OECD Development Pathways

Development Strategy Assessment of the Eastern Caribbean

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Foreword

The Country Diagnostics and Strategy work stream at the OECD Development Centre provides governments and regional organisations with concrete policy advice for the design and implementation of their development strategies. Its work follows a multi-dimensional approach to encompass the multi-dimensionality of development and relies on comprehensive peer exchanges amongst member countries of the OECD Development Centre through the Multi-dimensional Reviews Mutual Learning Group.

The joint Organisation of Eastern Caribbean States (OECS) and OECD project “OECD support to OECS strategy implementation” aims at assisting the OECS region in achieving development through the implementation of the OECS Development Strategy (ODS) 2019-28. The two main outputs of this project are a regional strategy scorecard and the present report.

The regional strategy scorecard is an interactive online tool, consisting of 40 indicators that run across the three pillars of the ODS (economy, social and environment). It includes concrete targets for individual countries, which have been validated by the OECS member states themselves. The scorecard aims to support the implementation of the ODS by fostering commitment to its ambitions.

The present report assesses the existing ODS and provides an update on opportunities and constraints for development in the region. It provides a comprehensive analysis of the region across the three pillars of the ODS and an assessment of policy implementation, proposing priorities for policy intervention.

A multi-disciplinary effort, this report combines economic, social, statistical, environmental and institutional expertise from across the OECD. It was prepared in close collaboration with the OECS and is based on regular exchanges with the OECS and meetings with focal points from OECS member states. Furthermore, a fact-finding mission to three OECS member states, Saint Kitts and Nevis, Saint Lucia and Commonwealth of Dominica, was organised in March-April 2022.

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The review was produced under the guidance of Ragnheiður Elín Árnadóttir, Director of the OECD Development Centre. It was led and co-ordinated by Jan Rieländer, Head of Country Diagnostics and Strategy, together with Kerstin Schopohl, Junior Economist. The report was drafted by Kerstin Schopohl and Kate Chalmers (OECD Development Centre). Camille Auxepaules (OECD Development Centre) provided superb statistical research and drafting support. Myriam Andrieux (OECD Development Centre) provided secretarial assistance.

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Abbreviations and acronyms

BMI	Body mass index
CARICOM	Caribbean Community
CBI	Caribbean Basin Initiative
CCC	CARICOM Competition Commission
CDB	Caribbean Development Bank
CO2	carbon dioxide
EB	extrabyte
ECCB	Eastern Caribbean Central Bank
ECCU	Eastern Caribbean Currency Union
ECE	early childhood education
ECIT	Eastern Caribbean Institute of Tourism
IDB	Inter-American Development Bank
IPPs	independent (third-party) power producers
IT	information technology
kt	kilotonnes
LAC	Latin America and the Caribbean
LCOE	levelised cost of electricity
LIAT	Leeward Islands Air Transport
MW	megawatts
N/A	not applicable
NCDs	non-communicable diseases
NDC	Nationally Determined Contribution to UN climate goals
NEET	not in education, employment or training
NGOs	non-governmental organisations
NPLs	non-performing loans
ODS	OECS Development Strategy

OECS	Organisation of Eastern Caribbean States
PAHO	Pan American Health Organisation
PPP	purchasing power parity
SAA	skills assessment and anticipation
SDGs	United Nations Sustainable Development Goals
SEED	Support for Education, Empowerment and Development
UNICEF	United Nations Children’s Fund
WHO	World Health Organisation
WTTC	World Travel and Tourism Council
XCD	Eastern Caribbean dollars

Executive summary

The project "OECD support to Organisation of Eastern Caribbean States (OECS) strategy implementation" aims at assisting the OECS region in achieving development through the implementation of the regional development strategy. Since its creation in 1981, the OECS has been at the forefront of the process of regional integration between its independent member states. Building on the existence in the region of a single currency (the Eastern Caribbean dollar) the OECS established an economic union in 2010. Its aims include the free movement of capital, labour and goods. Today, the OECS faces the challenge of finding a new model of development that can carry the region towards sustainable, dynamic and inclusive growth, and that can help it to overcome declining growth rates, persistent unemployment, disparities between its members, the fallout from recurrent extreme weather events, and the impact of the COVID-19 pandemic. To this end, the OECS designed a joint development strategy for its member countries in 2018. This strategy runs from 2019 to 2028, and is organised around three main pillars. The first of these is Generating Economic Growth, the second is Promoting Human and Social Wellbeing, and the third is the Sustainable Use of Natural Endowments. The OECD Development Centre has supported the OECS in setting priorities for the implementation of its strategy, and in building a framework for implementation and monitoring in order to meet the specific goals that the OECS Development Strategy (ODS) sets out to achieve.

A regional strategy scorecard designed by the OECD is at the heart of the joint project with the OECS. This regional scorecard is an interactive online tool, consisting of 40 indicators that run across all three pillars of the ODS (economy, social and environment). It includes concrete targets for individual countries, which have been validated by the OECS member states themselves. The scorecard aims to support the implementation of the ODS by fostering commitment to its ambitions. In particular, it does this through measurable targets, by tracking progress towards these targets, and by holding policy makers accountable for results. It is a tool that allows policy makers to set priorities in implementation, based on measurable results. Furthermore, it provides a platform to compare the performance of different member states, and to exchange information about best practices and successful policies.

In order to support the OECS in setting priorities for the implementation of its strategy, this report aims to identify the main opportunities and constraints for development in the region. It comprises an analysis of the most pressing issues across the three pillars of the ODS, as well as opportunities and constraints when it comes to improving the implementation of policy in the region.

The countries of the OECS have rich natural endowments, and enjoy relatively high levels of GDP per capita, but they have been confronted with an increasing number of challenges in recent decades. The islands of the OECS are of volcanic origin, and they are endowed with considerable geothermal resources, strong solar radiation and high wind speeds. They enjoy relatively high levels of gross domestic product (GDP) per capita, and fall in the upper middle and high-income bands. However, economic growth rates have more than halved between the 1980s and today, and countries in the region have experienced low or negative rates of productivity growth. Furthermore, the islands' strong reliance on tourism makes OECS countries highly vulnerable to external economic shocks such as the 2008 financial crisis and the recent COVID-19 pandemic. At the same time, the region is experiencing important social challenges, including poverty, inequalities and high rates of unemployment, in particular among young people. Finally, OECS countries are highly vulnerable to natural disasters, most importantly hurricanes, which are becoming more intense and more frequent as a consequence of climate change. Set against this backdrop, however, there is a range of strategic opportunities that have the potential to support OECS countries in tackling these challenges, to foster improvements to productivity, and to spur economic growth.

Investing in renewable energy and strengthening regulation, the business environment and the financial sector would support sustainable growth in the OECS region

Renewable energies represent an opportunity for reducing high energy prices and for making the OECS region more competitive, whilst at the same time reducing emissions of greenhouse gases. The reliance of OECS countries on imported petroleum products for the generation of electricity results in high prices. However, the low and falling prices of renewable energies that are apparent around the world, plus the abundance of renewable resources in OECS countries, signal a multitude of opportunities for electricity generation from renewables. To scale up renewables in the region, OECS countries require strong political will, credible long-term strategies and visions, and realistic targets. Furthermore, there is a need to develop financing strategies and regulation frameworks for the energy sector that are conducive to private investment.

Regional co-operation could improve regulation and policy in the areas of energy and competition, enhancing productivity. At present, none of the OECS member states has a competition law or a competition authority. Furthermore, not all of them have regulatory institutions for the energy sector. Utilities in the region take the form of monopolies in the generation, transmission and distribution of electricity. As a result of these configurations, regulatory frameworks generally do not include provisions for private investment in the electricity sector. Furthermore, the small size of the OECS countries' individual economies results in a lack of scale for establishing regulatory institutions of this kind at the country level. By generating economies of scale and pooling costs, however, regional co-operation has the potential to establish such regulatory institutions in a more efficient manner. Indeed, a regional energy-sector regulator could facilitate private investment and the development of renewable energies, thereby reducing the region's high energy costs. In addition, a regional competition framework could enhance the welfare of consumers and foster private investment, and could ultimately promote economic growth. A joint regional framework for the regulation of energy and competition and possibly also telecommunications could lead to further efficiency gains, especially given the small scale of OECS countries. However, a further assessment of the optimal institutional structure and costs and benefits would be required.

Improving the business environment by cutting red tape and reducing business costs is another important priority for helping OECS countries to boost productivity and attract more private investment. In this regard, e-government and the digitalisation of public services constitute an opportunity to reduce the currently extensive levels of bureaucracy in the region, to simplify administrative procedures and to enhance transparency. Furthermore, and as already noted, investment in renewables could cut the cost of electricity generation to a significant degree. Moreover, enhancing labour-market flexibility and aligning public sector wages with productivity growth could reduce labour costs. A regional fast-ferry service, plus improvements to the organisation of existing intra-regional maritime transport, could also improve intra-regional connectivity, while reducing transport costs.

The pandemic has hit the region's ambitions to reduce public debt, and returning to a sustainable trajectory will be an important objective. Indeed, although government debt in the OECS region had been declining steadily since the early 2000s, it is still an important concern and has risen rapidly in the context of the COVID-19 pandemic. Indeed, a renewed focus on the region's target to limit government debt to 60% of GDP by 2035 would be an important step towards ensuring the long-term fiscal sustainability of the currency union.

Making the local financial sector fit for supporting innovation and entrepreneurship is key. Most credit in the region is concentrated in mortgages, consumer finance and lending to government. Several of the OECS's member countries show very high rates of non-performing loans (NPLs), and these both constrain credit and may endanger long-term macroeconomic stability. Strengthening banks, while at the same time ensuring opportunities for more innovation-minded credit, is essential to improve access to finance and credit growth in the region. Furthermore, improvements in financial sector infrastructure, including a regional credit bureau, a modernisation of foreclosure and insolvency regimes, and an overhaul of national development banks, could also improve access to finance and the health of the financial sector in the region.

Building up a greater resilience to natural disasters is essential in order to reduce negative shocks to the region's performance in terms of growth and productivity, and to advance economic development. The countries of the OECS are highly prone to natural hazards and the cost of natural disasters for the region is high. This is the case both in terms of the loss of human life that these disasters can cause, and also the costs that they can inflict upon the economy. Building up resilience to natural disasters can help to mitigate the costs of natural disasters and to reduce their negative impact. It is, therefore, essential to bolster financial resilience, to build disaster-resilient infrastructure for ex-ante resilience, and to foster ex-post resilience in order to facilitate a speedy recovery. Indeed, the development and implementation of disaster-resilience strategies throughout the region should be a policy priority.

Opportunities for the OECS region lie in boosting value-added in tourism, expanding digital services and promoting the sustainable ocean economy and agriculture

The value-added that is generated through tourism could be boosted by the sale of more local products to the tourism industry, a focus on new tourist segments, and a reduction in business costs. There are opportunities in selling more agricultural and fishery products, but also artwork and other local products, to both cruise ships and the hotel sector. Currently, these rely mainly on imported food. Furthermore, attracting tourism segments other than cruise-ship passengers, which continue to account for a large majority of visitors in the OECS region, would be an important step, notably since stay-over tourists promise higher receipts per arrival. New tourist and traveller segments that could be targeted in the region are distance workers, medical tourism, eco-tourism and educational tourism. The OECS region is relatively expensive compared to other popular tourist destinations outside of the Caribbean. Therefore, reducing business costs could enhance the region's competitiveness as a tourist destination.

There are also opportunities for the countries of the OECS to pursue diversification in digital services. The demand for digital services has been growing rapidly as a result of the exponential growth of digitalisation and, more recently, in the context of the COVID-19 pandemic. A particular advantage of digital services for OECS countries is their avoidance of transport costs, which are high in the region. Ensuring a strong regulatory framework and competitive pricing for data services will be key factors for promoting digital services. There are also opportunities for regional co-operation in cyber security, data protection and the generation of digital skills.

The sustainable ocean economy offers a range of different opportunities for the OECS region. A regional sustainable ocean economy hub could promote research activities and education in different areas. In particular, marine biotechnologies may offer significant opportunities. Indeed, the potential of this aspect of the sustainable ocean economy remains largely untapped to date. The countries of the OECS could build on their geographical characteristics as small island nations that are surrounded by tropical seas with rich ocean biodiversity. There are also opportunities to expand fisheries and aquaculture in the

OECS region, both by modernising the infrastructure associated with these industries, and by increasing the processing of fish. This could allow OECS countries to produce higher-quality fish products, and to sell more local produce to the tourism sector. Aquaculture is seen as a sector with large potential for growth worldwide, and it has already expanded substantially in recent years.

Technological upgrades in agriculture, land reform, and the promotion of farmers' organisations, could open up new opportunities in food processing and sales to the tourism industry. Irrigation infrastructure, careful harvest-planning, greenhouses, efficient irrigation systems, and agro-processing facilities, could all enhance the productivity of the agricultural sector and the quality of its produce and facilitate agro-processing. This in turn could provide a boost to sales to the tourism sector. Furthermore, the organisation of smallholder farmers into groups or co-operatives, as well as an increase in contract farming, could improve efficiency in the marketing of local produce, and could also provide a boost to exports. Meanwhile, reforming systems of land tenancy and land subdivision could improve access to credit, boost efficiency, and enhance private investment in agriculture. In addition, OECS countries require modern, compulsory land-registration systems and strengthened institutional capacity for the management of land-registration systems in those places where they already exist. Encouraging more young people to become farmers or agro-entrepreneurs could also contribute to revitalising and transforming agricultural sectors in the region.

Closing the skills gap, enhancing the quality of education and improving social protection are essential measures for fostering economic and social development in the OECS region

Boosting human capital and creating more high-quality jobs and opportunities for young people requires closing the skills gap in the OECS region and enhancing the quality of education. The OECS countries are performing well at ensuring access to primary and secondary education, but they face some persistent challenges when it comes to student performance. For their part, private firms in the region face important challenges such as a skills mismatch, a shortage in technical and soft skills due to a limited tertiary education offering, high emigration rates amongst young skilled workers, and some more general cultural issues. A larger and better tertiary, vocational and adult education offering, and better information on the skills that are in demand in the labour market could help to close the skills gap in the region. Overall, boosting students' performance requires a reduction in the proportion of teachers that do not have formal training, as well as efforts to make the teaching profession more attractive in order to encourage better-performing high-school graduates to become teachers. An additional way to boost performance overall is to better equip students with high-quality foundation skills through primary and secondary education.

The countries of the OECS require better social-protection systems to tackle poverty and inequality. As a result of high unemployment rates and limited economic opportunities, levels of poverty and inequality in the OECS region are higher than in other countries with similar levels of income per capita. In addition to generating more economic opportunities and boosting human capital, establishing better social safety nets across the region would be an important way of reducing poverty and inequalities and this has become even more important in the context of the COVID-19 pandemic. The deployment of comprehensive social-protection systems could also make OECS countries more resilient to natural disasters. Notably, it would be beneficial to establish universal access to healthcare and unemployment insurance schemes. Furthermore, streamlining the multitude of social-assistance programmes which exist, both across the region as a whole and in individual countries, could lead to efficiency gains and cost savings. Expanding and improving access to social protection would also require a strategy for raising sufficient financial resources to finance the improvements.

More effective policy implementation constitutes the backbone to ensure the success of reforms fostering economic and social development in the OECS

Taking advantage of opportunities for development in the OECS requires improving the implementation of policy. Indeed, effective implementation is everything. Without it, any policy, law or regulation remains just a piece of paper, proving nothing but intentions. Implementation is, moreover, the most challenging part of any strategy. In all areas of this report, the implementation of policy, together with frameworks of regulation, come up repeatedly as constraints that the OECS region continues to face. A short-term horizon, a large government apparatus, excessive discretion in decision making, and the limited availability of data, all hinder the effective implementation of policy in the OECS region. The regional strategy scorecard designed by the OECD could render policy implementation in the OECS more effective and could also enhance accountability when it comes to results.

1 Overview

This chapter presents the key findings and recommendations of the Development Strategy Assessment of the Eastern Caribbean. It starts with a brief history of the economic development of the OECS region, describes key trends affecting the member states of the OECS and provides an overview of the OECS Development Strategy. The chapter then presents key strategic priorities for the member states of the OECS. These priorities include investment in renewables, closing the skills gap in the region and enhancing the quality of education, resilience to natural disasters, a sustainable ocean economy hub, digital services, better policy implementation and regional integration.

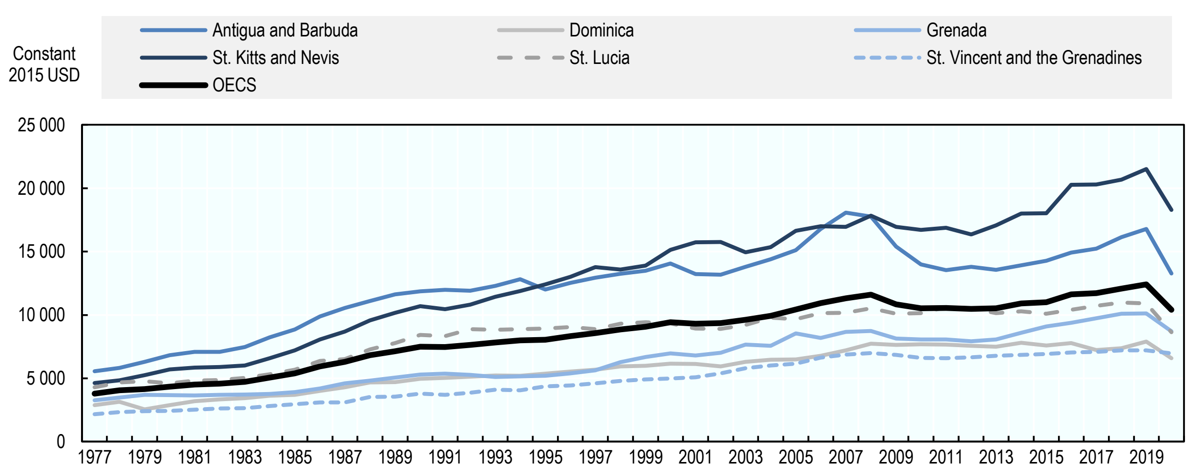
1.1. A brief history of development in the OECS region

The diverse member states of the OECS are endowed with rich natural endowments, and enjoy good levels of GDP per capita. The OECS has seven founding members, which enjoy full membership: Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia and St. Vincent and the Grenadines. In addition, Anguilla, The British Virgin Islands, Martinique and Guadeloupe are associate members. The OECS full members together with Anguilla share a common currency through the Eastern Caribbean Currency Union (ECCU). OECS islands are of volcanic origin, and most of the OECS member states are endowed with considerable geothermal resources and fertile volcanic soils. In addition, OECS countries enjoy strong solar radiation and high wind speeds, which could be leveraged for the development of solar and wind energy. OECS countries' location and rich ocean biodiversity open up opportunities in the sustainable ocean economy. Moreover, all OECS member states already enjoy relatively high levels of GDP per capita. They fall into the upper middle and high-income bands, ranging in this regard from about 7 000 US dollars (USD) per capita in the case of Dominica and St. Vincent and the Grenadines (at constant 2015 terms), to USD 18 000 per capita in St. Kitts and Nevis (also at constant 2015 terms).

Since becoming independent in the 1970s and early 1980s, OECS countries have made important progress in human and social development. Indeed, they perform well in delivering access to primary and secondary education. Rates of enrolment and completion for both primary and secondary schooling are high across the region, and enrolment in secondary education has almost doubled in the region since the 1970s. Moreover, there have been important improvements in antenatal care, and rates of maternal, infant and neo-natal mortality are relatively low. These rates have declined substantially in most countries in the region since the 1980s, but there is variation across member states, and scope for further improvements.

Figure 1.1. The OECS region has enjoyed good growth in incomes for much of the past 50 years, but has been facing a slowdown more recently.

GDP per capita (constant 2015 terms, USD), 1977-2020



Source: World Bank (2022[1]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

StatLink https://stat.link/pk3u72

From the foundation of the OECS through to 2008, member states enjoyed high economic growth rates that saw them triple their GDP per capita, while adapting from cash crops to tourism as the main economic activity. Average GDP per capita in the OECS region increased from 3 803 in 1977 to 11 596 in 2008 (in constant 2015 terms, USD) (Figure 1.1). Growth had initially been driven by cash crops that enjoyed preferential access to European and US markets. With the creation of the WTO in 1995, however, this special access began to be phased out, with significant ramifications (Box 1.1). Following the resulting decline of agricultural exports from the OECS region, the tourism industry took over as the main engine of growth for most countries (Figure 1.2). As of today, tourism accounts on average for 45.6% of OECS countries' GDP, and 57.5% of employment (WTTC, 2022[2]). Meanwhile, other sectors of the economy have remained relatively small in size.

Figure 1.2. There has been an expansion in services and a decline in agriculture in the OECS region.

Value-added by sector (% of GDP), 1977, 1995 and 2020

Source: ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/.

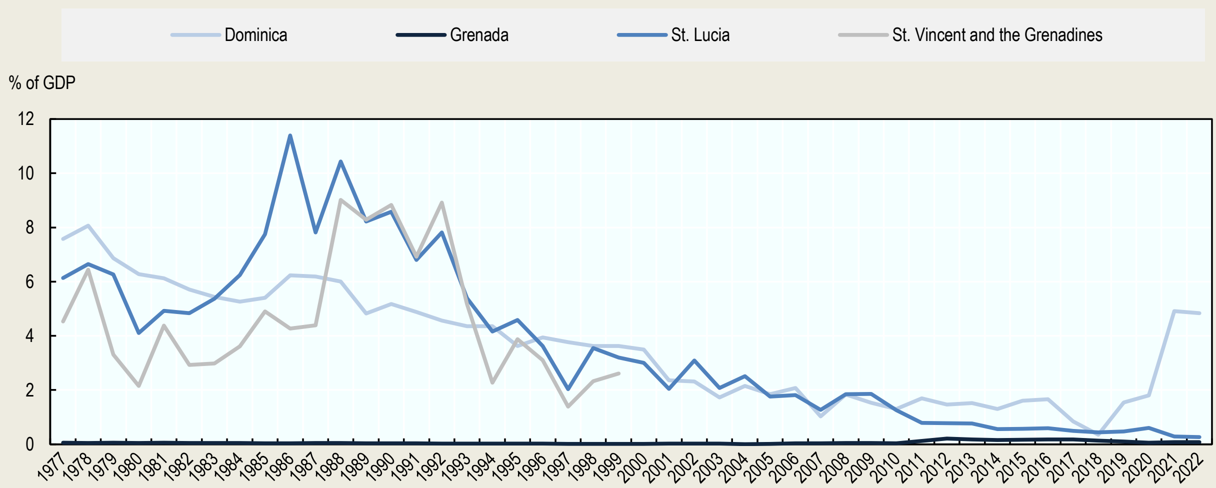
StatLink https://stat.link/ab9eh6

Box 1.1. Cash-crop production in OECS countries in the second half of the 20th century

Fuelled by preferential export regimes offered by EU countries in the second half of the 20th century, the countries of the OECS developed large levels of cash-crop production, most importantly bananas. The banana-export industry started developing in the OECS member states in the early 20th century, expanding significantly in the 1950s in order to supply the United Kingdom market, and to replace sugar production, which had become unprofitable. At its peak in the late 1980s and early 1990s, the banana industry's earnings amounted to 6-11% of GDP for St. Lucia, St. Vincent and the Grenadines, and Dominica (Figure 1.3). Grenada developed a large capacity for the production of nutmeg, which accounted for 4-5% of its GDP in the late 1970s and early 1980s. In St. Kitts and Nevis, meanwhile, the sugar industry survived longer than in other OECS countries, supported by preferential access to the EU and US markets. In the late 1970s, it still accounted for 5-8% of GDP in St. Kitts and Nevis. Before the introduction of the EU Single Market in 1992, each European country had its own banana-importing regime based on historical relationships with former colonies. Following the introduction of the EU Single Market, however, these regimes were reformed, and a single EU-wide banana-import regime was introduced, under which African, Caribbean and Pacific countries benefited from a duty-free export quota to the EU. Under this new regime, the price of bananas in the EU was approximately 80% above the world (free-market) price.

Figure 1.3. OECS countries' banana sectors have been in decline since the early 1990s

Bananas (% of GDP)



Note: No data were available for St. Vincent and the Grenadines for 1999 to 2022.
Source: ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/.

StatLink https://stat.link/u1gbva

Following the dissolution of the EU's preferential export regime, OECS countries' agricultural exports plummeted, and their production of cash crops declined. The EU started to gradually reform and phase out the banana regime between 1999 and 2006, following the creation of the WTO in 1995, and also in the wake of trade disputes with Latin American countries and the United States. The first round of banana-regime reforms in the 1990s caused a dip in agriculture revenues and dampened rates of export growth. Without the EU's preferential export regime, OECS countries' banana industries were no longer profitable.

Due to the small size of banana farms in the Windward Islands, a topography that is characterised by steep hillsides and narrow valleys, and a less favourable set of climatic and labour conditions, yields per acre are significantly lower than in other Caribbean and Latin American banana-producing countries, while production costs are higher.

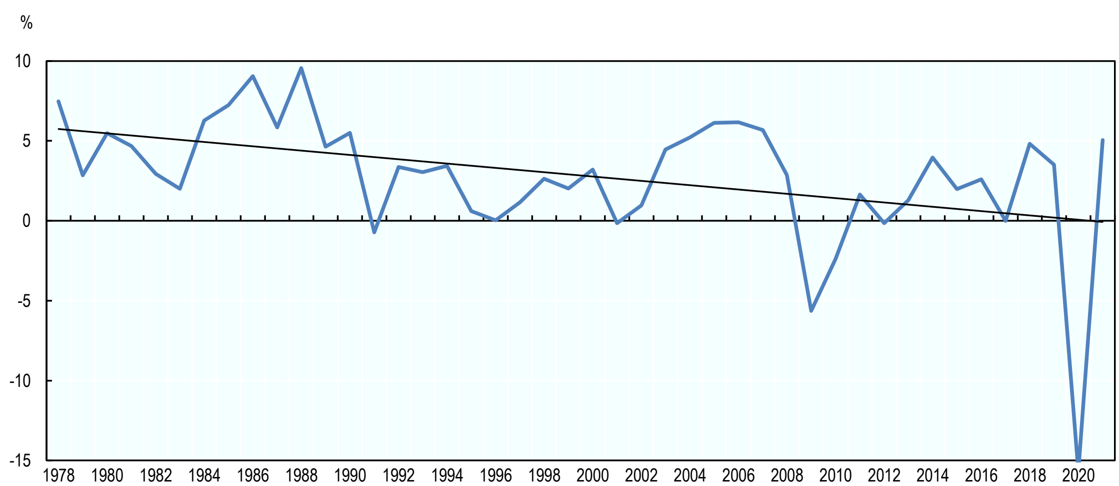
Source: IMF (2010[4]), *Caribbean Bananas: The Macroeconomic Impact of Trade Preference Erosion*, https://www.elibrary.imf.org/view/journals/001/2010/059/article-A001-en.xml; World Bank (2005[5]), *Sugar in the Caribbean: Adjusting to Eroding Preferences*, https://documents1.worldbank.org/curated/pt/652531468229145599/pdf/wps3802.pdf; ECLAC (2008[6]), *Impact of Changes in the European Union Import Regimes for Sugar, Banana and Rice on Selected CARICOM Countries*, https://repositorio.cepal.org/bitstream/handle/11362/3173/LCcarL168_en.pdf?sequence=1&isAllowed=y; Williams and Darius (1998[7]), *Bananas, the WTO and adjustment initiatives in the Eastern Caribbean Central Bank area*, ECLAC, https://www.academia.edu/57017471/Bananas_the_Wto_and_Adjustment_Initiatives_in_the_Eastern_Caribbean_Central_Bank_Area; ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/.

However, the global financial crisis of 2008 and the COVID-19 pandemic both hit the OECS region hard, highlighting mounting volatility and over-dependence on single sectors. During both of these crises, the region experienced one of its strongest contractionary periods, as the demand for tourism fell. OECS countries were amongst those Caribbean nations, which were hardest hit by the COVID-19 pandemic. They experienced contractions between 11% and 20% of GDP in 2020 (IMF, 2022[8]). These extreme events underscored the extent to which a reliance on single economic sectors makes OECS countries highly vulnerable to external economic shocks.

Frequent natural disasters create additional volatility and vulnerability. OECS countries are highly vulnerable to natural disasters due to their geography and their small size. Climate change is exacerbating their vulnerability to natural disasters by compounding both the number and the intensity of such disasters. Natural disasters are very costly for the region, negatively affecting tourist arrivals and economic growth. For example, Dominica experienced back-to-back hurricanes in 2015 and 2017 that destroyed almost 90% of the island's infrastructure, and took a heavy toll on tourist numbers and economic and productivity growth (IMF, 2019[9]).

Figure 1.4. The OECS region enjoyed high growth rates in the second half of the 20th century, but more recently it has experienced a slowdown and an increase in volatility

GDP growth (%), 1978-2021



Source: ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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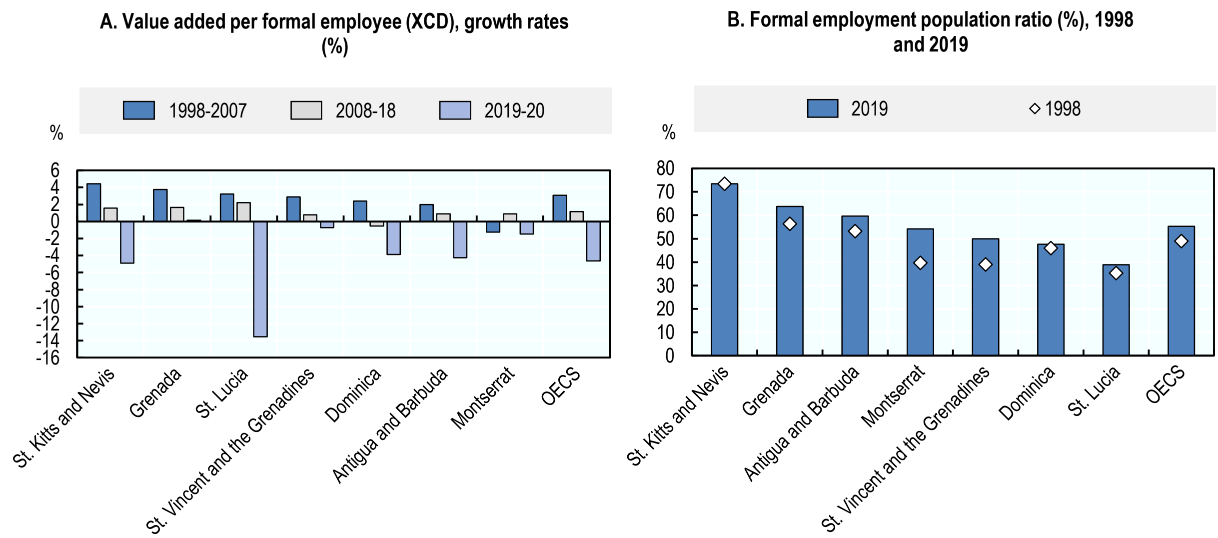
Looking ahead, new sources of productivity are necessary to overcome volatility and a declining trend in economic growth. The annual rate of GDP growth in the OECS region dropped across countries in the region from an average of 5.8% in the 1980s to 2.1% in the 1990s, before reaching a historical low of 1.7% in the 2010s (Figure 1.4) (ECCB, 2022[3]). Similarly, the growth in value-added per worker also declined (Figure 1.5, Panel A), even as the capacity of employment generation remained unchanged (Figure 1.5, Panel B). Moreover, wage growth has been outpacing labour productivity growth in most OECS countries, and this has added to the region's employment challenges. A deeper analysis of productivity trends yields an even more concerning result, namely that growth in total factor productivity has been negative. The effect of this has been to reduce the possible gains that investments in capital and skills can yield (Figure 1.6). An analysis by the IMF, which adjusts the physical capital stock for the impact of hurricanes and other natural disasters, arrives at similar results (IMF, 2017[10]).

Figure 1.5. Formal labour productivity growth declined during the 2008 global financial crisis, and picked up recently



Note: Formal employment is a proxy for full employment figures. Instead of for 1998-2007, the data in panel A for Dominica are for 1999-2007, while for Montserrat they are for 2004-07.
Source: Authors' own calculations based on data obtained from National Social Security Boards of OECS countries; ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/; United Nations (2022[11]), "World Population Prospects 2022", https://population.un.org/wpp/.

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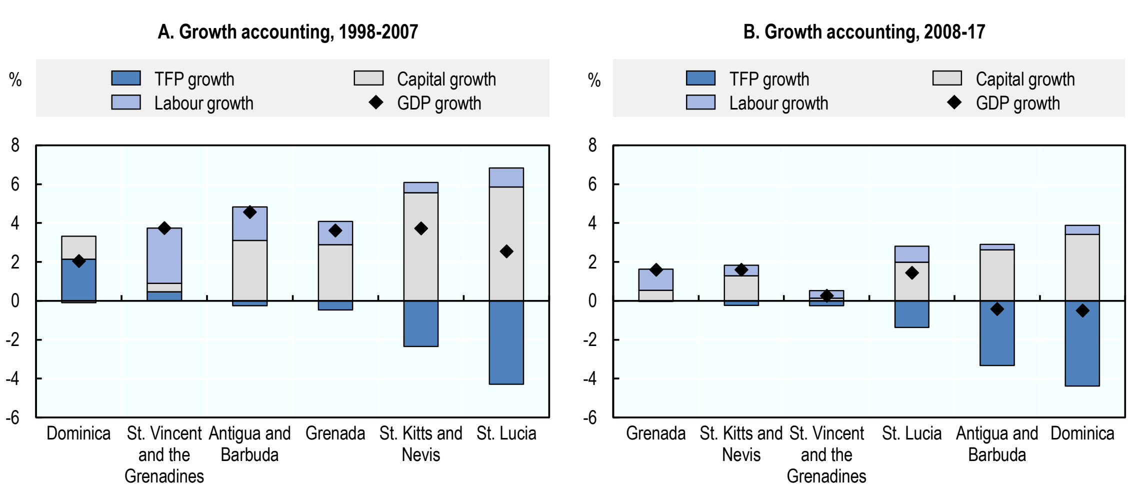
Figure 1.6. There has been little growth in total factor productivity in recent decades



Note: For Panel A, Dominica's time period is 1999-2007 instead of 1998-2007. Calculations are based on a Cobb-Douglas production function and consider changes in growth rates of the capital stock, labour and GDP over time. The labour share is estimated using the number of formal employees from social security board data and wages taken from an online survey.
Source: Authors' own calculations based on data obtained from National Social Security Boards of OECS countries; ECCB (2022[3]), *ECCB Statistics Dashboard* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/; Salary Explorer (2022[12]), *Salary and Cost of Living Comparison*, http://www.salaryexplorer.com/; IMF (2022[13]), *Infrastructure Governance* (database), https://infrastructuregovern.imf.org/.

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In recent decades, declining economic growth rates and limited productivity growth have contributed to significant social challenges in the region. Declining growth rates, and the region's limited economic diversification, have resulted in a lack of economic opportunities and quality jobs in the region. In turn, and in combination with structural challenges including rigidities in the labour market and a mismatch in skills, this has led to persistently high unemployment rates in recent decades (14.1% on average in the OECS region in 2020 or the latest available year), and in particular for the young (26.5% on average). Together with limited social safety nets, high unemployment has contributed to persistent levels of poverty and inequality. In turn, high youth unemployment rates and limited educational opportunities lead to crime and risk behaviour among young people. This includes criminal gangs, drug addiction, and drug trafficking.

Aside from innovation and the generation of new economic capabilities, investment in skills and reforms to governance, tax and cost structures are actions that can boost productivity. When it comes to skills, an inadequately educated workforce is indeed one of the main obstacles for private firms in the Eastern Caribbean. In particular, there is a shortage of soft and technical skills. Moreover, the quality of education continues to be a cause for concern. Furthermore, administrative procedures tend to be long and onerous in the OECS region, and business costs are considerable, particularly for energy and transport. Corporate taxes and import duties are both relatively high in the region, and many tax incentives are given out in an ad-hoc manner.

Looking to the future, regional co-operation, the development of renewable energy, improvements to human capital, and a greater resilience to natural disasters all have potential to boost growth and productivity in the region. Regional co-operation, for example, could help to enhance efficiency both in regulation and in the delivery of public services, thanks to economies of scale. This could take the form of a regional competition framework, and a region-wide regulation of the energy sector. Meanwhile, renewable energy represents an opportunity for reducing high energy prices in the OECS region, thereby enhancing its competitiveness and attractiveness for private investment. Furthermore, a larger and better offering in terms of tertiary, vocational and adult education, plus improved information on the skills that are in demand, could close the skills gap and strengthen human capital. Finally, building resilience to natural disasters could reduce the impact of negative shocks to the region's growth and productivity.

Building a more competitive tourism sector, and diversifying into more innovative sectors such as digital services and the sustainable ocean economy, herald other important opportunities for the OECS region. The amount of value-added from tourism could be boosted through the sale of more local products to the tourism industry, and also by developing new segments of the tourism market. Moreover, reducing business costs could make the tourism sector more competitive. In the telecommunications sector, regulatory reform could facilitate the expansion of digital services. Furthermore, a regional sustainable ocean economy hub could promote education and research in a variety of fields.

1.2. Future trends

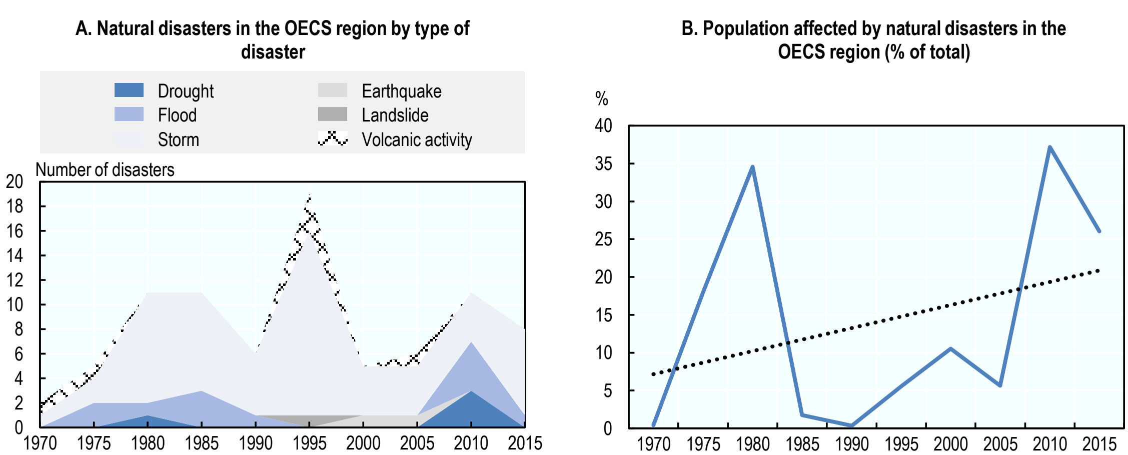
This section presents the key domestic and international trends that are likely to impact the OECS region in the near to medium term. Climate change, an ageing population, and a brain drain of skilled workers seeking opportunities overseas currently pose significant challenges for the OECS region, and these are likely to persist and intensify in the future. Thus, developing appropriate responses to those challenges is vitally important for fostering economic growth and development. In addition, digitalisation also offers new opportunities, but it requires an appropriate enabling framework.

1.2.1. Climate change and more frequent and intense natural disasters

OECS countries are highly vulnerable to climate change due to their location, geography, small size, and exposure to natural disasters. OECS member states lie in the Atlantic hurricane belt and, as is the case for other members of the Small Island Developing States (SIDS) grouping, are highly prone to natural disasters such as floods, storms and volcanic disruptions. The OECS countries' small size, and their concentration of economic activity in a very limited area, means that losses and damages are high relative to GDP whenever a hurricanes strikes. Natural disasters – particularly hurricanes and floods – have been increasing in recent decades because of climate change, and they are likely to become even more frequent in the future (Figure 1.7). In turn, the economic shocks caused by more frequent and intense natural disasters could lead to greater volatility in economic growth. They could also further degrade public finances, which are already strained in some OECS countries because of the COVID-19 pandemic and past natural disasters (World Bank, 2022[1]; OECD/The World Bank, 2016[14]). As small island states, the OECS countries are also highly exposed to rising sea levels and ocean acidification (World Bank, 2018[15]).

In light of climate change, building resilience to natural disasters is more essential than ever. In this regard, developing disaster-resilient infrastructure is an important way to build up countries' ex-ante resilience to natural disasters, and to reduce risks. Meanwhile, strengthening public finances is also important in order to make it possible for governments to provide counter-cyclical fiscal spending, relief measures, and rapid reconstruction when a natural disaster hits. Doing this includes reducing OECS countries' levels of government debt, and ensuring the sound management of government revenues. As for ex-post resilience, this requires measures to facilitate a speedy recovery when natural disasters hit. Overall, the development and implementation of disaster-resilience strategies throughout the region, to ensure ex-ante, ex-post, and financial resilience, should be a policy priority.

Figure 1.7. As a consequence of climate change, natural disasters have been increasing in the OECS region



Source: EMDAT (2022[16]), *The International Disaster Database* (database), https://www.emdat.be/; United Nations (2022[11]), "World Population Prospects 2022", https://population.un.org/wpp/.

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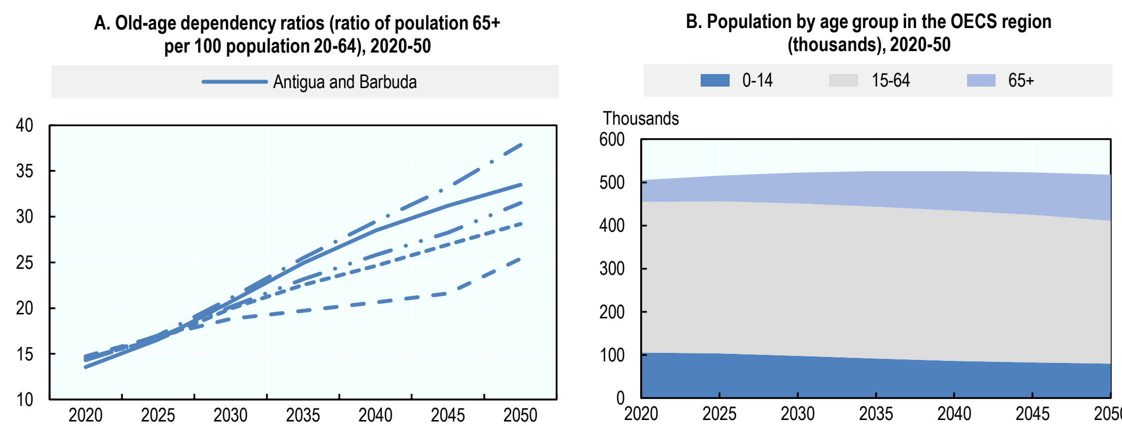
1.2.2. Rapid population ageing

OECS countries are experiencing a rapid process of demographic ageing. Driven by a rise in life expectancy and declining birth rates, there will be 35 people over 65 years old for every 100 people of working age by 2055, compared to just 14 today (Figure 1.8).

The labour market, health care and social protection will have to respond to this challenge. Efficient investments in human capital, to enhance the quality of education and close the skills gap in the region, will be essential to generate sufficient productivity growth, given the decline in the working-age population. A sustainable and universal system of social protection (including pensions, social assistance and universal health care) will also be crucial.

Figure 1.8. Demographic pressures are increasing in the OECS region



Note: OECS includes Antigua and Barbuda, Grenada, St. Lucia, St. Vincent and the Grenadines. No data available for Dominica, Montserrat and St. Kitts and Nevis. Old-age dependency ratios are defined as the population aged 65+ per population aged 15-64.
Source: United Nations (2022[11]), "World Population Prospects 2022", https://population.un.org/wpp/.

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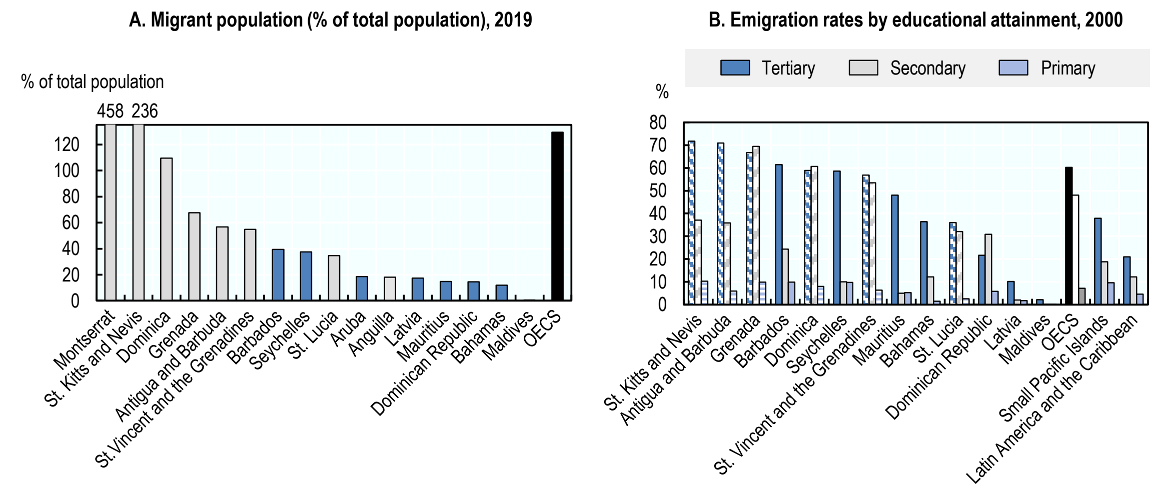
1.2.3. Migration

The OECS region has one of the highest emigration rates in the world, in particular for highly skilled workers with a post-secondary education (Figure 1.9, Panel B [see Box 1.2 for more information on the selection of benchmark countries]). Most OECS countries have large emigrant populations, and in Montserrat, St. Kitts and Nevis, and Dominica, the emigrant population exceeds the countries' actual population. Emigration results in a substantial loss of human capital. Furthermore, it has a negative impact on innovation, the creation of new enterprises, and indeed on countries' overall economic development and growth prospects. High unemployment, and the limited career prospects that stem from the conjunction of a lack of economic opportunities, natural disasters, and insecurity are the main reasons for the flight of human capital from the region (World Bank, 2008[17]; Blom and Hobbs, 2008[18]).

In order to encourage more young workers to stay in the OECS region, it will be necessary to generate more economic opportunities and to improve tertiary education. This requires both economic diversification and the generation of more value-added from tourism. At the same time, it will be essential to equip young people with the skills that are in demand in the labour market. In turn, this requires a better and larger tertiary education offering, and the collection and dissemination of information about the skills and qualifications that are in short supply in the region.

Despite its downsides, emigration does also create some opportunities through remittances and investment from the diaspora. In 2020, remittances in the OECS region ranged from 1.8% of GDP in Antigua and Barbuda to 10.4% of GDP in Dominica (World Bank, 2022[1]). They play an important role in reducing poverty and as social safety nets. Indeed, the most vulnerable and poorest segments of the population are more likely to receive remittances, and levels of poverty in the OECS region would be higher than they have been if it were not for remittances (World Bank, 2018[15]). Remittances also help to smooth out consumption in the context of shocks, and to provide indirect insurance against natural disasters, in whose aftermath they tend to increase steeply (IMF, 2017[19]). In addition, remittances can be used to finance investment, and opportunities exist in engaging the diaspora through reverse-investment schemes (World Bank, 2018[20]).

Figure 1.9. Emigration is high in the OECS region, in particular among skilled workers



Notes: OECS countries are shown in grey, the OECS average is shown in black and benchmark countries are shown in blue. See Box 1.2 for more information on the selection of benchmark countries.
Source: Docquier and Marfouk (2004[21]), *Measuring the international mobility of skilled workers (1990-2000)-Release 1.0*, https://openknowledge.worldbank.org/bitstream/handle/10986/14126/wps3381.pdf?sequence=1&isAllowed=y; World Bank (2022[1]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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Box 1.2. Benchmark countries

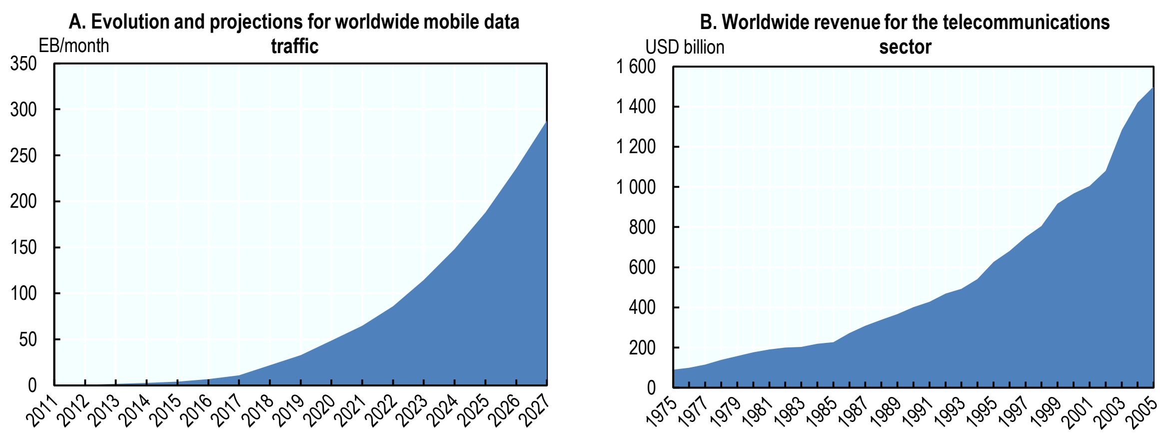
Whenever relevant and subject to data availability, the member states of the OECS are compared with three groups of benchmark countries: 1) other SIDS in Latin America and the Caribbean (Aruba, Barbados, Dominican Republic, the Bahamas); 2) SIDS in other regions of the world (Seychelles and Mauritius); and 3) Organisation for Economic Co-operation and Development (OECD) countries (Latvia). The selection of benchmark countries is based on a similarity measure. This measure provides an estimate of how similar other countries are to the OECS region comparing 13 structural and economic indicators: GDP, GDP per capita, total land area, agriculture land, total population, population density, agriculture value added (% of GDP), industry value added (% of GDP), services value added (% of GDP), trade (% of GDP), oil rents (% of GDP) and whether a country is part of the Small Island Developing State group or not. This broad set of benchmark countries can bring an additional perspective to the member states of the OECS and create valuable learning opportunities across policy dimensions.

Source: Authors' elaboration.

1.2.4. Digitalisation

Digitalisation offers new opportunities for OECS countries. In recent decades, it has been expanding exponentially all around the world (Figure 1.10), with demand for digital services accelerating further in the context of the COVID-19 pandemic (OECD, 2020[22]; OECD et al., 2020[23]). There are opportunities to expand the digital services sector in the OECS region and digital services bring the significant advantage of eliminating transport costs, which are high in the OECS.

Figure 1.10. Digitalisation has been progressing rapidly worldwide over recent decades



Note: EB: extrabyte
Source: Ericsson; (2022[24]), Helping to shape a world of communication, https://www.ericsson.com/en; World Bank (2022[1]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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To take advantage of the opportunities offered by digitalisation, OECS countries will need to improve the regulatory framework for telecommunications, invest in the skills of the workforce, and forge an appropriate digital infrastructure. The telecommunications sector presents tendencies towards a duopolistic structure across the entire OECS region. Reforms to the regulatory framework could facilitate other operators' access to submarine fibre-optic cables and foster more competition in the sector. This would lower prices and improve the quality of service. There is also a need for improved cyber security and data protection across the region, and opportunities exist for regional co-operation. Another essential measure for seizing the full opportunities of digitalisation is to enhance digital skills among private firms and in the population as a whole, and notably to train more graduates with the technical and soft skills that are in demand from digitally-enabled industries (World Bank, 2020[25]). A reform of the regulatory framework for telecommunications is already ongoing in the Eastern Caribbean.

1.3. The OECS Development Strategy 2019-28

In response to the region's development challenges, and to future opportunities and constraints, the OECS designed a joint ten-year development strategy for its member countries. This programme, the 2019-28 ODS, represents a systematic approach by the OECS to respond to the region's most pressing developmental challenges at both regional and national levels. Article 13 of the Revised Treaty of Basseterre, which establishes the Eastern Caribbean Economic Union, recognises the ODS as an important framework for advancing action towards economic development through enhanced regional collaboration, and requires member states to set general and specific development objectives in line with the strategy (OECS Commission, 2018[26]).

The 2019-28 ODS is based on three main pillars: Generating Economic Growth, Promoting Human and Social Well-being and the Sustainable Use of Natural Endowments. The first pillar targets an annual economic growth rate of 3-5% in order to cut unemployment by a quarter within ten years. The second pillar aims to improve quality of life in the OECS region through better access to high-quality social services, including healthcare, education, and social protection. The third pillar's objective is maintaining environmental sustainability whilst also achieving economic growth and social development (OECS Commission, 2018[26]).

The regional strategy remains highly relevant in the context of the COVID-19 pandemic. The COVID-19 pandemic has exacerbated many of the economic and social challenges that the ODS identifies. Notably, international travel and tourist arrivals plummeted in the wake of the pandemic. As a result of OECS countries' strong dependence on tourism and limited economic diversification, the impact of the sharp decline in tourism has been particularly severe in the region. Limited social protection, including the lack of unemployment insurance and universal healthcare, further aggravated the social impact of this economic shock, leaving vulnerable populations without income and protection. Given the effects of the pandemic, achieving the objectives of the ODS has become even more important but also more challenging.

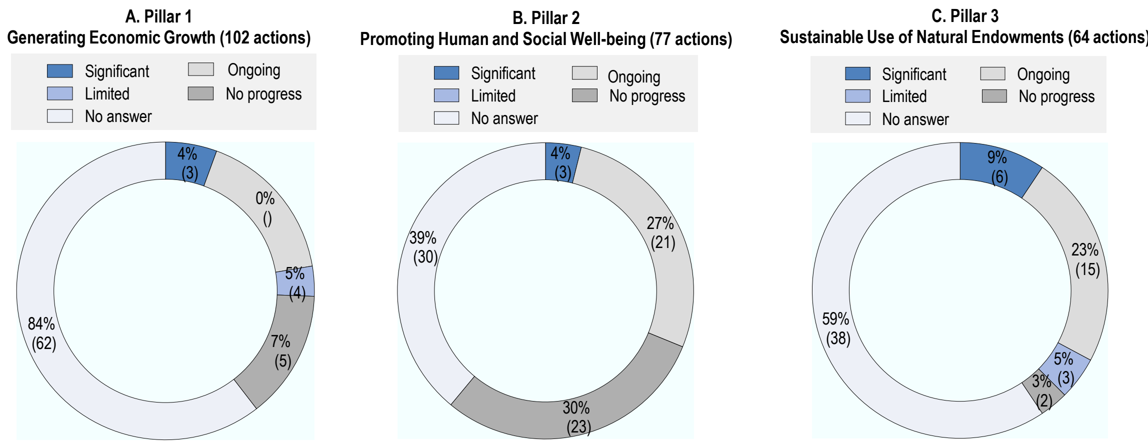
However, the strategy lacks a clear prioritisation. Indeed, the ODS actually includes 15 strategic objectives and 91 specific objectives: 37 for the first pillar (Generating Economic Growth), 22 for the second (Promoting Human and Social Well-being), and 32 for the third (Sustainable Use of Natural Endowments). Furthermore, it includes more than 240 recommendations for policy interventions that are linked to these objectives. This large number of objectives and actions renders implementation challenging, but without the kind of clear prioritisation that would focus its practical execution.

To date, progress with implementation has remained limited. In an evaluation in autumn 2021 of progress in the implementation of policy interventions included in the ODS by the OECD, only 5% of the policy interventions in the ODS showed significant progress (3% of interventions in the first pillar, 4% in the second pillar and 9% in the third pillar). Meanwhile, 26% of interventions were ongoing (27% in the first and second pillars, and 23% in the third pillar) (Figure 1.11). The statistics also showed that 12% of interventions had made limited progress, with 3% of them registering no progress at all. Due to a lack of information, 53% of the policy interventions could not be evaluated.

The present assessment aims at filling this gap by identifying key priorities in terms of challenges and opportunities for policy action in the OECS region. Looking ahead, it would be beneficial to steer the implementation of policy towards these priorities. It is necessary, moreover, regularly to reassess and re-evaluate priorities for implementation. The regional strategy scorecard developed by the OECD provides an important tool for continuously monitoring progress towards the strategy's implementation, and indeed for reassessing priorities for putting it into practice.

Figure 1.11. Progress in the implementation of the ODS remains limited

Progress in the implementation of the OECS Development Strategy 2019-28, (As of October 2021)



Note: The number of actions showing different levels of progress in implementation is shown in brackets. Information on progress in the implementation of policy interventions was provided by the OECS Commission and then evaluated by the OECD.
Source: Authors' compilation based on an evaluation of progress in the implementation of the policy interventions included in the ODS.

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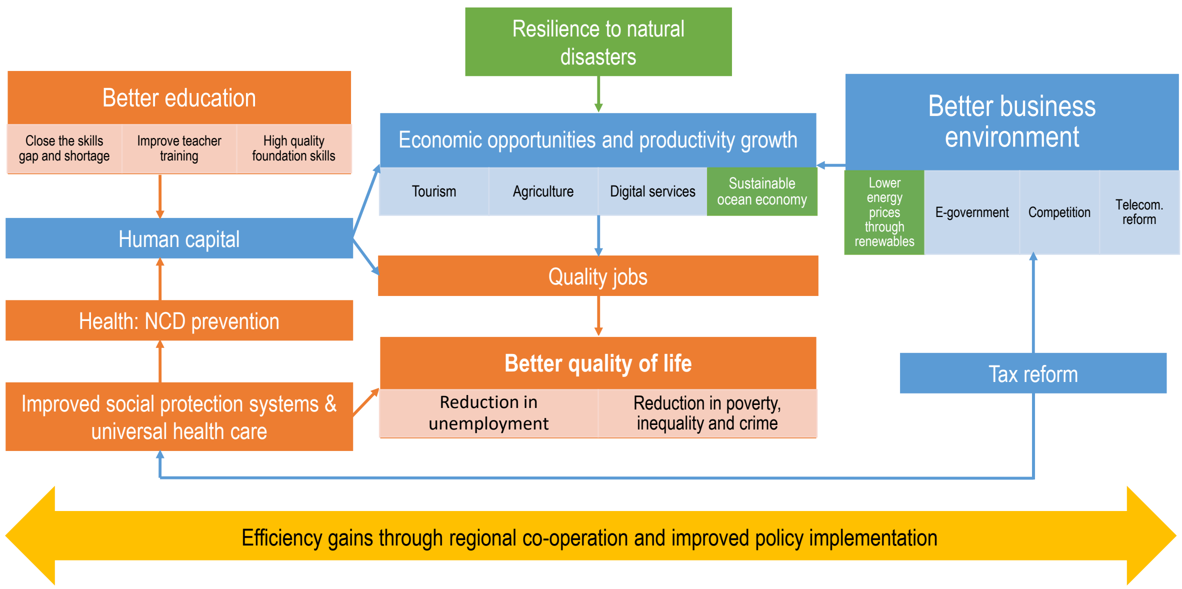
1.4. Strategic priorities

This section presents a set of key priorities that OECS countries can consider as they seek to advance economic and social development. The opportunities and constraints outlined in this section can be used to set priorities in the process of implementing the OECS Development Strategy 2019-28. Making progress in these priority areas could help the OECS region to escape the traps of slow economic growth, slow or negative productivity growth, and the lack of economic and job opportunities.

Development means improving the quality of life of citizens and generating opportunities for people in the OECS region, as well as mutual support between members of society and in the region. To improve the quality of life of citizens and generate opportunities, quality jobs and better social protection systems are both required. This would allow for reducing unemployment, poverty, inequality and related social challenges such as crime in the region. In order to create more quality jobs, in turn, countries in the region require more economic opportunities in dynamic sectors. Improving the business environment, resilience to natural disasters and enhancing human capital are key ingredients to generate more such opportunities and to stimulate productivity growth (Figure 1.12).

The COVID-19 crisis has had a substantial impact on the OECS region, but it also presents an opportunity for a strategic refocusing. Due notably to their strong dependence on tourism, OECS countries have been strongly impacted by the COVID-19 pandemic. Indeed, international tourist arrivals plummeted in the context of the pandemic. Moreover, the social impact of the pandemic was aggravated still further by the limited social safety nets in OECS countries, which do not have universal health care or unemployment insurance. Against this backdrop, however, the pandemic does also represent an opportunity for a strategic refocusing on salient opportunities, on the implementation of reforms, and on removing identified constraints.

Figure 1.12. Improving the quality of life in the OECS region requires more quality jobs in dynamic sectors



Source: Authors' elaboration.

1.4.1. Investment in renewables, telecommunications reform and e-government could foster productivity improvements

Renewable energy represents a key opportunity for reducing high energy prices in the OECS region. The OECS countries' reliance on imported petroleum products for electricity generation results in high electricity prices. The low and falling worldwide costs for generating power from renewable technologies, plus the abundant renewable resources that the OECS countries possess, herald a multitude of opportunities. First of all, though, scaling up renewables in the OECS region requires a strong political will, credible long-term strategies and visions, and realistic targets for scaling up renewables. In addition, there is a need to develop financing strategies and energy-sector regulation that is conducive to private investment. Opportunities for regional collaboration exist in the development of geothermal energy and of a regulatory framework for the whole energy sector.

A regional competition framework could enhance consumer welfare and foster improvements to economic growth and productivity in the OECS region. At present, none of the OECS member states have a competition law, including a regulatory framework for controls on mergers and acquisitions (M&A). Well-designed competition law, effective enforcement, and competition-based economic reform have a critical role to play in promoting consumer welfare and economic growth, and they also make markets more flexible and innovative. A competition framework in the OECS region could foster more competition in telecommunications and other economic sectors, thereby reducing prices and increasing overall welfare. In order to take advantage of economies of scale and to pool costs, it could be beneficial for OECS countries to establish a joint regional competition framework and a joint institutional and regulatory framework for competition, energy and possibly also telecommunications. Nonetheless, such an approach requires further study and needs to be carefully assessed to determine the optimal institutional set-up for the OECS region.

Reforming the telecommunications sector could facilitate the expansion of digital services in the OECS region. The structure of OECS member states' telecommunications sectors could pose a challenge to the expansion of digital services. This is because the telecommunications sector tends towards limited competition across the entire region. Existing regulation does not provide for regulated, affordable access to submarine cables other than by operators owning the infrastructure. Developing the regulatory framework in order to facilitate wider access to submarine fibre-optic cables represents an important opportunity. Indeed, this would foster more competition in the sector, leading to lower prices and a better quality of service, and increasing the competitiveness of the digital-services sector in the region. A reform of the regulatory framework for telecommunications is already ongoing in the Eastern Caribbean.

E-government and the digitalisation of public services present an opportunity to reduce red tape, simplify administrative procedures, and enhance transparency. Administrative procedures tend to be long and onerous in the OECS region, representing an obstacle for private companies. Customs and trade regulations tend to be particularly lengthy and costly. An at times inefficient public sector contributes to complex and onerous business procedures. At the same time, OECS countries perform moderately in terms of e-governance. In this context, the digitalisation of public services represents an opportunity to simplify business procedures and to reduce bureaucracy. Indeed, there may even be scope in some areas to build economies of scale through regional co-operation, for example by creating a shared e-government platform for all member countries. Reforms to enhance e-governance should go hand in hand with reform of the telecommunications sector.

1.4.2. Closing the skills gap, enhancing the quality of education, and better health outcomes through NCD prevention measures and universal healthcare could strengthen human capital in the OECS region

Training more skilled workers with the skills that are in demand is a key priority for stimulating private investment, reducing unemployment, and improving living conditions in the OECS region. Skilled workers tend to be better remunerated and to enjoy higher living standards. Furthermore, adequate human capital has a key role to play in the diversification of OECS economies, including in the expansion of digital services industries, and in modernising and upgrading technology in agriculture and fisheries. The availability of greater numbers of better-skilled workers in the region can also contribute to the creation of new business opportunities and jobs in skills-intensive niche industries. Furthermore, greater numbers of skilled workers would allow more businesses to invest in productivity-enhancing technological upgrades such as information and communications technology. Finally, the availability of the right skills in the OECS region could reduce upward pressure on wages, thereby reducing labour costs and enhancing competitiveness.

A larger and better offering of tertiary, vocational and adult education, plus improvements in disseminating information on the kinds of skills that are in demand, are necessary measures to pursue in order to close the skills gap in the OECS region. A skills mismatch resulting in an inadequate workforce and skills shortages present challenges for the private sector in several OECS countries. In particular, there is a shortage of technical and soft skills. The skills mismatch is the result of a limited tertiary education offering in the region, as well as of structural transformation, high emigration rates amongst young skilled workers, and cultural issues. Closing the skills gap requires an expansion and improvement of the tertiary education offering. In addition, there is a need for a better and larger offering of adult, technical and vocational education, and one that is better linked to the labour market. Better information on the skills that are in demand on the labour market, thanks to regular regional labour-market assessments and skills councils, is also essential for closing the skills gap in the region.

More and better-trained teachers, and the development of high-quality foundation skills, could enhance the quality of primary and secondary education in the OECS region, while also boosting students' performance. The share of trained teachers in primary and secondary education is comparatively low across the OECS region. Incentives for untrained teachers to acquire qualifications faster, plus the introduction of mandatory pre-service teacher training, could raise the share of trained teachers in the region. Improving the image of the teaching profession, as well as teachers' working conditions and salaries, could, moreover, encourage better-performing graduates to become teachers, and could also enhance teachers' performance. Another essential measure is to ensure that primary and secondary education equips students in the region with high-quality foundation skills. This requires a better integration into school curricula of skills such as digital skills, problem-solving skills, co-operative teamwork skills, pro-activeness, and creativity. Focusing on competencies rather than exam preparation would be another important step in equipping students with high-quality foundation skills.

It would be important to prioritise policies for the prevention of non-communicable diseases (NCDs), including awareness raising, measures to encourage more physical activity, and appropriate legislation and regulation. A lower prevalence of NCDs could boost workers' productivity and human capital. OECS countries have made important progress in antenatal and neonatal care and maternal health. However, the prevalence of NCDs is relatively high in the region. Contributing factors to the high prevalence of NCDs include an ageing population, as well as increasing levels of obesity as a result of dietary habits and insufficient physical activity, and relatively high alcohol consumption. Better prevention is key to reduce the prevalence of NCDs. Awareness rising at school, at the workplace and through mass media campaigns is an effective prevention measure. Developing and expanding existing regulation and legislation on tobacco, alcohol and food products could reduce alcohol and tobacco consumption and encourage healthier diets. Policies promoting active travel and walking could increase physical activity, thereby improving physical and mental health and reducing overweight and obesity.

In order to tackle poverty and inequality, and to boost human capital, OECS countries require better social protection systems. As a result of high unemployment rates and limited economic opportunities, levels of poverty and inequality in the OECS region are higher than in other countries with similar levels of income per capita. In addition to generating more economic opportunities and boosting human capital, the establishment of better social safety nets across the region, including universal access to healthcare and unemployment insurance schemes, would be an important step towards reducing poverty and inequalities. Furthermore, comprehensive social protection systems also have the potential to make OECS countries more resilient to natural disasters. Streamlining the multitude of social assistance programmes of the OECS region could lead to efficiency gains and cost savings. Expanding and improving access to social protection further necessitates a strategy for raising sufficient financial resources.

1.4.3. Resilience to natural disasters is a foundation of sustainable development in the OECS region

Building resilience to natural disasters is essential for reducing negative shocks to the region's growth and productivity performance, and for advancing economic development. OECS countries are highly prone to natural disasters, and their cost for the region is high both in terms of loss of human life and economic losses due to damages. Moreover, natural disasters have a negative impact on both economic growth and productivity. Building resilience to natural disasters can help to mitigate the costs that they impose, and to reduce their negative impact both on populations and on the broader economy. In order to build this overall resilience, it is essential to ensure financial resilience, to build disaster-resilient infrastructure for ex-ante resilience, and to take measures for ex-post resilience in order to facilitate a speedy recovery after natural disasters hit. The development and implementation of disaster resilience strategies throughout the region should, therefore, be a policy priority.

1.4.4. Economic opportunities for OECS countries exist in tourism, digital services, the sustainable ocean economy and agriculture

The value-added that is generated through tourism in the OECS region could be boosted through the sale of more local products to the tourism industry, and a focus on new tourist segments. There are opportunities in selling more agricultural and fishery produce, as well as art products, both to cruise ships and the hotel sector. At present, however, spillovers and linkages between tourism and local agriculture and fisheries remain relatively limited. In addition, new tourist and traveller segments that could be targeted in the region include distance workers through digital nomad visas, medical tourism, eco-tourism, and educational tourism. Attracting a larger number of stay-over tourists would be another important way to add more value in the sector.

Digital services constitute an opportunity for diversification for OECS countries. As already noted, the demand for digital services has been growing rapidly all around the world as a result of the exponential growth of digitalisation and, more recently, in the context of the COVID-19 pandemic. The advantage of digital services for OECS countries is the absence of transport costs, which are high in the region. Reforming telecommunications sectors in the region and establishing a competition framework are essential to render OECS countries more competitive for digital services industries.

A regional sustainable ocean economy hub could advance both education and research activities in different fields of the sustainable ocean economy. As small island nations, OECS countries have a comparative advantage for establishing such a hub, since they have abundant access to the ocean. Due to their location in the tropics, they are, moreover, endowed with a high degree of marine biodiversity, and they have extensive and valuable marine resources. In particular, marine biotechnologies are one area of the sustainable ocean economy in which opportunities abound, and there is potential in the OECS region to exploit this further. At the same time, there continues to be a shortage of qualified and skilled professionals in many sectors of the sustainable ocean economy. It appears that curricula in the field of the sustainable ocean economy such as marine sciences elicit substantial global demand from students, but academic capacity is limited. The OECS region could build on its experience of playing host to offshore medical schools in order to develop such curricula for local and international students in a regional hub.

Technological upgrades in agriculture and farmers’ organisations could open up new opportunities in food processing and sales to the tourism industry. Agricultural production in the OECS region has been decreasing over the past three decades, and agricultural productivity is relatively low in the region. The main barrier for the tourism sector in sourcing more agricultural products locally is the lack of uniformity, and the limited quality, of local products, and the lack of timely and continuous delivery. Similarly, a lack of sufficient processing facilities is an important reason why many processed (non-fresh) and semi-processed products (in particular, meat and fish) are subject to a high share of imports. Technological upgrades such as irrigation infrastructure, careful harvest planning, greenhouses, efficient irrigation systems, lab infrastructure and agro-processing facilities could enhance the productivity of the agricultural sector and the quality of agricultural produce, while also facilitating agro-processing and sales to the tourism sector. Furthermore, the organisation of smallholder farmers into groups or co-operatives, and the development of contract farming, could improve efficiency in the marketing of local produce, and may also facilitate exports. Encouraging more young people to become farmers or agro-entrepreneurs could also contribute to revitalising and transforming the region’s agricultural sectors.

Meanwhile, land reform could improve access to credit, and could also enhance private investment in agriculture. In several countries in the OECS region, unclear and uncertain land ownership rights restrict access to collateral for credit and investment in agriculture. Thus, reforming systems of land tenancy and land subdivision could improve both access to credit and efficiency. Furthermore, OECS countries require modern, compulsory systems of land registration, and they need to strengthen their institutional capacity for managing the land-registration systems that already exist. At present, the lack of such systems, and of sufficient institutional capacity, limit access to collateral for loans.

The production of higher quality fish products, fish processing, and the development of aquaculture could allow OECS countries to substitute part of their fish imports with local production. At present, the contribution of fisheries to GDP in the OECS region remains negligible. Fishing sectors play an important social role in most OECS countries, yet most of these states require considerable fish imports to complement local production and to meet local demand for fresh products. Little fish processing occurs in the region, and in most OECS countries there are no or few commercial facilities for processing fishery products. Investment in appropriate technology and infrastructure is required in order to facilitate fish processing, and to increase the quality of local fishery produce in order to then be able sell more local produce to the tourism sector. Investment in post-harvest and processing facilities such as drying equipment, ice plants, refrigeration, and cold storage facilities is particularly important. Aquaculture and sea products offer further opportunities for the OECS region. Aquaculture is seen as a sector with a large growth potential worldwide, and has expanded substantially in recent years.

1.4.5. Policy implementation and regional integration

Taking advantage of opportunities for economic and social development in the OECS region requires improvements in the implementation of policy. Indeed, effective implementation is everything. Without it, any policy, law or regulation remains just a piece of paper, and a mere proof of intentions. Implementation is also the most challenging part of any strategy. In all areas of this report, policy implementation and regulation surface as constraints in the OECS region. A short-term horizon, a large government apparatus, too much discretion in decision making, and the limited availability of data hinder the effective implementation of policy in the OECS region.

The regional strategy scorecard developed by the OECD could improve the effectiveness of policy implementation in the region. Transparent and objective scorecards can improve the alignment of incentives for different actors, as well as enhancing the monitoring and evaluation of policy implementation, and strengthening rules-based governance. In order to support the effective implementation of policy in the OECS region, the OECD has, therefore, built a regional strategy scorecard for OECS member states. This scorecard is closely aligned with the 2019-28 ODS, and consists of 40 high-level indicators, with country-specific targets for 2030 linked to the three pillars of the strategy. The scorecard aims to create commitment to ambitions through measurable targets, tracking progress towards these targets and holding policy makers accountable for results. Going forward, and in order to improve implementation, it will be essential regularly to update the scorecard, and to adjust policy priorities based on how much progress has been made towards the targets that the scorecard has set. Another important step would be to fill gaps in the data that is available, and to improve the availability of data across the region, since limitations in this regard have constituted an important challenge for designing and regularly updating the scorecard.

Due to economies of scale, regional co-operation heralds numerous opportunities for efficiency gains in regulation and implementation. The small size of the individual OECS economies results in a lack of scale for offering a large number of public services or establishing regulatory institutions. Moreover, regional collaboration can prevent so-called collective action problems. A consistent regulatory framework across the region could also potentially reduce the level of regulatory discretion. Examples of potential policy areas where regional collaboration could prove to be beneficial by generating economies of scale include laboratory infrastructure for the quality control of agriculture and food products, crop research, cyber security and data protection, competition regulation, e-governance, and a regional fast-ferry service. They also include tertiary educational curricula and the development of courses in different subject areas, as well as tackling crime, regulating the energy sector, and developing geothermal energy.

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2 Generating economic growth

This chapter discusses key opportunities and constraints falling into the first pillar of the OECS Development Strategy: generating economic growth. Economic opportunities for OECS countries include increasing value-added in the tourism industry; developing sectors that are closely linked to tourism, such as agriculture, fisheries and the so-called orange, or creative, economy; as well as making headway in digital services, facilitated by a reform of the telecommunications sector. Furthermore, cutting red tape, reducing business costs, and establishing a regional competition framework could foster more private investment and boost productivity in region. Supporting the macroeconomic environment by reducing government debt and non-performing loans, is important for stability and strong economic growth in the region.

Economic opportunities for OECS countries include increasing value-added in the tourism industry; developing sectors that are closely linked to tourism, such as agriculture, fisheries, and the so-called orange, or creative, economy; and making headway in digital services. At present, tourism is the dominant economic engine of the OECS region. The region could further boost value-added in tourism by sourcing more supplies from the local economy, including agricultural, culinary, and artistic products, as well as by developing new tourism segments. Sourcing more agriculture and fishery products locally calls for technological upgrades and the development of farmers' organisations. It also requires progress with land reform to improve access to credit and enhance private investment in agriculture. There is also a great deal of potential for the further development of aquaculture and other sea products in the OECS region. Another opportunity, meanwhile, lies in expanding digital services in the region. This requires reform to the OECS countries' telecommunication sectors, which currently present tendencies towards a duopolistic structure throughout the entire region. Furthermore, opportunities for regional integration exist in cyber security and the generation of digital skills.

Cutting red tape, reducing business costs and establishing a regional competition framework could foster more private investment and boost productivity. Red tape and high business costs are important obstacles for private companies in OECS member states. In this regard, more e-government constitutes an opportunity to reduce bureaucracy in the region. Moreover, scaling up the renewable energy industry could reduce high energy costs. Furthermore, reducing business taxes would reduce costs for private businesses, and could simultaneously raise tax revenues by stimulating economic activity and private investment. In addition, limiting wage growth in the public sector could improve the alignment of wages with productivity growth. Meanwhile, a regional fast-ferry service, and a better organisation of existing intra-regional maritime transport links, could help both to improve intra-regional connectivity and to reduce transport costs. A regional competition framework could, moreover, enhance consumer welfare and foster economic growth and productivity improvements in the OECS region. Setting up such an authority at the regional level would allow OECS countries to take advantage of economies of scale, and to pool costs.

Supporting the macroeconomic environment by reducing government debt and non-performing loans, would be important for economic growth and stability in the region. Doing this will require the region to meet its goal of bringing government debt down to 60% of GDP or lower by 2035. In addition, reducing NPLs is an essential step in improving access to finance and boosting credit growth in the region. Furthermore, strengthening banking supervision in the OECS region would be another important step towards preventing future surges in NPLs. Meanwhile, improving infrastructure in the financial sector and reforming national development banks constitute further ways in which the region could improve its access to finance and the health of its financial sector. Table 2.1 represents seven major opportunities for the region when it comes to generating economic growth.

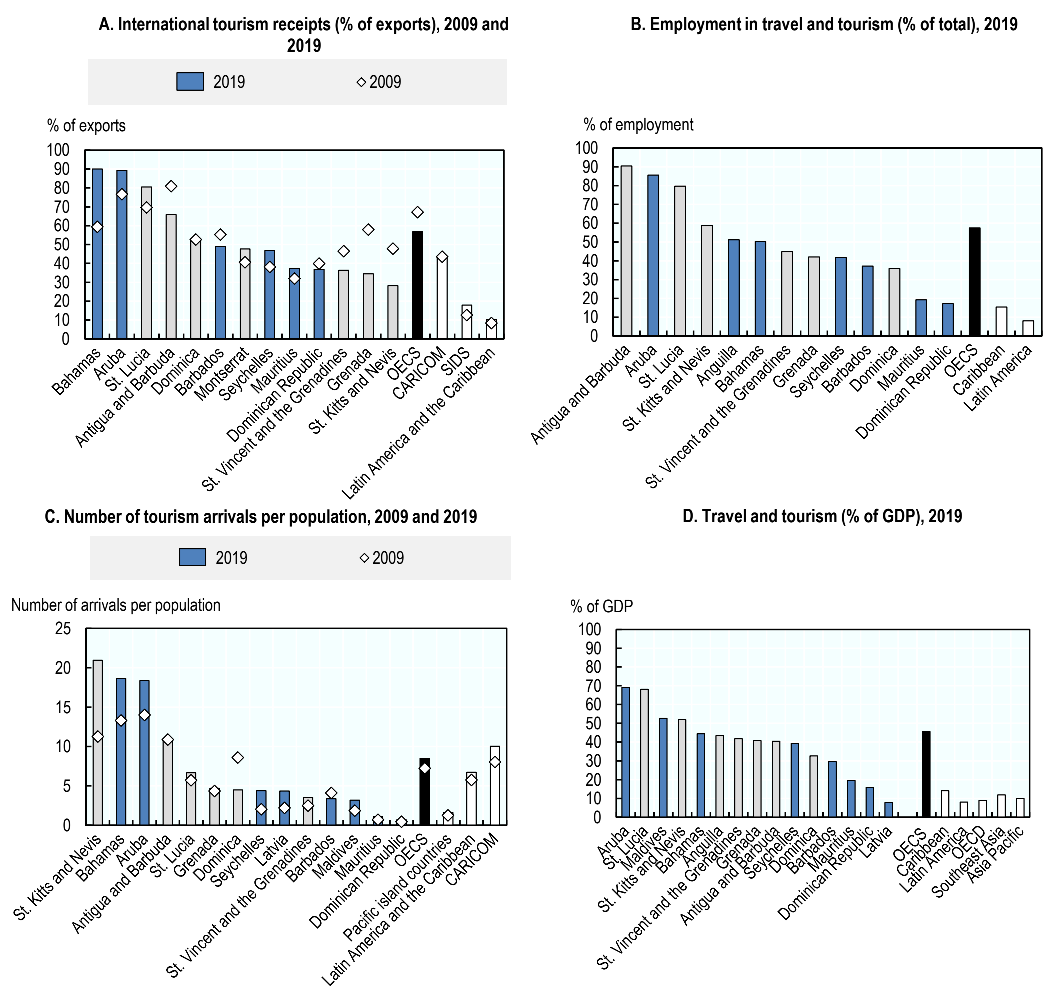
Table 2.1. Seven opportunities for generating economic growth in the OECS region

1. Develop higher value-added tourism segments
2. Digitalisation: Develop e-government to reduce red tape and reform the regulatory framework of the telecommunications sector
3. Establish a regional competition framework
4. Enhance regional collaboration on regulation
5. Reform land ownership, and establish modern, compulsory land-registration systems
6. Modernise and upgrade the support infrastructure for the agricultural and fishing sectors
7. Prudent public expenditure for debt consolidation

2.1. Tourism value-added could be boosted through sourcing more from the local economy and developing new tourism segments

Tourism is the dominant economic engine of the OECS. As agriculture has declined across the region in recent decades, services and tourism have become the largest contributor to output. The share of tourism receipts as a percentage of exports in the member states is among the highest in the world, with the OECS average in 2019 standing at 57% - well above the Caribbean Community's (CARICOM) average value of 43.6% (Figure 2.1 – Panel A). Much of the region's employment also relies on tourism, ranging from 35% in Dominica, the lowest level, to almost 90% in Antigua and Barbuda (Figure 2.1 – Panel B). This makes the OECS region highly susceptible to global changes in the demand for tourism, as highlighted by the COVID-19 pandemic. Although tourism is likely to remain at the heart of the OECS member states' economies, there are several opportunities available to the member states that will allow them to make the most of tourism while also reducing their dependence on a small set of services.

Figure 2.1. Most of the OECS countries are highly dependent on tourism for both revenue and employment



Sources: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; WTTC (2022[3]), World Travel & Tourism Representative Council, https://wttc.org/.

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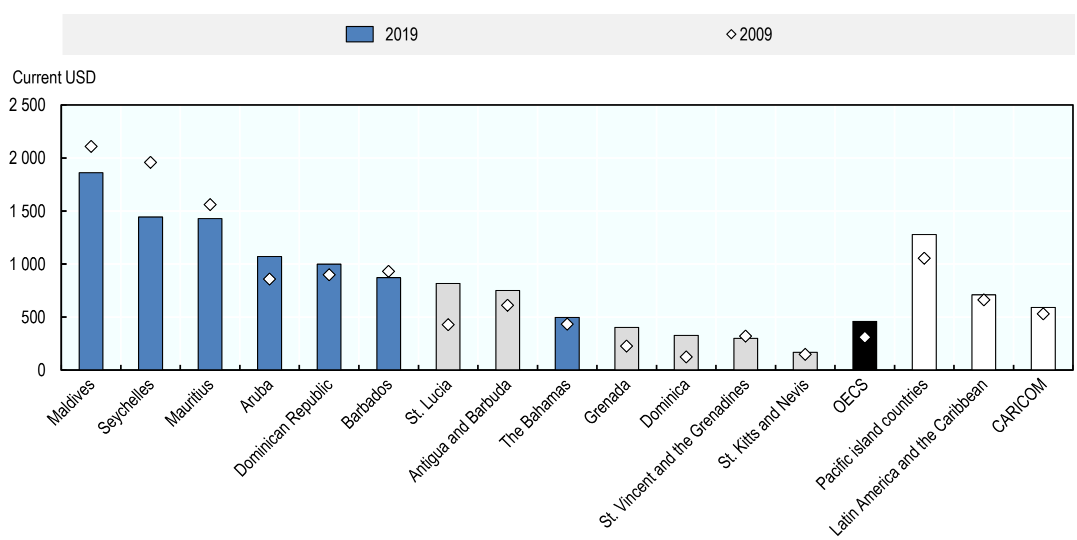
Building up resilience to natural disasters has a key role to play in protecting the tourism sector. Indeed, the tourism industry is highly exposed to natural disasters, and hurricanes and floods are frequent in the region, often destroying infrastructure such as hotels, restaurants and transport routes, on which tourism relies (IMF, 2017[4]). This restricts the ability of tourists to access the countries of the OECS, and reduces their interest in so doing, thus lowering economic output in the countries of the region, and suppressing employment. As part of protecting the sector, developing more resilient infrastructure to stabilise flows of tourism and minimise economic costs in the wake of natural disasters would be another important step.

It is possible to re-orient tourism in the OECS to improve its levels of value-added, but without straining the islands' limited resources. Most of the member states already have high levels of annual tourist arrivals (Figure 2.1 – Panel C). If arrivals continue to increase, this can lead to losses of natural habitat, increases in pollution, and disruption to local communities (OECD, 2020[5]). To protect natural resources, improving existing services is a more desirable approach to increasing tourism receipts than simply targeting more visitors. In this connection and given that the value-added levels in tourism are noticeably lower in OECS countries than in similar economies elsewhere in the region, there is scope to increase the relative value-added for each tourist arrival (Figure 2.2). Indeed, it is possible to leverage the already well-developed service sector to increase receipts from each visitor, specifically by meeting the demands of cruise-ship passengers, attracting new tourist segments, and building consistent hospitality experiences through certifications and training programmes.

Figure 2.2. Tourism receipts per arrival in the OECS are lower than in similar economies

International tourism receipts per arrival (current USD), 2019 and 2009



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators#.

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2.1.1. Value-added can be boosted through the sale of local products to hotels and cruise-ship passengers

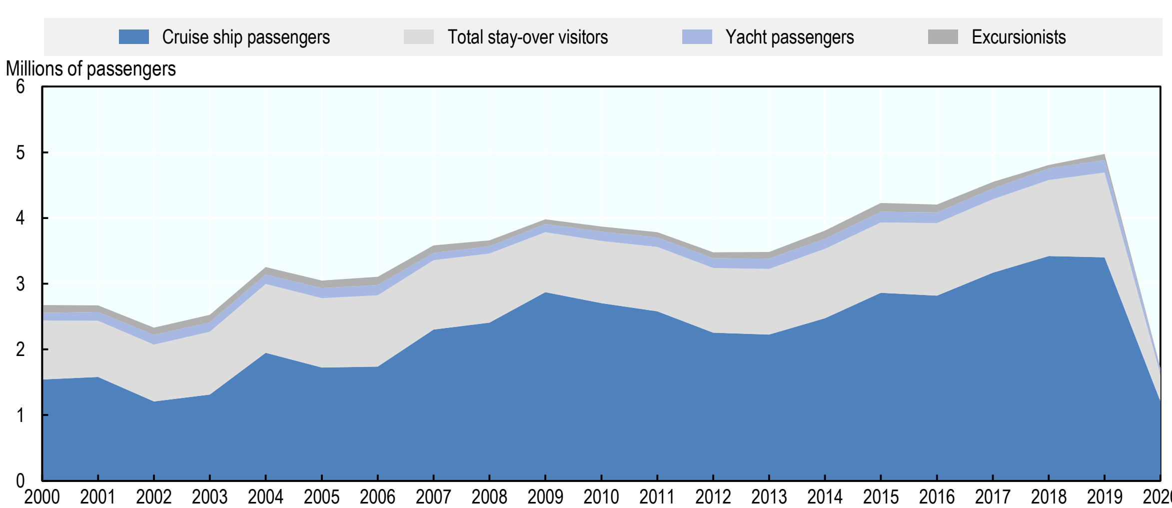
As already noted, value-added per tourist arrival in the OECS region could be increased through the sale of more local products to hotels and on cruise ships. At present, hotels and other tourist establishments in the OECS region import a large part of their food consumption, and cruise ships buy only very few products locally. Cruise-ship tourists represent a large share of arrivals to the islands, accounting for close to 70% of arrivals on average in the region in 2019 (Figure 2.3). There are opportunities to generate more value-added from both hotels and the cruise-ship industry in the OECS region by selling agricultural, fishery-related, and agro-food products to cruise ships and hotels. Moreover, hotels and cruise ships would benefit by being able to serve fresher produce, as well as from reduced shipping fees, in the case of hotels. The income of local farmers would also receive a boost. In Fiji, it was estimated that providing locally grown fresh produce on cruises provided the strongest potential return on investment from the perspective of a benefit-to-cost ratio, with positive effects extending to farmers and communities (IFC, 2019[6]). While there are opportunities to sell more local produce to hotels in the medium term, this may be a solution to focus on more in the longer term when it comes to cruise ships, due to restrictions related to cruise lines' food-quality standards.

On cruise ships it is possible, in the short to medium term, both to encourage the sale of local art and to promote performances by local artists. Notably, surveys completed by cruise passengers after visiting Fiji showed that handicrafts, clothing, tours and excursions, plus food and beverages, presented the strongest opportunities to expand upon when it comes to cruise tourism (IFC, 2019[6]). In particular, the OECS could leverage its already well-developed creative sector and orange economy (see section 2.2). Moreover, opportunities exist not only to develop new artistic and creative offers, but also to provide passengers with better information about the offers of such products that already exist at their destination.

Furthermore, surveys and studies could be conducted to make sure that cruise passengers' tastes and preferences are being catered to properly. This would allow the OECS member states to better ascertain the spending opportunities that are currently being missed from cruise-ship passengers, and to tailor their offerings and products accordingly. Some studies have already been conducted on the economic impact of cruise passengers in the CARICOM region, with the participation of the tourism councils of several OECS member states. These studies could be expanded to include questions on what products are most interesting to visitors, in a similar manner to the assessment conducted in Fiji (IFC, 2019[6]). Upon this basis, a cost-benefit analysis could then be performed to decide which areas are the most cost-effective to focus on.

Figure 2.3. Cruise passengers make up the majority of the visitors to the OECS region

Total visitors to OECS countries by type, 2000-20



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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2.1.2. New tourist segments can be leveraged to attract visitors for longer stays

Long-stay visitors are a profitable segment of tourism that should be encouraged. At present, cruise-ship passengers make up the largest portion of visitors to the member states (Figure 2.3). These short-term tourists provide economic benefits usually only in localised pockets in and around the port in which they dock. Longer-term tourists, on the other hand, constitute a market segment that has the potential to disperse tourist expenditures more widely around an island, and to increase overall spending. One study conducted in Madeira, a Portuguese island, highlighted that a decline in tourists' average length of stay led to a loss of EUR 124 per tourist per day, amounting to EUR 148.8 million lost per year (Almeida, Machado and Xu, 2021[7]). Long-stay visitors also cause less stress on the transport infrastructure capacity and tend to participate in more culture sharing (Gossling, Scott and Hall, 2018[8]). There are several opportunities for the OECS member states to generate interest in long-stay tourism in the region, by exploring new segments in the tourism market.

Educational tourism constitutes another opportunity for the OECS region to attract more long-stay tourism. Educational tourism can be defined as any type of tourism where the traveller's primary or secondary objection is learning. This type of tourism has been growing worldwide, with the number of students studying abroad increasing every year (Tomasi, Paviotti and Cavicchi, 2020[9]). Indeed, it is already present in some of the member states, such as Grenada, and St. Kitts and Nevis and to a lesser extent St. Lucia, which attract international students to offshore medical and veterinary universities (Berridge, 2021[10]). These offshore universities make important economic contributions: Education accounts for 27.6% of GDP in Grenada and 12.7% of GDP in St. Kitts and Nevis (2020) (ECCB, 2022[1]). In addition, the international students who come to live on the islands make an important contribution to the economy through local consumption, particularly by spending money on accommodation and similar services over an extended period. Given that the natural beauty of the islands and the lifestyle outside of the educational context already serve as selling points, improving educational offerings should be the focus of efforts to increase educational tourism. This can be done through research into trends in labour-market demands, as well as by building up competitiveness vis-à-vis similar international universities by improving the overall quality of the programmes. There is also the possibility of developing a hub for research in the sustainable ocean economy, which could attract more students.

Meanwhile, medical or healthcare tourism is also on the rise globally, and it presents opportunities for growth in the OECS. Medical tourism is defined by the World Travel and Tourism Council (WTTC) as the products and services bought by people who travel abroad primarily for medical and health-related reasons. International spending on medical-tourism services of this kind has been increasing at an average annual growth rate of 9% since the early 2000s (WTTC, 2019[11]). At present, medical tourism is still limited in the OECS region, but several member states already play host to well-reputed offshore medical universities that cater to international students and have brought in valuable skills and funding from abroad. Countries in the OECS could leverage these universities through possible collaborations to expand medical tourism. Furthermore, OECS countries' geographic location in the tropics and their agreeable climatic conditions, including warm weather and access to beaches and the ocean, offer a natural advantage for rehabilitation, recovery and convalescence treatment. To develop the sector further, it would be necessary to ensure that all the OECS member states are able to partake in the benefits generated by the industry. One possibility would be for the member states to specialise in different niche medical services instead of competing between themselves, which may cause inefficiencies (Adams et al., 2014[12]). Regional co-ordination can assess where the relative advantages lie for each country across the several possible sectors that are common to medical tourism overall, such as cosmetic, dental and elective surgeries, in addition to rehabilitation, recovery and convalescence treatments.

Nature tourism, or eco-tourism, is another key opportunity for the OECS member states, given the nature that is already abundantly present. Eco-tourism is defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education". It has been identified as a growing segment of tourism as demand for low-impact or environmentally friendly tourism products has increased in recent years (WTTC, 2022[13]). This provides a unique opportunity for the OECS member states to advance sustainable practices, while also attracting a new segment of tourism. In Fiji, nature-based tourism that followed the development of protected areas led to an increase in local income by a multiple of USD 1.83 and created an estimated 8 304 new jobs. This change was brought about by increasing the number of protected areas, enhancing the capacity of the protected areas' managers, and developing concession policies to promote tourism in protected areas (World Bank, 2021[14]). Dominica has already begun developing this sector, which was highlighted in an analysis of the top five most frequent words from the country's tourism portal, which included "eco", "nature" and "rainforest".

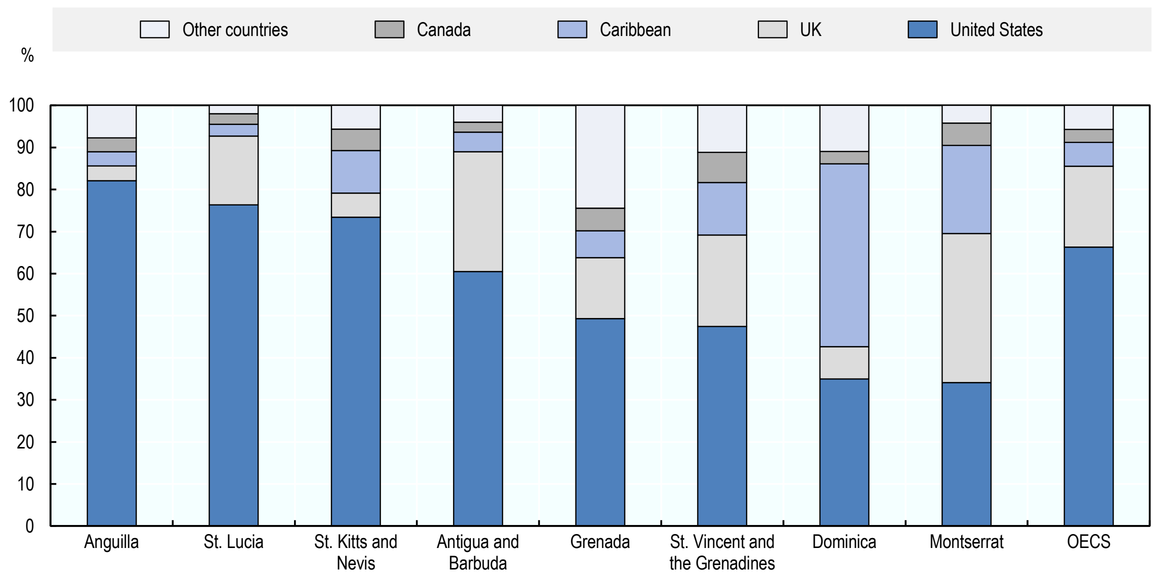
Meanwhile, a range of other miscellaneous opportunities to extend stays or spread expenditures around regionally have also been identified. One such upcoming project in the OECS is the Tourism Blue Economy initiative, which focuses on marine and coastal tourism. Much of the region's tourism is dependent on this kind of tourism already, which means that building up tourism in a sustainable fashion is important and that there is scope to create linkages with other areas of the ocean economy. Another opportunity stems from the still-limited current connectivity between OECS member states. Flights between islands do exist but they are infrequent, and there are few passenger ferry connections between the islands. By contrast, a regional fast-ferry service would permit visitors to island-hop, thus allowing them to visit several islands over the course of a single visit. By encouraging more intra-regional tourism, there is potential for such an initiative to increase overall tourism expenditure and expenditure per visitor, while also contributing to regional integration. Wellness and cultural tourism have been gaining in importance as a segment of tourism, heralding another area of opportunity for OECS countries. Finally, it could be possible to build on ventures in nature tourism and the orange economy in order to develop additional kinds of tourism services.

2.1.3. Tourism markets should be expanded to build resilience to shocks in source markets

There is scope to expand tourism markets, which are concentrated in North America. Indeed, 66.2% of stay-over visitors in the Eastern Caribbean Currency Union (ECCU) originate from the United States of America, 19.2% from the United Kingdom, 5.7% from the Caribbean, 3.1% from Canada, and only 5.7% from other countries (Figure 2.4). International flight connections reflect this fact, with direct flights primarily available from North America and the Caribbean (Figure 2.5). This strong concentration in North America leaves the OECS vulnerable to changes in their source market (IMF, 2017[4]). Furthermore, direct flights to the OECS countries are limited, and are less common than direct air links to other CARICOM states, when excluding larger countries such as the Bahamas and Jamaica. Tourism relies on frequent and convenient transportation in order to bring tourists in and out of the country, and this is a cause for concern in the OECS due to limited connectivity. Increasing the number of direct flights that are available would facilitate travel from European countries and new destinations such as South America, opening up the tourist market to new segments and attracting more tourists. The CARICOM Multilateral Air Services Agreement (MASA) could improve air transport within the CARICOM and between CARICOM member states and other countries, once it has been ratified and implemented by all CARICOM member states. The MASA aims to establish a single market for air transport services within the CARICOM; promote the adoption of uniform standards for air transport services, licensing and certification of aviation personnel in the CARICOM; and ensure that international air transport services in the CARICOM are undertaken by financially viable and technically qualified air carriers (CARICOM, 2022[15]).

Figure 2.4. Stay-over tourists originate mainly from North America

Stay-over tourists by country (%), 2021



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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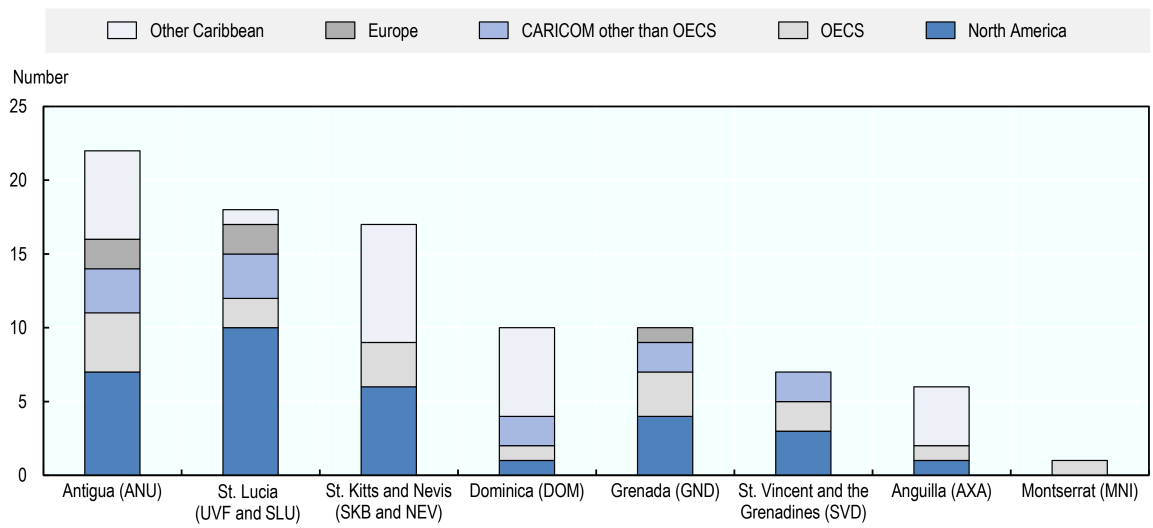
Reducing costs in the region could facilitate the diversification of tourist source markets. Indeed, the OECS region is currently more expensive for tourists compared to other popular tourist destinations. These relatively higher costs have affected the region's competitiveness, particularly compared to countries outside of the Caribbean that can offer tourism at a much lower price point, and it has led to a loss in the region's market share of global tourism (IMF, 2017[4]). The high costs could pose challenges when it comes to attracting tourists from new markets outside of the wealthy one in North America, whose proximity to the region provides an advantage. Cost reductions could come from several sources. These include leveraging abundant renewable-energy opportunities in the region to reduce the cost of energy, and improving transportation networks. They also include reforms to reduce labour costs, or moves to reduce business taxes. By pursuing one or several of these avenues, the member states of the OECS may be able to reduce costs in order to become more accessible to Latin America or other Caribbean countries as vacation destinations.

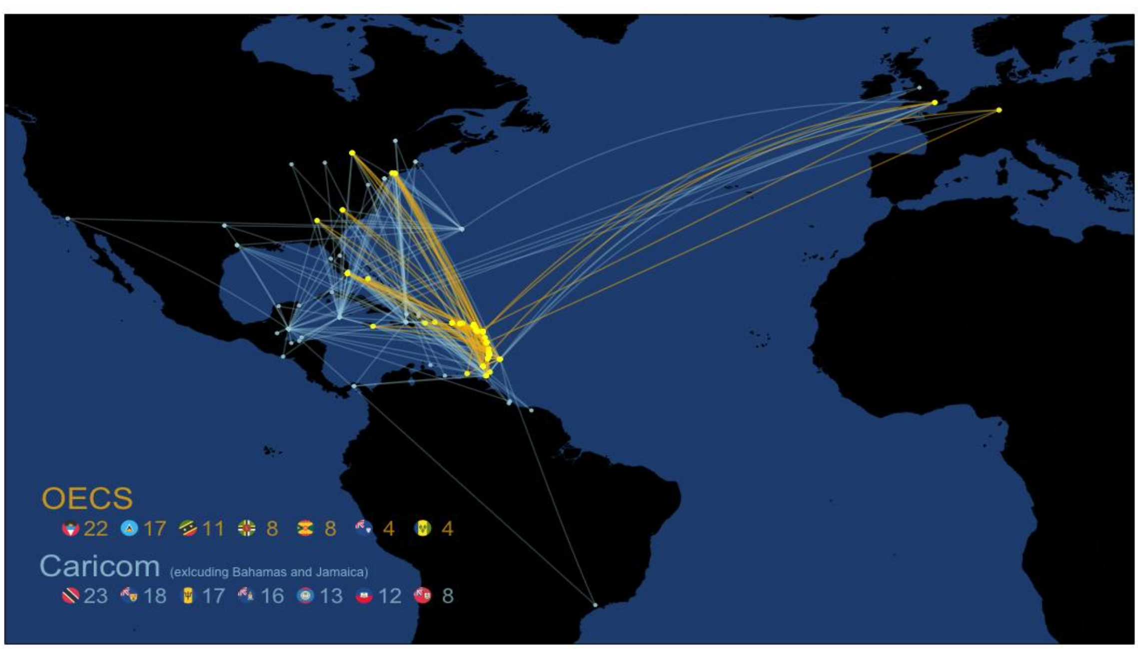
Figure 2.5. Passenger-flight connectivity is low, with a concentration of international flights in North America and the Caribbean

Direct flight connections, December 2021 (Panel A) and number of direct flights to OECS and CARICOM countries, 2018 (Panel B)

A. Direct flight connexions, December 2021



B. Number of direct flights to OECS and CARICOM countries, 2018



Note: B. Yellow lines represent OECS countries, blue lines represent CARICOM. Numbers represent number of unique destinations from country. Data do not include Guadeloupe, Martinique or Montserrat.
Source: FlightConnections (2022[16]), All flights worldwide on a map!, https://www.flightconnections.com/; OpenFlights (2022[17]), Airport and airline data, https://openflights.org/data.html.

StatLink https://stat.link/6avlig

2.1.4. Training programmes and certifications could help to strengthen the quality of services

Developing hospitality training and certification programmes can standardise experiences across sectors, improving employment outcomes and quality of service in the tourism sector. Studies show that the key factors cited as a barrier to the inclusion of the local population in services catering to the tourism sector are the quality of the offering that they can provide, and the overall abilities of the population when it comes to hospitality (World Bank, 2008[18]). In 2010, the OECS created the Network of Excellence in Tourism and Hospitality Training and Education (NETHTE), which in turn developed the Eastern Caribbean Institute of Tourism (ECIT). The ECIT has locations in nine countries in the OECS region, each focusing on a specialised area of tourism or hospitality. In order to encourage more participation in these training programmes, courses could be offered as part of adult learning programmes, or with reduced or subsidised payment plans. This would target the portion of the population that has not yet been able to participate in the services industry.

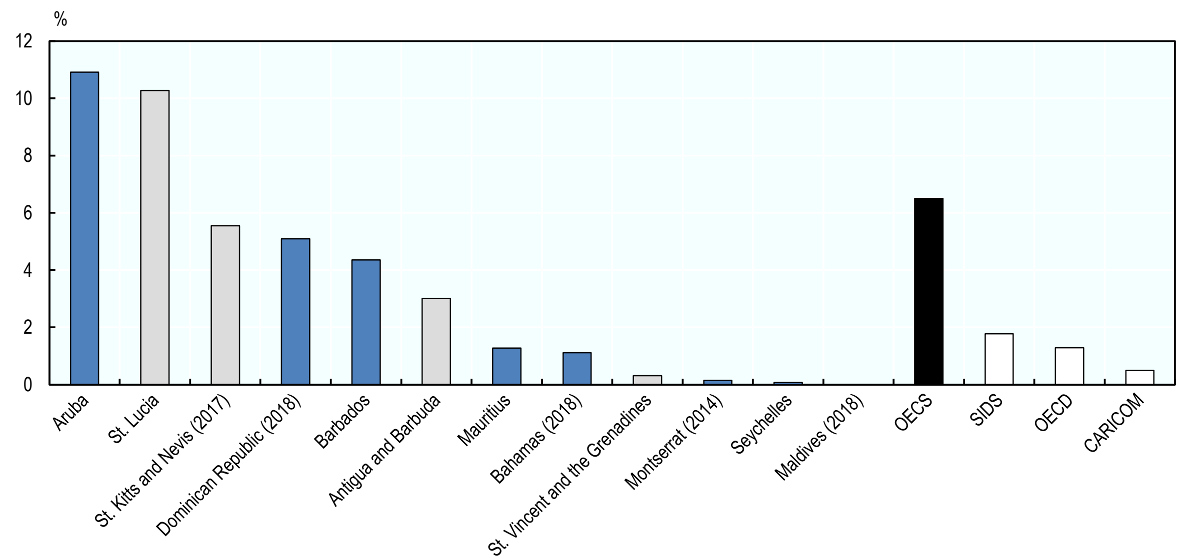
2.2. OECS countries' large tourism sectors open up opportunities to further expand the orange economy in the region

The orange economy presents an opportunity for the OECS member states to strengthen their economies without encountering high barriers to entry. The orange economy, also known as the creative economy, relates to all sectors whose goods and services are based on the creation of intellectual property. This includes, but is not limited to, design and visual arts, cultural heritage, new media, and software. Given that such goods are often non-physical and service-based, they do not require large amounts of land in order to be developed and transport costs remain negligible. OECS countries' large tourism sectors open up multiple opportunities for the sale of art products. Because of the labour-intensive nature of producing creative goods, growing this sector could indeed help to relieve high unemployment rates in the region (CARICOM, 2022[19]). Finally, the OECS countries can draw upon their rich cultural heritage to encourage and develop creative goods, facilitating the development of the sector.

Creative industries are already an important sector with strong links to the tourism industry, but there is still room for them to expand further. In 2019, cultural exports made up 6.5% of all exports from the OECS on average, much higher than the CARICOM average of 0.5% (Figure 2.6). This makes the region quite advanced when it comes to promoting this sector. That is due most importantly to the strong linkages between the orange economy and the tourism sector. All Eastern Caribbean countries have carnival traditions, and many organise music festivals that attract a significant number of tourists. These festivals contribute to the local economy through increased consumption and employment, and can be used as an advertising tool for the country to attract new and repeat visitors alike (Rivera, Hara and Kock, 2008[20]). Furthermore, many of the OECS countries have already established niches within the creative economy, such as pottery and ceramics in Antigua and Barbuda, crafts relating to spices in Grenada, and "learn a craft" tours in St. Lucia (Noel and Charles, 2012[21]). However, there is a significant degree of variation across the region in terms of relative value-added. With more than 10% of total exports constituting a cultural export in 2019, St. Lucia has the most developed creative sector in the region. This stands in contrast to St. Vincent and the Grenadines and Montserrat, which both have almost no cultural exports. This level of variation opens the door to intra-regional information sharing about how to build up the sector, as well as heralding opportunities for further development.

Figure 2.6. The creative economy is already important in some OECS countries, but there is scope for region-wide expansion

Cultural exports as a share of total exports, 2019



Notes: The CARICOM average includes all CARICOM countries.
Source: UNESCO (2022[22]), *Unesco Institute for Statistics*, http://data.uis.unesco.org/.

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The main opportunity for developing the creative economy lies in leveraging linkages with the tourism sector, in order to develop revenue streams and boost profitability for creators. There are, in fact, many opportunities to build upon linkages between tourism and the orange economy. Firstly, and as already noted, there is scope to sell artwork and hold live performances of local artists on cruise ships. In turn, this could increase the overall level of value-added per arrival in the region. Furthermore, there is potential for the region to attract more tourists by curating creative events such as music or art festivals, carnivals, and similar happenings. This could give local artists the chance to display their work to larger audiences and to build interest in their projects, bolstering the orange economy while also benefiting the region through increased expenditures. Finally, and given the growing demand for cultural tourism, the development of local art and music that reflects the history and culture of the OECS countries can be supported by establishing local art museums and other points of cultural interest. This could encourage artists by supporting their work, while also developing a new segment of tourism.

The film and fashion industries are a promising segment of the orange economy, and there is scope to expand it in the OECS. Of late, there has in fact already been some promising growth in cinema, as several movies were produced in St. Kitts and Nevis during the COVID-19 pandemic. Appropriate incentives could encourage the production of more movies in other OECS countries. Similarly, the OECS can incentivise fashion shoots and shows. Popular luxury brands have been diversifying the locations for their shows to locations such as Oahu in Hawaii and other novel destinations (Prestige, 2020[23]). These shows often include locally cast models in their photoshoots, along with local culture and businesses (Mabille, 2022[24]). This then contributes to local economies through increased consumption of local goods like accommodation and restaurants, as well as by providing employment opportunities. It is possible, moreover, for the OECS to attract further opportunities by developing complementary industries, such as production premises, studios, and grip and lighting companies which are required by the film industry.

Direct assistance to the creative sector via support programmes can help to push the orange economy forward. One example of such assistance comes from Colombia, which has offered cash rebates on production costs for companies filming in the country. This increased the number of feature films filmed in Colombia from five in 2013 to 41 in 2016 (OECD, 2019[25]). Such programmes have also already shown promising results in St. Kitts and Nevis, which adopted a similar cash rebate programme that partially refunds film-related spending if it takes place in the local economy. Soon after this policy was announced, the country garnered a deal with MSR media, a boutique film and television production company, to produce five films in the country (SKNIS, 2021[26]). Furthermore, direct support to small and medium-sized enterprises (SMEs), particularly those involved in creative activities, could also help to develop the sector. This could include loans with favourable rates or government subsides, as well as taking advantage of the EU-funded Creative Caribbean project, which provides support to the creative sector through grants and other initiatives (CARICOM, 2022[19]).

2.3. Investment in technology and efficiency-enhancing reforms could revitalise agricultural and fishing sectors in the OECS region and facilitate import substitution

There is scope to increase production from agriculture and fisheries in the OECS region in order to meet local demand, both from the general tourism sector and through sales to cruise ships. At present, however, the spillovers and linkages between tourism and local agriculture and fisheries remain relatively small. Indeed, local agri-businesses and farmers have not been able to develop many linkages with the tourism sector. As things stand, the tourism sector accounts for approximately 20% of food imports in the OECS region, and it sources only 32% of its total demand for food locally. The food-retail and wholesale sector tends, on the small OECS islands, to be highly concentrated in the hands of a few large players, and relies mainly on food imports. Local agricultural production is, meanwhile, generally sold directly to hotels and restaurants, and on the open market (World Bank, 2008[18]).

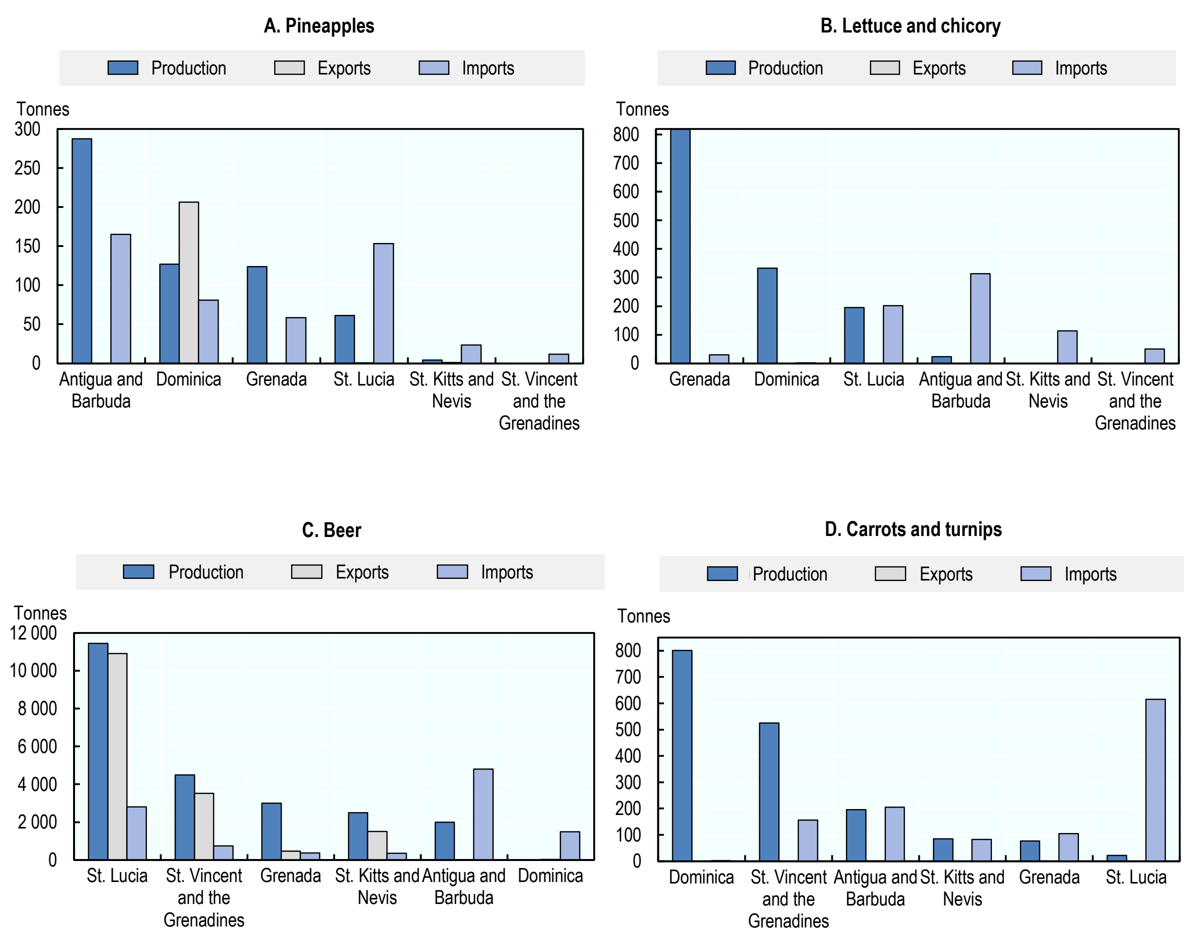
In particular, there are opportunities for agriculture and fisheries in the markets for fresh fruits and vegetables and fish and seafood. As thing stand, the tourism sector already sources more than 60% of fish, fruit, vegetables and eggs locally. Moreover, fruit and vegetables, meat, fish and alcoholic and non-alcoholic beverages account for a relatively high share of hotels' expenditure. Fresh fruits and vegetables can compete with imports through just-in-time delivery, since they are highly perishable, and value-added is given to freshness. Other benefits of fresh fruit and vegetables are their ability to grow in most OECS countries, and their suitability for production on small farms, which dominate the region's agricultural sectors. While there is significant local production of tropical fruits and vegetables in the OECS region, there is still considerable scope to replace imports with local production (Figure 2.7). Local supply of fish and seafood could be increased by expanding local processing.

Local production of more meat and dairy products faces a number of different challenges. At present, less than 20% of meat, dairy products and canned food is sourced locally by the tourism sector. When it comes to increasing this share, the challenges include a lack of adequate processing facilities to meet quality standards. Another hurdle is the substantial amount of investment that is required to establish such facilities. Further challenges include the low price of imported milk that stems from subsidies in industrialised countries, the relative unsuitability of the topography of many OECS islands for beef livestock farming due to steep slopes and limited land availability, and the high cost of imported animal feed. In the past, efforts in the OECS and the wider Caribbean to produce animal feed locally have been hampered by cheaper imports of corn feed. Elsewhere in the industry, however, there may be some potential to expand local pork production, since pigs eat a wider variety of feed, and this can more easily be produced locally (World Bank, 2008[18]; Jansen, Stern and Weiss, 2015[27]). In St. Lucia, the success of setting quotas to support local poultry has been limited so far. In order to support local chicken production and reduce imports, St. Lucia established a quota requiring importers to purchase 20% of poultry locally. In practice, however, hotels only buy local poultry to satisfy the quota and then resell it, thus leaving overall local demand for chicken largely unchanged (Government of Saint Lucia, 2013[28]).

In the short and medium term, there are more opportunities to increase sales of local agricultural products to hotels than to cruise ships. In addition to the freshness of the produce, the advantages for hotels of sourcing food locally are the cost savings in terms of transport costs and import duties. By contrast, cruise ships generally purchase most of their food supplies in Miami, and do not have to pay transport costs and import duties. At the same time, cruise ships have more stringent requirements in terms of food quality, quantities, safety, packaging and delivery than hotels in the OECS region. Improving the quality of local agricultural and fishery products to meet cruise ships' standards in the OECS region would be much more challenging than meeting the standards of hotels and retail stores (Jansen, Stern and Weiss, 2015[27]).

Figure 2.7. There are opportunities for import substitution for fresh fruit and vegetables and other food products

Production, exports and imports of selected agriculture and food products, tonnes



Source: FAO (2022[29]), FAOSTAT (database), https://www.fao.org/faostat/en/#home.

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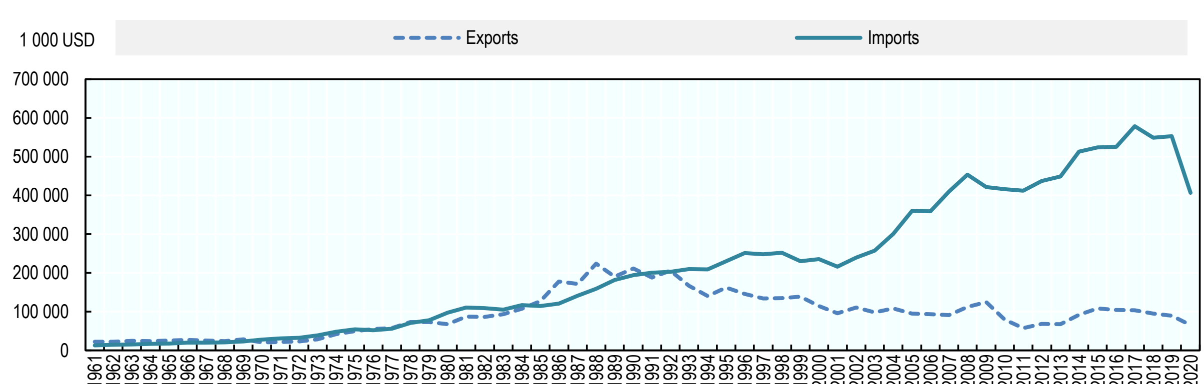
2.3.1. Agriculture is in decline in most OECS countries

Agricultural production in the OECS region has been decreasing over the past three decades. At the same time, agricultural and food imports have been increasing, fuelled in part by the rise of the tourism sector in parallel to the decline in agriculture (Figure 2.8). Historically, OECS economies relied heavily on exports of bananas and sugar cane that were facilitated by preferential trade agreements with the European Union (EU). However, these preferential trade agreements came to an end when agricultural products formally became part of the General Agreement on Tariffs and Trade (GATT) at the end of the Uruguay round of multilateral trade negotiations in 1994. In addition, alternative employment options that turned out to be more attractive, in particular in tourism, encouraged an increasing number of young people to move out of agriculture and into other sectors such as tourism, or indeed to seek employment abroad. Meanwhile, the farming population has been ageing. Moreover, the frequency of natural disasters in the OECS region, such as hurricanes, is another factor that has contributed to the decline of agriculture, as is the small size of domestic markets. Likewise, high production costs, notably for labour, land, frequently-imported inputs, and utilities, have also contributed to the decline, as has difficult and expensive inter-island transport, which limits the potential for exports. Further factors that have contributed to the decline of agriculture include a lack of adequate irrigation systems, scarce water resources in some islands, and a lack of technological upgrades. They also include difficulties in accessing finance, limited financial capacity, the limited availability of land, the small size of farms, competing uses of land, and complex systems of land tenure.

Meanwhile, the importance of the agricultural sector varies between the different economies of OECS. For example, Dominica and, to a lesser extent, Grenada and St. Vincent and the Grenadines still have relatively large agricultural sectors (Figure 2.9) (World Bank, 2008[18]; Jansen, Stern and Weiss, 2015[27]). Bananas still remain an important agricultural export product in several countries, most importantly in St. Lucia, where they make up 11.2% of total exports (UN, 2022[30]).

Figure 2.8. There has been a decrease in agricultural exports and an increase in imports over the past three decades

Agricultural exports and imports, 1 000 USD



Source: FAO (2022[29]), FAOSTAT (database), https://www.fao.org/faostat/en/#home.

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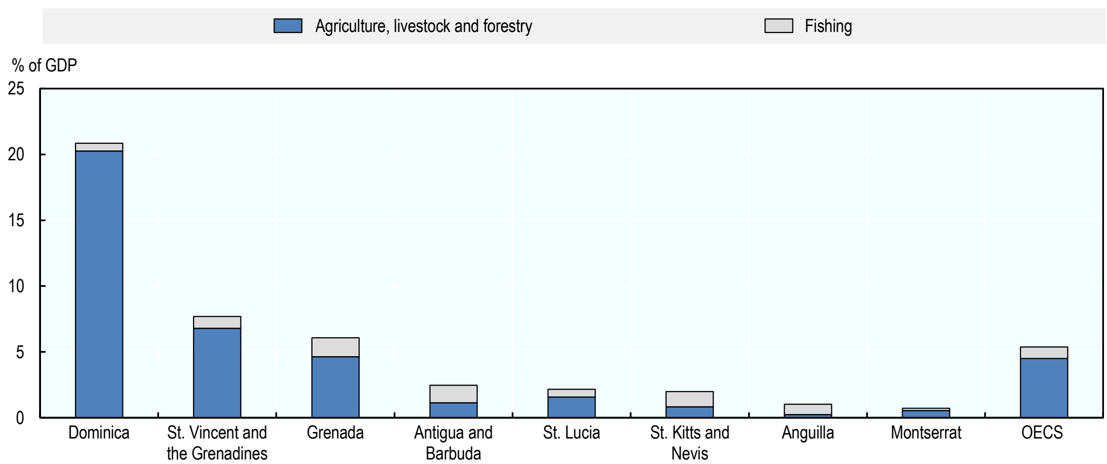
At present, the agricultural sector in OECS countries consists mainly of smallholder farmers, and levels of productivity are relatively low. Indeed, the majority of farmers in the OECS region own or let very small, sub-economic parcels of land, and operate as part-time farmers at the subsistence level (Toppin-Allahar, 2013[31]). Furthermore, farmers often lack the inputs, equipment, infrastructure and farm management skills that they would require to become more efficient and reliable suppliers. Farms are generally not managed as businesses, and few young people are interested in a career in farming. While agriculture is not an important contributor to GDP in most countries in the region, it is an important contributor to employment, especially in rural areas, and it is an important source of income for the poor (Jansen, Stern and Weiss, 2015[27]).

Figure 2.9. The contributions of agriculture and fishing to GDP remain moderate in the OECS region, except for agriculture in Dominica

Agriculture, livestock, forestry and fishing (% of GDP), 2021



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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2.3.2. Technological upgrades and farmers' organisations could open up new opportunities in food processing and sales to the tourism industry

The main barriers for the tourism sector in sourcing more agricultural products locally are the lack of uniformity and the limited quality of local products, plus a lack of timely and continuous delivery. At present, hotels and retailers often import agricultural products such as tropical fruits and vegetables because local smallholder farmers often do not manage to maintain the quality and uniformity of production, and the regularity of supply, that most hotels and other tourism establishments require. Production tends to vary by season and a continuous supply over time cannot always be guaranteed. Agricultural production tends to be much higher in the wet season than during the dry season (from December to May) in the OECS region, due to a lack of adequate irrigation infrastructure (Jansen, Stern and Weiss, 2015[27]). Moreover, OECS countries lack appropriate laboratories and the other quality control infrastructure that is required to meet international product standards for the tourism sector.

However, technological upgrades could enhance the productivity of the agricultural sector. In particular, irrigation infrastructure and careful harvest planning could facilitate continuous production across the seasons. Investment in improved production technologies, such as greenhouses and efficient irrigation systems, could further facilitate the production of a greater diversity of more uniform, higher-quality products. Meanwhile, the development of more drought- and flood-resistant crops could also render the agricultural sector more resilient to natural disasters such as hurricanes, which pose a major challenge for agriculture in the OECS region. Technological solutions could possibly also reduce soil erosion and water shortages, both of which represent further challenges in some OECS countries. There may also be an opportunity to produce animal feed for livestock farming locally, even though this has been challenging in the past (World Bank, 2008[18]).

In addition, regional co-operation to set up laboratory infrastructure for quality control, and for crop research to develop more drought- and flood-resistant crops, could enhance efficiency. Some countries such as St. Kitts and Nevis are already in the process of setting up the required laboratory infrastructure and training employees. Still, a collaborative regional approach could generate economies of scale.

Farmers in the OECS region lack organisation, and the marketing and sales of local agricultural products continue to be inefficient. At present, farmers in the region are not well organised, and few of them are members of producer or marketing organisations. Those producer organisations that do exist face numerous challenges, such as an unstable membership and a lack of financing. Moreover, fresh local produce is generally marketed by individual farmers themselves, and the marketing system and the transportation of agricultural produce to clients is rudimentary and inefficient. Individual farmers tend to liaise directly with hotels and other potential buyers, and to organise transport individually. Due to this inefficient marketing process, and since farmers often produce the same products at the same time, food losses are high (Jansen, Stern and Weiss, 2015[27]).

The organisation of smallholder farmers into groups or co-operatives, and contract farming, could improve efficiency in the marketing of local produce, and may facilitate exports. Such groups or co-operatives could facilitate the distribution and sale of agricultural produce. In the process, they could also generate economies of scale and cost savings, and they may open up new opportunities for exports. Under a contract-farming model led by the private sector, off-takers would purchase and market agricultural products from smallholder farmers, whilst providing their suppliers with additional services such as input supply, financing, and technical advice, resulting in economies of scale. Smallholder farmers would produce according to a plan agreed upon with the off-taker or aggregator (World Bank, 2008[18]) (Jansen, Stern and Weiss, 2015[27]).

Increased local processing of food products constitutes a further opportunity to help revitalise the agri-food industry in the countries of the OECS. Lack of sufficient processing facilities is an important reason why many processed (non-fresh) and semi-processed products (in particular, meat and fish) are subject to a high share of imports. In response to this situation, increased local processing could certainly increase the value-added of local agricultural produce. Products that require less processing capacity, plant and equipment, such as jams, local sweets, dried fruits, and other foods, could constitute initial opportunities in this regard. These products could be sold as souvenirs to tourists, or indeed exported to niche markets. There is already some, mainly small-scale, agro-processing in the OECS region of products such as dried fruits and jams, jellies, fruit juices and syrups, cassava flour and bread, pepper sauce, chips, sea moss products, honey, coconut oil, chocolate, and processed spices, and there are different initiatives by governments and donors to further expand this sub-sector in the OECS region. To date, however, this industry remains at an early stage of development. Meanwhile, there is already significant production of liquor (mainly rum) and beer in several OECS countries, and there is scope to expand local production and exports (Figure 2.7, Panel C) (Jansen, Stern and Weiss, 2015[27]; World Bank, 2008[18]).

A further measure that would play an important role is to strengthen the skills among potential agro-processors, and to support the development of more forward and backward linkages with the tourism sector and retailers. Agro-processors require business skills such as financial literacy and marketing, as well as industry-specific skills, and knowledge about aspects such as food processing and machinery, packaging, quality control, and food safety and hygiene. Furthermore, there is a need for more linkages between agro-processors and both farmers and the tourism sector (hotels, yachts, cruise ships) and retailers. The organisation of farmers into groups or co-operatives could facilitate this process in terms of so-called backward linkages. Meanwhile, agro-processors could enter contracts with farmers in a similar way to off-takers, agreeing upon a schedule of production and delivery for the inputs that they require

(Jansen, Stern and Weiss, 2015[27]). Governments could support this process through programmes that match agro-processors with tourism establishments, supporting them in building the right skills.

2.3.3. Attracting more young people into agriculture and reducing government involvement, could make agricultural sectors in the OECS region more dynamic

Encouraging more young people to become agro-entrepreneurs could revitalise and transform the region's agricultural sectors. Currently, youth unemployment is high in the OECS region. In particular in rural areas, the agricultural sector could potentially offer more employment opportunities for young people. At present, young people in the OECS region do not perceive farming and agro-processing as attractive career paths. In order to change this, governments would need to raise awareness among young people about opportunities in agriculture and agro-processing. They would also need to endow them with the right skills through capacity building, and through an increased offering of vocational training in the skills that modern agriculture and agro-processing require, plus in how to operate a farming enterprise successfully. This could allow for a shift from small-scale, subsistence farming to diversified, dynamic, business-oriented and commercial agricultural sectors. In turn, this could allow for more linkages with the tourism sector, and could open up opportunities for exports (Jansen, Stern and Weiss, 2015[27]).

In addition, reforming agricultural marketing boards and reducing government involvement in agriculture present opportunities to make the sector more dynamic. Most OECS countries have public marketing boards, which purchase and market agricultural produce, including fishery products in some cases. However, these marketing boards tend to make a loss, and to crowd out private sector-led marketing activities. Moreover, the infrastructure of the marketing boards is generally outdated, and it lacks maintenance when it comes to technological installations such as storage facilities and cooling units. In countries where marketing boards are mandated to buy all products that meet minimum quality standards, food losses are high, since those products that cannot be sold are then dumped (Jansen, Stern and Weiss, 2015[27]). Still, some efforts are already underway to reform marketing boards. In St. Lucia, for example, the marketing board is currently being reorganised in a bid to make it more profitable. One of the projects that it is putting in place is the establishment of a certified pack-house. It is also trying to export produce to other countries in the region.

2.3.4. Land reform could improve access to credit and enhance private investment in agriculture

In several countries in the OECS region, unclear and uncertain land ownership rights restrict access to collateral for credit and investment in agriculture. Many farmers are land tenants rather than landowners, and in some cases agricultural leases are short and last only one year. Insecurity of tenure limits both land tenants' willingness to invest in improvements to their farms, and also their ability to access credit for such improvements. "Family land", which is land that is co-owned in undivided shares by the heirs and successors of the original purchasers, presents another challenge, in particular in St. Lucia, where 45% of all land holdings are family land. This is because all of the beneficial co-owners of the land enjoy the right to live upon and to cultivate it, and no individual can borrow against it. In Dominica and Barbuda, meanwhile, communal land restricts land occupants' access to collateral for credit and investment in agriculture. In Dominica, in the Carib Reserve, a reserve for the indigenous community of the Caribs, all land is communal and is held and administered by the Carib Council. In Barbuda, all land is communal and residents' use of land is controlled by the Barbuda Council (Toppin-Allahar, 2013[31]).

One way to improve access to credit and efficiency would be to reform the region's systems of land tenancy and land subdivision. Indeed, a modern framework of legislation that gives land tenants the option to buy agricultural smallholdings that are beneficially occupied could improve farmers' access to credit, and could encourage more efficiency-enhancing investments in agricultural production. Furthermore, there is a need for a minimum size for land parcels, and for a requirement for responsible authorities to provide consent for any subdivisions of parcels below a certain size. This is required, for instance, in St. Lucia, where the frequent subdivision of small parcels is continuously reducing the average parcel size (Toppin-Allahar, 2013[31]). Vanuatu and Fiji are examples of SIDS in the Pacific, which have successfully implemented reforms to simplify tenure legislation and rights. These reforms allowed investors to benefit from clearer leasing conditions, which in turn facilitated the entry of private investors in the tourism industry in these countries. Similar reforms could facilitate access to credit and more private investment in agriculture in the OECS region (Piemonte and Fabregas, 2020[32]).

Moreover, OECS countries require modern, compulsory land registration systems and a strengthened institutional capacity for managing the land-registration systems that do already exist. At present, the lack of such systems, and of sufficient levels of institutional capacity, limit access to collateral for credit. Modern, compulsory land registration systems do exist in Antigua and Barbuda and St. Lucia, and are partially in place in Dominica and St. Kitts and Nevis. In Grenada and St. Vincent and the Grenadines, meanwhile, land ownership is still regulated by the Common Law Deeds system. Under this system, there is no modern land registration, and the onus is on the landowner to prove their ownership of the land. Even in those countries with modern land registration systems, these systems do not always work effectively. For instance, land records are not fully computerised and institutional capacity is often lacking, with examples of this including insufficient human resources and equipment for keeping records up to date (Toppin-Allahar, 2013[31]).

There is also a need to facilitate private investment in communal land in those countries where communal land continues to exist. Fiji is an interesting example of a country, which has successfully enabled private investment in communal land. Since 1940, Fiji counts with a Native Lands Trust Board (NLTB), now known as the iTaukei Land Trust Board (TLTB). Initially designed to facilitate the access of Indian-descent Fijians to farming land in the 1940s, the TLTB is a trustee which acts as an intermediary between landowning communities and private investors, and which now plays an important role to enable investments from foreign tourism developers. This main function of the TLTB is to negotiate, on behalf of landowners, the leasing of customary land to tourism developers for up to 99 years. This “simple” intermediary can guarantee to both parties: the security of preserving the community’s land property and negotiating a percentage of return of the results over investments – normally 9% –; and a horizon long enough for investors to be able to get the return expected over investment (Piemonte and Fabregas, 2020[32]).

Regional collaboration in modernising legislation, and in land administration and land use control, would allow for efficiency gains. At present, at the national level, many agencies that are in charge of land administration and of controlling land use lack the adequate human and financial resources to fulfil their mandates. In response to this situation, a harmonisation of legislation and regulation regarding land use and ownership in the OECS could allow for economies of scale and cost sharing (Toppin-Allahar, 2013[31]).

2.3.5. The production of higher quality fish products and fish processing could allow OECS countries to substitute part of their fish imports with local production

The importance of the fishing sector varies across OECS countries. Artisanal, subsistence-based fisheries remain important in all of the OECS countries, and this form of fishing continues to predominate on some of the islands. In some countries, such as Grenada, St. Vincent and the Grenadines, and St. Lucia, the fisheries sector has evolved into more commercialised fisheries, which make a significant contribution to food supply and food security, while also bringing in foreign exchange. In other countries such as Dominica, Antigua and Barbuda, and St. Kitts and Nevis, however, fisheries remain entirely artisanal, small-scale and subsistence based. In the case of Dominica, in particular, fishery resources are under-utilised as a source of domestic nutrition and food security, employment, and foreign-currency earnings. Furthermore, a large proportion of the fishing that takes place in the OECS region still tends to occur in limited depths of less than 50 metres, close to the shore, and using small fishing boats. The size of these vessels ranges from 3 to 25 metres, and is often less than 12 metres. Meanwhile, most fishers are daily operators, going out to sea in the morning and returning to land in the late afternoon or evening. This limits the variety of fish species fished by local fishers in the region. To be sure, St. Vincent and the Grenadines does have a high-sea fleet, albeit one that consists of vessels that are foreign owned, operated and crewed, and do not operate within the country's exclusive economic zone (EEZ) or land at its ports. Indeed, this fleet merely operates under the country's flag. St. Kitts and Nevis also had such a fleet in the past, but it has recently been suspended (FAO, 2021[33]).

Despite the fishing sector's limited contribution to GDP in the region, the sector does play a very important social role in most OECS countries. Moreover, the fishery sector's contribution to employment is more important than its contribution to GDP. In addition, fishing communities and the employment opportunities provided by the fisheries sector are extremely important for the social equilibrium of the population in many OECS countries. Fisheries sustain the livelihoods of many families in rural communities, contribute to rural development, and constitute a security net during economic downturns and crises such as the recent decline in tourists in the context of the COVID-19 pandemic (FAO, 2021[33]).

As countries in the OECS look again at the role that fisheries could play, there are opportunities to replace fish imports with local production. At present, all OECS countries import a substantial amount of fish (Figure 2.10). Indeed, fileted, high-quality fresh fish is imported to supply the tourism sector, since the local catch does not always meet the quality standards and demand of this sector. In order to satisfy local demand, meanwhile, mainly dry and salted fish is imported (FAO, 2021[33]). Against this backdrop, most OECS countries' fish exports are relatively low, and could potentially be increased.

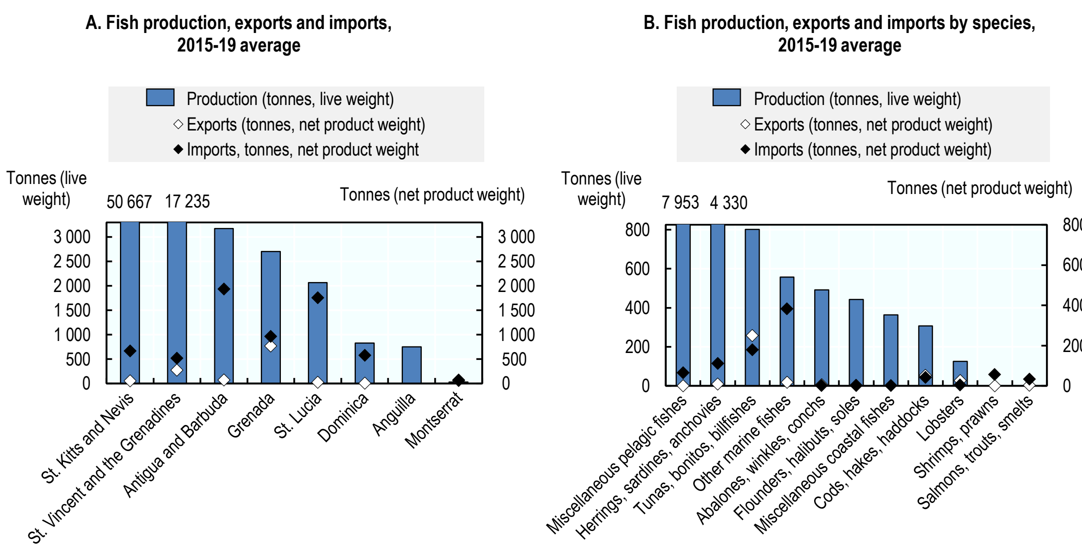
Increased processing in the region has the potential to replace imports of processed fish products, increase value-added from local fishery production, and reduce waste. At present, however, only small amounts of fish processing take place in the region. Indeed, in most OECS countries there are no, or very few, commercial facilities for processing fishery products. Most of the fish that is landed domestically is consumed in fresh form, although there is some traditional salting and drying at the subsistence level (World Bank, 2008[18]). Furthermore, an excess supply of fresh fish often results in wastage, due to a lack of modern fish-processing facilities.

In order to develop fish processing, to increase the quality of local fisheries' produce, and to live up to the international standards that the tourism sector requires, it will be necessary to invest in the appropriate technology and infrastructure. In the quest to take better advantage of opportunities in seafood processing, to produce higher-quality fish and seafood products for the local tourism sector, and to reduce the post-harvest losses that often occur in artisanal fisheries due to a lack of cold storage facilities, it is particularly important to invest in post-harvest and processing facilities such as drying equipment, ice plants, refrigeration, and cold storage facilities (OECD, 2020[34]). In Dominica, refrigeration and cold storage facilities were destroyed by hurricane Maria in 2017, and the lack of such facilities results in wastage when the supply of fresh fish exceeds demand (FAO, 2021[33]). Deeper-water fishing, and investment in bigger vessels, which respect international standards, could increase productivity and the variety of fish species fished. There is also a need to develop certified facilities for food safety. Furthermore, fish safety has to be improved, since fish poisoning remains an issue in some countries in the region (FAO, 2021[33]; UNCTAD, 2022[35]).

2.3.6. Aquaculture and sea products offer further opportunities for the OECS region

Both the marine and the inland varieties of aquaculture present potential for further development in the OECS region. Indeed, aquaculture is seen as a sector with large growth potential worldwide, and it has expanded substantially in recent years, even as global fish production from catching wild fish has stagnated. Meanwhile, global demand for fish-based food products is predicted to continue to rise over the next few decades, as the world's population continues to grow, and as purchasing power also increases in many places. In this context, aquaculture production is projected to account for 89% of the increase in world fish production by 2030, reaching 109 million tonnes in 2030 compared to 26 million tonnes in 2018 (FAO, 2020[36]). It is also worthy of note that opportunities exist in both inland and marine aquaculture (OECD, 2016[37]; OECD, 2020[34]). Some aquaculture projects have been developed or are in development across the OECS region, both in fresh water and in salt water. To date, however, and notwithstanding these projects, aquaculture still remains largely an untapped potential. According to a rating for the prevalence of marine aquaculture in the 2021 Ocean Health Index, all OECS countries score zero or close to zero out of 100 (Figure 2.11) (Ocean Health Index, 2022[38]). Overall, annual fisheries production from aquaculture is still at an embryonic stage, and is very low in all OECS countries (World Bank, 2022[2]; FAO, 2021[33]).

Figure 2.10. There are opportunities to replace fish imports with local production



Source: FAO (2022[39]) AQUASTAT (database), https://www.fao.org/aquastat/en/.

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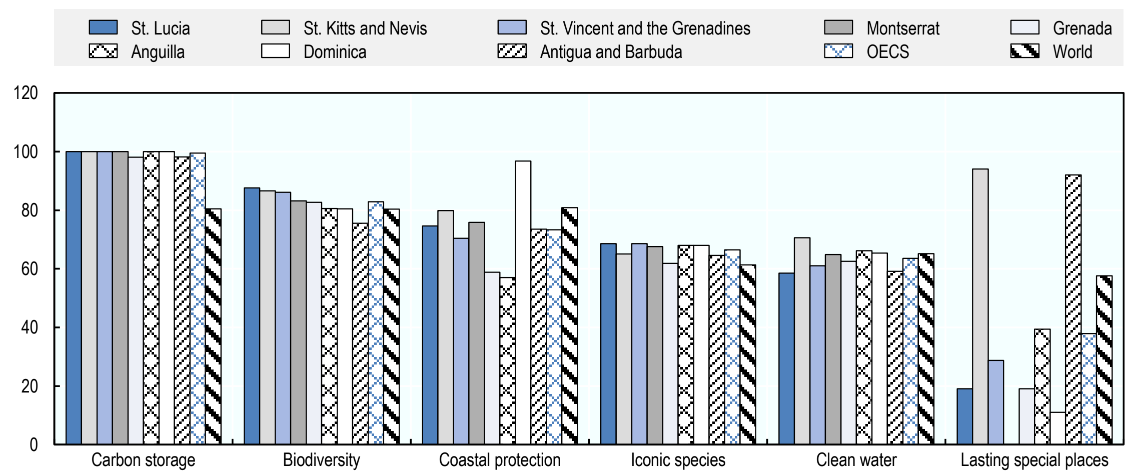
In addition, technological upgrades could help OECS countries to overcome some of the challenges that they may face in the further development of aquaculture. The high cost of imported fishmeal, high energy costs, limited familiarity with fish species, a lack of skilled human resources in this area, and limited freshwater supply in some countries such as Antigua and Barbuda, are factors that currently limit the competitiveness of aquaculture in the OECS region. However, technological upgrades could help them to tackle some of these challenges. As an example of this, the use of renewable energy in the form of solar panels in Antigua and Barbuda has reduced energy costs for aquaculture, while aquaponics technologies have facilitated the re-use of freshwater supplies (FAO, 2021[33]).

Figure 2.11. There is scope to better exploit aquaculture, fisheries and other ocean products in the OECS region

Ocean Health Index, score (0-100), selected categories, 2021



Source: Ocean Health Index (2022[38]), https://oceanhealthindex.org/global-scores/data-download/.

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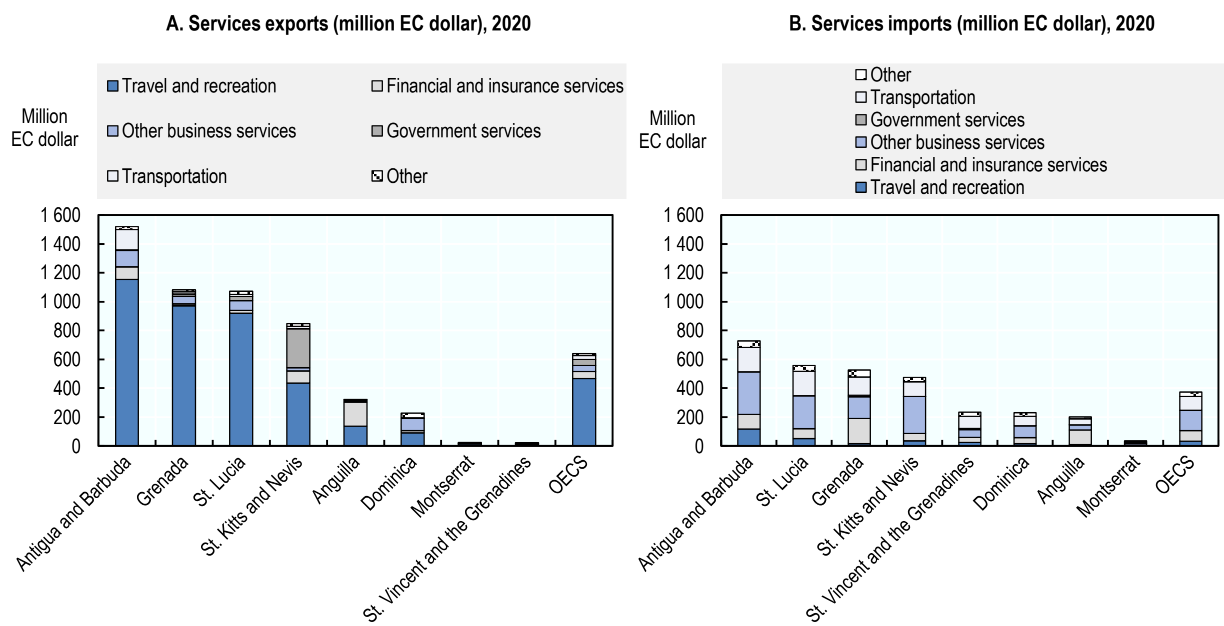
The development of other sea products such as sea moss may present further opportunities. Sea moss products are already produced and sold on the local market, although there is potential for further development in this area, and this could possibly extend to exports of ocean products. At present, the OECS region does not perform very well in terms of the sustainable harvest of non-food marine resources such as seaweed and marine plants, sponges, shells, fish oil and meal, and marine ornamental fish. According to the Ocean Health Index for 2021, the region garners an average score of 60.2/100 in the category of natural products, compared to a global average of 73.1/100 (Figure 2.11).

2.4. Reform of the telecommunications sector and enhanced regional integration in cybersecurity and digital skills, could facilitate the expansion of digital services

Digital services constitute an opportunity for OECS countries. Globally, digitalisation has been growing exponentially over the past few decades and received a further boost in the context of the COVID-19 pandemic (OECD, 2020[40]; OECD et al., 2020[41]). For OECS countries, digital services are particularly attractive as they do not require physical transport, the cost of which is high in the region.

In particular, opportunities in digital services lie in financial and insurance services, and in other business services, such as digital education, digital marketing and consultancy services, IT services, and personal services. In these areas, OECS imports are currently still relatively high (Figure 2.12). In 2021, financial intermediation accounted for 10.2% of the ECCU's GDP, business services for 2.3% of GDP and computer related activities for only 0.2% of GDP (ECCB, 2022[1]). While OECS countries' financial and insurance sectors are already quite large in international comparison, there is scope to further expand business services and computer related activities. Financial and insurance services accounted for 4.7% of GDP in OECD countries on average in 2021, for 3.9% of GDP in EU countries on average and for 7.3% of GDP in the United Kingdom, a country with a large financial services sector. Business services account for 11% of the EU's GDP and computer programming and information services for 2.5% of GDP (OECD, 2022[42]; European Commission, 2022[43]; European Commission, 2022[44]). By contrast, there seem to be fewer opportunities in low value-added digital business services such as call centres, since wages in OECS countries tend already to be too high to be competitive in this industry segment. Indeed, several call centres in the region have closed recently, including one that had been operated by Brown Hill Communication in Nevis, and which closed in 2019 (Williams, 2019[45]). In Dominica, the Caribbean Call Centre likewise closed in 2016 (Dominica News Online, 2016[46]).

Figure 2.12. There are opportunities to diversify OECS countries' services exports



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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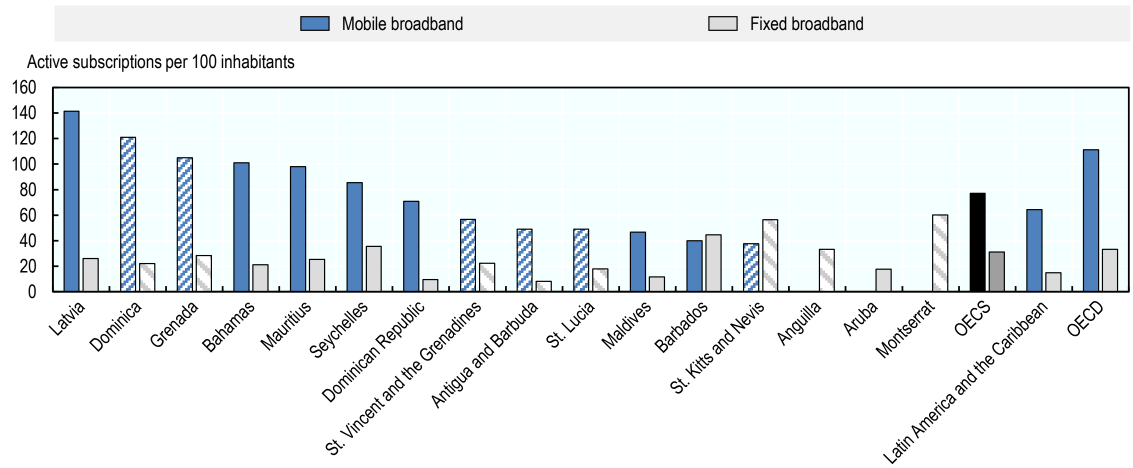
Notwithstanding the significant room for its further development, digitalisation has been progressing rapidly in the OECS region. The share of individuals using the internet in the region has been expanding continuously. In 2017, for example, 68.6% of individuals in OECS countries on average were using the internet, compared to 46.6% in 2011 (World Bank, 2022[2]). Moreover, OECS countries have set ambitious targets for the share of individuals using the Internet, as reflected in the regional strategy scorecard mentioned above. This target foresees Internet usage of close to 100% in 2030 for most of the OECS countries. These targets will be relatively easy to attain if the share of individuals using the Internet in the region continues to expand at the same pace as over the past two decades. However, there is variation in mobile and fixed broadband penetration across the OECS region: some countries such as Dominica and Grenada have high mobile broadband penetrations, while there is still much scope for improvement in the rest of the region. Fixed broadband penetration is high in St. Kitts and Nevis and Montserrat but relatively low in the rest of the region (Figure 2.13).

Figure 2.13. There is variation in mobile and fixed broadband penetration across the OECS region

Mobile and fixed broadband penetration (active subscriptions per 100 inhabitants), 2020



Source: ITU (2020[47]), *World Telecommunication/ICT Indicators Database 2020* (database), https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx.

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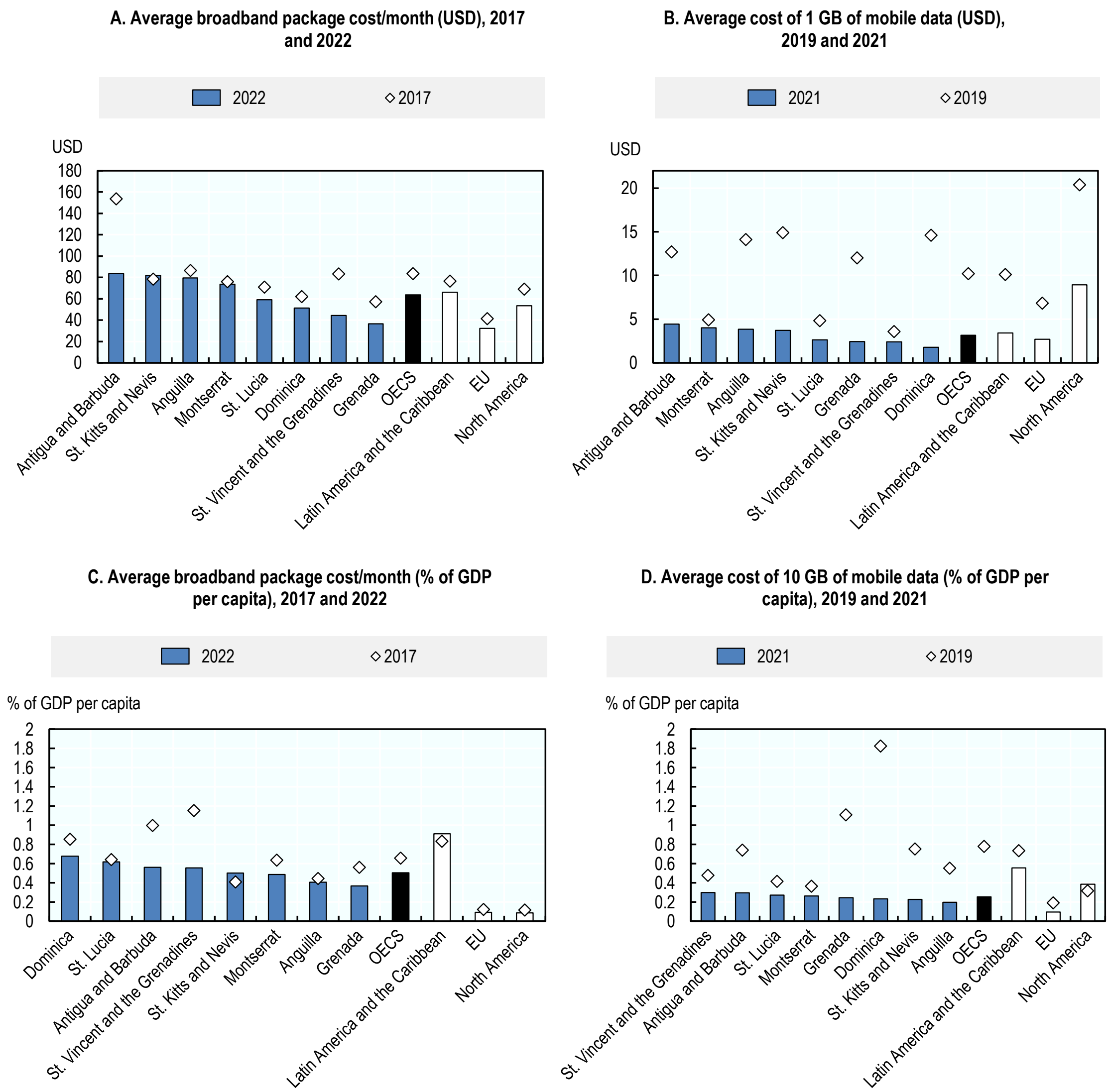
However, the structure of the telecommunications sector in the OECS member states could still pose a challenge to rapid digitalisation, and to the expansion of digital services. Indeed, the telecommunications sector presents tendencies towards a duopolistic structure across the entire OECS region. The two main (and in most countries the only) telecommunication providers in the region are Digicel, on the one hand, and Cable & Wireless/Flow/Columbus Communications, on the other. After an initial market reform in 2000, a multitude of firms did emerge. Over time, however, this more diverse array of competitors consolidated into today's concentrated market structure. Both Digicel and Cable & Wireless/Flow/Columbus Communications own and operate one each of the two main submarine cables that are available in the OECS region, thus controlling the entire backbone of telecommunications access to the islands (ECTEL, 2021[48]; Commonwealth Network, n.d.[49]; PUC Anguilla, 2021[50]).

Internet prices have been decreasing, but prices for certain telecommunications services remain relatively high in the OECS countries by comparison with international levels. The regional telecommunications regulator, the Eastern Caribbean Telecommunications Authority (ECTEL), is regulating the quality of, and has set price caps for, certain services. ECTEL was established in 2000 and is the regulatory body for telecommunications in five OECS member states: Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. However, prices for broadband Internet remain comparatively high by comparison with international levels. At USD 66.78, the monthly cost of an average broadband package in the OECS countries in 2022 is in line with countries in Latin America, where it stands on average at USD 66.15. Still, this is well above the North American average of USD 53.58, and twice the EU average of USD 32.21. Furthermore, both mobile and broadband Internet prices remain high as a share of GDP per capita by comparison with international levels (Figure 2.14) (Cable.co.uk, 2022[51]). There is evidence that the consolidation of the telecommunications sector into today's market structure has contributed to higher prices (OECS Economic Affairs Council, 2016[52]).

Figure 2.14. The cost of Internet access is in line with international prices but remains high as a share of GDP per capita



Note: In Panel C, data for St. Vincent and the Grenadines are for 2019 instead of 2017. All calculations for 2022 are based on GDP per capita for 2021. In Panel D, for Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, GDP per capita for 2019 rather than 2020 was used for calculations.
Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

StatLink https://stat.link/pej69n

Looking ahead, there is a great opportunity to reform the regulatory framework for the telecommunications sector in the OECS by facilitating other operators' access to submarine fibre-optic cables in order to foster more competition in the sector, and thus to encourage lower prices and better service. Although the existing framework of regulation emphasises inter-connectivity and the sharing of resources, it does not oblige dominant infrastructure owners to provide access to fibre-optic cables to other operators. At present, therefore, new operators seem to be unable to enter the market since they cannot access the fibre-optic cable network, with the exception of a newly constructed submarine cable that now connects the Grenadines to St. Vincent. A new regulatory framework would have to introduce a requirement for the dominant owners of the infrastructure to provide access to other operators. In this connection, specific regulation for backbone access and pricing could be an option.

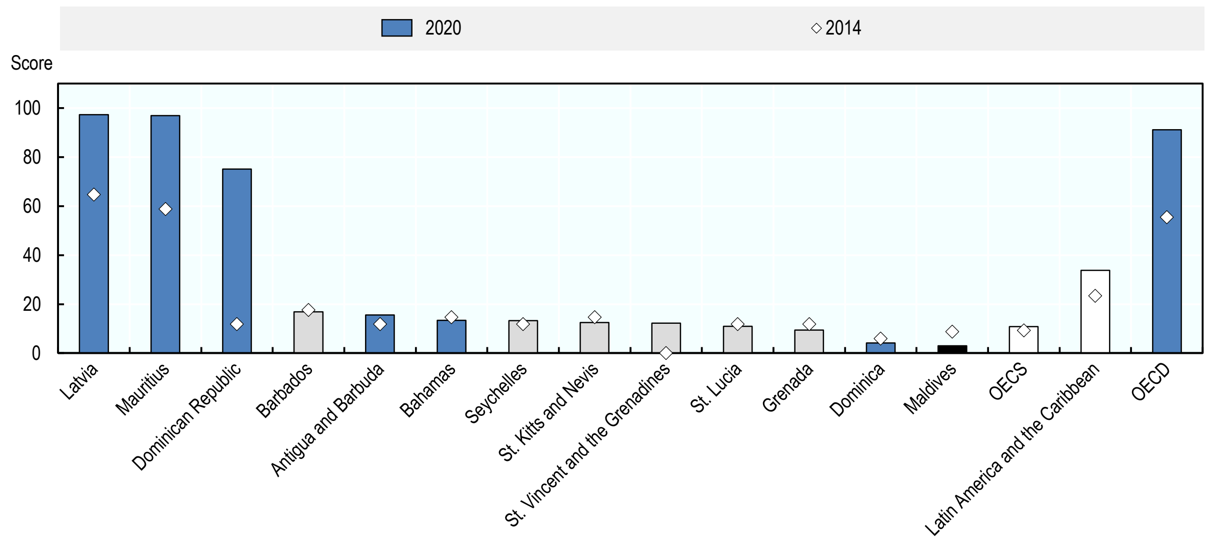
In addition, improvements in the existing regulatory regime could reduce prices and improve the quality of service in the OECS region. Given the small overall market size of OECS countries, fostering competition in telecommunications may be more difficult than in larger countries even with the right regulation in place since potential entrants might be scared away by the small market size, which makes it less profitable to enter as a competitor to existing regulators. To support lower prices and better quality of service, OECS countries might in addition require better and more thorough regulation on price and quality control in telecommunications, as it is the case for more monopolistic and oligopolistic sectors. Such regulation is already in place and telecommunications prices and quality are already monitored by ECTEL. However, there would be scope for further improvements of this regulation and for ensuring that all telecommunications services are covered.

A reform of the regulatory framework for telecommunications is already ongoing in the Eastern Caribbean. The process of replacing the Telecommunications Act in force in the ECTEL contracting states with the new Electronic Communications Bill began in 2009. In 2020, ECTEL published a revised Electronic Communications Bill. The Electronic Communications Bill aims at strengthening consumer rights and ensuring an open and competitive investment climate. It includes, among other things, provisions to broaden the scope of regulations from telecommunications to electronic communications, to address mergers and acquisitions within the ECTEL contracting states, to preserve an open Internet with the adoption of Net Neutrality provisions and to strengthen National Telecommunications Regulatory Commissions (NTRCs) to make them more efficient and effective. It also includes improved rules for the resolution of quality of service issues faced by consumers, and more penalties for breach of the legislation. The Electronic Communications Bill includes provisions for owners of submarine cables to provide access to other licensed telecommunications providers. However, at the time of writing, the Electronic Communications Bill had not yet been enacted since only St. Kitts and Nevis had formally adopted the bill (ECTEL, 2021[48]; ECTEL, 2020[53]; ECTEL, 2022[54]).

There is also an opportunity for regional co-operation in cyber security and data protection. At present, countries across the OECS perform poorly in terms of cyber security (Figure 2.15) (ITU, 2022[55]). Moreover, they lack a comprehensive framework for cyber security and data protection. To be sure, legislation covering cybercrime does exist in most OECS countries, except for Montserrat, but none of the region’s countries has adopted a cyber-security strategy per se. Meanwhile, legislation concerning privacy and data protection does exist in Antigua and Barbuda, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, but not in the remaining countries of the OECS. Looking ahead, a harmonisation of legislation on cyber security and data protection across the region, the development of a regional cyber-security strategy, and the establishment of a regional watchdog for cyber security and data protection, would all help to facilitate the sharing of expertise and costs, while also increasing the integration of the regional market for digital and data-driven services. In turn, this would reduce barriers to cross-border investment in digital services (World Bank, 2020[56]; Ram, 2021[57]).

Figure 2.15. OECS countries are performing poorly in terms of cyber security by comparison with international standards

Global Cybersecurity Index, score, 2014 and 2020



Note: For Seychelles, St. Kitts and Nevis, St. Vincent and the Grenadines, St. Lucia and Maldives, no response to the questionnaire was forthcoming; For Latvia, Antigua and Barbuda, Bahamas, Seychelles, St. Lucia, Grenada, and Dominica, no data were collected. Secondary data that were used came from ABI.
Source: ITU (2022[58]), Global Cybersecurity Index, https://www.itu.int/pub/D-STR-GCI.01.

StatLink https://stat.link/oymbw1

Regional co-operation would also make possible the sharing of costs in the promotion of digital skills. At present, there are not enough graduates with the technical and soft skills that are in demand from digitally enabled industries in the region, similarly to other countries in Latin America and the Caribbean (OECD et al., 2020[41]). One reason for this is that the cost of investing in specialised digital skills remains relatively high for graduates. Furthermore, the ongoing brain drain of digitally skilled workers is a challenge. At the same time, the adoption of digital technologies is low among private firms, in particular micro, small and medium-sized enterprises (MSMEs). Moreover, businesses in the region lack digital skills and a digital culture. In addition, few firms in the region accept digital payments or use digital platforms to advertise and sell their goods and services (World Bank, 2020[56]). For example, only 36.6% of firms have their own website or social media page (2011) (World Bank, 2022[59]). These challenges notwithstanding, some efforts to improve digital skills are already underway. One such example is at Sir Arthur Lewis Community College (SALCC), St. Lucia's community college, which has recently been scaling up its digital literacy offering. Henceforth, OECS countries could work together to create more digital curricula at the regional level, both for high school graduates and for entrepreneurs. In so doing, they could make use of e-learning and online teaching via the collaboration of the region's community colleges, and possibly also through a regional digital education hub. Such an approach would allow countries in the OECS region to share expenses and expertise in expanding digital skills. Furthermore, it could reduce the cost of training people for digital careers.

OECS countries are already in the process of improving digitalisation policies through the Caribbean Digital Transformation Project (CARDTP). The CARDTP aims to accelerate the digital transformation in the Eastern Caribbean by increasing access to digital services, technologies and skills by governments, businesses and individuals. The CARDTP is a USD 94 million project funded by the

World Bank and co-ordinated by the OECS in partnership with the World Bank, ECTEL, the ECCB, the Caribbean Community Implementation Agency for Crime and Security (CARICOM IMPACS) and the Caribbean Telecommunications Union (CTU). It was launched in 2020 and the participating Eastern Caribbean countries are Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines. The three components of the CARDTP are a digital ecosystem, digital infrastructure and digital skills and entrepreneurship. At present, in the context of the project, the Payment System Act and the Money Services Business Act are being updated, a Payment System Strategy for the region is being developed, a demand-side survey on financial literacy and inclusion is being undertaken and an assessment of the technical and soft skills in demand among digitally-enabled industries is ongoing. A review and update of regional and national cybersecurity policies, legislation and regulation, and institutional and co-ordination structures as well as data protection and privacy laws are also planned in the context of the CARDTP (OECS, 2020[60]; Government of the Commonwealth of Dominica, 2022[61]).

2.5. A competition framework for the OECS region could enhance consumer welfare and promote economic growth

At present none of the OECS member states have a competition law nor a regulatory framework for controls on M&A (CARICOM, 2022[62]). To be sure, some member states of the OECS, such as St. Vincent and the Grenadines, have attempted to develop national legislation in this regard. At present, however, no functioning competition law is in place at the national level (WTO, 2014[63]).

The lack of a competition framework can create considerable costs, notably in terms of consumer and social welfare. Indeed, and as already noted, the absence of competition law and a competition authority in the OECS region has allowed for the development of duopolistic structures in the telecommunications sector. There is evidence that points to an increase in prices following a merger of two major players in the telecommunications sector in the OECS region in 2015. A well-designed competition law and an operational competition authority could have prevented this (OECS Economic Affairs Council, 2016[52]).

A regional OECS competition framework could reduce costs, foster private investment, and ultimately promote economic growth and productivity. Indeed, a well-designed competition law, an effective enforcement of the rules that it sets out, and a process of competition-based economic reform all serve to promote consumer welfare and economic growth while making markets more flexible and innovative. When customers can choose between different providers, they force firms to compete with one another. To be sure, choice for customers is a good thing in itself, but competition between firms also leads to increased productivity and economic growth (OECD, n.d.[64]; OECD, 2014[65]). In telecommunications, and indeed in other economic sectors, a competition framework could foster more competition in the OECS region, thereby reducing prices and increasing overall welfare.

Member states have already agreed to establish a supra-national competition authority to handle competition matters within its single market, but this still requires commitment to implement. A draft competition law aiming to establish a regional competition authority already exists, and it is currently being reviewed (OECS Economic Affairs Council, 2016[52]). The similarities across OECS member states' legal systems facilitate this process. Indeed, the main challenge in making this regional competition authority operational has been to secure sufficient funding.

In the long run, not only are the benefits from lower prices and increased consumer welfare likely to outweigh the operational cost of running a competition authority, but the amount that the authority raises in fines is also likely to exceed its annual budget. During the period of 2015-20, for example, total fines amounted on average to 7.6 times the annual budget of the 58 competition authorities included in the OECD CompStats database, and to 6 times the annual budget in the EU (OECD, 2022[66]). Furthermore, other small-island administrations have successfully established competition authorities that are able to generate important revenue streams through fines. New Caledonia, a small island in the Pacific Ocean, which is a French oversea territory, with approximately 270 000 inhabitants, operationalised its competition authority in 2018, and the institution's revenues have steadily increased from approximately EUR 68 000 in 2019, to over one million euros in 2021 (two-thirds of the institution's budget in 2021) (ACNC, 2022[67]; ACNC, 2020[68]).

In order to take advantage of economies of scale and to pool costs, it would be beneficial for OECS countries to establish a joint regional harmonised competition framework. A joint regional approach could also prevent "regulatory arbitrage" – the avoidance of regulations by choosing more lenient jurisdictions. In addition, a regional approach could support the investment climate by reducing the cost of understanding the regulatory regime and increase regulatory predictability and stability for investors. It might further decrease the risks of regulatory capture and undue influence. However, the costs and benefits of a regional approach would need to be carefully assessed and evaluated and such an approach requires further study to identify the solution which responds best to the needs of OECS member countries.

As the region weighs its options in this regard, different models for regional competition authorities do already exist. In the case of the OECS, one alternative that may be assessed involves a regional competition authority that investigates and takes decisions on national and regional competition cases, which would correspond to the so-called one-tier regional state model. In proceeding in this manner, such an authority would benefit from economies of scale, in contrast to the small individual size of the OECS countries. A regional authority, and indeed the regional legislation that would back it up, could be based on the model of the regional telecommunications regulator, ECTEL, and the harmonised telecommunications regulation that is also already in place. Elsewhere, the West African Economic and Monetary Union (WAEMU) Commission is an example of a regional competition authority that follows the one-tier regional state model (Box 2.1). In contrast, most existing regional competition authorities such as those of the EU and CARICOM have decision-making power only for cross-border competition cases (Box 2.1). The most successful existing competition authorities, namely the European Commission, along with the European Free Trade Association (EFTA), and the Common Market for Eastern and Southern Africa's (COMESA) authority, follow the joint enforcement model. In this model, both national and regional authorities apply competition provisions in their respective competition cases (national and regional cases) (OECD, 2018[69]). However, the member countries of these regional competition authorities do not face the same constraints as the OECS region in terms of its limited size. A deeper assessment and more information would be required to determine the optimal institutional set-up of a competition framework for the OECS region.

Box 2.1. Regional competition authorities in the West African Economic and Monetary Union (WAEMU) and the EU

The WAEMU Commission

The WAEMU Commission is an example of a regional competition authority that follows the one-tier regional state model. It is the executive body of the region, and it is responsible for the application of regional competition provisions. The WAEMU Commission's competition directorate, which is part of its department for regional-market trade, competition and co-operation, is the competent body. It is also known simply as the WAEMU Competition Commission. This body enjoys exclusive decision-making power in dealing with anti-competitive practices, both at national and regional levels, and national authorities have the roles of support the WAEMU Commission.

However, the WAEMU Commission has been confronted with a set of practical challenges. For example, the centralisation of jurisdiction on competition matters has led to the decline of national initiative, resulting in fewer activities in the field of domestic competition law. This centralisation has also had a negative impact on the diffusion of competition culture in the member states, and has impeded the potential development of national expertise. As a further result of this centralised approach, member states have been reluctant to adapt their domestic laws to community law, notwithstanding their obligation to do so, because they fail to see the usefulness of so doing given the centralisation of power.

Competition regulation in the EU

In the European Union, the European Commission – and in particular its Directorate-General for Competition (DG COMP) – enforces EU competition provisions directly, working together with the National Competition Authorities (NCAs) of the member states. Since 2004, the Commission and the NCAs form the European Competition Network (ECN), a framework that is able to ensure close co-operation among its members in the application of European competition rules, and is capable of facilitating an allocation of cases according to the principle of assigning them to the authority that is best suited to bring an end to an infringement of competition law. In principle, the Commission investigates cases that affect trade in more than three member states, that are closely related to other aspects of EU law, or that raise novel competition issues. The EU Commission informs NCAs of any investigation that it plans to undertake in their jurisdiction, and NCAs assist the Commission where required. Regional-level competition provisions in the EU include provisions on anti-competitive agreements, abuse of dominance, mergers, and state-aid/competitive neutrality.

Source: (OECD, 2018[69]), *Regional Competition Agreements: Benefits and Challenges*.

An OECS regional competition framework would be complementary to the CARICOM regional competition authority, which is responsible for cross-border competition cases at the regional level. The CARICOM Competition Commission (CCC) was established by the revised treaty of Chaguaramas, and it was inaugurated in 2008. The CCC has exclusive original jurisdiction only in the event of cross-border anti-competitive conduct, but not for national cases, which are the responsibility of CARICOM member states' national competition authorities – and which could become the remit of an OECS competition framework. CARICOM regional competition provisions apply to anti-competitive agreements and the abuse of dominance, and exclude provisions on mergers and state-aid/competitive neutrality, which are currently being negotiated. CARICOM regional provisions are not directly enforceable in the member states, but member states are required to enact legislation in order to ensure that the CCC's determinations are enforceable in their jurisdictions (OECD, 2018[69]). The CARICOM member states are required to develop their own national competition authorities with responsibility for monitoring and enforcing the regional authority's legislation at the domestic level (CARICOM, 2001[70]). Some CARICOM countries, such as Trinidad and Tobago and the Bahamas, have recently developed national competition authorities (OECD, 2018[69]). When establishing a regional competition framework for the member states of the OECS, it would be important to define co-ordination mechanisms with the CARICOM Competition Commission, which has power over cross-border cases in the OECS region.

As the OECS develops its competition framework, it would be important to define and ensure co-ordination mechanisms between the regional and national levels for enforcement purposes. For example, designated government officials at the national levels could support a regional competition authority. These officials would be designated by their governments, and would serve as a presence on the ground, receiving complaints, making sure to obtain all of the relevant information, assessing whether a competition contravention has occurred, and undertaking preliminary investigations and analysis. Then, these designated officials would forward cases to the regional authority whenever they determine that there has indeed been a competition contravention (OECS Economic Affairs Council, 2016[52]). This approach would follow ECTEL's model, in which national telecommunications operators ensure a presence on the ground, and work together closely with ECTEL.

In the OECS, it would also be possible to establish an institution to jointly regulate competition, consumer affairs issues, the energy sector and possibly telecommunications at the regional level.

Such an approach could facilitate an additional pooling of resources, while also reducing costs, given the small size of OECS countries (OECS Economic Affairs Council, 2016[52]). Moreover, sector-specific regulation has the potential to complement competition regulation, depending on the viability of competition in different sectors. The model of a joint regulatory institution for competition and consumer affairs has been successfully employed in Barbados and Jamaica, in the form of the two countries' Fair Trading Commissions, and also in the United Kingdom, with its Competition and Market Authority. In the Bahamas, the Utilities Regulation and Competition Authority (URCA) is responsible for both telecommunications and the electricity sector (URCA, n.d.[71]). Nonetheless, such an approach has its costs and benefits and would need to be carefully assessed and evaluated in order to determine the optimal institutional set-up for the OECS region.

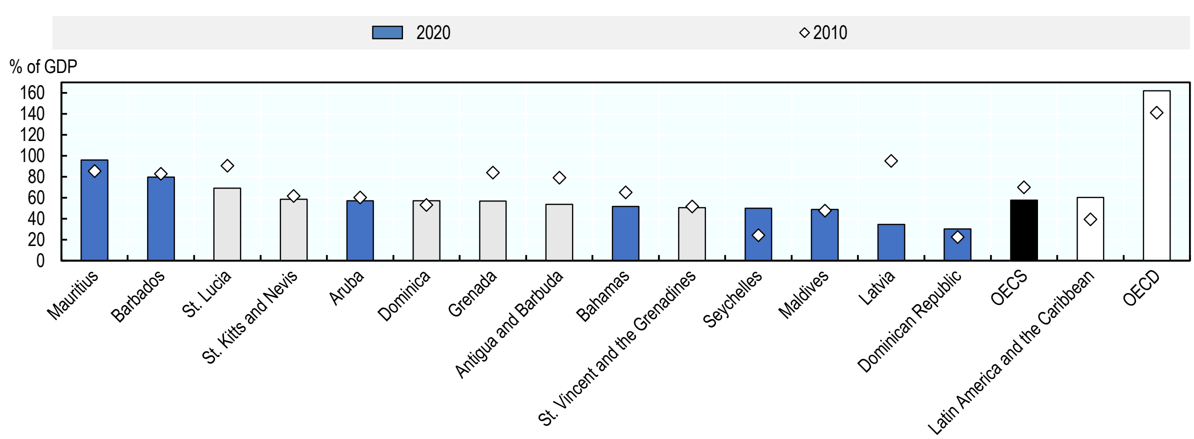
2.6. Strengthening financial-sector infrastructure, reducing NPLs, and reforming development banks could improve access to finance for private businesses

Eight Eastern Caribbean countries share a common currency through the Eastern Caribbean Currency Union (ECCU). Their common monetary authority is the Eastern Caribbean Central Bank, which was established in 1983.

In the ECCU the domestically focussed financial sector is dominated by banks and credit unions, offshore finance is small and comprises banking and insurance. There is also an important number of credit unions, and credit-union membership is relatively widespread. Offshore financial sectors do also exist in the region, most importantly in Antigua and Barbuda, St. Kitts and Nevis, and Anguilla, but they account for less than 2% of GDP, and for a relatively small share of worldwide offshore activity. Offshore activities range from international banking for corporations and individuals, to insurance. The ECCU's financial system comprises 20 commercial banks, 160 insurance companies, 49 credit unions, 6 development banks or boards, a number of offshore banking entities, and a range of other non-bank financial institutions. In addition, the Eastern Caribbean Security Exchange Limited (ECSE), and the Eastern Caribbean Securities Market (ECSM), were launched in 2011. However, financial markets remain relatively under-developed (IMF, 2013[72]; ECCB, 2018[73]).

Figure 2.16. Levels of domestic credit to the private sector are moderate in OECS countries

Domestic credit to the private sector (% of GDP), 2010 and 2020



Source: World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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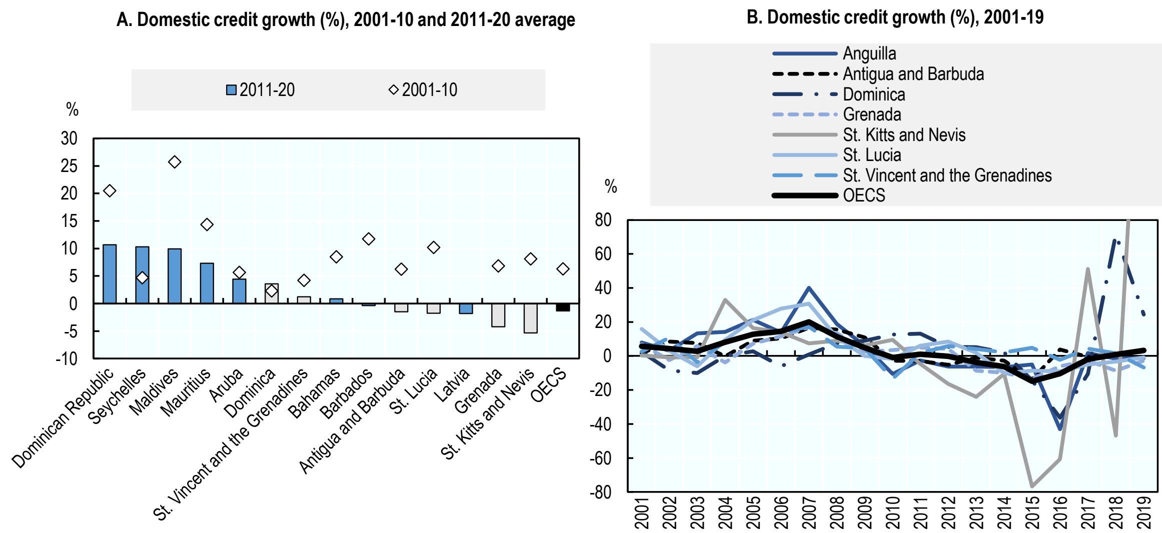
Figure 2.17. Credit growth in the OECS region has been negative over the last decade



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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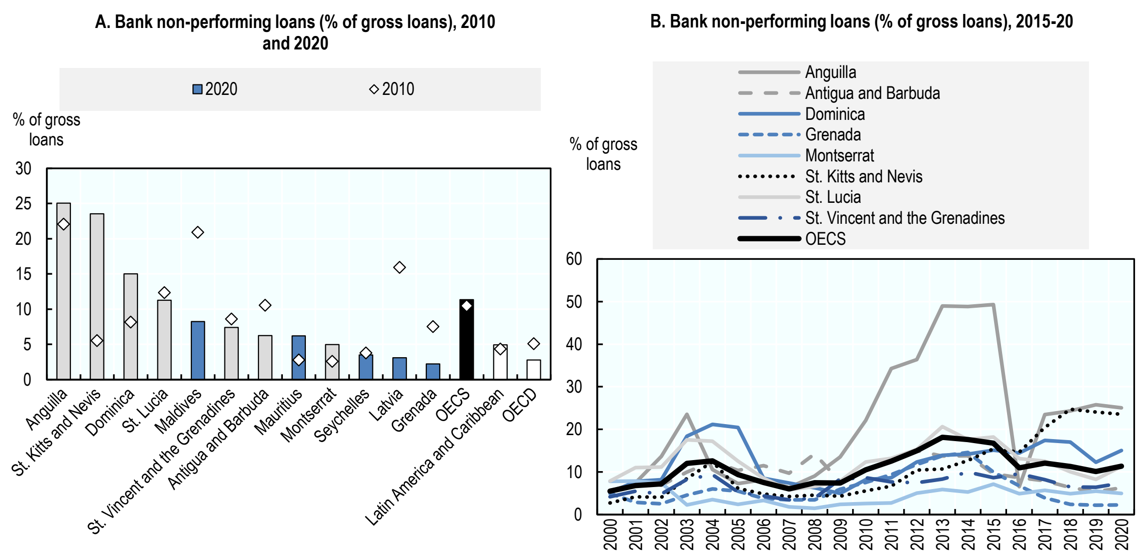
Access to finance is a challenge for firms in the OECS region, and especially for MSMEs (World Bank, 2008[18]). Indeed, access to finance is ranked by firms as the top obstacle in Dominica, St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines. 41.3% of firms in the OECS region on average identify access to finance either as a very severe obstacle, or at least as a major one (2010) (World Bank, 2022[59]). In the World Bank's Doing Business ranking, the worst performance of OECS countries relative to others according to statistics for 2020 was, on average, in the category of Getting Credit, in which their average score stood at 26.7 out of 100, with their average rank coming in at 160.7th out of 190 countries (World Bank, 2021[74]).

Credit to the private sector remains moderate, and has indeed been declining, thereby hampering economic development. Domestic credit to the private sector in the OECS region as a percentage of GDP is only a third of the OECD average (Figure 2.16). Domestic credit growth turned negative in the OECS region following the 2008 financial crisis, and started picking up again slowly only in 2018 (Figure 2.17). There is evidence for a strong positive relationship between credit growth and GDP growth (Bofinger et al., 2022[75]). Hence, an expansion in domestic credit, and in particular one that is directed at the productive sector, could contribute to higher levels of economic growth in the region.

2.6.1. High levels of NPLs, a large amount of personal loans and mortgages, and development banks, which reflect the loan portfolios of commercial banks, hamper access to credit in the OECS region

High levels of non-performing loans (NPLs) have contributed to negative credit growth and to difficult access to finance in the region. Indeed, NPLs are four times as high in the OECS region as they are in the OECD, and they reach levels as high as 25% of gross loans in Anguilla and 23.5% of gross loans in St. Kitts and Nevis, according to statistics for 2020 (Figure 2.18, Panel A). Furthermore, the build-up of NPLs after the 2008 financial crisis (Figure 2.18, Panel B) has coincided with negative credit growth during the years that followed. In practice, high levels of NPLs negatively affect credit growth, economic activity and unemployment. They contribute to macroeconomic challenges, and clog up bank credit that could have been directed towards productive activities. Banks' deleveraging in response to the high levels of NPLs and to deteriorating levels of asset quality in the OECS region has led to a contraction in credit to the private sector (Beaton, Myrvoda and Thompson, 2016[76]; IMF, 2017[4]).

Figure 2.18. Non-performing loans are high in several countries in the OECS region



Note: In Panel A, data for Maldives are for 2012 instead of 2010, while data for Seychelles are for 2019 instead of 2020.
Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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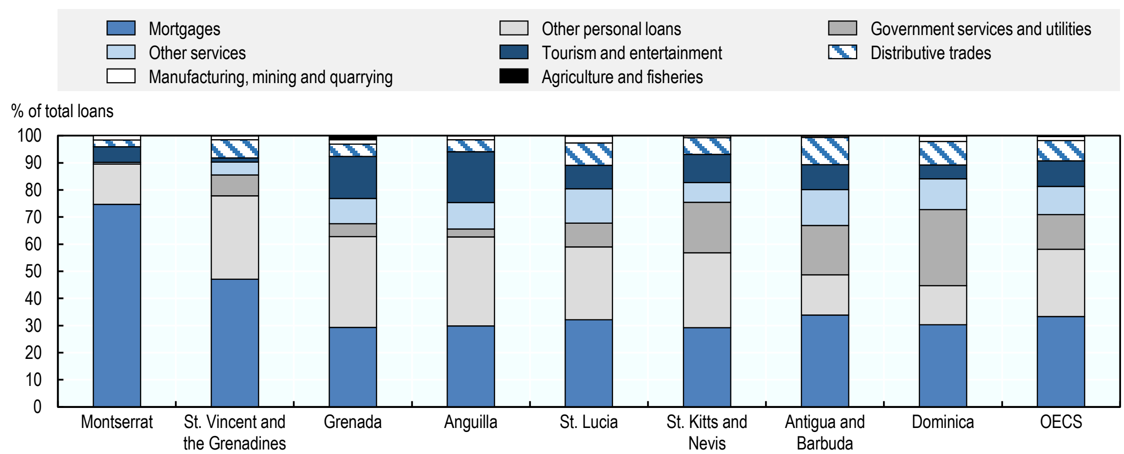
In the OECS region, NPLs started increasing in the wake of the global financial crisis of 2008 (Figure 2.18, Panel B). Before the global financial crisis, credit had been expanding at relatively high rates in the OECS region (Figure 2.17, Panel B), boosted by the Cricket World Cup in the West Indies in 2007, as well as by economic activity in tourism and construction. This expansion of credit led to an increase in private and public debt, increasing borrowers' vulnerability to shocks (World Bank, 2018[77]). Moreover, the financial crisis resulted in a decline in tourist arrivals, resulting in turn in a loss of income, and an increase in unemployment in the tourism sector. This impaired the ability of the tourism sector, of the construction industry, to which it has close links, and also of unemployed employees from the tourism sector, to service their loans. This resulted in a sharp increase in NPLs, in particular in tourism, construction and personal loans (IMF, 2017[4]). What is more, three commercial banks in the Eastern Caribbean region went insolvent and had to be taken over by the ECCB following the 2008 financial crisis (Beaton, Myrvoda and Thompson, 2016[76]). Banks with a higher exposure to tourism and construction were more affected by NPLs (Beaton, Myrvoda and Thompson, 2016[76]). Over the past five years, most OECS countries have managed to consolidate NPLs to a certain extent. However, unfavourable macroeconomic conditions such as slow economic growth, high unemployment, and the loss of clients' incomes have nevertheless hampered the resolution of NPLs (IMF, 2017[4]).

The relaxation of due-diligence standards, and a range of other country-specific factors, have also contributed to the build-up of high levels of NPLs in the OECS region. Indeed, standards of due diligence were relaxed as a consequence of large CBI inflows and this has resulted in an increase in NPLs in some countries in the region. (Figure 2.17, Panel B) (IMF, 2017[4]). In some countries, such as St. Lucia, the legal framework has favoured the build-up of a large amount of NPLs through protracted insolvency procedures. Indeed, lenders are required, in the case of defaults, to sue borrowers in court in order to enforce the take-over of collateral, and this is a lengthy and costly process. Other factors that have contributed to the high level of NPLs in the region include difficulties in valuing and realising collateral, information gaps that hinder both risk and collateral valuation, depressed real-estate markets, weaknesses in prudential and supervisory frameworks, and the absence of a market for distressed assets (Al-Hassan et al., 2020[78]).

Figure 2.19. Bank loans are dominated by mortgages and other personal loans in the OECS region, and also by government loans in some of the countries

Loans by economic activity, 2019



Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/.

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OECS countries have already taken measures to tackle high levels of NPLs, but challenges remain. Following the 2008 financial crisis, the ECCB intensified its oversight of banks through more frequent stress tests and more rigorous audit requirements. Moreover, the New Banking Act was passed in all ECCU member states in 2015-16 (ECCB, 2017[79]). This law strengthens regulatory and supervisory frameworks by introducing higher minimum capital requirements, more effective liquidation or recapitalisation for failed banks, higher penalties for banks in the case of contraventions of provisions, and stronger protection for depositors. The ECCB is also introducing risk-based supervision in order to improve risk management. Furthermore, the Eastern Caribbean Asset Management Corporation was established in 2015-16 by member states, together with the ECCB, in order to help clean up banks' balance sheets and to improve the quality of their assets by purchasing NPLs from banks (World Bank, 2018[77]; ECCB, 2022[80]; Beaton, Myrvoda and Thompson, 2016[76]).

A further challenge is that personal loans and mortgages crowd out credit to the productive sector in the OECS region. Indeed, mortgages and other personal loans account for 58.2% of gross loans on average in the OECS region (Figure 2.19). Furthermore, government lending is another important part of banks' loan portfolio in some countries such as Dominica, St. Kitts and Nevis and Antigua and Barbuda. By contrast, loans to the productive sector remain relatively limited in the region.

Moreover, development banks in the OECS region currently do not always fulfil their role of providing finance for productive investment in under-served segments of the private sector in general, and in high-potential priority sectors in particular. In fact, development banks in most OECS member states mirror the portfolio of commercial banks, which consists largely of personal loans and mortgages. The portfolio of St. Lucia's development bank, for example, is made up mainly of housing loans (43.6%), education loans (11.2%), and bridging finance (8.2%). Loans to industry and services account for only 22.1% and 5.1% of the portfolio respectively. In total, the social sector accounts for approximately 55.6% of the portfolio, and the productive sector for 44.4% (2018) (SLDB, 2018[81]). The loan portfolios of the development banks of Antigua and Barbuda and Grenada, both consist largely of housing loans or mortgages (57% and 50.2% respectively), and student loans (12% and 14% respectively) (Grenada Development Bank, 2020[82]; Antigua and Barbuda Development Bank, 2009[83]). By contrast, Dominica's development bank is channelling more funds into the productive sector than other development banks in the region. According to figures dating from 30 June 2019, the loan portfolio of Dominica's development bank was made up mainly of loans to industry (27.9%) and the tourism sector (26.6%). Housing loans accounted for 22.9% of the portfolio, while education loans made up 16.6% of it (AID Bank, 2019[84]).

2.6.2. Strengthening financial-sector infrastructure, reforming national development banks, and building up a regional venture capital fund could improve access to finance

Access to finance could be improved by steering development banks towards financing more productive investment by the private sector. Development finance institutions, such as development banks, exist to encourage growth in the private sector through providing long-term loans and equity capital in situations where private financing is discouraged by high risk (OECD, 2014[85]). The OECS member states should refocus investment portfolios of their national development banks away from mortgages towards more productive investments. The Brazilian Development Bank (BNDES) provides a relevant example. In 2019, BNDES portfolio was primarily made up of loans to trade and services (55.2%) followed by industry (23.5%), agriculture (12.0%) and infrastructure (9.3%) (Brazilian Development Bank, 2022[86]). Similarly, Mexico's national development bank, Nacional Financiera (Nafin), promotes financial inclusion in the country through a focus on microenterprises (Griffith-Jones, 2021[87]). Nafin's portfolio was made up of 46% commercial loans, followed by 32% industry and 21% services in 2019 with 97.5% of these loans going to microenterprises in 2021 (Nacional Financiera, n.d.[88]).

A regional venture capital fund constitutes another potential opportunity for improving access to finance for young entrepreneurs and start-ups. Venture capital is a subset of private-equity financing – equity capital provided to enterprises that are not quoted on a stock market. Venture capital financing serves to support the pre-launch, launch, and early-stage development phases of a business. As such, venture capital is particularly important for young companies with potential to deliver innovation and growth, but with untested business models and no track record, and it replaces and/or complements traditional bank finance (OECD, 2015[89]). In 2018, the EU launched Venture EU, a pan-European venture capital fund-of-funds programme, in order to attract more private investment to young enterprises and start-ups who lack appropriate investment vehicles for providing such financing. In the context of this programme, six venture capital funds received EU seed funding of EUR 410 million with the objective of crowding-in private investment (European Commission, 2018[90]; European Commission, 2018[91]; EIF, 2017[92]).

The establishment of a credit bureau at the regional level in the OECS is another opportunity for improving access to credit. Credit bureaus allow financial institutions and other creditors to share and access credit information, and to manage their lending risks better, thereby increasing access to finance. An ECCB initiative supported by the International Finance Corporation and the Canadian Department of Foreign Affairs, Trade and Development to set up a regional credit bureau is ongoing (ECCB, n.d.[93]; Beaton, Myrvoda and Thompson, 2016[76]). However, at present, none of the OECS countries have a credit bureau (World Bank, 2022[2]; World Bank, 2021[74]). This limits potential lenders' access to the financial history of borrowers. Setting up a credit bureau at the regional level would allow OECS countries to benefit from economies of scale.

Another potentially important measure would be to modernise foreclosure and insolvency regimes in OECS countries (Al-Hassan et al., 2020[78]). Effective insolvency regimes are essential for the resolution of NPLs. They provide mechanisms for creditors to realise their claims in a predictable, speedy and transparent manner (IMF, 2017[4]). However, resolving insolvency takes four years in Dominica, three years in Antigua and Barbuda, and two years in St. Lucia. This compares to 1.7 years in OECD countries. Moreover, the recovery rate for secured creditors through judicial reorganisation, liquidation, or debt enforcement proceedings is only 29.6% in Dominica, 37.1% in Antigua and Barbuda, and 43.5% in St. Lucia. This compares to the 70.2% rate that OECD countries registered in 2020 (World Bank, 2021[74]). Furthermore, few OECS countries have fast-track pre-insolvency procedures or out-of-court settlement mechanisms, and nor is the active promotion of such mechanisms a widespread phenomenon (IMF, 2017[4]). In addition, long periods for collateral resolution, plus outdated frameworks for foreclosure and the resolution of bankruptcies, reduce banks' willingness to supply credit (Beaton, Myrvoda and Thompson, 2016[76]).

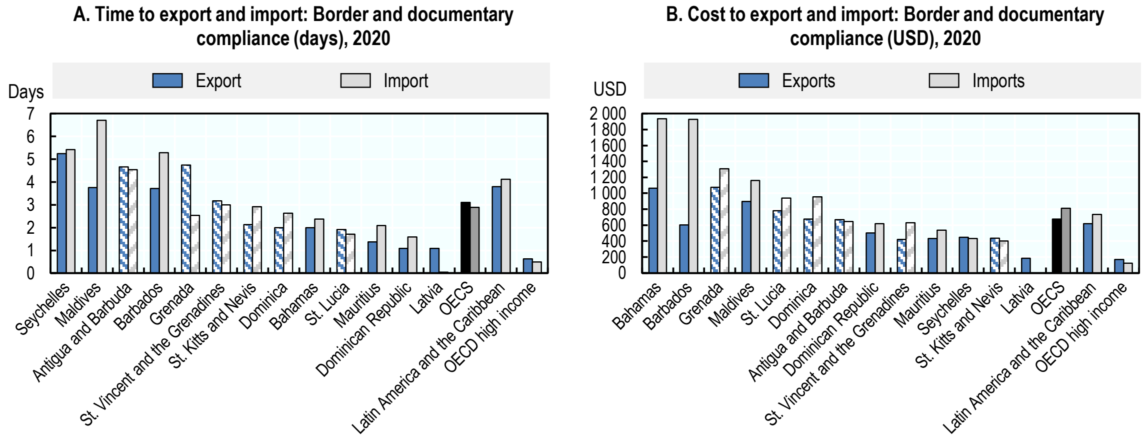
Looking ahead, a further strengthening of banking supervision could increase the resilience of the ECCU banking system, and could help to prevent future surges in NPLs. The ECCB is committed to the implementation of Basel II/III regulation. It has elaborated an implementation roadmap, and has established a dedicated team within its Bank Supervision Department for the implementation of Basel II/III. It has also set up a Basel II/III Implementation Working Group, comprising representatives of financial institutions in the region and the ECCB (ECCB, 2022[94]). The Basel II/III regulations are international standards developed by the Basel Committee on Banking Supervision in order to assess the capital adequacy of banks, and to ensure that they maintain sufficient capital to cover their risks and absorb potential losses.

2.7. Reducing bureaucracy and business costs could facilitate more private investment in the OECS region and boost productivity

2.7.1. E-government could reduce red tape

Administrative procedures tend to be long and onerous in the OECS region, representing an obstacle for private companies. Business procedures that tend to be particularly complex and burdensome across the region include resolving insolvency, as discussed above, for which the OECS countries achieved an average Doing Business score of 17.7/100 in 2020, and a rank of 151st out of 190. They also include registering property, for which the OECS countries' average Doing Business score was 45.4/100, with a ranking of 151st out of 190. Furthermore, complex and burdensome business procedures also include paying taxes, an activity for which the OECS countries garnered an average Doing Business score of 66.7/100, and a rank of 117th out of 190 (World Bank, 2021[74]). In addition, customs and trade regulations tend to be particularly lengthy and costly in the OECS region. Indeed, exporting and importing is both time-consuming and expensive in many of the member countries (Figure 2.20). It can take several days to clear perishable, fresh goods, which compromises their freshness, quality and marketability (World Bank, 2008[18]). In addition, information on business procedures, and in particular on changes in these procedures, can sometimes be difficult to obtain.

Figure 2.20. In some OECS countries, trade costs are high and delays are long



Source: World Bank (2022[95]) *Doing Business Legacy*, https://www.worldbank.org/en/programs/business-enabling-environment/doing-business-legacy.

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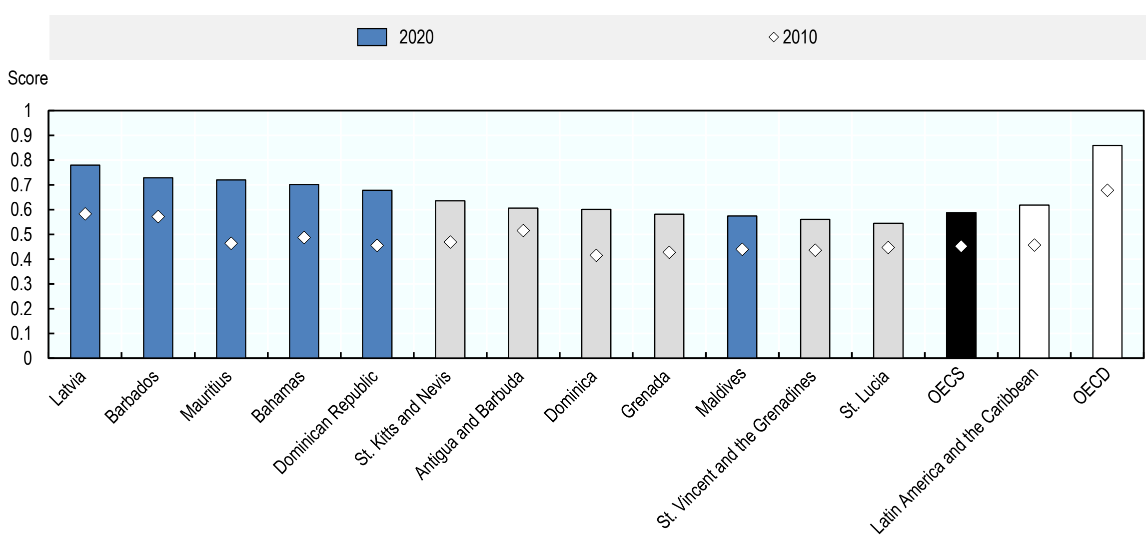
E-government and the digitalisation of public services present an opportunity to reduce bureaucracy, simplify administrative procedures and enhance transparency. In some areas there may even be scope to create economies of scale through regional co-operation. This could take place, for example, via a shared e-government platform for all member countries. At present, OECS countries' performance in terms of e-governance is only moderate (Figure 2.21).

Figure 2.21. E-governance provides opportunity and room for improvement

E-government Development Index (EGDI), 2020 and 2010



Notes: Score between 0 (worst) and 1 (best). LAC average: Aruba, British Virgin Islands, Cayman Islands, Curaçao, Puerto Rico, Sint Maarten, Saint Martin, Turk and Caicos Islands and US Virgin Islands not included.
Source: UN (2022[96]), E-government Development Index, https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index.

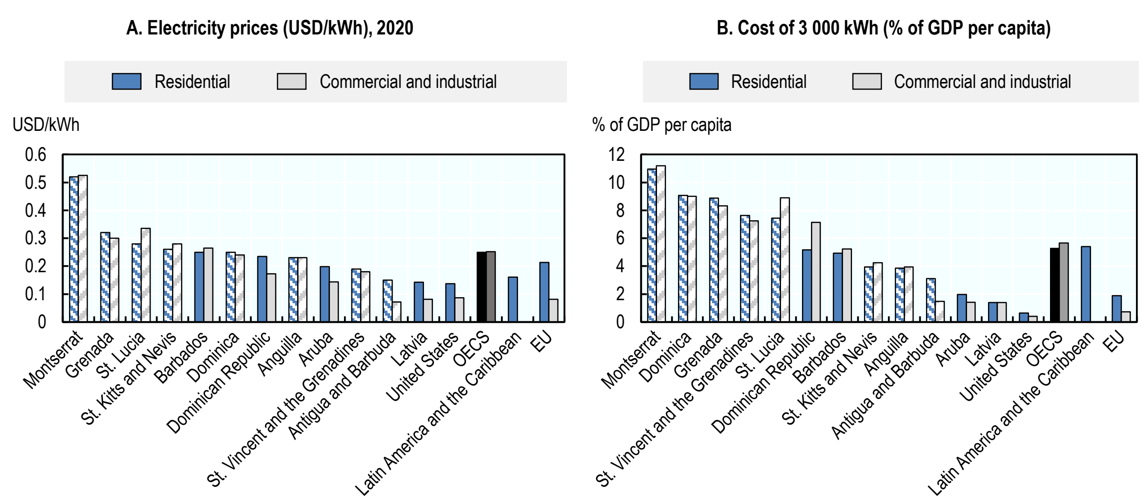
StatLink https://stat.link/d3l6eq

One significant step would be for OECS countries to consider abolishing all passport, customs and border controls for goods and people within the Eastern Caribbean Economic Union. The revised Treaty of Basseterre, which is the ECCU's foundation stone, establishes a customs union and the free internal circulation of goods and free movement of people. Currently, however, goods and people moving between the OECS member states still have to comply with a number of administrative, physical, technical and fiscal requirements at each port of entry (OECS, n.d.[97]; OECS, n.d.[98]). A set-up similar to the EU's Schengen area of passport-free movement could eliminate these requirements for all passengers and goods circulating within the ECCU, removing red tape and customs and border procedures for trade.

2.7.2. The development of renewable energy could reduce high energy costs

OECS countries' reliance on imported petroleum products for electricity generation leads to high energy prices in the region, and these represent a significant constraint for business. In addition, electricity prices are also highly volatile since they depend on international oil prices. As of 2020, electricity prices for industry and commerce in the OECS region were three times higher than in the EU on average, and eight times higher as a share of GDP per capita (Figure 2.22). There are, however, some differences between countries. Indeed, electricity prices are particularly high in Montserrat, Grenada, St. Lucia, and St. Kitts and Nevis. In Antigua and Barbuda and St. Vincent and the Grenadines, they are considerably lower, and are indeed in line with EU prices. There is also scope to improve the quality of the electricity supply in the region, with power outages still a frequent problem in OECS countries (Figure 2.23). As already noted, renewable energy represents an opportunity to reduce energy costs.

Figure 2.22. Electricity prices are high in most OECS countries



Note: For Panel A, data for Latin America and the Caribbean are for 2018; For Panel B, data for GDP per capita for Grenada, St. Lucia, St. Kitts and Nevis, Dominica and St. Vincent and the Grenadines are for 2019, and for Aruba they are for 2018; With regard to electricity prices, data for Latin America and the Caribbean are for 2018.
Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; Eurostat (2022[99]), Data Explorer (database), https://ec.europa.eu/eurostat/data/database; U.S. Department of Energy (2022[100]), Island Energy Snapshots, https://www.energy.gov/eere/island-energy-snapshots; U.S. Energy Information Administration (2022[101]), Homepage, https://www.eia.gov/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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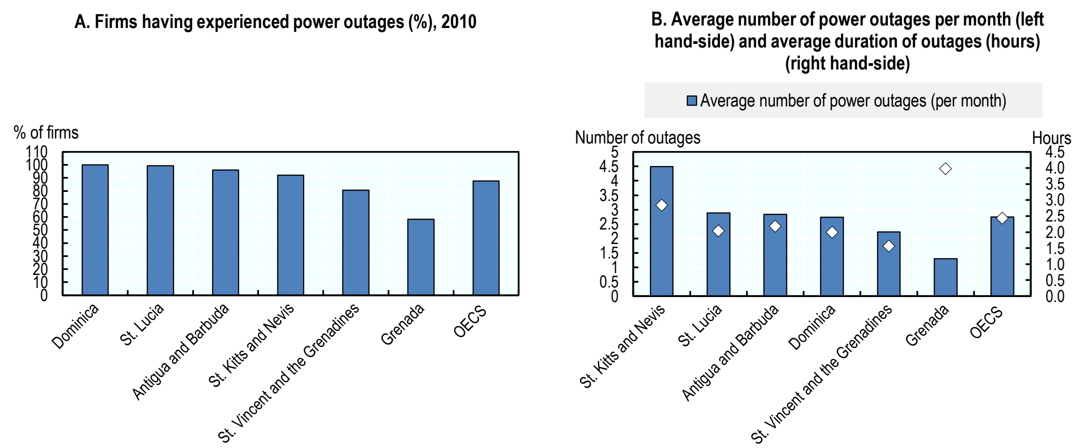
Figure 2.23. The electricity supply in the OECS region remains unstable



Source: World Bank (2022[102]), *Enterprise Surveys Indicators Data*, https://www.enterprisesurveys.org/en/enterprisesurveys.

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2.7.3. A regional fast-ferry service, and better organisation of existing intra-regional maritime transport, could improve intra-regional connectivity and reduce transport costs

An efficient maritime shipping sector is particularly important for island states with small domestic markets. It enhances competitiveness by making it possible to trade goods and services in a timely manner, and without excessive costs. Given the small size of OECS islands, businesses need to import most of their inputs. At the same time, they often need to export in order to achieve economies of scale, in particular in the manufacturing sector. Inefficient maritime transport services can drive up production and export costs, making firms' tasks all the harder (Compete Caribbean, 2013[103]; World Bank, 2008[18]).

The availability and cost of transport directly affect the competitiveness of private businesses in the OECS region. In addition to an irregular transport system, high transport costs for exports and imports of goods represent an important obstacle for the region's manufacturing and agricultural sectors (World Bank, 2008[18]). Furthermore, limited inter-island passenger transport poses another constraint for intra-regional tourism and multi-island tourism, which is also known as island hopping.

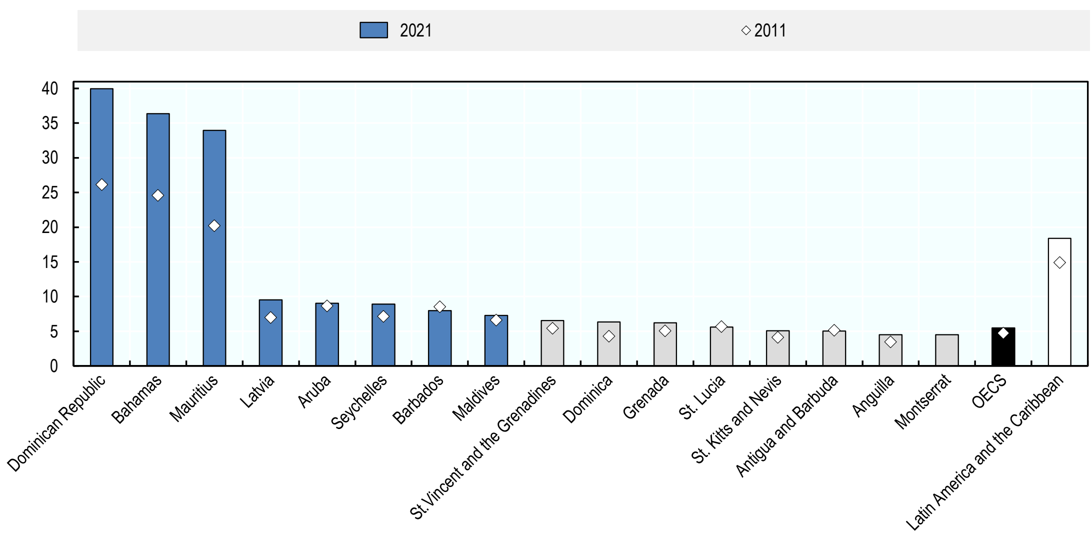
Formal maritime transport is limited and expensive in the OECS region. Moreover, OECS countries perform poorly in terms of liner-shipping connectivity (Figure 2.24). Formal maritime transport in the OECS region consists of large international shipping lines, which operate between the United States or Europe and their regional hubs in Barbados and Trinidad, serving other islands in the Caribbean through designated feeder lines. As a result, direct formal freight transport between islands in the region is generally not available. Moreover, goods exports that rely on formal maritime transport need to be shipped through the United States, resulting in higher costs of freight transport between OECS islands than from the individual islands to the United States, despite the much shorter distances. Transport costs within the OECS region can reach up to 90% of the price of certain retail goods (Compete Caribbean, 2013[103]).

The informal maritime transport sector is highly fragmented and lacks organisation. Local, largely informal maritime transport is made up primarily of small vessels with a cargo capacity of under 500 tonnes. They operate between OECS islands, and connect the region with other major islands in the Caribbean, such as Barbados and Trinidad and Tobago. They are operated largely by the isolated owners of individual vessels, on an informal basis, and lack organisation and co-ordination. The reliability of these vessels, and the frequency with which they serve shipping routes, are limited. Indeed, services generally do not follow a schedule, costs are relatively high, transit time is often long, and the arrival of ships is uncertain. Vessels tend to be old, and do not always respect safety standards. Moreover, the operational methods of loading, unloading, and carrying cargo tend to be poor. Furthermore, vessels lack refrigeration capacities and adequate warehouses, and cargo insurance tends not to be available (Compete Caribbean, 2013[103]; Jansen, Stern and Weiss, 2015[27]). Due to a lack of better alternatives, however, private companies generally rely on these private vessels for inter-island transport (World Bank, 2008[18]).

In addition, the transport by air of freight and passengers in the region is limited and expensive. Air freight services within the region are rather limited, and are provided primarily by the regional airline, Leeward Islands Air Transport (LIAT). Similarly, passenger flights – the only means of passenger transport between most OECS islands – are often scarce, and have further been reduced in the context of the COVID-19 pandemic. In many cases, there is only one flight a week. Furthermore, air passenger flights and air freight both tend to be expensive in the region (Barbet-Gros et al., 2015[104]).

Figure 2.24. Maritime connectivity in the OECS region is limited

Liner shipping connectivity index (0-100), 2011 and 2021



Note: Index between 0 (worst liner shipping connectivity) and 100 (best liner shipping connectivity).
Source: UNCTAD (2022[105]), *UNCTADstat* (database), https://unctadstat.unctad.org/EN/.

StatLink https://stat.link/gylbon

A better organisation of the existing intra-regional maritime transport sector, plus greater co-ordination between vessel owners, could enhance efficiency and facilitate technological upgrades. At present, the isolation of the small vessels that are used for intra-regional transport, and the lack of co-ordination among them, limits the kinds of opportunities for economies of scale that would make it possible to upgrade the service that they can offer by marketing their services and communicating with clients, and by financing technological upgrades and investments in refrigeration and warehousing capacity. In a vicious circle, moreover, vessel owners are forced to lower their prices in order to preserve their narrow client bases, resulting in a reduction in revenues. In turn, this further limits vessel owners' ability to invest in the technological upgrades that would be necessary in order to improve the quality of their services (Compete Caribbean, 2013[103]).

A regional fast-ferry service could improve the availability of regional transport, both for passengers and freight. A feasibility study for a regional fast ferry appears already to be in preparation.

There are currently 11 ferry systems in the Caribbean region, such as the privately operated service that operates between St. Kitts and Nevis, which could serve as an example for a regional fast-ferry service. Ferry systems in other parts of the world, such as the Greek ferry system, and ferry routes in the Baltic Sea, could also serve as inspiration for the OECS region. However, while several carriers tend to compete on high-demand routes in the Baltic Sea such as Tallin to Helsinki, Sassnitz to Ronne or Trelleborg to Rostock, the ferry systems in Greece and the Baltic both require public subsidies, since they do not operate exclusively on routes that are commercially viable. At present, prices of ferry transport are considerably higher in the Caribbean than in the Baltic and in Greece (Barbet-Gros et al., 2015[104]).

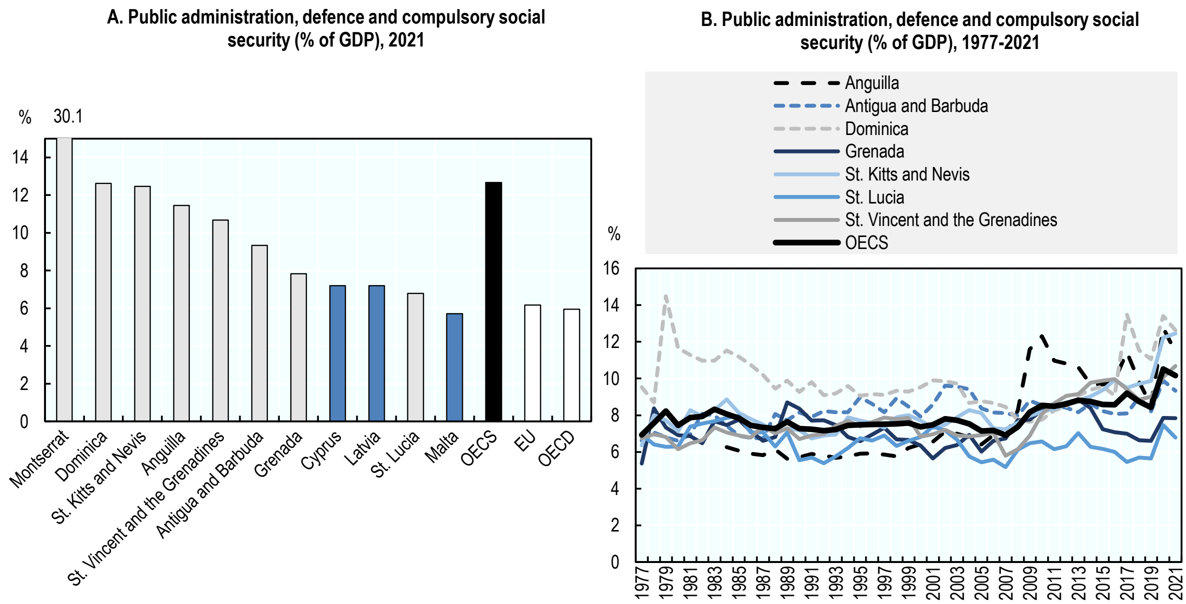
Moreover, a regional fast-ferry service could stimulate more regional and international stayover tourism. A regional fast-ferry service would facilitate travel between the islands, and would reduce travel costs, thereby allowing the region to tap into new markets such as international stayover tourists who are interested in island hopping and thus visiting several islands, as well as local intra-regional tourists. A regional fast-ferry service could also facilitate the movement of motor vehicles between the islands of the OECS (Barbet-Gros et al., 2015[104]).

In order to establish a regional fast-ferry service, however, regional collaboration and co-ordination between governments, and the facilitation of the movement of people and goods across the region, will be key. In particular, a regionally organised, transparent and professionally managed procurement process will be essential in the successful establishment of a regional fast-ferry system. In the past, the project of building a fast-ferry service has failed due to a lack of regional co-operation between governments. Cumbersome, complex and time-consuming regulations, plus restrictions to the movement of people and goods across the region, are another obstacle to the establishment of a regional fast-ferry service. Furthermore, the temporary importation of vehicles would need to be recognised across the region in order to facilitate the transport of motorised vehicles. In addition, there is also a need for adequate port-related and other shore-based infrastructure, such as ferry terminals, docks and passenger processing facilities, which do not yet exist in all of the countries in the OECS (Barbet-Gros et al., 2015[104]).

2.8. Debt consolidation through prudent public expenditure and debt for climate swaps

Public sectors across the region are relatively large and have grown over the last decade. Most OECS countries have a relatively large number of ministries given their small size, and public-sector employment is relatively high in many countries in the region. Public-sector employment in the OECS region accounts on average for 24% of total employment, as compared to 18% in the OECD, although there is great variation between countries (IMF, 2017[106]). Public administration, defence, and compulsory social security, amount to 12.7% of GDP in the OECS region, or to 10.2% of GDP if Montserrat, where this ratio is much higher, is excluded from the calculation; up from 7% in the mid-2000s. This compares to approximately 6% in the OECD and the EU (Figure 2.25) (ECCB, 2022[1]).

Figure 2.25. OECS countries have large public sectors



Note: For Panel A, data for the OECD, EU, Latvia, and Malta are for 2020 instead of 2021; For Cyprus, the data are for 2019 instead of 2021; In Panel B, Montserrat is excluded.
Source: ECCB (2022[1]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; OECD (2022[107]), *OECD Statistics*, https://stats.oecd.org/.

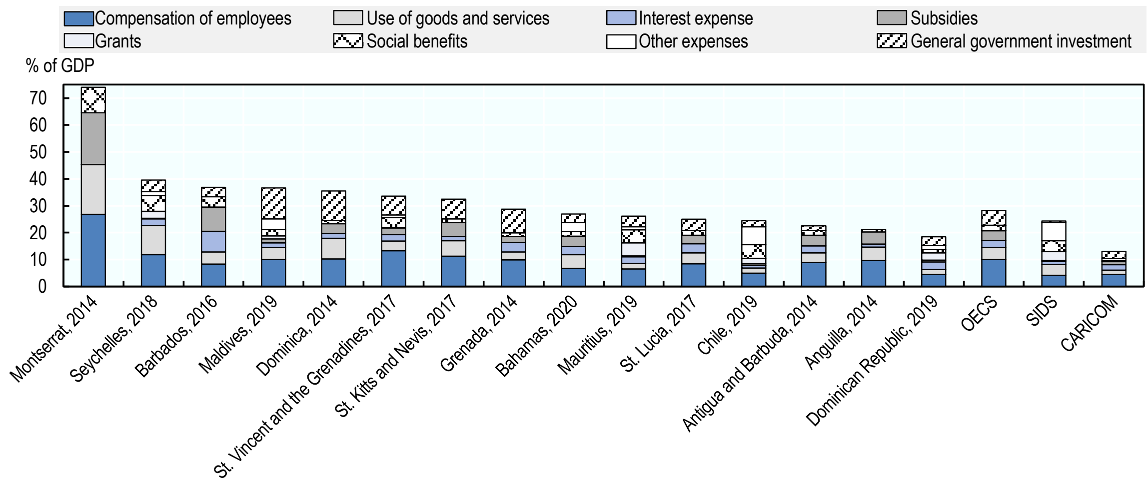
StatLink https://stat.link/vin54r

As a result, current expenditures are relatively high in the region, crowding out other forms of public spending, like social benefits. Indeed, a large portion of central government budgetary spending goes to compensation for public employees. The average share of GDP that this expense represents in the OECS is 10%, which is much higher than the SIDS average of 4.57% (Figure 2.26). Furthermore, spending on social-benefits programmes accounts on average for just 1.89% of GDP, which stands in contrast to the SIDS average of 4.37%. While public employment does function as a mechanism to improve outcomes for citizens, it also means there is relatively less room for spending on social benefits. In order to build up the social capacity of the OECS member states, it would, indeed, be important to develop a strategy to increase spending on social services.

Some of this has been driven by wage growth since 2008. Public-sector wages are higher than private-sector wages in Dominica, St. Vincent and the Grenadines, St. Lucia, Grenada, and St. Kitts and Nevis. The wage differential is the largest in Dominica and St. Vincent and the Grenadines, where public-sector wages are 70% and 50% higher than private sector wages respectively. In turn, high public wages put pressure on private sector wages, driving up overall wages in OECS countries as well as production costs, and thereby constraining profitability and hampering private investment and job creation (IMF, 2017[106]; World Bank, 2018[77]; James et al., 2019[108]). Overall, wage growth has been outpacing growth in labour productivity in the OECS region. In turn, this has contributed to relatively high unit labour costs (James et al., 2019[108]). The increasing gap between wages and productivity, and indeed the relatively high labour costs per se, have been contributing to high levels of unemployment in the region (IMF, 2017[106]; World Bank, 2018[77]).

Figure 2.26. Public-sector pay accounts for a significant share of government expenses

Budgetary central government expenses (% of GDP)



Notes: General government investment: The Seychelles, Maldives, Dominican Republic and The Bahamas: 2017; no data for Anguilla and Montserrat.
Sources: IMF (2022[109]), *Government Finance Statistics* (database), https://data.imf.org/?sk=a0867067-d23c-4ebc-ad23-d3b015045405; IMF (2022[110]), *Investment and Capital Stock Database* (database), https://infrastructuregovern.imf.org/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

StatLink https://stat.link/iajl86

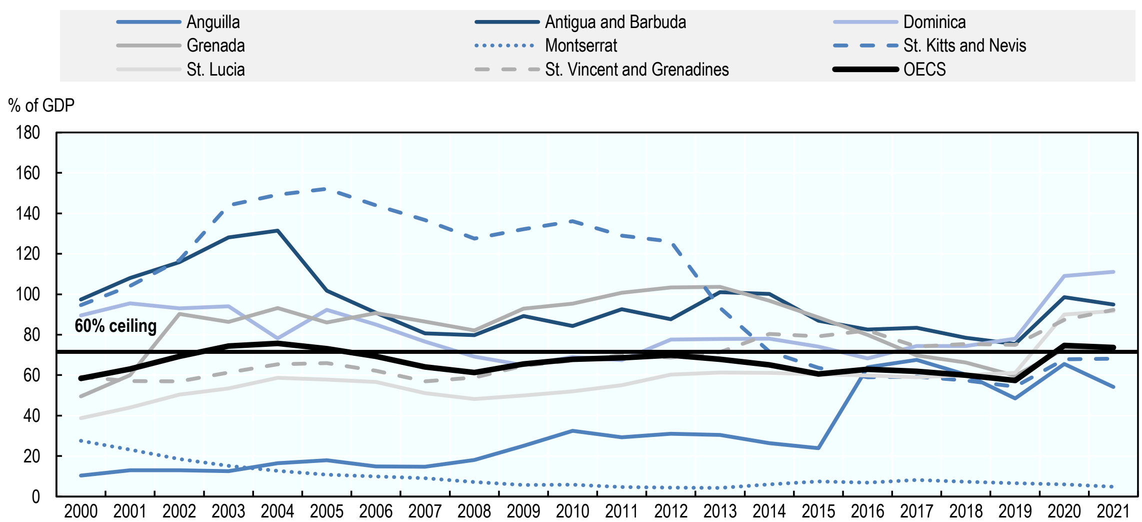
2.8.1. Debt for climate swaps could help OECS countries reduce their external debt burden

Overall, levels of public debt in the OECS have been falling steadily since the early 2000s. Indeed, there has been an impressive drop in overall debt levels, particularly for St. Kitts and Nevis, which has set an example in the region for sustained debt reduction. Starting from a region-wide high of 152.2% in 2005, it has now become the country with the lowest ratio in the region, with the exception of Montserrat. St. Kitts and Nevis managed this by cracking down on loose fiscal policy, by making steady repayments of the principal of its debt, by repaying some of its outstanding debts in full, and also through various fiscal and budgetary reforms (Government of St. Kitts and Nevis, 2016[111]). In part, this reform was fuelled by prudent spending of CBI revenues (IMF, 2021[112]). Elsewhere in the region, Grenada has also seen an improvement. Indeed, before the onset of the COVID-19 pandemic, Grenada reached just above the debt-reduction target set out by the ECCB. However, other member states have struggled to reduce their debt levels. Dominica, for example, was battered by back-to-back hurricanes in 2015 and 2017, leading the government to take on more debt to fund reconstruction efforts. The debt levels of both St. Lucia and St. Vincent and the Grenadines have also been creeping up over the past decade, with the Inter-American Development Bank (IDB) recommending policy reforms similar to those of St. Kitts and Nevis (IDB, 2017[113]).

Despite the overall decrease, however, debt remains a primary concern in the region. Indeed, the OECS's development strategy from 2018, the ODS, highlighted the reduction of public debt as one of its region-wide goals. According to the ODS, reducing public debt is necessary in order to free up limited policy space in the region, thereby making room for expansionary fiscal policy. In addition, debt levels are also important due to the member states' exposure both to external crises and to frequent natural disasters, which can be costly for the region, and require adequate room to react. With this in mind, the ECCB has set out a regional target for the ratio of public debt to GDP ratio to fall within 60% by 2035. This is an attempt to bring debt levels into line with global thresholds of acceptable indebtedness (OECS Commission, 2018[114]). Prior to the COVID-19 pandemic, the aim had been to achieve the 60% target by 2030. As of 2021, the regional average was still well above this target, with public government debt to GDP standing at 88.2%, and ranging from 68.2% in St. Kitts and Nevis to 111.1% in Dominica (ECCB, 2022[1]). Against this backdrop, reforming tax-incentive schemes, and a broader tax reform, could help to raise additional revenues to reduce government debt.

Figure 2.27. After a steady reduction over recent decades, public debt has rebounded in the context of COVID-19

Gross government debt (% of GDP)



Source: IMF (2022[115]), *World Economic Outlook (April 2022)*, https://www.imf.org/external/datamapper/datasets/WEO.

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Notwithstanding the trend towards debt consolidation in recent years, the COVID-19 pandemic has induced a sharp rise in public debt in the region. To be sure, the pandemic has led to a sharp increase in government expenditure worldwide, but it has been particularly difficult for tourism-centric economies like those of the OECS. With containment policies preventing travel, and a global recession reducing demand, tourism revenues dropped steeply. Likewise, employment in the sector also took a major hit because many jobs that depend heavily on tourism services were unable to function as normal. This led national governments to support impacted households through direct transfers, payroll support, and short-term unemployment insurance programmes (IMF, 2021[116]). Combined with other relief policies, these expenditures created a sharp squeeze on the already limited room for fiscal manoeuvre in the OECS, causing a sharp increase in the region's public-debt ratios from 2019 to 2020 (Figure 2.27). Tax reform, including the reduction of tax incentives, could allow OECS countries to increase tax revenues, and to consolidate government debt.

In addition, external debt is a concern in the region. OECS countries have relatively high levels of external debt. External debt amounts on average to 56.1% of Gross National Product (GNI) and 206.1% of exports in Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines compared to 27.6% and 114.1% on average, respectively, in upper middle-income countries (World Bank, 2022[117]). More than half of public debt was made up of external debt in the ECCU (54.5%) (ECCB, 2022[1]). In 2021, Dominica and St. Vincent and the Grenadine's risk of external debt distress was evaluated as high by the World Bank and the IMF and Grenada's level of risk was evaluated as already being in distress (World Bank, 2022[118]). Upper middle-income and high-income countries' – such as OECS countries' – external debt tends to be made up to a large share of private lending, which is more expensive than concessional loans (Piemonte, 2021[119]).

Debt for climate swaps could help OECS countries reduce their external debt burden. In debt for climate swaps, bilateral and multilateral debt relief is granted to developing countries, including SIDS, to reduce their external debt if they invest the liberated funds in national climate adaptation and mitigation programmes. Debt for climate swaps are currently being negotiated in several OECS member states, including Antigua and Barbuda, Grenada, St. Lucia, and St. Vincent and the Grenadines. In addition to helping OECS countries reduce their external debt burden, debt for climate swaps could also help them to become more resilient to natural disasters. The additional financing available for climate adaptation and mitigation measures from debt for climate swaps could allow OECS countries to invest in resilience measures to natural disasters such as disaster-resilient infrastructure (Fuller et al., n.d.[120]) (United Nations, 2021[121]).

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3 Promoting human and social well-being

This chapter discusses key opportunities and constraints falling into the second pillar of the OECS Development Strategy: promoting human and social well-being. Persistently high unemployment rates, sticky levels of poverty and inequality, and the prevalence of crime, in particular among young people, all pose significant challenges in the OECS region. To reduce unemployment, and to provide young people with better opportunities, it is essential to close the skills gap in the region and to improve the quality of education. Better social-protection systems could support those in need and build the bedrock for more flexible labour markets. In addition to better opportunities for young people, reducing high levels of crime requires a stronger focus on crime prevention, as well as strengthening the region's judicial systems and police forces. Finally, better and more prevention policies would be important to tackle high levels of NCDs in the region.

Tackling social challenges in the OECS region requires more and better economic opportunities, in combination with improved social protection systems, enhanced quality in education, and a closing of the skills gap. Persistently high unemployment rates, high levels of poverty and inequality, and the prevalence of crime, in particular among young people, all pose significant challenges. In order to reduce unemployment, and to provide young people with better opportunities, it is essential to close the skills gap through a larger and better offering of tertiary, vocational and adult education, plus better information on the skills that are in demand on the labour market. The quality of formal education could also be further improved through more and better trained teachers, and by focusing on the development of quality foundation skills. In addition, and in order to reduce unemployment and poverty, OECS countries require better social-protection systems, including universal healthcare and unemployment-insurance schemes. In order to reduce unemployment, another important step would be to pursue reforms that would align wages with productivity growth. In addition to better opportunities for young people, reducing high levels of crime requires a stronger focus on crime prevention, as well as strengthening the region's judicial systems and police forces. Finally, better and more prevention policies would be important to tackle high levels of NCDs in the region. Table 3.1 represents six major opportunities for the region in terms of promoting human and social well-being.

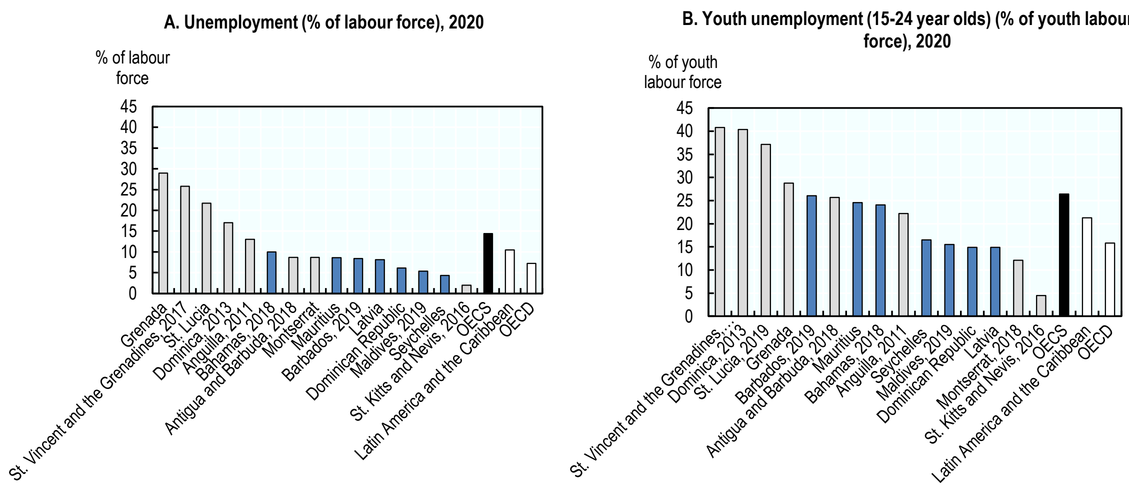
Table 3.1. Six opportunities for promoting human and social well-being in the OECS region

1. Expand and improve the offering of tertiary, vocational and adult education in the OECS region
2. Improve information about the skills that are in demand in the labor market
3. Introduce universal health care and unemployment-insurance schemes in OECS countries
4. Introduce incentives for untrained teachers to acquire qualifications faster, plus mandatory pre-service teacher training, while also improving the image of the teaching profession
5. Ensure that students are equipped with high-quality foundation skills through formal education
6. Invest in policies for the prevention of NCDs such as awareness raising, measures to encourage more physical activity and appropriate legislation and regulation

3.1. Limited economic opportunities and structural challenges are contributing to persistently high levels of unemployment in parts of the OECS region

Unemployment is high in the OECS region, but levels vary between countries (Figure 3.1). Youth unemployment is particularly high (Figure 3.1, Panel B), and women and lower-skilled workers are more affected by unemployment (World Bank, 2018[1]). Unemployment rates have indeed been high in the OECS region since the early 1990s, before the banana industry declined across the region (with the exceptions of St. Kitts and Nevis and Antigua and Barbuda). Moreover, formal-employment-to-population ratios, which offer a proxy for unemployment, have fluctuated little over recent decades (Figure 3.2). This implies a significant level of structural unemployment and informality. It is indeed estimated that long-term unemployment accounts for 85% of unemployment in the OECS region (World Bank, 2018[2]). In addition, cyclical unemployment has increased in the wake of economic shocks, most importantly after the global financial crisis of 2008 and the recent COVID-19 pandemic (James et al., 2019[3]).

Figure 3.1. Unemployment is high in most countries in the OECS region, and young people are particularly affected



Source: CARICOM (2022[4]), CARICOM Statistics (database), http://statistics.caricom.org/linkstatsoffice.html; World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators;, UNICEF (2021[6]), Youth Unemployment in Barbados and the OECS Area: A Statistical Compendium, https://www.unicef.org/easterncaribbean/media/2976/file/Youth%20unemployment%20in%20OECS.pdf.

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High unit labour costs in the region, which stem from labour-market rigidities and high public-sector wages, limit private investment and job creation (see section 2.7.3). High public-sector wages, which are out of line with growth in the productivity of labour, plus relatively high wages in the tourism sector, have pushed up the reservation wages of the entire population, putting pressure on wages throughout the economy. In particular, young people are less willing to perform the less well paid jobs that exist in agriculture or the informal sector (James et al., 2019[3]).

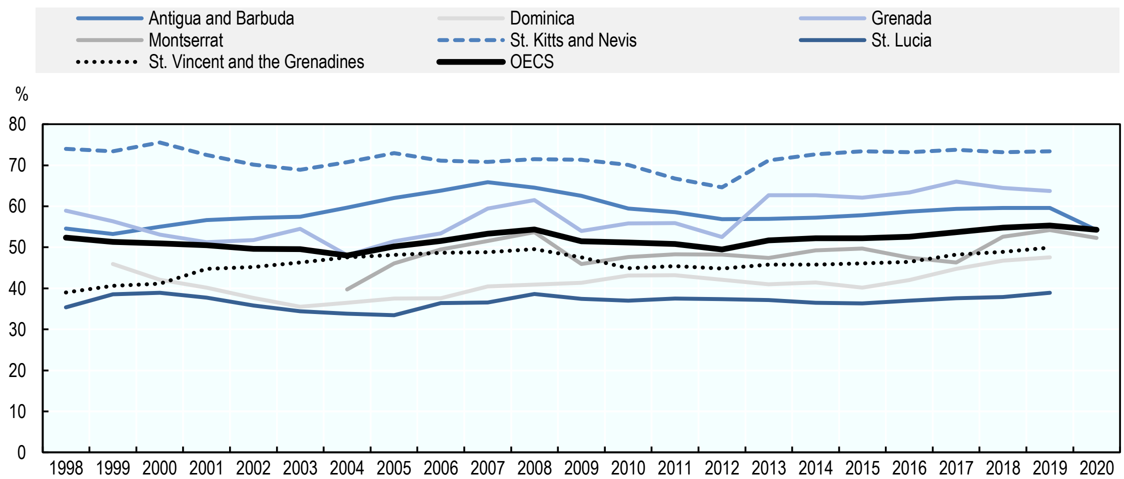
A skills mismatch, plus a shortage of technical and soft skills, are also contributing to unemployment, particularly among young people. Due to a shortage of skilled workers, and in particular in technical skills, employers even look to recruit skilled workers abroad in some cases (James et al., 2019[3]).

Furthermore, frequent natural disasters contribute to significant cyclical unemployment in the region. Indeed, cyclical unemployment tends to rise in the years that follow large natural disasters. The impact of natural disasters on employment is particularly acutely felt in countries with a larger agricultural sector, since agriculture is significantly affected by natural disasters (James et al., 2019[3]).

Moreover, informal employment is high in some OECS countries. The formal-employment-to-population ratio captures not only unemployment, but also different levels of informality across the OECS region. While St. Lucia has the largest informal sector in the region, informality is limited in St. Kitts and Nevis (Figure 3.2). Dominica, St. Vincent and the Grenadines, and Montserrat appear to have relatively large informal sectors.

Figure 3.2. Formal-employment-to-population ratios in the OECS region have been stable over time, reflecting structural challenges

Formal-employment-to-population ratio (%), 1998-2020



Note: Formal-employment-to-population ratios represent formal employment as a share of the total population. Formal employment is approximated by data on actively ensured persons from social security boards.
Source: Authors' own calculations based on data obtained from National Social Security Boards of OECS countries; United Nations (2022[7]), "World Population Prospects 2022", https://population.un.org/wpp/.

StatLink https://stat.link/si8dxy

Enhancing labour-market flexibility, creating social safety nets and limiting public sector wage growth could help reduce unemployment. As a mechanism of adjustment to the external shocks that may affect the OECS region, wage flexibility is important, as ECCU countries have a fixed exchange rate. To reduce labour costs and enhance wage flexibility, OECS countries must find a way to better align public-sector wage growth with productivity growth. Another important step would be to strengthen social safety nets, for example by introducing unemployment-insurance schemes, to create the pre-conditions for a more flexible labour market (James et al., 2019[3]).

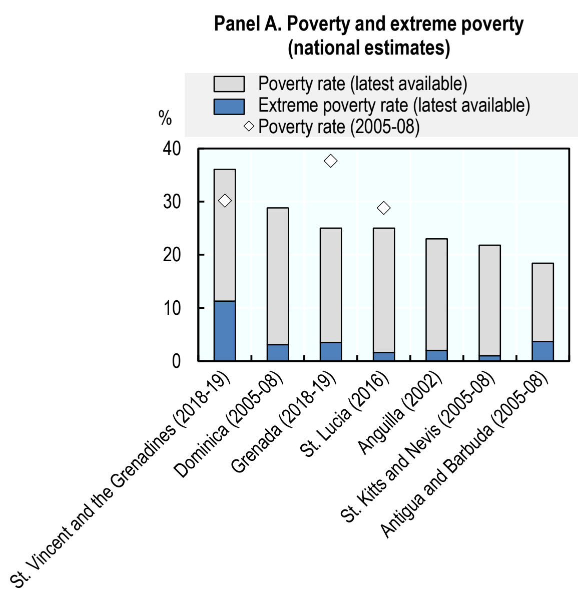
In addition, countries in the region should focus on building up their resilience to natural disasters, and strengthening human capital. Resilience to natural disasters, including the resilience of the financial sector, and the overall capacity for speedy recoveries following natural disasters, could reduce spikes in unemployment in the aftermath of disasters. In particular, one important step forward would be to make the region's agricultural sectors more resilient. One way to do this, for example, would be through improved and better access to agricultural insurance. In order to strengthen human capital, the skills gap in the region needs to be closed. In addition, strengthening human capital could enhance productivity and competitiveness, thereby fostering private investment and job creation (James et al., 2019[3]).

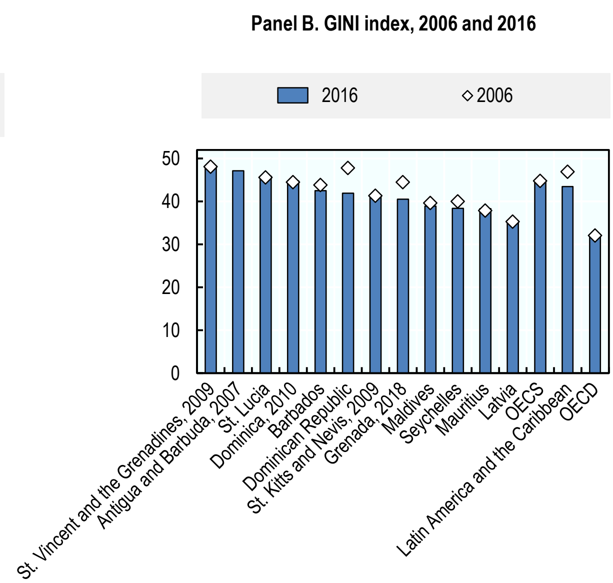
3.2. Expanding social protection systems in the OECS region could reduce poverty and tackle inequality concerns

3.2.1. Despite progress in poverty reduction, poverty rates and inequality remain relatively high in the region, given levels of income per capita

Poverty has been in decline, but inequality levels across OECS member states remain higher than in most other countries in their income group. To be sure, there have been impressive falls in poverty in the region, as highlighted by St. Lucia, whose poverty headcount ratio for people earning less than USD 5.50 per day dropped from 85% in 1995 to 20% in 2016 (World Bank, 2022[5]). Grenada has reported similar decreases with respect to its nationally-defined poverty estimates, registering a decline from 37.7% for 2005-08 estimates, to 25% in 2018-19 (Figure 3.3, Panel A). However, poverty is still high, and has even increased in St. Vincent and the Grenadines. Moreover, even the best-performing country in the OECS, Antigua and Barbuda, has an elevated poverty ratio, with 18.4% of the population falling below national poverty lines. Further to this, child poverty is very high, with 32.7% below the poverty line in the Eastern Caribbean Area, compared to a world average of 13% (OECS, 2020[8]). Inequality is similarly high, with the average GINI index value for the OECS coming in 12.7 points higher than the OECD average (Figure 3.3, Panel B). Over time, there has been only a limited reduction in inequality, which seems to remain much the same as it was a decade ago.

Figure 3.3. There has been progress towards poverty reduction in the region, yet both inequality and poverty remain high, given income per capita levels in OECS countries





Note: In Panel A, poverty rates are defined according to national estimates.
Source: OECS (2018[9]), Saint Lucia National Report of Living Conditions 2016, https://stats.gov.lc/wp-content/uploads/2019/01/Saint-Lucia-National-Report-of-Living-Conditions-2016-Final_December-2018.pdf; Solt (2019[10]), *The Standardized World Income Inequality Database*, Versions 8-9 (dataset), https://doi.org/10.7910/DVN/LM4OWF; Vicentian (2021[11]), NDP View: SVG is poverty rich, https://thevincentian.com/ndp-view-svg-is-poverty-rich-p22304-107.htm; World Bank (2021[12]), Living Conditions in Grenada: Poverty and Equity Update, https://openknowledge.worldbank.org/handle/10986/36330.

StatLink https://stat.link/aro3vl

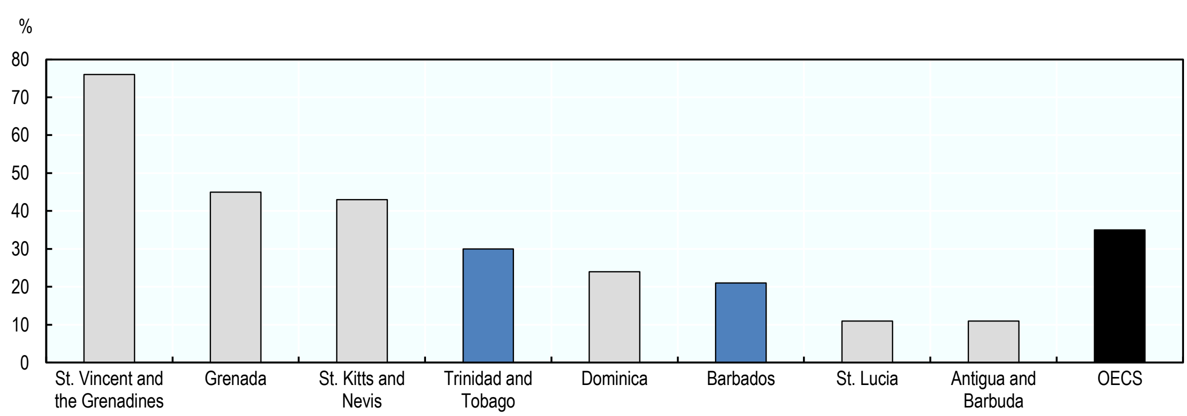
Given the lack of consistent data, however, there are difficulties in ascertaining trends in poverty and inequality. Indeed, the last time that most of the OECS member states collected poverty data was more than a decade ago. Since that time, there have been many changes in the economic landscape of the region. Without concrete data, it is impossible to know what impact these changes have had, particularly on poverty rates. Efforts should be made towards a more regular collection and analysis of such data, in order that the impact of social protection policies may be accurately assessed.

3.2.2. While coverage varies from country to country, there is scope to expand social protection systems in all the OECS member states

During the COVID-19 pandemic, the coverage provided by social assistance programmes was lacking in some of the OECS member states. To be sure, the pandemic placed major pressure on social assistance programmes in almost every country worldwide. This was also true in the OECS, although some countries were better prepared than others. A report by the United Nations Children's Fund (UNICEF) shows that the coverage provided by social assistance programmes, which are non-contributory schemes that provide assistance to vulnerable households through income support and similar measures, was quite high in St. Vincent and the Grenadines prior to the pandemic. This resulted in a level of coverage of almost 76% of the vulnerable population in St. Vincent and the Grenadines during the pandemic, the highest in the Eastern Caribbean (UNICEF, 2020[13]). That was, however, not the case for many of the other OECS member states, where at-risk populations would have greater difficultly in accessing social assistance because of the limited resources afforded to programmes. It is nevertheless important to note that at the onset of the COVID-19 pandemic, social assistance programmes in OECS member states were complemented by short-term income support programmes for a duration of three to six months for both, social security contributors and non-contributors, as well as other support measures such as food support and waivers for the payment of electricity bills for vulnerable households. Looking ahead, efforts to improve coverage should be made across the region, particularly for those who are not formally employed.

Figure 3.4. The coverage that social assistance programmes provided in the OECS region during the COVID-19 pandemic varied significantly between countries

Projected coverage by social assistance programmes of the population that could fall into poverty as a result of COVID 19



Note: Social assistance programmes refer to non-contributory schemes whose eligibility requirements vary from country to country. These schemes are usually comprised of some sort of in come support or food subsidy for vulnerable households.
Source: UNICEF (2020[13]), *The socio-economic impact of Covid-19 on children and young people in the Eastern Caribbean Area*, https://www.unicef.org/easterncaribbean/reports/socio-economic-impact-covid-19-children-and-young-people-eastern-caribbean-area.

StatLink https://stat.link/6lt8d0

Beyond extending coverage to vulnerable populations, further opportunities to improve social protection in OECS countries include universal healthcare and unemployment benefits. At present, the region's social security systems focus mainly on covering workers' sick leave and pensions and, to a much lesser degree, healthcare bills (US Social Security Administration, 2020[14]). There is also a regulatory framework in place for severance or redundancy pay, which exists in all of the member states. Beyond these schemes, there is little in the way of social protection. As a top priority, the OECS member states would benefit from universal health insurance and unemployment insurance schemes, which are all the more important in the context of the region's ageing population.

Table 3.2. Progress is being made towards building strong social protection systems, but firm commitment is still lacking

Country	Unemployment	Healthcare
Anguilla	A temporary unemployment assistance programme launched during COVID-19.	X
Antigua and Barbuda	X	Plans exist to develop universal healthcare systems, with feasibility reports in progress.
Dominica	Assistance to unemployed heads of families and single persons was announced during COVID-19, lasting until June 2021.	Advanced plans exist towards a universal healthcare system, featuring strategy documents, and joint projects with PAHO to expand coverage and evaluate the current healthcare system.
Grenada	Additional support provided to laid-off employees by the Support for Education, Empowerment and Development (SEED) programme. Also, an Unemployment Assistance Benefit programme was introduced during COVID-19.	Currently in the process of developing a National Health Insurance (NHI) programme, in line with UN Sustainable Development Goals (SDGs).
Montserrat	Support to unemployed persons of 900 Eastern Caribbean dollars (XCD) per month was announced during COVID-19.	X
St. Kitts and Nevis	The country has announced its intention to develop an Unemployment Insurance Fund. Legislation is in the drafting phase. The Social Security Board approved cash transfers of XCD 1 000 to individuals whose employment was affected by COVID-19 for four months in 2020.	Advanced plans towards development of a universal healthcare system entitled National Health Insurance, including draft legislation.
St. Lucia	Intention to develop a programme announced.	Advanced plans towards the development of a universal health care system called the National Health Insurance Initiative, including USD 20 million funding from the World Bank to finance its development.
St. Vincent and the Grenadines	X	Project with PAHO started in 2014.

Note: X denotes that no plans are underway.
Source: US Social Security Administration (2020[14]), *Social Security Programs Throughout the World: The Americas, 2019*, https://www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/americas/index.html; Universal Health Coverage Partnership (n.d.[15]), *Universal Health Coverage Partnership: Target Countries*, http://www.uhcpartnership.net/; PAHO/WHO (2019[16]), *Health Ministers of the Americas Discuss Strategies to Achieve Universal Health*, https://www3.paho.org/hq/index.php?option=com_content&view=article&id=15200:ministros-de-salud-de-las-americas-destacan-las-estrategias-implementadas-en-el-camino-a-la-salud-universal&Itemid=72517&lang=en; The Borgen Project (2022[17]), *The Borgen Project – Blog*, https://borgenproject.org/blog/; IMF (2021[18]), *Policy Responses to COVID-19*, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19; St. Kitts Nevis Information Service (2020[19]), *PM Harris commends social security's response to assist 3,500 persons who lost income due to Covid-19*, https://www.sknis.gov.kn/2020/05/11/pm-harris-commends-social-securitys-response-to-assist-3500-persons-who-lost-income-due-to-covid-19/.

Many universal healthcare initiatives in the OECS are labelled as work in progress, and little information is available about how projects have been advancing. Several member states have, for instance, announced that they have started working on universal health insurance schemes, but a fully functional system has not yet been implemented in the region Table 3.2. In many cases, member states have worked with international organisations such as the Pan American Health Organisation (PAHO), and the World Bank, to develop legislation and healthcare capacity (Universal Health Coverage Partnership, n.d.[15]; PAHO, WHO, 2019[16]). While these projects have already surpassed certain milestones, there is nonetheless little concrete information about the progress or launch of concrete programmes. Consistent communication about projects of this kind would benefit the population by helping to manage expectations.

Permanent unemployment schemes are non-existent in the OECS. In order to protect vulnerable populations and reduce poverty rates, however, it is important to build a safety net for workers, as was highlighted during the COVID-19 pandemic. Nevertheless, there are currently no sustained programmes for unemployed or vulnerable workers. Since the onset of the pandemic, several member states have recognised the importance of making progress on this front, and have announced to media outlets and international audiences their intention to develop unemployment benefits. However, there have yet to be any consistent efforts towards making this a reality.

There is now an opportunity for OECS countries to build upon their responses to COVID-19 in order to develop long-term systems of social protection. Several countries provided temporary unemployment insurance programmes to citizens during the pandemic (Table 3.2), and most have highlighted the importance of developing such a programme in light of the recent crisis. The countries in the region that have implemented such social protection programmes during the pandemic have gained valuable experience in the financing and establishment of systems of this kind. Looking ahead, they can use this as a framework to develop long-term programmes. The pandemic also highlighted the importance of robust public health systems, with most countries increasing their expenditure on healthcare during the crisis.

Streamlining the programmes that already exist can reduce the fragmentation of social assistance programmes. Given that many of the projects for universal healthcare or unemployment insurance that are currently underway in the region are funded in part by donors and multilateral organisations, such as PAHO and the World Bank, these projects are often not designed in conjunction with one another. This can sometimes lead to programmes becoming large and spread out, or else highly specific, creating a fragmented system (Knack and Aminur, 2008[20]). In Dominica, for example, most social assistance seems to consist of multiple programmes for specific groups. The country has 30 separate programmes that are currently undergoing a social protection review. During such a review process, there is scope to streamline and unify social protection programmes.

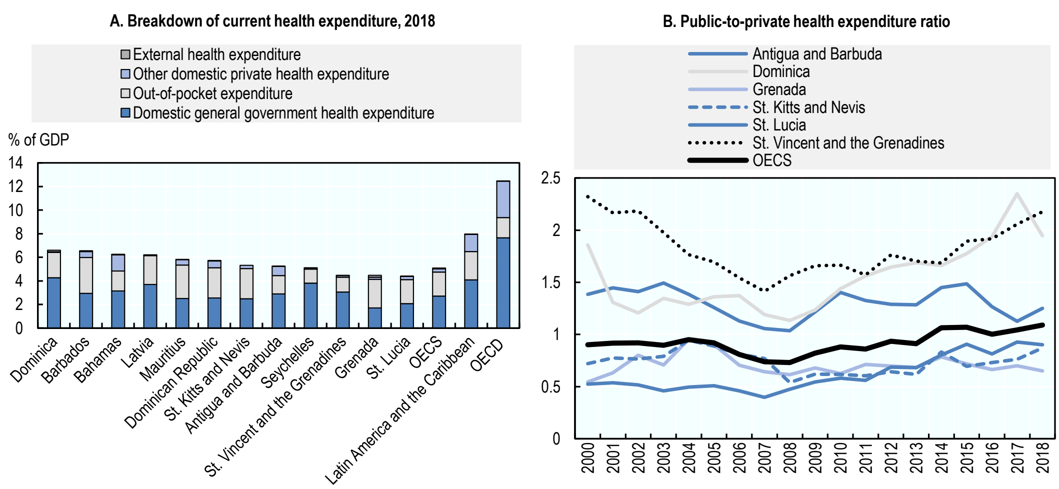
A framework for developing social programmes can be organised at a regional level in order to facilitate adoption across the different member states. In addition to establishing the OECS Economic Union, the Revised Treaty of Basseterre also envisaged the development and adoption of a harmonised, common policy framework for human and social development (OECS, 2020[8]). Given the large differences between member states in terms of the current status of development of such programmes, less advanced countries can take inspiration from those with more developed frameworks. Taking inspiration from other countries in the wider region can also help OECS countries to develop their own programmes. One example of potential inspiration is Barbados's National Insurance Scheme, which has been very successful since it was put in place in 1982.

3.2.3. OECS countries require strategies to expand spending on social protection and healthcare systems

As they look to the future, OECS countries require a strategy for increasing spending on social protection. Currently, a breakdown of government expenditure shows that social benefits make up an average of only 1.89% of government spending in the region. This leaves little room for investment in social protection programmes, and may indeed be causing the slow development of related projects. Against this backdrop, member states need a strategy to expand and improve their spending on social benefits so that these programmes may be pursued in full. One possibility is for governments to expand the revenues that they have at their disposal, thus opening up more space for investment in social assistance schemes, but this is difficult to do given the region's already tight fiscal space (OECS, 2021[21]). Alternatively, it is possible to reorganise public expenditure and cut spending in other areas in order to prioritise spending on social benefits so that a strong system of social protection may be developed.

Many of the member states of the OECS have highlighted a need to increase their overall healthcare capacity by setting a goal in the regional strategy scorecard of spending 6% of GDP on healthcare. In most cases, this represents an increase over current values of one percentage point. Given the high prevalence of non-communicable diseases (NCDs) in the region, a strong health system is all the more necessary in order to care for patients. At present, healthcare spending is relatively low in the OECS region. Indeed, expenditure on healthcare as a share of GDP amounts to a regional average of 4.9%, which is lower than the averages for Latin America and Caribbean (LAC) and the OECD, which stand at 8% and 12.5% respectively (Figure 3.5, Panel A).

Figure 3.5. Healthcare expenditure is moderate in the OECS region, with relatively high out-of-pocket spending in some countries



Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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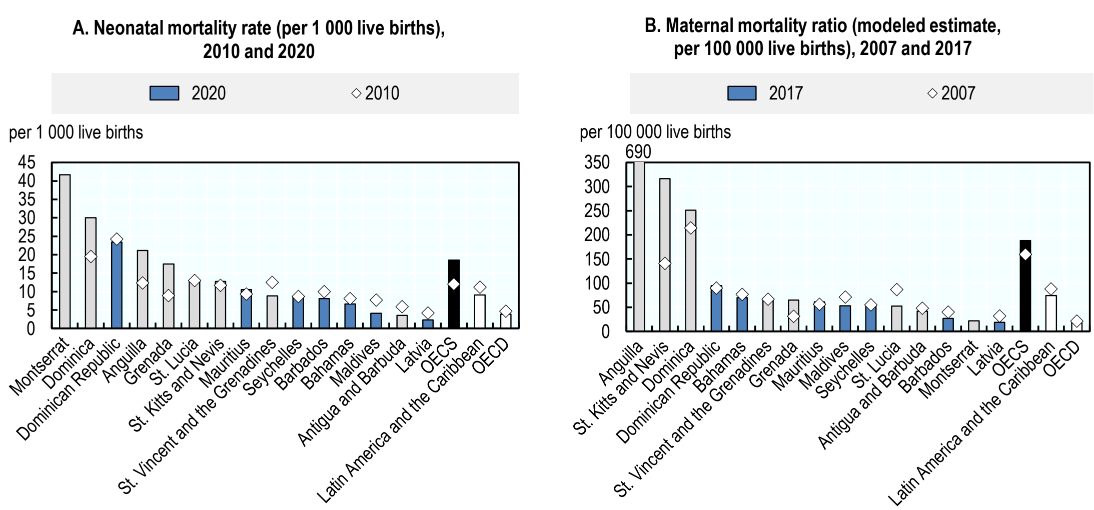
Low levels of overall spending on healthcare in the OECS region result in high out-of-pocket expenditure for patients. Indeed, most of the countries have high rates of out-of-pocket expenditures that burden patients with high costs and debt, and exacerbate inequality (OECD, 2019[22]). An increasing prevalence of NCDs contributes to high out-of-pocket expenditure. According to statistics from 2019, out-of-pocket expenditure accounted on average for 39% of total health spending in the OECS region, almost twice the limit of 20% of total health expenditure suggested by the World Health Organisation (WHO), and nearly three times the OECD average of 13.9% of current health expenditure (World Bank, 2022[5]). Although some countries in the OECS, such as St. Vincent and the Grenadines, do have low levels of out-of-pocket expenditure as a share of GDP, on a par with the OECD, this is against a backdrop of low health spending overall (Figure 3.5, Panel A). This indicates an underfunded sector that provides insufficient care. On a positive note, nonetheless, out-of-pocket expenditure has been on a slow downward trend over the past decade, and public-to-private expenditure ratios are increasing in the region (Figure 3.5, Panel B). However, the region's commercial insurance sector remains small. In the regional strategy scorecard, all member states have aimed to reduce out-of-pocket expenditure as a percentage of current health spending.

3.3. Policies for prevention, early detection, and tackling risk factors are essential to deal effectively with NCDs in the OECS region

3.3.1. OECS countries have improved health outcomes but a relatively high prevalence of NCDs is a challenge in the region

OECS countries have made important progress in antenatal and neonatal care and maternal health, but there is still a significant degree of variation across the region in this regard. To be sure, OECS countries are performing well, and have shown good progress in childhood immunisation and antenatal care (World Bank, 2018[1]). Many OECS countries are performing relatively well in terms of neonatal mortality, and rates have either fallen or remained constant in many countries in the region over the past decade (Figure 3.6, Panel A). Nonetheless, except for Antigua and Barbuda, neonatal mortality rates are still higher than in OECD members in all countries. Likewise, most OECS member states have moderate maternal mortality rates, and rates have declined or remained constant over the past decade in many countries in the region (Figure 3.6, Panel B). However, there is scope to further reduce maternal mortality rates in the region, and they are still higher than in OECD members. Moreover, maternal mortality remains high in Anguilla, St. Kitts and Nevis and Dominica and has been increasing in St. Kitts and Nevis, Dominica and Grenada.

Figure 3.6. Most OECS countries are performing relatively well in terms of neonatal and maternal mortality, but there is a lot of variation across the region



Note: In Panel A, data for Montserrat 2015 instead of 2020 and data for Anguilla 2013 instead of 2010. In Panel B, data for Dominica and Montserrat 2016 instead of 2017, data for Grenada and St. Kitts and Nevis 2020 instead of 2017, data for St. Lucia 2018 instead of 2017 data for St. Kitts and Nevis 2008 instead of 2007 and data for Anguilla and Dominica 2010 instead of 2007.
Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; PAHO (2022[23]), *ENLACE: Data Portal on Noncommunicable Diseases, Mental Health, and External Causes*, Pan-American Health Organization, Washington, DC, https://www.paho.org/en/enlace.

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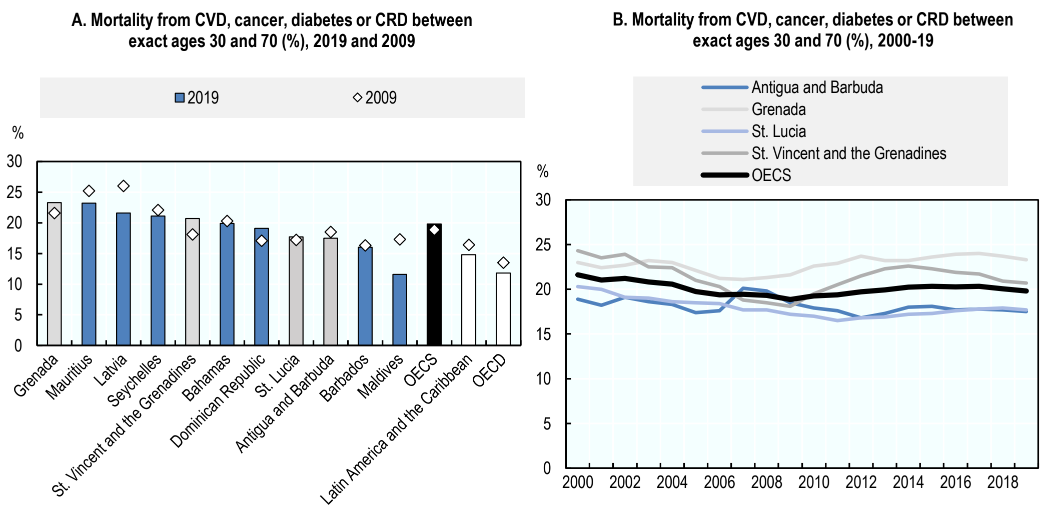
Even though there has been a slight decline in the mortality rate from non-communicable diseases in the OECS region, the prevalence of NCDs remains relatively high. The mortality rate from NCDs decreased from an average of 610 per 100 000 people in 2000, to 543 per 100 000 people in 2019. Mortality from cardiovascular disease (CVD), cancer, diabetes, and chronic respiratory disease (CRD) in people between the ages of 30 and 70 has, moreover, remained largely constant since the early 2000s.

Nonetheless, mortality from NCDs remains rather high in the OECS region, where it stands 33.7% above the average for Latin American and Caribbean, and almost twice the OECD average (Figure 3.7, Panel A). Furthermore, diabetes and high blood pressure present particular challenges for the region. Indeed, the prevalence of diabetes in 20 to 79 year olds increased in the OECS region from 9.1% in 2010 to 12% in 2019, compared to an OECD average of 8.3% (Figure 3.8, Panel A). Moreover, 24.3% of the population in the OECS region aged 18 and older was affected by high blood pressure in 2015, compared to an average of only 20.8% in the OECD (Figure 3.8, Panel B). Meanwhile, women in the OECS region are more affected than men by both cardiovascular disease and diabetes (World Bank, 2012[24]).

Figure 3.7. The prevalence of non-communicable diseases is high in OECS countries



Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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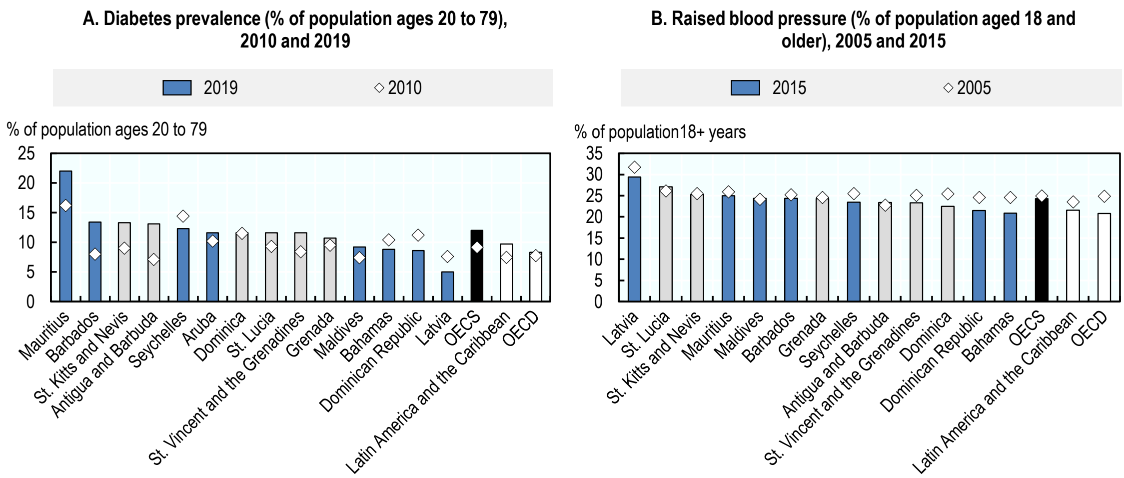
The OECS region's changing demography and economic development are contributing to a shift from communicable diseases to NCDs. A increase in life expectancy and declining birth rates are contributing to an ageing population in the OECS region. As people live longer lives, they are more affected by NCDs. In addition, economic and social development has helped to improve health outcomes in general, and has led in particular to a decline in mortality from infectious and other communicable diseases in the region (World Bank, 2012[24]). In turn, this implies a larger share of deaths from NCDs.

Figure 3.8. Diabetes and high blood pressure are widespread in the OECS region



Note: B. LAC average does not include Aruba, Virgin British Islands, Cayman Islands, Curaçao, Puerto Rico, Sint Maartin, Saint Martin, Turks and Caicos Islands, US Virgin Islands

Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; WHO (2022[25]), *The Global Health Observatory - Indicators*, https://www.who.int/data/gho/data/indicators.

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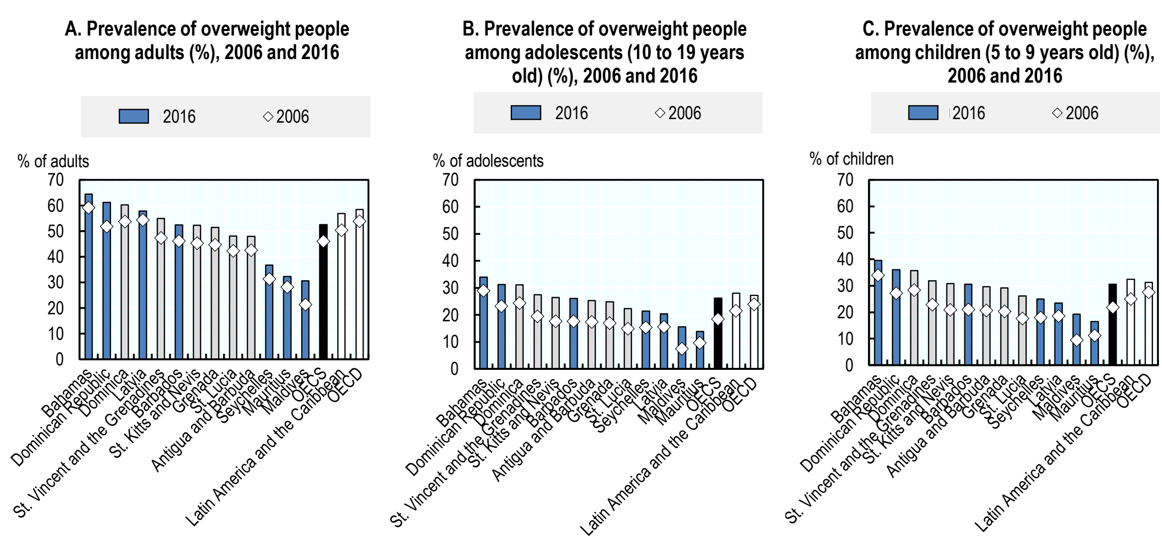
Figure 3.9. Obesity constitutes an increasing challenge in the OECS region



Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; WHO (2022[25]), *The Global Health Observatory - Indicators*, https://www.who.int/data/gho/data/indicators.

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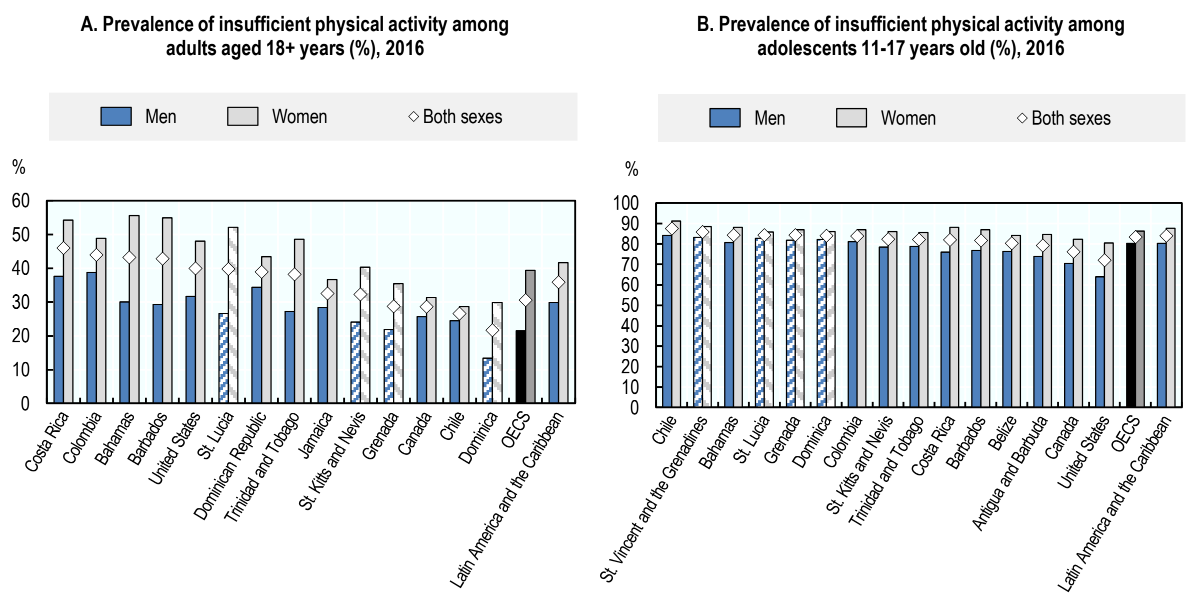
As a result of dietary habits and insufficient physical activity, high and increasing levels of obesity are an important underlying cause of the high prevalence of NCDs in the region. Obesity is an important risk factor both for hypertension and diabetes. The prevalence of obesity in the region has been increasing among all age groups in the OECS (Figure 3.9), and women are more affected by obesity than men (World Bank, 2012[24]). Low low levels of physical activity contribute to obesity, and this is especially the case among adolescents. Physical activity has been declining in the region as a result of urbanisation and sedentary lifestyles. For example, 83.3% of adolescents aged 11 to 17 years old were not sufficiently physically active in 2016 (Figure 3.10, Panel B). Even though this is in line with the Latin American and Caribbean average, this number remains high. Physical inactivity is less of an issue for adults in the region, only 30.8% of whom were not sufficiently physically active (Figure 3.10, Panel A). At 39.8%, St. Lucia faces the highest level of physical inactivity for adults in the region. Furthermore, women are less physically active than men. In addition, poor dietary habits are contributing to obesity, especially among children. People from lower socio-economic groups tend to be more affected by obesity, since the least expensive and most affordable foods tend to be high in calories and also less healthy (World Bank, 2012[24]).

Figure 3.10. Insufficient physical activity is a challenge, especially amongst adolescents



Source: PAHO (2022[23]), *ENLACE: Data Portal on Noncommunicable Diseases, Mental Health, and External Causes*, Pan-American Health Organization, Washington, DC, https://www.paho.org/en/enlace.

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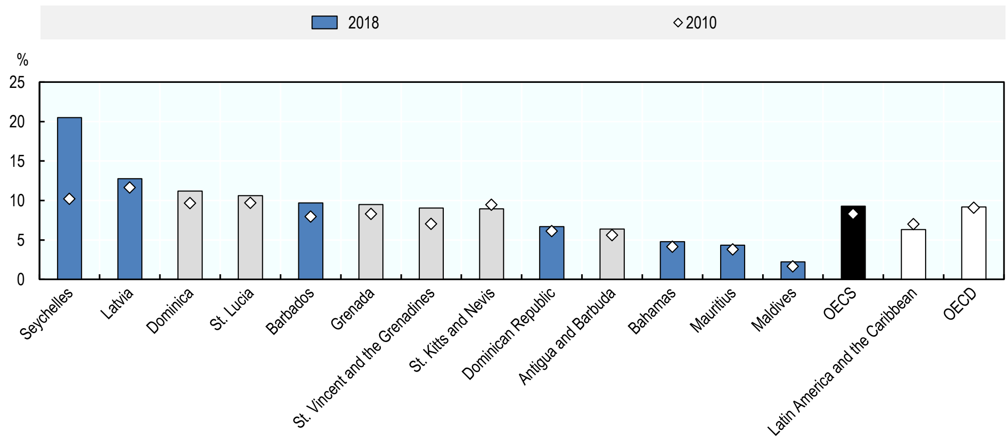
Relatively high alcohol consumption in the region is another factor that contributes to the high prevalence of NCDs. In 2018, alcohol consumption in the OECS region was 13.3 litres on average for the population aged 15 and older, which is comparable to OECD countries (14.2 litres on average), and above the average for Latin America and the Caribbean (11.1 litres on average). Alcohol consumption has been increasing over recent decades in the OECS (Figure 3.11). Still, there is considerable variation across the region, and alcohol consumption is the highest in St. Lucia and Dominica. As in other regions of the world, moreover, alcohol consumption is much more widespread among men than women. In 2016, 24.6% of the population aged 15 and over in the OECS region was affected by heavy episodic drinking, and this value was highest for St. Kitts and Nevis (28.7%), as compared to an average of 20% for Latin America and the Caribbean. High alcohol consumption among adolescents is, moreover, a particular concern in the region. On average, 47.3% of 15-19 year olds in the region consume alcohol regularly, and this value was again the highest for St. Kitts and Nevis (53.7%), compared to 42.6% in Latin America and the Caribbean on average in 2016 (WHO, 2022[25]).

Figure 3.11. Alcohol consumption is relatively high, and increasing, in the OECS region

Total alcohol consumption per capita (litres of pure alcohol, projected estimates, 15+ years of age), 2010 and 2018



Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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Smoking is less widespread in the OECS region than in other parts of the world, but tobacco use among adolescents is a concern in Dominica. Tobacco use is a serious risk factor for multiple non-communicable diseases, and it causes high rates of disability and morbidity. Data on tobacco use in the OECS region is limited, but existing evidence does shows that smoking is less widespread in the Eastern Caribbean than in other parts of the world (World Bank, 2012[24]). However, tobacco use among adolescents is a concern in Dominica, where it is the highest among 13-15 year olds in all of the Latin American and Caribbean countries for which data is available. It stands at 25.3%, as compared to an average of 12.8% for Latin America and Caribbean in 2016 (PAHO, 2022[23]).

NCDs have a high cost, including direct costs of individual health spending, indirect loss of earnings, and the economic burden that they place upon families, communities, and private and public healthcare systems. In the OECS region, moreover, high healthcare spending is reflected in high out-of-pocket expenditure. For example, the average annual out-of-pocket spending per patient on diabetes ranged from USD 322 in St. Vincent and the Grenadines to USD 769 in Antigua and Barbuda as of 2008, representing 1.1 to 1.4 times the average total health expenditure per capita in these countries. The indirect cost of NCDs results from a reduction in productivity due to absenteeism, as in being away from work, presenteeism, as in working less effectively, and also due to the reduction in the supply of labour that early retirement and premature death can cause, leading to a loss of income (World Bank, 2012[24]; OECD/UN, 2021[26]).

3.3.2. Prevention through awareness raising, legislation and regulation, and policies to encourage more physical activity could reduce the prevalence of NCDs in the OECS region

In order to reduce the prevalence of NCDs in the OECS region, better prevention is key. Given the high cost of NCDs, prevention is essential and the most cost-effective way to tackle NCDs. For example, the OECD predicts every USD PPP invested in prevention measures for obesity to have a return in economic benefits for countries between USD PPP 1.3 and USD PPP 4.6 (OECD, 2019[27]).

Awareness rising at school, at the workplace and through mass media campaigns is an effective prevention measure. Health promotion and prevention, such as teaching people about risk factors that lead to NCDs, and the importance of a healthy diet and physical activity, could be integrated into school curricula (OECD, 2019[27]; World Bank, 2012[24]). For adults, workplace-based awareness raising is increasingly considered as a potentially effective tool to influence choices favouring healthier lifestyles. Further, the workplace offers an opportunity for targeting at-risk groups such as middle-aged men. In addition to programmes targeting students and employees at work, public-awareness campaigns targeted at the entire population could be developed, including mass-media campaigns to promote healthy lifestyles and activities, both through non-governmental organisations (NGOs) and the private sector (World Bank, 2012[24]). Mass-media campaigns have the important benefit of reaching many people (OECD, 2019[27]).

Other interventions at school and at the workplace have also proven effective. Interventions at school include intensive and frequent physical activity lessons, distribution of nutritional education materials and the provision of healthy foods. Possible interventions at the workplace include healthier daily menus and snacks provided at workplace cafeterias, the provision of sit-stand workstations to promote physical activity and reduce sitting time, and workplace wellness programmes (OECD, 2019[27]).

Meanwhile, developing and expanding existing regulations and legislation on tobacco, alcohol and food products could reduce alcohol and tobacco consumption, and encourage healthier diets. Such legislation and regulation includes the pricing and taxation of alcohol, tobacco and products with a high content of sugar, saturated fat and salt. It also includes smoke-free worksites and public places, restrictions on alcohol-sales outlets and their operating hours, and standards on advertising and drink-driving. For example, international evidence shows that every USD 1 invested in advertising regulation has a return of nearly USD 6 in GDP growth (OECD/UN, 2021[26]; World Bank, 2012[24]; OECD, 2019[27]). OECD analysis suggests that health improvements resulting from food pricing policies disproportionately benefit the poor and outweighs any adverse economic effects for the poor. It is important that pricing policies take into account any potential substitution effects, for example, from one type of unhealthy food to another, and ensure a sufficient pass-through of the tax in the form of a price increase, as minimal changes in price are unlikely to significantly modify purchasing patterns (OECD, 2019[27]).

Taxes and other regulation on alcohol, tobacco and food products already exists in OECS countries but could be further strengthened. At present, all OECS countries have excise and/or VAT taxes on alcoholic beverages. Dominica, St. Kitts and Nevis and St. Vincent and the Grenadines have taxes on sugar-sweetened beverages. All OECS countries have tobacco taxes; however they are less than 25% of the retail price in most countries and below the WHO recommendation of more than 70% of the final sales price. None of the OECS countries has implemented advertising bans or restrictions on advertising for tobacco, alcohol or unhealthy foods. Most OECS countries do not have bans on smoking in public places, and health warnings on cigarette packages were only introduced in Antigua and Barbuda and St. Lucia recently (WHO, 2022[25]; World Bank Group, 2018[28]). In addition to strengthening existing regulation and developing appropriate legislation and regulation in the OECS region, appropriate enforcement would need to be ensured (World Bank, 2012[24]).

Labelling rules for food products and restaurant menus could improve knowledge and awareness about food composition. Food labels on pre-packaged foods aim to inform consumers about the nutritional value of foods. They can include “informative” labels that contain a list of nutrients, which are usually put on the back of packets. They can also include clearly visible “interpretive” labels, providing nutritional information in a more easy-to-understand format, and usually appearing on the front of a packet (OECD, 2019[27]). For example, the EU has harmonised legislation on the provision to consumers of information about food. Under these rules, it is mandatory to provide certain information such as allergens and ingredients, as well as certain nutrition information for pre-packed foods, and there are certain requirements that also apply to fresh meet and non-prepacked foods (European Commission, 2022[29]). Moreover, studies conducted in different European countries between 2003 and 2006 found widespread consumer interest in the use of nutritional information on food packaging, and previous work by the OECD has found an increase of 18% in the number of people selecting healthy food products as a result of food-labelling policies. Meanwhile, the labelling of menus in restaurants involves listing information at points-of-purchase in restaurants and cafeterias on calorie content, as well as on the content of other nutrients of items on menus. Emerging evidence indicates that menu labelling can positively affect consumers' behaviour, and that there is strong public support for it. However, restaurant labelling is much less widespread internationally than food labelling (OECD, 2019[27]).

Policies promoting active travel and walking can increase physical activity, thereby improving physical and mental health and reducing overweight and obesity. Examples of such policies are dedicated cycle lanes and bike-sharing schemes, urban planning to increase the number of parks, recreational areas and green spaces, as well as expanding access to convenient public transport options to encourage people to switch from car use and to walk more to reach their destinations. It is also possible to close central parts of cities to traffic on certain days of the week. Dedicated cycle lanes and bike-sharing schemes exist for example in Copenhagen, London, Amsterdam, Paris, Vienna and New York (OECD, 2019[27]).

In addition to prevention, early detection of NCDs through primary healthcare is also important. For a start, so-called secondary prevention programmes could identify high-risk individuals through healthcare, and then prevent deterioration, incapacity and fatality through appropriate measures. Primary care also constitutes a good opportunity to provide information and advice on healthy lifestyles, and to encourage physical activity. An effective primary health system, as well as training health professionals to deliver preventive services, are essential for this purpose (World Bank, 2012[24]; OECD, 2019[27]).

In order to improve prevention of NCDs and tackle risk factors, strengthening surveillance and monitoring would also be important. More comprehensive, reliable and regularly collected data on the prevalence of risk factors and health outcomes would be required as a basis for setting priorities and designing and evaluating effective interventions, (World Bank, 2018[1]).Looking ahead, there are opportunities in the OECS for regional collaboration in tackling NCDs. For example, harmonised regulation and legislation on tobacco, alcohol, food and medicines could be developed at the regional level. Moreover, designing a regional strategy to tackle NCDs could lead to economies of scale and cost savings. There are also opportunities for regional co-operation in surveillance and monitoring via the collection of data at the regional level, as well as by improving national capacity through the sharing of knowledge. Finally, regional collaboration in training health professionals could also be beneficial. Indeed, it could facilitate the development of new qualifications to prevent and treat NCDs, as well as a sharing of faculty and didactic materials. Collaboration and group purchasing of essential medications could, moreover, serve to increase access and affordability. In this vein, a regional agency, the Pharmaceutical Procurement Service, already invites tenders, and awards Regional Price Contracts, for the procurement of pharmaceuticals for OECS countries (World Bank, 2012[24]).

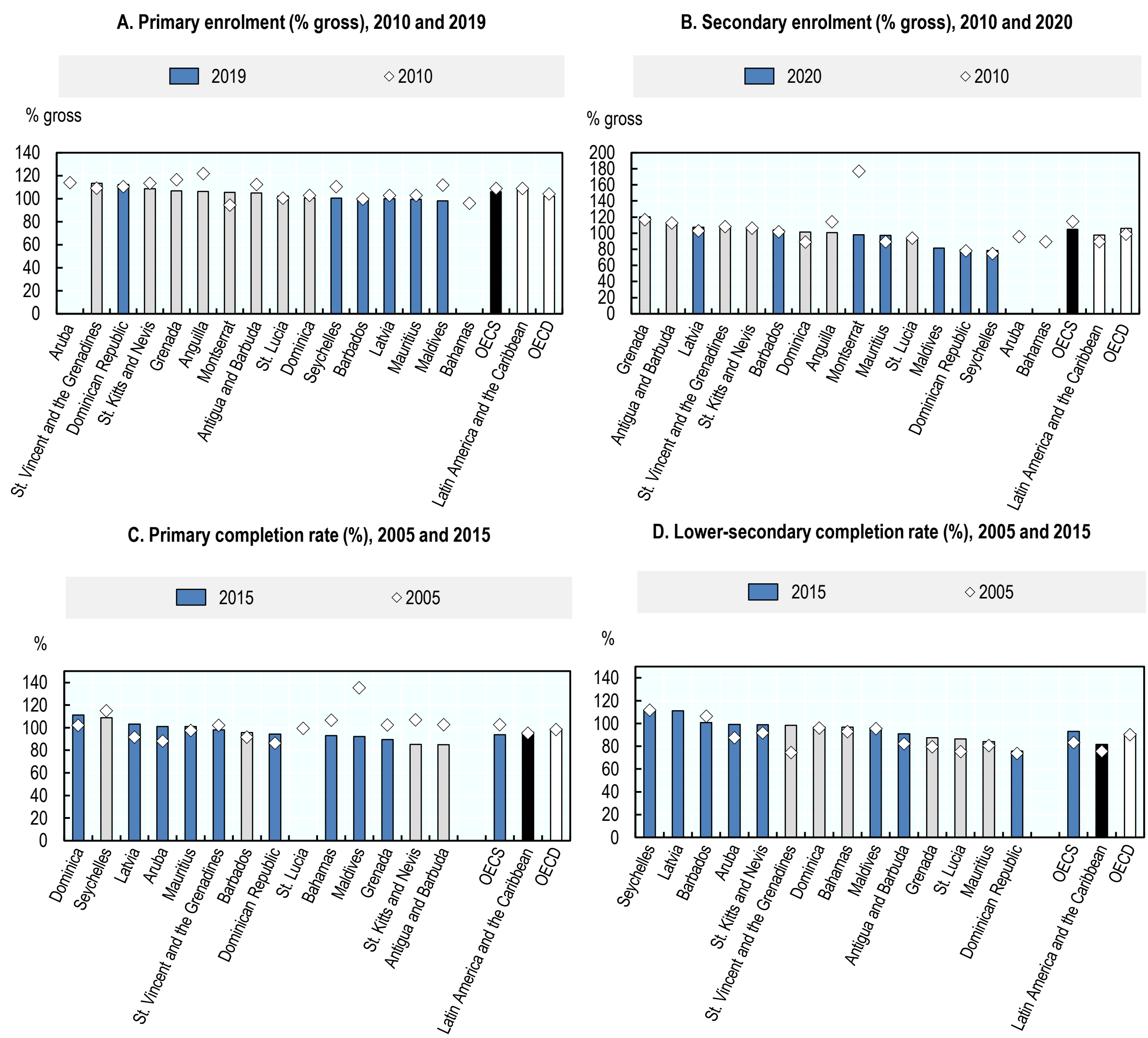
Another essential step in tackling NCDs would be to develop a financing strategy. Financing is required both for patients' healthcare expenditure, and for specific programmes and policy interventions for preventing and tackling risk factors. At present, high out-of-pocket expenditure in the OECS region presents a barrier for those with NCDs who are trying to access health care. What is more, the commercial insurance sector remains small in the OECS region, and public-health expenditure is still relatively low. Jamaica is an example of a country that has developed a successful financing strategy for NCDs. Jamaica's National Health Fund (NHF) provides free or subsidised medicines to patients with NCDs, and finances prevention programmes. Jamaica's NHF is financed by revenues from taxes on tobacco and alcohol, as well as by revenues from a special consumption tax on petrol, and a tax on motor vehicles. Jamaica also taps into private funding from pharmaceutical companies, through an NHF programme (World Bank, 2012[24]).

3.4. Boosting human capital in the OECS region requires improvements in the quality of education, and a closing of the skills gap

3.4.1. OECS countries perform well in terms of access to formal education, but quality remains a challenge

OECS countries perform well in providing access to primary and secondary education. Indeed, enrolment and completion rates are high across the region, both for primary and secondary education (Figure 3.12). High enrolment and completion rates are mainly the result of free and compulsory education for children from approximately five to 16 years old. Most primary and secondary schools in the OECS region are public (OECD, 2019[30]).

Figure 3.12. OECS countries perform well in terms of enrolment at primary and secondary schools and primary and secondary completion rates



Notes: For Panel A, data for St. Vincent and the Grenadines, Grenada, Antigua and Barbuda are for 2018 instead of 2019, data for St. Kitts and Nevis are for 2016 instead of 2019, data for Montserrat are for 2014 instead of 2019, data for Anguilla are for 2011 instead of 2010, data for the Maldives are for 2009 instead of 2010, data for St. Lucia are for 2007 instead of 2010, and data for the Bahamas are for 2006 instead of 2019; For Panel B, data for Grenada, Antigua and Barbuda, St. Vincent and the Grenadines are for 2018 instead of 2020, data for Anguilla, Montserrat, Mauritius, Maldives, LAC and OECD averages are for 2019 instead of 2020, data for St. Kitts and Nevis are for 2016 instead of 2020, data for Anguilla are for 2011 instead of 2010, and data for Montserrat are for 2014 instead of 2010. Panels A and B: Gross enrolment ratio is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.
Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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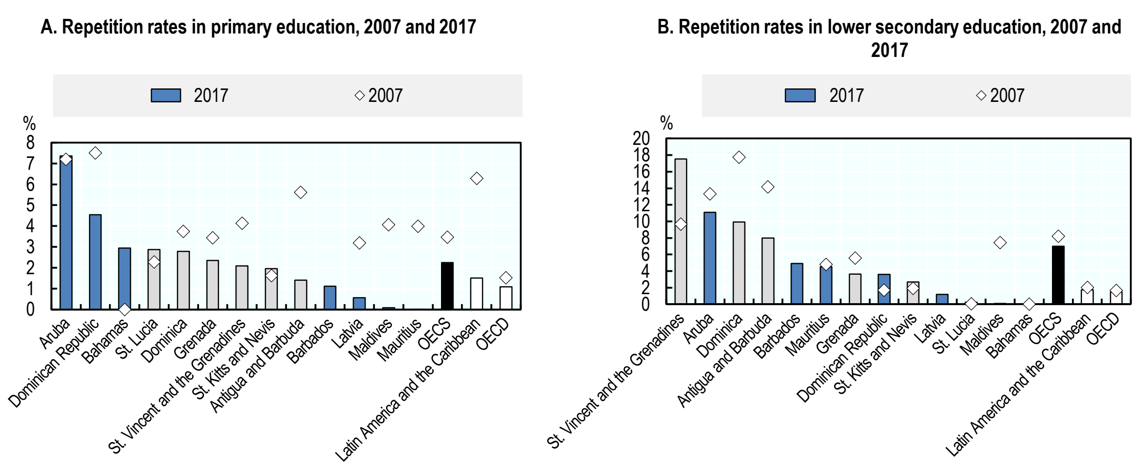
Notwithstanding their success with regard to enrolment, OECS countries are doing less well in terms of student performance, in particular with regard to children from lower socio-economic groups. Indeed, a large share of students do not achieve minimum levels of mastery in numeracy and reading in the national examinations at the end of their primary education. In turn, this contributes to high repetition rates at secondary schools in several OECS countries (Figure 3.13). Repetition rates tend to be higher for children from lower socio-economic backgrounds. These children tend to perform less well at school, and are more likely to drop out before completing secondary school, or indeed to complete school without passing any examinations. This then often results in their exclusion from the labour market, and in limiting their access to higher education. Students' performance in centralised secondary examinations (Caribbean Secondary Education Certificate [CSEC] examinations) has, moreover, deteriorated in most OECS countries since 2015. In 2015, 37.5% of students on average passed five or more CSEC subjects including English A and mathematics, but barely 28% did so in 2019 (OECS, 2017[31]; OECD, 2019[30]; World Bank, 2018[2]).

Figure 3.13. While repetition rates are moderate in primary education in the OECS region, they are high in secondary education in some OECS countries



Source: UNESCO (2022[32]), *Unesco Institute for Statistics*, http://data.uis.unesco.org/.

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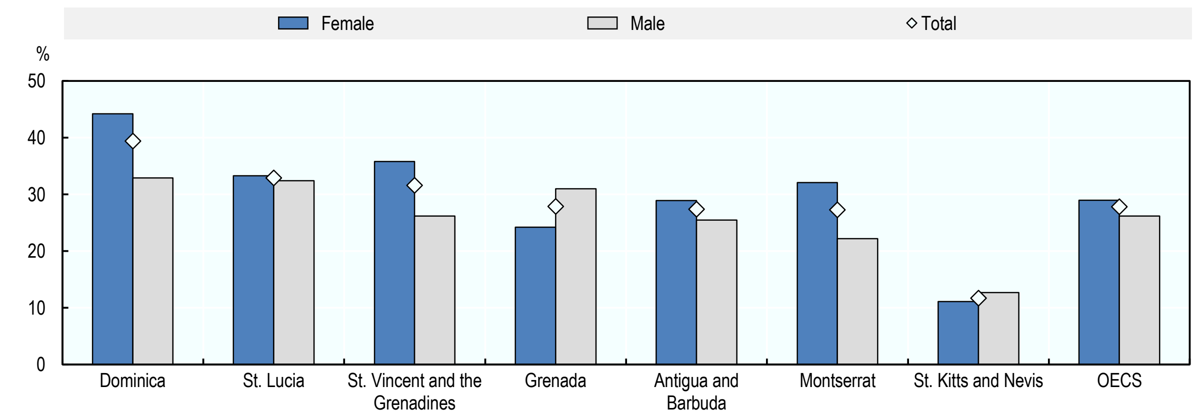
A further challenge is that there are wide gender disparities in student performance in secondary education, and also in tertiary enrolment rates. In most OECS countries, the share of females passing five or more CSEC subjects including English A and Mathematics is considerably higher than the share of males who do so (Figure 3.13). Since the CSEC is a requirement for entering tertiary education, the underperformance of males relative to females in this exam is further reflected in tertiary enrolment rates. Indeed, female tertiary enrolment rates are much higher than male tertiary enrolment rates. In 2015, female gross enrolment in tertiary education was 25% in St. Lucia, and 30% in St. Vincent and the Grenadines, whereas male tertiary enrolment was only 13% and 18% respectively (World Bank, 2022[5]).

Figure 3.14. There are considerable gender disparities in students' performance in CSEC examinations

Students passing five or more CSEC subjects, including English A and Mathematics (%), 2019



Note: For Grenada, data are for 2018 instead of 2019.
Source: OECS (2021[21]), Education Statistical Digest for the Academic year 2018-19, https://www.oecs.org/en/our-work/knowledge/library/education/oecs-education-statistical-digest/education-statistical-digest-2018-19.

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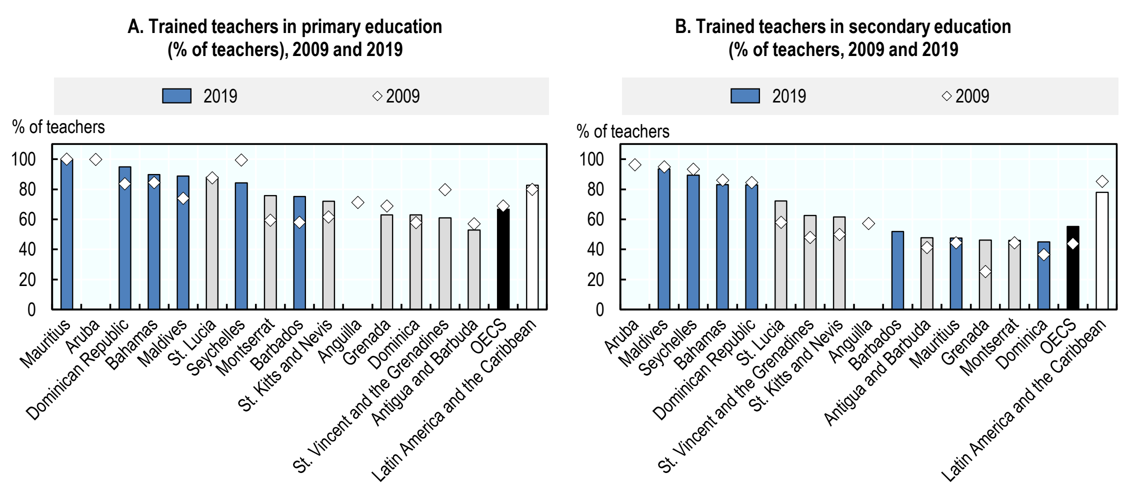
Figure 3.15. The share of untrained teachers in primary and secondary education is high across the region



Note: In Panel A, for Antigua and Barbuda, Grenada, St. Vincent and the Grenadines, Bahamas and Dominican Republic data are for 2018 instead of 2019, and for St. Kitts and Nevis data are for 2016 instead of 2019; In Panel B, for Antigua and Barbuda and Grenada data are for 2018 instead of 2019, for St. Kitts and Nevis data are for 2016 instead of 2019, for St. Vincent and the Grenadines and Dominican Republic data are for 2015 instead of 2019, for Maldives and Grenada data are for 2010 instead of 2009, and data for the LAC average and Mauritius are for 2012 instead of 2009.
Source: World Bank (2022[5]), *World Development Indicators*, https://databank.worldbank.org/source/world-development-indicators.

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Furthermore, a shortage of trained teachers in the OECS contributes to poor performance among students. The share of trained teachers in primary and secondary education is low in the OECS region (Figure 3.15). And while the share of trained teachers in secondary education has increased in all countries in the region over the last decade, the share of trained teachers in primary education has decreased in several countries. In particular, there is a shortage of trained teachers in mathematics, science, English and information and communication technology (ICT). In some cases, teachers are even assigned to teach subjects other than their area of qualification and expertise (OECS/World Bank, 2010[33]).

3.4.2. More and better-trained teachers, and the development of high-quality foundation skills, could enhance the quality of formal education in the OECS region

Incentives for untrained teachers to acquire qualifications more quickly, and the introduction of mandatory pre-service teacher training, are among the measures that could increase the share of trained teachers in the OECS region. Historically, entry requirements for teaching in the OECS region have not included a professional qualification (OECS/World Bank, 2010[33]). In most OECS countries, a majority of teachers start teacher training only once they have been recruited as teachers, studying in parallel to teaching, or after several years of teaching without training. Since students teach while training, this training tends to take a long time. By contrast, teachers in St. Lucia acquire qualifications faster, since they do not earn a salary in the summer months unless they have completed teacher training and are certified. Furthermore, teachers have to stop teaching if they are not certified within five years, and they cannot get a permanent position unless they are certified. This policy provides incentives for teachers to complete teacher training, and to get certified faster. Therefore, St. Lucia has a lower share of untrained teachers than other countries in the region. Other countries in the region could adopt similar policies. In the long run, however, making pre-service teacher training and certification mandatory across the OECS region would be an important step forward (OECS/World Bank, 2010[33]).

Improving the image of the teaching profession, as well as teachers' working conditions and salaries, could encourage better-performing graduates to become teachers, and could enhance teachers' performance. Teachers' wages are relatively low in the OECS region, and opportunities for professional development are limited. Furthermore, wages do not have a performance element, but are entirely based on experience, providing teachers with few incentives to make additional efforts. Finally, there is a lack of professional standards to support teachers in their professional development over the course of their career (e.g. qualified teacher, lead teacher, master teacher). These challenges are even more prevalent at the secondary level than at the primary level. At present, and as a consequence of these rather poor working conditions, graduates often decide to become teachers only if they cannot find a better job. Making the teaching profession more attractive through higher, and performance-based wages, better-quality training, and more opportunities for professional development and lifelong learning, could incentivise younger, brighter and academically better-prepared applicants to become teachers, while also boosting teachers' motivation (OECS/World Bank, 2010[33]).

OECS countries could consider harmonising teacher training across the region, and establishing a common system for accrediting teachers. This would require OECS member states to agree on common standards for teacher-education graduates, and indeed for the recognition of qualifications throughout the region. Such an approach would ensure that teacher-training institutions across the region meet agreed standards, and also that they facilitate the movement of teachers across the region, thereby making the teaching profession more attractive (OECS/World Bank, 2010[33]). In addition, OECS countries would benefit from economies of scale in the design and implementation of a teacher-accreditation system.

In addition to improving training and working conditions for teachers across the region, it is essential to ensure that formal education equips all students with high-quality foundation skills. At present, most students leaving secondary school in the OECS region do not possess the critical thinking, digital, and soft skills that the labour market requires. This includes creative skills, ICT skills, work ethics, and the capacity to generate and communicate knowledge. Across the region, there is also a need to focus on the development of high-quality foundation skills for all students in their school curricula. This includes digital and problem-solving skills, co-operative teamwork skills, pro-activeness, and creativity (OECD, 2019[34]; OECS, 2012[35]). Delivering this kind of focus would require adjustments to teacher training, plus the organisation of in-service training, in order to equip teachers with the required skills (Blom and Hobbs, 2008[36]). To be sure, some efforts on the part of community colleges are underway in the region, with a view to improving foundation skills. For example, the community college in Dominica has introduced a soft-skills course for all students, and the community college in St. Lucia has put in place an information technology (IT) course. However, such efforts are required systematically at the secondary level.

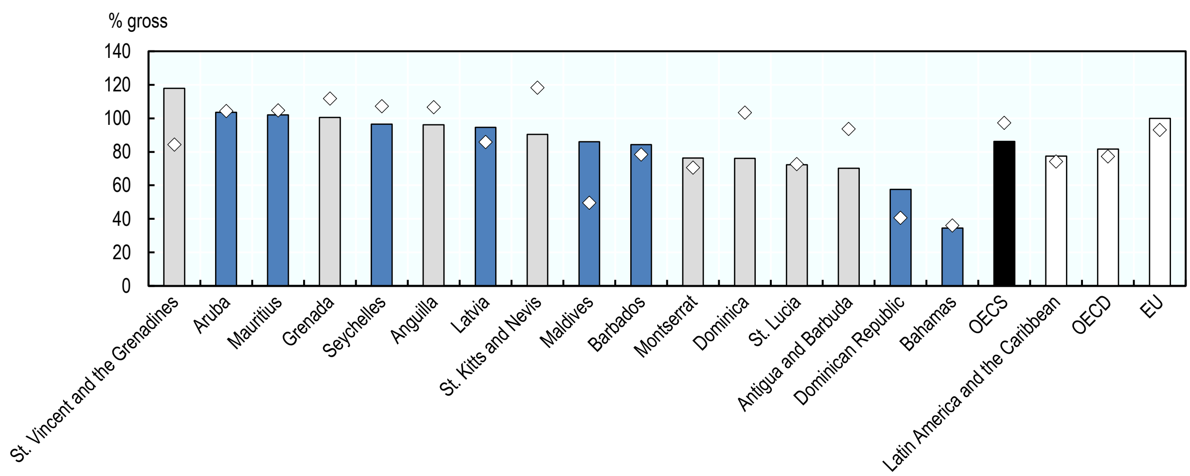
Focusing on skills rather than exam preparation would be an important step in equipping students with high-quality foundation skills. In the OECS region, the secondary education system tends to focus on preparing students for CSEC exams rather than on developing specific skills. Student's CSEC passes are widely used as a screening device for entry into community colleges and the University of the West Indies, as well as in job announcements. There is, however, a need for more interactive teaching methods and problem-oriented curricula, including active participation, case-based training, and team projects (Blom and Hobbs, 2008[36]).

3.4.3. The public pre-primary education offer could be expanded in the region

By comparison with international standards, the countries of the OECS already perform relatively well in terms of pre-primary education, but this performance does vary between countries, and there is scope to increase the offering of public pre-primary education (Figure 3.16). Providing access to quality affordable early childhood education (ECE) is important, because it is in children's early years when their minds are most receptive, and the groundwork for their future development is laid. Evidence shows that investments in early learning have the highest returns. In addition, ECE frees up time for women, and allows them to return to the labour market more quickly and easily (OECS, 2020[37]; OECS, 2020[38]; OECS, 2020[39]; World Bank, 2018[2]). While pre-primary enrolment is already close to 100% in St. Vincent and the Grenadines, Anguilla, and Grenada, there is still room to increase pre-primary enrolment rates in Montserrat, Dominica, St. Lucia, and Antigua and Barbuda. Furthermore, there is scope more generally for a larger public pre-primary education offering. At present, pre-primary institutions in the OECS region are mostly privately run. In 2019, there were 393 private pre-primary institutions in the OECS region, and 80 public ones (OECD, 2019[30]).

Figure 3.16. Pre-primary enrolment rates are already relatively high in the OECS region, but there is variation across countries

Pre-primary enrolment (% gross), 2010 and 2020



Note: For Anguilla, Latvia, St. Lucia, Maldives, Montserrat, and St. Vincent and the Grenadines, they are for 2019, for Antigua and Barbuda, Bahamas and Grenada, data are for 2018 instead of 2020, for St. Kitts and Nevis data are for 2016 instead of 2019, and for Aruba data are for 2015 instead of 2019. Likewise, for St Vincent and the Grenadines data are for 2009 instead of 2010, and for Anguilla, Montserrat and the Bahamas data are for 2011 instead of 2010.
Source: World Bank (2022[5]), *World Development Indicators*, https://databank.worldbank.org/source/world-development-indicators.

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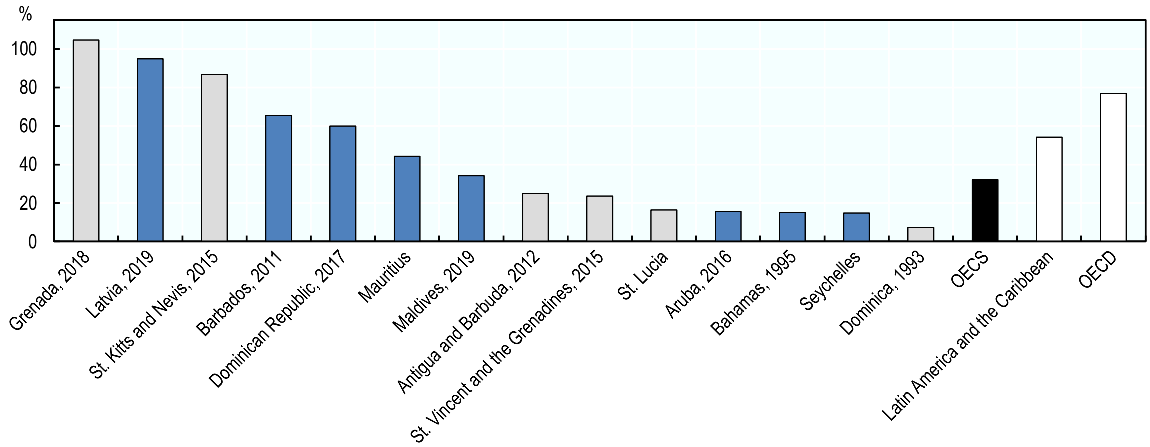
3.4.4. Tertiary education in the OECS region could be expanded with the support of private financing

Enrolment in tertiary education remains limited in the OECS region (Figure 3.17**), despite high rates of return.** Moreover, high enrolment rates in tertiary education in Grenada and St. Kitts and Nevis seem to reflect the large numbers of foreign students who attend offshore universities in these countries, while enrolment rates for locals tend to be much lower. In 2017, the mean number of years of schooling for the population aged 25 and older in the OECS region averaged only 8.6, compared to an average of 11.8 years in the OECD. In St. Lucia, only 9.3% of adults over 25 years old had completed some type of tertiary education as of 2019 (World Bank, 2022[5]). Moreover, the rates of young people who are not in education, employment or training (NEET) are high. On average, this stood at 37% in 2020 in the OECS region, compared to 24% in Latin America and the Caribbean, and 16% in the countries of the OECD (Figure 3.18). Rates of return to post-secondary and tertiary education are high in the OECS region. Young workers with post-secondary and tertiary education have considerably lower unemployment rates than their less-educated peers (Blom and Hobbs, 2008[36]).

Figure 3.17. Enrolment in tertiary education is very low in OECS countries, except for Grenada and St. Kitts and Nevis

Tertiary enrolment (% gross), 2020



Note: Gross enrolment ratio is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.
Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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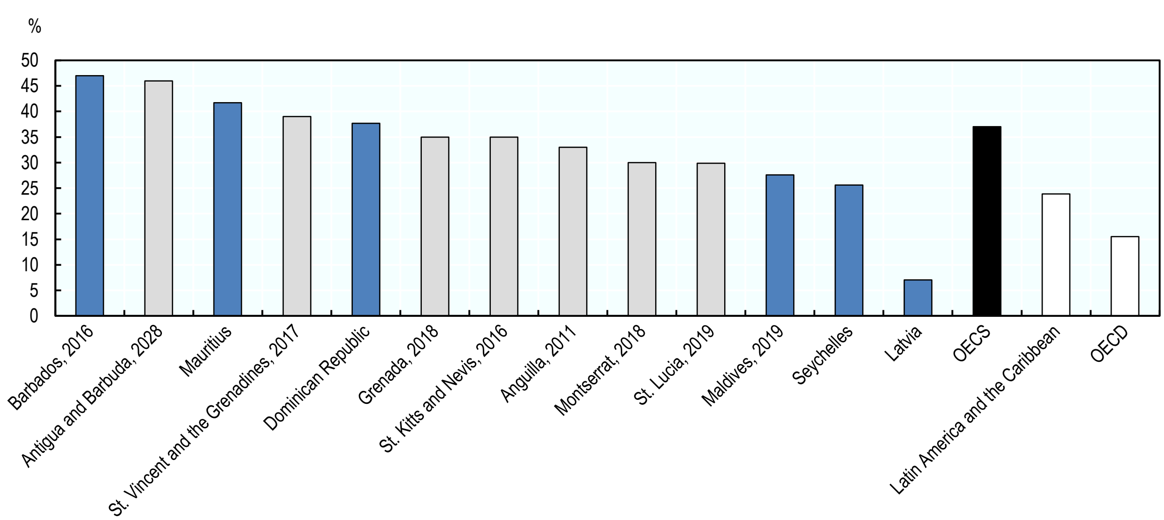
Figure 3.18. The share of young people not in education, employment or training (NEET) in the OECS region is high

Young people not in education, employment or training (NEET) (% of total), 2020



Source: UNESCO (2022[32]), *Unesco Institute for Statistics*, http://data.uis.unesco.org/; World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

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Attracting more private funding could offer opportunities to expand the tertiary education offering in the OECS region. Indeed, tertiary education is under-funded in the region. Expenditure on tertiary education ranges from 5.2% of government expenditure on education in Grenada (2017) and 5.8% in St. Kitts and Nevis (2015), to 12.7% in St. Lucia (2011) and 15.5% in Antigua and Barbuda (2009). These levels compare to an OECD average of 25.4% (2016) (World Bank, 2022[5]). Tertiary education is almost exclusively publicly funded (except for offshore universities), and tuition fees tend to be low or non-existent in the region. For example, community-college tuition fees were recently abolished in Dominica. One option for increasing the financial resources available to community colleges in the region could be to moderately increase tuition fees, in combination with student-loan and scholarship programmes for students who cannot afford the fees. This would allow the colleges to improve and scale up their educational offering, and to educate more students. Such an approach could be justified by the fact that public spending on tertiary education tends to be regressive in the region, since a majority of students enrolling in tertiary education originate from relatively wealthy families. Furthermore, a significant number of graduates go on to emigrate, thereby reducing the returns of public investment in education for governments, since the benefits of these investments do not accrue to the country (World Bank, 2008[40]).

3.4.5. A skills mismatch, and skills shortages, limit private investment and job creation in the OECS region

A skills mismatch resulting in an inadequately prepared workforce, and in skills shortages more generally, presents challenges for the private sector in several OECS countries. An inadequately educated workforce ranks among the top obstacles for firms in the Eastern Caribbean, especially in St. Vincent and the Grenadines, Grenada, and St. Kitts and Nevis. The share of firms identifying an inadequately educated workforce as a major constraint ranges from 12.7% in Dominica, 21.7% in St Lucia, and 27.8% in Antigua and Barbuda, to 35.3% in St. Vincent and the Grenadines, 38.8% in Grenada, and 45.3% in St. Kitts and Nevis (2010) (World Bank, 2022[41]). In 2019, about 57% of workers in St. Lucia were identified as under-qualified. In 2020, meanwhile, 27% of the job openings in St Vincent and the Grenadines that required higher education were not filled due to insufficient numbers of applicants with the required skills (Angel-Urdinola and Marchioni, 2022[42]).

Notably, there is a shortage of technical skills and soft skills. While most students opt for arts and social sciences, there tends to be a shortage of engineers, scientists and technicians (e.g. auto-mechanics, air conditioning technicians, plumbers, and maintenance staff). This challenge seems to be mainly rooted in culture and tradition. Indeed, when it comes to professional careers, doctors and lawyers have the highest social standing, and youngsters are encouraged by their parents to pursue careers in these areas, irrespective of other opportunities. In addition, ICT skills, soft skills, and entrepreneurial skills are also in shortage in the region. This is partly the result of an insufficient focus on the development of these skills in secondary education, as discussed above. On the other hand, employers are looking for soft skills such as co-operative and team-working skills, communication, work ethics, integrity, problem solving and efficiency, entrepreneurship, commitment, and responsibility (Angel-Urdinola and Marchioni, 2022[42]).

There is, moreover, a shortage of skilled workers in the tourism sector. In particular, culinary workers and executive chefs and managers are lacking. To a lesser extent, there is also a lack of waiters, spa workers, and maintenance staff. Companies are often forced to recruit expensive staff, born and trained abroad, for culinary roles and executive positions as chefs and managers, since they are unable to find qualified local workers. In St. Vincent and the Grenadines, for example, specialised managerial skills for the management of marinas and yacht-chartering companies are not available, while in St. Lucia's tourism sector there is a shortage of managerial skills (Blom and Hobbs, 2008[36]).

Structural transformations in the economy of the OECS region have contributed to the skills mismatch and shortage. The shift from agriculture to the services sector has resulted in increased demand for skilled workers. Sectors that have been expanding in the OECS region, such as tourism and other services industries, require more skilled labour than contracting sectors such as agriculture. Due to technological change, agriculture and manufacturing are also becoming more skills-intensive. Other trends that have been contributing to the demand for more skilled workers are outsourcing, increased capital flows, skill-biased technology, and innovation. If the OECS region wants to diversify its economies by expanding digital-services in areas such as business, ICT, medical, financial and professional services, demand for skilled labour will rise even further in the future (Blom and Hobbs, 2008[36]).

In addition, high levels of emigration, notably among young, skilled workers, plus the limited offering of tertiary education, are major factors that contribute to skills shortages in the region. In fact, the OECS region has one of the highest emigration rates in the world, and this is especially the case for high-skilled workers with a post-secondary education. While emigration has certain benefits to home countries, such as remittances, it also results in a substantial loss of human capital. Furthermore, it has a negative impact on innovation, on the creation of new enterprises, and on overall economic development and the prospects for growth. In addition, and as discussed above, an insufficient number of skilled workers are trained in the region. As a result, there is an oversupply of low-skilled workers and a shortage of high-skilled workers, and this translates into a wage premium for skilled workers (World Bank, 2008[40]; Blom and Hobbs, 2008[36]; World Bank, 2018[2]).

High levels of unemployment, and of long-term unemployment in particular, can result in a deterioration and loss of skills. There is a large amount of structural and long-term unemployment in the OECS region. In turn, long-term unemployment can lead to the deterioration and loss of skills. This is especially true in the case of young workers, who do not have much work experience. The deterioration and loss of skills has a negative impact both on workers' future expected earnings, and on the probability that they will get a good job (World Bank, 2018[2]).

Training more skilled workers who possess the skills that are in demand in the labour market will be essential to take advantage of the opportunities that exist for economic growth and improved living conditions in the countries of the OECS. Indeed, skilled workers tend to be better remunerated and to enjoy higher living standards. Moreover, adequate human capital has a key role to play in the diversification of the OECS economies, including in the expansion of digital-services industries, as well as modernisation and technological upgrades in agriculture and fisheries. The availability of greater numbers of better-skilled workers in the region can also contribute to the creation of new business opportunities and jobs in skills-intensive niche industries. In addition, greater numbers of skilled workers would allow more businesses to invest in productivity-enhancing technological improvements such as ICT. Furthermore, the availability of the right skills in the OECS region could reduce the upward pressure on wages, thereby reducing labour costs, and enhancing competitiveness (Blom and Hobbs, 2008[36]).

3.4.6. OECS countries require better information on the skills that are in demand on the labour market

The countries of the OECS require a system to collect and disseminate information on the skills that are in demand on the labour market. Indeed, in order to make decisions about which skills to develop, both individuals and firms need information on the skills that are available or lacking in the labour market. Governments need this information in order to design relevant policies and programmes for education and training, with the aim of reducing mismatches and shortages of skills. In the OECS region, there is a lack of labour-market information. Therefore, it is difficult for educational institutions and governments to address the skills mismatch, and students and parents are not always aware of the careers that are in high demand (OECD, 2019[34]; Blom and Hobbs, 2008[36]). To be sure, some efforts are already underway on the part of community colleges in the region, to disseminate information on skills. For example, the community college in Dominica is organising information sessions for parents in a bid to change their perceptions on career prospects and the skills that are in demand. However, precise information on such skills remains scarce.

Regular assessments of the needs of the regional labour market could improve information on the skills that are in demand. Regular assessments of the labour market's needs, for example through skills assessment and anticipation (SAA) systems, are an effective tool to identify the types of occupations, qualifications and fields of study that are in demand on the labour market, or indeed that may become so in the future. Many OECD countries have adopted SAA systems. Both employers and trade unions should be involved in these assessments of the needs of the labour market, for example through dedicated councils or committees. In addition, a labour-market observatory can monitor trends in the labour market on a regular basis. Regional assessments, plus a regional labour-market observatory, could facilitate substantial cost savings in the OECS region, as compared to country-specific institutions (OECD, 2019[34]; Blom and Hobbs, 2008[36]).

Skills councils in key industries could, moreover, improve communication between employers, educational institutions, labour unions, and the government, thus helping to close the information gap. In addition to information about the labour market, there is a need for platforms through which employers, educational institutions, and governments can discuss skills needs on a regular basis. This could be done through the creation of skills councils. For example, these could be based on the model of the United Kingdom's Learning and Skills Councils (OECD, 2019[34]; Blom and Hobbs, 2008[36]).

3.4.7. A larger and better offering of vocational, tertiary and adult education could close the skills gap in the OECS region

OECS countries require a larger offering of technical and vocational education, and one that is better linked to the labour market. The share of 15 to 24 year-olds who are enrolled in vocational education in the OECS region ranges from 0% in Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines, to 1.8% in Antigua and Barbuda, and this compares to an average of 11.6% in the OECD (2019) (World Bank, 2022[5]). Moreover, there is a need to shift to more vocational education and training at community colleges. Furthermore, existing technical and educational programmes, most importantly at the secondary level, need to be better linked with the labour market (Blom and Hobbs, 2008[36]). To be sure, some efforts to promote more vocational education and training in the region are already underway. For example, the community college in Dominica is trying to encourage more students to pursue technical careers such as agriculture, nursing, or air conditioning. It has also been trying to introduce more internships into its degree programmes, and to build more partnerships for these internships with local businesses, for example in the tourism sector.

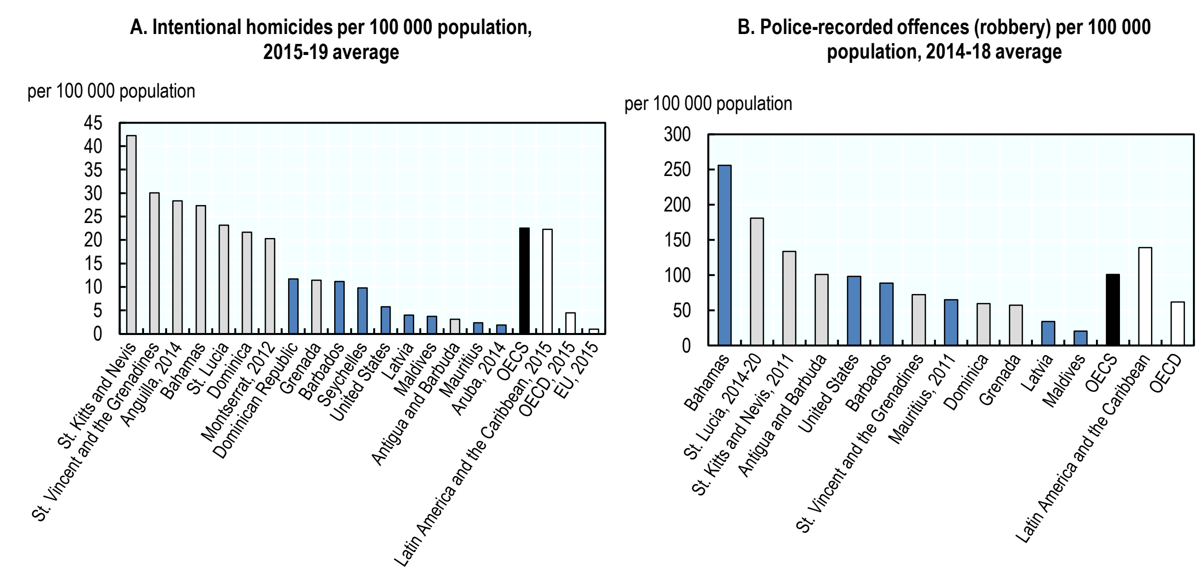
To close the skills gap, OECS countries could also focus on improving adult education. The offering of adult education programmes in the OECS region is small, and adults continue to constitute an under-served market. Still, some adult-learning programmes do exist at community colleges in the region, along with initiatives by NGOs, churches and the private sector, and there are also some programmes that target specific groups, such as prisoners. Some countries have specific institutions that deal with adult education and lifelong learning, such as St. Lucia's National Enrichment and Learning Unit, and St. Vincent and the Grenadines' Adult and Continuing Education Unit. However, none of the OECS countries have a strategy or a policy for adult learning and education, or indeed a framework that standardises adult learning and education. What is more, financing for adult education remains a challenge across the region, and adult learning and education often are the lowest priority in education budgets. By contrast, however, there is a need to look at adult education as an investment in the future rather than as an aspect of social welfare or as a cost with low returns. Information from assessments of the needs of the labour market could be used to develop adult education programmes that line up with labour market needs, and that focus on the skills that are most in demand. Furthermore, there is also an opportunity to create a regional framework for adult education (UNESCO, 2021[43]).

By generating economies of scale, meanwhile, regional collaboration provides an opportunity to close skills gaps. Due to the small size of OECS countries, it is difficult for tertiary education institutions in the region – essentially community colleges – to offer curricula and courses to educate all of the professions in a modern society. Course development is expensive, and it may indeed not pay off if the number of students per cohort is too small. By creating economies of scale, regional collaboration could make it possible to develop a larger offering of courses and curricula. For example, the establishment of a network of community colleges is one notable opportunity. Collaboration in curricula and course development could be facilitated by online teaching, thus building on the experience that institutions have built up in the context of the COVID-19 pandemic. Regional collaboration could focus initially on courses in areas in which the region faces significant labour shortages, such as tourism management and culinary arts. This should include close collaboration with the private sector. Working together with the University of the West Indies, and with recognised international universities, to offer distance-learning courses could, moreover, make it possible to develop additional courses and curricula that enrol a very small number of students even at the regional level (Blom and Hobbs, 2008[36]).

3.5. High levels of crime in the region could be reduced through crime prevention among young people, a better tertiary education offer, and a strengthened judicial system and police force

Levels of crime are high in the OECS region. Indeed, the average rate of intentional homicide in the region is almost four times as high as in the United States, and five times as high as the average for the OECD. Intentional homicides are particularly high in St. Kitts and Nevis, and in St. Vincent and the Grenadines (Figure 3.19, Panel A). Robberies, meanwhile, are most widespread in St. Lucia, Antigua and Barbuda, and St. Kitts and Nevis (Figure 3.19, Panel B). Criminal gangs and drug trafficking and addiction are particularly important challenges across the region (Figure 3.20 and Figure 3.21). In addition, the use of firearms is particularly widespread in the Eastern Caribbean (IMF, 2017[44]). Moreover, money laundering is also an issue. In St. Kitts and Nevis, 66.2% of the population perceives crime as as the largest challenge, whereas 5-19% of the population take this view in other OECS countries (2016) (Vanderbilt University, 2022[45]).

Figure 3.19. Rates of intentional homicide are high in the OECS region, and robberies are relatively widespread in some countries



Source: World Bank (2022[5]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; UNODC (2022[46]) Databases, https://www.unodc.org/unodc/en/international-cooperation/databases.html.

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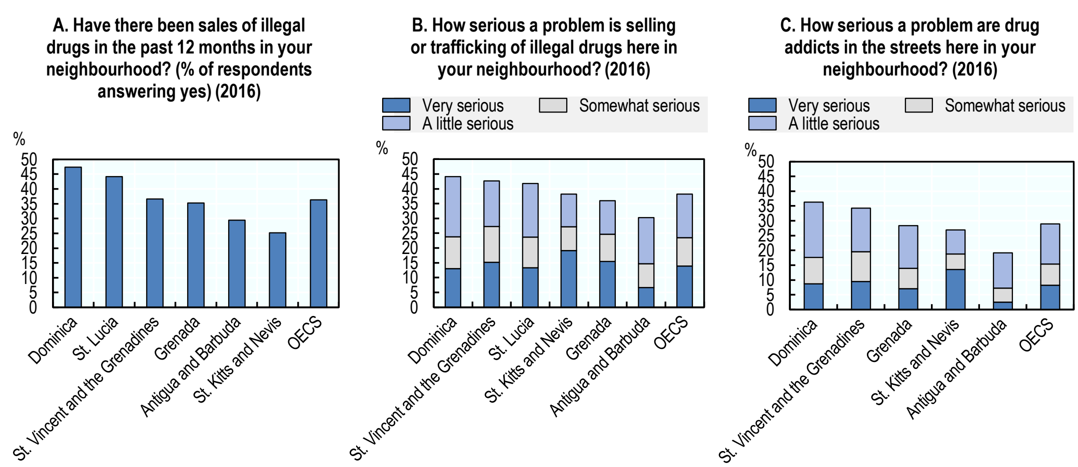
Social challenges in the OECS region contribute to high levels of crime. High levels of unemployment, in particular youth unemployment, plus poverty and inequality, have contributed to the proliferation of criminal gangs in the region (Figure 3.21). Moreover, unemployment and poverty also fuel the trafficking of and addiction to drugs (Figure 3.20). Furthermore, vulnerable groups are more likely to be victims of crimes such as threats and assault (World Bank, 2018[1]; IMF, 2017[44]). Violent crime is more frequent in neighbourhoods where gangs are present. It is also more frequent in neighbourhoods that report higher levels of physical disorder, such as trash, abandoned buildings, and graffiti, and where there is lower social cohesion, such as trust among neighbours (IMF, 2017[44]). Gender-based violence is also an issue in the OECS region, and can fuel other types of criminal behaviours. Indeed, experiencing or witnessing violence at home at an early age is a strong risk factor for violence and delinquency at a later stage of life. 22-24% of women in Antigua and Barbuda and St. Lucia reported having been threatened by their spouses, and 10% reported violence by their spouse, which is in line with the Caribbean regional average (2010) (IDB, 2017[47]).

Levels of delinquency and risky behaviour are particularly high among young people. In addition to people from the lowest income groups, it is indeed young people who are more likely to join criminal gangs (Figure 3.21, Panel B). Young people, especially men, are also more likely to be victims of crimes such as assault and threats, and indeed to be arrested and imprisoned for crime. Risk behaviours amongst adolescents aged 13-17 in the Eastern Caribbean, such as drinking, fighting, and, most importantly, drug use are relatively high in comparison to other countries in Latin America and the Caribbean (2016). Rates of drug use among 13-17 year olds range from approximately 16% in Grenada and 19% in St. Vincent and the Grenadines, to 20% in St. Lucia, and 23% in Antigua and Barbuda (2016) (IDB, 2017[47]; Al-Hassan et al., 2020[48]; World Bank, 2018[1]; IMF, 2017[44]).

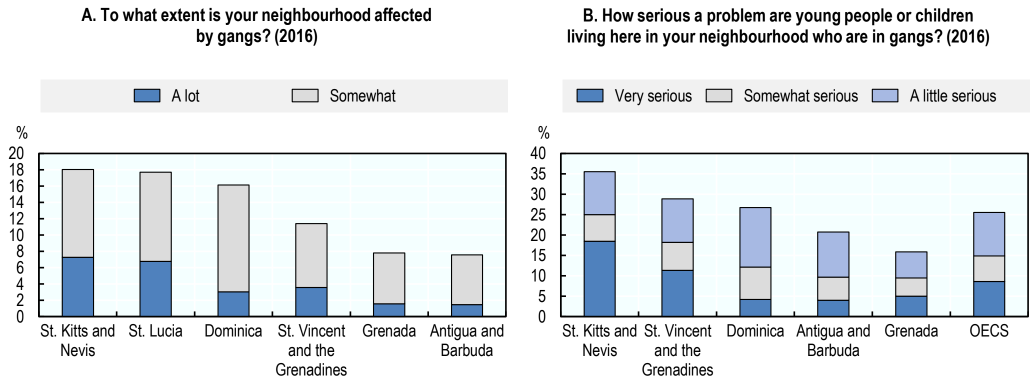
Figure 3.20. Drug trafficking and addiction are important challenges across the OECS region



Source: Vanderbilt University (2022[45]), *LAPOP Americas Barometer*, https://www.vanderbilt.edu/lapop/.

StatLink https://stat.link/4fcl37

Figure 3.21. Social challenges contribute to the success of criminal gangs in the OECS region, in particular among young people



Source: Vanderbilt University (2022[45]), *LAPOP Americas Barometer*, https://www.vanderbilt.edu/lapop/.

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Crime has major economic and social costs. The direct costs of crime include costs from loss, injury and damage, forgone income on the part of victims and prisoners, as well as private and public expenditure on security and the criminal justice system. Indirect costs include costs to victims' families. Furthermore, violent crime can have a negative impact on tourism and private investment. Public spending can be diverted away from growth-enhancing investment in health, education and productive infrastructure to fight crime and fund the criminal justice system. This can then result in lower levels of economic growth (Al-Hassan et al., 2020[48]; IMF, 2017[44]). A study from the IDB estimates the average cost of crime in the Caribbean at 3% of GDP (IDB, 2017[47]).

In the OECS region, crime is associated with lower levels of both economic growth and tourist arrivals. For example, a study by the IDB shows that reducing the homicide rate to the global average could increase annual economic growth by 5.3% in Dominica, 2.1% in St. Kitts and Nevis, 1.6% in St. Lucia, 0.7% in St. Vincent and the Grenadines, and 0.4% in Antigua and Barbuda (based on data for 1995-2011). Assuming, for example, that Dominica's GDP were growing at an annual rate of 3%, this would imply that the country's annual rate of GDP growth would rise to 3.16% if homicides were reduced to the global average rate.

Crime is costly for private businesses in the OECS region. Indeed, it can increase business costs and have a negative effect on firms' revenues, as well as on levels of employment and hours worked. It is also a major deterrent to firms that may otherwise wish to enter the market in OECS countries (IMF, 2017[44]). Close to 30% of firms in Grenada, and more than 20% in both St. Vincent and the Grenadines and St. Kitts and Nevis, report that crime, theft and disorder form a very severe or major obstacle to doing business (2014). Furthermore, approximately 20-33% of firms in the region reported having experienced losses as a result of theft, vandalism, robbery or arson in the previous fiscal year (2014)[1] (IDB, 2017[47]). In 2014, combined losses and expenses due to security ranged from 3.5-4% of annual sales in Antigua and Barbuda, Dominica, Grenada and St. Vincent and the Grenadines, to more than 5% of annual sales in St. Lucia, and close to 8% of annual sales in St. Kitts and Nevis (IMF, 2017[44]).

A stronger focus on crime prevention among young people is essential. Indeed, early criminal behaviours in young people can more easily turn into established patterns than for other age groups, potentially leading to lifelong delinquency, and contributing to the perpetration of violence. Therefore, young people are a particularly important target group when it comes to the prevention of crime. Currently, however, prevention programmes in the OECS are often under-funded and under-staffed (IMF, 2017[44]).

Therefore, it is necessary to dedicate more financial and human resources to crime prevention programmes in the region. Community-based initiatives to support marginalised young people that involve civil society, the private sector, hospitals, parents and teachers have been successful in crime prevention in other countries (Al-Hassan et al., 2020[48]; World Bank, 2018[1]). In Togo, for example, professional integration programmes receive financial and technical support from different actors, including the private sector, line ministries, NGOs and civil-society organisations, and technical and financial partners (OECD Development Centre, 2017[49]). In particular, there is scope for increased private-sector involvement in crime prevention in the OECS region through private financing for, or direct private-sector management of, activities and projects to prevent young people from taking part in criminal activities (e.g. on-the-job training courses for at-risk youths or former prisoners and gang members) (IDB, 2017[47]).

Providing young people with more opportunities that offer an alternative to crime requires improvements in the quality of, and access to education, along with the creation of more good jobs. It would, indeed, be particularly important to enhance technical education and vocational training, and to expand the tertiary and post-secondary offering, both in general, and, in particular, in areas that are subject to skills shortages. Employment and re-integration programmes that are targeted at young criminals and marginalised youths, and that feature private-sector participation and the inclusion of families and communities could, moreover, support the creation of job opportunities for these young people (OECD Development Centre, 2017[49]; OECD Development Centre, 2017[49]).

Another important move across the region would be to strengthen the judicial system, the police force, and border security and control. In the OECS region, the capacity of these institutions tends to be limited in terms of both human and financial resources (World Bank, 2018[1]). Criminal justice is insufficiently equipped to handle the large volume of criminal cases in the region, resulting in high rates of pre-trial detention, and weak legal and supervisory systems. Given that OECS countries are small island states, controlling their sea borders can be difficult. Porous borders have been a challenge, in that they tend to facilitate the illicit movement of drugs, firearms and people through the region (US Department of State, n.d.[50]; IDB, 2017[47]).

Enhanced regional co-operation could make a positive contribution to the fight against crime. The geographical location of Caribbean islands, which makes them the perfect platform for trafficking drugs and guns, is a major vector of crime across the region, and this crime often transcends national boundaries. For example, the US government has identified the Eastern Caribbean as an important trans-shipment point for illicit narcotics, primarily from Colombia and Venezuela, and destined for North America, Europe and the Caribbean (US Department of State, n.d.[50]). For these reasons, efforts to fight crime call for regional solutions, such as close co-operation among OECS countries through information sharing, and also in safeguarding national borders. Harmonised legal and institutional frameworks for tackling crime constitute another opportunity. There have already been some efforts in this regard at the CARICOM level (Al-Hassan et al., 2020[48]).

Notes

[1] Approximately 33% of firms in St. Kitts, 26% of firms in Grenada, 25% of firms in Dominica, 23% of firms in St. Vincent and the Grenadines, and 20% of firms in St. Lucia and Antigua and Barbuda.

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4 The sustainable use of natural endowments

This chapter discusses key opportunities and constraints falling into the third pillar of the OECS Development Strategy: the sustainable use of natural endowments. The development of renewable energies constitutes a key opportunity and could reduce the cost of energy in the region. This requires strong political will and a strategic vision. Furthermore, there is a need to secure sufficient financial resources and for reform to regulatory frameworks in the energy sector in OECS countries to facilitate private investment in renewable energies. OECS countries' location and rich ocean biodiversity open opportunities in the sustainable ocean economy. There could be potential opportunity in establishing a regional sustainable ocean economy hub, both for academic research and education. Given OECS countries' vulnerability to climate disasters, improving their resilience to such disasters should be a key policy priority for the region. Finally, waste management in the OECS region could be improved through increased recycling and better plastic regulations.

Scaling up renewable energy and the sustainable ocean economy, and building resilience towards natural disasters, represent important opportunities for the OECS region. Indeed, and as already noted, the development of renewables could reduce the cost of energy in the region. This requires a strong political will and a strategic vision. Furthermore, there is a need to secure sufficient financial resources and for reform to regulatory frameworks in the energy sector to facilitate private investment. Regional collaboration in energy-sector regulation, in geothermal energy, and in the training of skilled technicians could generate economies of scale. Furthermore, OECS countries' location and rich marine biodiversity open up opportunities in the sustainable ocean economy. In particular, marine biotechnologies are one area of the sustainable ocean economy that could be further exploited in the region. There could be potential opportunity in establishing a regional sustainable ocean economy hub, both for academic research and education. Finally, and given OECS countries' vulnerability to natural disasters, improving their resilience to such disasters should be a key policy priority for the region. Designing disaster-resilience strategies, developing disaster-resilient infrastructure, strengthening public finances, and putting in place the kinds of ex-post resilience measures that can ensure a speedy recovery, are all essential in the quest to bolster the region's resilience to natural disasters. Table 4.1 represents five major opportunities for the sustainable use of natural endowments in the OECS region.

Table 4.1. Five major opportunities for the sustainable use of natural endowments in the OECS region

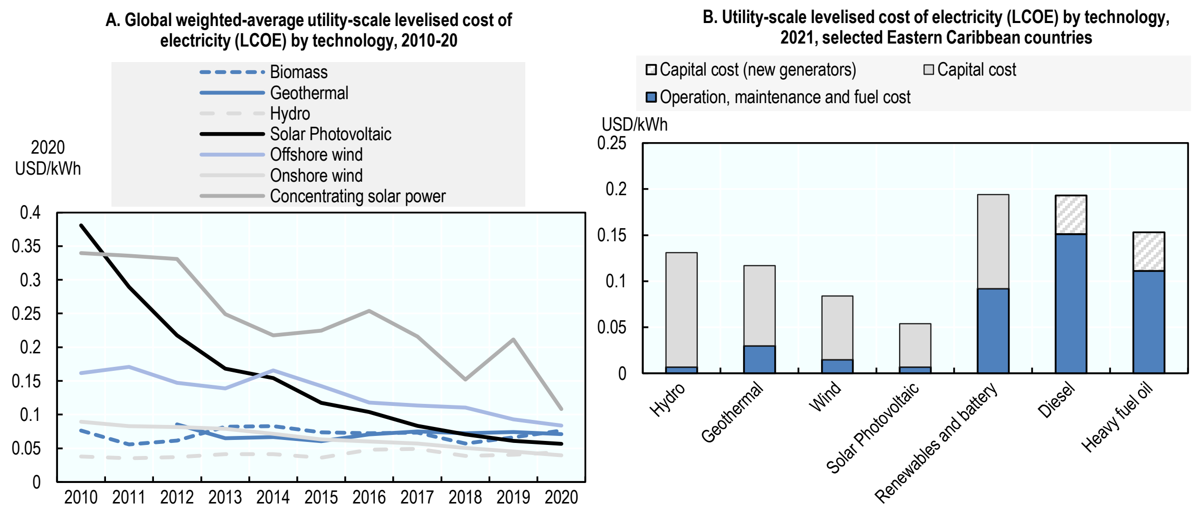
1. Develop strategic visions and clear and comprehensive strategies for scaling up renewable energy in countries in the OECS region
2. Reform energy-sector regulatory frameworks to facilitate private investment in renewables
3. Develop strategies to secure sufficient financing for investment in renewables
4. Further explore the possibility of a regional sustainable ocean economy hub for academic research and education
5. Design disaster-resilience strategies, develop disaster-resilient infrastructure, implement ex-post resilience strategies, and strengthen public finances to render the region more resilient to natural disasters

4.1. The development of renewable energy facilitated by regional co-operation could reduce the cost of energy

The price of renewable energy has fallen dramatically over the past decade. For example, the global weighted-average utility-scale levelised cost of electricity (LCOE) from solar photovoltaic (PV) installations fell by 85% between 2010 and 2020. Over the same period, the LCOE of offshore wind power fell by 48%, while the LCOE of onshore wind power declined by 56% (Figure 4.1, Panel A). Steadily improving technologies, economies of scale, competitive supply chains, and improving experiences on the part of developers are all factors that have contributed to this dramatic decline in costs (IRENA, 2021[1]).

Renewables are already cost-competitive in the Eastern Caribbean, and are cheaper than imported fossil fuels. Both for wind power and solar PV, the combined costs of operation, maintenance and capital are lower in the Eastern Caribbean than the mere combination of operation, maintenance and fuel costs for generators that run on diesel or heavy fuel oil. Meanwhile, the combined costs of operation, maintenance and capital for geothermal energy are lower than the combined costs just of operating, maintaining and fuelling diesel-powered generators (Figure 4.1, Panel B). Furthermore, the costs of combining renewables with batteries are equivalent to the combined operation, maintenance, fuel and capital costs for diesel generators (USAID, 2021[2]).

Figure 4.1. Global renewables prices have been decreasing dramatically over recent decades, including in the Eastern Caribbean



Note: In Panel B, "Renewables & battery" is based 33% on wind and 66% on solar. The Eastern Caribbean countries covered in Panel B are Antigua and Barbuda, Barbados, St. Lucia, and St. Vincent and the Grenadines.
Source: IRENA (2021[1]), Renewable Power Generation Costs in 2020, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jun/IRENA_Power_Generation_Costs_2020.pdf; USAID (2021[2]), Caribbean Energy Initiative: Cost Comparison of Power Generation Options in Select Caribbean Island Nations, United States Agency for International Development, Washington, DC, https://pdf.usaid.gov/pdf_docs/PA00XJ7V.pdf.

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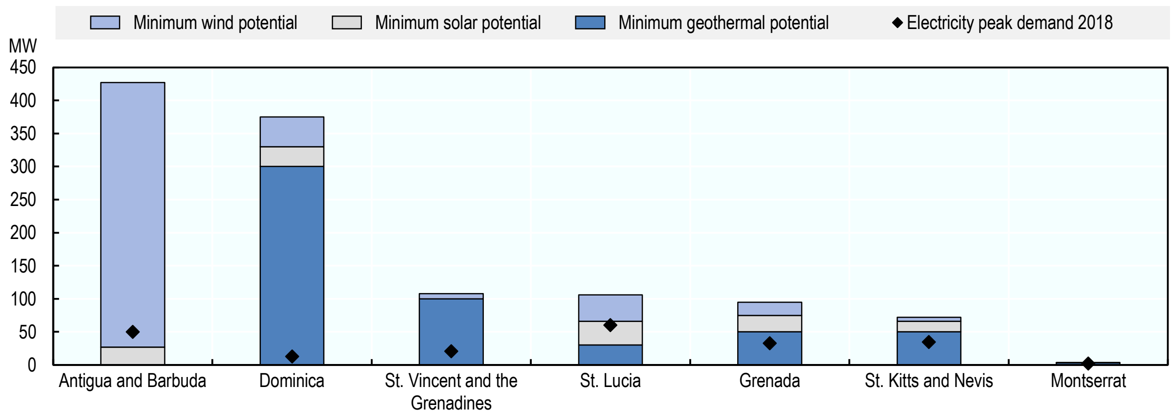
OECS countries are endowed with abundant renewable energy resources. In fact, most OECS countries' renewable-energy potential in terms of solar, wind and geothermal energy is a multiple even of their peak level of demand for electricity (Figure 4.2). Marine renewable energy, which includes wave, current and tidal power, is another potential source of power generation for OECS countries. For the most part, however, ocean energy technologies are still at an early stage of development (OECD, 2020[3]). In sum, low renewable prices, in combination with OECS countries' abundant renewable-energy resources, result in a multitude of opportunities for electricity generation from renewable sources.

Figure 4.2. OECS countries have enough renewable-energy potential to cover a multiple of their peak power demand

Minimum renewable potential (2015) and electricity peak demand (2018)



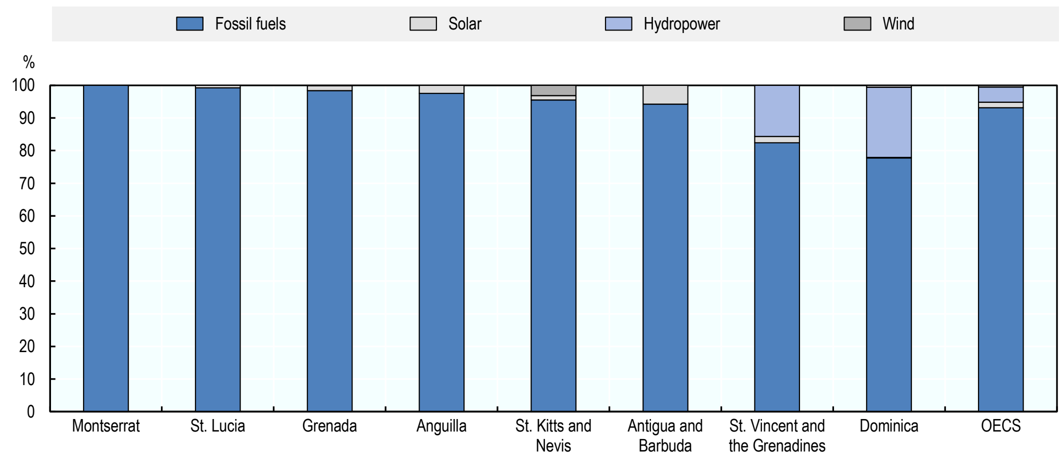
Note: For electricity peak demand in Panel A, data for St. Kitts and Nevis are for 2019 instead of 2018, data for St. Vincent and the Grenadines are for 2017 instead of 2018, and data for Montserrat are for 2015 instead of 2018; Electricity peak demand: St. Vincent and the Grenadines 2017; St. Kitts and Nevis 2019.
Source: World Bank, ESMAP and SOLARGIS (2022[4]), Global Solar Atlas, https://globalsolaratlas.info/map?c=11.609193,8.4375,3; U.S. Department of Energy (2022[5]), Island Energy Snapshots, https://www.energy.gov/eere/island-energy-snapshots.

StatLink https://stat.link/k0jx9e

Notwithstanding the potential for renewables, their use to generate electricity currently remains very limited in most OECS countries. To date, these countries continue to rely largely on imported petroleum products, mainly diesel and heavy fuel oil, for electricity generation (Figure 4.3). In 2019, fossil fuels accounted on average for 93% of electricity generation in OECS countries. Antigua and Barbuda has the largest solar generation capacity, and St. Kitts and Nevis has the largest wind capacity in the region. However, the wind farm established in Nevis in 2010 (Vergnet Groupe, n.d.[6]) is no longer operational at present, due to a lack of maintenance of the wind turbines. Only St. Vincent and the Grenadines and Dominica make use of hydropower. Dominica is currently in the process of developing 6.6 megawatts (MW) of additional hydropower capacity, plus a 10 MW geothermal plant, which will replace 35% of Dominica's currently-installed power-generation capacity.

Figure 4.3. The share of renewables in OECS countries' electricity mix remains limited

Electricity generation mix (%), 2019



Source: IRENA (2022[7]), Data & Statistics, https://www.irena.org/statistics.

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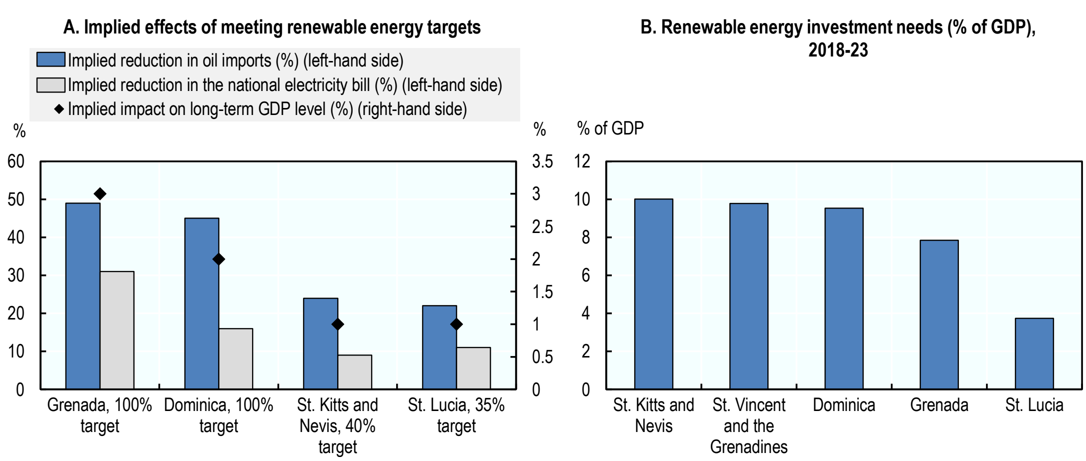
Scaling up renewables could substantially reduce OECS countries' energy bills, thereby contributing positively to economic development in the region. Meeting member states' renewable-energy targets could reduce oil imports by between 22% and 49%, and reduce national electricity bills by 9% to 31% (Figure 4.4, Panel A). As a result, GDP could increase by 1% to 3% in the long run. In addition, lower electricity prices could contribute to higher levels of private investment, fuelling additional GDP growth. Increasing the share of renewables in OECS countries' energy mix and reducing the share of imported fossil fuels could also reduce electricity price volatility in the region (Srinivasan et al., 2017[8]).

Figure 4.4. Scaling up renewables heralds substantial benefits for the OECS region, but it also requires significant investments



Note: In Panel B, the percentage of GDP is of 2021 GDP.
Source: ECCB (2022[9]), *ECCB Statistics Dashboard*, https://www.eccb-centralbank.org/statistics/dashboard-datas/; Srinivasan et al. (2017[8]), Unleashing Growth and Strengthening Resilience in the Caribbean, https://www.imf.org/en/Publications/Books/Issues/2018/02/26/Unleashing-Growth-and-Strengthening-Resilience-in-the-Caribbean-44910.

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4.1.1. Scaling up renewables in the OECS region requires strong political will, and a strategic vision

In order to scale up renewable energy, OECS countries require strong political will and a strategic vision. While a credible vision and long-term strategy are key elements for successfully scaling up renewable energy in the Eastern Caribbean, they remain largely elusive. In most countries, energy ministries have a one-year budget cycle, focusing mainly on the short term. The case of Dominica, however, shows that with strong political will it is possible to overcome regulatory, financial and other challenges to the development of renewable energy resources. Dominica was the first country in the OECS to develop geothermal energy. It was able to raise funding for its 10 MW geothermal project through CBI inflows, donor contributions,[1] and private investment (Office of Energy Efficiency & Renewable Energy, 2020[10]). Furthermore, Dominica is well advanced in the development of an appropriate regulatory framework for integrating a large share of renewables into its energy mix. Dominica adopted a Geothermal Resources Development Act in 2016, and has already established a net billing scheme, inter-connection standards, and grid codes (IRENA, 2016[11]).

More realistic and credible renewable targets are an important element for ensuring a successful scaling up of renewable energy in the region. To date, most OECS countries have very ambitious targets for electricity generation from renewables, both internally and in the regional strategy scorecard, but in many cases these are not very realistic (Table 4.2). Four OECS countries aim at 100% electricity generation from renewables by 2030.

The development of Integrated Resource and Resilience Plans (IRRP) could help OECS countries to develop credible long-term strategies and visions and more realistic targets for scaling up renewables. In essence, IRRPs define countries' electricity supply for the foreseeable future based on different energy sources, including both fossil fuels and renewables. They combine the traditional integrated resource-planning process that electricity-sector utilities regularly use, with analysis of climate vulnerability. Indeed, IRRPs take into account the power system's resistance to natural hazards, and their ability to recover quickly from them. At the 82nd Special Meeting of CARICOM's Council for Trade and Economic Development, the methodology, principles and practices of integrated resource and resilience planning were endorsed as the preferred mechanism for electricity-sector planning, and member states were urged to develop IRRPs by 2023. The Caribbean Centre for Renewable Energy and Energy Efficiency is supporting CARICOM member states in designing their IRRPs. To date, however, St. Kitts and Nevis is the only country in the OECS region that has started working on its IRRP (CCREEE, 2022[12]; CCREEE, 2021[13]).

Table 4.2. Many OECS countries have ambitious targets for electricity generation from renewables

Targets for electricity generation from renewables in OECS countries

Country	Target	Strategic document	Target in the regional strategy scorecard (2030)
Anguilla	30% by 2030	Not applicable (N/A)	N/A
Antigua and Barbuda	86% by 2030	Nationally Determined Contribution to UN climate goals (NDC)	86%
Dominica	100% by 2030	Dominica National Energy Policy	100%
Grenada	100% by 2030	Grenada Vision 2030	100%
Montserrat	100% by 2020	The Montserrat Energy Strategy 2016-30	100%
St. Kitts and Nevis	100% by 2030	NDC	28.5%
St. Lucia	35% by 2025, and 50% by 2050	St. Lucia National Energy Transition Strategy and Integrated Resource Plan	40%
St. Vincent and the Grenadines	60% by 2020 (mainly geothermal)	2017 Renewable Energy Report Card	28.5%

Source: U.S. Department of Energy (2022[5]), Island Energy Snapshots, https://www.energy.gov/eere/island-energy-snapshots; UN (2022[14]), All About the NDCs, https://www.un.org/en/climatechange/all-about-ndcs.

4.1.2. Creating adequate enabling conditions for renewables in the OECS region involves reforming energy-sector regulatory frameworks, and securing sufficient financial resources

Strong political will, and the prioritisation of an energy transition, would facilitate the adoption of legal and regulatory frameworks that could channel private investment into electricity generation in the OECS region. At present, most electrical utilities in the region are integrated monopolies in power generation, transmission and distribution. As a result, regulatory frameworks do not include provisions for private investment in the electricity sector. There are either no licensing regimes for utility-scale independent (third-party) power producers (IPPs), as is the case in Grenada and St. Lucia, or licensing regimes are inadequate, as in Antigua and Barbuda and St Kitts and Nevis. There is no obligation for utilities to purchase from third-party power producers in most countries, as is the case, for example, in Antigua and Barbuda, Grenada, St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines (Table 4.3). Even where third-party power producers are permitted, moreover, there are significant restrictions on their operations, such as onerous, long, and unclear application procedures. Furthermore, access and exploitation rights for geothermal resources are not clearly delineated in most OECS countries. Aside from Dominica's Geothermal Resources Development Act, which was adopted in 2016, only Grenada has already prepared a draft regulatory framework for geothermal energy (Gischler et al., 2016[15]) (ECLAC, 2016[16]).

Table 4.3. In most cases, Eastern Caribbean countries' electricity sectors are public monopolies

Country	Utilities	Ownership	Responsibilities	IPPs allowed	IPPs
Antigua and Barbuda	Antigua Public Utilities Authority (APUA)	Government-owned	Electricity generation, transmission and distribution	Yes	Antigua Power Company Limited (APC)
St. Vincent and the Grenadines	St. Vincent Electricity Services Ltd. (VINLEC); Privately-owned electricity systems for the islands of Palm and Moustique	State-owned, vertically integrated	Generates, transmits, and distributes electricity	No	No
Grenada	Grenada Electricity Services Limited (GRENLEC)	Investor-owned	Exclusive license to generate, transmit, distribute, and sell electricity	No	No
Montserrat	Montserrat Utilities Ltd. (MUL)	Government-owned	Generates, transmits, distributes, and supplies electricity	Yes	No
St. Lucia	St. Lucia Electricity Services Limited (LUCELEC)	Public-private corporation including foreign ownership	No information	No	No
St. Kitts and Nevis	St. Kitts Electricity Company Ltd. (SKELEC), Nevis Electricity Company Ltd. (NEVLEC)	Publicly owned	No information	Yes (25-year license)	Maddens Wind Farm by WINDWATT
Dominica	Dominica Electricity Services Limited (DOMLEC)	Investor-owned	Electricity generation, transmission and distribution	N/A	No
Anguilla	Anguilla Electricity Company Limited (ANGLEC)	Mixed ownership: government / public	Exclusive license to produce, transmit, and distribute electricity in Anguilla	Yes	N/A

Source: U.S. Department of Energy (2022[5]), *Island Energy Snapshots*, https://www.energy.gov/eere/island-energy-snapshots.

There is a lot of scope to improve incentives and regulatory frameworks for renewable energy in OECS countries. To be sure, in most of the countries there are either tax credits, reductions, or exemptions for renewables (Table 4.4). However, net metering or billing schemes exist only in Antigua and

Barbuda, Grenada, St. Lucia, and Dominica. None of the OECS countries have a market-based support mechanism, such as renewable auctions. Furthermore, feed-in tariffs exist only in St. Vincent and the Grenadines, although they are also planned in Antigua and Barbuda. Renewable portfolio standards, which are regulatory mandates that require utility companies to increase electricity generation from renewables, are also absent in Eastern Caribbean states. Meanwhile, Anguilla, Montserrat, St. Kitts and Nevis and St. Lucia lack interconnection standards, which can be defined as a set of requirements and procedures that dictate how renewable energy systems can be legally connected to the electricity grid (Office of Energy Efficiency & Renewable Energy, 2020[10]). Only Grenada and Dominica have grid codes that set out rules for the power system and the operation of the energy market, and that define technical requirements for connecting to and using national power grids. Integrating an increasing share of variable and intermittent renewables in the electricity mix requires the introduction of standards to ensure the safe, secure, economically-viable, and proper functioning of the electricity system, and a stable and secure electricity supply (IRENA, 2016[11]).

Table 4.4. Gaps remain in incentives and regulatory frameworks for renewable energy in OECS countries

Incentives and regulatory frameworks for renewable energy in OECS countries

	Feed-in Tariffs	Net metering or billing	Interconnection standards	Grid codes	Tax credits, reductions or exemptions	Public loans, grants or rebates	Green public procurement	Renewable auctions	Renewable portfolio standards
Anguilla	not in place	not in place	not in place	not in place	planned	planned	not in place	not in place	not in place
Antigua and Barbuda	planned	in place	in place	not in place	in place	not in place	not in place	not in place	not in place
Dominica	not in place	in place	in place	in place	in place	not in place	not in place	not in place	not in place
Grenada	not in place	in place	in place	in place	in place	planned	not in place	not in place	planned
Montserrat	not in place	not in place	not in place	not in place	in place	not in place	not in place	not in place	not in place
St. Kitts and Nevis	not in place	not in place	planned	not in place	in place	in place	not in place	not in place	not in place
St. Lucia	not in place	in place	not in place	not in place	in place	not in place	not in place	not in place	not in place
St. Vincent and the Grenadines	in place	not in place	in place	not in place	in place	in place	in place	not in place	not in place

Notes: ● not in place, ● planned, ● in place
Source: U.S. Department of Energy (2022[5]), *Island Energy Snapshots*, https://www.energy.gov/eere/island-energy-snapshots; Srinivasan et al. (2017[8]), *Unleashing Growth and Strengthening Resilience in the Caribbean*, https://www.imf.org/en/Publications/Books/Issues/2018/02/26/Unleashing-Growth-and-Strengthening-Resilience-in-the-Caribbean-44910.

Renewable energy projects require relatively high levels of upfront capital investment, and difficult access to finance is a significant obstacle to the deployment of renewables in the Eastern Caribbean, This is especially the case for geothermal energy. High upfront investment costs for renewables contrast with their operating and maintenance costs, which tend to be very low. The OECS region's needs for investment in renewables over a five-year period range from 3.7% of GDP in St. Lucia, to 10% of GDP in St. Kitts and Nevis (Figure 4.4, Panel B). Given the limited size of their populations, and thus their limited tax revenues and budgets, securing the financial resources that are required to finance the large upfront capital investments that renewable energy projects require tends to be difficult for OECS countries.

In order to solve the financing challenge for renewable energy in the region, it is essential to facilitate private investment by reforming regulatory frameworks. Private investment in renewables is restricted by regulatory frameworks. Plus, government-owned utility companies' ability to borrow for investments in large renewable projects, and to be reliable buyers of power generated by third parties, is constrained in some countries by high levels of government debt, and indeed by their own limited creditworthiness. This is especially the case in Antigua, and Barbuda and St. Kitts and Nevis. In order to secure financing for their sustainable energy projects, third-party power producers need a creditworthy utility to sell to (Gischler et al., 2016[15]) (USAID, 2021[2]). Reforming regulatory frameworks to facilitate private investment would be essential to secure financing for renewables. In addition, OECS countries could consider the introduction of a carbon tax, possibly at the regional level.

It is would also be important to improve financing provided by financial institutions for renewable energy products and projects. Many households in the Eastern Caribbean are credit-constrained, and cannot afford to invest in equipment for renewable energy generation, even if this equipment pays for itself over time. Financial institutions in the Eastern Caribbean tend to be unfamiliar with, and to lack knowledge about, renewable technologies, in particular distributed renewables, and to have limited experience with loans for renewable projects. They are, therefore, reluctant or unwilling to lend, and this exacerbates the credit constraints that households face in investing in renewables such as solar panels. Furthermore, few adequate financial products for investments in renewables exist in the Eastern Caribbean.

4.1.3. Opportunities for economies of scale through regional collaboration exist in energy-sector regulation, geothermal energy, and in the training of skilled technicians

Regional inter-connections would facilitate the integration of electricity systems, and would increase the size of electricity markets. At present, the small individual size of the countries of the Eastern Caribbean, and the low demand for energy that they each represent, do not allow for economies of scale for many renewable projects, in particular in the case of geothermal energy (USAID, 2021[2]). Given the small land mass of countries in the Eastern Caribbean, the availability of land is also a challenge. Regional inter-connections via undersea cables could create an integrated regional electricity system, allowing for electricity imports and exports, and for the pooling of financial resources and land, as well as of other resources, including expertise. It would also facilitate joint investments in renewable energy. In this spirit, Dominica is already in discussions with Martinique and Guadeloupe on inter-connection cables for electricity exports (Dominica Geothermal Development Company Limited, 2018[17]; CS Global Partners, 2021[18]). Nonetheless, regional interconnection requires further study and a careful assessment of the business case for each individual connection line and would be feasible only in the long term.

Regional collaboration in geothermal energy could generate economies of scale, allowing for a sharing of costs, and thereby relaxing financial constraints. In most OECS countries, geothermal potential for electricity generation outstrips electricity demand, resulting in opportunities to export electricity to countries in the region. At the same time, regional collaboration on geothermal energy investments could facilitate the mobilisation of financial resources required for large upfront capital investments. Regional inter-connections via undersea cables would be a pre-condition for exporting electricity from one island to another. Alternatively, the excess electricity generated from geothermal resources could be used to produce hydrogen for export. Nonetheless, similarly to regional interconnection, the possibility to produce and export hydrogen requires further study and a careful evaluation in terms of costs and benefits.

In combination with regional inter-connections, geothermal energy could serve as baseload capacity to facilitate the integration of intermittent renewables, such as solar and wind energy. The amount of electricity generated from solar and wind energy depends on climate patterns, and on the sun shining or wind blowing at a given moment. In addition, fluctuations in demand for electricity do not always correspond to fluctuations in the electricity that is generated from these resources. In order significantly to increase the share of solar and wind power in their electricity mix, Eastern Caribbean countries require flexible electricity systems so that they can adjust electricity production quickly in response to large fluctuations in the amounts of electricity coming from renewable resources. In combination with regional inter-connections, OECS countries' great potential for geothermal energy could allow them to solve the baseload challenge in that geothermal would complement intermittent solar and wind power. Geothermal plants generate a stable supply of electricity. Regional inter-connections would make OECS countries' electricity systems more flexible, allowing exports and imports to balance intermittent renewables. Islands that lack the potential to develop geothermal projects would be able to import geothermal energy from neighbouring islands. Reinforcing individual countries' electricity grids in order to allow for larger fluctuations in electricity supply would be a pre-condition for regional inter-connection, and for the integration of a higher share of intermittent renewables.

At present, many OECS countries do not have independent regulatory institutions for the energy sector. Since electricity sectors in the region are monopolies in power generation, transmission and distribution, there has not historically been a need for energy regulators. Most of the region's existing national regulators were established only recently, and independent regulators now exist in several OECS countries. In 2016, for example, Grenada established the Public Utilities Regulatory Commission to regulate GRENLEC, the local power utility. Also in 2016, St. Lucia established the National Utilities Regulatory Commission. Meanwhile, Anguilla has its Public Utilities Commission, and Dominica has its Independent Regulatory Commission. Still, these regulators' mandates are generally not limited to the energy sector, as they also target other public utilities and, in some cases, the telecommunications sector too. Meanwhile, Antigua and Barbuda, St. Vincent and the Grenadines, St. Kitts and Nevis, and Montserrat do not have energy regulators at all (Energy Transitions Initiative, 2020[19]; GBN, 2019[20]; Anguilla, 2014[21]; Independent Regulatory Commission, 2020[22]; National Utilities Regulatory Commission, 2017[23]).

Regional institutions and regulation in the energy sector could generate economies of scale. Independent regulators could help to promote a predictable and transparent regulatory environment for energy investors as well as a credible commitment over the long term and stability (IMF, 2017[24]; OECD, 2014[25]). The absence of independent energy regulatory offices in many countries in the region represents an opportunity to establish a single regional regulator. A single regional energy regulator, and an updated harmonised regulatory framework facilitating the integration of renewables, could mirror the structure of ECTEL, the regional telecommunications regulator, and the harmonised regulations that go with it. Local regulators could be integrated into this over-arching single regional institution as local representatives. Once regional inter-connection has been established, regional balancing and day-ahead markets would present further opportunities.

Furthermore, there is a need to improve public awareness and information on renewable energy in the OECS countries. At present, households and businesses in the Eastern Caribbean lack the sufficient information and awareness to make informed decisions about investing in distributed renewable energies. More broadly, there is limited awareness of the technical, economic and financial benefits of renewables, and there is also insufficient information on the options that are available for the development of renewable energy. Moreover, many individuals still harbour reservations on renewables, sometimes due to bad experiences in the past. As a result, there is little investment in them from households and businesses (Gischler et al., 2016[15]) (USAID, 2021[2]). Furthermore, little detailed information on the potential of renewable energy and the ways in which it can be exploited commercially, such as wind maps, is available in Eastern Caribbean countries. This is particularly the case for wind and geothermal resources (Gischler et al., 2016[15]).

Regional collaboration to pool procurement for renewable energy products could reduce prices of renewable equipment. Renewable energy products and services are still limited in the Eastern Caribbean. Markets for renewable energy equipment and services are not very developed yet. Indeed, as a consequence both of low levels of demand and small market size, few retailers in the Eastern Caribbean sell distributed renewable generation products and services, such as home solar systems. This results in high prices for equipment, installation and maintenance (Gischler et al., 2016[15]) (USAID, 2021[2]). Regional collaboration to create a single market for renewable equipment and for joint procurement of equipment could improve the availability of renewable products in the region and reduce prices.

Regional co-operation could help to generate the skills that are required for the development of renewables. In the Eastern Caribbean, governments currently lack well-developed capabilities and experience when it comes to renewable policies and projects. Moreover, they lack skilled human resources to implement such projects. In addition, utilities in the Eastern Caribbean have limited experience of operating and maintaining renewable energy plants (Gischler et al., 2016[15]) (USAID, 2021[2]). Regional collaboration among community colleges, in combination with online teaching, could facilitate the generation of skilled human resources for the development of renewables. It would also allow OECS countries to share costs.

4.2. OECS countries' location and rich ocean biodiversity open up opportunities in the sustainable ocean economy

The sustainable ocean economy offers many opportunities for OECS countries. Indeed, ocean-based industries such as tourism and fisheries can generate foreign exchange, income and jobs. As small island nations, OECS countries have abundant access to the ocean. At present, moreover, tourism that is largely marine in character is already the most important economic sector for most OECS countries. However, there are opportunities for OECS countries in the sustainable ocean economy beyond tourism. If managed sustainably, the expansion of ocean-based sectors could advance sustainable development more broadly, by creating new opportunities for jobs, food security and clean energy. It could also help OECS countries to achieve more diversified and resilient economies. Prior to the COVID-19 pandemic, the OECD projected a doubling of the global ocean economy from 2010 to 2030, reaching USD 3 trillion and employing 40 million people (OECD, 2020[26]).

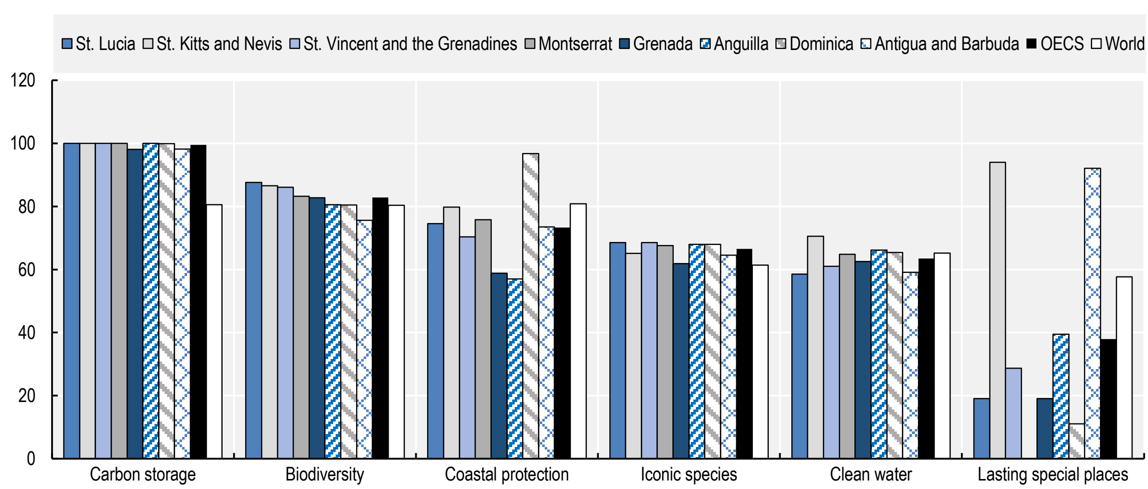
Marine biotechnologies are an area of the sustainable ocean economy that offers many opportunities, and there is scope to exploit these more in the OECS region. To date, the potential of marine bio-resources beyond fish remains largely untapped worldwide. Indeed, the marine ecosystem contains many as yet undiscovered microbial species. What is more, the properties even of some marine species that are already known remain largely undiscovered. There are many opportunities to use marine biotechnology for the development of pharmaceutical drugs, cosmetic products for health and well-being, food production, and biofuels. Some industries already rely on marine bio-resources, as is the case, for example, with the development of new generations of antibiotics. The global market for marine biotechnology was estimated to be worth approximately USD 3.7 billion in 2020, up from USD 2.8 billion in 2010, and it is predicted to expand between 5.8% and 9% a year over the next five years, reaching at least USD 5 billion by 2026 (OECD, 2020[3]; OECD, 2016[27]; Global Industry Reports, 2022[28]; Research and Markets, 2022[29]; Market Research, 2020[30]). Due to their location in the tropics, the countries of the OECS are endowed with a high degree of marine biodiversity, and they possess extensive and valuable marine resources such as corals, sponges and fish. The OECS region performs well in terms of biodiversity in the Ocean Health Index (score of 82.9/100 compared to a global average of 80.4/100 in 2021) (Ocean Health Index, n.d.[31]).

Meanwhile, the possible establishment of a regional sustainable ocean economy hub, both for academic research and education, constitutes an opportunity for the countries of the OECS. Such a hub could advance research activities, for example in marine biotechnologies, an area in which it could build on the OECS region's rich biodiversity. It could also advance education in different fields of sustainable ocean economy. Globally, there is a shortage of qualified and skilled professionals in many sectors of the sustainable ocean economy, as recent experience in the EU has shown (European Commission, 2021[32]). It appears that curricula in the field of the sustainable ocean economy, such as marine sciences, elicit large global demand from students, but that academic capacity is limited. Due to its geographical characteristics as small islands surrounded by the ocean in the tropics, and to its rich ocean biodiversity, the OECS region has a comparative advantage for establishing a regional sustainable ocean economy hub. In so doing, moreover, the region could build on its experience of hosting offshore medical schools. In addition, the regional sustainable ocean economy hub could possibly work together with community colleges throughout the region, for example by offering joint curricula in marine sciences and other areas of the sustainable ocean economy, supported by online teaching.

Moreover, there is scope to further improve marine protection and ocean conservation in the OECS region. This would be an important way for the region to secure and enhance its attractiveness for marine tourism, in particular eco-tourism. It would also be an opportunity to bolster and develop its attractiveness for marine biotechnologies, and as a location for research and education in marine sciences and other areas of the sustainable ocean economy more broadly. Globally, the pressures on oceans are mounting. They include climate change, pollution, overfishing and over-exploitation of other ocean resources, the degradation of habitats, and the spread of invasive alien species (OECD, 2020[3]). According to the Ocean Health Index, the OECS countries perform only moderately when it comes to protecting places that have a special significance for marine-related cultural identity, ensuring the cleanliness of their waters, and protecting their coastline. Except for St. Kitts and Nevis, and Antigua and Barbuda, OECS countries score poorly for the protection of special places for marine-related cultural identity. In this category, their scores in 2021 ranged from 0/100 for Montserrat to 39.5/100 for Anguilla. Performance in terms of clean water is also moderate, generating an average regional score of 63.6/100 in the Ocean Health Index in 2021, compared to a world average of 65.2/100. In this category, there was particular scope for improvement in St. Lucia, Antigua and Barbuda, Grenada, and St. Vincent and the Grenadines. In terms of coastal protection, the OECS region scored 73.3/100 compared to a world average of 80.9/100 in the Ocean Health Index (Ocean Health Index, n.d.[31]) (Figure 4.5). Marine protected areas amounted to only 0.8% of territorial waters in the OECS region on average in 2021, compared to an average of 17.5% for Latin America and the Caribbean, and to 24.3% in the OECD (2018). There is also scope to further reduce the number of threatened fish species, of which there are between 29 and 31 in each OECS country (World Bank, 2022[33]).

Figure 4.5. While OECS countries have rich ocean biodiversity, their performance in terms of the protection of lasting special places, clean waters and coastal protection is moderate

Ocean Health Index score (0-100), selected categories, 2021



Source: Ocean Health Index (2022[34]), *Data Download* (database), https://oceanhealthindex.org/global-scores/data-download/.

StatLink https://stat.link/129vy8

Improvements to marine protection and ocean conservation are even more important in the context of climate change. As small island states, OECS countries are highly exposed both to rising sea levels and to ocean acidification. What is more, ocean acidification and rising water temperatures can result in the degradation of coral reefs, and Grenada and St. Kitts and Nevis are two of the 27 countries in the world that are most prone to reef degradation as a result of climate change. In turn, the degradation of coral reefs can result in the erosion of soft shores and beaches, which are a key natural and economic asset for OECS countries in the context of their high dependence on tourism. The reason that damage of this kind can occur is that corals deliver calcareous sand to maintain beaches and protect against wave erosion, especially in the context of storms and hurricanes (World Bank, 2018[35]).

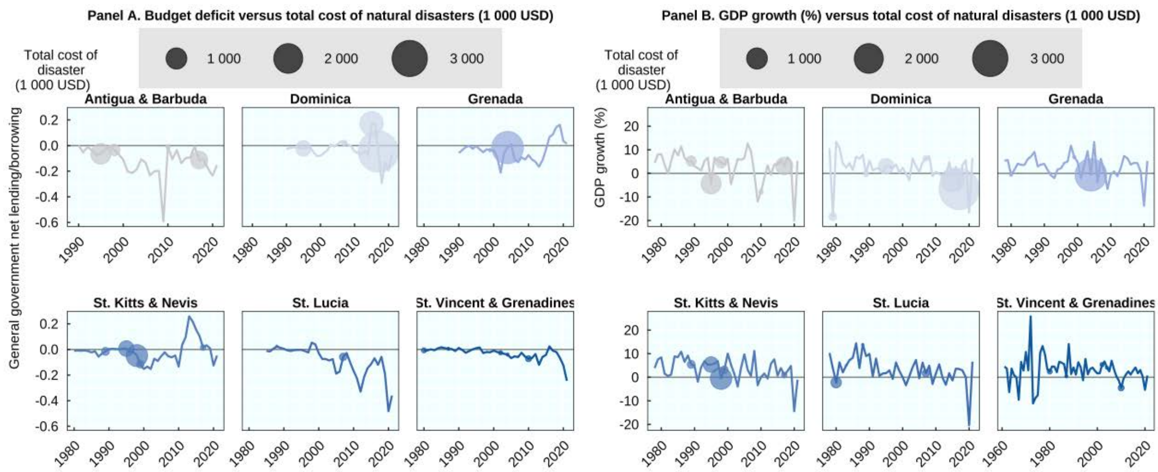
4.3. Developing resilience toward natural disasters is a key policy priority in the OECS

The OECS member states are highly prone to natural disasters. Their small size and geographic position make them particularly vulnerable to disasters such as tropical cyclones, floods, and volcanic eruptions. Over the past 70 years, the OECS region has experienced 74 tropical cyclones, 12 floods, and seven volcanic eruptions (EMDAT, 2022[36]). As natural disasters become increasingly frequent and more severe due to climate change, the islands are predicted to become even more exposed to deadly hurricanes. Climate change also poses concerns with regard to rising sea levels, higher temperatures, and changes in agricultural production. Such changes threaten lives, property and livelihoods throughout the region (OECS, 2022[37]).

These natural disasters have been very costly for the region, causing damage and loss of human life. Out of the 93 events that have occurred in the region in the past seven decades, 46 have caused damages exceeding USD 1 million, and 30 have caused more than USD 10 million in damages. Furthermore, over the course of the past decade about 65% of the total population of the OECS was affected in some way by a natural disaster, up from 15.5% in the 2000s (EMDAT, 2022[36]). These disasters place a burden on the debt-sustainability of the OECS member states, as debt levels often jump following a disaster event (Figure 4.6, Panel A).

Furthermore, natural disasters have a negative effect on the region's economic growth rates and tourism sectors. Natural disasters lead to reduced growth in impacted countries through losses in agricultural productivity, damages to infrastructure, and interruptions to normal business operations. This is particularly important for the tourism-reliant member states, and on infrastructure such as hotels, restaurants, highways and airports, which are frequently damaged or destroyed during hurricanes. When these services are not available, or take time to rebuild, output can be reduced as tourist arrivals fall. In OECS countries that are frequently impacted by natural disasters, the numbers of tourist arrivals tend to fall significantly in the ten to 12 months after a natural disaster, according to a study by the International Monetary Fund (IMF, 2017[24]). The 6.8% contraction in GDP in Dominica immediately after the category 5 hurricane Maria in 2017 illustrates the impact on growth that such events can have. Another example comes from St. Kitts and Nevis, where GDP growth declined by a similar proportion in 1998 following a tropical cyclone that caused more than USD 1 billion in damages (Figure 4.6, Panel B).

Figure 4.6. Frequent natural disasters are costly for the region



Sources: World Bank (2022[33]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; IMF, EMDAT (2022[36]), *The International Disaster Database* (database), https://www.emdat.be/.

StatLink https://stat.link/k7sxyh

Another important consideration is that the debt that member states take on to pay for disaster relief leaves them more vulnerable to other crises. When Hurricane Maria swept through Dominica in 2017, many rivers were flooded, and over 90% of the island's structures were destroyed. This hurricane caused damages of a total costs estimated at USD 1.3 billion, or 224% of Dominica's total output in 2016 (OCHA, 2018[38]). Despite Dominica receiving financing in the form of grants, plus support from international organisations, this left limited fiscal space for the country to react to other economic events in subsequent years, given its increased debt burden. This made the COVID-19 pandemic particularly difficult for the Dominican government to manage, despite the fact that the country was better positioned than other OECS member states to ride it out because of its relatively smaller tourism sector (UNDP/UNICEF/UN Women, 2020[39]).

Building resilience against tropical storms and other natural disasters can help to mitigate costs and protect populations. While there is little that OECS countries can do to avoid natural disasters, it is possible to build up resilience against such events through several avenues, such as developing disaster-resilience strategies, strengthening financial resilience, and building infrastructure that is resistant to natural disasters. Studies have shown that although such disaster-mitigation efforts increase medium-term debt, investment in disaster resilience outweighs the long-term costs (IMF, 2021[40]). In fact, planning for natural disasters has already yielded positive outcomes in the region. For example, Dominica's airport was operational just two days after Hurricane Maria because of structural reinforcements that the country had invested in the year before. This facilitated the transfer of supplies and the movement of support workers into the country at a critical time, and saved the country thousands of dollars in damages (IMF, 2021[40]).

Developing clear visions and strategies for resilience to natural disasters is important. Dominica has been a prime example of this in region, since after Hurricane Maria announcing its commitment to become the first disaster-resilient nation in the world. With the help of the IMF, Dominica developed and adopted a disaster resilience strategy in 2019 (IMF, 2021[40]). Most of the other countries in the region have also begun enhancing their strategies with the help of various international organisations. Several of these improvements have been completed, while some are still in the initiation phase.

Developing disaster-resilient infrastructure throughout the region could build resilience and reduce risk. Since announcing its ambition to become disaster-resilient following Hurricane Maria, Dominica has invested in reconstruction to build infrastructure that is more resilient, and to improve its national preparedness for disasters through itemised investments and resource requirements. Some of Dominica's infrastructure strategies have included building over a thousand dwellings to disaster-resilient standards, constructing hurricane shelters, and developing disaster-proof transportation networks and bridges (Dorst, 2021[41]). The other member states of the OECS could follow Dominica's example and start reinforcing structures and transport networks. It would also be important to build a legal framework to require new developments to meet certain standards of disaster-resilience, including updating building codes in the region. There is scope for economies of scale through regional collaboration in the design of such a legal framework. Such strategies are also important indicators for insurers, and can help build a case for lower premiums for insurance against natural disasters.

Strengthening public finances in the OECS countries would facilitate counter-cyclical spending, relief measures, and rapid reconstruction following natural disasters. Indeed, the rapid availability of sufficient financial resources is fundamental when it comes to rebuilding infrastructure, smoothing growth, and providing social assistance to households that have been impacted by natural disasters. Strengthening public finances requires a consolidation of government debt in OECS countries. Specific disaster resilience funds are another option to secure financing for emergency response measures to natural disasters and post-disaster recovery measures. Such funds have already been established in Antigua and Barbuda (the Climate Resilience and Development Fund) and Dominica (the Vulnerability Risk and Resilience Fund). Dominica's Vulnerability Risk and Resilience Fund is funded by revenues from citizenship by investment programmes (World Bank, 2022[42]).

In addition to bolstering the public finances, developing an ex-post resilience framework for reacting to natural disasters is key. Such a framework would provide the member states with a toolkit with which to react to natural disasters in a quick and organised fashion. There are several key recommendations for doing this, including designing clear rules on how governments will offer post-disaster financial assistance, They also include establishing clear cost-sharing mechanisms across the different levels of government, assessing disaster-related liabilities, and including risk reduction in disaster-risk management measures (OECD/The World Bank, 2019[43]).

A regional insurance scheme to pool risk offers another useful way to help offset damages. This could be in the form of an extension of the Caribbean the Caribbean Catastrophe Risk Insurance Facility (CCRIF), a regional catastrophe insurance scheme that has already been established. It provides parametric catastrophe insurance for hurricanes, earthquakes and excess rainfall (OECS, 2018[44]). Plans are in the works for the CCRIF to expand its coverage to agriculture and fisheries, public utilities, and possibly the tourism sector.

Agriculture and fisheries insurance offer a possible means of boosting resilience in the region's agriculture sector. One of the main fallouts from hurricanes comes in the form of the damage that winds and flooding cause to crops. Given that the majority of the people who partake in agriculture in the OECS are low-income or small farmers, these disasters have a direct impact on vulnerable populations. Giving these workers access to agricultural insurance would transfer risk from low-income producers to international reinsurers, fortifying the sector against natural disasters (Hatch et al., 2012[45]). At present, four of the member states, Dominica, St. Lucia, Grenada, and St. Vincent and the Grenadines have agriculture insurance that is provided by an organisation called WINCROP. This insurance programme was developed exclusively to cover banana production that is lost as the result of wind storms and volcanic eruptions. As things stand, there is scope for this programme to be expanded to other islands, and potentially to other crops or aquaculture. Expansion of this type of insurance could pursue policies similar to those of the CCRIF, albeit with an approach that would be tailored more to small farmers.

Strong social protection systems would also help build resilience in the OECS. Social assistance programmes such as unemployment and social insurance have been shown to be instrumental in building resilience to natural disasters (Bündnis Entwicklung Hilft/Ruhr University Bochum, 2021[46]). These types of systems work as safety nets for the population, and protect vulnerable households from falling into poverty because of natural disasters. However, many of the OECS countries lack the social protection systems that would be necessary to react to natural disasters. While such programmes should be built up beyond the specific context of natural disasters, their framework could include a temporary expansion during times of crisis. This is often called adaptive social protection, and covers short-term undertakings such as adding more beneficiaries, expanding non-contributory schemes, providing cash transfers, and increasing coverage that already exists (Bündnis Entwicklung Hilft/Ruhr University Bochum, 2021[46]).

4.4. Waste management in the OECS region could be improved through increased recycling and better plastic regulations

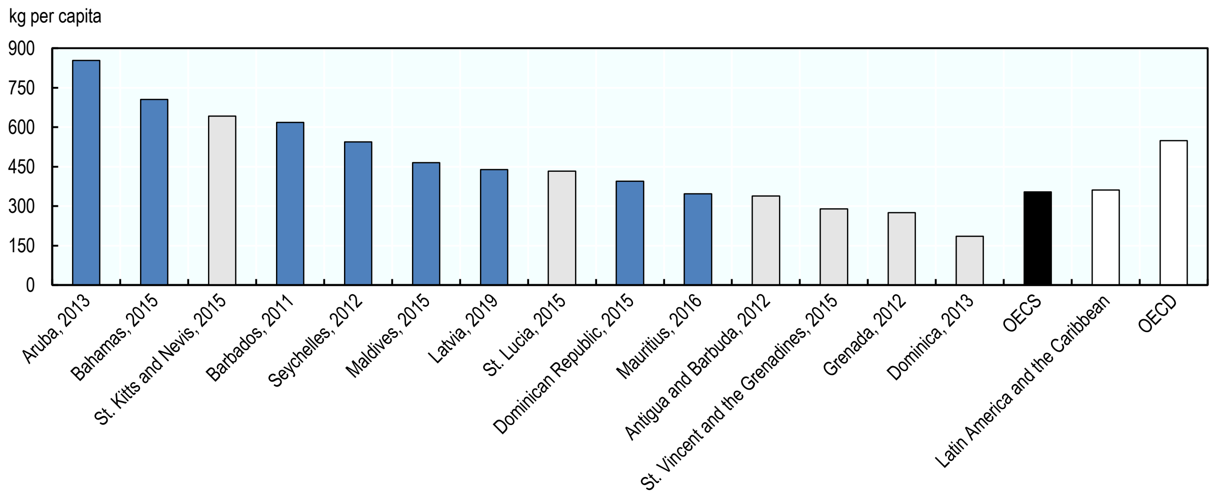
4.4.1. Opportunities for better waste management exist in a broadening of recycling strategies, and in exploiting landfills for energy

When it comes to the region's waste-collection capabilities, and the relatively low levels of of waste that it generates, the OECS region is already advanced. Indeed, the majority of the population is covered by municipal waste collection, and an average of 99.5% of citizens in the OECS were served by some form of waste collection in 2015 (D-Waste, 2022[47]). Furthermore, municipal waste generation per capita is relatively low, with about 354 kg of waste generated per capita on average in the member states, lower than the OECD's average of 549 kg per capita (Figure 4.7). This is complimented by further waste-reducing initiatives in the member states, such as bans on single-use plastic, and programmes to reduce marine pollution.

However, there is little in the way of recycling in the OECS. According to the latest data, landfills are the primary waste-treatment method in the OECS. Indeed, only St. Vincent and the Grenadines has diversified its disposal methods, with a mix of 15.1% recycling and 84.9% landfills (Figure 4.8). It is likely that the lack of recycling in the region is linked to the high costs of exporting recycled waste, as well as to the high costs of collection and processing (UN Environment, 2019[48]). Indeed, an assessment conducted in the early 2000s at the regional level concluded that there was not enough recyclable material throughout the member states to develop a sustainable recycling industry (World Bank, 2003[49]). As a result, the member states have a limited capacity for recycling, although processing stations do exist in most countries. However, the situation may be turning around as a result of the RePLAST-OECS project that launched in 2019, and whose goal is to build up recycling throughout the region with an incentivised scheme to collect plastic waste and recycle it (OECS Commission, 2021[50]). The project has already shown promising results in St. Lucia, by diverting about 11 800 kg of plastic waste from landfills. It will soon be deployed in other OECS member states.

Figure 4.7. Waste generation is relatively low in the OECS

Total municipal waste generated per capita

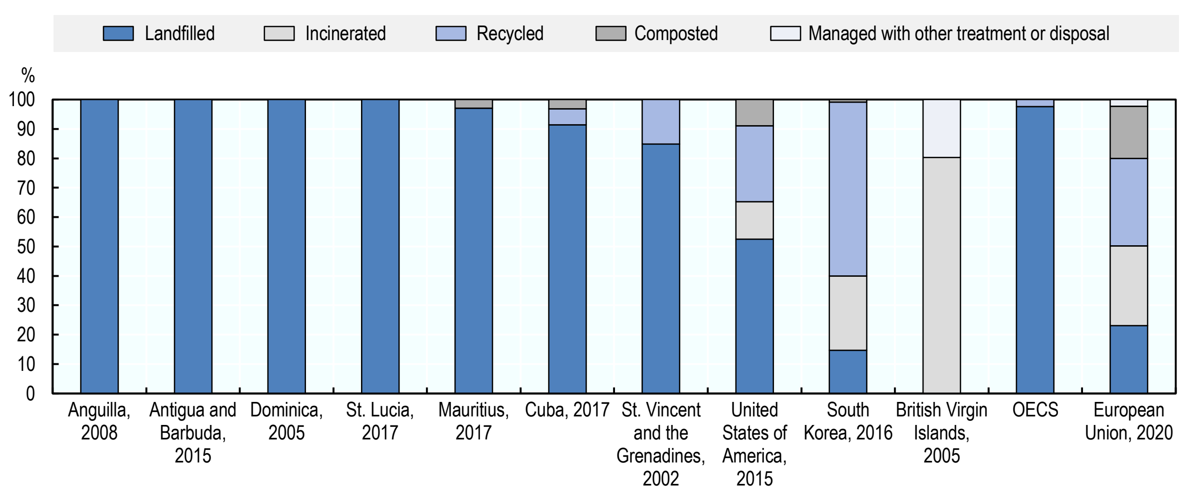


Note: For the OECD average, years range between 2009 and 2019; For the LAC average, years range between 2007 and 2018, and Saint Martin, Turks and Caicos Islands and British Virgin Islands are not included.
Source: World Bank (2018[51]), *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050*, https://datatopics.worldbank.org/what-a-waste/.

StatLink https://stat.link/94p13w

Figure 4.8. There is little in the way of recycling as a means of treating waste in the OECS region

Municipal waste treatment by disposal method



Note: For the OECD average, years range from 2012 to 2017, and Costa Rica and Canada are not included; for the LAC average, years range from 2000 to 2017, and only 22 countries are included.
Sources: UN (2022[52]), *UNStat* (database), https://unstats.un.org/unsd/environment/wastetreatment.htm; Eurostat (2022[53]), *Municipal waste landfilled, incinerated, recycled and composted, EU, 1995-2020* (database), https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Municipal_waste_landfilled,_incinerated,_recycled_and_composted,_EU,_1995-2020.png.

StatLink https://stat.link/bqh2it

Waste generation has been increasing in recent years. An increase in imports has led to a greater generation of waste in the Caribbean, particularly with regard to polluting and hazardous substances (UN Environment, n.d.[54]). Further to this, the total number of tourist arrivals to the ECCU area doubled from 2.5 million to 5 million from 2000 to 2019 (ECCB, 2022[9]). Seasonal peaks in tourism are often associated with elevated levels of waste generation, which is likely to have pushed up total waste in the region, in addition to the overall growth in visitor numbers (UN Environment, 2019[48]). Without proper management of the additional waste, public-health concerns such as outbreaks of mosquito-borne illnesses, and the contamination of drinking water, can occur (World Bank, 2018[56]). Environmental degradation is a further issue, particularly with respect to the destruction of coral reefs and the loss of natural habitats. In particular, the build-up of litter and pollution can reduce member states' ability to attract tourists, given that their primary marketing devices are clean beaches, beautiful scenery, and marine activities.

There have already been several initiatives to build up waste management capabilities, such as improving infrastructures and reducing marine waste. In the early 2000s, for example, the OECS worked together with the World Bank to develop a regional solid-waste management project. This centred on improving waste management facilities and introducing sustainable disposal practices in the region (World Bank, n.d.[57]). More recently, and in an attempt to reduce the run-off of marine waste, the OECS Commission launched a project entitled Reduction in Marine Litter (OECS Commission, n.d.[58]).

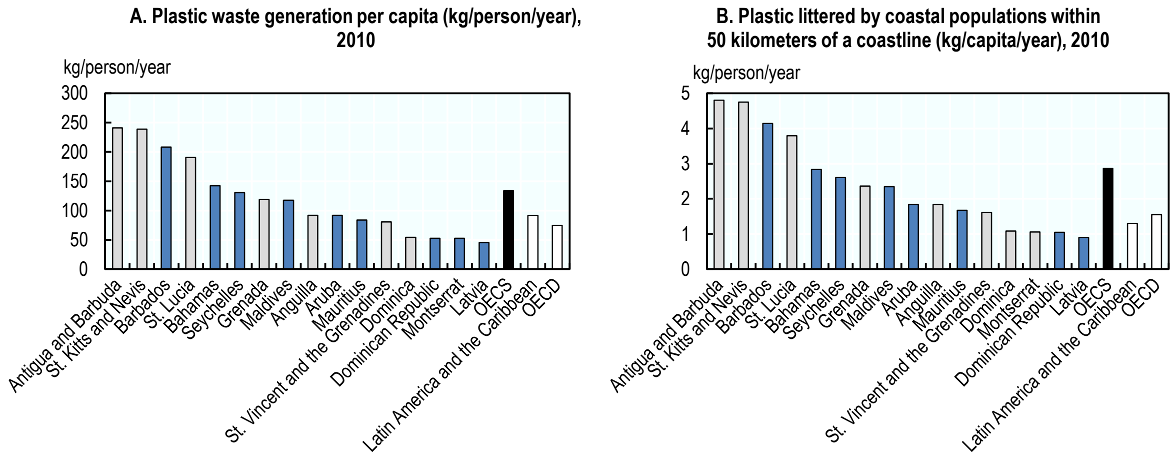
Recycling initiatives can include schemes to convert waste into useful products, thus avoiding the high cost of exporting recyclables. Other Caribbean countries such as Trinidad and Tobago have been able to circumvent the high cost of exporting processed recycled waste by turning recyclables into useful products to be used on the island (UN Environment, 2019[48]). Trinidad and Tobago's strategy established transfer stations to collect and sort recyclable materials and then send them for further processing at manufacturing facilities. Similar projects could be considered in OECS countries. These projects could include an expansion of the capabilities of transfer stations, and the development of greater links between manufacturing facilities. Furthermore, the benefits of developing recycling infrastructures go beyond waste reduction. Indeed, they include improving employment outcomes for women and providing opportunities for informal workers (UN Environment, 2019[48]).

Furthermore, landfill gases are a potential source of renewable energy in the region that could be used to offset high energy costs. The decomposition of organic materials in landfills produces natural gases such as methane and carbon dioxide. Given that the primary method of waste disposal in the OECS is landfill, it is possible to capture these gases and convert them into energy. This would require additional investment on the part of OECS member states to build new infrastructure to capture and transport the gases. Infrastructure would include a series of wells, pipes and a treatment system as well as a processing facility to convert the landfill gases into energy (EPA, 2022[59]). Aside from offering clean energy, developing such a system would bring additional benefits to the community through increased employment and lower energy costs, likely outweighing the initial costs of investment.

4.1.1. High levels of plastic use in the OECS could be reduced by extending plastic bans to include more single-use products

The reduction and removal of plastics is a primary concern in the OECS, particularly in marine areas. According to a report by the World Bank, an estimated 322 745 tonnes of plastic go uncollected each year across the OECS member states (World Bank, 2018[56]). This waste makes its way into marine areas, building up as litter on beaches and in natural areas. Indeed, it has contributed to the Caribbean Sea becoming the second most plastic-contaminated sea after the Mediterranean (OECS, 2019[60]). This is reflected in the large amount of plastic litter that coastal populations in the OECS region create (Figure 4.9, Panel B). Overall, the generation of plastic waste per capita has been high in the OECS, with about 0.36 kg used per capita each day in 2010, higher than the OECD average of 0.20 (Figure 4.9, Panel A). Still, is is likely that this number has fallen in the past decade as the result of single-use plastic bans.

Figure 4.9. Waste generation is low overall in the OECS, but recycling rates are also low



Notes: In both Panel A and Panel B, the OECD average does not include Austria, Czech Republic, Hungary, Luxembourg, Slovakia and Switzerland, and the LAC average does not include Bolivia, Paraguay, St. Martin and the U.S. Virgin Islands.
Source: Our World in Data (2022[61]), *Plastic Pollution*, https://ourworldindata.org/plastic-pollution.

StatLink https://stat.link/rqmh32

Single-use plastic bans exist in some form in almost all of the OECS member states. Indeed, every member state has either placed a ban on the use and import of single-use plastics and Styrofoam, or has advanced legislation towards doing so. These bans target plastic shopping bags in particular, and sometimes include efforts to supply the population with sustainable alternatives such as with jute and cotton bags for shopping (UN Environment, 2021[62]). There have already been positive effects as a result of this. For example the first country in the region to institute the ban, Antigua and Barbuda, managed to reduce the share of plastics in the composition of landfill from 19.5% in 2006 to 4.4% in 2017 (World Bank, 2018[56]).

However, such bans could be extended in order to ensure that they are effective in reducing the use of plastics. Single-use plastic bans often prohibit products such as plastic shopping bags and Styrofoam. In response to these restrictions, the products are usually replaced with biodegradable or compostable alternatives. Despite their labelling, however, many of these replacement products cannot be properly disposed of outside of designated facilities, and are marketed misleadingly (EEA, 2021[63]). Given the difficultly of processing them, and the specialised equipment that this requires, the replacement products also often cause similar littering and pollution concerns as the banned plastics. Furthermore, there have been cases in which plastic bans have led to rebound effects in littering with the replacement products. In San Francisco, for instance, while littered polystyrene cups fell by 34% when the city banned them, the littering of paper and plastic cups then jumped by 141% and 72% respectively (Cornago, Börkey and Brown, 2021[64]). Instead, it may be more prudent to expand policies in order to ban all plastics substitutes, and to encourage the exclusive use of reusable products, with a particular emphasis on the monitoring and enforcement of such bans.

Legislation introducing more stringent littering polices can also help to reduce mismanaged waste. Given the influx of greater numbers of visitors over the past two decades, the management of the waste that they generate in coastal areas is very important. Indeed, the majority of marine trash in the OECS is the result of direct littering by beach-goers, both from visitors to the islands and from locals (World Bank, 2018[56]).

In 2019, Antigua and Barbuda instituted the Litter Control and Prevention Act in 2019, which places fines of up to XCD 3 000, or imprisonment for one year, upon individuals, and fines of XCD 15 000 for corporate bodies (Government of Antigua and Barbuda, 2019[65]).

Notes

[1] Including from the Agence française de développement (AFD), the European Union (EU), the Caribbean Development Bank (CDB), the SIDS Dock Initiative, the Clinton Foundation, the International Development Association, the UK Department of International Development, and the Clean Technology Fund.

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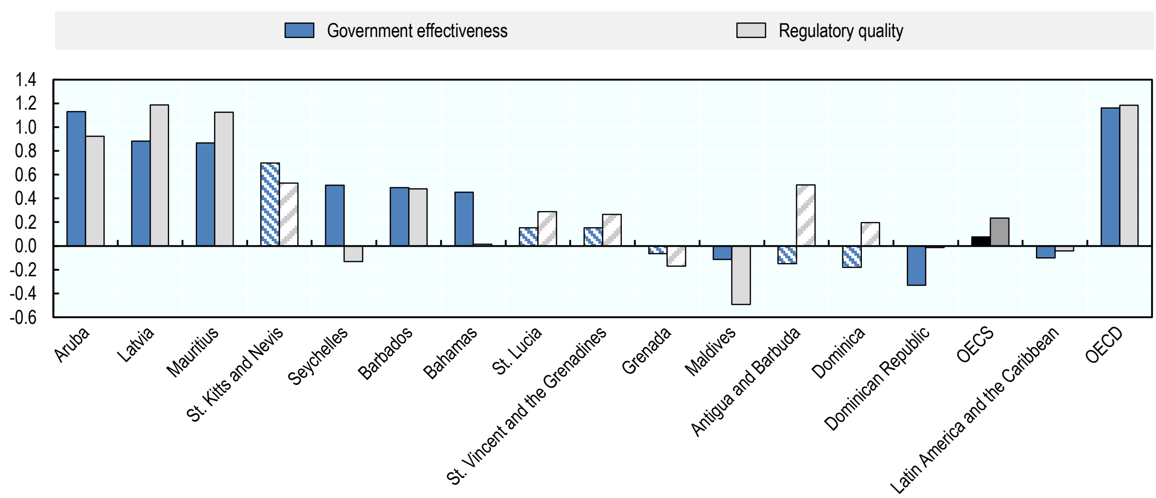
5 Strengthening implementation

This chapter discusses constraints to policy implementation in the OECS region, and how the regional strategy scorecard developed by the OECD Development Centre, OECS Commission and national focal points in OECS member states can support effective policy implementation. In all areas of this report, policy implementation and regulation have surfaced as constraints. The regional strategy scorecard is a tool to support the effective implementation of the OECS Development Strategy (ODS), through a continuous assessment of progress in terms of concrete results. It aims to use measurable targets that OECS member states have committed to to foster commitment to the ambitions of the ODS, tracking progress towards these targets, and holding policy makers accountable for results.

Effective policy implementation is the most challenging part of any strategy. Without it, any policy, law or regulation remains just a piece of paper, proving intentions. On the other hand, better regulation and regulatory processes can reduce impediments and strengthen policy implementation (OECD, 2021[1]). In all areas of this report, policy implementation and regulation have surfaced as constraints in the OECS region. This is reflected in OECS countries' relatively poor performance on government effectiveness (Figure 5.1). At the same time, there are many unique opportunities to enhance the effectiveness of policy implementation and regulation, through regional co-operation. More effective public delivery and implementation, in a context of good governance, could create new opportunities for development, and could enable achievements across the range of the strategic priorities and opportunities set out in this report.

Figure 5.1. OECS countries do not perform very well in terms of government effectiveness and regulatory quality

Government effectiveness and regulatory quality (indices ranging from -2.5 (worst] to 2.5 [best])



Note: The index ranges from -2.5 (worst) to 2.5 (best). Different shadings and colours indicate OECS member states.
Source: World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators.

StatLink https://stat.link/6gat4m

5.1. Effective policy implementation requires good data, strong, non-partisan institutions and constructive engagement with all concerned

The limited availability and quality of data in the OECS region pose a challenge to the effective monitoring and evaluation of policy implementation. With regard to the evaluation of policies and programmes, indicators that highlight the underlying problems that drive such policies, or that point to other areas of public concern, are an essential aid to policy makers (Coglianese, 2012[3]). As such, good government policies depend on sound statistics as a basis for evidenced-based decision making and accountability (OECD, 2015[4]). As a result of the small size of OECS countries, high-quality data is often scarce in the region. This is the case, for example, for employment data. Moreover, national statistics offices tend to be underfunded. Hence, there is an opportunity to generate more regular, high-quality statistics by taking advantage of the economies of scale that regional co-operation can bring. To improve monitoring and evaluation, in addition to improving data availability and quality in the region, there is also a need to think about ex-post evaluation of progress earlier in the process of designing and implementing policies.

The effective implementation of policy requires strong, non-partisan institutions, consistent reforms across policy areas, and engagement with the opponents of reforms. Reforms require strong institutions and leadership, with authoritative, non-partisan institutions that command trust across the political spectrum. Consistency of reforms across policy areas is also critical. In addition, securing buy-in and support from as wide a stakeholder base as possible, and engaging with the opponents of reform through an inclusive and consultative policy process, usually pays dividends over time, creating greater trust among the parties involved. In turn, these parties then become more willing to accept commitments on steps to mitigate the personal costs that result from the changes (OECD, 2010[5]).

5.2. The regional strategy scorecard developed by the OECD Development Centre, OECS Commission and member states is a tool to support the effective implementation of policy in the OECS region

Transparent and objective scorecards can improve the alignment of incentives for different actors, enhance the monitoring and evaluation of policy implementation, and strengthen rules-based governance. Public scorecards make it possible to monitor progress towards development objectives. Furthermore, they also constitute a mechanism of accountability for governments. It is important to ensure that indicators are easily and independently verifiable by all stakeholders.

In order to support the effective implementation of policy in the region, the OECD Development Centre, the OECS Commission and focal points in member states have built a regional strategy scorecard for the OECS and its member states. The strategy scorecard is closely linked and aligned with the OECS Development Strategy 2019-28, the ODS. It constitutes a tool to support the implementation of this strategy, through a continuous assessment of progress in terms of concrete results. The scorecard is an interactive online tool, consisting of 40 indicators across the three pillars of the ODS (economy, social development, and environment), with concrete targets for 2030 for each OECS member state. All indicators are linked to one or several Sustainable Development Goals (SDGs).

The strategy scorecard aims to use measurable targets to foster concrete commitment to the ambitions of the ODS, tracking progress towards these targets, and holding policy makers accountable for results. Furthermore, it is a tool that allows policy makers to set priorities for implementation, based on measurable results and on a platform for comparing the performance of different member states and exchanging best practices and successful policies. The scorecard allows policy makers to link implementation to results, thereby evaluating and monitoring progress on the implementation of different policies, and to make adjustments when necessary. Concentrating efforts, monitoring implementation, and following up where progress is stalling, are the fundamental building blocks of successful implementation.

Indicators were selected based on the priorities laid out in the ODS, and on the availability of data. Furthermore, member states' feedback on the choice of indicators was also taken into account whenever possible, and wherever sufficient data was available. The objective was to select a limited number of high-level indicators that would make it possible to track progress in priority areas. Economic indicators include broad indicators of income, productivity, trade, debt, digitalisation, and key economic sectors (tourism, agriculture, fisheries) (Annex Table 5.A.2. Scorecard indicators, Pillar 2: Promoting human and social well-being). Social indicators gauge the labour market, education, health and crime (Annex Table 5.A.2. Scorecard indicators, Pillar 2: Promoting human and social well-being). Key environmental indicators measure renewable energy and the sustainable ocean economy (Annex Table 5.A.3. Scorecard indicators, Pillar 3: Sustainable use of natural endowments).

The OECS member states validated all of the targets in a participatory process. National focal points for the joint project are from strategic ministries, such as the ministries of planning and economic development in OECS member states. They met on a regular basis throughout the process of designing the scorecard. In order to validate targets for the indicators in the scorecard, the OECD designed an interactive online survey for each OECS member state, which allowed the focal-point representatives to choose from different target options for each indicator.

Looking ahead, and in order to improve implementation, it will be essential to update the scorecard regularly, and to adjust policy priorities based on progress towards the targets in the scorecard. Regular updates of the scorecard will be made through the OECS Commission, with the technical support of the ECCB, and in close collaboration with OECS member states. The scorecard was officially launched at an Extraordinary Meeting of the OECS Economic Affairs Council (EAC) on 21 June 2022. Following this launch, the EAC will review the scorecard annually. This process will make it possible to adjust policy priorities for the region based on outcomes, as measured by the scorecard. It will also facilitate an exchange among the countries in the region on their progress in implementing policies. This will ensure that results are achieved in the region, and that objectives are met. In addition to the review process of the EAC, the OECS Commission will also aim at building a wider social partnership on the scorecard with labour unions, the private sector, academia and civil society.

The limited availability of data in the region has posed a significant challenge for designing and regularly updating the scorecard. For many environmental and social objectives, the necessary data for measuring results are not available. Without these data, it is impossible to engage in evidence-based policy making. To be sure, much administrative data does exist across a wide array of agencies in the OECS region, such as hospitals, registration offices, utilities, tax authorities, and social security boards. However, it is not collected and published in an accessible format, and it cannot easily be used. For the scorecard, the OECD used administrative data from social security boards on actively-insured people, in order to calculate proxy indicators for labour productivity (value-added per formal employee) and unemployment (the ratio of people in formal employment as a share of the overall population).

Filling gaps in the data, and indeed improving the availability of data across the region would be an important step forward. For some types of indicators, moreover, there are opportunities to collect and publish administrative data in an accessible format. For other indicators, such as poverty rates and employment statistics, more regular surveys are required.

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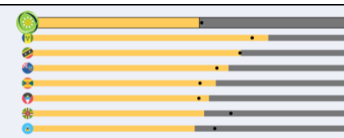
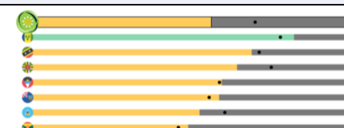
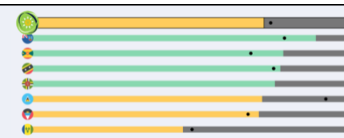
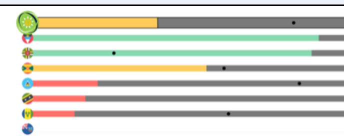
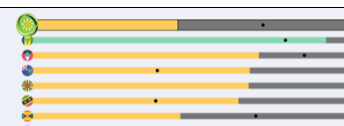
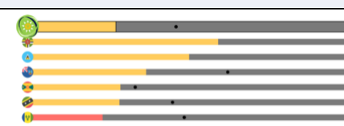
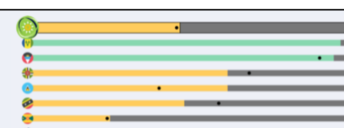
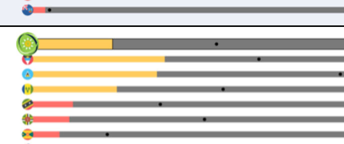
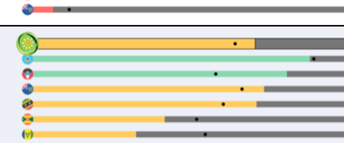
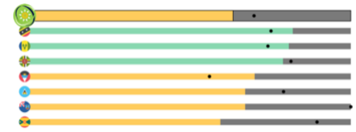
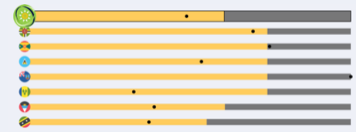
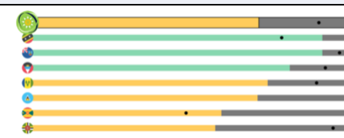
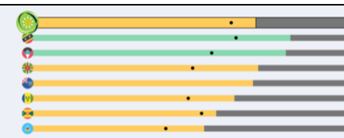
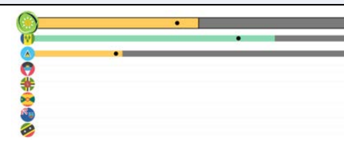
Annex 5.A. Scorecard tables

Annex Table 5.A.1. Scorecard indicators, Pillar 1: Generating economic growth

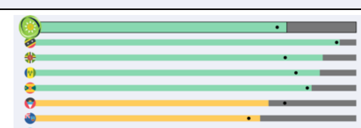
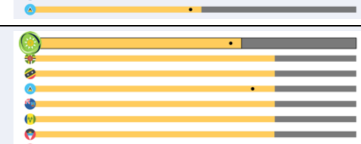
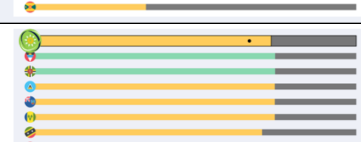
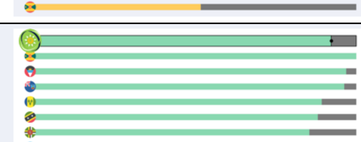
United Nations Sustainable Development Goals (SDGs)	Scorecard indicator	Starting point (2020)	Current value (2021)	Regional target 2030	Regional progress
8 DECENT WORK AND ECONOMIC GROWTH	GDP in market prices (current XCD) (millions)	2 249.43	2 373.60	4 265.55	
8 DECENT WORK AND ECONOMIC GROWTH	GDP per capita (current XCD)	32 178.25	34,020.05	49 056.45	
8 DECENT WORK AND ECONOMIC GROWTH	Value-added per formal employee (XCD)	61 981.90	-	85 350.83	
17 PARTNERSHIPS FOR THE GOALS; 8 DECENT WORK AND ECONOMIC GROWTH	Foreign direct investment, net inflows (%of GDP)	5.24	-	13.11	
17 PARTNERSHIPS FOR THE GOALS; 8 DECENT WORK AND ECONOMIC GROWTH	Exports of goods (current USD) (millions)	28.50	28.18	61.76	
17 PARTNERSHIPS FOR THE GOALS	Exports of services (current USD) (millions)	250.36	-	922.34	
17 PARTNERSHIPS FOR THE GOALS	Intra-regional exports of goods (current USD) (millions)	7.36	-	15.72	
8 DECENT WORK AND ECONOMIC GROWTH	International tourism receipts (current USD) (millions)	112.02	182.72	430.07	
8 DECENT WORK AND ECONOMIC GROWTH	International tourism receipts per arrival (current USD)	538.27	1 205.39	769.93	

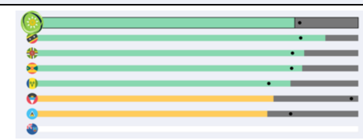
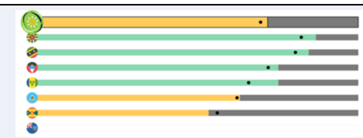
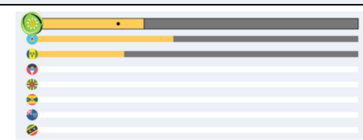
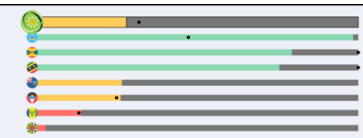
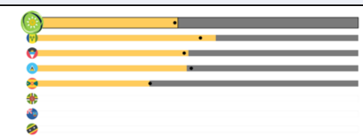
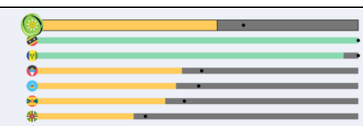
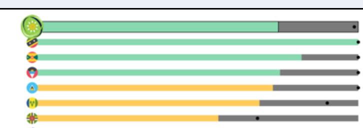
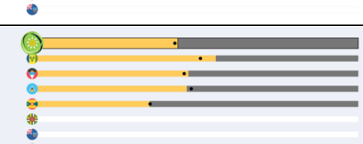
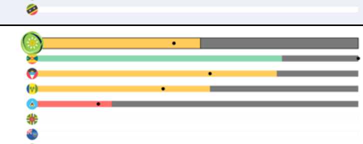
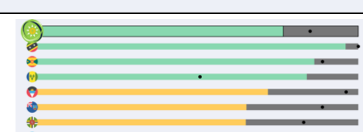
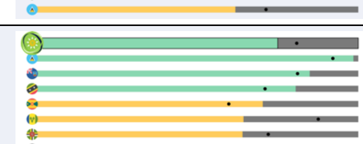
8 DECENT WORK AND ECONOMIC GROWTH; 2 ZERO HUNGER	Agriculture, livestock and forestry, value-added (current USD) (millions)	30.79	32.85	48.18	
8 DECENT WORK AND ECONOMIC GROWTH; 2 ZERO HUNGER	Fishing value-added (current USD) (millions)	7.85	8.37	12.82	
17 PARTNERSHIPS FOR THE GOALS	Public-sector debt to GDP (%)	66.32	65.67	47.11	
17 PARTNERSHIPS FOR THE GOALS; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Individuals using the Internet (% of population)	67.40	-	96.21	
8 DECENT WORK AND ECONOMIC GROWTH	Agriculture, forestry, and fishing, value-added per worker (constant 2015 USD)	7 765.20*†	-	14 793.69	

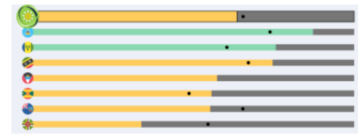
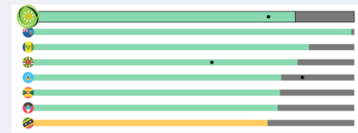
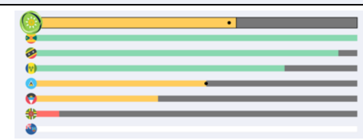
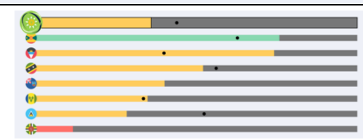
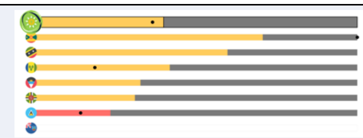
Note: The top bars represent the OECS average and each of the following bars represents one OECS country as indicated by countries' flags. Black point in graph denotes value five years previous to the starting point. White bar indicates that there is no data for country. * denotes 2019, ** denotes 2016, † denotes value with less data: averages may not be representative.

Sources: ECCB (2022[6]), *ECCB Statistics* (database), https://www.eccb-centralbank.org/statistics/dashboard-datas/; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; UNSD (2022[7]), Statistics, https://unstats.un.org/UNSDWebsite/; National Social Security Boards of OECS countries; UN (2019[8]), *UN Comtrade database*, https://comtrade.un.org/data/.

Annex Table 5.A.2. Scorecard indicators, Pillar 2: Promoting human and social well-being

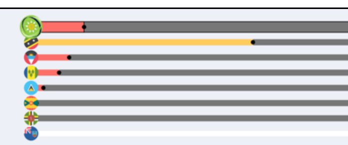
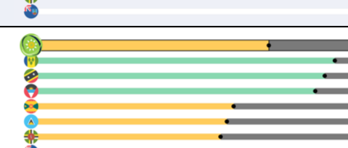
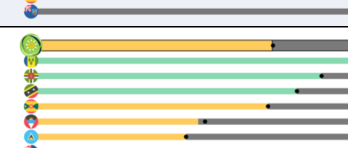
SDG	Scorecard indicator	Starting point (2020)	Current value (2021)	Regional target 2030	Regional progress
			Labour market		
8 DECENT WORK AND ECONOMIC GROWTH	Formal employment-to-population ratio, ages 15+ (%)	54.27	-	68.94	
8 DECENT WORK AND ECONOMIC GROWTH	Unemployment, total (% of total labour force) (national estimate)	15.64†	-	10.13	
8 DECENT WORK AND ECONOMIC GROWTH; 5 GENDER EQUALITY	Unemployment, female (% of female labour force) (national estimate)	14.13†	-	10.45	
8 DECENT WORK AND ECONOMIC GROWTH	Employment-to-population ratio, ages 15+, total (%) (national estimate)	62.21†	-	67.36	

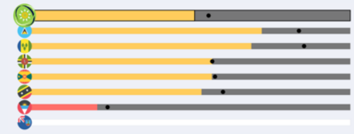
	Employment-to-population ratio, ages 15+, female (%) (national estimate)	56.46†	-	64.52	
			Health		
	Current health expenditure (% of GDP)	4.89*	-	6.08	
	Out-of-pocket expenditure (% of current health expenditure)	39.05*	-	28.20	
	Poverty headcount ratio at USD 5.50 a day (2011 purchasing power parity [PPP]) (% of population)	25.95**†	-	8.9	
	Maternal mortality ratio (modeled estimate, per 100 000 live births)	188.35	-	54.46	
	Mortality rate, neonatal (per 1 000 live births)	18.53	-	5.72	
	Prevalence of obesity (Body mass index [BMI] > 30) (% of adults)	22.40**	-	12.71	
	Prevalence of obesity in children/adolescents aged 10-19 years (% total)	10.30	-	7.77	
	Mortality from CVD, cancer, diabetes or CRD between exact ages 30 and 70 (%)	19.8*†	-	8.86	
	Suicide mortality rate (age-adjusted per 100 000 population)	2.2*†	-	1.14	
			Education		
	Pre-primary enrolment (% gross)	87.48	-	113.68	
	Trained teachers in primary education (% of total teachers)	67.64	-	89.84	

4 QUALITY EDUCATION	Trained teachers in secondary education (% of total teachers)	52.72	-	82.20	
4 QUALITY EDUCATION	Government expenditure on education, total (% of GDP)	4.56†	-	5.57	
4 QUALITY EDUCATION	Tertiary enrolment (% gross)	43.89†	-	69.83	
			Crime		
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Intentional homicides (per 100 000 people)	24.72	-	9.10	
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Rates of police-recorded offenses (robbery) (per 100 000 population)	95.19	-	38.64	

Note: Black point in graph denotes value five years prior to the starting point. White bar indicates that there is no data for country. * denotes 2019, ** denotes 2016, † denotes value with less data: averages may not be representative.
Sources: National Labour Force Surveys; National Social Security Boards of OECS countries; World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; WHO (2022[9]), *The Global Health Observatory - Indicators*, https://www.who.int/data/gho/data/indicators, PAHO (2022[10])*ENLACE: Data Portal on Noncommunicable Diseases, Mental Health, and External Causes*, Pan-American Health Organization, Washington, DC, https://www.paho.org/en/enlace.

Annex Table 5.A.3. Scorecard indicators, Pillar 3: Sustainable use of natural endowments

SDG	Scorecard indicator	Starting point (2020)	Current value (2021)	Regional target 2030	Regional progress
14 LIFE BELOW WATER	Marine protected area (% of territorial waters)	0.81	0.81	4.98	
14 LIFE BELOW WATER	Fish species, threatened	30*	-	21.86	
7 AFFORDABLE AND CLEAN ENERGY	Renewable electricity output (% of total electricity output)	6.87	-	64.13	
15 LIFE ON LAND; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Forest area (% of land area)	47.31	-	63.98	

	Total greenhouse gas emissions (kilotonnes [kt] of carbon dioxide [CO2] equivalent)	881.67	-	460.28	

Note: Black point in graph denotes value five years prior to the starting point. White bar indicates that there is no data for country. * denotes 2019, ** denotes 2016, † denotes value with less data: averages may not be representative.
Source: World Bank (2022[2]), *World Development Indicators* (database), https://databank.worldbank.org/source/world-development-indicators; IRENA (2022[11]), *Data & Statistics*, https://www.irena.org/statistics.

OECD Development Pathways

Development Strategy Assessment of the Eastern Caribbean

Eastern Caribbean countries enjoy rich natural endowments and have achieved significant economic development. Throughout the last decades, they have also been confronted with a number of rising economic, social and environmental challenges. To help them tackle these, and accelerate their development, the Organisation of Eastern Caribbean States (OECS) and the OECD have jointly designed a regional strategy scorecard, which is at the heart of the *Development Strategy Assessment of the Eastern Caribbean*.

The scorecard will help policy makers set priorities for the implementation of the OECS Development Strategy. Stronger resilience and capacity are the major guideposts towards both economic growth and social progress. The region can make much more of its green potential, with power generation topping the list. Improving regulation and reducing red tape can foster new, homegrown economic dynamism. Tourism, digital services and the sustainable ocean economy also offer untapped potential. Closing the skills gap, enhancing the quality of education and improving social protection are essential. Finally, as a red thread throughout, deeper regional integration would make it easier for OECS countries to pool resources in a range of areas, radically increasing the region's potential for efficient governance, and accelerating the development of its human resources.

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