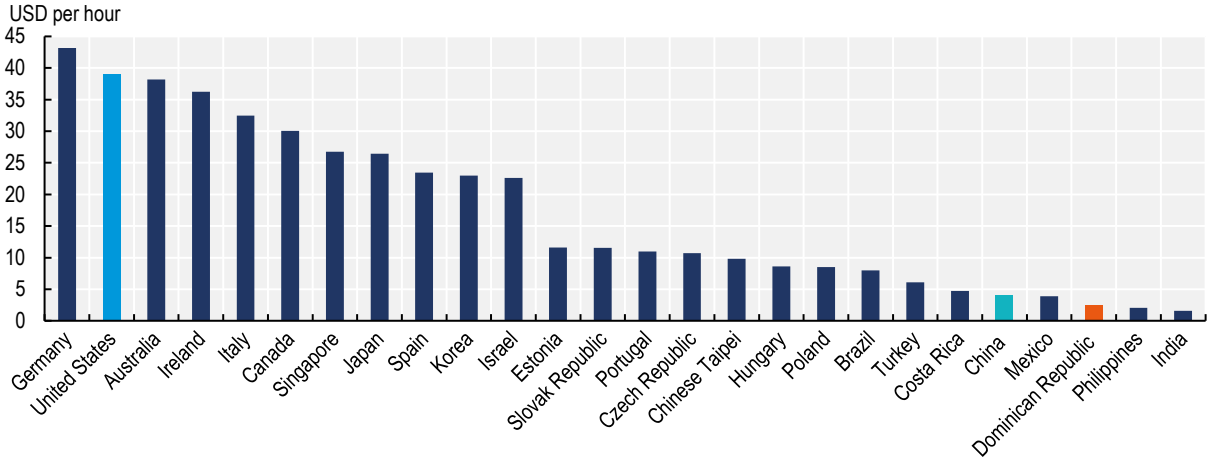
Source: Authors' elaboration based on General Directorate for Taxes DGII http://www.dgii.gov.do/ and Dominican Republic Central Bank, 2019 https://www.bancentral.gov.do/.

The Dominican Republic's export profile shifted from labour-intensive manufacturing to primary commodities. These nowadays account for 43% of domestic exports and the main items include gold, tobacco and fruits and vegetables. The end of the garment trade framework and the start of new mining projects explain the shift. A partnership pact between the European Union and CARIFORUM, signed in 2008, raised agricultural exports by more than 20% between 2013 and 2017, with Germany, the United Kingdom, France and Italy as main importers.

Dominican labour costs are competitive at a time when labour costs are not determinant of firm decisions on where to locate. Labour costs in the Dominican Republic are 6% of those in the United States and are lower than in China (Figure 0.3). Markets would wide increasingly value sustainability and social inclusiveness and accountability on these fronts. In addition, countries are increasing their attention towards the need to rebuild domestic manufacturing capabilities in their economies, a trend which was present before COVID-19 and which the current economic crisis is magnifying.

Figure 0.3. Labour costs in the Dominican Republic are 6% of those in the United States

Hourly labour cost in manufacturing, the Dominican Republic and selected countries 2018 or last available year

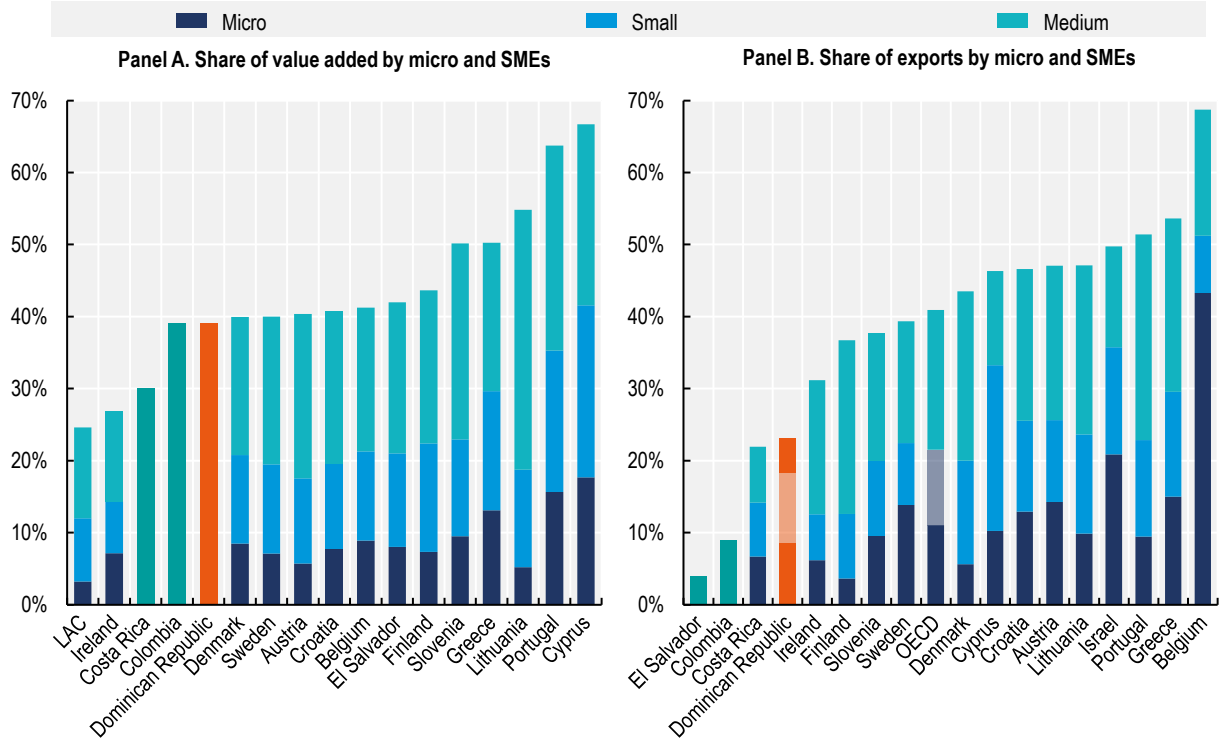


Note: Labour cost includes direct pay, social insurance expenditures, and labour-related taxes. Costa Rica (2018); Dominican Republic (2017); China (2013); India (2014); all other countries (2016).
Source: Authors' elaboration based on Conference Board International Comparisons of Hourly Compensation Costs in Manufacturing, https://www.conference-board.org/, Dominican Republic National Survey of Economic Activity (ENAE), https://www.one.gob.do/encuestas/enae and Costa Rica National enterprises survey http://www.inec.go.cr/, 2019.

Small companies have unexploited potential to drive growth in the Dominican Republic. Micro, small and medium-sized firms are less export-oriented than their peers in OECD countries. These firms employ 65% of the total workforce, contribute to 40% of total value-added and account for 23% of domestic exports (Figure 0.4). In OECD countries, these firms account for 40% of total exports. And in the Dominican Republic of these firms the majority are micro, which increases their fragility and vulnerability to crises.

Figure 0.4. MSMEs contribute only 23% to national exports, while in OECD they account for 40%

Dominican Republic and selected economies, 2018 or last available year



Note: The figure takes into account only enterprises in business activities ISIC rev. 4 (div 5-82). The OECD definition of size class: micro (1-9 persons employed), small (10-49 persons employed), medium (50-249 persons employed). Size class classifications in the Dominican Republic are defined according to the parameters contained in Law 187 of 2017. This involves two different indicators, size and turnover, with three different thresholds: micro (1-10 persons employed and DOP 8 million), small (11-50 persons employed and DOP 54 million), and medium (41-150 employed and DOP 202 million).

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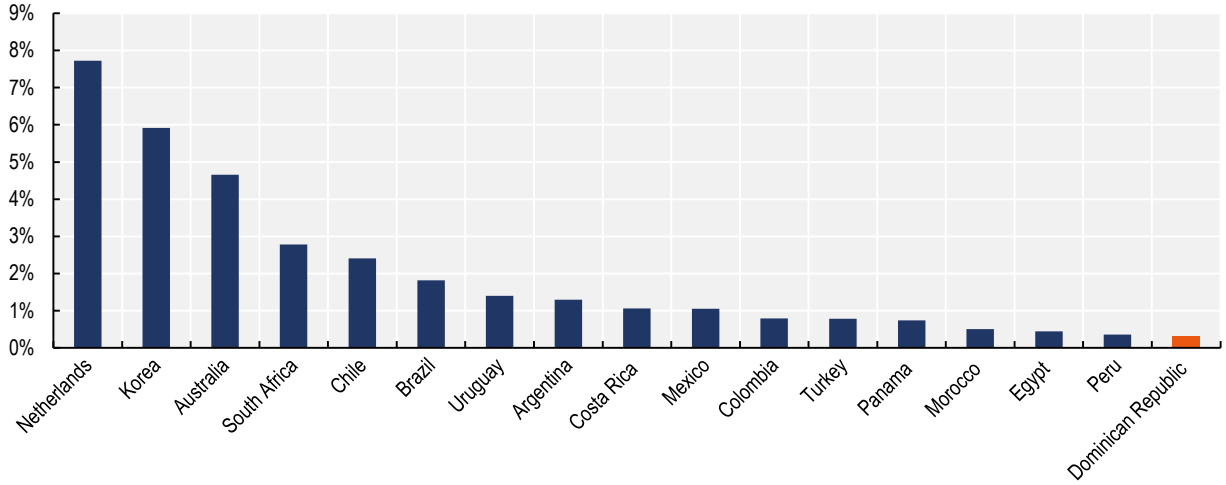
Source: Authors' elaboration based on OECD Structural and Demographic Business Statistics (SDBS), https://stats.oecd.org/, Dominican Republic General Directorate of Internal Taxes DGII https://dgii.gov.do/ and ECLAC (2018), Mipymes en América Latina: un frágil desempeño y nuevos desafíos para las políticas de fomento, repositorio.cepal.org/handle/11362/44148.

Innovation is a weakness in the Dominican Republic, even at regional standards. The most recent available estimates reported an investment in R&D of 0.01% of GDP in 2015, below the already very low Latin America and Caribbean average of 0.7% for the same year. The innovation gap is particularly severe when looking at one of the most important economic sector: agro-food. The investment in agro-related R&D as a share of agricultural value-added in the Dominican Republic is 0.19%, in 2018, below other agro-food exporters Chile (2.41%), Brazil (1.82%), and Costa Rica (1.1%) (Figure 0.5).

Figure 0.5. The Dominican Republic invests little in agro-food research

Agricultural R&D expenditure by government, non-profit and higher education agencies as a share of agricultural value-added, 2018 or latest available year



Note: R&D: Research and development. 2017: South Africa; 2016: Korea, Chile; 2015: Netherlands, Turkey, Morocco; 2014: Uruguay, Colombia, Egypt; 2013: Australia, Brazil, Argentina, Costa Rica, Mexico, Peru; 2018: Dominican Republic.
Source: Authors' analysis based on OECD Science and Technology Statistics database, 2019 http://stats.oecd.org/ and ASTI Agricultural Science and Technology Indicators database, 2019 www.asti.cgiar.org/data.

> *The COVID-19 pandemic is accelerating some pre-pandemic trends and it is increasing uncertainty exponentially, offering few sure bets for future prosperity. To thrive, countries need to increase their capacity to anticipate and adapt, knowing that at the moment we know very little about what the post-pandemic world will look like.*

Localisation strategies were in flux even before the pandemic. Relocation was happening, but was not a major trend. As recorded by FDi Markets, the number of relocation projects increased from 22 in 2013 to 160 in 2018 (representing 1.3% of total FDI projects in the period). Most of global relocations happened within the United States (12%) and from the United States to Mexico (11%), followed by China to Mexico (5%) and Germany to Poland (3%). Most of these relocations concerned activities in automotive components, industrial equipment and food. The current pandemic is putting global economies under strain; one dimension has been the disruption in global value chains. Suddenly, it has become very difficult to operate globally and to manage and control suppliers dispersed around the globe. With most economies under full or partial lockdown and with trade and investment contracting, the future of FDI is more uncertain than in the pre-COVID-19 situation.

The agro-food industry, a mainstay of the Dominican Republic's economy, now faces unprecedented challenges and opportunities. COVID-19 is an immediate issue. However, alongside it, the industry and its stakeholders must grapple with changing demands, as consumers are reorienting choices, with new safety measures in the workplace for small farmers and logistics operators, and with challenges in importing and exporting. Value chains will tend to be shorter, the use of digital technologies for traceability and transparency will increase, and firms will face growing domestic demand as they tap into regional markets. Increasing innovation capacity, improving country branding and enabling small farmers to navigate change through modernised extension services will remain key to success.

> *The Dominican Republic is facing this globally uncertain and fast-changing situation by implementing policies to address the health emergency and to limit the economic consequences of the crisis. In parallel, the country needs to update its long-term development agenda juggling with a highly uncertain economic landscape.*

The Dominican Republic has acted fast, as other countries in Latin America, to limit contagion. But the economic consequences of COVID-19 could be particularly severe due to the characteristics of the economy: tourism is among the most hit industries, even though the country has shown in the past a strong capacity to rebound after environmental shocks. Remittances, which account for 7% of GDP and mostly come from the diaspora in the United States are likely to be severely affected. The large number of micro-firms and extensive informal sector also make the country highly vulnerable. On the other hand, the limited insertion of the country in global value chains and the relevance of the domestic market and the public sector in sustaining the economy could help to cushion the adverse impact.

As part of the national development vision for 2030, the Dominican Republic has implemented reforms that offer the potential for a new growth model. A digital agenda started in 2019 with a budget of USD 133 million, of which 93% is devoted to fast-tracking the use of digital technologies in schools, and the rest offers financing digitalisation in firms. A new online platform now operates as a one-stop shop for the administrative procedures required to start a business, under the auspices of the National Competitiveness Council. The national quality infrastructure system has also improved.

The policy mix in the Dominican Republic leans heavily on indirect financial support in the form of special fiscal regimes. While this has well served the economy to attract investment and foster over time the development of new activities in the economy, including recently the creative industries, the policy mix would require an update to unleash the local entrepreneurial potential and foster innovation. The total budget for economic transformation including the special fiscal regimes was around 2.9% of GDP (USD 2.4 billion). However, the quite high budget of the Dominican Republic disguises a policy mix that is unbalanced towards tax exemptions and special economic regimes. While the country has definitely made progress, this mix falls short the unprecedented challenges and would require an update to sustain preserving growth and achieving resilience in the medium- and long-term.

To go forward, three themes should be at the core of the future policy agenda:

1. **Strengthening the capacity to anticipate and adapt**

In moments of high uncertainty and multiple challenges, planning is crucial. Planning involves not only the decision on what to do and how to do it. Planning is also strategic and forward-looking thinking, matched with consensus-building. It is increasingly linked to the capacity to identify possible outcomes, clarify what is desirable and what is risky, and having back-up plans to act in case of sudden and unexpected changes. A dedicated unit needs to be in charge. National leadership needs to value prospective work and needs to ensure co-ordination and consultation across stakeholders. The ongoing crisis has also shown that even good is not enough. Governments need to communicate their vision effectively, maintain an open dialogue with citizens

and stimulate individual responses in line with collective interest. Though there is no single solution to the leadership problem, someone needs to be in charge and accountable for scenarios and foresight.

The Dominican Republic has a Ministry of Planning with a mandate to develop long-term national strategies. In going forward, the country should increase its capacity to plan and define future scenarios. The country also needs a better mechanism to update scenarios and transform them into policy guidance. Demanding prospective analysis and tasking a team to do that are only preliminary steps. It is important to define a mechanism through which these prospective analyses feed the process of strategy definition and policy implementation. Co-ordination with all ministries and agencies and at all levels of government is needed. To make scenarios relevant in public policy, leaders must include elements of scenarios and foresight in the overall training for government officials.

Strengthening planning would also require shifting towards a place-based approach to policy-making. Apart from the special economic regimes for firms operating at the border zone with Haiti, the country lacks a place-based approach. Integrating regional and territorial development in the planning process is a fundamental priority for the country to update its economic model and make it more inclusive and sustainable. Identifying how to address regional and territorial development issues in national strategies, also by clarifying the associated financing mechanisms, will be key in delivering results to all citizens and identifying new sources of growth.

2. Diversifying the trade and investment base and increasing regional ties

While there are multiple bodies that deal with FDI in the Dominican Republic, fully empowering one agency would be critical step forward. Existing institutions, as the Centre for export promotion and investment attraction, could perform this function if properly modernised and reformed. The agency in charge needs to be able to operate quickly and have timely access to decision-making and needs a pro-business and private sector-oriented staff. In addition, the country would need to align the FDI policy with the national development strategy by complementing incentive packages with targeted tools to foster local industrial development. When foreign firms set up operations in FTZs, they rarely develop local linkages if that was not envisaged in the first place. The experience from Asia, Latin America and more recently Africa, shows that it is possible to develop local linkages and to require investors to source locally. But this benefit comes about through a process that often requires government support to bridge several gaps:

- The operational gap, as the foreign firm normally has an already established network of suppliers and might not even be aware of local possibilities.
- The information gap, as the foreign firm does not know rules and forms of operation in the local economy.
- The trust gap, as starting to work with new suppliers requires developing mutual understanding and trust, which requires time that often businesses are not ready to invest.

In this context, the country should give priority to the following set of actions:

- Fostering learning from FDI and multinationals. The country would also benefit from actively fostering learning spillovers from investors and FDI. The existing experience of Cybernetic Park provides an interesting example that could be replicated. Shifting to a more proactive approach in FDI attraction would enable the Dominican Republic to better negotiate which type of investment and which conditionalities could best serve the interest of both the investing company and the local economy. Spillovers could also increase resilience if investors decide to relocate for some reasons, as domestic learning and capabilities would stay in the economy.
- Continue expanding and updating technical co-operation with traditional partners. The country has well-established partnerships for development co-operation in the areas of production development, mostly with the United States and Europe. In a highly uncertain global environment, renewed efforts to identify new forms of co-operation and partnerships with traditional partners are crucial.

- Learning to co-operate with new partners. The Dominican Republic needs to develop and effectively manage relations with emerging and potential prospect partners. Strengthening ties with Latin America and the Caribbean is a major priority. The recently established diplomatic relationship with China requires strengthening economic diplomacy and sophisticated efforts to define a national strategy.

3. **Boosting local industrial development and innovation by filling institutional gaps and mobilising long-term financing.**

Over the decades, the country has developed an economic model based on granting special fiscal regimes to areas of priority and peculiar interest, including manufacturing, tourism and creative industries. While this approach has enabled the development of new activities in the economy, the country would benefit from an updated approach to achieve the national vision of inclusive and sustainable development:

- **Filling the institutional and funding gap for innovation.** While there is a generalised consensus that innovation matters for development, the country falls short in terms of institutions, funding mechanisms, and overall policy mix to foster start-up development and innovation. The country needs to invest in innovation and in parallel needs a targeted body in charge of implementing the innovation policy. The agency should be agile, small and with a clear assigned budget. Ideally, innovation funding should be multi-year and the processes for funding disbursement should be fast and transparent. The ongoing project of the statistical office to design an innovation survey that documents efforts in this sphere is a positive step.
- **Ensuring long-term financing.** The country does not have a development bank that plays this role. There are some institutions that the Dominican Republic could leverage. Banca Solidaria was established in 2012 as the second-tier bank for MSMEs and on Bandex. Bandex is the national export development bank, set up in 2015 as a result of the restructuring of the National Housing and Production Bank (BNV). Bandex could be scaled up to assume the function of financing production development and innovation, including exports, therefore filling the gap in the current financing chain the country. This, however, would require careful due diligence and institutional design and a clear clarification of the division of labour with existing commercial banks.

The outlook for trade and investment is highly uncertain, and the Dominican Republic must prepare for a world in which resilience will be critical. Diversifying economically, innovating, and better sharing the gains of growth is not easy. Every country has competing visions and aspirations, a unique historical trajectory, and an institutional legacy that shapes how it defines strategies and implement policies. But a common trait of successful transformation strategies is high-level leadership to foster business development in new activities. Learning how to perform new tasks and run successful businesses, trading and innovating require work on multiple fronts, including infrastructure building, fiscal reforms, and incentives targeted to firms. It also requires reconciling interests of actors that respond to different incentives, including the scientific community, local firms, and multi-national companies.

A committed government and a private business community willing to invest and take risks are essential to success. The Dominican Republic can capitalise on the accumulated past growth gains, its proven capacity to adapt to global changes to achieve a renewed pact between government, firms and the society to achieve a more inclusive growth pattern. A national vision and a concerted strategy with Latin America and the Caribbean will also be crucial elements in solving the development riddle during and after the current global health and economic crisis.

1 A fast-growing economy in search of new development drivers

The Dominican Republic has been the fastest-growing economy in Latin America since 2010. The next priority for the country is to translate this economic growth into shared gains. That goal demands that the Dominican Republic address its persistent structural challenges by fostering local development and innovation. This chapter reviews the structural economic characteristics of the Dominican Republic in the last three decades and identifies opportunities for the future.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

This first chapter of the Production Transformation Policy Review (PTPR) of the Dominican Republic presents a snapshot of the structural economic characteristics of the country. The country has had the fastest-growing economy in Latin America and the Caribbean economies on average from 2010 to 2019. Remittances, mostly from its diaspora in the United States, foreign direct investment and tourism play an important role in the economy. However, as elsewhere in the world, the COVID-19 pandemic is adversely affecting these activities. The Dominican Republic is moving to cushion the short-term impact of the ongoing economic crisis (see Chapter 2 of this report). Nevertheless, the current situation is also prompting reflections about how to increase resilience to potential shocks, including by developing local capabilities in key industries such as medical devices and agro-food, strengthening regional integration and shifting towards more sustainable and inclusive development pathways. These questions are relevant to our review of the Dominican Republic, which even before COVID-19, needed to identify new ways to transform high growth into opportunities for all its citizens.

The first section of this chapter reviews the structural characteristics and economic performance of the Dominican Republic since the 1990s, including its emerging weaknesses, in the context of Latin American and the Caribbean. The second and third sections focus on two issues that require urgent attention to attain the next development level: strengthening the local production system through innovation and increasing the capacity to learn and benefit from global trends and foreign partners.

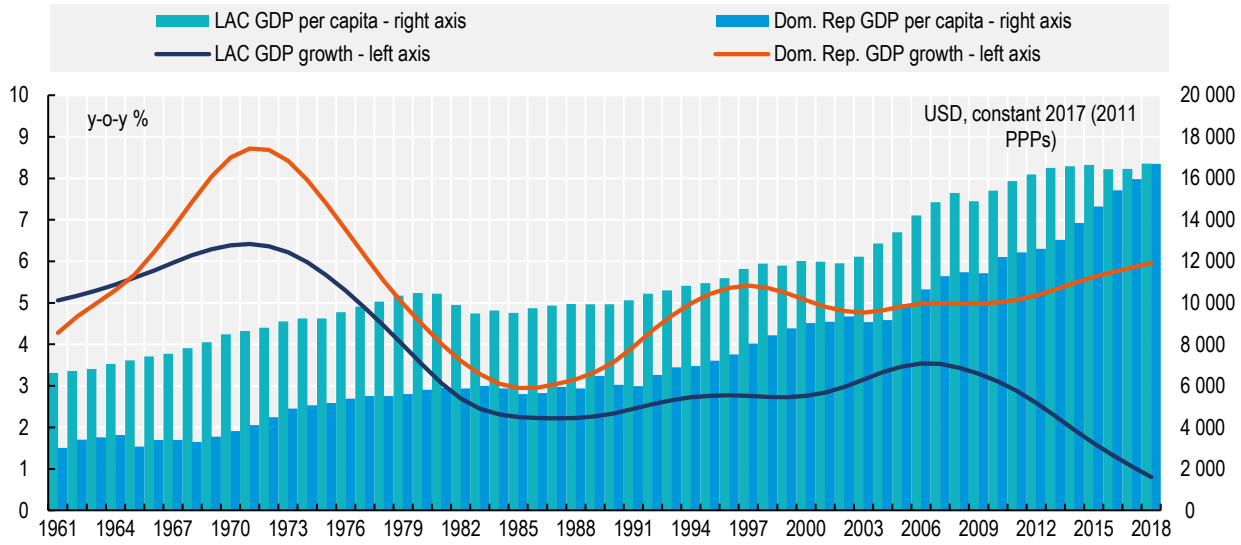
The chapter concludes with a reflection on the channels through which the current global economic crisis caused by COVID-19 is affecting the Dominican Republic.

A fast-growing economy

Since 2010, GDP grew at an annual average of 5.8%, making the country the fastest-growing in Latin America and the Caribbean, which, during the same period, grew at an annual rate of 2%. GDP per capita also increased, bringing the country close to the regional average at USD 16 800 in 2018 (in 2011 constant PPP), 40% more than in 2010, and 68% of that of Chile, the country with the largest GDP per capita in the region (Figure 1.1). Investment and consumption have been the main drivers of growth (Figure 1.2). In particular, investment has been the fastest-growing component of growth since 1991, expanding annually at 8.8% and has contributed 32% of domestic GDP growth.

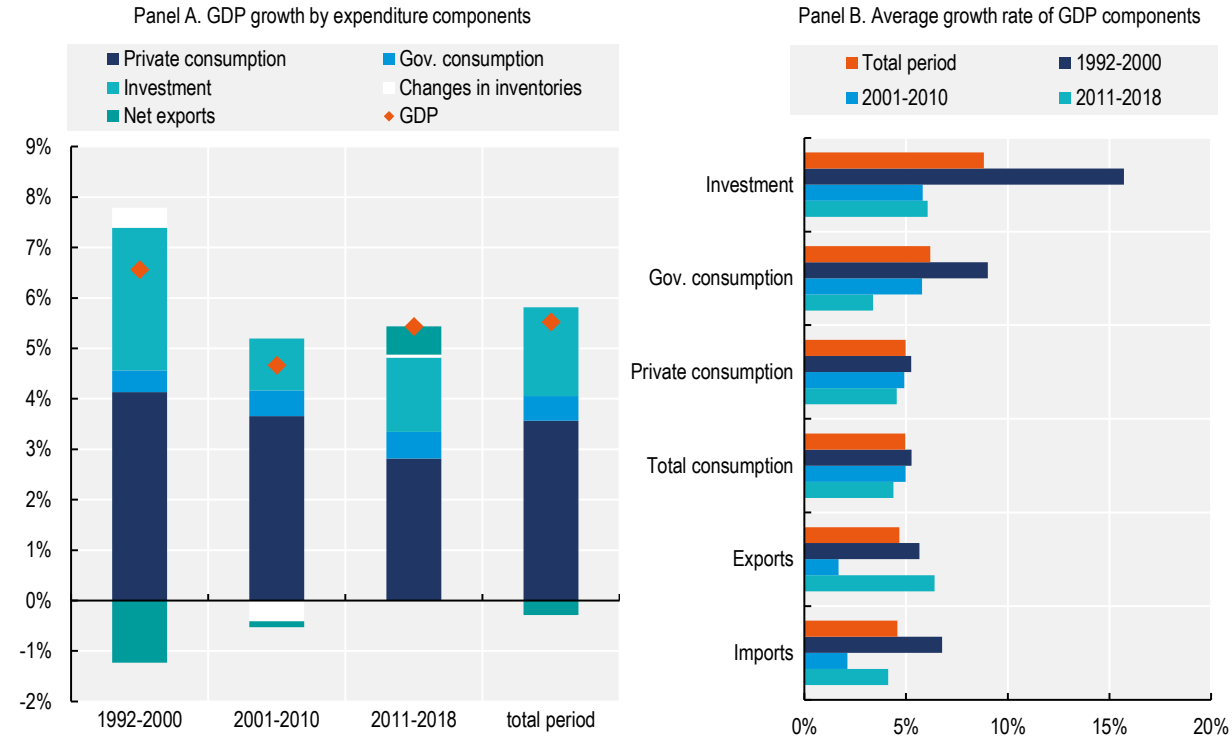
Figure 1.1. The fastest-growing economy in Latin America and the Caribbean

GDP growth and GDP per capita, Dominican Republic, 1961-2018



Source: Authors' analysis based on the Conference Board Total Economy Database (2018), https://www.conference-board.org/data/economydatabase/; and Word Bank data (2019), https://databank.worldbank.org/.

Figure 1.2. Investment and consumption have been the major drivers of growth, 1992-2018



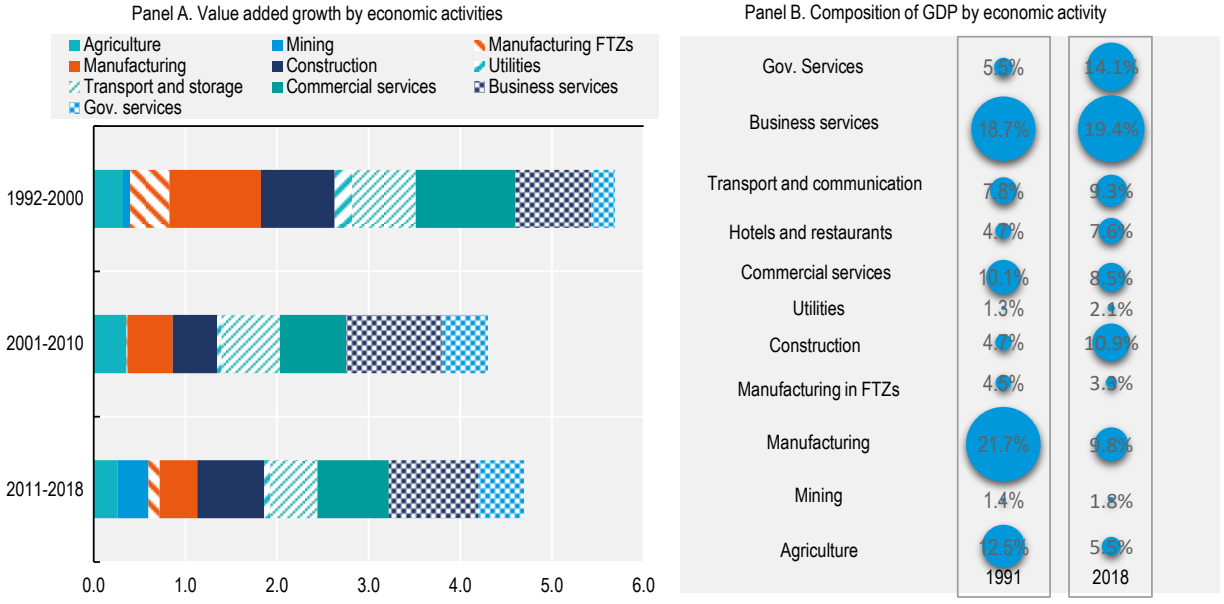
Source: Authors' elaboration based on Dominican Republic Central Bank (2019), https://www.bancentral.gov.do/.

The local production and innovation system could be stronger

The economy shifted from manufacturing to services and tourism

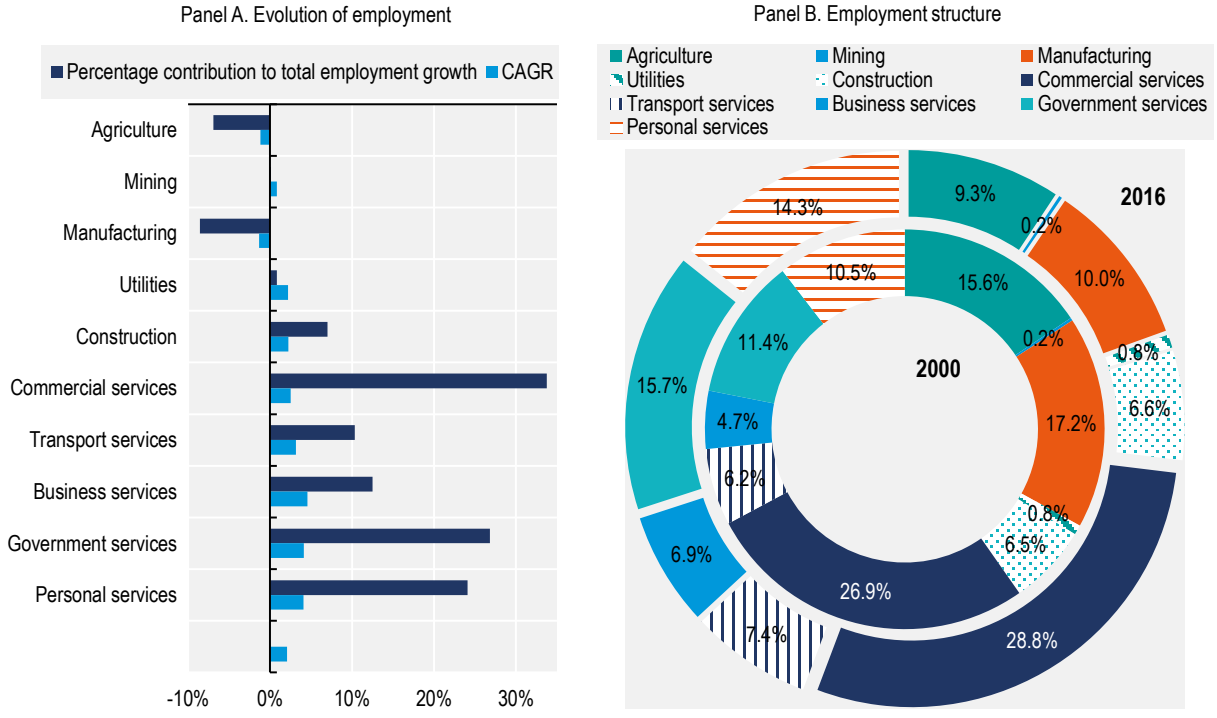
Since the 1990s, the Dominican Republic has moved away from manufacturing as the main pillar of its economy for several reasons. Changes in global trade agreements made the initial specialisation of the free trade zones (FTZs) in textiles and garments less competitive. National development strategies increasingly favoured growing activities as tourism. From 1991 to 2018, in parallel with the decline of manufacturing (which decreased from 22% to 10%) of GDP, government services increased from 5% to 14% of GDP in 2018 (Figure 1.3). The shift towards services is also reflected in employment growth. In 2000-16, total employment increased by 39%, from 3 million to 4.2 million, with a large share of employment absorbed by commercial and government services (Figure 1.4).

Figure 1.3. GDP by economic activity and sectoral contribution to growth



Note: The underlying components do not add to the total due to the non-additivity chain-linked series.
Source: Authors' elaboration based on Dominican Republic Central Bank (2019), https://www.bancentral.gov.do/.

Figure 1.4. Employment growth and structure by economic activities



Note: CAGR compound annual growth rate.
Source: Authors' elaboration based on the Dominican Republic Central bank (2019), https://www.bancentral.gov.do.

Tourism has come to play a vital role in the economy. From 2000 to 2018, the number of tourists more than doubled from 3.3 to 7.2 million, an annual average growth of 5.5%. In 2018, the total direct and indirect contribution of tourism accounted for 336 000 jobs (8.5% of total employment), 170 000 more than in 2000. The country is now the main destination for tourism in the Caribbean, attracting 24.1% of the total number of visitors in 2018, and the fourth most popular destination in Latin America, after Argentina, Brazil and Chile. With USD 7.5 billion in receipts from tourism in 2018, the Dominican Republic alone was responsible for 19.7% of total receipts in the region, followed by Brazil (15.9%), Colombia (13.2%), and Argentina (13.9%). However, there is room to increase the profitability of tourism. With USD 1 150 of generated income per tourist, the Dominican Republic lags behind other countries in the Caribbean, such as Costa Rica with USD 1 310 and Panama with USD 2 415 (World Travel and Tourism Council, 2019[1]).

Nevertheless, the sector faces serious sustainability challenges. Most investment in tourism is in coastal areas, which are highly vulnerable due to the effects of climate change and extreme weather conditions. The hurricane season in 2017 brought a direct economic loss estimated to USD 52 million, and 98 000 fewer tourists (World Travel and Tourism Council, 2018[2]). In addition, each tourist consumes as much as three times the water as a Dominican, and the entire sector is responsible for 43% of commercial energy demand and 40% of total country waste (UN Environment, 2019[3]).

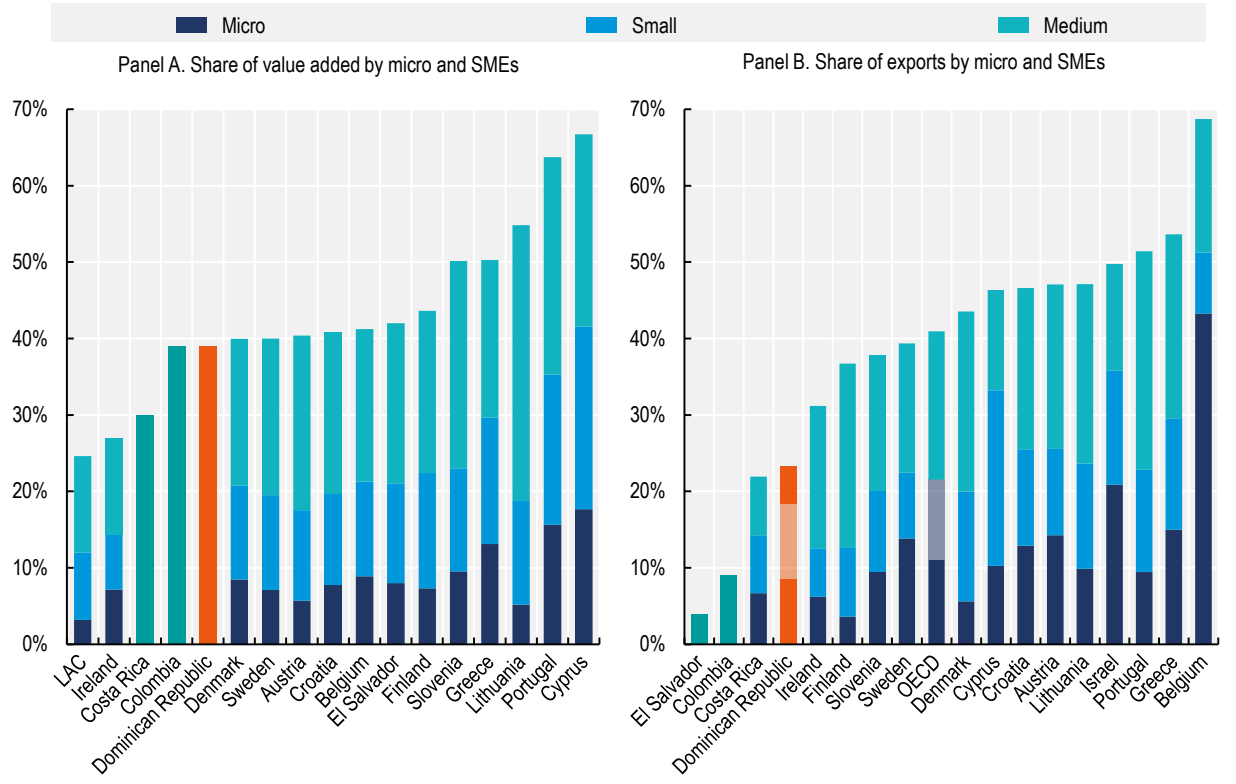
To forge a better path for the future, the development of a more sustainable and inclusive tourism sector should also include efforts to promote greater spillovers in the local economy. The enclave and scale-seeking model of all-inclusive limits this possibility considerably. Investment in this area also has the potential benefit of generating green jobs and improving competitiveness in areas such as renewables, energy-efficient technologies, and conservation practices.

Firm structure remains fragile

Micro, small and medium enterprises (MSMEs) represent 98% of total firms in the Dominican Republic, with 76% in the micro category. MSMEs employ 65% of the total workforce, contribute to 40% of total value-added and account for 23% of domestic exports. While the share of these firms in value-added is closer to the OECD countries, where the average is 49%, their contribution to national exports is much lower; in fact in OECD countries these firms account for 40% of total exports (Figure 1.5). Moreover, the large majority of micro-enterprises in the Dominican Republic are concentrated in less dynamic, less export-oriented sectors. In 2018, around 45% of micro-enterprises were in wholesale and retail, followed by professional business activities with 15% and manufacturing with 9%.

Figure 1.5. MSMEs contribute 23% to national exports, while in OECD they account for 40%

Dominican Republic and selected economies, 2018 or last available year



Note: The figure takes into account only enterprises in business activities ISIC rev. 4 (div 5-82). The OECD definition of size class: micro (1-9 persons employed), small (10-49 persons employed), medium (50-249 persons employed). Size class classifications in the Dominican Republic are defined according to the parameters contained in Law 187 of 2017. This involves two different indicators, size and turnover, with three different thresholds: micro (1-10 persons employed and DOP 8 million), small (11-50 persons employed and DOP 54 million), and medium (41-150 employed and DOP 202 million).

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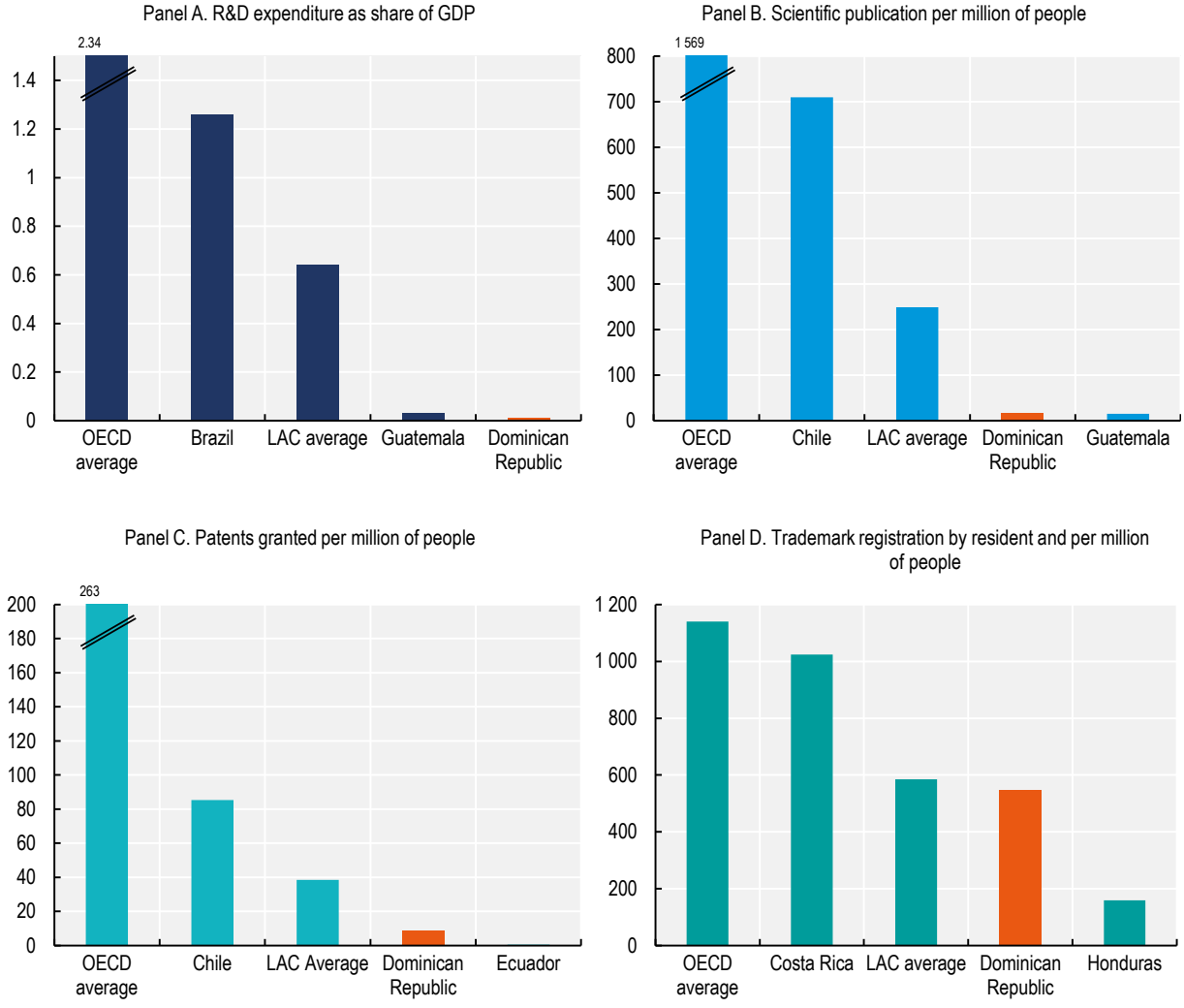
The economy underperforms in innovation

The high growth of the Dominican Republic is not driven by innovation. In addition, the country lacks an official reporting on R&D figures. The most recent available estimates from the Ministry of Economy, Planning and Development (MEPyD) reported an investment in R&D of 0.01% of GDP in 2015. This figure is below the already low average level of Latin America and the Caribbean at 0.7%. Also, in 2018, the Dominican Republic achieved only three publications in significant scientific journals per million inhabitants, below the average for Latin America and the Caribbean of 250. It counts with 27 patent applications per million inhabitants, above Ecuador (22) but around a third of the regional average (93). Trademarks reveal a different performance; the economy performs in line with the average of Latin America and the Caribbean (Figure 1.6).

Figure 1.6. Innovation effort is limited in the Dominican Republic, 2018

Dominican Republic and selected countries



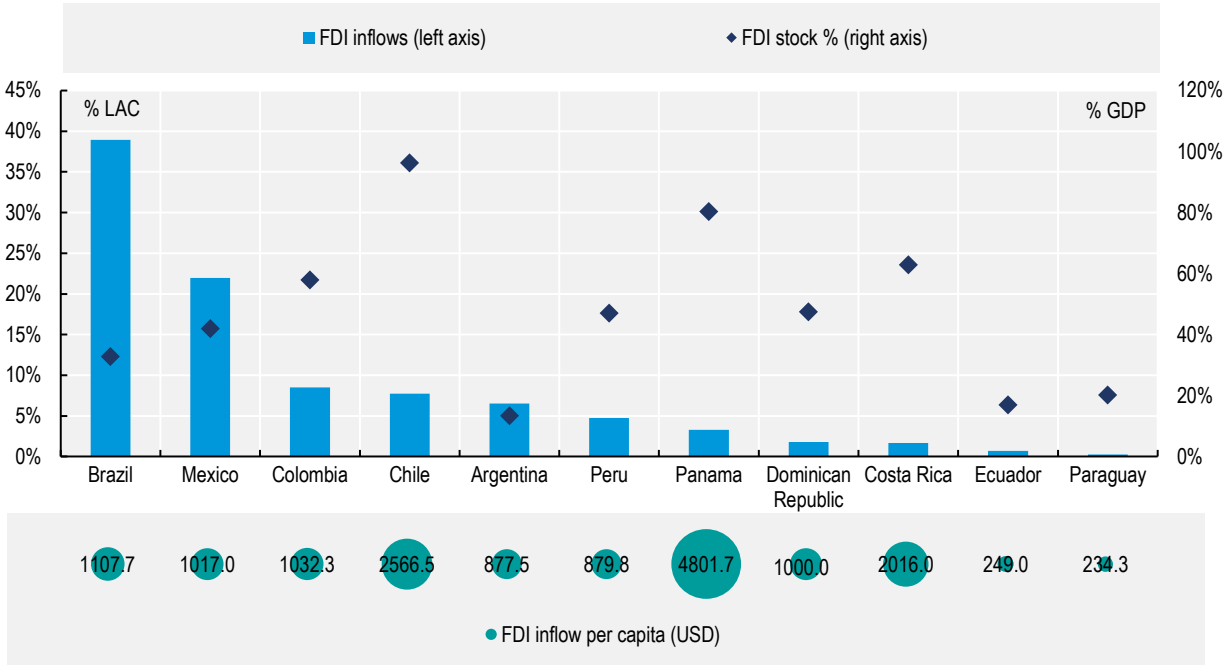
Note: Panel B refers to documents published by domestic researchers in scholarly journals indexed in Scopus, Panel C refers to patents granted to residents through the Patent Cooperation Treaty, Panel D refers to trademarks registered by resident via Madrid system.
Source: Authors' elaboration based on World Intellectual Property Organization, WIPO (2019), https://www.wipo.int/ipstats/en/; UNESCO database (2020), http://data.uis.unesco.org/; and Scimago Journal and Country Ranking (2020), https://www.scimagojr.com/.

The external factor could contribute more to local development

Foreign investment shifted towards tourism activities

In 2016-19, the country attracted roughly USD 10 000 million of total FDI, corresponding to 1.8% of total inflow investment in Latin America and the Caribbean, similar to Costa Rica. Over the same period, the ratio of FDI inflow to GDP stabilised at around 3.7%, above the regional level of 2.8%. The stock of FDI as a percentage of GDP is in line with the regional average of 47%, and below other economies that rely heavily on foreign investment, such as Costa Rica (63%) and Panama (80%) (Figure 1.7).

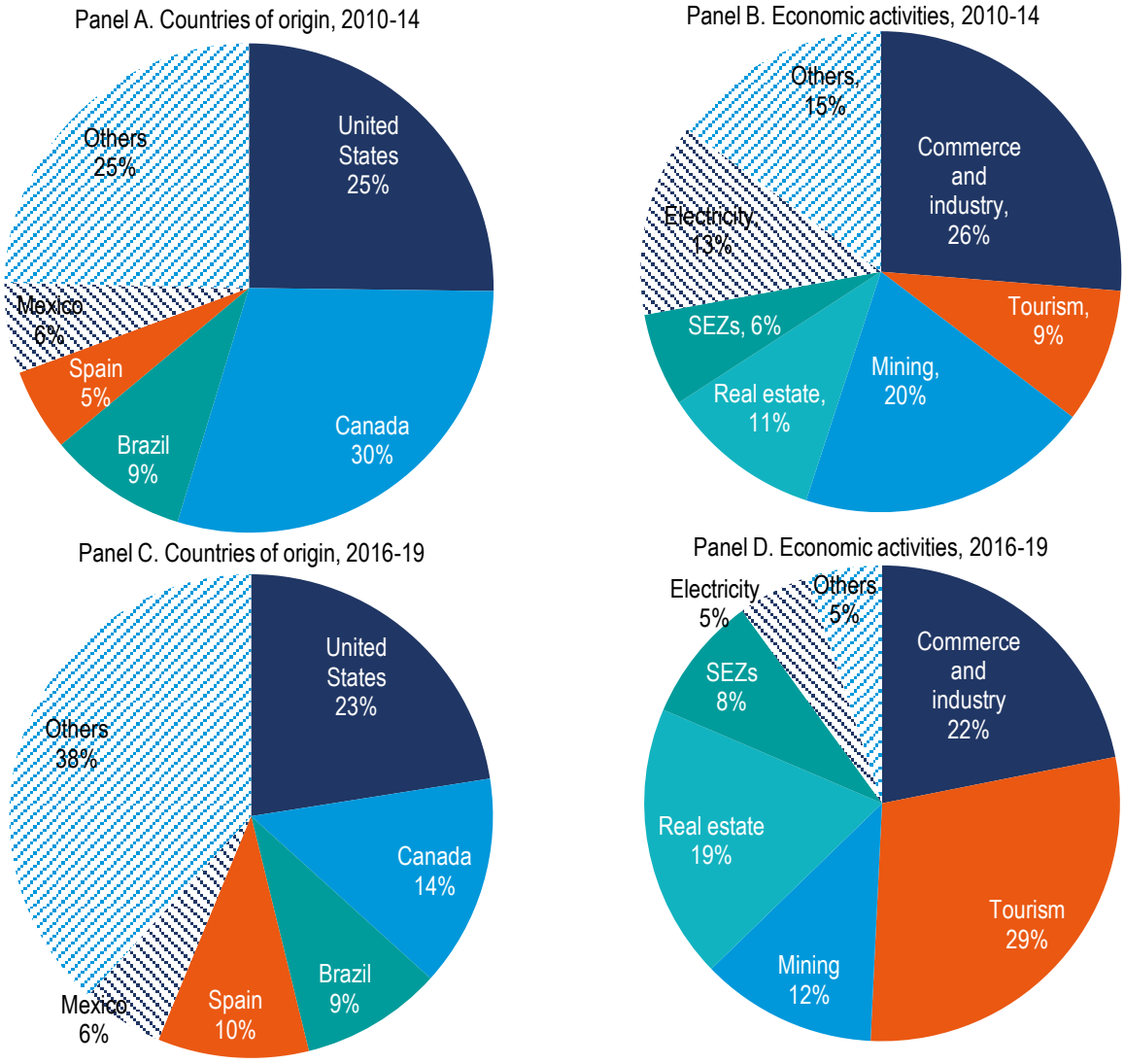
Figure 1.7. The Dominican Republic is among the top 10 destinations for FDI in Latin America and the Caribbean, 2015-18



Source: Authors' elaboration of based on UNCTAD FDI database, https://unctadstat.unctad.org/.

In 2016-19, the top five investors accounted for 62% of FDI, 13% less than the period 2010-14, as new investors like the People's Republic of China (hereafter "China") and Turkey emerged. But the United States remains the main country of origin of FDI with 23% of total investment, 5% less than in 2010-14. Most FDI goes into tourism, which in 2016-19 accounted for 29% of total capital expenditures and 55% of total jobs created through greenfield FDI (Figure 1.8 and Figure 1.9).

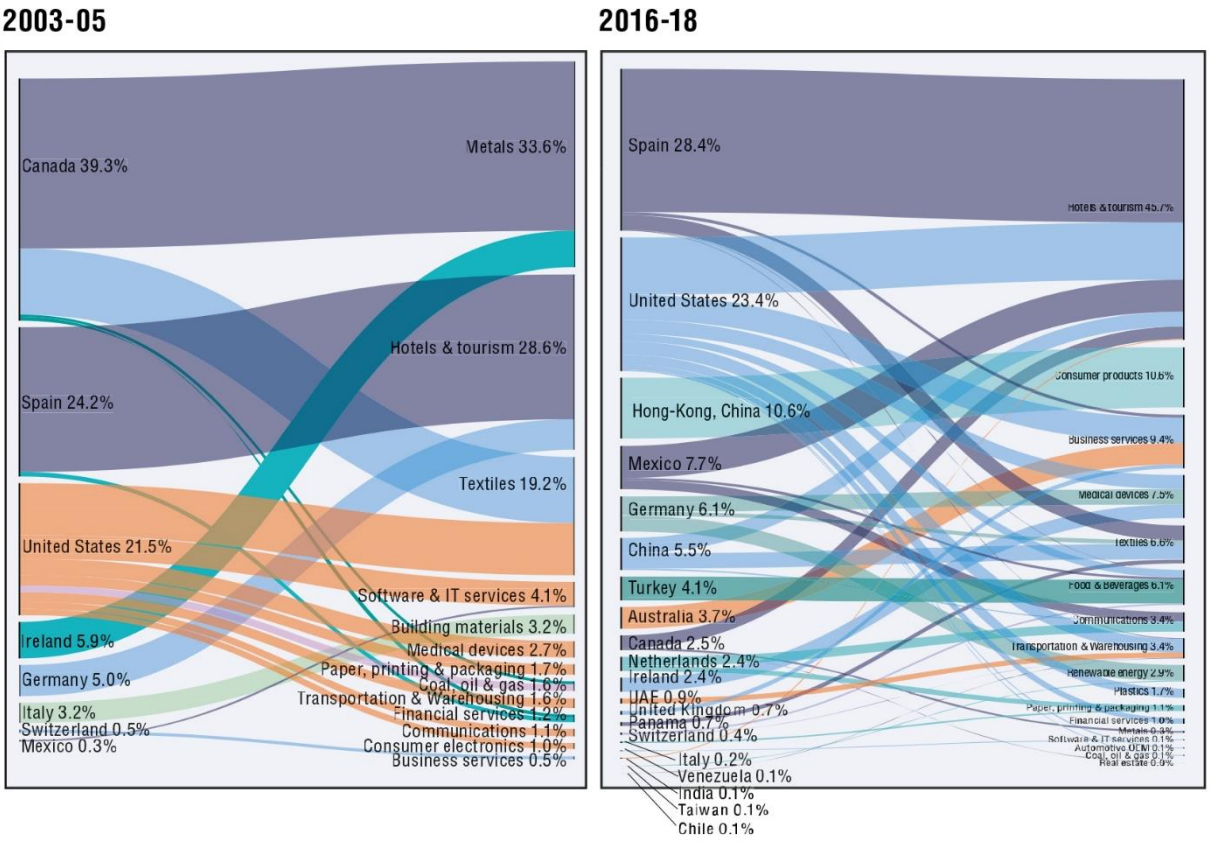
Figure 1.8. Share of total FDI inflows by countries of origin and sectors of destination, the Dominican Republic 2010-19



Note: The available information covers the period up to September 2019.
Source: Authors' elaboration based on the Dominican Republic Central Bank (2019), https://www.bancentral.gov.do/.

Figure 1.9. Greenfield FDI by countries of origin and economic activities, 2003-05 and 2016-18

Share of total jobs created in greenfield FDI



Source: Authors' analysis based on the Financial Times fDi Market Database (2019), https://www.fdimarkets.com.

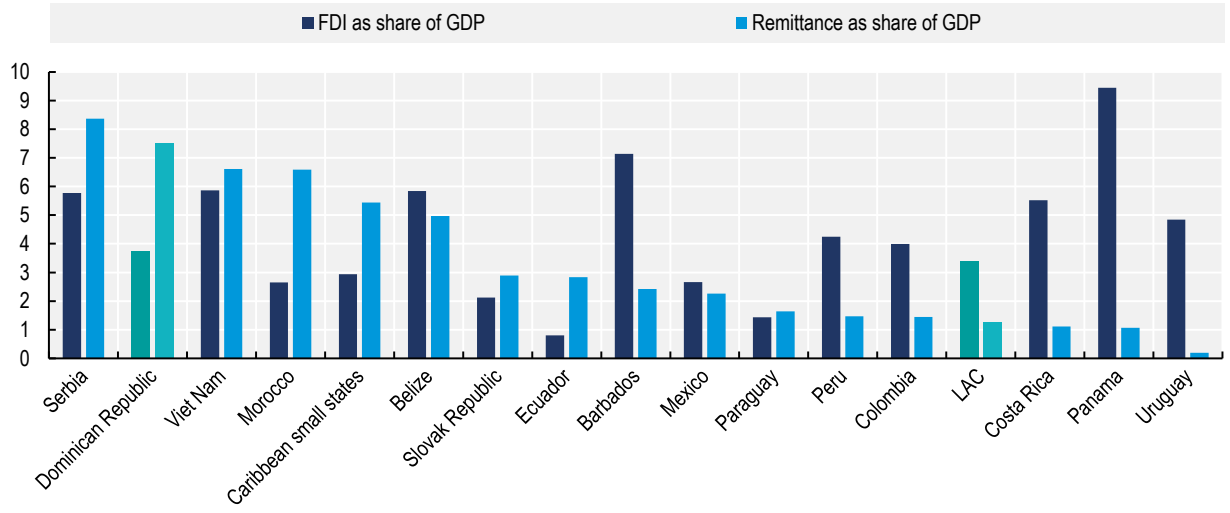
Remittances are more relevant than FDI as a share of GDP

Remittances to the Dominican Republic account for slightly more than 7% of GDP, while FDI accounts for 3.7% (Figure 1.10). Since the 1990s, remittance inflows grew on average 5% annually and in 2018 reached USD 6.8 billion, 23% of the total in Central America, second only to Guatemala with 30%. The largest share of remittances, 70% in 2010-18, originated from the United States, where 1.1 million Dominicans lived in 2018, a number equal to 10% of the Dominican population. European countries led by Spain contributed to 20% of total remittances in 2010-18.

The emigrant stock (persons born in the Dominican Republic and living abroad) is estimated to be approximately 1.3 million or 12% of the national population. Approximately 72% of the Dominican emigrant stock is located in the United States, followed by Spain (12%) and Puerto Rico (4%) (OECD/CIECAS, 2017[5]). Estimates of the diaspora population, which would include those with Dominican ancestry living abroad, suggest that the numbers are far larger. For instance, the 2016 United States Census estimates that the Dominican diaspora population is approximately 2.2 million with close to 70% located in the New York-Newark-Jersey City area (Zong and Batalova, 2018[6]).

With USD 37 000 average income, the Dominican diaspora not only contributes to local development through the remittances or as potential final consumers; they also provide a foothold into wider commercialisation channels. In fact, migrant-entrepreneurs act as co-creators of goods, services, and intellectual property and often operate as collaborators, investors, and distributors in international markets (Nurse and Kirton, 2014[7]).

Figure 1.10. FDI inflows and remittances as a share of GDP, average 2010-18



Source: Authors' elaboration based on (World Bank[8]) database (2019), https://data.worldbank.org/.

Merchandise exports are concentrated in primary commodities

From 2000 to 2018, Dominican merchandise exports increased on average 3.5% annually. The number of exported products increased from 800 to 2 400, shifting from labour intensive products to primary commodities that now account for 43% of total exports (Figure 1.11). Several factors concur to explain this trend. The end of the Multi-Fiber Agreement in 2005 made the garment and textiles sector less competitive, with the exception of niche markets such as sportswear (Box 1.1).

FTZs, which mostly hosted labour-intensive manufacturing in footwear and textiles, evolved in response to changing global incentives, with new sectors such as pharmaceutical and medical devices emerging. New mining projects started to be developed in 2012, including the restarting of extraction in the Pueblo Viejo gold mine, the second-largest gold deposit in the world. The Economic Partnership Agreement between the European Union and CARIFORUM, signed in 2008, also contributes to explain the change in the export pattern as agricultural exports, including bananas, sugar, and cocoa, increased by more than 20% between 2013 and 2017, with Germany, the United Kingdom, France, and Italy as main destinations (European Commission, 2019[9]).

Box 1.1. The Multi-Fibre Arrangement

Established in 1974, the MFA was a derogation from established trade rules that limited opportunities for developing countries, and was characterised by complex quotas on imports by the major industrialised nations on garment and textile prices. As part of the Uruguay Round of negotiations that created the World Trade Organization in 1995, the MFA was replaced by the Agreement on Textiles and Clothing (ATC), which phased out all quota restrictions over a 10-year transition period ending 1 January 2005. The G&T sector was integrated into normal merchandise trade rules in 2005 as quotas came to an end. Also, importing countries were no longer allowed to discriminate between different exporters.

Pre-2005

Cost and reallocation effects. The quotas added to the cost of production, restricted supply, raised prices for consumers, and reduced total trade volume. The quotas led also to a relocation of production to developing countries that benefited from preferential access to advanced economies' markets. For example, the quotas imposed on Chinese exports because of the MFA, coupled with African Growth Opportunity Act preferences, represented an implicit export subsidy for Lesotho and many other African economies in the apparel industry.

Employment effects. Despite the positive impact on the economies that enjoyed preferential access, as many as 19 million jobs in developing countries may have been lost because of quota restrictions under the MFA. These effects were profoundly imbalanced; a single job retained in developed countries may have caused the loss of 35 jobs in developing economies.

Post-2005

The end of MFA generated a lot of concern in those countries, such as the Dominican Republic, that were enjoying preferential market access, especially to the United States and the European Union markets (Table 1.1). Their concern stemmed from large Asian countries that had well-established G&T industries, were highly price competitive, and enjoyed large-scale production advantages. Since the phasing out of quotas, the share of the developing countries in the global G&T trade has been on the rise as the share of advanced economies fell. The combined share of the EU and the United States in global textile exports declined from 40.9% in 2005 to 27.6% in 2016, and in the global clothing exports from 32.7% in 2005 to 27.7% in 2016. China increased its share in world textile exports by 26.8 percentage points between 2000 and 2016 and by 18.2 percentage points in world clothing exports during the same period. Between 2000 and 2016, India's share of global textile exports almost doubled, from 3.6% to 5.7%, while its textile exports reached a total of USD 16 billion and its clothing exports USD18 billion, making it the sixth-largest in clothing trade and the fourth-largest in global textile trade. Similar figures characterise the recent experience of Viet Nam and Bangladesh.

Table 1.1. The end of the MFA

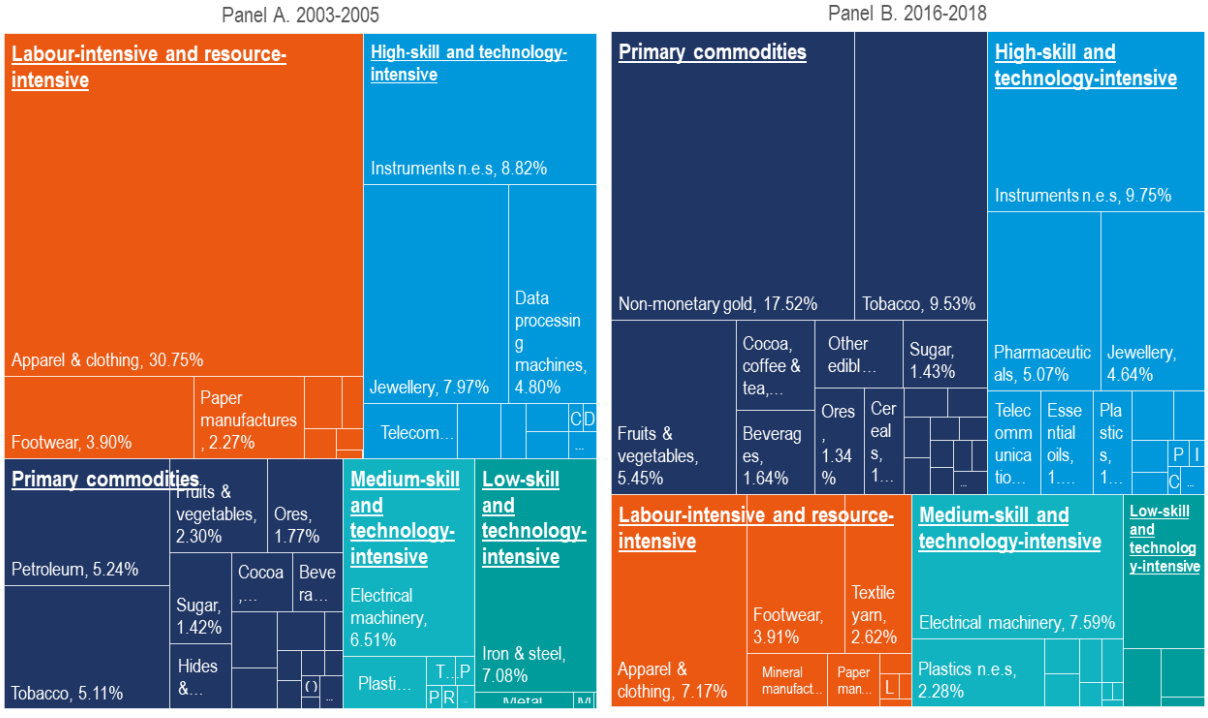
	Share of world exports		Share in total country exports	
	2004	2018	2004	2018
China	21.46%	38.11%	20.3%	14.1%
Bangladesh	1.29%	3.20%	87.1%	94.0%
Viet Nam	1.41%	4.60%	30.0%	25.0%
EU27	34.22%	23.85%	5.5%	5.0%
Italy	8.65%	6.89%	14.1%	11.8%
Turkey	3.15%	3.10%	28.3%	17.3%

Latin America and the Caribbean	4.11%	2.21%	4.9%	2.2%
Dominican Republic	**0.43%**	**0.12%**	**40.2%**	**17.1%**
Peru	0.20%	0.16%	8.6%	3.0%
United States	3.28%	2.55%	2.5%	1.6%

Source: (UNCTAD, 2005[10]), *TNCs and the removal of textiles and clothing quotas,* and (Ayoki, 2017[11]), The impact of Multi-Fibre Arrangement phase-out on Sub-Saharan Africa's textiles and clothing exports.

The United States remains the principal trading partner of the Dominican Republic, while the overall number of trading partners increased from 98 countries in 2000 to 147 in 2017. The top five trading partners account for 82% of total domestic exports and 68% of national imports. The United States, in 2016-18, accounted for 53% of total national gross exports and accounts for 44% of domestic gross imports, down from 75% and 53% in 2002-04. The composition of the top five trading partners has slightly changed. Haiti and Canada increased their export shares whereas Korea and the Netherlands have been replaced by India and Switzerland. The surge of India, Canada, and Switzerland is mainly driven by the increase in the exports of gold, whereas 40% of exports to Haiti are concentrated in garment and food products. Imports from China doubled from 7% to 14% replacing Japan in the second place. From China, the Dominican Republic mostly imports equipment machinery and textile products. Brazil and Spain maintained their leading position among the top five whereas Mexico replaced Japan (Figure 1.12).

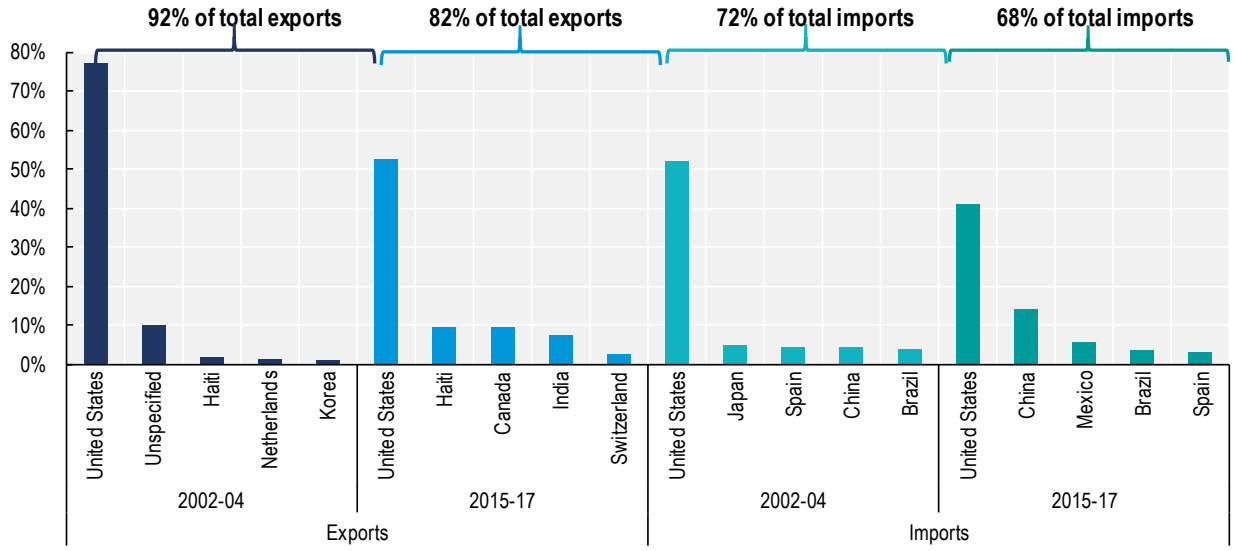
Figure 1.11. Exports by degree of technology intensity, Dominican Republic, 2003-05 and 2016-18



Note: Names of commodity codes are shortened for visual purposes. Based on SITC Rev.3 and following a hierarchy for manufactures developed by UNCTAD, https://unctadstat.unctad.org/EN/Classifications/DimSitcRev3Products_Tdr_Hierarchy.pdf.
Source: Authors' elaboration based on the UN Comtrade database (2019), https://comtrade.un.org/.

Figure 1.12. Dominican Republic's top 5 trading partners, 2002-04 and 2015-17

Share of total gross merchandise exports and imports



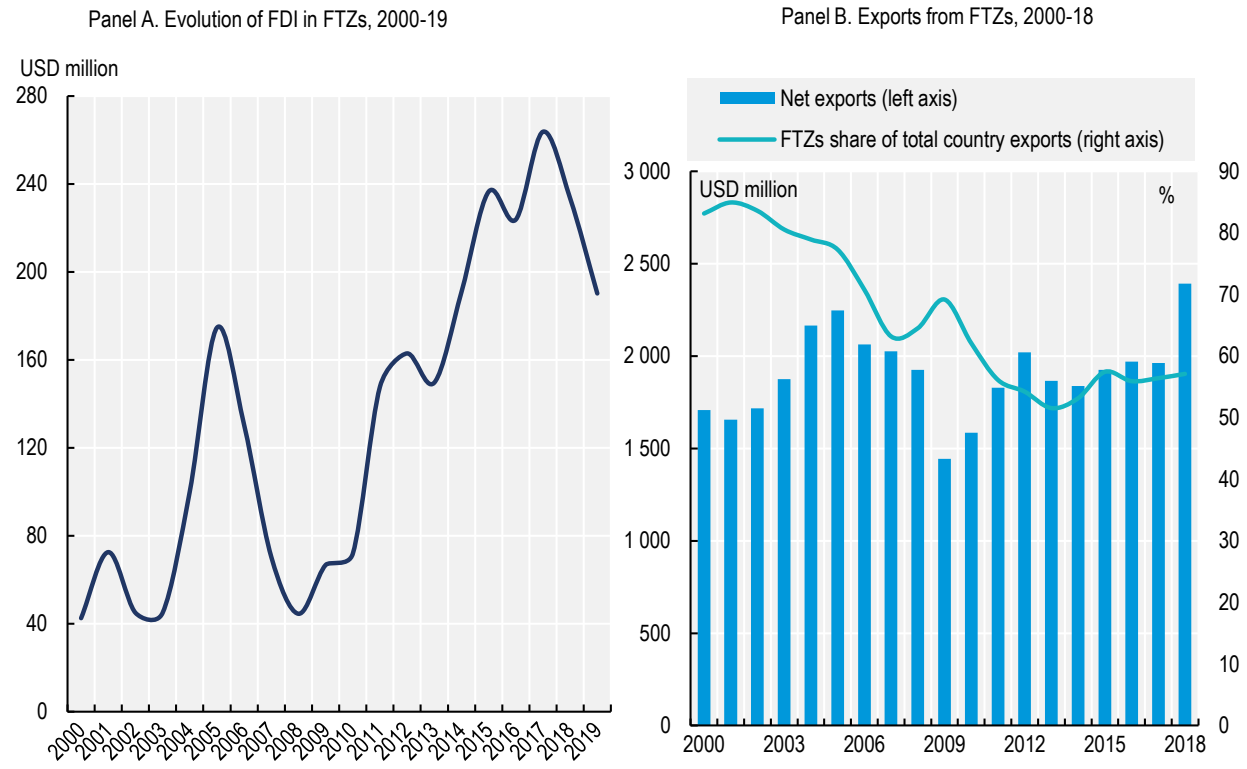
Source: Authors' elaboration based on the UN Comtrade database (2019), https://comtrade.un.org/.

The Free Trade Zones changed specialisation but continue to display limited local linkages

The change in the Dominican Republic's export profile is also evident in the transformations of the Free Trade Zones (FTZs) (Figure 1.13). In 2019, 75 FTZs were hosting 695 firms, up from 44 FTZs and 484 firms in 1999. However, the FTZs lost relevance for employment over the same period: in the 1990s they accounted for around 7% of domestic employment, while nowadays they account for around 4%, according to official data from the National Free Zones Council (CNFZE). The investment in FTZs increased, even though the FTZs percentage of total exports has declined from an average of 80% during 1995-2005 to 56% during 2010-17. The FTZs were introduced in the 1960s to foster job creation and local industrial development. They hosted principally labour-intensive manufacturing, with footwear and textiles playing an important role.

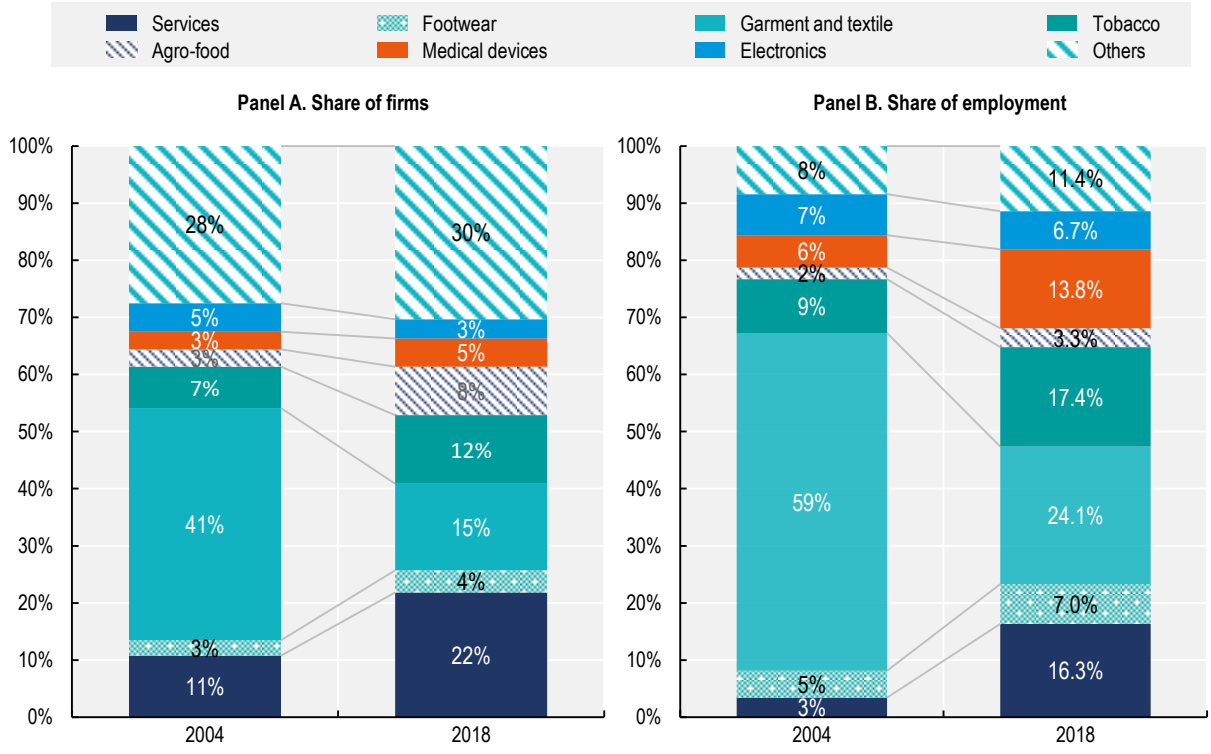
Over time, the activities hosted in the FTZs have diversified from mainly export-oriented manufacturing to also export-oriented services, such as Business Processing Offices. Textile and garments accounted for 15% of the total number of firms operating in FTZs and 23% of total jobs in 2019 down from 41% and 59% respectively in 2005 (Figure 1.14). While in 2000-04, half of the FTZs exports came from garments and textiles, in 2018, five industries accounted 66% of total FTZs exports, namely professional and scientific instruments (including medical devices), tobacco and tobacco manufactures (15.6%), electrical machinery (12.5%), textile and apparel (11.8%) and miscellaneous manufactures (10.7%) (Banco Central de la Republica Dominicana, 2020[12]). The United States remains the principal economic partner in the FTZs, accounting for around 40% of total FDI. Also, 77% of the Dominican Republic FTZs exports go to the United States (Banco Central de la Republica Dominicana, 2020[12]; CNZFE, 2019[13]).

Figure 1.13. The share of exports from FTZs on total exports decreased from 80% to 56% from 2000 to 2017



Source: Authors' analysis based on data from the Dominican Republic Central Bank (2020), https://www.bancentral.gov.do/a/d/2532-sector-externo and CNFZE Statistical bulletin 2018 and 2004 http://www.cnzfe.gob.do/.

Figure 1.14. Since 2005, garment and textiles lost prominence in the FTZs

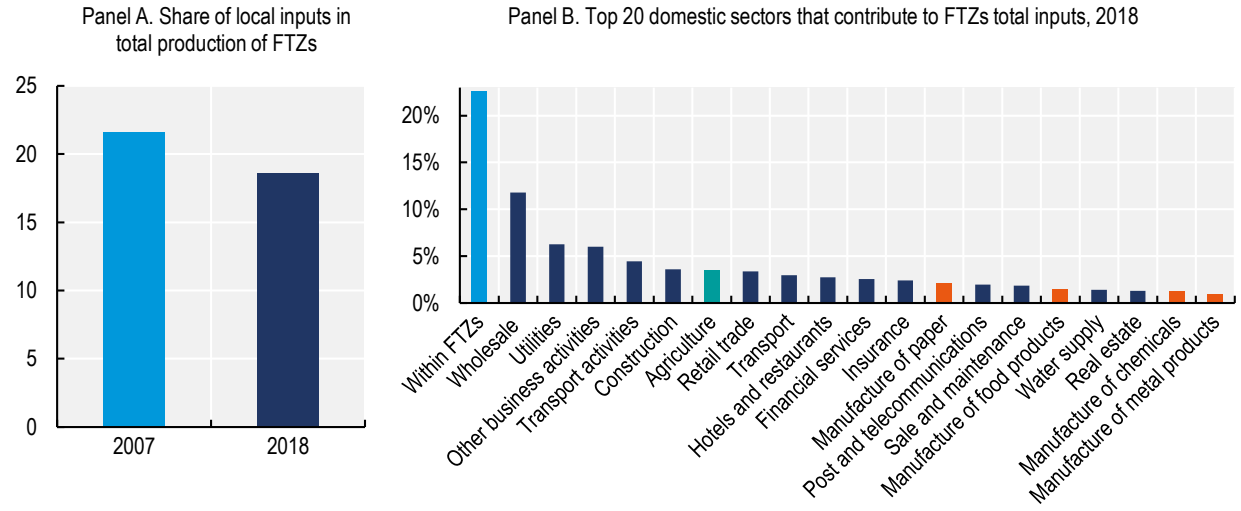


Source: Authors' analysis based on data from the Dominican Republic Central Bank (2020), https://www.bancentral.gov.do/a/d/2532-sector-externo and CNFZE Statistical bulletin 2018 and 2004 http://www.cnzfe.gob.do/.

This reconfiguration of the FTZs has contributed to reduced sourcing from local suppliers. Between 2005 and 2018, the share of local inputs decreased from 22% to 18%. In 2018, more than 50% of local inputs were services (including cleaning, catering and waste management), the rest of local sourcing is spread among several areas, including agriculture (3.5%), construction (4%), paper and related products (2.1%), food and beverages (1.5%) and chemical products (1.3%). The share of inputs sourced locally from firms also operating in the FTZs increased to 23% from 17% in 2011 (Figure 1.15). Firms operating in garment and textiles source 28% of their inputs locally; new industries rely less on local providers because the activities are new in the economy and therefore, in the absence of a targeted policy to develop local suppliers, there are no suitable local sources. For example, in the case of medical devices, the share of local sourcing for FTZs firms is 3% (Reyes et al., 2017[14]; Banco Central de la República Dominicana, 2014[15]). Limited local sourcing can be explained by several factors. In the case of some of the new activities in the FTZs, such as medical devices, there is no ready-made local industrial base to source from, as the industry is relatively new to the local economy. Local sourcing is also not yet part of the national country attractiveness package and foreign investors may lack the knowledge and operational capacity to deal with local bureaucracy and companies. In other cases, domestic capacity to meet technical standards and regulations may be limited.

Setting up FTZs can respond to the urgent need of creating employment or can be part of a long-term strategy to foster learning and upgrading in the local industry. The primary objective of the FTZs influences their management, the selection of investment projects, and ultimately the capacity of the FTZs to operate as an enclave or as a driver of local development.

Figure 1.15. What are firms in the FTZs sourcing locally in the Dominican Republic?

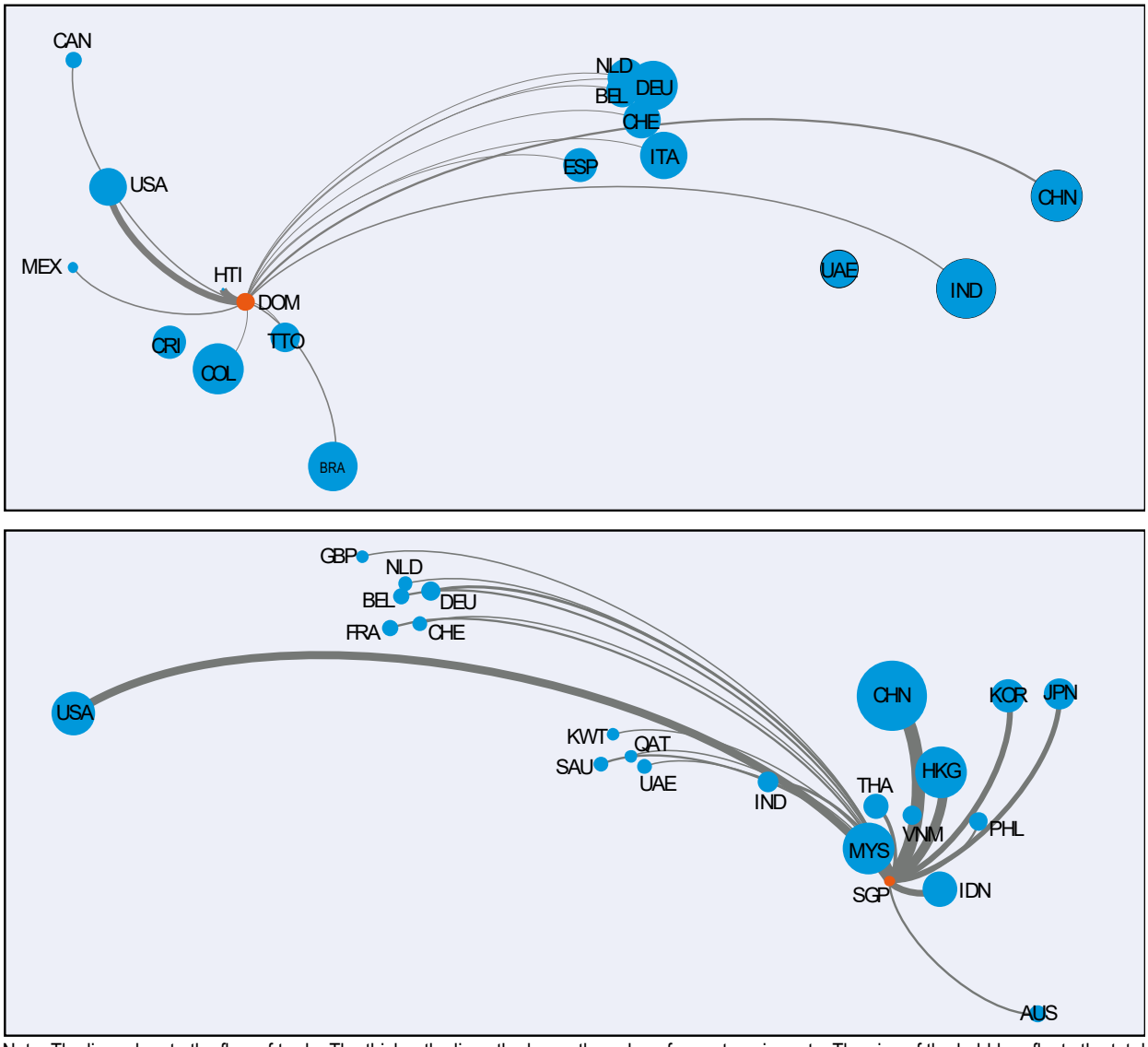


Source: Authors' elaboration based on General Directorate for Taxes DGII, http://www.dgii.gov.do/; and Dominican Republic Central Bank (2019), https://www.bancentral.gov.do/.

Participation in global and regional value chains by the Dominican Republic, measured by trade in intermediaries as a share of GDP, is 15%, lower than Costa Rica (20%), and Mexico (30%). For a small global hub like Singapore, this share is 120% of GDP. The Dominican Republic has a small trade network and is loosely connected to regional value chains when compared with Singapore (Figure 1.16). For example, 8 countries account for over 1% of total intermediate exports for the Dominican Republic, versus 18% for Singapore. Moreover, while Singapore is highly connected to regional partners, the Dominican Republic has few production ties to Latin American and the Caribbean. It imports mostly from the United States and to lesser extent from China, and exports predominantly to the United States. In contrast, Singapore can reap the benefits of the dense value chains that have developed in Asia. While neighbouring countries may compete for individual investments, proximity to other industrial and export hubs can drive investments in more complex goods whose manufacture may draw from nearby markets.

Figure 1.16. The Dominican Republic relies less on regional integration than Singapore

Intermediate goods export and imports network of the Dominican Republic and Singapore, 2015-17



Note: The lines denote the flow of trade. The thicker the lines the larger the value of exports or imports. The size of the bubble reflects the total number of export partners. The layout follows approximately the geographical locations of countries although some adjustments have been made for visual purposes. Only countries that account for over 1% of total intermediate goods exports and imports are reported.
Source: Authors' elaboration on UN Comtrade (2019), https://comtrade.un.org/.

The COVID-19 pandemic: facing the health emergency and addressing the economic consequences

As this report neared completion, the world has faced an unprecedented emergency: the COVID-19 pandemic. The health emergency has radiated outward from Asia, to Europe, the United States and, in a fourth wave, to Latin America, the Caribbean, and Africa. The uncertainty of how the pandemic will affect health and economic welfare in the Dominican Republic remains very high. It is equally unclear how long the risks of contagion will remain serious enough to require domestic and global lockdown measures.

The first confirmed case in the Dominican Republic was reported on 1 March 2020. As of 14 May , more than 11 000 positive cases and 409 deaths had been confirmed.

The Dominican Republic faces two major challenges: 1) addressing the health emergency; and 2) minimising the adverse economic consequences in the short and medium-term. It is of utmost importance that the country takes into account the long-term impact of short- and medium-term economic recovery plans to avoid locking in low productivity and non-environmentally sustainable pathways. Lessons from addressing the economic consequences of natural disasters show, for example, the need to use the opportunity not only to reconstruct but to innovate and to set up incentives for converting production and consumption modes into new, more innovative patterns.

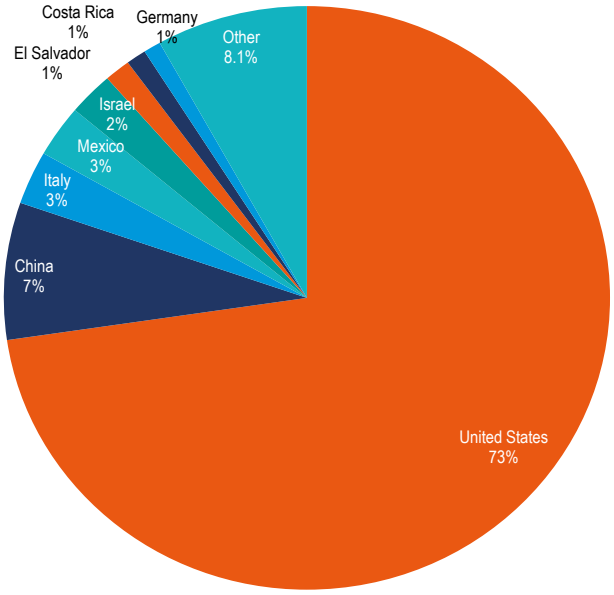
Addressing the health emergency: Testing, protecting, treating and curing

Limiting contagion is essential and lockdown is the most common strategy. For a country like the Dominican Republic with 60% of the labour force in the informal economy, lockdown is particularly hard to implement and implies higher costs for the most vulnerable. It is therefore essential to complement it with additional measures to enable easing out the full lockdown as soon as possible. The country has closed its borders and implemented a partial curfew from 20 March. In addition, it is important to ensure affordable access to testing. Testing deployable in decentralised settings and without the need of highly skilled medical personnel is essential. Doing this at the Latin America and Caribbean level is desirable. Ensuring affordable access to a vaccine will also be crucial once one is available; the world will need a global agreement to lift all pandemic-related intellectual property protections.

Avoiding shortages of personal protective equipment (PPE) and in-hospital capacity to treat patients (including ventilators) is crucial. The country has an estimated 400 ventilators, 1.6 hospital beds per 1 000 people (below the regional average at 2.1), 14.1 doctors and 3.5 nurses per 10 000 inhabitants, significantly lower than the regional average of 21.4 and 15.8, respectively. Moreover, the Dominican Republic is a net importer of PPE, mainly from the United States (73%), reflecting the high level of dependency of the country grappling with the world's highest caseload. Industrial reconversions have been useful in countries such as Italy, France and Spain where for example textile and paper, beverage manufacturers were able to reorganise and produce masks, gloves, and hand sanitisers. However, these items need to be certified to be effective and firms do not learn to manufacture overnight (Primi et al., 2020[16]). Business-to-business sharing of knowledge can make industrial reconversions an effective option, and the Dominican Republic has some local capacities in medical devices (see Chapter 4 of this PTPR). Through partnerships with lead foreign investors, the domestic firms could contribute to match part of the local demand. For example, the country is a net exporter of mouth-nose equipment and protective garments (UN, 2019[17])).

Figure 1.17. Import of personal protective equipment (PPE) in the Dominican Republic

Share of total imports by country, 2016-18



Note: The classification for PPE is based on the definitions provided by the Commission Implementing Regulation (EU) 2020/402 of 14 March 2020 making the exportation of certain products subject to the production of an export authorisation.
Source: Authors' elaboration on UN Comtrade database (2020), https://comtrade.un.org/data/.

Minimising the adverse economic consequences of the pandemic

For the Dominican Republic, the COVID-19 shock's economic consequences have arrived via four major channels: remittances, tourism, trade, and FDI.

Remittances

Remittances play an important role in sustaining final consumption, especially among poor households. Around 54% of Dominicans receive remittances at least once a month and it is estimated that they contributed to 10% of household income in 2018 (Keller et al., 2018[18]; OECD/CIECAS, 2017[5]). Although in January and February 2020 there was an increase of 10% with respect to the same period in 2019, total inflow remittances dropped by 22% (USD 145 million) in March 2020 once the pandemic hit the main countries of origin such as the United States and Spain. The World Bank projects for 2020 that global remittances will decline by 20% due to the economic crisis (World Bank, 2020[19]) If this projection remains valid, for the Dominican Republic at the end of 2020 the net drop of remittances could amount to USD 1.4 billion, or 2% of GDP. A reduction in remittances could exacerbate the loss of income for a large share of informal workers. These workers, representing 58% of total employment, have limited access to health and welfare services and tend to work in economic sectors that not only carry a high risk of infection but are also directly affected by lockdown measure, such as commercial activities (26%), household and services workers (22%), construction (11%), and transport (10%) (Banco Central de la República Dominicana, 2020[20]).

Tourism

Tourism and related local activities represent 16% of GDP, 17% of total employment, and 65% of total exports. With an average of 530 000 people visiting each month the country, with a direct contribution to the local economy of USD 630 million, the unprecedented halt in the global tourism industry is putting the Dominican Republic under an immediate and major strain. In January-February 2020, the country already faced a reduction of 6% over the same period last year, and the situation is expected to get worse as the country has now closed its borders and no tourists are allowed to enter. The future of the tourism industry is highly uncertain and will depend on how soon mass testing and a vaccine are available. Preliminary OECD estimates envisage a decline in international tourism from 45% to 70% for 2020 (OECD, 2020[21]). Under this preliminary scenario, a reduction between 45% to 70% for 2020 of inbound tourists in the Dominican Republic could lead to a net direct loss between USD 3.4 billion (4.1% of GDP) to USD 5.2 billion (6.5% of GDP) and to direct job losses of between 135 000 to 210 000 workers. The local agriculture sector, which supplies 80% of the total fresh products to resorts, could lose between USD 90 to USD 140 million.

The tourism industry has a good track record of rebounding from the crisis; countries hit by natural disasters often see tourism rebounding once confidence is restored and a good infrastructure and marketing strategy are in place. In addition, the Dominican Republic could ponder diversifying its client base: while it is now principally a destination for United States' travelers, it could explore possibilities of receiving more tourists from Latin America and the Caribbean and globally by leveraging on unique local assets.

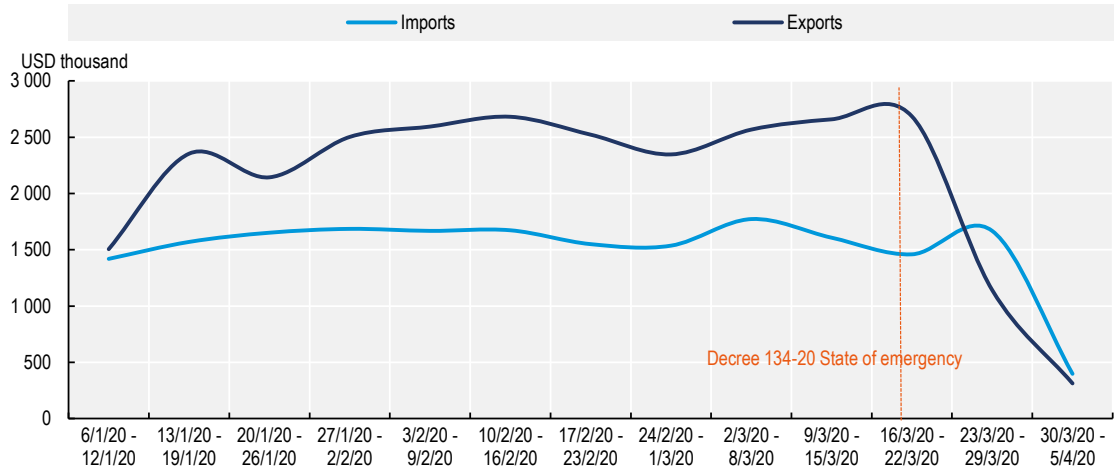
Trade and FDI merchandise trade

Facilitating trade remains essential, even more so in a pandemic. In the case of the Dominican Republic imports are a key source of food for the local population. Total imports for the period January-March 2020 dropped by 4% compared to the same period of 2019. The global drop in oil prices induced a reduction of 30% imports which represented 18% of total merchandise imports of the country in 2019. Net of oil, the data show an increase of 2.06% over last year, driven mainly by staple goods that track basic food basket such as rice (+120%), wheat (+40%) and milk (+25%). Total exports in January-March 2020 increased by 5.7% in relation to the same period of 2019. Of these 43% were raw materials, 36% consumer goods, while the remaining 21% capital goods. Exports of gold, which represents 15% of total exports, increased by 22% on year-to-year base (gold price increased from USD 1 400 to USD 1 600 per ounce in January-March 2020). Exports of medical devices increased by 30% with respect to the same period in 2019. Textile and footwear shipments dropped by 30% and 17%, respectively. Only after the declaration of the state of emergency on 19 March, with the shutdown of several economic activities, did the COVID-19-effect influenced trade. For example, total FTZs trade between 19 March and 5 April dropped by 58% with respect to the previous two weeks (Figure 1.18).

As the COVID-19 breakout shows a time lag in the contagiousness around the world, the trade impact is likely to be asymmetric in relation to various trade partners. For example, in the first three months of 2020 exports to United States increased relative more with respect to the same period of 2019, whereas exports to China, the first country in which the virus spread around the population, had a drop by 70%. In the near future, the impact of COVID-19 on the Dominican trade will largely depend on the rebound of main trade partners such as the United States and the European Union.

Figure 1.18. FTZs total trade dropped by 58% after the Shutdown

Weekly exports and imports from and to FTZs, January-April 2020



Source: Authors' elaboration based on the Dominican Republic Custom Service (2020), https://www.aduanas.gob.do/.

FDI and global supply chains are being severely affected. The medium- and long-term impact of the pandemic on global FDI and on the Dominican Republic is highly uncertain. No one can know to what extent the pandemic will affect global value chains, but initial signs show that relocations will increase. Japan has earmarked USD 2.2 billion of its economic stimulus package to help its manufacturers shift production out of China; the United States already had in place a strategy to bring manufacturing back to the United States. The pandemic could very well accelerate the trend.

Conclusions

The Dominican Republic, though the fastest-growing economy in Latin America and the Caribbean since 2010, cannot afford complacency. Growing calls for more inclusive growth and the current economic crises induced by the COVID-19 pandemic highlight the need to identify new growth drivers that increase the resilience of the economy and mobilise domestic productive potential. Meeting this challenge would reduce dependency on external factors and diversify economic partnerships. Updating the national development model by increasing ties with Latin America and the Caribbean, diversifying trade and investment partners, and supporting more local entrepreneurs and industrial development will help the Dominican Republic achieve a more inclusive and sustainable growth and will also help the economy address the economic consequences of COVID-19. Chapter 2 of this PTPR discusses which policy reforms can affect this transformation. Chapters 3 and 4 focus on the challenges and opportunities in agro-food and nearshoring investment.

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2 Elements for a forward-looking policy agenda in the Dominican Republic

The Dominican Republic has developed a national development strategy to achieve sustainable and inclusive growth by 2030. The national development model based on special economic regimes that has been driving growth since the 1960s, requires an update, especially in light of the COVID-19 pandemic. This chapter assesses current policies to transform the economy and identifies avenues for reforms based on the PTPR peer review process.

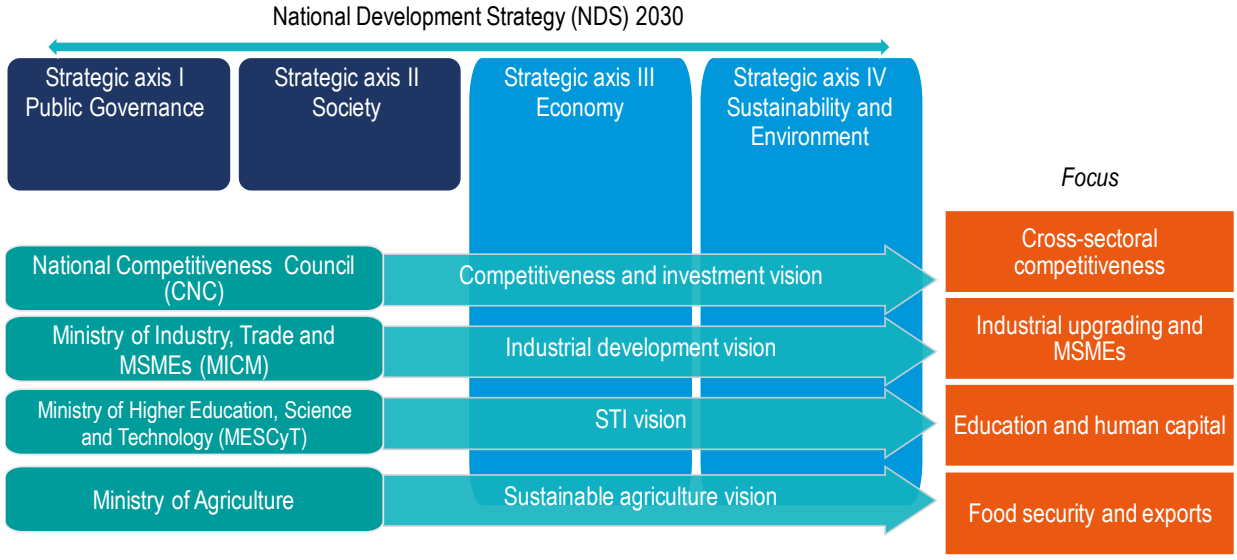
Introduction

The Dominican Republic needs a new approach to national development that begins to address growing demands for a more equitable society. This chapter provides an analysis of the country's current transformation strategy. Based on peer learning and review process carried out in the framework of the PTPR, it provides an overview of the institutions and agendas linked to competitiveness, trade, investment, and innovation. It also analyses the current policy mix and indicates elements for future reforms.

Sustainable and inclusive development are at the core of the national development vision

The National Development Strategy (NDS) 2030 establishes the long-term priorities for the Dominican Republic (MEPyD, 2012[1]). This strategy, co-ordinated by the Ministry of Economy, Planning and Development (MEPyD) in co-operation with the National Council for State Reform (CONARE), was approved by law in 2012 (Law 1/2012) and lays out priorities for public investment. Over the years, a growing number of institutions and ministries elaborated multiple sub-strategies for achieving the objectives included in the NDS. These include the competitiveness and investment agenda led by the National Competitiveness Council (CNC), the industrial development agenda of the Ministry of Industry, Trade, Micro and SMEs (MICM), the agenda of the Ministry of Higher Education, Science and Technology (MESCyT) and the sustainable agricultural vision of the Ministry of Agriculture (MINAGRI) (Figure 2.1).

Figure 2.1. The pillars of the 2030 national development strategy in the Dominican Republic



Source: Authors' illustration based on official information from the NDS (MEPyD, 2012[1]) http://economia.gob.do/mepyd/wp-content/uploads/archivos/end/marco-legal/ley-estrategia-nacional-de-desarrollo.pdf

Government and private sector commitment are key to transform the economy

Fostering industrial development, competitiveness and innovation in the Dominican Republic fall under the responsibility of several institutions (Figure 2.2):

- Created in 1935 as the State Secretary for Industry and Tourism, the MICM was granted ministerial rank in the constitutional reform of 2010. The reform of 2017 reinforced its mandate to also promote the development of micro, small and medium enterprises (MSMEs). In 2019, it employs around 2 500 professionals and has a total budget of USD 120 million in 2019 (0.7% of total national budget).[1] Currently, the MICM manages two main overlapping agendas that depart from the NDS: the Strategic Sectoral Plan for Industry and Trade 2018-2030 *(Plan Estratégico Sectorial de Industria y Comercio – PESIC)* and the Institutional Strategic Plan 2018-2021 *(Plan Estratégico Institucional 2018 – 2021- PEI-MICM).* At present, the MICM counts with five vice-ministries: domestic and foreign trade, industrial development, MSMEs and Free Trade Zones (FTZs). Thirteen implementation and regulatory bodies fall under the MICM, including:
  - The National Council of Free Trade Zones (CNZFE). Created in 1978, it is the independent authority under the MICM that regulates the functioning of FTZs and approves the applications for firms willing to operate within their boundaries and rules.
  - Proindustria, set up in 2007 as the successor of the Industrial Development Corporation (CFI), is in charge of developing the local manufacturing industry, hosts the business register and is in charge of granting the incentives for the local industrial sector.
  - The Export and Investments Centre of the Dominican Republic (CEI-RD), created in 2003, merged the Export Promotion (CEDOPEX) and the Office of Promotion of Investments of the Dominican Republic (OPI-RD) and today is responsible for attracting investment and export promotion.
  - The National Council for the Promotion and Support of Micro, Small and Medium Enterprises (PROMIPYME), created in 1997, provide financing and technical assistance to MSMEs.
  - The National Office for Industrial Property (ONAPI), created in 2000, is responsible for intellectual property in the country.
- MESCyT was set up in 2010 in the constitutional reform as an upgrade to the Secretariat for Higher Education, Science and Technology. In 2019, it had a budget of USD 290 million (1.8% of total national budget). The ministry includes an affiliated research institute, the National Institute for Biotechnology and Industry (IIBI). In 2007, to strengthen the institutional framework for science, technology, and innovation and to support the research and education agenda, the government created the National System for Higher Education, Science and Technology (SNESCYT), and the National System of Innovation and Technological Development (SNIDT). These co-ordinating bodies, chaired by the MESCyT, have similar, overlapping organisation structures that limit their autonomy, their budgetary decisions and implementation capacity, especially in the area of technology and innovation.
- The Ministry of Agriculture is one of the oldest institutions in the country, founded in 1945. The ministry manages the Agricultural Development Bank (Banco Agricola) and oversees the National System of Agricultural and Forestry Research (SINIAF).
- The Ministry of Labour, in addition to promoting and implementing employment-related policies and programmes, similarly to other countries in Latin America, oversees the National Institute of Vocational Technical Training (INFOTEP). This institute operates as an autonomous agency that provides on-the-job training to almost one million people annually through its network of six regional training centres. INFOTEP is mainly financed through a 1% earmark on monthly salaries of all formal workers, and through a 0.5% deductible from annual earnings that employees receive from the company.

In the Dominican Republic, the private sector plays an important advocacy role for public policies. Besides contributing to the strategic decision of the CNC as well as seating in several councils such as CNFZE and ProIndustria, it stimulates the public policy debate by proposing reforms and discussions within the business convention. The National Council of Private Enterprise (CONEP), created in 1962, is the biggest business association in the country that gathers both single enterprises or sectoral business associations with high advocacy power. Other relevant associations are the Dominican Republic Industries Association (AIRD), ProIndustria, and the Dominican Association of SEZs (ADOZONA), which supports stakeholders involved in the development of SEZs such as operators, firms and investors.

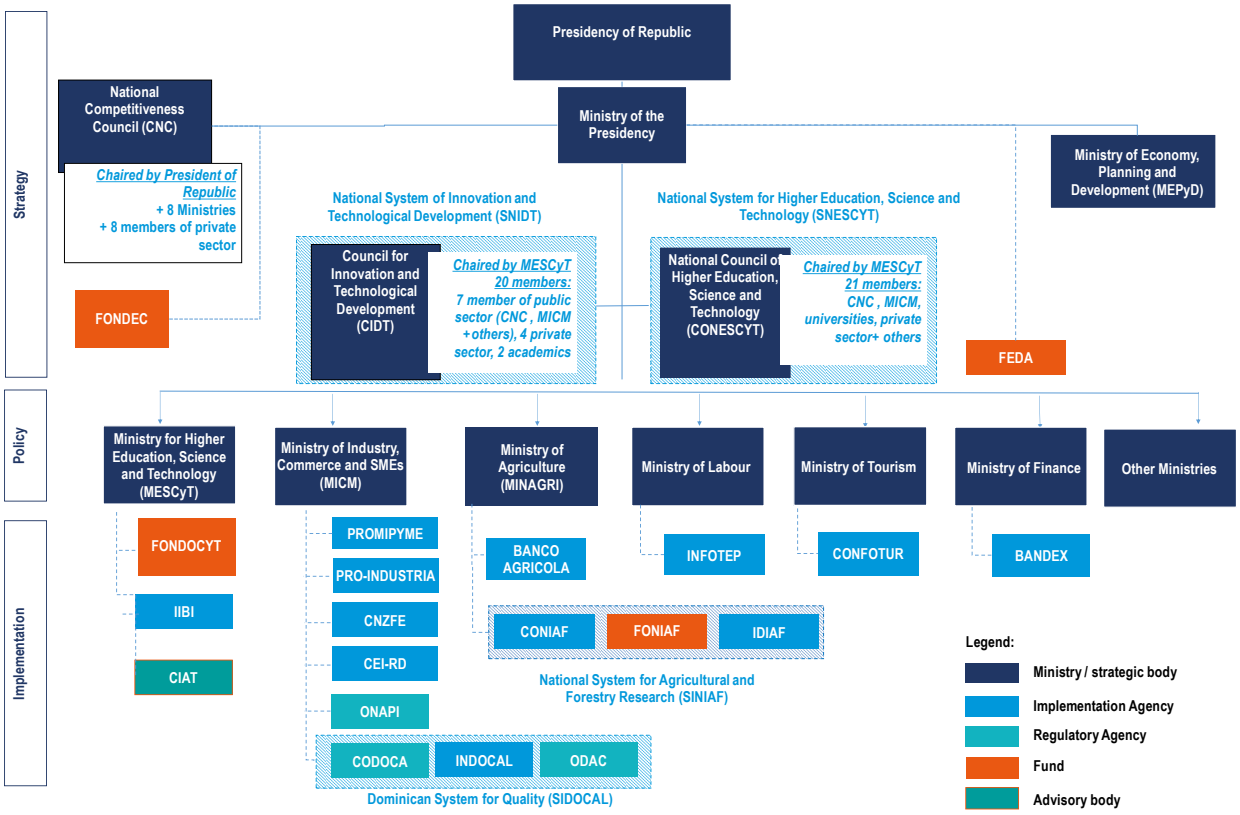
The institution in charge of facilitating public and private dialogue is the National Council for Competitiveness (CNC). The CNC is chaired by the President of Republic and composed of eight ministries and eight representatives of the private sector. It was created in 2001 to manage the Competitiveness Fund (FONDEC). The FONDEC, financed by the IADB, provided resources that required private matching funds to set up industrial clusters. From its inception until 2012, the fund co-financed the creation of 45 clusters for a total of USD 13.5 million (16 clusters in agro-food, 15 in tourism, and 14 in manufacturing). The co-financing from the private sector was 14% of the total investment, lower than expected. The IADB's evaluation stressed that the most successful clusters (mangos, organic coffee) were those that emerged in response to private-sector demand and supported by the international technical assistance of the United States Agency for International Development (USDA) (IADB, 2010[2]). Once exhausted its mission of managing the FONDEC, the CNC remained and evolved into a strategic body. In 2018, it formulated an agenda, Competitive Dominican Republic (*Dominicana Competitiva),* pointing to specific reforms needed to diversify domestic production and increase local value-added. The agenda has identified five priority areas and industries for the country, and includes 37 priority actions with an estimated budget of USD 542 million (0.7% of GDP), of which 63% is devoted to implementing actions in agro-food, 28% in tourism and 8% in manufacturing.

Table 2.1. Priority areas and sectors for action in the DR Competitive agenda, 2018-20

	Agro-food	Mining	Manufacturing	Tourism	FTZs
Number of priority actions	6	6	14	7	4
Objectives	• Support the development of prioritised products. • Facilitate financing for producers and exporters. • Improve the quality infrastructure system for standards and certification	• Expand exploration permits	• Facilitate financing for SMEs and exporting firms • Improve the quality infrastructure system for standards and certification • Improve logistics and transport • Reduce red tape • Foster skills and human capital • Promote exports	• Environmental sustainability • Develop tourism in Santo Domingo • Attract new tourist from untapped regions (i.e. Asia)	• Reduce red-tape • Adopt digital technologies • Foster skills and human capital
Involved public institutions	Presidency; MINAGRI; Banco Agricola, BANDEX; Ministry of Finance	Presidency; Ministry of Finance; Ministry of Energy and Mining	Presidency; BANDEX; MICM; CEI-RD; Proindustria; Customs agency; INFOTEP; INDOCAL; CNC	Presidency; Ministry of Tourism; Ministry of Finance; Ministry of Energy and Mining; Ministry of Culture; CEI-RD	DGII; Ministry of Finance; INFOTEP, CNZFE,CNC
Expected associated budget- USD (share of total)	343 (63%)	N/A	45 (8%)	153 (28%)	1.1 (0.2%)

Source: Authors' calculations based on the information provided during the first mission in the context of the PTPR, Santo Domingo, July 2019.

Figure 2.2. Dominican Republic's governance for production transformation, 2019

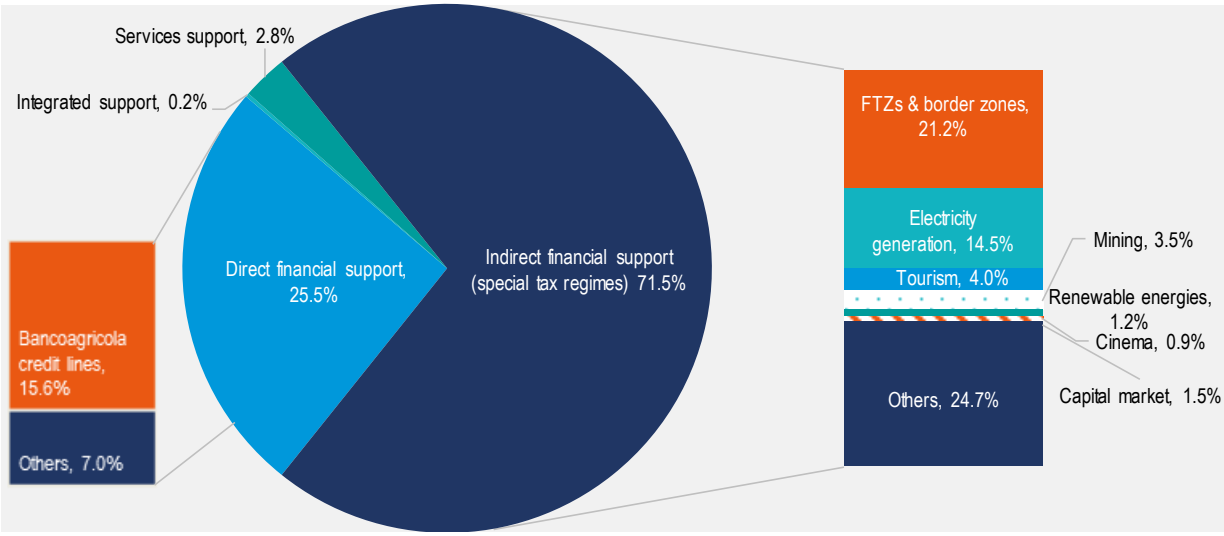


Note: CIAT: The International Advisory Commission of Science and Technology; FONDEC: National Competitiveness Fund; FONDOCYT: National Fund for Innovation and Scientific and Technological Development; FONIAF: National Agricultural and Forestry Research Fund; PROMIPYME: National Council for the Promotion and Support of Micro, Small and Medium-sized Enterprises; CEI-RD: Export and Investment Centre of the Dominican Republic; INFOTEP: National Institute of Vocational Technical Training; CNZFE: National Council of Free Trade Zones; INDOCAL: Dominican Institute of Quality; ONAPI: National Office for Industrial Property; DIGENOR: General Office for Norms and Quality System; IIBI: Institute for Innovation in Biotechnology and Industry; IDIAF: Dominican Institute for Agricultural and Forestry Research. The figure does not include all institutions in the Dominican Republic, only the principal ones linked to policies for production development and innovation.
Source: Authors' illustration based on questionnaire replies during the field missions of the PTPR process, July and December 2019.

Special economic regimes play a prominent role in the policy mix in the Dominican Republic

Creating an effective policy mix for development is not an easy task. It requires a multi-ministerial and multi-agency co-ordination, and in the Dominican Republic, as in other countries, there is not a comprehensive and consolidated official budget. Primary sources of information such as the national budget and tax revenues data along with a survey carried out during the PTPR process, allowed to tackle this task. In 2019, the country had 109 instruments, managed by different institutions, for a total estimated cost of USD 2.4 billion which amounts to 2.9% of GDP (Figure 2.3).

Figure 2.3. Estimated government expenditure for production transformation, by type of instrument, 2019



Note: Indirect financial support are estimated figures and do not consider exemption on personal income taxes.
Source: Authors' research based on questionnaire replies during the PTPR process, General Directorate for National Budget https://www.digepres.gob.do/estadisticas/gastos/, and General Directorate of Internal Taxes (DGII), Estimate for the General Government Budget, https://dgii.gov.do/publicacionesOficiales/estudios/Documents/2019, 2019.

The distinctiveness of the policy mix in the Dominican Republic stems from the prominence of indirect financial support in the form of special fiscal regimes. The emergence of these special regimes dates back to the 1960s. The Industrial Incentive Law (299) of 1968 is the first attempt to spur the industrialisation process of the country by creating the first special regime to attract FDI in sectors where capital and local knowledge was limited. The fiscal incentive packages favoured imports of capital and intermediate goods such as machinery and equipment and led to the creation of the first Free Trade Zone (FTZ) in *la Romana* in 1969 (Pons, 1990[3]; AIRD, 2012[4]). In 2019, the country had 13 special regimes that accounted for more than 71% of the total budget, or roughly 2.1% of GDP (Table 2.2). Each regime offers differentiated tax rates to firms depending on their size, economic sector, geographical location, and main destination of their production.

Among special regimes, the FTZs are the most relevant with 695 beneficiaries – 0.8% of total firms – for a total of roughly USD 500 million in tax expenditures, or 21% of total budget for production development. Another 10% of total budget is linked to special economic regimes for specific industries, including tourism, local manufacturing, and creative industries whereas simplified income tax for micro and SMEs account for roughly USD 500 million (20% of total budget (DIGEPRES, 2019[5]).

Specific institutions are in charge of granting the targeted special regimes. The National Free Zones Council, created in 1978 as an independent authority under the ministry of industry, is the public agency that approves the requests of investments in the FTZs and the creation of new ones. Similarly, in the case of tourism, it is the Tourism Promotion Council (CONFOTUR) affiliated with the Ministry of Tourism that approves and administers the tax incentives.

Table 2.2. Main fiscal regimes for selected production activities, Dominican Republic, 2019

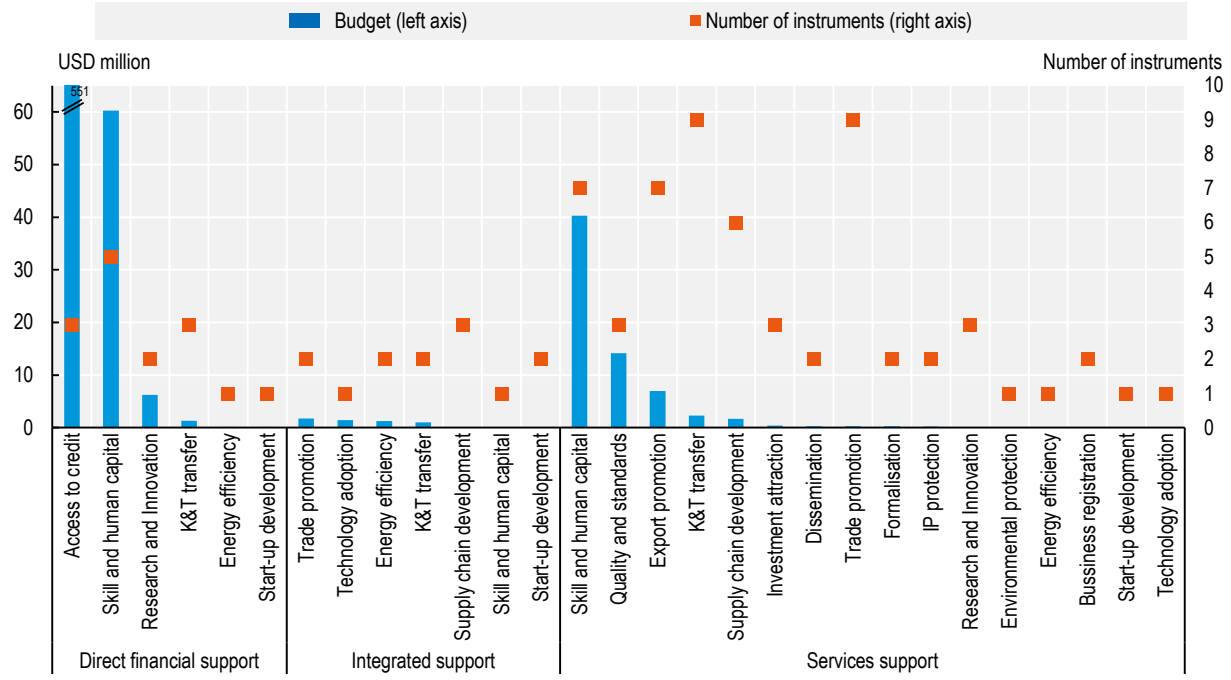
	Legislative framework	Incentive package	Beneficiaries	Responsible institutions	Conditionalities
Targeted to specific industries					
Tourism	Law 158-01 and subsequent modification (Law 184-02 – law 266-04)	• 100% exemption for local and national taxes on registration, construction, gross sales and transfer of industrial goods (e.d. VAT) • Deduction of investment cost from other taxable income at the rate of 20% per year for five years	All domestic and foreign investors Number of beneficiaries: 111	CONFOTUR, Ministry of Finance	• From 2013 the application of the regime only in specific touristic poles is removed
Creative industry	Law 108-10	• Tax credit of 25% of all expenses incurred • 100% VAT exception • Temporary duty-free access to imported goods and services	All domestic and foreign investors Number of beneficiaries: N/A	Intrasectoral council for the promotion cinema activities (CIPAC)	• Minimum investment USD 500 000 • Productions must have a minimum of a 25% Dominicans members
Renewable energies	Law 57-07	• Duty-free access to imported inputs and capital goods • 100% exemption for taxes on gross sales and income taxes until 2020 • 5% tax relief for interest on loans for the development of projects	All domestic and foreign investors Number of beneficiaries: 5	National commission for energy (CNE)	• Equipment, parts, and systems must be produced locally with a minimum aggregate value of 35% • Invectives are subject to maximum installation capacity depending on the energy source
Territorially targeted					
FTZs and border zones	FTZs: Law 8-90 and subsequent modification (Law 56-07- Law 139-11) Border zones: Law 28-01	• Duty-free access to imported inputs and capital goods (15-years for regular FTZs, 20 years for firms located in border zones) • 100% exemption for taxes on registration, construction, gross sales and transfer of industrial goods (e.d. VAT) • 50% exemption of fees for use of ports and airports	Operators, firms, and investors of FTZs Number of beneficiaries: 671 for FTZ and 83 for border zones	CNFZE, Ministry of Finance	• Access to domestic is subject to import duty, 3.5% tax on gross sales and 18% VAT • Non-FTZ firms in priority sectors (textile, footwear, and leather industries) have similar package to those available to the FTZ and enjoyed duty-free access to 126 HS 6-digit key imported inputs. • Renewable at the discretion of CNFZE
Fiscal incentives to foster competitiveness of local firms					
Simplified income tax	Law 11-1992 subsequent modification (Regulation 1521 of 2004 and Regulation 758 - 08)	The definition of the taxable income for income tax and VAT is a function of intermediated purchases for businesses or the income for natural person	Micro and SMEs Number of beneficiaries: N/A	Ministry of Finance	• Eligibility is subject to the firm size
Local industry (ProIndustria)	Law 392-07 and subsequent modification [law 542-14 law 690-12]	• 50% discount of VAT on imported machinery and capital goods; differed VAT scheme and exemption on other taxes • 50% exemption of customs duties for imports and re-exported goods from and to FTZs	Local manufacturing firms	Proindustria, Ministry of Finance	• Applicable to manufacturing firms that obtain the *industrial qualification* subject to 0.1% fees on capital equity

Note: The table is not meant to be complete. It reports only the main tax regimes and incentives schemes relevant to this report. The complete set of tax regimes are available at https://dgii.gov.do.
Source: Authors' compilation based on interviews during the field mission of the PTPR process and General Directorate of Internal Taxes https://dgii.gov.do.

The remaining 29% of the total budget allocated to the policy mix are in the form of direct financial support, services, and integrated support (Figure 2.4). More specifically:

- Direct financial support is mainly driven by the agricultural credit lines of the Bancoagricola, which in 2019 had a portfolio of credit lines worth USD 480 million and is responsible for 55% of the total credit to agriculture. Its beneficiaries are mostly medium and small producers, and agricultural co-operatives. It is followed by the credit lines from Banca Solidaria. Established in 2012, is a second-tier institution managed by PROMIPYME under the MICM that dispenses preferential credit between USD 100 and 10 000 for MSMEs at a subsidised rate of 8%. In 2019, the total credit lines of the bank amounted to USD 123 million. Other direct support includes specific programmes of the MESCyT such as the National and International Scholarship Programme, with a total budget of USD 49 million, followed by the English Immersion Programme with USD 9.5 million and National fund for Innovation, Scientific and Technological Development (FONDOCyT) with USD 5.6 million. Created in 2001, the FONDOCYT is currently the national fund for fostering research. It financed 432 projects between 2005 and 2018 for a total of USD 57 million. The top three beneficiaries accounted for 50% of total disbursed funds: the Autonomous University of Santo Domingo (UASD) with 110 projects for 26% of the total budget, the Pontifical Catholic University (PUCMM) with 15% and the Santo Domingo Institute of Technology (INTEC) with 9%. The main areas of investigation are biotechnology and food safety (30%) and basic science (27%).
- Services and integrated support account only for 3% of the total budget, scattered among the 72 exiting policy tools. The country spent USD 40 million on skill and human capital development, led by the vocational training provided by INFOTEP. However, the majority of instruments have little budget and overlap in terms of actions and objectives. For example, there are 11 ad-hoc instruments for both knowledge and technology transfer, and trade promotion. The bulk of these instruments provide training and mentoring services managed by either the MICM or associated agencies and focus mainly on MSMEs. For example, the CEI-RD as well as the vice minister for MSMEs of the MICM are managing parallel instruments to foster export promotion through the establishment of ad-hoc programmes aimed at new export opportunities. The MICM in 2011-19 inaugurated 24 MSMEs Centres (*Centros Mipymes*) in 14 regions. Each centre, developed in partnership with local universities, provide ad-hoc services and technical support for MSMEs in areas such as formalisation, financing options, internationalisation, and digital technologies. The programme, built on the US experience with support for SMEs with the Small Business Development Center (SBDC) had a total budget of USD 2.4 million in 2018. In 2011-19, the centres supported 3 218 MSMEs firms, or 4% of total MSMEs enterprises in the country. Of those, 41% of firms were in services activities, 17% in commercial activities, and 11% in manufacturing (MICM, 2019[6]). Finally, support for research and innovation and for investment attraction is limited to only three instruments, with a total budget of USD 100 000 and USD 400 000 respectively.

Figure 2.4. Policy tools by budget and objective, 2019



Source: Authors' tabulations based on questionnaire replies during the PTPR process, General Directorate for National budget https://www.digepres.gob.do/estadisticas/gastos/, and General Directorate of Internal Taxes (DGII), Estimate for the General Government Budget, https://dgii.gov.do/publicacionesOficiales/estudios/Documents/2019, 2019.

The Dominican Republic has taken steps to foster competitiveness

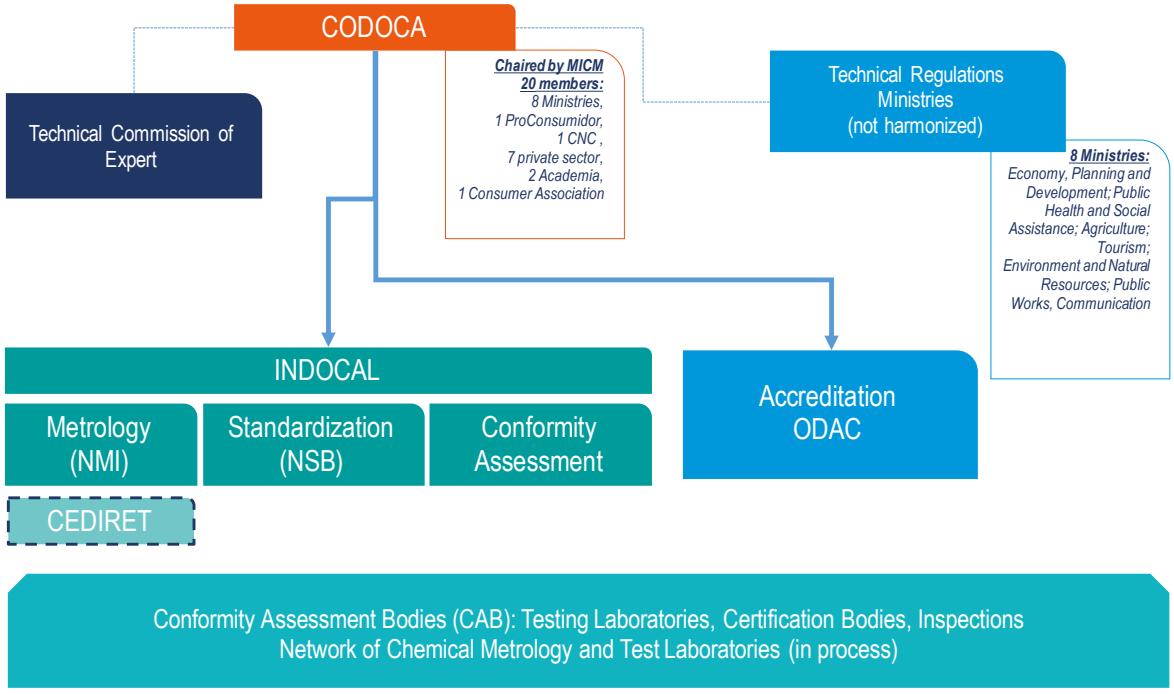
Recently, the Dominican Republic has improved policies and regulatory frameworks to enhance local business development. Three reforms are of particular importance:

1. The country has defined a national digital strategy. The Ministry of the Presidency, with an annual budget of USD 1.3 billion in 2019 (8.6% of total national budget) has defined the national digital agenda (*República Digital*) since 2017. It is structured around four pillars: e-government, education, employment and productivity, and connectivity. In 2019, the digital agenda had a budget of USD 133 million, most of which, 93%, is devoted to fast-tracking the use of digital technologies in primary and secondary schools. The remaining 7% goes towards the adoption and development of digital technologies in productive sectors (DIGEPRES, 2020[7]).

2. The government has recognised the need to simplify the regulatory framework for business development. In 2019, the CNC in co-operation with the Mexican National Commission for Regulatory Improvement (CONAMER), identified more than 1 800 different administrative procedures to set up and run a business (CNC and CONAMER, 2019[8]). The CNC has set up an on-line platform to streamline legal requirements, reduce red tape, and facilitate access to information. In the near future, the platform should be able to help identify and reduce redundant and overlapping administrative barriers that impede business. The Dominican Republic already has some one-stop shops for specific issues, as for example for FDI (*Ventanilla Única de Inversión*, managed by the CEI-RD) and trade (*Ventanilla Única de Comercio Exterior* managed by the Customs Office), among others. Advancing simplification and developing a unified platform would aid these efforts.

3 The country has improved and harmonised its national quality infrastructure system (QIS) under a unique framework. In 2012, the Dominican Republic has established a System for Quality Infrastructure (SIDOCAL) (Law 166-12), reforming and upgrading the former General Direction for Norms and Quality System (DIGENOR). Within the system, the Dominican Council for Quality (CODOCA) co-ordinates all actions; it is chaired by the Vice Minister of Industrial Development of the MICM and, in line with international practices, is composed by representatives from public institutions, private sector, consumer associations and academia, and it is supported by a technical experts' commission. The CODOCA overseas the work, technical functions and competences of two institutions: the Dominican Institute for Quality (INDOCAL) in charge of metrology, standardisation and conformity assessment, and the Dominican Accreditation Body (ODAC) (Figure 2.5). The advancements in this area have benefited from international technical co-operation, notably from the German National Metrology Institute (PTB), the United States National Institute of Standards and Technology (NIST), and the European Union (EU). Moving ahead the country has the opportunity to improve the QIS by strengthening co-ordination and increasing traceability (Box 2.1).

Figure 2.5. Dominican System for Quality (SIDOCAL)



Source: Karl-Christian Göthner, German National Metrology Institute (PTB), *Quality Infrastructure Services for National and Global Value Chains*, presentation at the PTPR Peer Learning Group (PLG) of the Dominican Republic, Lima, 1 April 2019.

Box 2.1. Continuing strengthening the national quality infrastructure system: Lessons from Germany

The Peer Learning Group for this project identified the following areas of reforms as critical:

- *Strengthening the technical expertise of CODOCA:* Setting up an executive secretariat with technical experts and ad-hoc working groups in specific areas.
- *Modernising and strengthening the testing infrastructure.* National testing and measurement laboratories require more sophisticated equipment. For example, calibration testing exists only for basic measurement instruments and for legal metrology.
- *Harmonising technical regulations*. Currently, best practices are anchored to national standards and technical regulations often do not correspond to international standards and this may impede access to foreign markets.
- *Improving traceability capacities and accreditation process*. Since 2016, the country has benefited from the co-operation of the European Development Fund to improve its traceability capacities. Strengthening co-operation with other institutes in Latin America and the Caribbean is advisable, as is improving the accreditation process within the framework of the International Accreditation Forum (IAF) and International Laboratory Accreditation Forum (ILAC) of international standards for food safety (ISO 22000), energy management (ISO 50001) and information security (ISO/IEC 27001) to improve the services provided to companies operating in the country.
- *Ensuring greater institutional co-ordination with food security*. The relationship between the three main ministries (Agriculture, Health and MICM) in charge of assuring a proper quality assessment is weak. Future development could focus on securing greater synergies between quality infrastructure and food security. In this context, greater co-ordination between SIDOCAL and the National System for Food and Nutrition Independency and Safety (SINASSAN) is desirable [SINASSAN need to be operative]. For example, in Germany, the National Metrology Institute (PTB)-Germany (PTB) and the Institute for Consumer Protection and Food Security (BVL) defined mechanisms of mutual co-operation in which a representative of the BVL is a member of the advisory board of the National Metrology Institute (PTB)-Germany in order to secure co-ordination and continued co-operation.

Source: Peer Learning Group (PLG) Meeting of the PTPR of the Dominican Republic, hosted by the Government of Peru in April 2019 and presentation by Karl-Christian Göthner of the German National Metrology Institute (PTB).

Key elements for future reforms

Diversifying economically, innovating, and better sharing the gains of growth is not easy. Every country has different visions and aspirations, a unique historical trajectory, and an institutional legacy that shapes how it defines strategies and implement policies. A common trait of successful transformation strategies is high-level leadership to foster business development in new activities. Learning how to perform new tasks and run successful businesses, trading abroad, and attracting FDI require work on multiple fronts, including infrastructure building, fiscal reforms, and incentives targeted to firms. It also requires reconciling interests of actors that operate in response to different incentives (the scientific community, local firms, and multi-national companies, among others). A committed government with a clear strategic focus is essential to ensure policy coherence towards a common goal.

The PTPR process of the OECD has identified five pillars that influence the capacity for defining and implementing an effective strategy for economic transformation (OECD/UN, 2018[9]; OECD/UN/UNIDO, 2019[10]; OECD, 2017[11]). The five pillars include:

- The capacity to anticipate future scenarios and think long-term when defining major national objectives and strategies;
- The existence of mechanisms to enable reforms quickly when unexpected consequences appear or when the context changes and requires a change in direction or policy instruments. Crucial to this capacity is the existence of feedback processes and monitoring and evaluation mechanisms;
- The existence in the strategy of elements that foster learning and upgrading in all firms, with a special emphasis on small and medium-sized enterprises;
- The capacity of the national government to work beyond silos and to offer one-stop shops to beneficiaries to enable easy access to public policies and regulatory framework, and the existence of policy tools that enable and reward co-operation in the production and innovation system, for example between universities and firms;
- The capacity of public policies to deliver outcomes to all territories and agents in the national economic system, minimising the changes to create enclaves or economic systems that advance at different speeds.

The peer learning process implemented through the PTPR of the Dominican Republic resulted in an assessment of the existing institutions and policy framework, and has clarified priority reforms going forward, as reported in (Table 2.3).

Table 2.3. Transforming the economy of the Dominican Republic: A governance assessment based on the PTPR framework, 2020

Governance dimensions		
Anticipation capacity	√	**Long-term agenda**. The country has a Ministry of Planning with high convening capacity and with routines to define long-term agendas. At present, the country has a National Development Strategy with a 2030 horizon.
	x	**Foresight and scenarios.** The planning process is carried out in a traditional way. There is institution in charge of scanning for possible future and anticipating new trends. Increasing the capacity to anticipate potential disruptions is increasingly more important in the current, fast-changing, interconnected global economic landscape, where events that could influence the national economy, in positive or negative ways, could come potentially from anywhere in the world. This function could be assigned to the Ministry of Planning, or could be nested in the CNC but with a formal channel to link it to the national development strategy process.
Adaptation capacity	≈	**Formal feedback between monitoring and evaluation and policy definition.** The country could increase accountability by easing access to public information on support for economic transformation. Establishing a channel for which monitoring and evaluation feed the policy design phase would improve the quality of the policy process.
	≈	**Going beyond the special regimes approach.** Over the decades, the country has developed an economic model based on granting special fiscal regimes to areas of priority and peculiar interest, including manufacturing, tourism, and creative industries, among others. While this approach has enabled the development of new activities in the economy, the country needs to shift the type of government support that would achieve the national vision of inclusive and sustainable development. This change should include a fiscal reform, as highlighted in the NDS 2030.
Learning and upgrading potential	**x**	**Addressing the policy mix and institutional gap for innovation and local production development.** The country needs to advance in strengthening the institutions for innovation. While there is a consensus that innovation matters for development, there is a gap in terms of resources devoted to innovation and the typology of policy tools to foster it. A potential way forward would be the identification of resources for financing innovation, the modernisation of the policy mix for innovation, notably by introducing mechanisms to foster innovation in firms, and the creation of an agile agency devoted to innovation, endowed with the mandate to manage these resources. The country should also identify how the banking sector could foster production development and innovation in firms and increase co-ordination with the incentives for SMEs managed by the MICM.
	≈	**Activating learning from MNCs and FDI.** The country would benefit from actively fostering learning spillovers from MNCs and FDI to the local economy. Cybernetic Park provides an interesting example that could be replicated. Industrial parks and zones, as well as the layout organisation and their management, can connect foreign investors and capabilities and local skills and entrepreneurial talent.
Interconnectedness propensity	√	**With the private sector.** The local private sector has a tradition of organisation for public policy advocacy. Going forward it would be advisable to foster the development of new local start-ups and channel their views into public policies. Associations of entrepreneurs in Latin America in recent years have proved to be effective in fostering policy reforms.
	≈	**Within the government.** The country has a planning ministry and several bodies for policy co-ordination. In practice however, there is limited co-ordination as some functions, especially the ones linked with FDI, are scattered among several instiutions. A stronger planning ministry, filling major institutional gaps, and the empowerment of one single body to ensure policy co-ordination for production development are necessary. Reforming the policy mix and shifting towards one-stop-shop platforms for accessing government support for production development would also be desirable.
	≈	**With foreign partners.** **Prioritising FDI quality and impact.** Strengthening the role of attracting FDI of the CEI-RD would also benefit the country. It would allow the country to attract FDI in areas of priority interest and negotiate upfront conditionalities that benefit the local economy. **Technical co-operation with traditional partners.** The country has well-established partnerships for development co-operation in the areas of production development mostly with the United States and the European Union. In the future, the country should clarify priority areas for technical co-operation, for example upgrading in specific value chains such as agro-food and tourism, and define new modalities of co-ordination with the Vice Ministry of International Co-operation of the MEPyD. **Learning to co-operate with new partners.** The recently established diplomatic relationship with China will require targeted efforts to define a national strategy to benefit from the partnership with China.
Embeddedness potential	**x**	**Territorial development.** Apart from the special economic regimes for firms operating at the border zone with Haiti, the country lacks a place-based approach to policy making. Integrating regional and territorial development in the planning process is a fundamental priority for the country to effectively update its economic model and make it more inclusive and sustainable. Identifying how to address regional and territorial development issues in national strategies will be key in delivering results to all citizens and identifying new sources of growth.

Note: √: positive progress; ≈: margin for improvement; **x**: reform needed.

In particular, this review has identified three key areas that can shape the future development agenda of the country :

Strengthening and modernising planning

The fast-changing global landscape requires a capacity to think and plan long-term and to look at national options and challenges from many perspectives. As citizens and the global market broaden their definition of progress and prosperity and start to value sustainability and inclusiveness more fully, planning becomes crucial. Planning is not only deciding what to do and how do to it. Planning is strategic and forward-looking thinking, matched with consensus-building capacity. It is increasingly linked to the capacity to identify possible futures, clarify what is desirable and what is risky, and having back-up plans to act in case of sudden and unexpected changes.

The Dominican Republic has a well-established process for defining a multi-year national development plan supported by bodies for multi-stakeholder co-ordination. However, it would benefit from an updated planning process so it can identify major game-changers for the economy and the society. Different countries manage this prospective and planning function in different ways. In some cases, there is an office within the Presidency taking charge; in other cases, it is the Ministry of Planning. In the case of the Dominican Republic, multiple solutions are possible: The Ministry of Economy, Planning and Development could host a new division, which could be responsible for forecasting and developing scenarios in co-operation with public-private bodies, like the CNC, and with the participation of civil society. These institutional arrangements can all work, provided that the scenario-setting capacity is included among the priority actions for national development planning and that some good principles are applied. Among them, it is important to take into account the following principles:

- National leadership needs to value prospective work. In Finland, for example, the Parliament requests scenario planning from the government. In the United States, each new President receives a file with potential scenarios from the National Intelligence Council (NIC).
- A dedicated unit needs to be in charge. There is no unique model and each country needs to identify the solution that best fits its institutional governance and culture. But someone needs to be in charge and accountable for scenarios and foresight.
- An open process for scenario elaboration. The unit in charge needs to set up a consultation mechanism with different stakeholders. The perception of risks and opportunities is highly heterogeneous among the different constituencies of a country. The process needs to be open to be relevant.
- A mechanism to update scenarios and transform them in policy guidance needs to be in place. Demanding prospective analyses and tasking a team to do them are only preliminary steps. It is important to define a mechanism through which these prospective analyses can shape the process of strategy definition and policy implementation. Co-ordination with all ministries and agencies and at all levels of government is needed.
- Informing and training government staff and citizens. To make scenarios relevant in public policy management, leaders must include elements of scenarios and foresight in the overall training for government officials.

Strengthening planning would also require shifting towards a place-based approach to policy making. Apart from the special economic regimes for firms operating at the border zone with Haiti, the country lacks a place-based approach to policy making. Integrating regional and territorial development in the planning process is a fundamental priority for the country to effectively update its economic model and make it more inclusive and sustainable. Identifying how to address regional and territorial development issues in national strategies will be key in delivering results to all citizens and identifying new sources of growth.

Filling operational gaps

Over the decades, the country has developed an economic model based on granting special fiscal regimes to areas of priority and peculiar interest, including manufacturing, tourism, and creative industries. While this approach has enabled the development of new activities in the economy, the country would benefit from an update in the approach to achieve the national vision of inclusive and sustainable development. To do so, the country would need to:

Identifying mechanisms to foster learning and spillovers from FDI

- **Improve the strategic attraction of FDI.** Setting up of a targeted body in charge of FDI attraction would help implement a pro-active and selective approach. While there are multiple bodies which deal with FDI in the Dominican Republic, one, unique co-ordinating agency able to scout out potential partners and providing a whole range of services is missing. Each zone offers a package to the investing companies, but a national co-ordinated approach is missing. There is no unique best type of institutional setting, and the country can identify what would work best based on its current framework. A type of private and non-profit institution like the Costa Rican Investment Promotion Agency (CINDE) could work well (OECD, 2012[12]). In the Dominican Republic, existing institutions could perform this function if properly modernised and reformed. The CEI-RD could strengthen this function if backed with a stronger mandate for FDI attraction and improve the co-ordination and convening capacities with other relevant bodies as the MICM and the CNZFE. Shifting to a more proactive approach in FDI attraction would enable the Dominican Republic to better negotiate which type of investment and which conditionalities could best serve the interest of both the investing company and the local economy. To perform effectively, the agency in charge needs to be able to operate quickly, have timely access to decision-making processes and needs a pro-business and private sector-oriented staff. This requires also improving the overall quality of public service and making the profession appealing for the best talents.
- **Fostering learning from FDI and multinationals.** The country would also benefit from actively fostering learning spillovers from MNCs and FDI. The existing experience of Cybernetic Park provides an interesting example that could be replicated.
- **Capitalising and updating technical co-operation with traditional partners.** The country has well-established partnerships for development co-operation in the areas of production development mostly with the United States and the European Union.
- **Learning to co-operate with new partners**. While the United States is the main economic partner of the Dominican Republic, the country would benefit from directly investing in developing and effectively managing relations with emerging and potential prospect partners. The recently established diplomatic relationship with China will require targeted efforts to define a national strategy. Strengthening ties with Latin America and the Caribbean would also be beneficial.

Fostering innovation

- **Innovation is the weakest pillar in the national strategy for economic transformation.** While there is a generalised consensus that innovation matters for development, the country falls short in terms of institutions, funding mechanisms, and overall policy mix to foster start-up development and innovation. The research and training side showed a certain degree of improvement over the years, especially in the agro-food area and in FTZs. However, for industrial development and technological innovation in firms, several gaps need to be addressed by fostering a pro-innovation attitude in the private sector. Scaling up co-operation with regional partners and foreign investors would also be important in going forward.
- **Filling the institutional gap**. There is no implementing agency in charge of innovation. The Dominican Republic needs to identify a funding mechanism for innovation. In parallel, the country needs a targeted body in charge of managing the innovation budget (UNCTAD, Forthcoming[13]). There is no unique model, but some countries identified in a dedicated agency an effective way to channel innovation funds, as for example the Innovation Agency in Uruguay (OECD, 2015[14]) and in Switzerland (see Box 2.2).
- **Ensuring long-term financing.** The country does not have a development bank that plays this role. There are some initiatives which the Dominican Republic could leverage. Banca Solidaria, established in 2012 as the second-tier bank for MSMEs and the export development bank Bandex. Bandex was, set up in 2015 as a result of the restructuring of the National Housing and Production Bank (BNV). Bandex could be scaled up to assume the function of financing production development and innovation, including exports, therefore filling the gap in the current financing chain of the country. This, however, would require careful due diligence and institutional design and a clear clarification of the division of labour with existing commercial banks.
- **Improving innovation-related evidence**. In parallel with strengthening support for innovation, the country would benefit from better statistical capacities in the innovation area (UNCTAD, Forthcoming[13]). The national statistical office is planning to carry out an innovation survey in co-operation with the MESCyT.

Box 2.2. The Swiss Innovation Promotion Agency (Innosuisse)

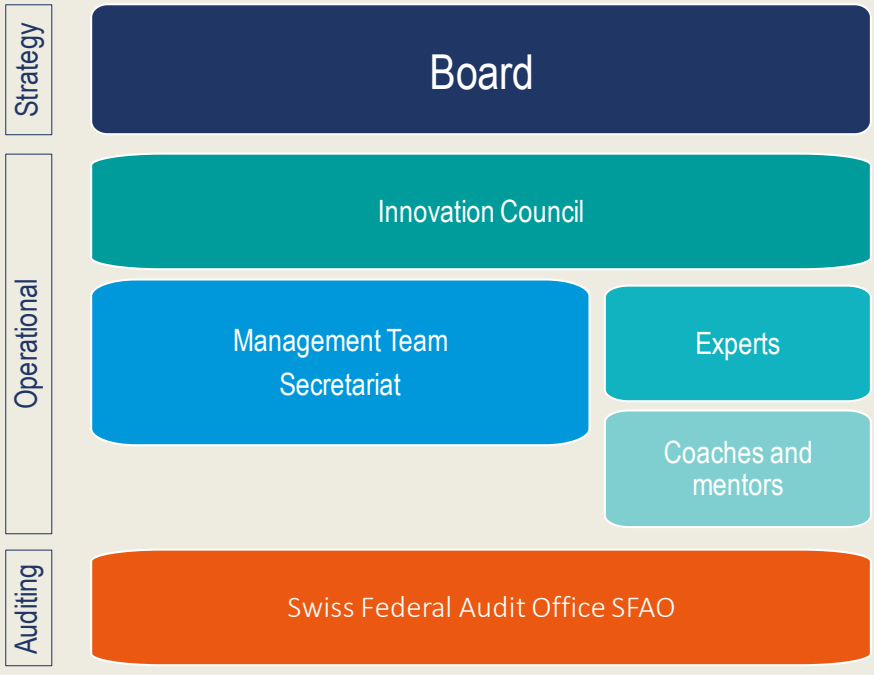
Switzerland is recognised as one of the most innovative countries in the world. It invests 3% of GDP in R&D activities and the private sector is responsible for 70% of it.

Innosuisse is the autonomous Swiss Innovation Promotion Agency. Its role is to promote science-based innovation in the interests of industry and society in Switzerland. Innosuisse promotes partnerships between academia and the private sector with innovation projects, networking, training and coaching, laying the groundwork for successful Swiss start-ups, products and services. Innosuisse has a budget of roughly USD 200 million per year.

Innosuisse provides support following the subsidiarity principle. That is, it only supports projects if public funding is essential to the implementation and market potential of a particular innovation.

Innosuisse is an entity under public law with a separate legal identity, composed of three expert bodies and audited by the Swiss Federal Audit Office. The Board is the strategic body of Innosuisse. It comprises seven members and manages Innosuisse in line with the government's strategic objectives. Members of the Board, including its President, are elected for four years. The Innovation Council is the specialist body that takes decisions on funding applications and supports the execution of the funded activities in an academic and innovative sense. It also develops the funding strategy and instruments to be approved by the Board. To carry out its work, the Innovation Council relies on the support of a pool of experts. The Management team, composed of five members and led by its Director, forms the Secretariat of Innosuisse (Figure 2.6).

Figure 2.6. Institutional setting of Innosuisse



Source: Martin Peter, Director for Economic Development in Peru, Swiss State Secretariat for Economic Affairs (SECO), *Swiss Innovation Strategy*, presentation at the PTPR Peer Learning Group (PLG) of the Dominican Republic, Lima, 1 April 2019.

Conclusions

The COVID-19 pandemic and the subsequent economic crisis require the Dominican Republic to execute an unpreceded policy effort to secure a prompt and effective health response, and to ensure short-term support for workers and firms. These challenges sum up to the need to rethink and update the long-run national development model.

To do so, the Dominican Republic needs to continue implementing and updating the national policy response to COVID-19. Box 2.3 contains a summary of policy actions taken so far. In parallel, the country needs to achieve a consensus on the key priority reforms for the medium and long term. The global economic landscape is highly uncertain. The pandemic caused an economic crisis that will probably accelerate previously existing trends, including digitalisation of production and work, and disrupt many businesses. But as in all crises, new businesses will thrive. Looking beyond the pandemic, the Dominican Republic needs to update its current policy framework and reduce its vulnerability to external shocks. Three pathways deserve particular attention in going forward: strengthening planning capacities, diversifying strategic partnerships, and updating the FDI and trade policy. More specifically, the country needs to explore how to strengthen and leverage regional ties to overcome local structural weaknesses, such as limited innovation and research capacity. It must also fill institutional gaps to deal with innovation and digitalisation in the private sector, also by mobilising long-term financing.

Box 2.3. Policy response to COVID-19 in the Dominican Republic

To protect its citizens and limit the economic impact of such unpreceded events, the government is acting on multiple fronts. Since March 2020, the Dominican government has put in place a number of measures to slow the spread of COVID-19 and to provide support for workers and firms. These efforts cover several areas such as curfews and social distancing, monetary and fiscal measures, as well as employment and social protection for employees (Table 2.4).

Table 2.4. Timeline of policy responses to coronavirus in the Dominican Republic

Date	Type of action	Institution	Objective/focus	Description
26/02/2020	Decree 87-20	Presidency of Republic	Emergency purchase of medical equipment and supply	The decree facilitates the procumbent process of the Ministry of Health to execute exceptional purchases and contracts of goods and services necessary to face the COVID-19 emergency.
16/03/2020	Resolution	Central Bank	Monetary and fiscal measures in support of the economy	**Interest rates** • Reduction of the annual monetary policy benchmark interest rate by 100 basis points, from 4.50% to 3.50% to facilitate the reduction of the interest rates in the financial system; • Reduction of the annual standing facility interest rate of 150 basis point from 6% to 4.50% for short-term borrowing of financial institutions; • Reduction of the annual overnight interest rate from 3 to 2% on deposits in the central bank, from 3.00% to 2.50%. **Injection of liquidity** Through the financial system for more than USD 1 billion (2% of GDP) by: • Reducing of 2.5% of the legal reserve requirements of banks in order to release USD 500 million in the economy. These resources are meant to be used to facilitate access to credit for households and MSMEs (33%) and strategic sectors for the economy such as tourism, export activities, and agriculture (77%). • Increasing by USD 500 million the repurchase agreement (Repos) of the Central Bank up to 90 days and interest rate of up

				to 5% per year, using as collateral securities issued by the Central Bank and by the Ministry of Finance
17/03/2020	Decree 132-20	Presidency of the Republic	Creation of high-level commissions for COVID-19	The decree created 3 high-level commissions:. • The commission for prevention and control chaired by the Ministry of the Presidency • The commission for economic affairs and employment chaired by the Ministry of Finance • The commission for social affairs; chaired by the Ministry of the Presidency
19/03/2020	Decree 134-20	Presidency of the Republic	Declaration of state of emergency provided by the constitution law for 25 days conditional to Congress approval	Exceptional power to the President for: i) limiting the freedom of circulation and gathering; ii) adopting necessary measures to provide hospitals and medical centres with necessary supply to face the crisis; and iii) adopting necessary measure in support of the economy and society The state of emergency had been extended twice on 2 April Decree 148/20 for 25 days and on 28 April for an additional 17 days
20/03/2020	Decree 135-20	Presidency of the Republic	Curfew, social distance, and containment	Set up of a national curfew that prohibits all traffic and movement of people from 8 pm to 5 am. for 25 days; all air, land, and sea borders are closed. Ferry flights for foreign nationals continue, but need authorisation from the Dominican authorities; all events have been suspended, including international and national events, sports fixtures, bars, nightclubs, and cultural events; all schools and universities are closed. 26 March Decree 138-20 modified the curfew from 5 pm to 6 am; 17 April Decree 151-20 extended the curfew up to 30 April.
	Resolution	Ministry of Finance	Deferment of tax payments	Extension of the deadline from 29 April to 29 May 2020 for declaration and first disbursement payment of income taxes for both legal and natural persons Postponement until 24 April for payment of the first and second VAT instalments due in February and March 2020 Temporarily stop of the Advance Price Agreement (APA) to the touristic sector
02/04/2020	Decree 143-20	Presidency of the Republic	Employment and social protection	Creation of the Employee Solidarity Assistance Fund (FASE). The new fund has been rolled-out since 8 April 2020, and provides a temporary subsidy for two months for workers employed in formal registered companies that are up-to date with their tax obligation. Workers with a monthly salary below USD 90 receive a minimum transfer of USD 90 per month, which will be assumed 100% by the Government. For salaries above USD 90 the Government will cover up to 70% of the salary with a maximum threshold of USD 160. As for 22 April, the fund has made its first disbursement to more than 707 000 employees (14% of the total workforce). Launch of the Stay at home initiative. For all informal workers, the government provides a one-off subsidy of USD 90 for April and May 2020. The subsidy is meant to cover up to 1.5 million households
22/04/2020	Inauguration	Ministry of Defence and Ministry of Public health	Cybernetic Unit for Monitoring	The cybernetic and intelligence unit (C5i) under the armed force offers real-time data and monitoring on the Covid-19 outbreak in the Dominican Republic through new technologies such as big-data and drones

Note: The information is update up to 29 April 2020.
Source: (DGII, 2020[15]; CNC, 2020[16]; Presidency of the Republic, 2020[17]; Banco Central de la República Dominicana, 2020[18]).

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Note

[1] This figure does not include the budget of the thirteen institutions that are attached to the MICM.

3 Transforming industries: Focus on agro-food in the Dominican Republic

Agro-food is an important activity in the Dominican Republic. The industry was already undergoing major changes and now faces unprecedented challenges due to the COVID-19 pandemic. Improving extension services, effective branding, and broad-based innovation will be key to sustaining competitiveness. This chapter analyses the characteristics and performance of agro-food in the country and identifies opportunities for the future.

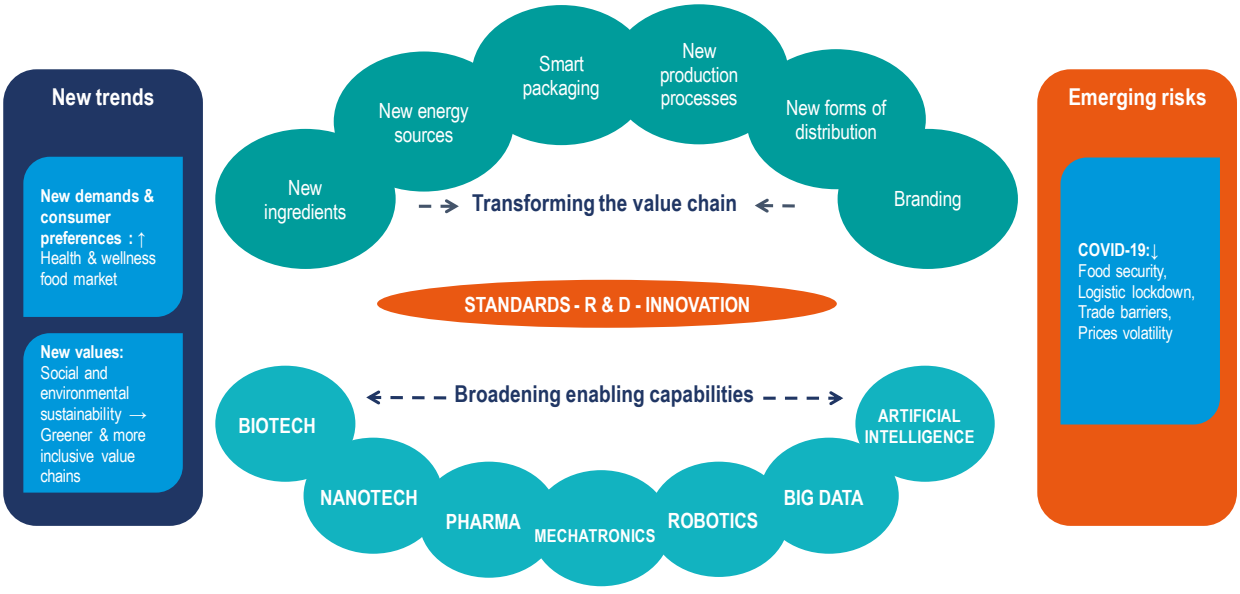
Introduction

The agro-food industry is undergoing major changes due to emerging demands for sustainability, transparency in production and origin, information about the nutritional content of products, as well as proximity to final consumers. Digital technologies are also redefining logistics and operational processes and enabling better traceability. In the current moment, the agro-food industry has had to transform its performance globally to meet new demands due to the unfolding global COVID-19 pandemic (Figure 3.1).

Agro-food is a well-established industry, so it is important to identify what is needed to manage the present emergency and set the industry on a competitive path into the future. Regional markets, tapping into new demands, and better using new technologies will be crucial.

The first section of this chapter presents an overview of global trends, while the second analyses the industry's specific characteristics in the Dominican Republic. The third identifies opportunities for policy reforms.

Figure 3.1. The future of global agro-food: New trends and increasing uncertainty



Source: Updated and adapted from (OECD/UN, 2018[1]), *Production Transformation Policy Review of Chile: Reaping the Benefits of New Frontiers*.

Two global trends are redefining the agro-food industry globally:

1. **New demands**. Consumers worldwide increasingly value quality, traceability, and sustainability of agro-food production. Consumers are more aware of the consequences of long and complex food value chains for the environment and their health. The market for healthy food is growing, linked to the increased attention of middle classes to overall well-being, and not only price. Demand is shifting to local products (0-Km products), and consumers value products they see as authentic and unique, often coming from distant markets but with a recognised impact on health. The booming market in quinoa, a product almost unknown a decade ago in Western markets, is a perfect example (OECD/UN, 2018[1]).

2. **New technologies are reshaping production and exports.** Digital technologies are influencing the whole value chain from production (e.g. precision irrigation, molecular engineering), marketing (e.g. data scientists) to logistics and retail (e.g. digital trading platforms). The capabilities needed to compete in the industry are becoming more sophisticated. Smart Farming, the Internet of Things, and Big Data are enabling precision agriculture through advanced monitoring systems, smart analysis and planning, leading to increased yields, higher productivity, reduced environmental impact and less impactful natural disasters (FAO, 2017[2]). Firms in both agriculture and food processing industries are increasingly relying on data scientists, who collect data on soil, water, and minerals from farms, and use them to predict crop yields, and manage crop disease and pests. For example, Canadian company Farmers Edge takes daily satellite images of farms and combines it with other relevant data, including information from more than 4 000 connected weather stations to forecast production and yields (Matthews, 2019[3]).

As a growing number of countries are implementing lockdown measures to halt the COVID-19 pandemic, the agro-food industry and its stakeholders are contending with changing demands, as consumers are reorienting choices, and new safety measures in the work-place and logistic bottlenecks are challenging the entire value chain. There is no consensus on the potential of food scarcity. IFPRI for example estimates that countries are sufficiently equipped with stocks of staple foods like rice and wheat (Vos, Martin and Laborde, 2020[4]). Nevertheless, some food chains in the United States are starting to face shortages. The highly concentrated meat processing industry is one example. Closing one large beef processing plant results in the loss of over 10 million beef servings in a single day (Quinn, 2020[5]).

Likewise, fresh products such as fruits, vegetables that are more labour intensive are facing greater uncertainty as governments balance the need for production with the need to protect workers and farmers (FAO, 2020[6]; Vos, Martin and Laborde, 2020[4]). Logistics bottlenecks are emerging in different countries putting a strain on consumer access. For example, in April 2020 in one of the biggest producers of soybeans, Rosario (Argentina), municipal government measures blocked transport to crushing plants, affecting the country's export of soybean meal for livestock (Bronstein and Heath, 2020[7]).

The pressure on supply could affect the volatility of food prices. Countries that are net importers and dealing with currency depreciation face a high-risk of reduction in purchasing power, particularly for processed and non-perishable food products. In Italy and the United Kingdom, prices of certain items increased steeply due to a reorientation of consumption and an increase in demand for basic products, such as flour, and long-shelf-life products, as canned food. On the contrary, perishable products such as fresh fruits, vegetables, and fish are facing a reduction in prices as consumers shift towards long-life products and countries increase trade barriers to first satisfy domestic demand. For example, the shutdown has reduced the fish prices from USD 12 to USD 7 per pound in the United States due to limited shipping from China and other Asian countries and many states suspended fishing (Shin, 2020[8]).

In the short term, governments and firms are putting in place actions to address the COVID-19 emergency. Box 3.1 presents some examples of what is happening in the agro-food industry.

How the current global crisis will affect agro-food in the future is highly uncertain. Much will depend on how long it will take countries to ease lockdowns, what type of new normality the global economy will face, and/on how long it will take to develop, manufacture and make available a vaccine. The two main forces that were reshaping the agro-food industry pre-pandemic may accelerate. Shorter value chains, increased transparency, traceability, and more environmentally-friendly production and consumption modes could be the new features of agro-food. The pandemic has also opened a debate on "strategic industries" and the need for countries to prepare resilience plans in cases of global emergencies. Being able to secure access to food is of primary importance, so agro-food will be a focus of these discussions. Trade has always been and will remain an important driver especially as this industry secures access to products not available otherwise. Strengthening regional integration on this front is one dimension currently under debate, which is worth exploring.

Box 3.1. COVID-19 and agro-food industry: What are countries doing?

China is ensuring food security and subsidies the purchase of agricultural machinery

During the lockdown, China adopted the Vegetable Basket programme, first launched in 1988, to reduce the virus' impact and keep food shortages to a minimum. The project aims to increased urban access to fresh products by expanding vegetable farms in the suburbs and establishing reserves. Under this scheme, farmers and merchants in nine provinces worked together to supply grains, oil, meat, vegetables, milk, eggs, and aquatic products to Hubei province, the epicentre of the outbreak. In addition, local governments have unified purchases, centralised animal slaughtering and cold chain storage of county co-operatives, and fully subsidised the storage costs. Likewise, the central government distributed USD 20 million in subsidies for machine and tool purchases to revive agriculture with low-interest rates and subsided rent reductions to firms to develop high-tech agriculture technologies, such as agricultural drones and unmanned vehicles to reduce human contact while keeping the supply chains moving. Moreover, e-commerce platforms are facilitating the trading of accumulated production. Online retailer Alibaba has set up a special platform to help farmers find markets for unsold agricultural products and is building a marketing channel dedicated to fresh agricultural products (FAO, 2020[6]).

Italy is backing up long-term financing with government guarantees

The Italian Government is providing businesses affected by the pandemic with a package of financial assistance. The measures include guarantee schemes from export credit agency SACE, a six-year loan guarantee through the national development bank (CDP), and the Central Guarantee Fund that covers up to 100% for disbursement up to EUR 25 000 and up to 70% for disbursement up to EUR 1.5 million. In addition, the government has put in place measures to support the agriculture sector to ensure access to a supply of seeds and fertilisers. The programme allocates EUR 100 million to support agricultural or fishing companies that had to suspend their operations and another EUR 100 million allowing farmers to receive advanced payments from the European Union's subsidies for farmers. The policy package includes also EUR 600 transfer to agriculture workers with short-term contracts.

India is deferring tax and implementing public procurement for exceed rise production

The government implemented several important relief measures to support farmers during the COVID-19 outbreak. These include tax relief measures such as the postponement of the income tax return deadline for the 2018-19 tax year to 30 June 2020 (extended from 31 March 2020); a reduced rate of interest for tax payments made by 30 June 2020. Besides, the availability of rice surplus induced the Ministry of Agriculture and Farmers Welfare and the National Biofuel Co-ordination Committee to lunch a large government procurement scheme to buy exceeded production and use it to produce ethanol for the production of alcohol-based hand-sanitisers.

The EU is pointing at long-term innovative solution

Digital technologies, as agricultural drones and unmanned vehicles can reduce human contact while keeping the supply chains intact. The European Investment Bank (EIB), in April 2020 launched a new financing mechanism that aims to unlock USD 750 million in investment in the resilient technologies for agriculture to face epidemics and future uncertainty. The financing covers projects of up to a 12-year duration for co-operatives operating throughout the value chains of production and processing of food and it is supported by the EU budget under the European Fund for Strategic Investments (EFSI).

Source: (Ministero delle politiche agricole alimentari e forestali, 2020[9]; FAO, 2020[6]; Government of India, 2020[10]; EIB, 2020[11]).

The Dominican Republic should aim for more sophisticated local production

Since the mid-2000s, the agro-food sector has accounted for 10% of GDP, similar to other countries in Latin America and the Caribbean region such as Chile (9%) and Costa Rica (9.5%). Over the years, the country has increased its relative specialisation in food processing. Today food processing accounts for 41% of overall agro-food value-added (up from 36% in 2007), and agricultural activities account for 58% of overall agro-food value-added (down from 64% in 2007).

The country exports mostly agricultural commodities

Agriculture is the third-largest employer in the Dominican Republic after commercial services and manufacturing. It accounts for 9.5% of national employment and 5.5% of national gross value-added (Table 3.1). The majority of producers are smallholders. The average size of a farm is 6 hectares, approximately 4 times smaller than in Costa Rica. About 71% of producers cultivate a farm smaller than 4 hectares. The large part of production is dedicated to crop activities (63%), followed by livestock activities (20%) and both crop and livestock activities (16.3%) (INEC, 2015[12]; ONE, 2016[13]). Agriculture expansion has benefited from both organic and greenhouse production, with 8.7% of agricultural land devoted to organic production, is second only to Uruguay in Latin America and the Caribbean region. The Dominican Republic is the world's largest producer of organic cocoa (153 000 hectares) and organic bananas (20350 hectares), representing more than 30% of organic cocoa and 55% of organic banana production. Between 2004 and 2017, agricultural production in greenhouses grew from 200 000 square meters to 10 million square meters (ITC/IISD/FiBL, 2018[14]; FAO, 2017[2]).

Table 3.1. The relevance of agriculture in the economy, the Dominican Republic and selected economies, 2018

	Share of gross value-added	Share of employment	Share of agriculture land	Share of organic agriculture land	Share of total gross exports	Share of total gross imports
	2018	2018	2016	2016	2016-18	2016-18
Brazil	4.4	9.4	33.9	0.3	18.3	2.9
Chile	3.6	9.2	21.2	0.1	9.9	1.8
Colombia	6.3	16.4	40.3	0.1	13.9	5.1
Costa Rica	4.6	12.5	34.5	0.4	25.5	4.3
Dominican Republic	**5.5**	**9.5**	**48.7**	**8.7**	**8.0**	**4.3**
Italy	1.9	3.8	43.2	14.1	2.0	3.8
Netherlands	1.6	2.2	53.3	2.9	6.1	5.4
Peru	6.7	27.5	18.5	1.4	10.1	4.6
Spain	2.6	4.3	52.6	7.7	6.5	4.2
Uruguay	5.6	8.7	82.6	13.0	27.6	4.3

Source: Authors' elaboration based on the United Nations Food and Agriculture Organisation [database] http://www.fao.org/faostat, the World Data Databank https://databank.worldbank.org.

Food processing is also the largest and the fastest-growing manufacturing sector in the Dominican Republic. In 2018, with USD 3.5 billion of total value-added, the entire sector contributes to 40% of total manufacturing value-added in the country. In addition, with 135 000 employees it also covers 26% of total employment in manufacturing. During 2007-18, food-processing output alone grew at 4.7% on average, faster than local manufacturing and FTZ manufacturing at 3.6 and 3.1%, respectively. Alcoholic beverages are an important production segment. The Dominican Republic has grown to be the 5th largest exporter of rum in the world and is also among the top 10 exporting countries of beer to the United States. Additionally, the country's share of processed products in its agro-food export basket is higher with respect to other countries in the region such as Peru (35%) and Costa Rica (40%). Nevertheless, Costa Rica with half of the population is exporting as much as four times more agro-food products (USD 5 billion) than the Dominican Republic.

Primary agricultural products dominate the agro-food export basket and trade is concentrated in a few countries and products. The top 10-destination markets account for 85% of total agricultural exports and 90% of food processing (Figure 3.2). In the agricultural segment, the United States (50%), Brazil (11%), and Argentina (8%) are the three main import sources. Maize (31%), raw tobacco (20%), and wheat (17%) are the main imports that satisfy local requirements as well as the intermediate demand from agro-processing industries (FAO, 2017[2]). Bananas (33%), cocoa beans (30%), unmanufactured tobacco (10%), and tropical fruits such as avocado, coconuts, and mangoes are the main exported products, which are destined for the United States (27%) and European markets, such as the United Kingdom (16%), the Netherlands (11%), and Belgium (8%). In the food-processing segment, the United States account for 43% of imports for a total of USD 2.2 billion in 2015-17. The main products include sugar, soybean, meat, and feed minerals. On the other side, the United States and Haiti absorb 72% of total food processing exports. The main exported products are non-centrifugal sugar (36.5%),[1] beer and rum (11%), and prepared food (10.6%).

The Dominican Republic remains a net food importer. To complete the basic diet requirements it imports quantities of maize and wheat that represent 45% of total agricultural imports; that in turns makes the country a net agro-food importer (FAO, 2016[15]). Moreover, the increase in imports has been driven by the growing demand for more sophisticated products from households, and for tourism activities. Also, the processing industry is importing increasing quantities of intermediate inputs. For example, the main processed goods that include meat, alcoholic beverages, dairy products, and wheat-based products rely on imported wheat, maize, molasses and powdered milk (USDA, 2018[16]). The large share of imported manufactured products and staple goods in the country's trade basket creates a high level of uncertainty in its agro-food value chain.

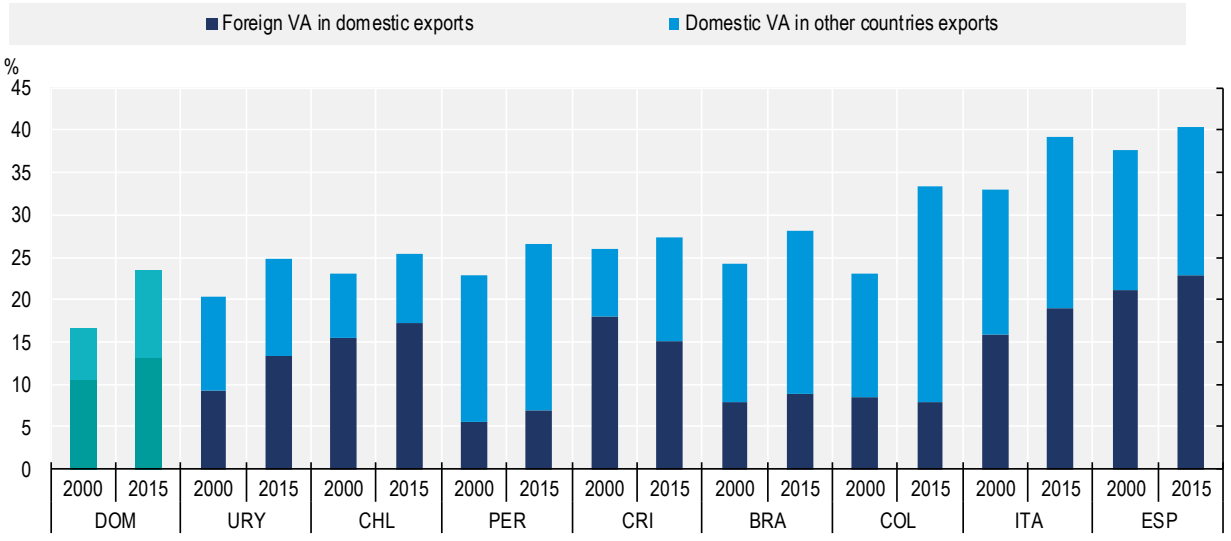
Figure 3.2. Agro-food exports are concentrated in few countries and products

Top 10 imports and exports markets, 2016-18, agriculture and food processing

Note: 1. The distinction between agriculture and food manufacturing is obtained by combining the Harmonized System (HS07) classification, the Standard Industrial Trade Classification (SITC Rev 3) and the FAO products definition, http://www.fao.org/faostat/en/#definitions; 2. In order to minimise the volatility of prices three consecutive years are taken into account.
Source: Authors' calculations based on FAOStat database, http://www.fao.org/faostat/en/, Commodity Trade Statistics (COMTRADE) https://comtrade.un.org/.

There is room to increase participation in regional and global production networks. Only 23% of agro-food exports are linked to regional and global agro-processing value chains (Figure 3.3). Although this figure is up from 17% in 2000, it remains low compared to regional peers such as Costa Rica (27%) and European countries with a developed and interconnected food processing industry such as Spain (40%) and Italy (39%). Intermediary imports, mostly from the United States, contribute to domestic exports of food-processed products, as for example with maize, wheat, and raw tobacco, which are used to produce cigars, distilled alcoholics, and flour related products. Domestic commodities are often processed abroad, as in the case of cocoa beans, which are transformed into agro-food branded products in countries such as Belgium, Germany, and Italy. Countries with similar employment and value-added share of food processing in total manufacturing such as Chile and Costa Rica, feature a share of food processing exports as a percentage of total manufacturing exports that is nearly three times more than the Dominican Republic. With 8% food processing exports over total manufacturing exports, it matches the share of Italy, which nevertheless has more sophisticated and diversified manufacturing and agro-food sectors and consequently a lower share of employment (11.3%) and value-added (12%) in food processing.

Figure 3.3. Local firms participate little to international agro-food value chains

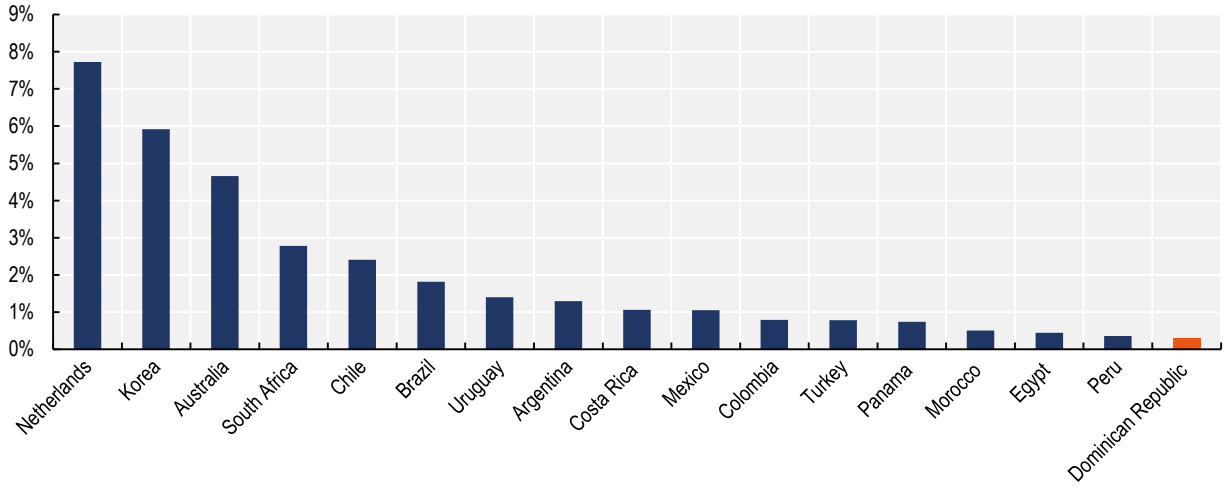


Source: Authors' calculations based on UNCTAD-Eora Global Value Chain Database, https://worldmrio.com/unctadgvc/, United Nations Food and Agriculture Organisation [database] http://www.fao.org/faostat, Dominican Republic Central Bank https://www.bancentral.gov.do/, OECD STAN Database http://oe.cd/stan. For a definition of agro-food see http://www.fao.org/faostat/en/#definitions.

The Dominican Republic invests too little in agro-food research and development (R&D) (Figure 3.4). Estimates indicate that agricultural expenditures in R&D as a share of agricultural value-added in the country are around 0.19%, in 2018, below top-performing agro-food exporters and other countries in the region as Chile (2.41%), Brazil (1.82%) and Costa Rica (1.1%). A greater effort in R&D and innovation could boost productivity as well as the quality of production (Pérez, De Los Santos and M. Beinte, 2015[17]).

Figure 3.4. The Dominican Republic invests little in agro-food research

Agricultural R&D expenditure by government, non-profit and higher education agencies as a share of agricultural value-added, 2018 or latest available year



Note: 2017: South Africa; 2016: Korea, Chile; 2015: Netherlands, Turkey, Morocco; 2014: Uruguay, Colombia, Egypt; 2013: Australia, Brazil, Argentina, Costa Rica, Mexico, Peru; 2018: Dominican Republic.
Source: Authors' analysis based on OECD Science and Technology Statistics database (2019) http://stats.oecd.org/ and ASTI Agricultural Science and Technology Indicators database (2019), www.asti.cgiar.org/data.

The Dominican Republic will face new challenges

Moving ahead, the country will need to identify how to position itself in the global, regional and local agro-food market taking into account global trends and new technologies. The Dominican Republic must also cushion the impact of the pandemic and ensure access to food as well as protect all workers and firms in the agro-food value chain. The country is already acting in this respect (Box 3.2).

Box 3.2. COVID-19 and the agro-food value chain in the Dominican Republic

Local agricultural production has not been interrupted and the government has secured local supply through a set of initiatives. A public procurement initiative has secured primary agro-food products for households, as have price controls on the basic food basket. Moreover, the agriculture development bank (Bancoagricola) has implemented a programme to renegotiate loans for up to 12 years, with a maximum interest rate of 8%.

Nevertheless, the Dominican Republic faces two major issues related to exports and tourism. Total exports in January-April 2020 dropped by 17% with respect to the same period in 2019 (equivalent to a drop of USD 133 million). This is the result of a lockdown in transport around the world (ground, ocean freight, and airfreight) that resulted in a disruption in the logistics of the agro-food value chain. Exports are primarily concentrated in perishable products such as fruits and vegetables, exacerbating the challenge. Likewise, the halt in inbound tourists deprived the entire value chain of an important final market worth USD 500 million a year. A drop between 45% to 70% for 2020 of inbound tourists could lead to a loss of between USD 90 to 140 million for the entire agro-food value chain.

The reactivation of logistics (domestically and abroad) and the rebound of tourism activities will be essential. However, both will be affected by other external factors. The countries that have been hit hardest by the COVID-19 pandemic such as the United States, the United Kingdom, and Spain are also the main destinations of Dominican exports as well as the main origin of inbound tourists in the country.

Source: (JAD, 2020[18]; Presidency of the Republic, 2020[19]).

In addition, the country faces two specific emerging challenges: the exhaustions in the flexibilities of its trade agreements for its major agricultural products and the growing environmental vulnerability.

Since the mid-2000s, the Dominican Republic has had trade agreements with its major partners. The Central America Free Trade Agreement and the Dominican Republic (CAFTA-DR) with the United States entered into force in 2005 and the Economic Partnership Agreement (EPA) in 2009. In the case of the Dominican Republic, specific agricultural products enjoy tariff protection for up to 20 years through three protective measures: gradual tariff reduction, tariff-rate quotas (TRQ), and automatic agricultural safeguards. The full tariff reduction will be completed in 2025 (CAFTA-DR, 2005[20]). In particular, the TRQ provide increases in the quota of trade that is not subject to tariffs for 20 products, with different annual rates, that were considered of strategic importance for the Dominican economy (Table 3.2).

The approaching full elimination of quotas is posing new challenges ahead as local production in specific crops is not sufficiently competitive. For example, between 2006 and 2017 the quota for rice free of tariff moved from 8 560 metric tons to almost 15 000 metric tonnes. However, the rice yield of the Dominican Republic and the United States have diverged, with the Dominican Republic unable to raise production. Moreover, the country's ability to comply with the United States and the European Union's Sanitary and Phytosanitary (SPS) measures is low compared to other countries in the region and undermine its export penetration (UNIDO, 2012[21]; Iwulska et al., 2015[22]).

Table 3.2. Agricultural products subject to tariff-rate quotas in the DR-CAFTA

Product category	Initial quantity of duty-free (MT)	Years to unlimited free trade
Milled rice	8 560	20
Beas	8 560	15
Turkey meat	3 840	12
Pork cuts	3 465	15
Powder milk	2 970	20
Brown rice	2 140	20
Glucose	1 320	12
Prime and choice beef	1 100	15
Chicken leg quarter	550	20
Pig fat	550	12
De-Boned Chicken meat	440	10
Beef trimmings	220	15
Bacon	220	10
Liquid milk	220	10
Butter	220	10
Ice cream	165	12
Mozzarella cheese	138	20
Cheddar cheese	138	15
Other cheeses	138	10
Yogurt	110	20

Source: Authors' elaboration based on article 3.15 and annex 3.3 of CAFTA-DR.

Vulnerability to climate change is affecting agriculture production and competitiveness. The level of exposure and vulnerability to extreme climates events in the Dominican Republic has been higher than the regional average between 1998 and 2017, with severe consequences on local production. Climate hazards in the country include heavy rainfall, tropical storms and hurricanes, floods, and droughts (FAO, 2016[15]). Rainfall during the second half of 2016, especially in the last quarter, was erratic and caused serious flooding in the north and northwest of the country. This weather generated significant economic losses to the main crops such as banana, oriental vegetables, cassava, and sweet potato. The change in climate is also affecting coffee production. Since 2012, the fungus *hemileia vastratrix*[2] affected 70% of the total coffee area and reduced production from 38 000 tons to 13 000 (IICA, 2017[23]). Other countries in the region, such as Brazil, are putting in place plans to increase climate change adaptation (Box 3.3).

Box 3.3. Promoting climate-resilient and sustainable agriculture in Brazil: The ABC Plan 2012

In Brazil, agriculture makes up 23% of GDP and 35% of jobs. Agriculture is greatly influenced by environmental conditions and climate change is one of the most important risks to sustainable production. In 2012, Brazil committed to increase and strengthen the sustainability of its agricultural systems and to promote resilient production.

The Brazilian national plan for agriculture and climate change, the ABC Plan (BRASIL, 2012), part of the National Policy for Climate Change, emphasised the identification and implementation of measures to create resilient production systems, where adaptive capacity and the reduction of climatic risk are the core priorities. The ABC Plan is a national policy developed in synergy with regional policies and with the involvement of private stakeholders. The plan fosters the adoption of standardised practices and technologies through technical extension and empowerment through the ABC Platform.

The ABC Platform, a multi-institutional monitoring and evaluation of the ABC Plan, evaluates studies and indicators regarding the resilience of agricultural systems and what constitutes the adaptive capacity of such systems. The platform has information and planning instruments, such as Sisdagro (a decision-support system for agriculture from the National Meteorological Institute), SCenAgri (simulation of future agricultural scenarios) and the SOMABRASIL (an observation and monitoring system for agriculture in Brazil), both co-ordinated by Embrapa. These systems are increasingly adjusting their methodologies for facing climatic uncertainty in order to improve decision-making by farmers and governments.

Source: Crespolini (2019[24]), *Policies and Instruments for Innovation in Agro-Food: The Case of Brazil*,, Department of Sustainable Production and Irrigation, SIRDI, MAPA. Presentation at the Roundtable on the Agro-Food Value Chain organised in the framework of the PTPR of the Dominican Republic, hosted by the government of the Dominican Republic in July 2019.

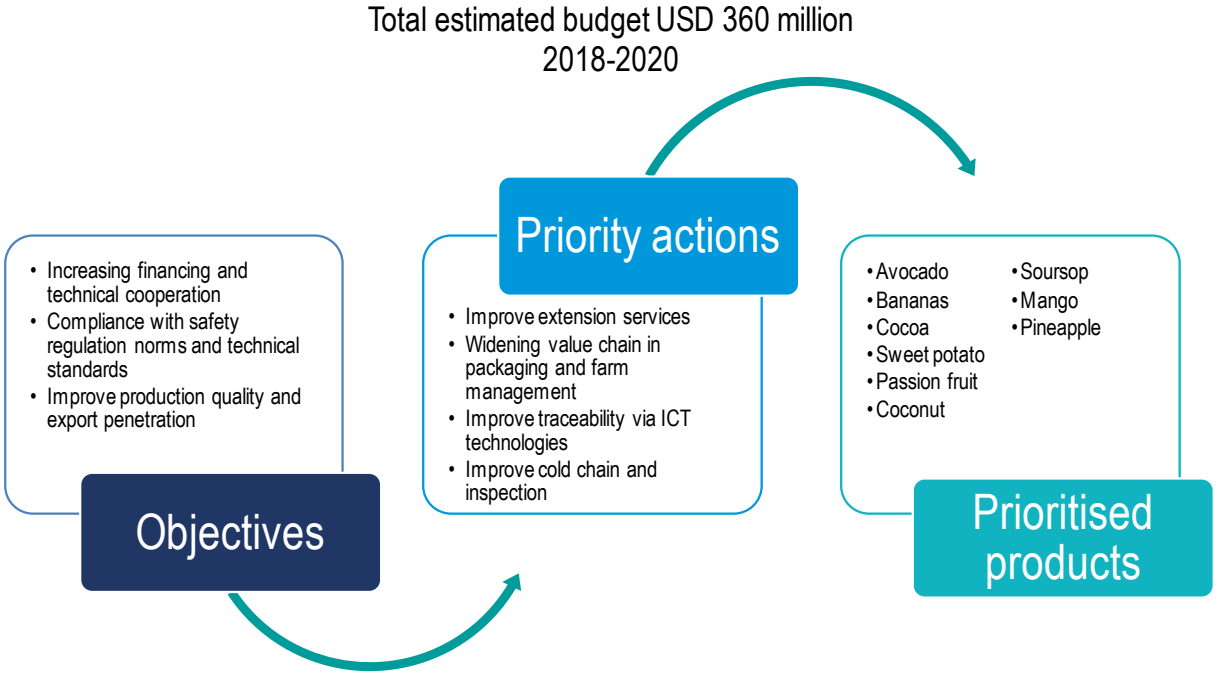
A competitive agro-food sector is a national priority

The responsibility for policies to create a sustainable and competitive agro-food industry falls across different ministries and agencies. The National Development Strategy (NDS) 2010-2030 (Law 1/2012), led by the Ministry of Economy, and Planning and Development (MEPyD), is the first document in the country that defines the guiding principles of medium- and long-term support to the agricultural sector. Increased financing and technical assistance for farmers and producers are the main policy levers for increasing the quality of local production and promoting exports. Moreover, 2020 has been declared, by presidential decree, the year for the consolidation of food security (Presidency of the Republic, 2019[25]). As a complement to the NDS, the Ministry of Agriculture is leading the sustainable agriculture agenda that prioritises export promotion and food security outlined in the Strategic Agricultural Development Plan 2010-2020. The strategic plan is built around three main objectives: increasing productivity and competitiveness, promoting agricultural exports, and strengthening self-sufficiency.

Other areas of intervention include nutrition and sustainability. In 2013, the National Strategic Plan for Nutrition 2013-2016 was launched by the Ministry of Public Health. The document aimed to guide public policies on the health and nutrition of the population. The Dominican Republic is also placing sustainability at the core of its approach towards agriculture. The 2014 National Strategy for Climate Change Adaptation in Agriculture 2014-2020 aims to foster agricultural resilience. More recently, the Public Sector Plurennial National Plan (PNPSP) 2017-2020, led by the MEPyD, provides guidelines for improving the quality of local production and its export penetration by fostering innovation. Increased financing and technical co-operation for farmers and producers have been indicated as main objectives (FAO, 2016[15]).

The National Council for Competitiveness Council (CNC) prioritises the agro-food sector by devoting 65% of the total budget of the *Dominicana Competitiva* to it. (For more information on this Initiative, see Chapter 2.) In particular, the subcommittee for Agricultural Production Development and Exports, chaired by the Ministry of Agriculture, agreed on three main objectives, five priority actions, and ten targeted agricultural products. To total proposed budget for implementation is USD 360 million (Figure 3.5). The prioritised products have been chosen based on their production and export capacity coupled with their level of productivity and propensity to create employment (Cluster Consulting, 2019[26]).

Figure 3.5. Priority actions for the development of the agro-food value chain, National Competitiveness Council (CNC), 2018-20



Source: Authors' illustration based on National Competitiveness Council (CNC) http://.gob.do/index.php/es/noticias/item/377-dominicana-competitiva-cinco-acciones-concretas-para-competir.

The agenda developed for *Dominicana Competitiva* represents a step forward for the country as it synthetises the perspective of several public-private institutions and it raises the importance of quality control and standards as an essential element for the development of an effective policy.

Improving country branding, extension services, and innovation will drive up competitiveness

The peer-dialogue exercise of the PTPR has identified three main enabling factors and associated areas of reforms that could become major game changers for the agro-food value chain in the Dominican Republic. These include strengthening of country image, more research and innovation and modernisation of extension services. Notwithstanding the uncertainty of how agro-food will evolve in a post-COVID-19 landscape, these competitiveness drivers will likely continue, and potentially be increasingly more relevant.

Improving country image management

Leveraging a country's image can increase the capacity to capture value from local production and services. The different tools used to promote country image act as signalling mechanisms and can improve domestic firms' reputation and facilitate access to markets. The Dominican Republic could leverage its unique territorial, cultural and natural characteristics to promote local agro-food production and strengthen its position in export, tourism and diaspora markets. In 2019, the Export and Investments Centre of the Dominican Republic (CEI-RD), in co-operation with the Ministries of Tourism, Culture, Industry, Commerce and MSMEs, Foreign Affairs and Agriculture, has started the process of defining a national branding strategy. In parallel, the country is currently improving the regulatory framework to protect agro-food production. For example, in October 2019 the country signed the WIPO Lisbon Agreement for the Protection of Appellations of Origin. The treaty entered into force in January 2020 (WIPO, 2020[27]). The accession process was driven by the co-operation between the National Office for Intellectual Property (ONAPI) and the CEI-RD.

Consumer perceptions stem from several factors that must drive any country branding strategy. Creating a clear, simple, and differentiating image built around emotional qualities that can be symbolised both verbally and visually are part of the process. A country must also understand the diverse tastes of its audience. All of this can be as important as the intrinsic quality of a product (Carvalho, 2007[28]). Some countries implement branding strategies that recall their territorial uniqueness, as in the case of the Spanish *Marca España*; others rely on specific products like Ecuador with cocoa; others stick to specific characteristics of the production system such as Italy, which is identified with luxury and exclusivity.

Additionally, some countries adopt integrated approaches that convey several attributes to define the country's brand. Peru relies on the territorial and climate specificities, cultural heritage, and the uniqueness of its agro-food production (Box 3.4). Branding can be steered by both public and private initiatives. In Colombia, for example, the National Federation of Coffee Producers (FNC) introduced in 1959 the *Café de Colombia,* the certification of origin awarded to Colombian coffee producers matching specific geographic requirements. To work effectively, country branding must embrace political, cultural, business, and sports activities that uniquely identify a country or a region. Branding requires a multi-stakeholder approach backed up by highest possible political commitment and conscious management of a country's image and reputation (Nurse, 2018[29]).

Box 3.4. Building country image in Peru: *Marca Peru* and *Superfood*

Peru has successfully developed a country brand, which enabled to raise exports in traditional products. In 2009, the Ministry of Foreign Trade and Tourism (MINCETUR) and PromPeru introduced *Marca Peru*, to support exports, attract investment, and promote tourism. The initiative is associated with a logo that relates to the country identity and its ancestral origins. Peruvian firms obtain the right to use the brand *Marca Peru* through an easy online procedure after meeting fiscal and social responsibility requirements. The initiative aims at i) projecting an image of Peru as a rich and diverse country; ii) communicating that Peru is endowed with special skills (such as traditional embroidery); and iii) raising awareness on the richness of Peru's cultural, gastronomic, and diverse biological assets. The experience of *Marca Peru* shows that awareness and communication with citizens and national companies and consumers, in addition to foreign promotion, is key for success. In addition to traditional promotional activities abroad, through fairs, trade missions, and special events, a national campaign has encouraged Peruvians to use the brand. The brand is used to signal an asset that relates to quality, status, price and distinction. Peruvian authorities deliver information and organise workshops to monitor the correct use of the brand.

The successful case of *Marca Peru* coupled with the emerging demand for functional and healthy food worldwide led the Peruvian Government to the launch of the *Superfood* branding strategy in 2017. The visual branding recalls the ancestral origin of Marca Peru. The campaign highlights the uniqueness of production of grains, vegetables and fruits, while meeting the increasing global demand for such products, particularly in Europe and Asia.

Source: Isabella Falco, Director Department of Country Image of Promperu. Presentation at the PTPR Peer Learning Group (PLG) of the Dominican Republic, Lima, 1 April 2019.

Increasing commitment and investment in research and innovation

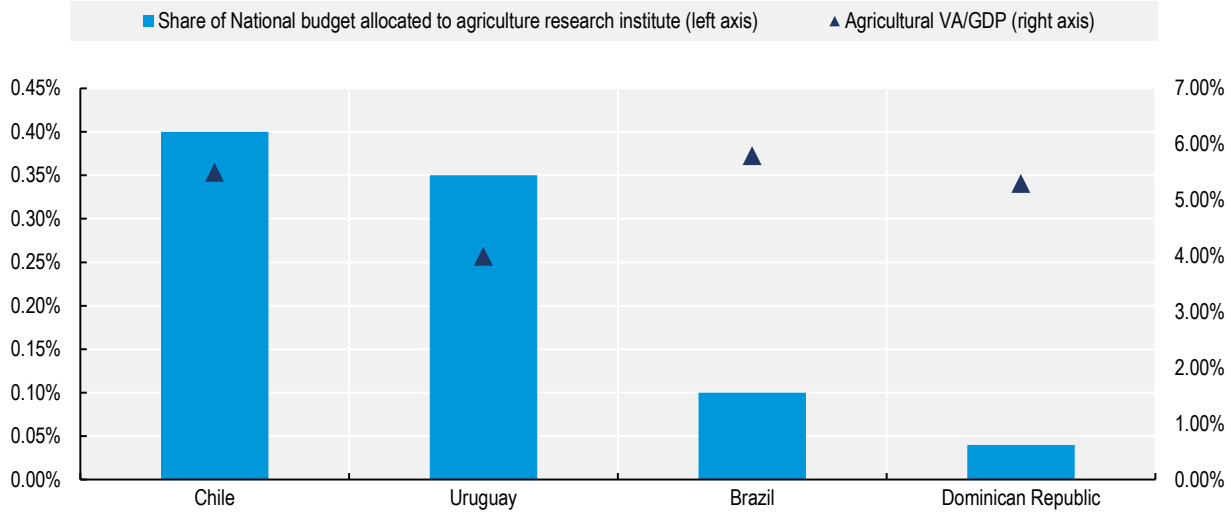
Investment in research and innovation in agro-food is low. Although the country has financing instruments to promote R&D and innovation, such as the National Fund for Scientific and Technological Innovation and Development (FONDOCYT) and the National Fund for Agricultural and Forestry Research (FONIAF), their budget allocations are limited.

Since 2000 in the Dominican Republic, research and innovation in agro-food have been organised under the Ministry of Agriculture that oversees the National System for Agricultural and Forestry Research (SINIAF). The system groups the main institutions in charge of innovation in agro-food. The National Agricultural and Forestry Research Council (CONIAF) is responsible for setting up and co-ordinating the SINIAF. CONIAF operates through the National Agricultural and Forestry Research Fund (FONIAF) that finances the Dominican Institute of Agricultural and Forestry Research (IDIAF), which is the main public institution in charge of R&D and technology transfer in agro-food (Pérez, De Los Santos and M. Beinte, 2015[17]). In the area of product development in food processing, the leading public institution is the Institute for Innovation in Biotechnology and Industry (IIBI). The IIBI is an autonomous agency of the Ministry of Higher Education, Science and Technology (MESCyT) created in 2005. It carries out research, technology transfer and offers services such as testing laboratories for microbiology, chemical and physical testing. Since 2014, the IIBI is also involved in supporting the development of processed products and cosmetics in rural communities through the Presidential Surprise Visit Programme (*Visitas a Sorpresa*).[3]

IDIAF and IIBI operate with a limited budget to promote R&D and innovation. In 2019 the IDIAF had a total budget of USD 6 million; the IIBI had a budget of USD 3 million. Although they have grown on average 2.5% each in constant terms since 2017, their share of the total national budget remains 0.04% and 0.02% respectively. Similar agencies in other countries have larger budgets. The National Institute for Agricultural and Food Research and Technology (INIA) in Uruguay has 0.3% of total national budget; the Brazilian Agricultural Research Corporation (Embrapa) reaches 0.1% (Figure 3.6). The budgetary constrain makes it difficult for IDIAF to attract staff, especially at the PhD level. Although the IDIAF accounts for roughly half of all agricultural researchers in the country (134 full-time equivalent or FTE researchers in 2012), the majority of researchers in IDIAF possess a BSc (44%) or MSc (49%) degree; only 7% hold a PhD. In other countries, the share of PhDs employed by national research is higher (13% in Peru, 14% in Costa Rica and 26% in Uruguay (IFPRI, 2019[30]).

Figure 3.6. Budget allocation to national research institutes in agriculture

The Dominican Republic and selected economies



Note: Data for Chile, Uruguay and Brazil refer to 2018.
Source: Authors' illustration based on the national budget law of Chile https://www.dipres.gob.cl/, Uruguay https://transparenciapresupuestaria.opp.gub.uy/, Brazil http://www.portaltransparencia.gov.br/orcamento and the Dominican Republic https://www.digepres.gob.do/.

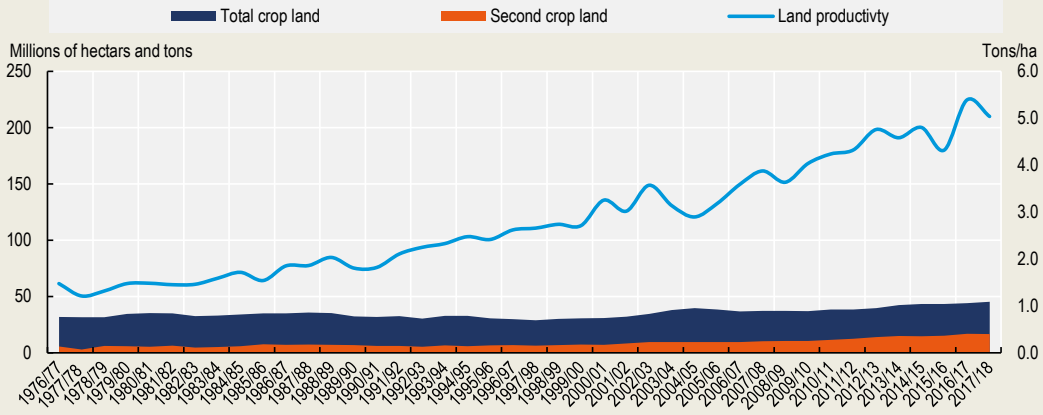
Co-operation between research institutes as IDIAF and agencies in charge of technological development like IIBI is limited. The subcommittee for the agro-food industry of the CNC could represent an opportunity to move forward and foster synergies. To do so the group would update its mandate incorporating technical working groups with all relevant stakeholders such as the Ministry of Agriculture and the MESCyT and a revision of operational incentives shifting the focus from strategy setting to financing and implementation (UNCTAD, Forthcoming[31]). In Brazil, the Ministry of Agriculture, Livestock and Supply (MAPA) has put in place actions to foster the co-ordination between the Brazilian Agricultural Research Corporation (EMBRAPA) with other public and private institutions to increase the impact of research on agro-food production development (Box 3.5).

Box 3.5. Embrapa: A leading agency for applied research in agriculture

The Brazilian Agricultural Research Corporation (EMBRAPA) was established in 1972 to modernise Brazilian agriculture by investing in R&D and innovation. EMBRAPA is a public research company linked to the Brazilian Ministry of Agriculture, Livestock and Supply (MAPA) and it aims to promote innovation that solves practical problems. EMBRAPA is composed of 46 research centres located in all territories and that employ over 9 000 people, of which 2 400 are researchers (84% with PhD degree). EMBRAPA is part of the National Agricultural Research System (SNPA), which also comprises other federal and state public institutions such as the State Agricultural Research Organizations (OEPAS), universities, private companies, and foundations, which co-operate to conduct research in different geographical areas and fields of knowledge.

EMBRAPA has been extremely important for raising productivity in Brazil. With yields continuously growing, the country's production in 2016-17 was more than 200 million tons of agricultural commodities, compared to less than 50 million in 1976-77. If there had been no increases in yields, Brazil would have needed an extra 150 million hectares to achieve the same production levels (Figure 3.7). Brazil's attention to innovation has paid off in terms of productivity: a 1% increase in the R&D expenditures in Brazil has led to an increase in total factor productivity of 0.2%.

Figure 3.7. Productivity increased rapidly in Brazil's agriculture



Since March 2019, the Department of Innovation for Agriculture (DIAGRO) of the Secretariat of Innovation, Rural Development and Irrigation (SDI) at MAPA has been in charge of innovation policies at the national level. The main objectives of DIAGRO are:

- promoting the conservation and use of genetic and natural resources for agriculture and food security, seeking to ensure the sustainability and competitiveness of agriculture
- strengthening basic and applied research and adoption of new technologies by co-ordinating all public and private stakeholders
- co-ordinating and implementing innovation projects, financed through international co-operation with the leading role of the Secretariat of Commerce and International Relations
- promoting the adoption of cutting-edge technologies in automation, genomics, bioinformatics, synthetic biology, and precision agriculture.

Source: Crespolini (2019[24]), *Policies and Instruments for Innovation in Agro-Food: The Case of Brazil*, Department of Sustainable Production and Irrigation, SIRDI, MAPA. Presentation at the Roundtable on the Agro-Food Value Chain organised in the framework of the PTPR of the Dominican Republic, hosted by the government of the Dominican Republic in July 2019.

Modernising and strengthening extension services

Effective extension services are crucial to increasing the impact of agro-food research and development. In the Dominican Republic, multiple agencies handle these services. The main institution is the Ministry of Agriculture, through the vice minister for Agricultural Extension and Training. The total budget allocated for extension services in 2020 is USD 15 million, 6.2 % of total ministry budget and up from 5.1% in 2018[4] (Digepres, 2019[32]). In parallel, other institutions provide ad-hoc extension services related to specific thematic and/or products. For example, the National Institute of Hydraulic Resources (INDRHI), an independent public institution, is responsible for preserving and managing the use of water resources and irrigation in the rural area.

The private sector and bilateral development co-operation efforts have also fostered extension services. For example, the Centre for Agriculture and Forestry Development (CEDAF), founded in 1987 with the support of the private sector and the US International Development Agency (USAID), offers technical training to farmers on specific issues including environmental protection and production techniques. The Dominican Agribusiness Board (JAD), the main private association of agriculture producers in the country, offers support and direct technical assistance on themes such as integrated pest management, protection of natural resources, agricultural reforestation and special projects and programmes to support organic agriculture. The National Confederation of Dominican Cocoa Cooperatives (CONACADO) has 30 extension specialised officers who provide technical training to improve yields, convert to organic production, and plant new trees (Fairtrade Foundation, 2017[33]).

Agro-food extension services would benefit from the following changes:

- *Increasing co-ordination among the different agencies*. Brazil, for example has created a national agency to foster co-ordination in this area (Box 3.6).
- *Raising awareness of potential beneficiaries.* An increased supply of extension services is not enough. Proactively reaching out to the beneficiaries, increasing awareness and stimulating the demand for technical assistance is needed to make them effective. Co-operatives and associations in the Dominican Republic, such as the CEDAF, could play an important role in stimulating demand and foster greater connection with all, relevant stakeholders in the entire value chain. In addition, the institutions in charge of extension services need to be managed in a way that encourages contact and outreach activities of their personnel with local farmers and producers.
- *Providing technology transfers and management training.* Modern extension services tend to couple technical advice with the provision of market and business development services. In Ethiopia, a public-private partnership has enabled improving the competitiveness of local coffee producers (Box 3.7).

Box 3.6. The National Agency for Technical Assistance and Rural Extension (ANATER) in Brazil

In 2016, the Brazilian Government created the National Agency for Technical Assistance and Rural Extension (ANATER) to co-ordinate the work of the pre-existing rural extension agencies (EMATERs) that operated at the state level. In 2018 extension services provided assistance to 90 000 families in 1 549 municipalities. The central government allocated approx. USD 1.09 billion for technical assistance.

ANATER also co-ordinates with other extension services provided by private sector associations, educational institutions and NGOs. For example, large producers often rely for technical assistance or technology transfer on consulting firms or on their own teams. Technical assistance from producer co-operatives is also significant, especially in the southern, south eastern, and Midwestern states. Organisations maintained with funds from the productive sector, such as Rural Learning Service (SENAR), also play a significant role in technical assistance, in their own programmes or in partnership with the Federal and State governments.

Source: Crespolini (2019[24]), *Policies and Instruments for Innovation in Agro-Food: The Case of Brazil*,, Department of Sustainable Production and Irrigation, SIRDI, MAPA. Presentation at the Roundtable on the Agro-Food Value Chain organised in the framework of the PTPR of the Dominican Republic, hosted by the government of the Dominican Republic in July 2019.

Box 3.7. International public and private partnerships in farm management: The case of the Ethiopian coffee value chain

Ethiopia is the world's fifth-largest coffee producer, and the product represents 32% of total exports in the country. Now Ethiopia is focusing on increasing the quality of coffee production.

In line with this effort, the Ethiopian Ministry of Industry agreed in 2015 to host a three-year project to foster farm management practices among small Ethiopian coffee growers, as part of the Ethiopia Programme for Country Partnership. The project is supported by the Italian Agency for Development Co-operation, which comes with a budget of USD 2.5 million, and implemented by UNIDO in co-operation with Illy Caffè and the Ernesto Illy Foundation. Specific activities involved the introduction of new technologies to improve quality and production capacity, the adoption of best agronomical practices, the promotion of advanced sustainable production systems, as well as processing and international marketing capacity-building.

The project defined concrete working models of co-operation between governments, stakeholders, donors, private sector actors and UNIDO. In addition, it also benefited from the synergies with Ethiopian institutions, such as the Ethiopian Coffee and Tea Development and Marketing Authority.

Source: Luca Turello, Head, Agronomy Coffee Procurement Department, Illy, presentation at the PTPR Peer Learning Group (PLG) of the Dominican Republic, Lima, 1 April 2019.

Conclusions

The global economic outlook is highly uncertain. The agro-food industry has been at the frontline during the COVID-19 emergency, and continues operations despite the circumstances. In the pre-COVID-19 world, the country had two major unexploited opportunities such as the growing attention of final consumer towards niche markets and the relevance of tourism activities in the country. On the one hand, the Dominican Republic could strive to capture growing niche markets that value sustainability and quality of food production. In this respect, the Dominican Republic had already made progress. With 8.7% of agriculture land devoted to organic production, second only to Uruguay in Latin America and the Caribbean, it is the world's largest producer of organic cocoa (153 000 hectares) and organic bananas (20 350 hectares), representing more than 30% of organic cocoa, and 55% of organic banana production, in the world.

On the other hand, the country could increase the potential of tourism for local agro-food development. According to the Dominican Ministry of Agriculture, the local agricultural sector already supplies 85% of total fresh primary products required by the tourism industry (In total the consumption of food and beverage of the tourism industry stands at over USD 490 million in 2017 (ASONAHORES, 2017[34]; USDA, 2018[16]). In 2017, the Dominican Agribusiness Board (JAD) and the National Association of Hotels and Tourism (ASONAHORES) agreed to promote the consumption of local agro-food products. Meeting this new demand will require a consistent and regular supply of high-quality primary and processed products, the expansion of local food brands, as well as an awareness campaign that could boost the demand for local products. However, making progress on these two fronts requires a reactivation of the global economy.

What the Dominican Republic can do now is to prepare for different scenarios by deepening the upgrading process and improving the sophistication of local products, processes, and enterprises. Increasing investments in innovation, branding, and intellectual property asset management, along with the integration of new technologies will be crucial. These changes will require a comprehensive policy approach based on a coherent country strategy to face increased global competition and unpreceded disruptive change, as the COVID-19 crisis has illustrated. The disruption of supply chains has severely unsettled the entire agro-food value chain. New management, logistics, and distribution protocols will be needed to co-exist in the COVID-19 era. Such an approach is likely to raise the cost of doing business as well as require new modes of compliance and certification. Worker training and institutional capacity-building in the public and private sectors will be essential.

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Notes

[1] According to the FAO definition Non-Centrifugal sugar is generally derived from sugar cane through traditional methods without centrifugation. For more information http://www.fao.org/waicent/faoinfo/economic/faodef/faodefe.htm

[2] Hemileia vastatrix, also known as Coffee Rust, is a fungus that causes coffee leaf rust. It is a disease that is devastating to susceptible coffee plantations. There is no cure at the moment, although farms have managed to reduce their impact by replanting infected farms with hybrids that have a strong genetic resistance to rust. https://www.plantvillage.com/en/topics/coffee/infos/diseases_and_pests_description_uses_propagation#diseases

[3] The Surprise Visit (or *visita a sorpresa*) is an initiative of the Presidency of the Republic that in co-operation with the agricultural bank and other public agencies, delivers business training (including support for identifying and targeting domestic and international markets for local products and services) and financial support through specific projects in rural communities https://mapre.gob.do/visitassorpresa/

[4] The total budget for extension services is the result of summing up two items in the general budget of the ministry:12- assistance and technology transfer and 13- animal health, agriculture technical assistance. http://www.digepres.gob.do/wp-content/uploads/2017/09/A.-Otros-detalles-del-gasto-Distribucion-Institucional-del-Gasto-por-Estructura-Programatica-2015-2018.pdf

4 Transforming industries: Focus on nearshoring in the Dominican Republic

The United States has been for decades the principal economic partner of the Dominican Republic. Identifying mechanisms to make the most of traditional economic ties and diversifying those ties are the two key elements of a forward-looking strategy. The world economy now faces an unprecedented health and economic crisis that is augmenting the already high uncertainty on the future geography of production, trade, and investment. This chapter analyses the evolution of offshoring in the Dominican Republic, identifies risks and opportunities, and proposes policy approaches amid a highly uncertain future.

Introduction

This chapter, based on the outcomes of interviews with multiple stakeholders as well as a government-business roundtable on the future of nearshoring and global FDI during field missions, provides an assessment of the current strategy, identifies untapped opportunities and delivers recommendations for policy reforms. The process also involved peer-to-peer learning between the Dominican Republic and the Reshoring Institute in the United States.

The first part of this chapter presents a snapshot of global trends and update in light of the unpreceded social and economic crisis brought by the COVID-19 pandemic. The second clarifies the relevance of nearshoring in the Dominican Republic. The third part proposes policy reforms.

A world of uncertainty and hidden opportunities

Despite the political, economic, and public health challenges the world faces, FDI continues to represent an important development driver for economies worldwide. For an economy like the Dominican Republic in which foreign investors play an important role in the country's development, it is particularly important to pay attention to the evolving global trends to identify how the country can take advantage of them and meet its development goals and aspirations.

Attracting FDI has been historically an important component of the Dominican Republic's development strategy. Particularly, since the 1990s it became one of the most relevant drivers of the country's participation in global production networks. As presented in Chapter 1 of this report, tourism, mining, manufacturing and services in FTZs attract the largest share of FDI in the economy. The United States remains the main country of origin with 23% of total investment in 2017-19, 5% less than in 2010-14. Canada, Spain and Brazil follow as other main investors.

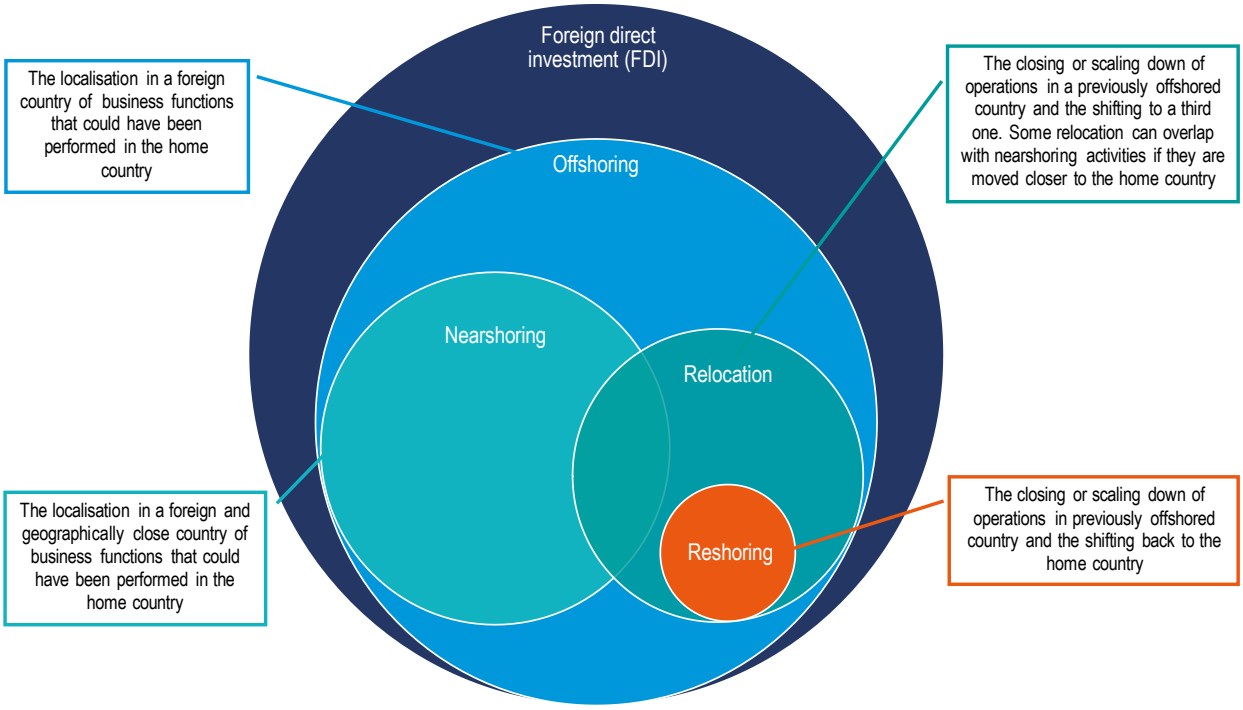
FDI remains a major cornerstone of the current strategy in the Dominican Republic. The current National Development Strategy as well as the National Competitiveness Agenda (as discussed in Chapter 2) stress the importance of increasing and diversifying FDI to ensure spillover into the local production and innovation systems. The current strategy has specifically targeted nearshoring from the United States to facilitate increased sophistication and industrial diversification.

In particular, three emerging global trends appear relevant for the Dominican Republic articulation of a renewed and updated FDI strategy:

Firms are rethinking their localisation strategies

The world is witnessing a reorientation of the geography of production, investment and trade, as companies explore new forms of organisation to adapt to changing policy landscapes, to meet new demands related to sustainability and to exploit the potential of digital technologies. Latin America is also part of the game. For example, in 2019 Seegene, a Korean biotechnology company invested USD 32 million in a Research and Development (R&D) facility in Belo Horizonte (Brazil). The aim is to develop new diagnostic products and molecular diagnostics systems for tropical viruses. Likewise, Heolios EnTG, a French-Japanese company is planning to build a renewable energy project in Aguascalientes (Mexico). The project aims to produce 721 MW from a mix of wind and solar power plant (Financial Times, 2020[1]). The universe of FDI comprises multiple sub-strategies and new emerging concepts (Figure 4.1).

Figure 4.1. Firms are implementing a variety of localisation strategies



Note: The figure is not meant to be representative of the real size of each phenomenon.
Source: Authors' elaboration.

Before the COVID-19 pandemic, offshoring was relatively stable as a share of global GDP. With an increase in absolute terms, from USD 1 400 billon in 2003-06 to USD 1 800 billion in 2016-19 offshoring accounted for 0.5% of world GDP in 2016-19, down from 0.8% in 2003-06. It has represented around 50% of total greenfield FDI since 2003. Manufacturing remains the main sector that absorbed 72% of total investment, 3 percentage points less with respect to 2003-06. In the same period, offshoring activities in R&D become the second main business activity. Total projects moved up from 2 800 in 2003-06 to 4 500 in 2016-19 and investment from USD 90 billion to USD 130 billion (Financial Times, 2020[1]).

Relocation is an emerging phenomenon, but still limited. The number of firms that closed or scaled-down operations abroad and relocated to a third economy has grown in the last decade. According to estimates available from FDi Markets, the number of relocation projects increased from 22 in 2013 to 160 in 2018. Globally, relocations accounted for only 1.3% of total FDI projects between 2013 and 2018. Half of these relocations involved the shifting of headquarters' operations (especially in software, information and communication technologies and financial services); almost 30% involved manufacturing activities and 6% sales, marketing supporting activities facilities (Financial Times, 2020[1]).

The majority of relocations happened from the United States (26%), China (12%) and the United Kingdom (10%) towards Mexico (the top recipient economy of globally relocated projects, accounting for 20% of relocations), the United States (14%) and China (7%). Most of relocations happened within the United States (12%) and from the United States to Mexico (11%), followed by China to Mexico (5%) and Germany to Poland (3%). A further breakdown shows that automotive components, industrial equipment and food are industries in which relocations predominate (Figure 4.2). Although several reasons drive relocation, the presence of specialised suppliers, a sizable market and the ability to quickly respond to markets are important factors that drive relocation strategies (Box 4.3). There are opportunities for economies ready to seize them, but benefits will not accrue automatically everywhere. Strategic partnerships and targeted policies will be needed to ensure positive outcomes.

Relocations are challenging for the recipient economy. This process engenders major economic and social implications with job losses in the short term and infrastructure depletion in the medium and long term. The socio-economic impacts are bigger than the direct employment and business turnover losses. Relocations trickle down rapidly to the local economy affecting the local supply chain, employment and in the long run they impact the quality of infrastructure and the offer of local services, unless targeted strategies are put in place. For example, in 2017 a manufacturer of medical infusion and transfusion equipment, discontinued manufacturing operations in the Dominican Republic and transferred production to Costa Rica, with a loss of 700 direct jobs (Financial Times, 2020[1]). Reconversions are possible but these processes need to be closely monitored to ensure positive transformations and revamping of previously industrialised areas (Reuters, 2019[2]). Over the years, reconversion have been conducted backed up by policy decisions both at the local and national level (Box 4.1). However, as much as this phenomenon has been on the rise and it represents a major concern for the reality where this happens, at the aggregate level this trend is not a major one.

Reshoring – the return of business operations to a country of orign – is not widespread and is mostly related to high-tech sectors. According to the European Manufacturing Survey (EMS 2015), in 2015 6% of all interviewed firms reshored while 17% have offshored. High-tech and science-based firms are more prone to backshore (24%) with respect to low-technology firms (15%). Flexible production and higher quality products are the main drivers for reshoring with 70% and 55% of surveyed firms, respectively. In addition, reshoring is highly related to firms engaged in industry 4.0 activities and firms with more than 1 000 employees (UNIDO, 2019[3]).

The current pandemic is putting global economies under strain; one dimension has been the disruption in global value chains. Suddenly, it has become very difficult to operate globally and to manage and control suppliers dispersed around the globe. The ultimate impact on firms' localisation strategies and on the prevailing geography of production, trade and investment in the post-COVID-19 landscape remains to be seen. Most analysts concur that the current pandemic will reinforce pre-existing relocation trends. With most economies under full or partial lockdown and with trade and investment contracting, the future of offshoring is more uncertain than in the pre-COVID-19 situation. The WTO predicts a trade fall between 13% and 32% and UNCTAD estimates an FDI contraction from 30% to 40% during 2020-21 (WTO, 2020[4]; UNCTAD, 2020[5]).

Box 4.1. Examples of relocations: Rationales and outcomes

Market size, quality and fast fulfilment are affecting relocation strategies.

Case 1: Water filtration equipment company

Issue: Redefinition of global manufacturing strategy

Headquartered in the United Kingdom, with a factory in China. Major growth was in the US market, so the company wanted to find a US location for a new factory to produce for US customers. It evaluated six potential US cities based on availability of manufacturing sites, tax rates, proximity to market, availability of labour, education levels, nearby universities teaching engineering and water biology, airport services, incentives and monetary grants offered by state and local governments. The location selected was Dallas, TX.

Case 2: Industrial fan manufacturer

Issue: Tight control over manufacturing quality

This company had been manufacturing its low-priced products in China for years, but found it was increasingly hard to control the quality of the products. The company worried that poor quality low-end products would affect their overall brand image on the more expensive, high-end industrial products. As a result, the company decided to relocate all production back to Kentucky, United States. The company had to redevelop its supplier base in the United States and tried to find suppliers close to the new manufacturing site. All products now carry the "Made in USA" label and are sold at premium prices.

Case 3: Custom-made men's shirts

Issue: Fast fulfilment

This company makes custom-tailored shirts in New Jersey, United States. Although they could produce the shirts at a much lower cost overseas, they choose to keep production in the United States so that they can offer faster order fulfilment times and extremely high-quality products. Custom shirts are only sold online and significantly more expensive than shirts sold in department stores.

Source: Rosemary Coates, Executive Director of the Reshoring Institute, United States. Presentation during the public-private roundtable "Leveraging on new business opportunities in the Dominican Republic", Santo Domingo, 12 December 2019.

Box 4.2. Reconversion can lead to new business opportunities

North Carolina, United States

In 2019, Cook Medical, a manufacturing company specialised in the production of technologies that eliminate the need for open surgery, completed an agreement with local authorities to acquire a facility Whitaker Park in Winston-Salem (North Carolina). The site formerly hosted one of the largest cigarette plants in the world, offers 80 000 square metres of space, and will employ 650 workers.

Its reconversion into a modern facility producing life-saving medical devices has been sustained financially by the local authorities. Moreover, the new production plant offers the possibility to rely on long-standing local production capabilities and readapt them to new industry and market requirement.

Bilbao, Spain

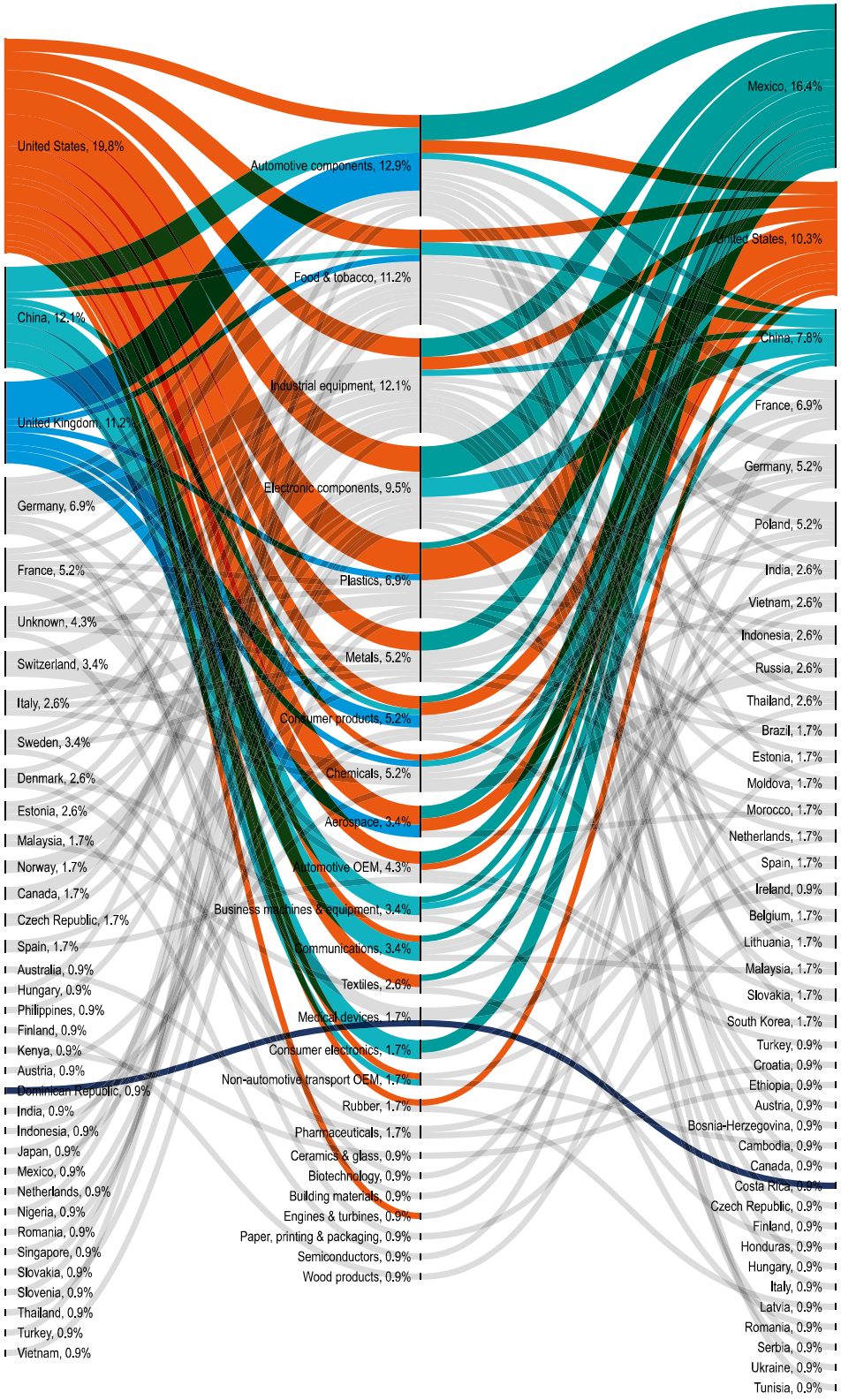
In 30 years Bilbao transformed itself from a polluted industrial brownfield into a flourishing innovation hub. Between 1850 and 1970, Bilbao became one of the largest industrial hubs in south-western Europe led by iron, steel and shipbuilding. The economic crisis of the 1970s and 1980s hit the city; between 1981 and 1991, unemployment rose to 26%, and Bilbao lost 15% of its population.

The reconfiguration process involved public and private stakeholders' backup with the support of the European regional structural funds. Local administration acquired and decontaminated industrial lands, created technological parks and investment in new public infrastructure. Without losing its industrial vocation, the city is now a central innovation hub in the Basque country, in which new investment in pharmaceutical, advanced manufacturing, and biotechnologies are coupled with flourishing tourist and cultural activities.

Source: Brian Daigle, United States International Trade Commission (USITC), Technology Onshoring in the United States: Local Government Successes and Challenges, presentation at the PTPR Peer Learning Group (PLG) of the Dominican Republic, Lima, 1 April 2019; (EU Parliament, 2019[6]), Reconversion of industrial areas in the framework of regional policy, Panel for the Future of Science and Technology (STOA), European Parliament.

Figure 4.2. Manufacturing is being relocated, but between few countries and in few sectors

Share of world relocation projects in manufacturing, 2013-18



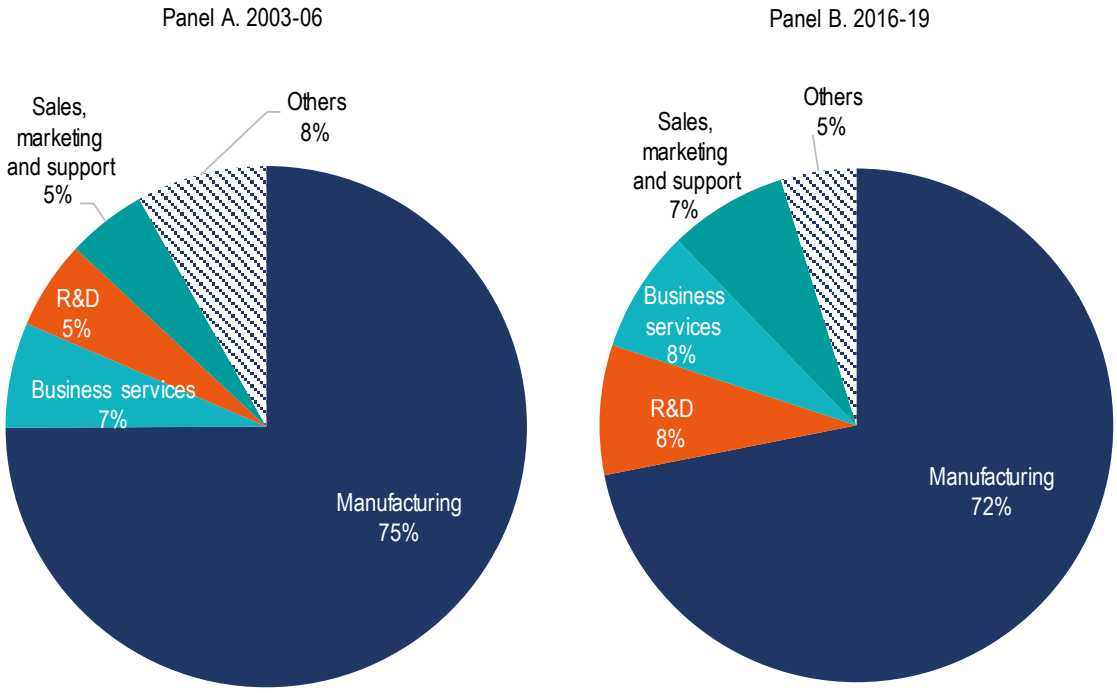
Note: The sector classification follows the North American Industry Classification System (NAICS) 2007.
Source: Authors' analysis based on Financial Times fDi Market Database, https://www.fdimarkets.com.

Manufacturing drives global offshoring activities

Manufacturing accounts for 72% of global capital investments for offshoring (Figure 4.3). The leading sectors in manufacturing are transport equipment, food and beverages, industrial equipment, electronics, and chemicals. Knowledge-intensive activities are also on the move. For example, the incidence of offshoring activities in R&D grew from 5% in 2003-06 to 8% in 2016-19. A more granular analysis shows that software and ICT, telecommunication, biotechnology and chemicals count for 50% of total offshoring activities in R&D.

Figure 4.3. Manufacturing continues to lead offshoring investments

Share of world total offshoring capital investment, 2003-06 and 2016-19



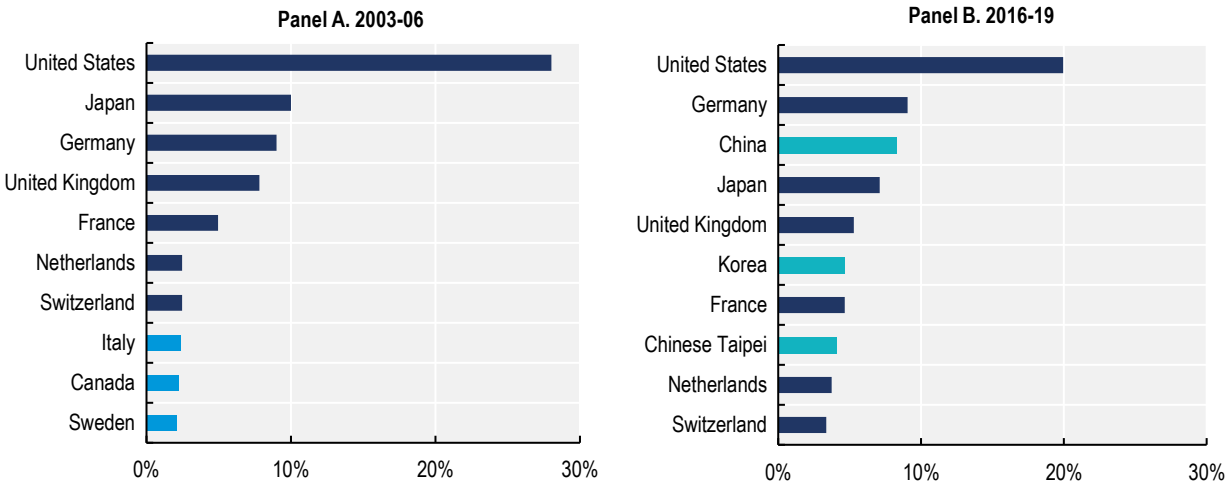
Source: Authors' elaboration based on Financial Times fDi market database, www.fdimarkets.com.

New investors are emerging

The geography of offshoring is changing. In 2016-19 the top five investors accounted for 50% of total investment, 5 percentage points less with respect to 2003-06. While the United States remains the world's leading offshoring economy, its role is shrinking, and new investors are emerging. The United States accounts for 20% of total capital investment in 2016-19, down from 28% in 2003-06. Germany is the second leading investor with 10% and China has become the third world-leading investors, accounting for 8.5% (Figure 4.4). Asia continues to be the global manufacturing hub, absorbing almost 40% of total offshored investment, slightly lower than the 45% reached in the early 2000s.

Figure 4.4. New investors are catching up

Share of total capital offshoring investment, 2003-06 and 2016-19



Source: Authors' elaboration based on Financial Times fDi market database, www.fdimarkets.com.

The Dominican Republic can benefit more from offshoring

This section highlights the role of the United States as the principal investor in the Dominican Republic. It shows how nearshoring has enabled the development of new activities in the economy and clarifies that proximity is not sufficient to attract investment and to ensure upgrading. The Dominican Republic could enrich its nearshoring focus by looking at North America and Latin America and the Caribbean.

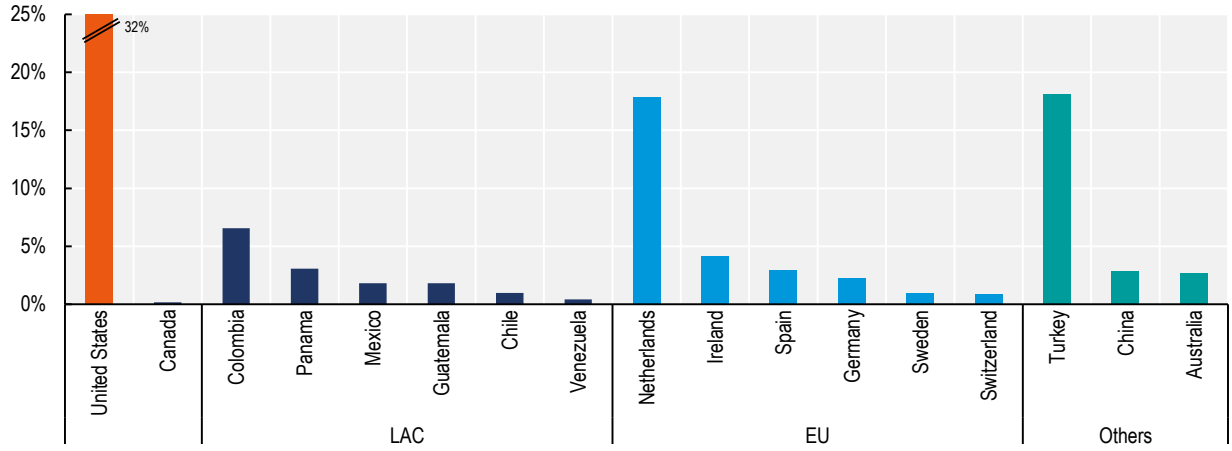
The United States is a strategic partner for the Dominican Republic

Offshoring is an important economic activity in the Dominican Republic, and the United States plays a major role even though new partners are emerging. The United States accounted in 2016-19 for 32% of capital investment and 48% of jobs created through offshoring activities in the Dominican Republic. This figure is lower than what it used to be in the early 2000s, when the United States accounted for almost 67% of capital investment and 58% jobs created (Financial Times, 2020[1]). Colombia, Panama and Mexico recently offshored in the country, in building materials and food and beverage products.

New overseas investors are emerging from the European Union and other regions. The Netherlands have invested in both business activity and manufacturing of paper products, Turkey in manufacturing of food and beverage and plastic, and China in footwear and metal manufacturing. Overall, manufacturing activities are the leading component, specifically in medical equipment, food and beverage, and packaging, followed by customer and market services that are emerging as new important activity. In addition manufacturing activities cover 22% of firms operating and to 16% of total employment in the FTZs (CNZFE, 2019[7]). These include in particular back-office functions and call centres that serve the east coast of the United States.

Figure 4.5. The United States is the main offshore investor in the Dominican Republic

Share of offshoring capital investment by country of origin, 2016-19



Note: The data reported are estimated figures.
Source: Authors' elaboration based on Financial Times fDi market database, www.fdimarkets.com.

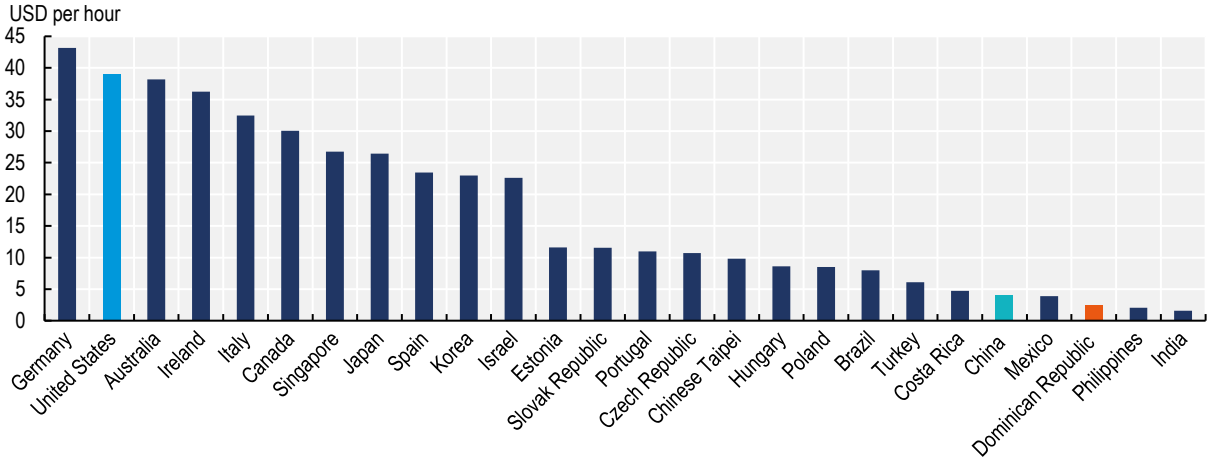
A targeted policy for nearshoring is an important component of the national development strategy. The United States invests primarily in manufacturing activities (medical equipment, plastic packaging) customer and marketing services (call centres) and business services (legal and banking services). However, the United States is a major investor in most of the countries in Central America and the Caribbean, urging all countries to constantly update and improve their value proposition, as they tend to compete for attracting similar activities.

Latin American neighbours mostly host manufacturing activities, which operations tend to be linked to labour-intensive and lower-knowledge intensive segments of manufacturing activities. Indeed, the competition for attracting nearshoring investment among countries in Central America is fierce, as they rely on similar competitive advantages, including proximity, capacity to align business operation similar to the time zones of the United States and low labour costs. The latter is playing an important role in the attractiveness of the Dominican Republic. For example, the hourly manufacturing labour cost in the country is USD 2.5, approximately half of Costa Rica or Mexico and only 6% than the United States (Figure 4.6).

The pattern of investment from the United States to the Dominican Republic is similar to the one of Mexico in terms of type of activities, with manufacturing accounting for 65% of total investment. This is above the average of 44% for the countries in CAFTA-DR (Central America Free Trade Agreement and the Dominican Republic) and above Costa Rica. Nevertheless, in absolute terms, Costa Rica absorbs as much as four times the nearshoring investment from the United States when compared with the Dominican Republic (Table 4.1).

Figure 4.6. Labour costs in the Dominican Republic are 6% of those in the United States

Hourly labour cost in manufacturing, the Dominican Republic and selected countries, 2018 or last available year



Note: Labour cost includes direct pay, social insurance expenditures, and labour-related taxes. Costa Rica (2018); Dominican Republic (2017); China (2013); India (2014); all other countries (2016).
Source: Authors' elaboration based on Conference Board International Comparisons of Hourly Compensation Costs in Manufacturing, https://www.conference-board.org/; Dominican Republic National Survey of Economic Activity (ENAE), https://www.one.gob.do/encuestas/enae; and Costa Rica National enterprises survey, http://www.inec.go.cr/.

Table 4.1. United States nearshoring activities, 2016-19

Nearshoring flow	Capital investment (USD million)	Main sector of investment
USA > CAN	19 308 (31.8%)	R&D (44%); ICT services (22%); manufacturing (20%)
USA > MEX	20 533 (33.8%)	Manufacturing (67%); ICT services (22%), customer and market services (6%)
USA > CAFTA-DR	2 707(4.4%)	Manufacturing (46%); customer and market services (11%); business services (11%)
USA> DOM	358 (0.6%)	Manufacturing (65%); customer and market services (20%); business services (10%)
USA > CRI	1 581 (2.5%)	Manufacturing (31%); customer and market services (15%); R&D (13%)

Note: The data reported are estimated figures.
Source: Authors' elaboration based on Financial Times fDi market database, www.fdimarkets.com and UNCTAD FDI database, https://unctadstat.unctad.org/EN/.

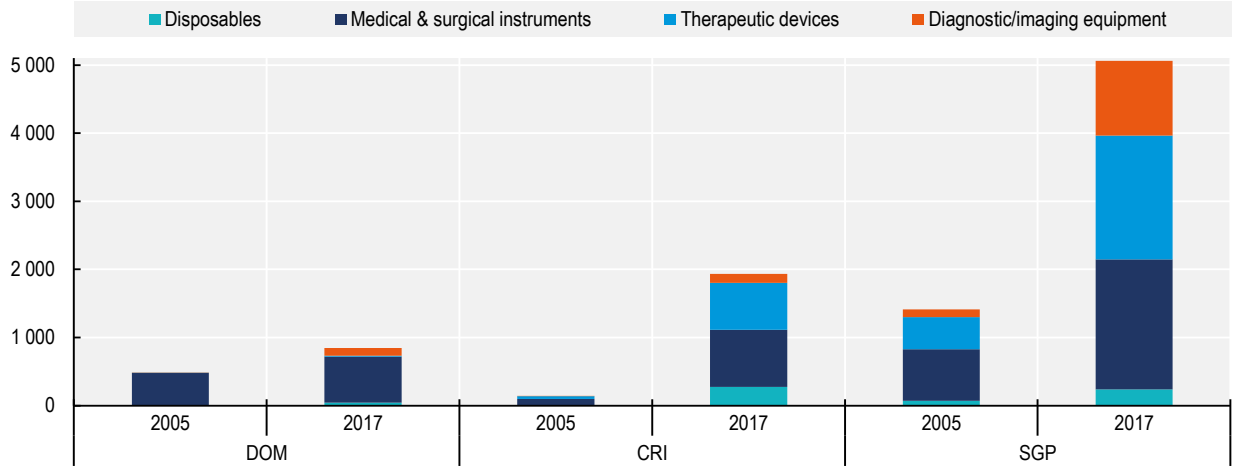
Nearshoring opened up new business opportunities

The fierce competition between the economies in the region to attract investment is contributing to economic modernisation and diversification. For example, the late 1990s and early 2000s witnessed an increase of both offshoring and nearshoring activities in the medical device industry. The choice between the two complementary strategies was driven by several factors: the final market of reference, the scalability of production as well as the total landed cost (TLC) which includes transportation fees (both inland and ocean), customs duties, taxes, tariffs, insurance and currency conversion. As a result, since the mid-1990s, United States-based original equipment manufacturing (OEMs) started to move considerable production segments to Central America and the Caribbean, particularly in Mexico, Costa Rica and also in the Dominican Republic (Pomager, 2015[8]). In 2018, the country had 33 firms operating in medical devices that contribute to 27% of total investment and 25% of total exports of FTZs (CNZFE, 2019[7]). As the industry emerged, exports almost doubled between 2005 and 2017. However, the manufacturing of

medical devices in the Dominican Republic is linked to the most labour-intensive and less technologically sophisticated activities. For example, therapeutic devices (e.g. pacemakers, implants, etc.) account for only 2% of total exports in the Dominican Republic, while they represent 36% in Costa Rica and Singapore's medical devices exports. Similarly, while the share of exports of diagnostic and imaging equipment increased from less than 1% in 2005 to 13% in 2017, it is still below Singapore's 22% (Figure 4.7).

Figure 4.7. Medical devices exports from the Dominican Republic, Costa Rica and Singapore, 2005 and 2017

USD million of exports by industrial category



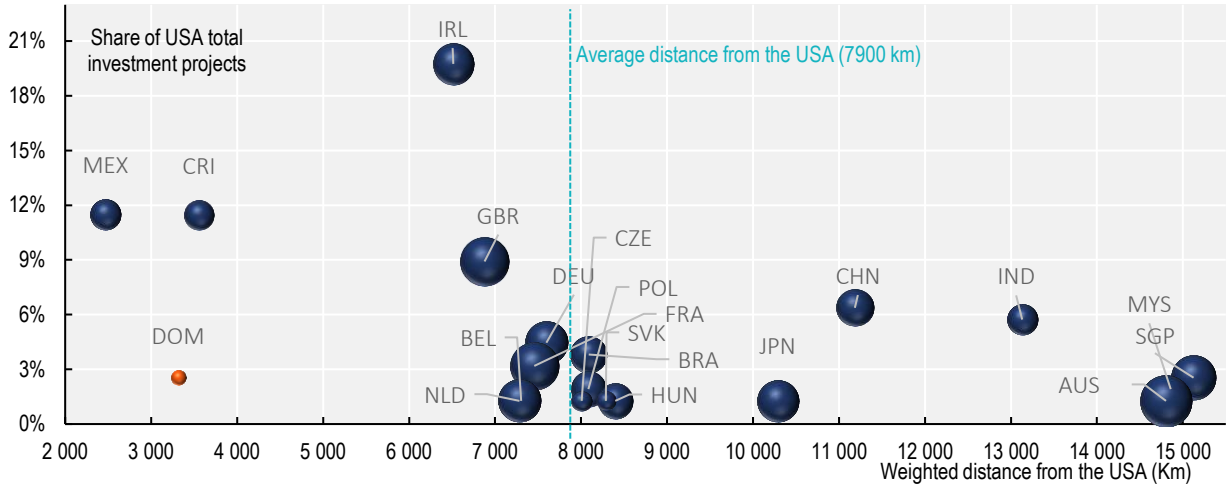
Note: The categories follow Bamber and Gereffi (2013) and go from least (disposables) to most sophisticated (diagnostic/imaging equipment). The figure includes non-FTZ exports, which amount to 2% of the total.
Source: Authors' elaboration on UN Comtrade, https://comtrade.un.org/.

Proximity does not guarantee upgrading

Proximity to offshoring countries does not guarantee more investment and localisation of activities that foster upgrading and spillovers. The countries that tend to benefit more from offshoring and FDI, in general, are the ones with targeted strategies and policies in place. The case of medical devices helps to illustrate this point. Figure 4.8 plots the recipients of FDI from the United States in medical devices according to their proximity, their share of total investment and their technological specialisation. The figure seems to suggest that while the United States offshores knowledge-intensive activities to Europe and Asia, investments in Mexico, Costa Rica and the Dominican Republic represent mostly low knowledge intensity manufacturing activities. Among the destinations in Latin America, the Dominican Republic is the one that receives the least knowledge-intensive activities.

Figure 4.8. Proximity is not enough for attracting investment and for upgrading

United States FDI outflows in medical devices, world locations by proximity and technological specialisation, 2016-19



Note: a) Bubbles size reflect the share of high technology exports of medical devices for each country between 2016-18 following the classification developed by Bamber and Gereffi (2013). b) The weighted distance takes into account bilateral free trade agreement, transport cost, languages.

Source: Authors' elaboration based on Financial Times fDi Market database, https://www.fdimarkets.com/; CEPII's GeoDist database, http://www.cepii.fr/cepii/en/bdd_modele/bdd.asp; and UN Comtrade, https://comtrade.un.org/.

Strengthened economic ties with Latin America and the Caribbean is an unexploited opportunity

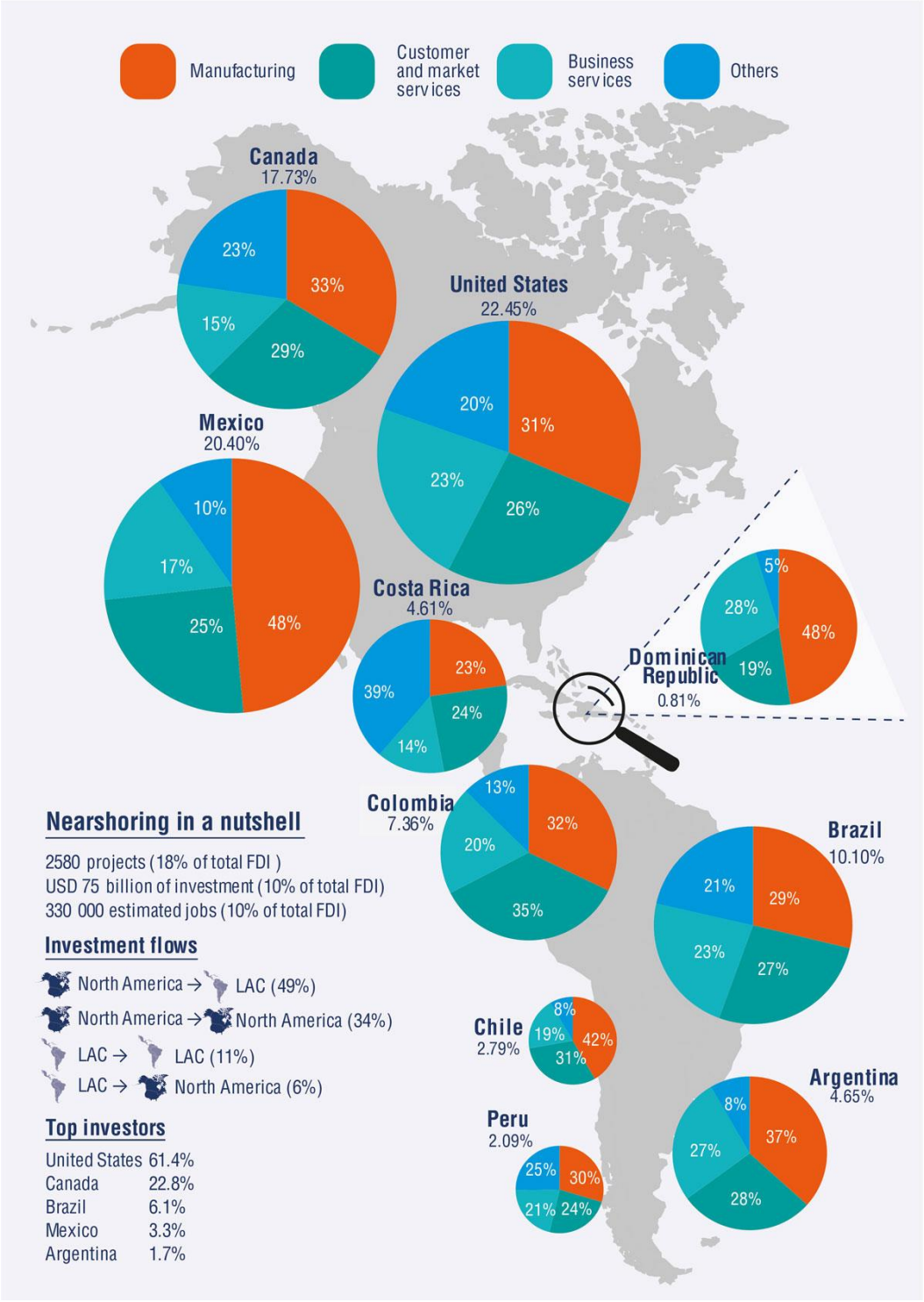
The Dominican Republic captures only 0.8% of the total investment flows within Latin America and the Caribbean and from the United States and Canada. Costa Rica, a neighbouring country with a similar export profile, accounts for 4.6% of these investments. The pattern of who invests in these two countries is very similar, where 70% of the intra-area investment comes from the United States, 14% from Colombia and 7% from Panama. In the case of Costa Rica, 75% of investment comes from the United States, 18% from Mexico and 3% from Colombia.

Nearshoring between the United States, Canada, and Latin America and the Caribbean has been on the rise. In 2016-19, intra-regional offshoring accounted for 18% of total FDI and as much as 10% of capital investment, up from 15% and 8% in 2003-06, respectively. The United States is the principal investor in the areas, accounting for close to 60% of total offshoring within the area (41% to Latin America and 18% to Canada). Offshoring within Latin America and the Caribbean has grown, representing 11% of total intra-area investment in 2016-19, up from 6% in 2003-06. Mexico, Brazil and Chile explain almost half of offshoring in the area.

Attracting nearshoring investment from the United States merits a targeted strategy. But improving the value proposition and visibility of the Dominican Republic to other countries within other Latin American and Caribbean economies, and Canada, is also an important approach.

Figure 4.9. Offshoring between the United States, Canada and Latin America and the Caribbean, 2016-20

Top 10 recipients' countries of nearshoring activities



Note: The data reported are estimated figures.
Source: Authors' elaboration based on Financial Times fDi Market database, www.fdimarkets.com and UNCTAD FDI database https://unctadstat.unctad.org/EN/.

Tapping into the dynamism of the creative industries

The new wave of knowledge-intensive investment is related to the creative industries. More recently, creative industries, i.e. those economic activities that are related to the generation or exploitation of knowledge, information and cultural assets (Nurse, 2018[9]), are also increasingly being organised along complex international value chains. There is significant growth in global production networks associated with the creative industries although it is not well developed in the offshoring or nearshoring literature (Coe 2015; Hudson and Tung 2010). Estimates show that in 2016-19, creative industries accounted for 4% for total offshoring activities, 3 percentage points more with respect to 2003-06. Internet publishing, software development, motion pictures, and gaming account for 60% of total offshoring activities in the creative industries (Financial Times, 2020[1]).

A critical area for investment expansion for the Dominican Republic is in on-location film shooting for the audio-visual sector. Since 2010, the Dominican Republic has a special tax regime to foster the development of the cinematographic industry. Similar to other special tax regimes (see Chapter 2) film producers may benefit from two specific incentives. The first is a transferable tax credit (CFT) equivalent to 25% of all expenses incurred in the Dominican Republic that are directly related to the pre-production, production and post-production stages of their films if the production expenses in the country exceed USD 500 000. This incentive is available for films, TV films, TV series, music videos, reality shows, soap operas, documentaries and other audio-visual works. Secondly, there is a VAT exemption, on all goods, services and/or leases directly related to the pre-production, production and post-production of cinematographic works; and temporary imports free of tariffs and taxes of equipment and consumable or non-consumable goods, necessary for filming.

The total special regime for 2019 amounted to USD 18 million and is granted by the inter-sectoral council for the promotion of cinematographic activity in the (CIPAC) (DIGEPRES, 2020[10]). The council has a board of ten representatives of public and private sector and is chaired by the Minister of Culture that oversees the work of the National Film Commission in attracting and developing the cinematographic projects. For example, the DGCINE supported the development of complementary instruments to attract investment and develop local capabilities. These include the creation of eight specialised film schools in co-operation with local universities and the development of three on-site location studios in co-operation with major world production such as the Pinewood Studios. In 2018, the country hosted over 86 audio-visual productions from all over the world that received over 40 international awards in numerous film festivals, such as Locarno, Toronto and Guadalajara (Murray, 2020[11]).

Policy reforms to preserve the gains from investment

The Dominican Republic has several institutions charged with attracting FDI. Formally, the Export and Investments Centre of the Dominican Republic (CEI-RD) is in charge of both attracting investments and promoting. It was created in 2003 by merging the former Export Promotion (CEDOPEX) and the Office of Promotion of Investments of the Dominican Republic (OPI-RD). Merging export promotion and investment attraction is an increasing trend both in the OECD and in Latin America. The CEI-RD is an autonomous agency under the Ministry of Industry, Commerce and MSMEs. In addition to a headquarters in Santo Domingo, it has three autonomous offices abroad (Miami, New York and Chicago) and operates via liaison officers in diplomatic embassies around the world. The executive director co-ordinates the activities of CEI-RD and reports to the board – chaired by the Ministry of Industry, Commerce and MSMEs and composed of 16 members from both public and private institutions – that oversees and steers the work of the agency. In 2020, the CEI-RD has a total budget of USD 8 million and 232 staff members. The current policy mix of the CEI-RD counts with USD 1.4 million of which 30% is dedicated to investment attraction via matchmaking events in the country and abroad. To facilitate investment and reduce red tape in 2012 the CEI-RD launched a one-stop shop investment (Ventanilla Única de Inversión, VUI). Moreover, other public

and private stakeholders in the country have a similar and to some extent overlapping role. This is the case of single ministries (i.e. the Ministry of Tourism, the Ministry of Agriculture and the Ministry of Energy and Mining), and other specialised agencies and regulatory authorities like the CNZFE. Similarly, the administrators and owners of private parks that host FTZs often seek for investment in autonomy.

The Dominican Republic offers fiscal incentives for foreign investors. Companies enjoy exemptions among others for VAT, corporate income tax, and imports duties, according to a series of different special regimes *(regímenes especiales*, for more information, see Chapter 2 of this report*).* Although special regimes had made possible attracting investments and spurring employment in both FTZs and in tourism and mining, the country still does not have a targeted strategy to attract FDI in more knowledge-intensive industries aligned with the national innovation and industrial policies. In going forward, the Dominican Republic would benefit from updating its strategy and identifying ways to take more advantage from FDI.

The country needs to address basic gaps that hamper its competitiveness. For example, on average it takes 9.4 days to clear exports through customs; this figure is above the Latin America and Caribbean average (7.8 days) and the OECD average (5 days) (World Bank, 2018[12]). Likewise, the country still lacks a resilient and reliable electric energy supply throughout the entire power grid. Although the country reduced the total electricity losses from 35% in 2011 to 24% in 2018, this figure is twice as the median of the region. Moreover, the electricity generation relies for 70% on imported fossil fuels (oil and gas) that pressure both national current account and environmental sustainability (Fitch, 2019[13]; World Bank, 2015[14]). The addition of 400 MW of solar and wind power generation in 2015-18 is an important step towards greater reliance on renewables (IRENA, 2018[15]).

Also, the development of digital infrastructure requires particular attention. In 2018, the average broadband connection speed was 25 Mbps, similar to Costa Rica but lower with respect to other countries in the region such as Mexico (34 Mbps) and Peru (50 Mbps) and six to seven times less with respect to frontier economies such as Korea and Singapore (ITU, 2020[16]). In addition, the Dominican Republic can benefit more from FDI by clarifying future opportunities and risks and by identifying new partnerships for development. Table 4.2 clarifies the outcomes of the consensus-building activity carried out in the framework of the PTPR.

Table 4.2. Benefiting more from nearshoring: opportunities, risks and partnerships

New opportunities	Risks and vulnerabilities
• Companies are implementing new localisation strategies • Cultural and creative industries • New demands for sustainability and inclusiveness could make traditional sectors willing to increase local linkages (e.g. tourism) • Tapping into local talent for start-up creation • Managing the recently established diplomatic relationship with China	• Global uncertainty • Readiness to operate in an Industry 4.0 landscape • New technologies are changing localisation drivers and could make labour costs less relevant in localisation decisions • Environmental and climate vulnerability • Uneven industrial infrastructure between FTZ and local economy • Managing relations with traditional and emerging trade and investment partners
Strategic partnerships	
• Leveraging the Dominican diaspora • Looking beyond Washington, DC to develop strategic relationship with the federal states • Forming a diplomatic and trade and investment relationship with China • Making the most of CAFTA-DR and co-operation with Latin America • Setting up targeted forms of technical co-operation with traditional partners	

Source: Government-Business Roundtable on “Making the most of nearshoring in the Dominican Republic” organised in the framework of the PTPR of the Dominican Republic on December 2019 in Santo Domingo, Dominican Republic.

To update its FDI strategy the Dominican Republic should focus on the four following areas:

- **Complementing the focus on nearshoring with an emphasis on global attractiveness.** While updating the strategy with respect to the United States is crucial, the country should not underestimate the future possibilities of investments that could originate from Canada and Latin America and the Caribbean countries as well as from new partners such as China.
- **Updating the local value proposition and country branding**. Currently, the Dominican Republic principally exploits its low-labour costs as a selling point (Table 4.3) which makes the country an effective location for labour-intensive activities. Updating the value proposition of investing in the Dominican Republic and attracting more quality FDI would require an upfront selective strategy.

Table 4.3. Labour costs are more competitive in the Dominican Republic than in China

Factors	Dominican Republic	China	Mexico
Labour costs	+++	++	++
Proximity	+++	+	+++
Skills and education	++	+++	++
Technology	+	+++	++
Infrastructure	++	+++	++
Density of production system	+	+++	++

Notes: +++ high competitive, ++ average competitive, + low competitive.
Source: Coates (2019), "Policies and instruments for (re)attracting new productive investments: lesson learned from the USA", Presentation during the Government-Business Roundtable on "Making the most of nearshoring in the Dominican Republic" organised in the framework of the PTPR of the Dominican Republic on December 2019 in Santo Domingo, Dominican Republic.

- **Deepening the gains of investment through local linkages and innovation**. Foreign firms operating in the FTZs in the Dominican Republic are rarely relying on local actors to develop new product and process solutions. These types of local linkages do not develop automatically; they are often the results of targeted policies that strengthen the local production base and improve the quality and timely supply capacity, and that make it simple and effective for foreign firms to rely on local suppliers. In Santo Domingo, the Cybernetic Park offers an example that could be scaled-up and replicated (Box 4.3).
- **Diversification away from traditional nearshoring activities.** The narrow focus on manufacturing must give way to more emphasis on new sectors like the creative and digital economy sectors. Some of the sectors that have benefited the most from the COVID-19 crisis are those that can deliver online and on-demand services. Platformisation and the distribution mechanisms for creative content are key drivers of the burgeoning digital economy. The Dominican Republic can utilise its investments in the audio-visual sector and in the Cybernetic Park to facilitate increased investment in the growth sectors like animation, gaming, and e-sports that have strong incentives for nearshoring activities.

Box 4.3. Nurturing local business talent: Cybernetic Park in Santo Domingo

Cybernetic Park of Santo Domingo (PCSD) was established in 2000 to spur industrial innovation and support the creation of innovative start-ups. PCSD is located in the centre of a major campus that includes:

- The Technological Institute of the Americas (ITLA) which provides certified training in several areas of technology such as Software Development, Information Networks, Multimedia, Mechatronics, Automated Manufacturing and Computer Security.
- A free trade zone where 16 companies with more than 200 employees operate.
- A business incubator (Emprende) to foster new start-up development.

The Cybernetic Park has both public and private participation. Over the years the PCSD developed joint partnerships also with international organisation. For example, in 2016 the IDB lab financed the development of autonomous drones capable of moving up to six pounds of medical supplies at 25 miles per hour and reaching remote areas of the country.

To achieve these goals the Dominican Republic needs to:

- **Modernising the policy approach**. The country should plan for attracting FDI within the overall national development strategy and should identify, *ex ante*, opportunities for local linkages and innovation. In addition, national policy could be modernised by shifting towards a more selective type of FDI attraction, for example by prioritising specific types of investment (e.g. more knowledge-intensive) and/or by adding in contracts specific provisions for local development (e.g. training and technology transfer provisions) (Box 4.4). Modernising the policy approach means also anticipating which sector and activities will drive the next wave of FDI. Most likely new investment in e-commerce, digital technology, cybersecurity, biotechnology, healthcare, mobility, and renewable energy will gain momentum in the near future due to the COVID-19 outbreak.

Box 4.4. Attracting FDI in Malaysia

FDI has been a key component in Malaysia's development strategy.

Tax incentive packages

Malaysia offers FDI incentives under the Promotion of Investments Act 1986 and the Income Tax Act 1967. The Malaysian Investment Development Authority (MIDA) is the autonomous agency under the Ministry of Industry (MITI), in charge of the promotion and co-ordination of industrial development in the country that also oversees and drives foreign investment in Malaysia.

It offers two main incentives packages: **Pioneer Status and the Investment Tax Allowance.**

- The Pioneer Status (PS) provides an income tax exemption of 70% of statutory income for 5 years. Unabsorbed capital allowances and accumulated losses incurred during the pioneer period can be carried forward and deducted from the post-pioneer status of the company.
- The Investment Tax Allowance (ITA) provides an allowance of 60% on qualifying capital expenditure (factory, plant, machinery or other equipment used for the approved project) incurred within 5 years from the date the first qualifying capital expenditure is incurred.

The exception and deduction for both PS and ITA can be extended up to 100% and to 10 years if the activity of the company is related to strategic activities defined by the government. Promoted strategic activities include automation of production, high-technology industries, provision of technical and vocational training, strengthening industrial linkages, value creation from oil palm biomass, in-house R&D, and green technology.

In addition, since 2015 Malaysia has introduced a principal hub (PH) package. The scheme provides a preferential corporate income tax at tiered rates (0%, 5%, or 10%) for a period of up to 10 years to foreign companies that uses Malaysia as a base for conducting regional and global businesses and operations through management, control, and support of key functions, such as management of risk, strategic decisions, finance, and human resources The PH scheme is subject to:

- A paid-up capital of USD 580 000;
- Serving and controlling a network of at least 10 to 15 of companies;
- At least 50% of the high-value jobs must be filled by Malaysians and must provide structured internship and training programmes approved by the Malaysian Talent Corporation.

Promoting linkages

The Industrial Linkage Programme (ILP), managed by the Small and Medium Enterprises Corporation (SMEs Corp) of the Ministry of Industry and MIDA, offers tax incentives to local SMEs and foreign affiliates to develop local SMEs capabilities. Local SMEs which are capable of achieving world-class standards of price, quality and capacity, are granted a tax exemption of 100% on statutory income for 5 years and Investment Tax Allowance of 60% on qualifying capital expenditure incurred within a period of 5 years. On the other hand, multinationals can claim tax deductions for costs involved in providing support to local suppliers, including training, product development and testing, and factory auditing to ensure local supplier quality.

Investing in skills

Malaysia facilitates access to foreign talent. Companies can hire expatriate personnel through two mechanisms: key post and time post. A key post is a high-level managerial post that can be held indefinitely by a foreigner that is essential for companies to safeguard their interests and investments. A term post is a post approved for up to 5 years that requires technical skills with professional qualifications and working experience in the related field. In the case of time post, Malaysians must be trained to eventually take over. The eligibility for expatriate posts is subject to a minimum paid-up capital as follows.

Time posts

- USD 60 000 for 100% Malaysian-owned company
- USD 80 000 for jointly owned firms by foreign and Malaysian
- USD 115 000 for 100% foreign-owned company

Key posts

The key posts are subject to the condition that the company must be incorporated in Malaysia and must deposit its capital of at least USD 250 000.

Source: (MIDA, 2019[17]), Investment in the Manufacturing Sector 2019: Policies, Investment and Facilities.

- **Streamlining and strengthening the institutions in charge of investment attraction.** The CEI-RD has improved synergies over the years with other institutions such as the CNZFE and other agencies under the MICM; for example by fostering supply chain development between local firms and FTZs, it developed matchmaking event organised in co-operation with the CNZFE. Moreover, along with the National Office for Industrial Property (ONAPI), the CEI-RD is currently drawing up a strategy for promoting country branding and image. Nevertheless, the level of engagement and overlapping in function and objectives among multiple institutions undermine the effectiveness of the current investment attraction strategy.

  The Dominican Republic would benefit from identifying a unique services agency for investment attraction. The CEI-RD could strengthen this function if backed with a stronger mandate for FDI attraction and improve the co-ordination and convening capacities with other relevant bodies. This change would allow more selectivity in investment attraction, would foster co-ordination with the overall national development strategy and would provide increased services to investors and parks administrators making the overall FDI management more effective. Reforms in the payroll system for staff involved in FDI management would help retain capabilities in the institutions, reducing turnover in those involved in working for FDI attraction (These talents often tend to leave for the private sector as remuneration gaps are huge). These reforms should be coupled with stronger aftermarket services, better evaluation and targeting specific investment that could favour innovation and upgrading like in Costa Rica (Box 4.5).

Box 4.5. Attracting FDI to Costa Rica: The role of CINDE

The Investment Promotion Agency (CINDE) is the agency in charge of FDI attraction in Costa Rica that was founded in 1982 as a private non-profit organisation and declared of public interest by the Costa Rican government in 1984.

CINDE is the key implementing agency for FDI attraction in Costa Rica and operates as a one-stop-shop service hub for investors. It actively scouts out potential investors, supports investors in setting-up operations and delivers aftercare services. Its private nature enables the agency to operate fast and understand the business dynamics, and its strong linkages with the Government enable the agency to operate as an effective broker between foreign investors and the national administration. Since the beginning of the decade of 2000, CINDE has adopted a selective approach prioritising the attraction of knowledge-intensive FDIs to increase the sophistication of the local production base and export specialisation. CINDE operates in strong synergy with the national Ministry for Foreign Trade (COMEX).

CINDE counts with 49 employees. As a private non-profit organisation, CINDE operates independently under the supervision of the director general that oversees the work of four departments: investment promotion, research, international affairs, and aftermarket. The director general reports to a board composed of 10 representatives from public and private institutions, which in turn reports to a general assembly. In 2019, it managed a budget of USD 4.9 million.

Source: Updated and expanded with official information (OECD, 2012[18]), Attracting Knowledge-Intensive FDI to Costa Rica: Challenges and Policy Options, . https://www.oecd.org/dev/americas/mdhcostarica.htm.

- **Complementing the incentive package with targeted tools to foster local industrial development.** When foreign firms set up operations in FTZs, they rarely develop local linkages over time if that was not envisaged in the first place. The experience from Asia, Latin America and more recently Africa, shows that it is possible to develop local linkages and to require that big companies source locally. But this happens through a process which often requires government support to bridge several gaps:
  a *The operational gap,* as the foreign firm normally has an already established network of suppliers and might not even be aware of local possibilities;
  b *The information gap*, as the foreign firm does not know rules and forms of operation in the local economy;
  c *The trust gap*: starting to work with new suppliers requires developing mutual understanding and trust, which requires time that often businesses are not ready to invest.

When FDI has led to effective local linkages these have happened through the implementation of targeted programmes like in the case of Singapore (Box 4.6).

Box 4.6. Fostering local linkages in Singapore from LIUP to PACT

In 1986, Singapore's Economic Development Board (EDB) launched the Local Industry Upgrading Programme (LIUP) to strengthen procurement linkages between outside investors and local companies. Under the LIUP, investors involve local SMEs in their value chain and seek to improve them, first in terms of general organisational efficiency (Phase I), later by transferring products and processes to SMEs (Phase II), and at the last stage, by jointly developing research (Phase III).

The cornerstone of LIUP was the secondment programme in which staff from the investing companies were working directly and along with local suppliers. Seconded salaries were covered by the EDB. By 1999, 11 large local organisations, 30 MNEs and over 670 local suppliers participated in the programme, some of which became world-class first-tier suppliers, such as Advanced Systems Automation and Manufacturing Integrated Technology.

Based on the success of LIUP in 2010 the government rolled out the Partnership for Capability Transformation (PACT), which is jointly administered by the EDB and SPRING Singapore. PACT promotes partnerships between original equipment manufacturers, either local or foreign, and local SMEs suppliers beyond pure purchasing activities.

Nature of the project

Capability development

- Supplier/partner development: A Lead Enterprise helps existing/new suppliers upgrade their technology capabilities to improve the quality of the supply chain.
- Co-innovation: A Lead Enterprise helps to co-develop and test an innovative product from its smaller supplier.
- Knowledge transfer: A Lead Enterprise develops a coaching programme to help its smaller distributors improve their cashflow management skills.

Business development

- Alliances or consortiums: A Lead Enterprise forms an alliance with smaller firms to jointly pursue new international projects. The smaller firms in the alliance benefit through having new customers/contracts.

- Shared resources: A Lead Enterprise pools common resources with smaller firms to achieve economies of scale and/or engage in shared marketing efforts.

Conditionalities

PACT projects must include a majority of Singapore enterprises, even though foreign companies can be involved in the collaboration. Support for SMEs covers up to 70% of the qualifying costs.

- The Lead Enterprise should have clear capabilities above those of the other participating companies in the project. It takes responsibility for the implementation and successful delivery of the project.
- The Lead Enterprise should help the participating companies in a manner that is beyond its normal commercial interests. For example, the Lead Enterprise should not be selling its product or service to the smaller firms through the project.

For the fiscal years 2018-20 the PACT has a total budget of USD 70 million.

Source: Heng, J. (2018[19]), "Pact scheme to include to tie ups among SMEs", The Business Times, https://www.enterprisesg.gov.sg/media-centre/news/2018/march/pact-scheme-to-include-to-tie-ups-among-smes.

Conclusions

While the global economic outlook changes rapidly and as new technologies redefine business and industrial organisation, the world also faces a pandemic that is generating economic consequences of unprecedented nature and depth. The outlook for trade and investment is highly uncertain, and the Dominican Republic needs to be prepared. The country needs to increase its resilience. Key elements of a forward-looking strategy for continuing benefiting from FDI include: 1) diversifying partners by defining an updated regional integration agenda with Latin America and the Caribbean and by paying attention to emerging partners, including China; exploring options in new economic activities, including cultural industries and start-ups; and 2) better integrating the FDI agenda in the overall national development strategy. This effort should also define incentives and tools to tap into the creative and demand potential of the Dominican diaspora in the United States and to incentivise new forms of investments from the United States beyond traditional manufacturing activities built around low labour costs.

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OECD Development Pathways

Production Transformation Policy Review of the Dominican Republic

PRESERVING GROWTH, ACHIEVING RESILIENCE

The Dominican Republic, though the fastest-growing economy in Latin America and the Caribbean since 2010, cannot afford complacency. The COVID-19 crisis may accelerate existing global trends that created the need for reforms addressing structural weaknesses that lurked beneath the surface well before the pandemic. The current situation demands an unpreceded policy effort to ensure a prompt and effective health response, and to guarantee short-term support for workers and firms. The enduring challenge will be updating the country's development model through targeted reforms. The *Production Transformation Policy Review* (PTPR) *of the Dominican Republic* identifies priority reforms to update the national strategy, with perspectives on agro-food and nearshoring. It benefitted from peer review from the United States Reshoring Institute and the Ministry of Agriculture of Brazil.

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