OECD Economic Surveys
COSTA RICA

FEBRUARY 2023

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Please cite this publication as:
OECD (2023), *OECD Economic Surveys: Costa Rica 2023*, OECD Publishing, Paris, https://doi.org/10.1787/8e8171b0-en.

ISBN 978-92-64-62829-8 (print)
ISBN 978-92-64-89828-8 (pdf)
ISBN 978-92-64-96817-2 (HTML)
ISBN 978-92-64-99728-8 (epub)

OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

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Foreword

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of member countries.

The economic situation and policies of Costa Rica were reviewed by the Committee on 6 October 2022. The draft report was then revised in light of the discussions and given final approval as the agreed report of the whole Committee on 28 October 2022.

The Secretariat's draft report was prepared for the Committee by Alberto González Pandiella and Alessandro Maravalle, under the supervision of Aida Caldera Sánchez. Research assistance was provided by Véronique Gindrey, editorial support by Karimatou Diallo and communication assistance by Nathalie Bienvenu. The Survey also benefited from contributions by Bernardo Mayorga.

The previous Survey of Costa Rica was issued in 2020.

Information about the latest as well as previous Surveys and more details about how Surveys are prepared is available at www.oecd.org/eco/surveys.

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Basic statistics of Costa Rica, 2021[1]

Numbers in parentheses refer to the OECD average[2]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	5.2		Population density per km²	100.9	(38.7)
Under 15 (%)	20.5	(17.4)	Life expectancy at birth (years, 2020)	79.3	(79.0)
Over 65 (%)	10.5	(17.7)	Men (2020)	76.8	(76.2)
International migrant stock (% of population, 2019)	8.3	(13.2)	Women (2020)	81.9	(82.0)
Latest 5-year average growth (%)	0.8	(0.5)	Latest general election	Feb. 2022	
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	64.6		Agriculture, forestry and fishing	4.8	(2.6)
In current prices (billion CRC)	40 112.9		Industry including construction	22.4	(26.6)
Latest 5-year average real growth (%)	2.5	(1.6)	Services	72.8	(70.8)
Per capita (thousand USD PPP)	22.7	(50.8)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure (2020)	32.5	(46.4)	Gross financial debt	68.2	(111.9)
Revenue (2020)	24.7	(38.7)			
EXTERNAL ACCOUNTS					
Exchange rate (CRC per USD)	621.23		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	342.39		Food and live animals	36.8	
In per cent of GDP			Miscellaneous manufactured articles	34.2	
Exports of goods and services	36.8	(29.8)	Manufactured goods	9.7	
Imports of goods and services	35.1	(29.9)	Main imports (% of total merchandise imports)		
Current account balance	-2.4	(0.2)	Machinery and transport equipment	23.7	
Net international investment position	-60.7		Chemicals and related products, n.e.s.	19.3	
			Manufactured goods	19.1	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	52.4	(56.2)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	16.4	(6.1)
Men	62.7	(64.1)	Youth (aged 15-24, %)	39.4	(12.8)
Women	38.0	(48.7)	Long-term unemployed (1 year and over, %)	3.4	(2.0)
Participation rate (aged 15 and over, %)	60.3	(60.3)	Tertiary educational attainment (aged 25-64, %, 2020)	24.6	(39.9)
Average hours worked per year	2,073	(1,716)	Gross domestic expenditure on R&D (% of GDP, 2018, OECD: 2020)	0.4	(3.0)
ENVIRONMENT					
Total primary energy supply per capita (toe)	1.0	(3.8)	CO_2 emissions from fuel combustion per capita (tonnes)	1.4	(7.9)
Renewables (%)	51.5	(11.6)	Water abstractions per capita (1 000 m³, 2020)	0.6	
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2019)	99.9	(61.7)	Municipal waste per capita (tonnes, 2020)	0.3	(0.5)
SOCIETY					
Income inequality (Gini coefficient, OECD: latest available)	0.487	(0.315)	Education outcomes (PISA score, 2018)		
Relative poverty rate (%, OECD: 2018)	20.3	(11.7)	Reading	426	(485)
Median disposable household income (thousand USD PPP, 2020, OECD: 2018)	8.1	(25.5)	Mathematics	402	(487)
Public and private spending (% of GDP)			Science	416	(487)
Health care (2020)	7.9	(9.7)	Share of women in parliament (%)	45.6	(32.4)
Pensions (2018, OECD: 2017)	3.6	(8.6)			
Education (% of GNI, 2020)	7.1	(4.4)			

[1] The year is indicated in parenthesis if it deviates from the year in the main title of this table.

[2] Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.

Source: Calculations based on data extracted from databases of the following organisations: OECD, International Energy Agency, International Labour Organisation, International Monetary Fund, United Nations, World Bank.

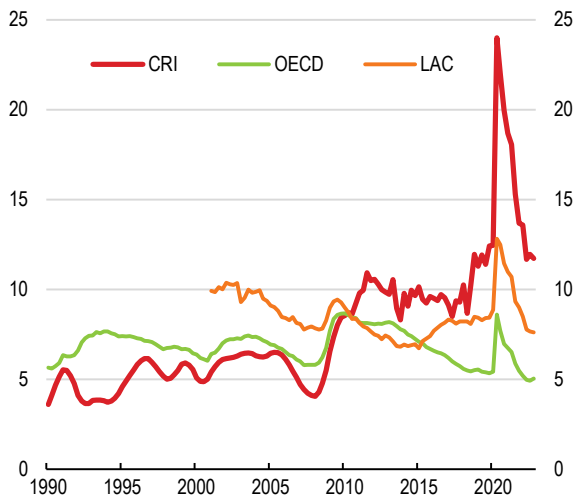
Executive summary

Costa Rica recovered well but growth prospects are worsening

Costa Rica has made remarkable economic progress, but faces substantial challenges to safeguard its achievements and further improve living standards. Life expectancy is at par with the OECD average and political stability has been sustained thanks to solid institutions. Unemployment (Figure 1) and informality, affecting nearly half of the labour force, are high. Growth prospects were deteriorating before the pandemic and going forward population ageing will take an additional toll.

Figure 1. Unemployment is high

% of labour force

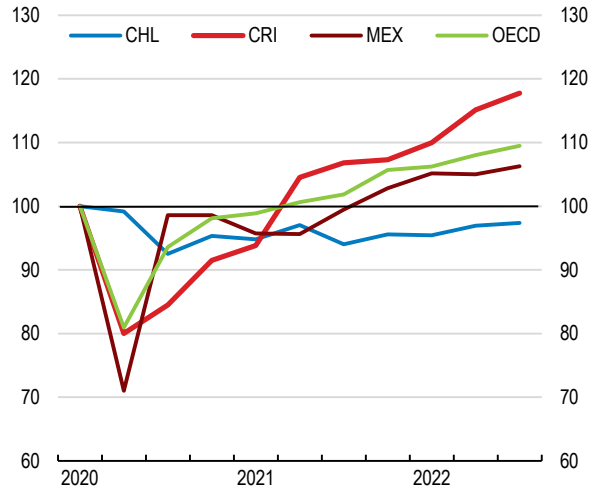


Note: LAC refers to Chile, Colombia, Mexico and Brazil.
Source: OECD Economic Outlook database.
StatLink https://stat.link/edrbva

A targeted fiscal response, a successful vaccination campaign and strong export performance have supported a rapid recovery from the pandemic (Figure 2). Growth will slow, as consumption is damped by rising inflation (Table 1). Exports will benefit from specialisation in high value-added resilient sectors, but their dynamism will be mitigated by the global economy's loss of momentum. The gradual resumption of tourism will improve employment. Inflation will remain high, as external inflationary pressures are expected to continue.

Figure 2. Exports recovered quickly

Index of real exports, 2020Q1 = 100



Source: OECD Economic Outlook database.
StatLink https://stat.link/9cwo51

Table 1. Growth will slow

Annual growth rates, %, unless specified

	2020	2021	2022	2023	2024
Gross domestic product	-4.3	7.8	4.3	2.3	3.7
Private consumption	-6.9	7.0	3.6	2.3	2.7
Gross fixed capital formation	-3.4	11.0	1.6	-0.5	5.5
Exports	-10.6	15.9	12.2	8.8	9.1
Imports	-12.9	16.9	5.5	8.5	7.5
Unemployment rate (%)	19.5	16.4	12.2	11.4	11.1
Consumer price index	0.7	1.7	8.8	6.9	4.2
Central gov. balance (% of GDP)	-8.5	-5.0	-4.1	-2.6	-2.2
Central gov. debt (% of GDP)	67.2	68.2	67.5	66.8	66.0
Current account (% of GDP)	-1.1	-3.3	-4.0	-3.8	-2.7

Source: OECD Economic Outlook.

Inflation has risen, exacerbated by global supply constraints and Russia's invasion of Ukraine, with food and energy prices up most. Inflation expectations have increased significantly, reaching more than twice the 3% inflation target. In response, the Central Bank raised its policy rate by 825 basis points, to 9%. Costa Rica has put in place targeted measures to support those most impacted by high energy prices.

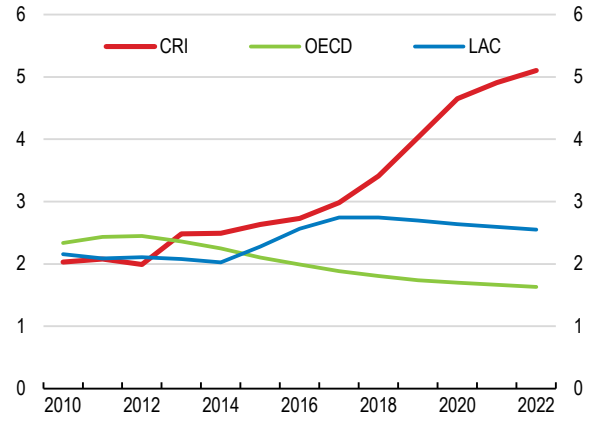
The fiscal outlook improved but remains challenging

After a decade of widening fiscal deficits, fiscal performance improved, thanks to stronger than expected economic activity in 2021 and the fact

that all elements of the 2018 fiscal reform, such as the fiscal rule and the VAT, were in place for the first time. With public debt at 70% of GDP and a large interest rate bill (Figure 3), maintaining fiscal prudence, including by ensuring full implementation of the fiscal rule, is critical for debt sustainability. The interest rate bill could increase more than planned in light of on-going increases in global interest rates.

Figure 3. The interest rate bill is large

Central government debt interest expenditure, % of GDP



Source: Data for Costa Rica are from Ministerio de Hacienda.

StatLink https://stat.link/vaczgo

Containing public spending and improving its quality to better support growth and equity is a critical challenge. Continuing spending reallocation efforts, based on spending reviews, can facilitate deploying capital spending to address infrastructure gaps. The implementation of the public employment framework law, key to comply with the fiscal rule and improve public sector efficiency, is expected to bring annual savings of 0.8% of GDP.

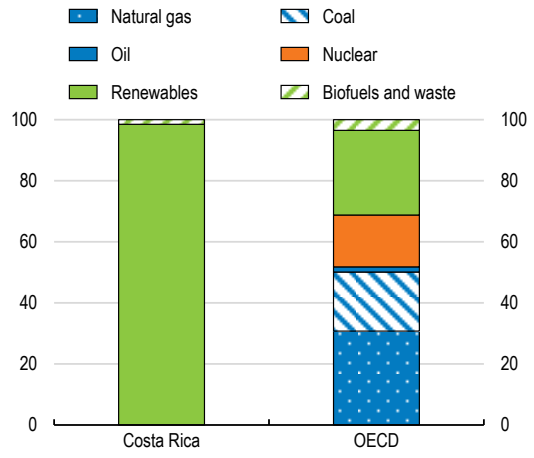
The tax system is overly reliant on social security contributions. This favours informality, erodes the tax base and generates inequalities. Broadening tax bases holds the promise of increasing revenues without raising rates and making the tax system more progressive. Moving towards a more centralised and less fragmented tax payment and collection system could yield efficiency gains and facilitate tax compliance. Making social security charges more progressive, by reducing them for low-income workers, can facilitate formal job creation.

Spreading the benefits of integration in international trade

Costa Rica's strong commitment to trade has been key to attract foreign direct investment, move up in global value chains and diversify exports. Nearshoring trends are providing new opportunities. Costa Rica's clean electricity matrix (Figure 4) and its decarbonisation plan bring the opportunity to become a global leader in low-carbon exports. An ambitious and wide reform agenda would help to seize these new opportunities and to spread the benefits of trade integration throughout Costa Rica.

Figure 4. Electricity generation is green

Electricity generation by source, %, 2021



Note: The data for the OECD refer to the year 2020. In Costa Rica, about 0.2% of electricity is generated from a thermal source.
Source: Secretaría de Planificación Subsector Energía in Costa Rica and IEA.

StatLink https://stat.link/stm7ab

Boosting competition should be a key element of the government's reform agenda. The competition authority has received less than one third of the budget granted by law, which hampers its ability to perform its duties. Moreover, the stock of regulations is large and complex and there is no formal requirement to assess the impact of new regulations on competition. There is also a need to boost competition and efficiency in sectors where state companies play a dominant role, such as electricity, banking and e-communications.

Further fighting corruption is also crucial to spread the benefits of Costa Rica's trade integration more widely. The country has been regularly shaken by corruption scandals and trust in government is relatively low. There is currently no dedicated law providing protection to public or private employees once they have disclosed wrongdoing.

Reducing the carbon footprint of the transport sector is a key challenge. The sector accounts for 42% of carbon emissions. The lack of an efficient public transport network has encouraged widespread and increasing use of private transport to meet mobility needs. Putting in place reliable, efficient and green public transportation is a key pillar of the decarbonisation plan.

Improving education and equality of opportunities

Enhancing education outcomes, reducing informality and facilitating female labour market participation are also crucial to fully realize Costa Rica's growth potential and reduce inequality. Moreover, there is room to improve the targeting of some social programmes and to reduce fragmentation.

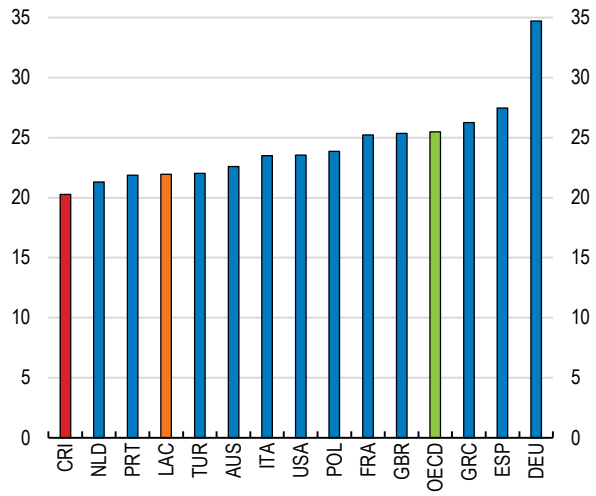
Female labour force participation lags other OECD countries. Women taking on family care responsibilities face difficulties to complete education or be in the labour force. More than 90% of women in poor households are out of the labour force. Expanding access to early education would facilitate women's labour market participation and raise outcomes and equity in education. The coverage of early education for five-year-old children has recently increased, but access should also be expanded for children under the age of four.

Costa Rica's commitment to education and training is strong, but educational outcomes are weak. The country has achieved almost full enrolment in primary education but lags behind in other key outcomes. Only half of the population aged 25-34 has completed upper secondary education, far from the OECD average (85%). Too many Costa Ricans leave the education system before completing secondary education. These challenges were exacerbated by one of the longest school closures in the OECD during the pandemic.

Firms struggle to fill vacancies, particularly in technical and scientific positions, endangering Costa Rica's capacity to attract foreign direct investment. Only 16% of graduates follow scientific studies (Figure 5), a similar share as in 2005. Revisiting universities funding mechanisms can improve accountability and the responsiveness to labour market needs. Recent reforms in vocational education aim at increasing the supply and quality of technicians. This would reduce skills mismatches and help to access formal jobs.

Figure 5. The share of graduates in STEM is low

STEM graduates, % of total tertiary graduates



Note: STEM includes graduates in natural sciences, mathematics and statistics; information and communication technologies; and engineering, manufacturing and construction.
Source: OECD (2022) Education at a Glance.

StatLink https://stat.link/4apy7j

Virtually universal health care and primary education and high pension coverage have led to remarkable social outcomes, but inequality keeps trending up. Costa Rica should streamline its social protection system, as 21 institutions currently deliver more than 35 schemes. This would facilitate increasing coverage and reinforcing social protection in some key areas, such as the social protection of children.

MAIN FINDINGS	KEY RECOMMENDATIONS
Further strengthening macroeconomic policies	
Inflation and inflation expectations have picked up strongly. Inflationary pressures are broad-based.	Maintain a restrictive monetary policy stance to ensure the return of inflation to the 3% target.
The fiscal situation improved in 2021, thanks to the 2018 fiscal reform, but remains challenging, requiring sustained efforts to contain public spending and boost efficiency. The implementation of the fiscal rule has met significant opposition from different segments of the public sector.	Maintain a prudent fiscal policy stance, including by ensuring a full and timely implementation of the fiscal rule. In the medium-term undertake a review of the fiscal rule to ensure that it continues to secure a prudent fiscal stance and sustainable debt dynamics.
Containing spending and improving its efficiency and quality to better support growth and equity remains a critical challenge. Capital spending has historically been largely neglected. Infrastructure gaps remain significant. Medium-term growth prospects are falling.	Based on spending reviews and sound cost-benefit analysis, continue to undertake the necessary expenditures prioritisation and reallocation and create space for capital spending to strengthen.
Compensation of government employees accounts for more than half of total revenues. The salary structure contributes to income inequality.	Fully implement the public employment framework law across the public sector.
Tax revenues, at 23 % of GPD, are hampered by high tax evasion, narrow tax bases and a multiplicity of tax expenditures. The tax system hardly reduces income inequality.	Broaden tax bases by phasing out regressive exemptions, such as the tax exemption on the 13th monthly salary and the one benefiting cooperatives.
The law to establish an independent fiscal coun-cil was approved and three members nominated but no further action has been taken to allow the council to operate in a meaningful way.	Provide the fiscal council with independent technical support and define its role more explicitly.
Boosting productivity and formal job creation	
The national competition authority remains severely under resourced. An adequately resourced and operative competition authority is critical to ensure that on-going efforts to improve regulations and open up key markets translate into lower prices for households and lower costs for firms.	Provide the national competition authority with the financing set in the law.
The number of regulations is large. Same administrative requirements are replicated across different public agencies. Regulations do not take into account their impact on competition.	Reduce the stock of regulations and conduct regulatory impact assessments.
Informality, at around 45%, remains high. It is both a cause and a consequence of low productivity and widens inequalities.	In the medium term, eliminate payroll charges not allocated to finance social security and finance social programmes and vocational training from the general budget. Reduce social security charges for low-income workers.
There is room to deepen trade with Latin American countries and other regions, which would facilitate further integration in global and regional value chains.	Pursue ongoing renewed efforts to increase trade integration further, including becoming a member of the Pacific Alliance.
Improving equality of opportunities	
Only 30% of poor children receive a cash transfer. In some social programmes more than 40% of beneficiaries are middle or high-income households. Numerous institutions participate in the delivery of more than 35 social programmes.	Set up a universal cash transfer for poor children. Improve targeting and reduce fragmentation of social programmes.
Children from disadvantaged households have lower access to early education. Female labour market participation is hampered by care responsibilities, particularly in low-income families.	Expand the coverage of early education for children below four years, giving priority to low-income families and using co-payment mechanisms.
Educational exclusion and frequent grade repetition in secondary education, mostly affect students from vulnerable groups (poor, indigenous and migrants).	Identify underperforming primary and secondary students and provide them with targeted and early tutoring support provided by well-trained teachers, prioritising those from vulnerable groups.
The number of STEM graduates does not meet labour market demand. University funding mechanisms lack incentives for accountability and quality in education and research.	Modify universities funding mechanisms by linking additional funding for public institutions to system-wide performance goals such as increasing STEM programmes and the number of graduates.
Short-cycle vocational programmes are chosen by very few tertiary students while they can help to swiftly adapt to changes in skills needs and reduce inequalities.	Strengthen the supply of high-quality short-cycle vocational programmes and promote a larger demand for them via an information campaign.
Strengthening green growth	
The transport sector is the major source of emissions. Meeting the plan to be net carbon neutral will require reducing emissions in the transport sector and strengthening carbon sinks. Diesel is taxed at a rate that is 60% lower than gasoline.	Align the tax rates on diesel and bunker fuel with the gasoline rate and gradually increase the carbon tax rate once high energy prices start falling, and channel part of the revenues towards low-income households.
The increase in forest-covered areas has been underpinned by the Payment for Environmental Services scheme, offering compensation to land owners for providing eco-services. So far, the scheme has been financed only with fuel tax revenues, which will fall overtime.	Broaden the sources of financing of the Payment for Environmental Services scheme.

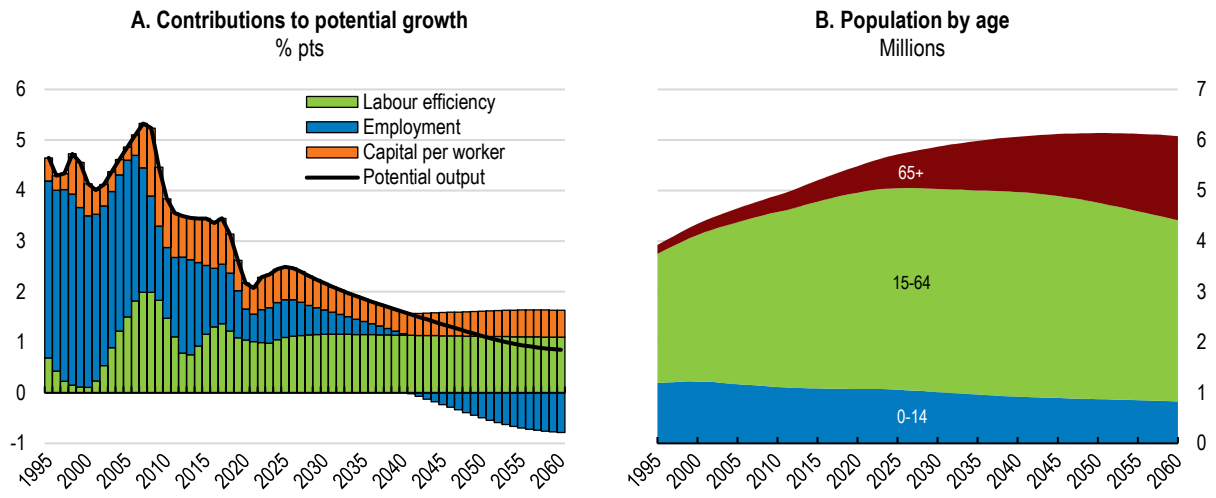
1 Key Policy Insights

Costa Rica recovered well from the pandemic-induced recession. Sustained and resilient export performance continues to support growth, while consumption is hindered by high inflation and unemployment. The fiscal situation improved but remains challenging, requiring sustained efforts to contain spending and boost public sector efficiency for several years. Maintaining and reinforcing the commitment to foreign direct investment and trade, which has been key to diversify the export basket, and improving the conditions for domestic companies to thrive are key challenges to boost living standards and formal job creation. This would require reducing the regulatory burden, improving the tax mix, fostering more competition in key markets and continuing decarbonisation and environment protection efforts. Supporting higher female labour participation and upgrading social protection will help to adapt to ongoing demographic changes and improve the equality of opportunities.

Costa Rica recovered well but faces substantial challenges

Costa Rica's economy recovered well from the pandemic-induced recession. A targeted fiscal response, ample monetary support, a successful vaccination campaign and sustained export performance supported the recovery. Costa Rica, the oldest democracy in Latin America, has displayed significant political stability over the years, thanks to its solid institutions, and a strong commitment to environment protection. However, it faces critical challenges to safeguard achieved successes and to continue converging towards higher living standards. A strong social pact has delivered some remarkable results. Most notably, life expectancy is now at par with the OECD average and the highest in Latin America. At the same time, despite increases in social spending, progress in other areas, such as education or poverty reduction, has stalled. Unemployment, at a two-digit rate since 2018, and informality, affecting nearly half of the labour force, are high. Spreading the benefits of integration in international trade across the country is a key pending challenge. Growth prospects were deteriorating before the pandemic and, in the absence of further reforms, will further erode in the medium-term, as population ageing accelerates (Figure 1.1). The fiscal situation improved in 2021, thanks to the 2018 fiscal reform, but with public debt at around 70% of GDP, public finances remain a critical vulnerability requiring sustained efforts to contain spending and boost public sector efficiency for several years. The surge in global energy prices triggered by Russia's aggression against Ukraine adds pressures on Costa Ricans real incomes.

Figure 1.1. The economy's growth potential will fall as the demographic bonus fades



Source: OECD long-term projections based on Guillemette and Turner, 2018.

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Stepping up structural reform efforts would be the best way to respond to these challenges. Reforms would spur productivity, key to help more Costa Ricans achieve higher living standards at a time when demographics are shifting. Reforms would also help to seize the new opportunities that are arising. Costa Rica's strong commitment towards trade openness has been key to attract foreign direct investment, move Costa Rica up the global value chain and diversify its exports basket. Nearshoring trends, by which companies seek reducing supply chain disruptions risks by locating closer to their final markets, are providing new opportunities. Costa Rica is a front runner in environmental protection and renewables generation, and the global transition to net zero greenhouse gas emissions can increase the country's competitiveness further. Seizing these opportunities will help to create more formal jobs, a key priority for the government that took office in May 2022 (Box 1.1). Enhancing education outcomes, boosting competition, facilitating greater female labour market participation and reducing the scope for corruption

are key elements of a reform agenda that could raise growth prospects and incomes substantially (Figure 1.2). Simulations based on the OECD long-term growth model (Guillemette and Turner, 2018[1]) suggest that the right type of reforms could raise GDP per capita by an additional 26% over 20 years, equivalent to 1.3 percentage points of additional growth each year.

Box 1.1. Key features of Costa Rica's government programme and recent reform efforts

The government took office in May 2022. Among its priorities are the following:

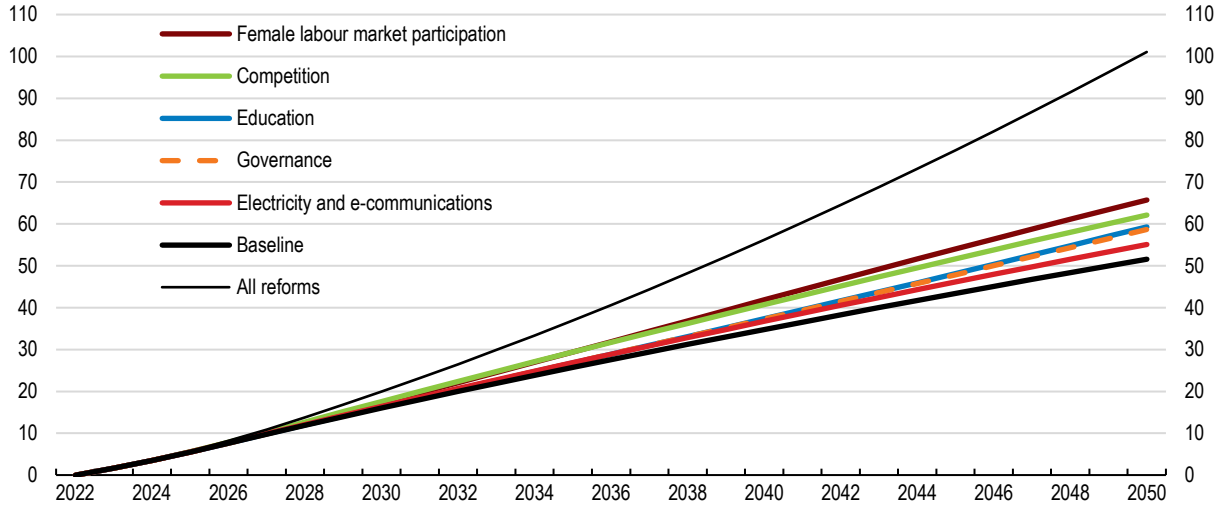
- **Reactivating the economy** by creating more jobs, simplifying procedures and digitalizing the State.
- **Fighting corruption** by incentivizing "whistle-blowers" and increasing sanctions for corruption.
- **Reducing living costs** by reducing the costs of the basket of essential goods and services.
- **Improving education** by strengthening education in STEM areas and dual learning systems.
- **Eliminating extreme poverty** by improving targeting of social expenditure.
- **Further integration into the global economy** by pursuing further trade agreements and contributing to strengthen the multilateral trade system.
- **Strengthening the pension system** by eliminating exorbitant pensions received by some workers from public agencies outside central government, equalizing the contributions of the State across the different pension modalities, and strengthening compulsory and voluntary pensions.
- **Improving the quality of the health system** by implementing transparency in the health system, modernising digital medical files and reducing waiting lines.
- **Protecting the ecosystem** by developing an interconnected public transport system and improving recycling.
- **Promoting and effective democracy** by simplifying the procedures for calling referendums and proposing new laws to congress.

Recent reforms efforts include:

- Eliminating minimum prices for rice and reducing the rice import tariff.
- Phasing out the monopoly to import medicines.
- Eliminating minimum compulsory fees in professional services.
- The 2022 laws to improve the institutional structure and policy execution in the Public Works and Transport Ministry and in the Environment and Energy Ministry.
- The 2022 law to create the Public Investment National System, aiming at strengthening and harmonising public investment processes and improving project selection across the public sector.
- The 2022 law to eliminate 15 decentralised public agencies and devolve responsibilities to the respective ministries.

Figure 1.2. Structural reforms would lift growth and incomes substantially

Simulations for the GDP per capita using the OECD long term growth model, % of 2022 GDP



Note: The "Baseline" projection depicts the increase of potential per-capita GDP in Costa Rica according to current estimations of potential growth, without any reform. The "Competition" and "Electricity and e-communications" scenarios assume adoption of OECD best practices and their impact is estimated based on OECD's Product Market Regulations index. The "Governance" scenario assumes that the rule of law reaches the OECD average by 2060. The "Female labour market participation" scenario assumes the gap with the OECD average is closed by 2060. Finally, the "Education" scenario assumes that an average of 12.5 years of education is reached by 2060 together with improvements in quality. The results suggest that without any reform GDP per capita would grow by 50% by 2050. If all reforms are implemented, GDP per capita will grow by 100% instead.
Source: OECD calculations based on OECD Long-term growth model.

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Against this background, the main messages of the Survey are:

- Maintaining fiscal prudence, including by ensuring full implementation of the fiscal rule, is critical to maintain macroeconomic stability. Improving spending efficiency and enlarging the tax base would allow for a stronger contribution of fiscal policy to growth and equity.
- Strengthening productivity and creating formal jobs are fundamental priorities. This will require reducing the regulatory burden, improving the tax mix, fostering more competition in key markets, pursuing ongoing efforts to strengthen trade integration and continuing decarbonisation efforts.
- Enhancing education and training outcomes, upgrading and better targeting social protection, facilitating female labour market participation and adapting the pension system to demographic changes would be key to maintain and expand social achievements and reduce inequalities.

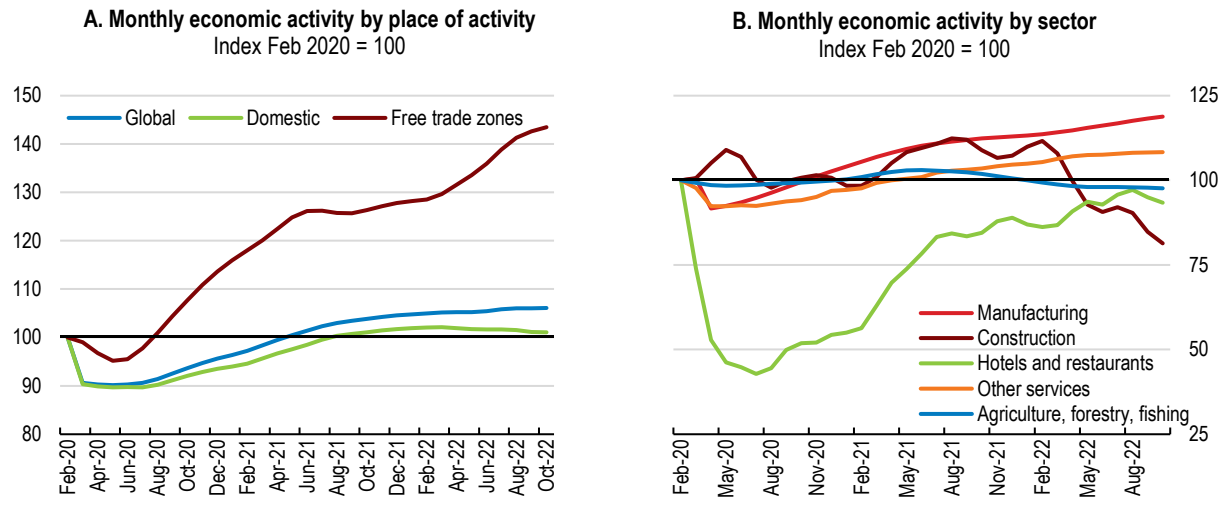
Growth is mitigated by high inflationary pressures and the global outlook

The recovery has further progressed

The economy continues to grow, but at a slower pace than in 2021. Activity in free trade zones, strongly linked to exports, improved very quickly after the pandemic recession, while the recovery of tourism related services was more protracted (Figure 1.3). An increasingly diversified export basket (Figure 1.4) has supported the recovery, which has also benefited from strong growth in the United States, Costa Rica's main trading partner (Figure 1.5). Trade linkages with China are relatively small, and its zero-Covid policy impacts Costa Rica indirectly, through the associated deceleration in global growth and trade. Direct trade

linkages with Russia and Ukraine are negligible, but the imports of metals and fertilisers are relevant, and finding alternative sources of supply will take some time and imply higher costs. However, as a very open economy, the Costa Rican economy is hampered by the deceleration in global growth, notably in the United States, triggered by Russia's invasion of Ukraine.

Figure 1.3. Export sectors led the recovery



Source: Banco Central de Costa Rica.

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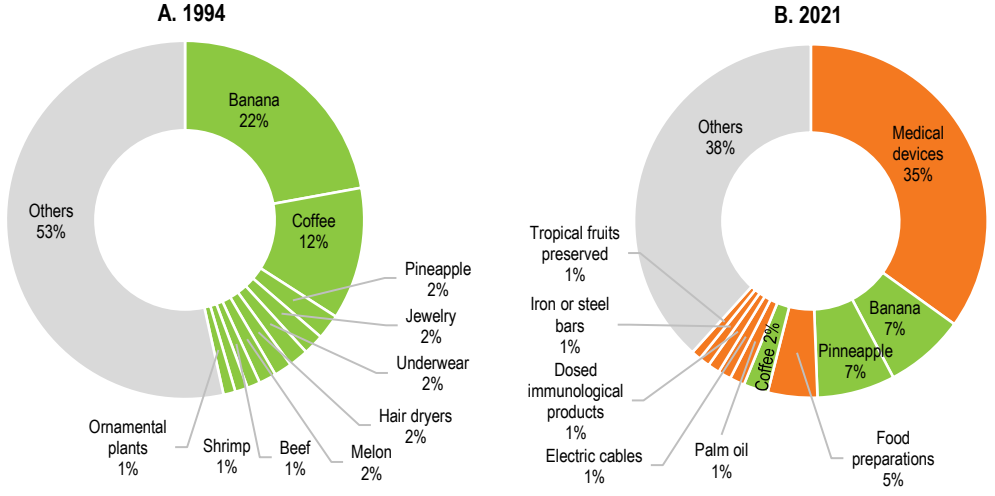
Figure 1.4. The export basket has become increasingly diversified

Main exported products, % of all exports



Note: The ten main exported products in 1994 are displayed in green in both panels.
Source: COMEX based on data from PROCOMER.

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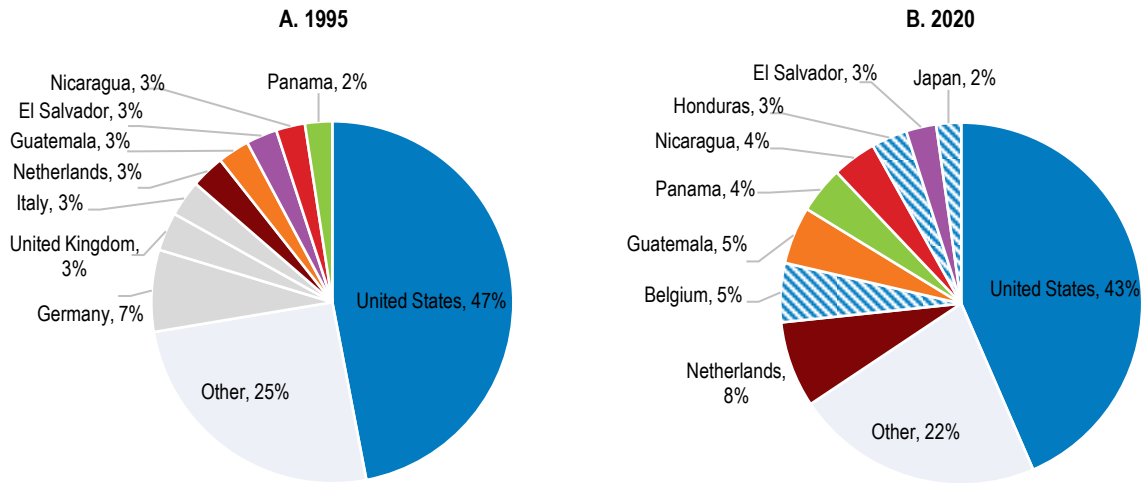
Figure 1.5. The United States and the European Union are the main trading partner

Top ten export markets in 1995 and 2020



Note: 1995 export markets no longer in the top ten in 2020 are in grey; 2020 export markets not in the top ten in 1995 are in blue.
Source: UNCTAD.

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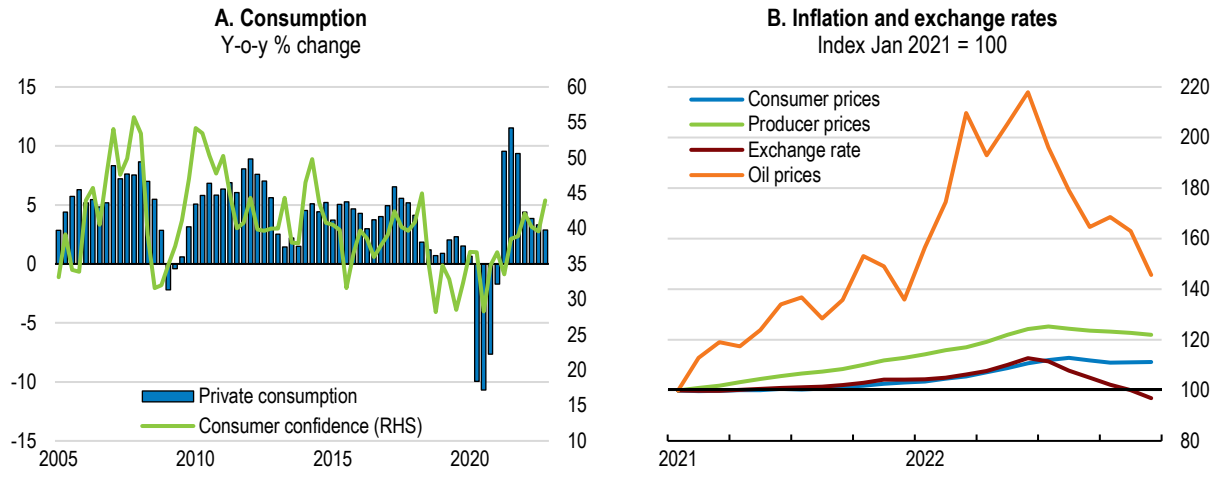
The roll-out of the vaccination campaign was very successful, and, as of December 2022, 83% of the total population had received at least a second dose. This has supported consumption, which, at the same time, is being mitigated by rising inflationary pressures (Figure 1.6). Inflationary pressures stem from high energy prices, exchange rate depreciations and cost pressures triggered by disruptions in global value chains. The war in Ukraine has exacerbated inflationary pressures contributing to further worsen Costa Rica's terms of trade (Figure 1.7). Headline and core inflation after reaching, respectively, 12.1% and 7% in August, the highest value in the last 13 years, decreased to 7.9% and 5.4% in December. Inflationary pressures affect particularly food and energy, with services remaining less impacted. The Central Bank started a hiking cycle in December 2021 and has been gradually increasing the monetary policy rate since then, delivering a cumulative increase of 825 basis points, to 9.0%.

The authorities have put in place some measures to contain increases in energy prices. The main one is a change in the formula regulating fuel prices, which will now be using actual import prices instead of some reference prices that were higher than import prices. This change should in theory result in a notable reduction of gasoline prices. However, the authorities have decided to temporarily set up a cross-subsidy and maintain gasoline prices stable and reduce instead diesel prices, as diesel is more predominantly used by transport, agriculture and fishing sectors. To mitigate the impact of the rise in energy prices, the authorities have also established in November a temporary (3-months) subsidy targeted at low-income households (*Beneficio temporal por inflación*). It will be targeted using Costa Rica's registry of beneficiaries of social programmes. This is a preferable way to provide support, as the subsidy is channelled to poorer households, whose purchasing power is being eroded more severely, and does not disincentive energy savings.

Figure 1.6. Consumption is held back by rising inflation



Note: Panel B: Exchange rate between the Costa Rican colon and the United States dollar. An increase implies a depreciation of the colon.
Source: Banco Central de Costa Rica; World Bank Commodity Price Data.

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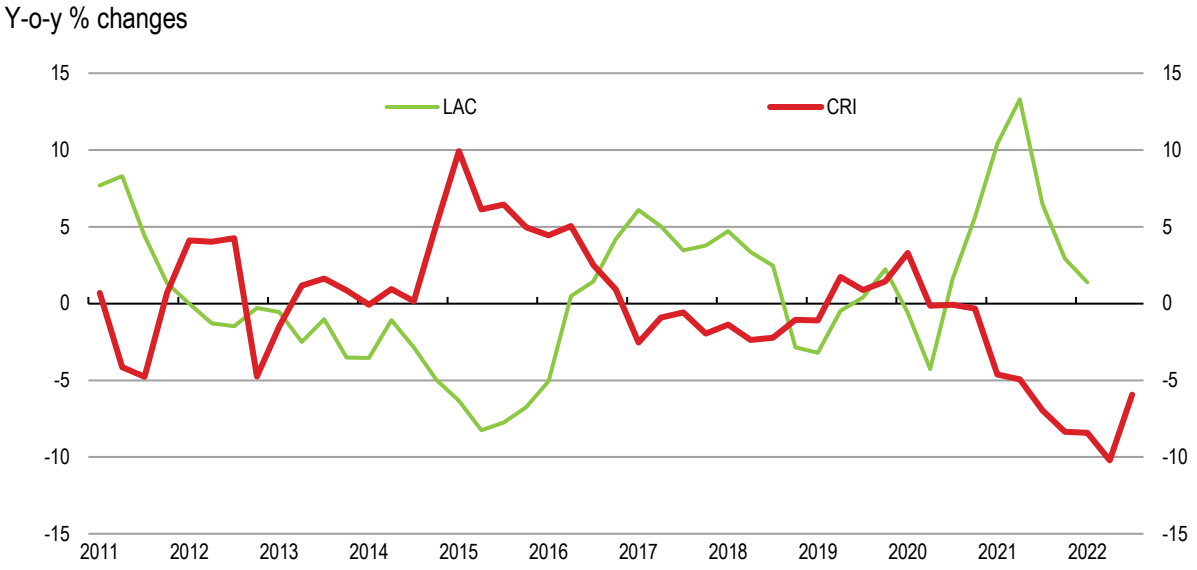
Figure 1.7. Terms of trade are deteriorating



Note: LAC refers to Chile, Colombia, Mexico, Argentina, and Brazil.
Source: OECD Economic Outlook Database.

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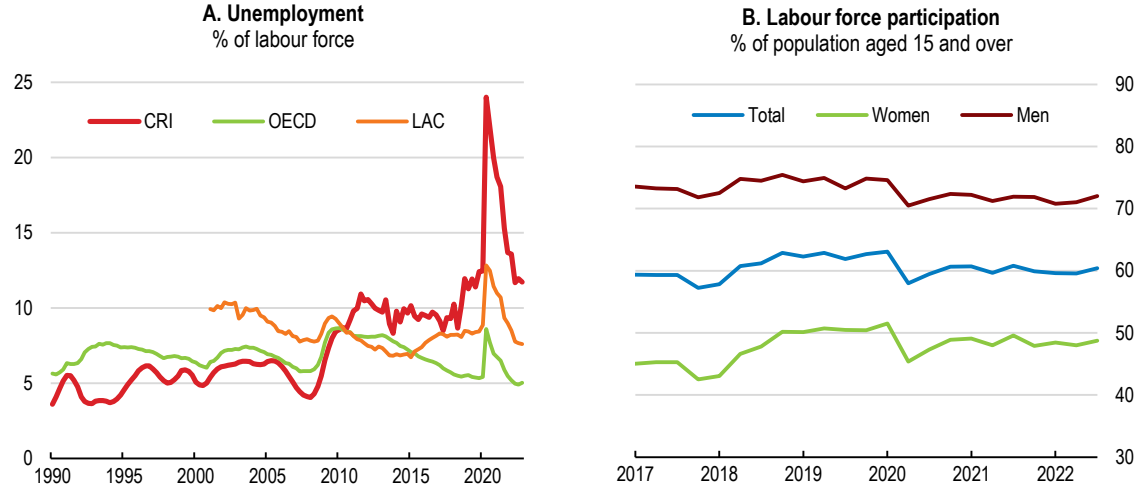
Labour market conditions are gradually improving. Employment has rebounded more slowly than activity, as the recovery in the employment-intensive tourism sector has been more protracted. The unemployment rate has recently decreased to its pre-pandemic level, but this was a historically high rate (Figure 1.8). Labour participation has not recovered its pre-pandemic level (60.3% at end-2022 versus 64% pre-pandemic). The recovery in employment shows significant heterogeneity. Employment of high-qualified workers is well above pre-pandemic levels, while employment of low skilled and medium-skilled workers has recovered more slowly. Formal employment grew back to its pre-pandemic level while informal employment is still lower than in February 2020. Informality remains high by historical standards, hovering around 45% of total employment.

Figure 1.8. Unemployment has started to fall but participation has not fully recovered



Note: LAC refers to Chile, Colombia, Mexico and Brazil.
Source: OECD Economic Outlook database; OECD Labour Force Statistics.

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The economy is projected to expand by by 2.3% in 2023 and by 3.7 % in 2024 (Table 1.1). The gradual reactivation of tourism will reinforce labour intensive sectors and improve employment. Consumption will be supported by the successful vaccination campaign and the gradual improvement in the labour market but will also be damped by high inflation and worsening terms of trade. Exports will keep benefiting from the specialisation in high value-added resilient sectors, such as medical devices, although their dynamism will be mitigated by the United States slowdown and higher import prices. Inflation will remain elevated, with oil prices expected to remain high in 2023.

Table 1.1. Macroeconomic indicators and projections

	2017	2019	2020	2021	2022	2023	2024
	Current prices CRC billion	Percentage changes, volume (2013 prices)					
GDP at market prices	34,343.6	2.4	-4.3	7.8	4.3	2.3	3.7
Private consumption	22,365.8	1.7	-6.9	7.0	3.6	2.3	2.7
Government consumption	5,618.0	5.9	0.8	1.7	2.1	0.1	0.8
Gross fixed capital formation	6,242.9	-8.2	-3.4	11.0	1.6	-0.5	5.5
Final domestic demand	34,226.7	0.6	-5.0	6.6	3.0	1.4	2.9
Stockbuilding[1]	-38.8	-0.3	0.2	1.1	-0.8	0.6	0.0
Total domestic demand	34,187.9	0.2	-4.8	7.8	1.8	1.7	2.8
Exports of goods and services	11,251.9	4.3	-10.6	15.9	12.2	8.8	9.1
Imports of goods and services	11,096.2	-2.3	-12.9	16.9	5.5	8.5	7.5
Net exports[1]	155.7	2.2	0.4	0.3	2.5	0.6	1.1
Memorandum items							
GDP deflator	-	2.6	0.8	2.0	7.8	6.4	4.2
Consumer price index	-	2.1	0.7	1.7	8.8	6.9	4.2
Core inflation index[2]	-	2.7	1.3	0.9	4.5	5.8	4.2
Potential growth	-	2.9	2.6	2.6	2.8	2.6	2.7
Output gap (% of GDP)	-	-1.3	-7.9	-3.2	-1.8	-2.2	-1.2
Unemployment rate[3] (% of labour force)	-	11.8	19.5	16.4	12.2	11.4	11.1
Current account balance (% of GDP)	-	-1.2	-1.1	-3.3	-4.0	-3.8	-2.7
Central government balance (% of GDP)	-	-6.4	-8.5	-5.0	-4.1	-2.6	-2.2
Central government debt (% of GDP)	-	56.4	67.2	68.2	67.5	66.8	66.0

1. Contributions to changes in real GDP, actual amount in the first column. 2. Consumer price index excluding volatile items: agricultural, energy and tariffs approved by various levels of government. 3. Based on national employment survey.
Source: OECD Economic Outlook database.

The economic and inflation outlook remains very uncertain. Inflation may be higher for longer, eroding purchasing power, particularly of vulnerable households, and requiring greater tightening of monetary policy. Risks of a price-wage spiral, contained so far by ample spare capacity in the labour market, could materialise. Such second-round effects would require additional increases in monetary policy rates. Costa Rica is a small, open economy dependent on foreign markets for investment and trade, which makes it vulnerable to external shocks, such as a sharp deceleration in global growth and additional increases in oil prices. Episodes of financial volatility may trigger greater risk aversion, reduce net financial inflows and increase financing costs. On the upside, near-shoring opportunities could imply stronger exports. The recovery in tourism could be quicker than anticipated. The economy may also face unpredictable shocks, with effects that are difficult to factor into the projections (Table 1.2).

Table 1.2. Events that could entail major changes to the outlook

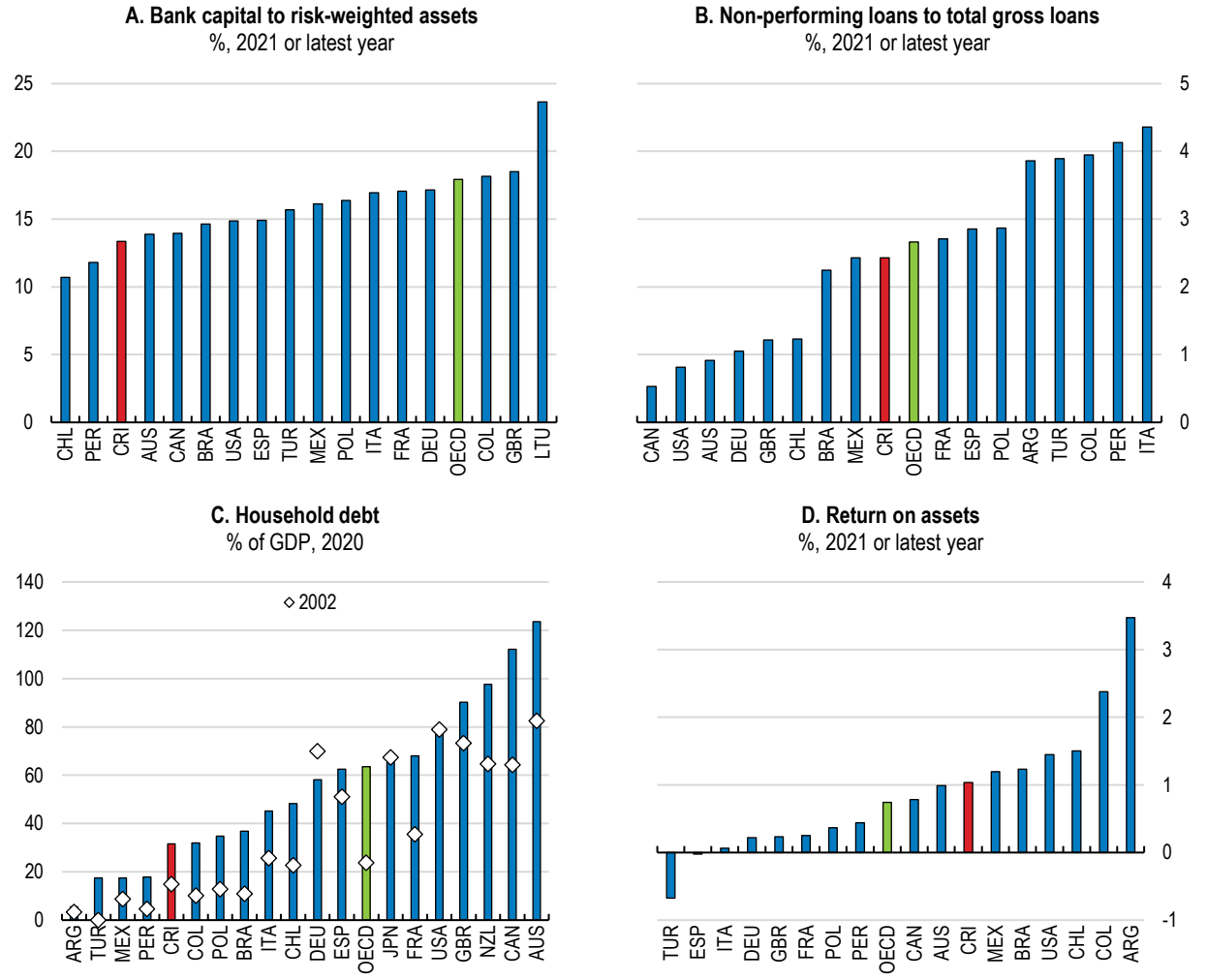
Vulnerability	Possible outcome	Possible policy action
Contagion from acute financial volatility in other emerging markets.	Large exchange rate depreciation and higher costs of financing the fiscal deficit and servicing debt.	Tighten monetary policy and active debt management to re-profile debt maturity.
Deepening crisis in Nicaragua.	Large inflows of migrants with high humanitarian assistance needs.	Provide border assistance to immigrants and flexible residence permits.
Sustained hacking and ransomware of government agencies.	Disclosure of highly sensitive information and unavailability of critical infrastructure.	Put in place stricter cybersecurity protocols.
Extreme weather events.	Seasonal and unpredictable extreme weather events, such as El Niño or La Niña, hampering the agriculture sector. Earthquakes or volcanic eruptions damaging the infrastructure.	Continue to strengthen disaster risk management and to foster climate change adaptation strategies.

Financial stability risks appear contained

The financial system has been stable and resilient so far, maintaining capitalisation and liquidity levels above regulatory requirements (Figure 1.9, Panel A). A supportive monetary policy, macro prudential measures and emergency funding for firms supported the functioning of financial markets during the pandemic recession. Almost half of the loan portfolio took advantage of temporary measures to support loan restructurings. Non-performing loans increased but remain contained (Figure 1.9, Panel B), although part of the impact of the pandemic recession on assets quality could still materialise. The latest stress tests conducted by the Central Bank suggest that the banking system, including public banks, has sufficient capital buffers and liquidity to weather extreme economic events (BCCR, 2022[2]).

Households' and firms' indebtedness remain low in international perspective (Figure 1.9, Panel C). However, households' indebtedness has recently increased, more than doubling in the past two decades. Actual indebtedness is likely to be larger than reflected in data, as loans by non-supervised creditors are not included in official statistics and pockets of households with excessive indebtedness have increased, more notably through credit card debt, which currently represents 3.4% of GDP. Strengthening the credit registry office would be key to contain excessive borrowing and avoid increasing financial stability risks. The credit registry in Costa Rica covers around 35% of the adult population, against 50% in Chile or 80% in Brazil. Boosting the scope of the registry, to incorporate information also from non-supervised entities that are performing lending activities, is a priority. Reducing information asymmetries through a more comprehensive credit registry can also help boost financial inclusion (OECD, 2020[3]). In fact, it can be more effective in facilitating access to credit than the cap on interest rates introduced in June 2020, which can constrain access to credit for the most vulnerable individuals and incentivise informal credit channels. Establishing a financial consumer protection framework, a pending OECD recommendation (OECD, 2020[4]), would also facilitate access to financial services and formal credit by a larger share of the population. In the medium-term reinforced macroprudential tools can also play a role in mitigating financial stability risks stemming from excessive households' indebtedness.

Figure 1.9. The financial sector appears resilient



Note: Panel A refers to regulatory tier 1 capital to risk-weighted assets. Panel D refers to deposit takers' efficiency in using their assets; it is an indicator of bank profitability.
Source: IMF Financial Soundness Indicators; and IMF Global Debt Database.

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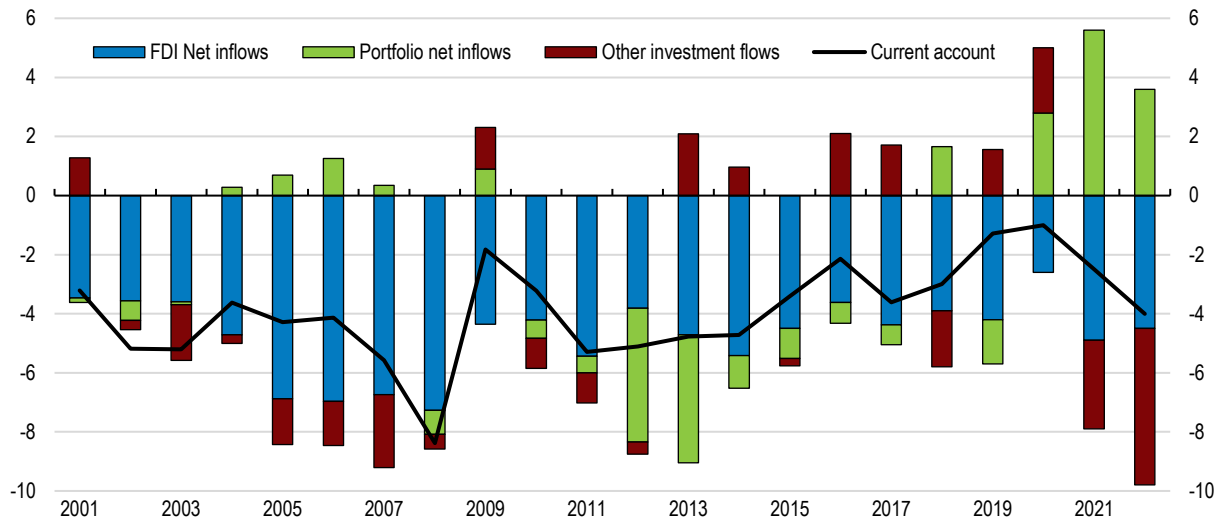
Costa Rica is vulnerable to risks from climate change and has started assessing the potential financial impact from climate change and other environmental vulnerabilities on its financial sector. Phasing in a mandatory disclosure of climate-related risks by large financial institutions would facilitate more transparent management of these risks and provide incentives for allocating resources to cleaner activities. Costa Rica could also consider integrating climate-related risks into the Central Bank risk management framework and running climate change stress tests, which have started to be conducted in several OECD economies, such as France, the Netherlands or the United Kingdom.

On the external side, the current account reached a deficit of 4% of GDP in 2022 (Figure 1.10), largely financed by a stable pipeline of foreign direct investment. However, external debt has significantly risen in the past decade (Figure 1.11), increasing vulnerability to global financial conditions. Currency reserves, of around 25% of external debt or 13.5% of 2021 GDP, are comparatively low and have recently decreased, covering around 5.3 months of imports. The Central Bank has recently announced a set of welcome measures to increase the availability of currency reserves, such as setting up a credit facility with the Latin American Reserve Fund. Accessing financing from multilateral financial institutions, such as through the IMF's Extended Arrangement in place since 2020, would also increase the availability of foreign reserves.

Figure 1.10. The current account deficit is financed with foreign direct investment

% of GDP



Source: IMF Balance of Payments database; IMF WEO database.

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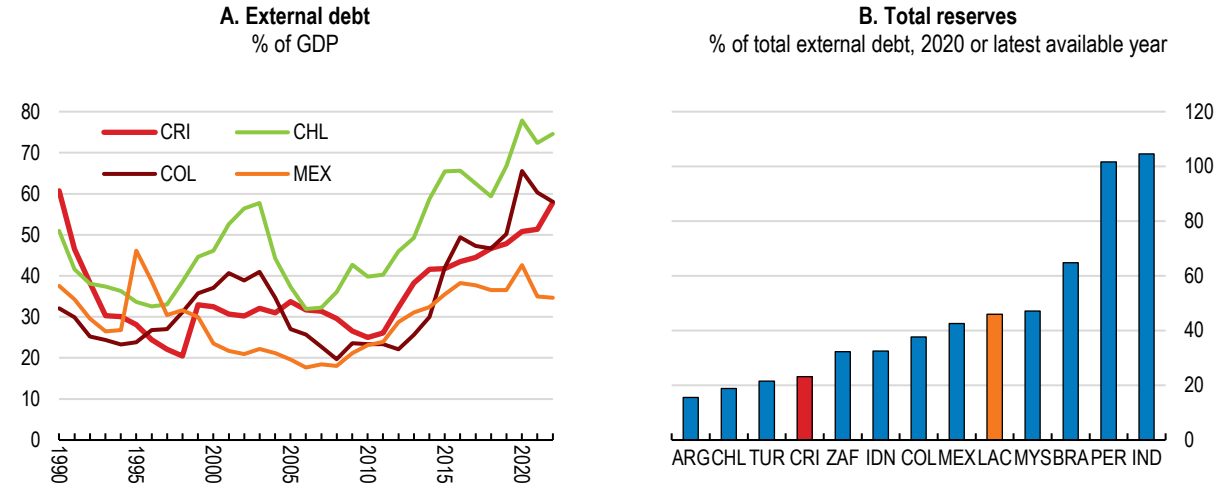
Figure 1.11. External debt has increased and foreign exchange reserves are comparatively low



Source: IMF World Economic Outlook and World Bank World Development Indicators.

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Macroeconomic policies can be further strengthened

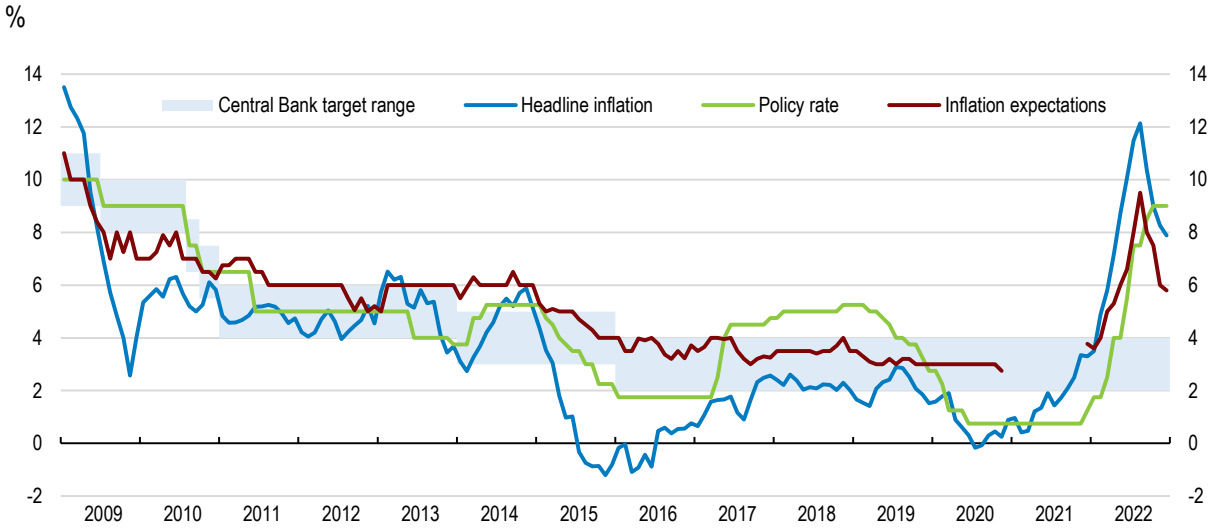
Efforts made to improve Costa Rica's macroeconomic framework paid off during the pandemic recession. Despite limited fiscal space, thanks to the higher flexibility to reallocate spending gained through the 2018 fiscal reform, Costa Rica put in place targeted measures towards vulnerable households and reoriented more public spending towards health and social programmes. Access to the IMF's Extended Fund Facility helped to cover part of government financing needs at below-market interest rates. The Central Bank, whose independence was strengthened during the OECD accession process, supported the recovery by lowering the monetary policy rate and by providing significant liquidity, which was key to safeguarde

financial stability and facilitate credit provision. More recently, it has increased the monetary policy rate to contain inflationary pressures. Looking ahead, the fiscal situation will remain challenging for some years. High inflation will have a positive impact on public debt dynamics in the short run, but at the same time, demands for higher budget allocations to support households will increase. Uncertainty in global financial and monetary markets will also remain high. Preserving macroeconomic stability in such a complex and challenging environment calls for further strengthening monetary and fiscal policy settings.

Adapting the monetary policy stance to contain inflation

As in most OECD countries, headline and core inflation have accelerated due to supply-side constraints as well as the increase in imported prices, especially energy and commodities, and the depreciation of the exchange rate. Inflationary pressures are notable in goods and more muted in services. Inflation expectations based on surveys conducted by the Central Bank suggest that expectations for the next 12 months are at 5.8% (Figure 1.12), around twice the inflation target. Expectations for the next 24 months, at 4%, are also elevated. Wages for high-skilled workers have trended up due to skill mismatches and shortages in some areas (see Chapter 2), but, for the time being, ample spare capacity in the labour market mitigates risks of a generalised wage-price spiral.

Figure 1.12. Inflation remains high



Note: Inflation expectations are the median one-year ahead expectations according to a survey run by the Central Bank. The survey was not conducted between December 2020 and November 2021.
Source: Banco Central de Costa Rica.

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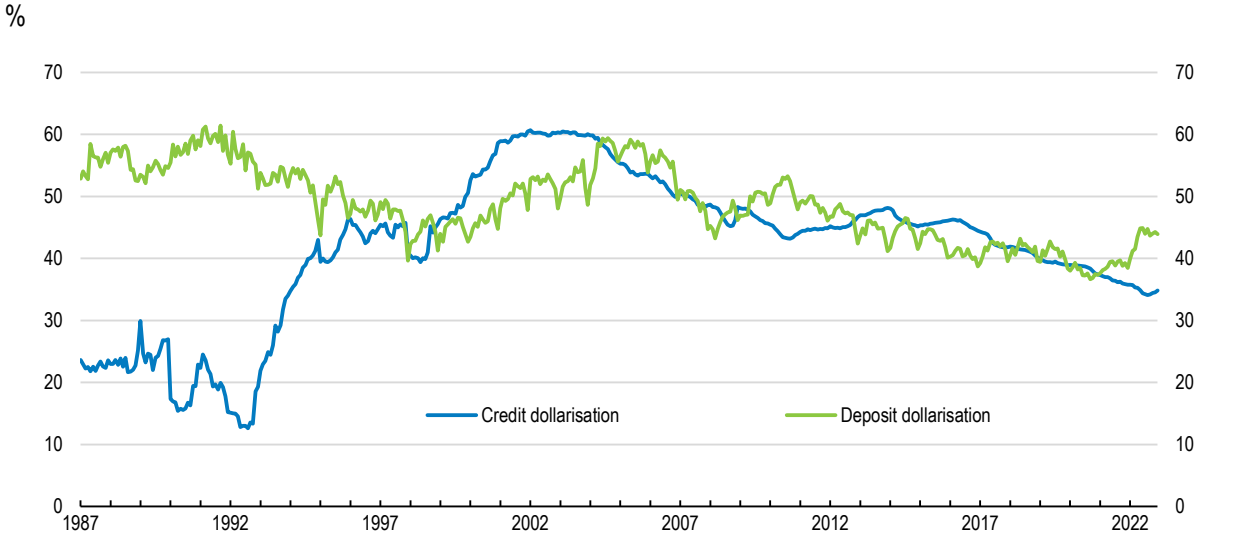
The Central Bank started a hiking cycle in December 2021 and has been gradually increasing the policy rate since then, delivering a total increase of 825 basis points, to 9.0%. The Bank also announced a gradual increase of reserves requirements for operations in national currency, aimed at reducing excess liquidity. Inflationary pressures are expected to persist, as producer prices have been increasing at two-digit rates (year-to-year) (Figure 1.6, Panel B above). Against the background of rising inflationary pressures, maintaining a restrictive monetary policy stance is appropriate to bring inflation back towards the target and anchor inflation expectations.

Maintaining exchange rate flexibility would also be key to absorb ongoing external shocks and will improve the effectiveness of monetary policy. Costa Rica has been gradually increasing exchange rate flexibility, in line with favourable experiences in other countries in the region, such as Colombia. At the current juncture, the central bank intervenes to manage foreign exchange requirements by the non-financial public

sector and to avoid abrupt changes in the exchange rate. Most recent interventions aimed at satisfying foreign exchange requirements by the public sector, in the context of an increasing oil import bill, and by pension funds, as they pursue diversified financing strategies. Continuing to limit foreign exchange rate interventions to those strictly needed to avert abrupt changes and to manage foreign exchange requirements by the non-financial public sector, without seeking to alter market trends, would be the first line of defence against external shocks.

Exchange rate flexibility would also help to contain financial dollarization, which remains relatively high (Figure 1.13), with both credit and deposits in dollars representing around 40% of the total. This hampers the transmission of monetary policy and implies financial stability risks. Regulators indicate that two thirds of the dollarized debt is unhedged. Limiting interventions in the foreign exchange market would make it easier for economic agents to better internalise exchange rate fluctuations risks, reduce moral hazard and contribute to reduce large currency mismatches and unhedged positions. Eliminating the legal requirement on public institutions to deposit in state banks would reduce dollarization of deposits, as private banks currently face difficulties to collect local currency deposits and are forced to operate in foreign currency. Eliminating this requirement would also increase competition in the banking sector (see also competition section). The authorities could also consider additional prudential measures to discourage unhedged foreign exchange borrowing and lending, such as imposing an additional margin on loans to unhedged borrowers whose main source of income is in colones.

Figure 1.13. Financial dollarization remains large



Source: Banco Central de Costa Rica.

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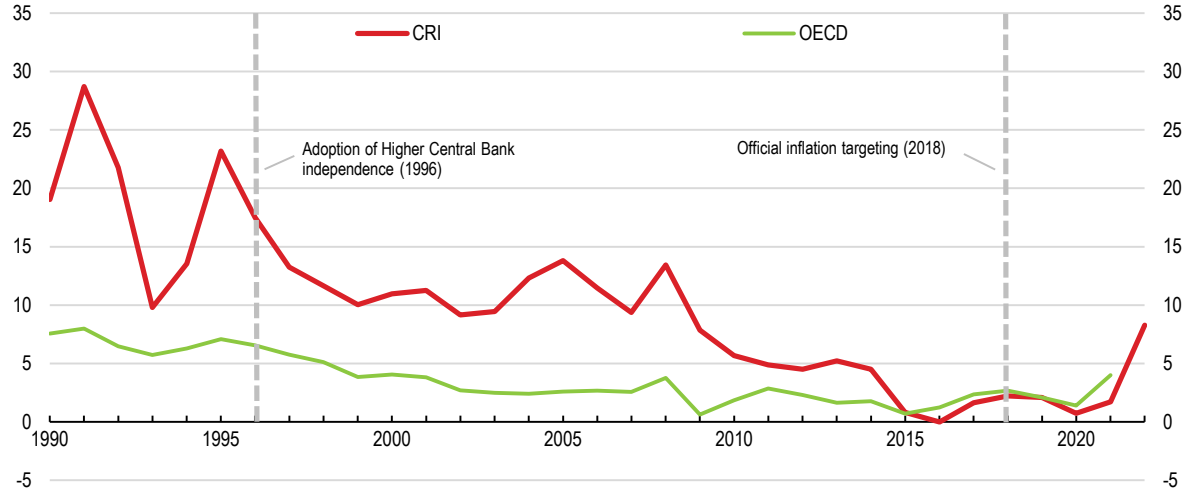
Central bank independence and a gradually stronger inflation-targeting framework have been key to reduce inflation over the past 30 years (Figure 1.14). This has brought macroeconomic stability, a key element for attracting and retaining foreign direct investment. Preserving central bank autonomy and credibility, by maintaining price stability as its principal mandate, is fundamental, particularly at the current juncture when episodes of financial volatility are likely to increase, as advanced economies withdraw monetary stimulus. A central bank focused on maintaining inflation low and stable can also play a key role in moderating economic cycles and running anticyclical policies when needed. This was illustrated by the strong anticyclical policies run by Costa Rica's Central Bank in 2019, when the economy weakened and inflation was below target, and during the pandemic recession. Filling the current vacancy in the Central Bank board, which would put an end to the transitional possibility for the Minister of Finance to vote in board meetings while the vacancy is being filled, would buttress the autonomy of the Bank.

Figure 1.14. Inflation has fallen significantly since reinforcing Central Bank's independence

Annual consumer price inflation, %



Source: OECD Economic Outlook: Statistics and Projections (database).

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Improving debt sustainability and reinforcing the fiscal framework

After a decade of widening fiscal deficits, fiscal performance improved significantly in 2021 (Figure 1.15). The headline deficit stood at 5% of GDP, lower than foreseen in the authorities' medium-term fiscal plan and in the memorandum of understanding that was agreed with the IMF to access the three-year Extended Fund Facility. The primary deficit stood at 0.3% of GDP, 3.1 percentage points lower than in 2020. This improvement reflects the combination of stronger than expected economic activity in 2021, and that all elements of the 2018 fiscal reform were for the first time in place. This included the implementation of the fiscal rule capping expenditure growth (Box 1.2), a fully-fledged value-added tax that replaced the sales tax and strengthened taxation of capital income at personal level. Tax revenues also increased thanks to several one-offs amounting to 0.7% of GDP, such as those caused by some tax payments deferments applied during 2020 that increased tax revenues in 2021.

Box 1.2. Costa Rica's fiscal rule

The fiscal rule limits the growth of nominal spending depending on the level of public debt, as follows:

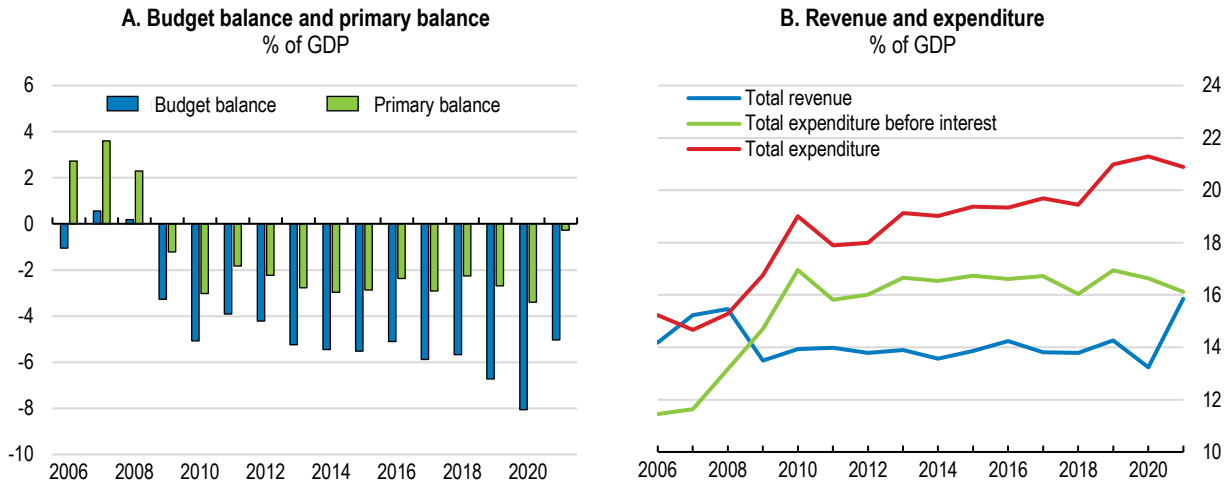
- When debt at the end of the previous fiscal year is under 30% of GDP or the current expenditure-to-GDP ratio is below 17%, the annual growth of current expenditure should not exceed the average nominal GDP growth in the past four years.
- When debt at the end of the previous fiscal year is between 30% and 45% of GDP, the annual growth of current expenditure should not exceed 85% of the average nominal GDP growth in the past four years.
- When debt at the end of the previous fiscal year is between 45% and 60% of GDP, the annual growth of current expenditure should not exceed 75% of the average nominal GDP growth in the past four years.
- When debt at the end of the previous fiscal year is above 60% of GDP, the annual growth of total expenditure should not exceed 65% of the average nominal GDP growth in the past four years.

The fiscal rule law, approved in December 2018, established that the spending of all non-financial entities of the public sector is subject to the rule. This includes the central government, all deconcentrated bodies, the legislature, the judiciary, local governments or non-financial public companies. Exceptions embedded in the law are the Social Security Fund (CCSS), the non-contributory pension regime, the Refinery of Oil (Recope), concerning the oil bill, and the Institute of Electricity (ICE), concerning the part of their activities in the telecommunication sector. In May 2020 a law was approved, exempting municipalities from the fiscal rule. In June 2022 a legal change established that fiscal rule calculations will start to be based on budgeted spending instead of on executed spending.

The fiscal rule law also established different conditions under which some institutions can apply for a derogation. For example, derogations are possible in the case of the declaration of a national emergency or when the country is going through an economic recession (or projections of growth below 1%). In either case, the law allows for up to two years of derogation after each of these events. As a result of the pandemic shock, several institutions such as Health Ministry, Education Ministry, the Vocational Training Centre (INA) or the Social Protection Ministry (IMAS), were granted derogations during 2020 or 2021, which enabled them to spend above the limits established by the fiscal rule.

Figure 1.15. The budget deficit has decreased

Central government, % of GDP



Note: Data refer to central government only. Total revenues do not include social security contributions.
Source: Finance Ministry.

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Maintaining fiscal prudence is key for debt sustainability

With public debt around 70% of GDP, public finances remain a critical vulnerability and the fiscal medium-term outlook remains challenging. According to the government medium-term fiscal plan, the deficit is expected to fall to 2.5% of GDP by 2025, while the primary balance would reach a surplus of 2.1% of GDP (Table 1.3). If these targets are met, the central government debt-to-GDP ratio would gradually decline from its 68% peak in 2021 (Figure 1.16, black line). Complying with this medium-term fiscal plan will require maintaining fiscal prudence, including by ensuring a strict implementation of the fiscal rule, which caps expenditure growth (Box 1.2). As of 2022, with central government debt above the threshold of 60% of GDP, the fiscal rule entered the most stringent scenario and annual growth of total expenditure should not

exceed 65% of the average nominal GDP growth in the past four years. Meeting the targets established in the medium-term fiscal plan and full implementation of the fiscal rule are critical for containing spending and ensuring debt sustainability. In a scenario with spending growing above the limits established by the fiscal rule, the debt ratio will continue to rise (Figure 1.16, orange line). An ambitious reform scenario, boosting potential output as described in Figure 1.2, above, plus the planned fiscal consolidation plan, would put debt below 50% significantly earlier (Figure 1.16, green line).

Table 1.3. Evolution of main fiscal aggregates

% of GDP

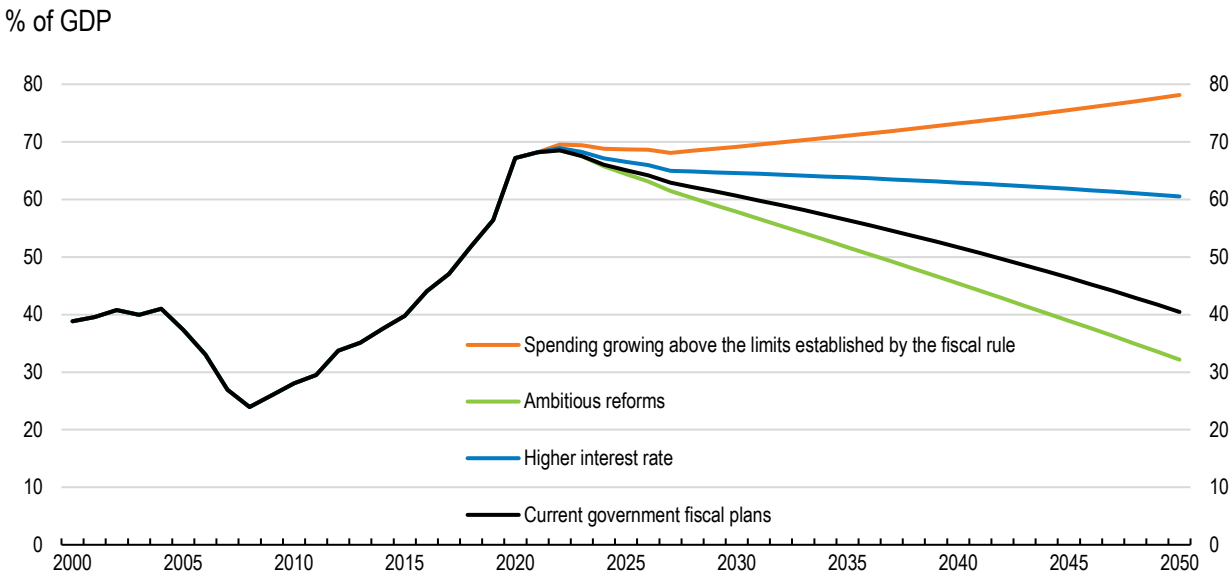
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total revenues	**14.2**	**14.8**	**13.9**	**15.8**	**14.8**	**15.0**	**14.9**	**14.9**	**15.0**	**15.1**
Tax revenues	13.1	13.5	12.1	13.9	13.3	13.4	13.4	13.5	13.5	13.7
Personal taxes	1.4	1.5	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2
Corporate taxes	2.6	2.9	2.5	3.1	2.8	3.0	2.9	3.0	3.0	3.1
Value added taxes	4.3	4.5	4.5	5.1	4.9	4.8	4.8	4.7	4.8	4.8
Other	4.8	4.6	3.1	3.7	3.5	3.6	3.6	3.6	3.6	3.7
Other revenues	1.1	1.3	1.7	1.9	1.6	1.6	1.5	1.5	1.5	1.5
Total expenditures	**19.7**	**21.2**	**22.4**	**20.8**	**19.2**	**18.5**	**18.0**	**17.5**	**17.2**	**16.9**
Current expenditure	18.3	19.2	20.6	19.3	17.5	16.8	16.2	15.7	15.4	15.0
Wages	6.9	6.8	6.8	6.6	6.1	5.7	5.4	5.1	4.8	4.5
Goods and services	0.6	0.6	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.9
Interest	3.4	4.0	4.7	4.8	5.1	4.8	4.6	4.6	4.5	4.3
Transfers	7.4	7.7	8.2	7.2	5.5	5.5	5.4	5.2	5.2	5.3
Capital expenditure	1.4	2.0	1.8	1.5	1.7	1.7	1.8	1.8	1.9	1.9
Central government primary balance	**-2.1**	**-2.3**	**-3.9**	**-0.3**	**0.8**	**1.3**	**1.5**	**2.1**	**2.3**	**2.6**
Central government overall balance	**-5.5**	**-6.4**	**-8.5**	**-5.0**	**-4.4**	**-3.6**	**-3.1**	**-2.5**	**-2.2**	**-1.7**
Non-financial public sector overall balance	**-4.4**	**-5.2**	**-7.8**	**-4.2**	**-4.3**	**-3.3**	**-2.7**	**-2.3**	**-2.0**	**-1.2**
Government financing needs	*12.2*	*12.1*	*13.2*	*11.1*	*9.8*	*10.1*	*9.6*	*9.0*	*8.5*	*6.8*
Central government debt	*51.9*	*56.4*	*67.2*	*68.2*	*67.6*	*67.5*	*67.1*	*66.1*	*64.9*	*63.2*
Non-financial public sector government debt		*51.0*	*60.5*	*60.6*	*60.4*	*60.4*	*58.9*	*56.9*	*54.8*	*51.9*

Note: Central government unless otherwise specified. Data for 2022-2027 are projections. Other revenues include social security contributions; non-tax revenues; and transfers. Some rows may not add up due to rounding. Data for 2023-2027 are projections and based on Finance Ministry passive scenario.
Source: Medium-term fiscal and budgetary framework (*Marco Fiscal Presupuestario de Mediano Plazo*) 2022-2027.

Full implementation of the fiscal rule will require sustained policy efforts to contain public spending. The fiscal rule remains the only tool anchoring fiscal policies in Costa Rica. The implementation of the fiscal rule has met significant opposition and legal challenges and frequent requests for exceptions from different segments of the public sector. A recent legal change establishes that fiscal rule calculations will now be based on previous year's budget instead of on the previous year's execution. This change increases the room for spending, as budgeted spending tends to be higher than executed spending. It also avoids penalising those institutions achieving savings, as, at the moment, if they end spending less than budgeted, they automatically get their spending space reduced in the following budget. The government has recently published draft legislation proposing additional changes to the fiscal rule and to undertake public asset sales. Proposed changes include applying the fiscal rule to current spending instead of to total spending in the more binding scenario of the rule, and removing interest spending from calculations in all scenarios (i.e. the fiscal rule would be applied to current primary spending in all scenarios). Proposed public assets sales include a state-owned bank and 49% of the National Insurance Institute. The authorities foresee that

revenues from the sale of the state-owned bank could be around 3% of GDP. Both pieces of legislation require approval by the Legislative Assembly and are subject to uncertainty about its final configuration and implementation schedule. The effects on public debt dynamics remain uncertain. While changes in the fiscal rule would imply a slower reduction of the headline deficit and public debt, the asset sales would reduce the level of public debt. In the medium-term, undertaking a careful review of the fiscal rule, taking stock of the experience gained during its implementation over the last years, could help to improve its design and to ensure that it continues to secure a prudent fiscal stance and sustainable debt dynamics.

Figure 1.16. Current fiscal policies will put public debt on a declining path



Note: The chart depicts central government public debt. The "Current government fiscal plans" scenario assumes GDP growth as in table 1.1 until 2023, with a gradual transition to OECD long-term model estimates of potential output thereafter. Inflation is projected as in table 1.1 until 2023 and a gradual convergence to 3% thereafter. Fiscal assumptions are those outlined in table 1.3 and remain constant until 2028 when ageing costs, in the form of higher pensions and health costs, will gradually start to kick. The "Ambitious reforms" scenario assumes the implementation of reforms described in Figure 1.2. Both "Current government fiscal plans" and "Ambitious reforms" scenarios assume full implementation of the fiscal rule. The scenario "Spending growing above the limits established by the fiscal rule" assumes that primary spending is 1% of GDP higher than in current government fiscal plans and that revenues remain as in current government fiscal plans. In all scenarios the evolution of the interest rate paid on new debt issued is a function of the 10 years US sovereign yield and a risk spread that depends on the ratio of debt-to-GDP. In the "Higher interest rate scenario" the interest rate is 100 basis points higher over the projection period, which leds to interest spending being 1% of GDP higher than in the other scenarios, and that primary spending and revenues remain as in current government fiscal plans. All scenarios include ageing costs.
Source: OECD calculations.

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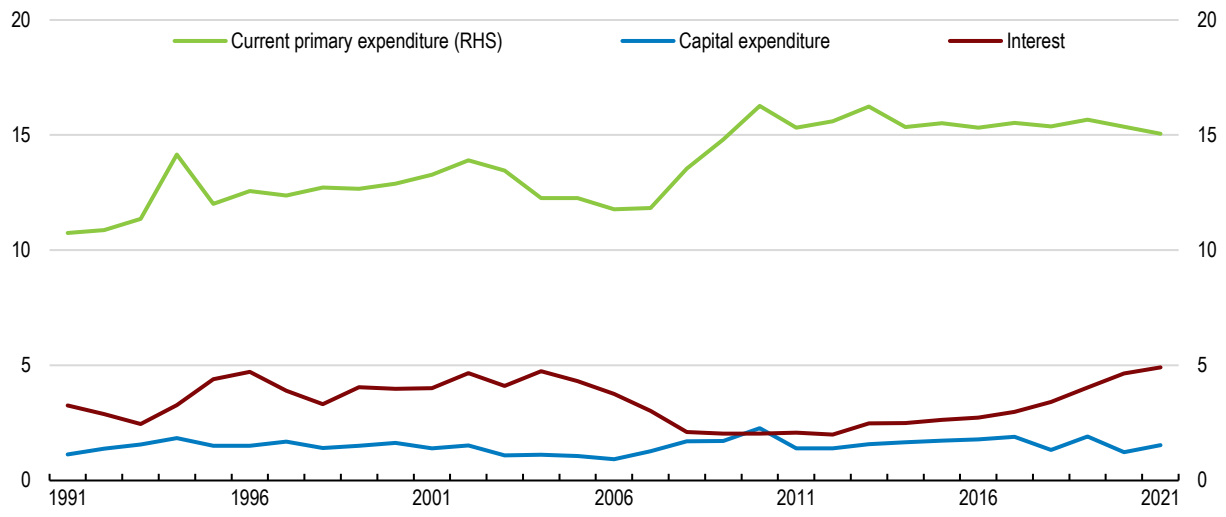
Improving the efficiency and quality of public spending

Containing spending and, at the same time, improving its efficiency and quality to better support growth and equity, is a critical challenge ahead. The surge in spending that led to Costa Rica's critical fiscal situation in 2008-19 almost exclusively involved extra current primary spending (Figure 1.17), neglecting key investments in capital expenditure that typically underpin medium-term growth prospects. This spending increase saw no improvement in the quality of spending nor any stronger contribution to economic growth and equity (OECD, 2018[5]). A paradigmatic case is education spending. Despite the increase in education spending, which accounts for a larger share of total spending than in OECD countries (Figure 1.18), education outcomes have worsened (see Chapter 2). Overall, Costa Ricans have become increasingly dissatisfied with the quality of the delivery of public services (Estado de la Nación, 2017[6]). Looking ahead, as the need to contain spending will endure, Costa Rica should continue to switch from a focus on the volume of spending to a focus on how to improve its quality and efficiency. This would require stronger accountability mechanisms, transparency and impact evaluation. This is even more necessary

given that population ageing will put further pressure on some categories of social spending. The 2018 fiscal reform removed part of the revenue-earmarking provisions introduced over the years. The Finance Ministry became able to reallocate spending away from legally mandated destinations when public debt exceeds 50% of GDP. Continuing to reduce earmarking and to increase the ability to reallocate spending will be key to boost public spending efficiency. Spending reviews can inform the process to decide on the necessary expenditures prioritisation and reallocation in a transparent way and would foster accountability across the public sector.

Figure 1.17. Capital expenditure has been largely neglected

Governement expenditure, % of GDP, 1991-2021



Source: Ministerio de Hacienda; IMF World Economic Outlook; OECD System of National Accounts database.

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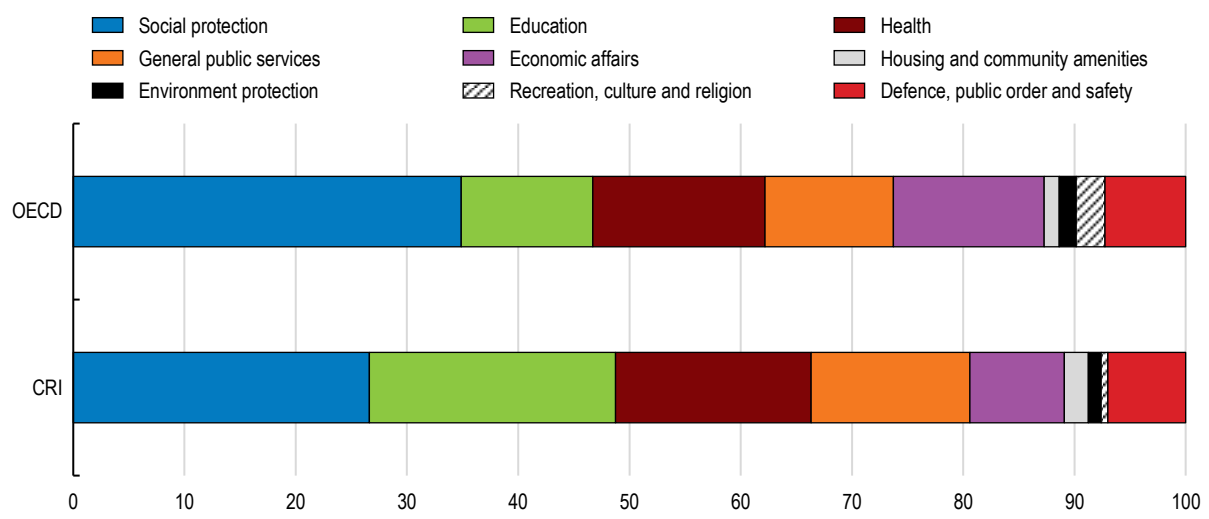
Figure 1.18. Education accounts for a larger share of public spending than in OECD countries

General government expenditure by function, % of total, 2020



Note: Data for Chile and Costa Rica are for the year 2019. OECD average excludes Mexico for which no data are available.
Source: IMF Government Finance Statistics database; and OECD Statistics on National Accounts.

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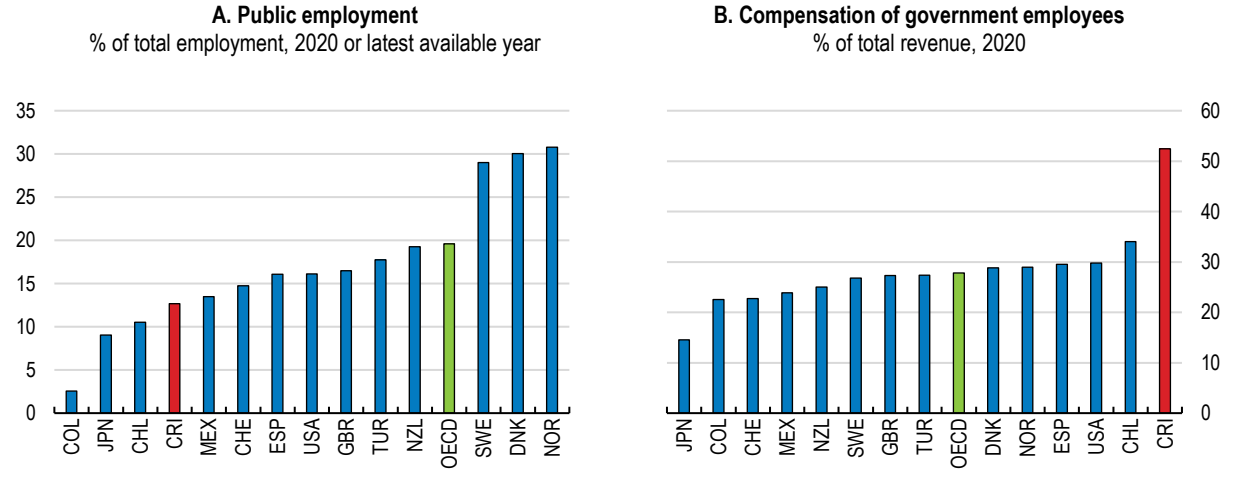
Fostering capital investment would boost the contribution of fiscal policy to growth. A first step would be to improve the ability to execute capital investment projects, as only 30% of the capital spending that is budgeted is executed. Ongoing reforms to foster the stewardship of the Ministry of Public Works and to reduce fragmentation in public investment processes can foster the ability to deliver capital investment projects in a more effective and efficient manner. Creating more space for capital spending is also needed (Figure 1.17). Focusing the needed fiscal containment efforts on current spending would facilitate deploying capital spending to close some of Costa Rica's numerous infrastructure gaps (see infrastructure section below), boosting medium-term growth prospects. Despite being in the most stringent scenario of the fiscal rule, the design of the fiscal rule allows for such possibility. It remains at the discretion of authorities to focus the fiscal effort on current spending and allow capital spending to strengthen, as long as the sum of current and capital spending remains below the limit established by the rule for total spending. Basing the selection of capital investment projects on sound cost-benefit analysis would help to reduce infrastructure gaps in a cost-effective manner.

Containing the public employment wage bill will be key to comply with the fiscal rule and improve public sector efficiency. Compensation of government employees accounts for more than half of total government revenues (Figure 1.19), the largest share in OECD countries and more than double the OECD average. Public salaries are also almost 50% higher than in the private sector, after controlling for employees' characteristics (World Bank, 2019[7]). Measures to contain the public wage bill affect more the higher-income households (Figure 1.20), with a lower propensity to consume, meaning that the impact on growth would be moderate. Limits to public wages included in the 2018 fiscal reform contributed to the reduction in the deficit in 2021. However, additional measures are necessary to make remuneration more transparent and performance based. The public employment framework law, introducing a new single and unified salary framework with equal pay scales for equivalent functions across the public sector and rationalized bonuses, a long-standing OECD recommendation, was finally approved in March 2022 (Table 1.4 and Box 1.3). Applying the law maintaining consistency between the job families and salary scales in the central government and other institutions, and ensuring a link between performance and remuneration are key challenges to reap the full benefits of the law and improve public sector efficiency.

Figure 1.19. The public employment bill accounts for a large share of government revenues



Source: ILOSTAT; IMF Global Finance Statistics.

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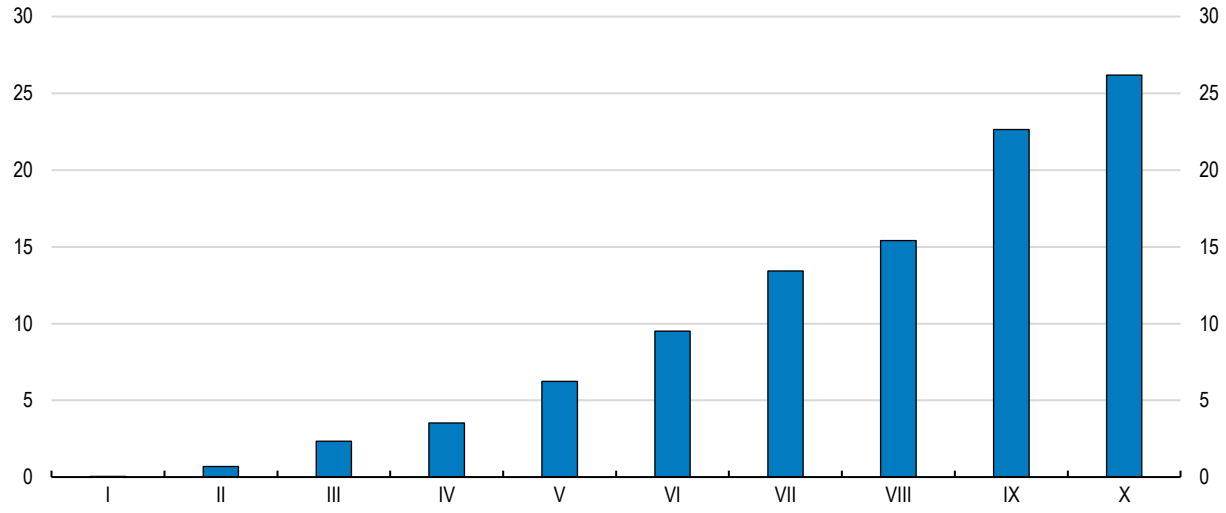
Figure 1.20. Public employment reforms in Costa Rica impact high-income households more

Percentage of Costa Rican households with at least one public worker by income decile



Source: OECD calculations based on ENAHO.

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Table 1.4. Past OECD recommendations to improve macroeconomic policies

Past OECD recommendations	Actions taken since the 2020 survey
Any support to firms and households during the coronavirus crisis should be temporary and targeted to the most affected sectors.	"Bono Proteger", a temporary cash transfers targeted, was made available to individuals affected by the pandemic.
Prepare for increases in healthcare demand, including by boosting testing capabilities.	Implemented a temporary hospital specialized in treating COVID patients.
Establish clear guidelines for the implementation of the fiscal rule.	The fiscal rule underpinned the fiscal improvement in 2021.
Allow that all spending categories can be adjusted when public debt exceeds 50% of GDP.	The latest two budgets contained significant spending reallocation and spending containment measures.
Eliminate tax exemptions benefiting more affluent taxpayers.	Proposals for reducing some exemptions were submitted to Congress but were not approved.
Be ready to ease monetary policy further to support the economy during the coronavirus outbreak.	The Central Bank lowered the interest rate, which reached a historical low level of 0.75%.
Continue to provide liquidity to the banking system to preserve its integrity and support confidence and continue to adjust prudential regulation as required during the coronavirus outbreak.	The Central Bank provided banks with temporary medium-term credit, conditional on providing finance to medium-term solvent individuals. Prudential regulations were adjusted to facilitate debt re-profiling.
Bring all purchases by all public entities to the central procurement system and limit the use of exceptions for direct contracting.	A new law establishes that all the public sector must carry their purchases through the central procurement system.
Adopt a single salary scale, streamline incentives schemes and make them performance based.	The public employment framework law, introducing a new single and unified salary framework was approved in March 2022, with implementation starting in March 2023.
Create a public debt management agency. Target attracting foreign investors to instruments issued in local currency.	Measures to facilitate the purchasing of local debt in local currency by foreign investors have been put in place.
Improve transparency of banks' health, including by publishing individual stress tests.	Legal changes to start publishing stress tests results bank by bank have been finalized.
Gradually reduce existing regulatory distortions affecting public and private banks, including, in due time, phasing out the public guarantee of state-owned bank liabilities.	No actions taken.
Adopt a more diversified investment strategy, reducing the share of government securities.	Pension funds have increased investment in external assets denominated in dollars.

Box 1.3. The public employment framework law

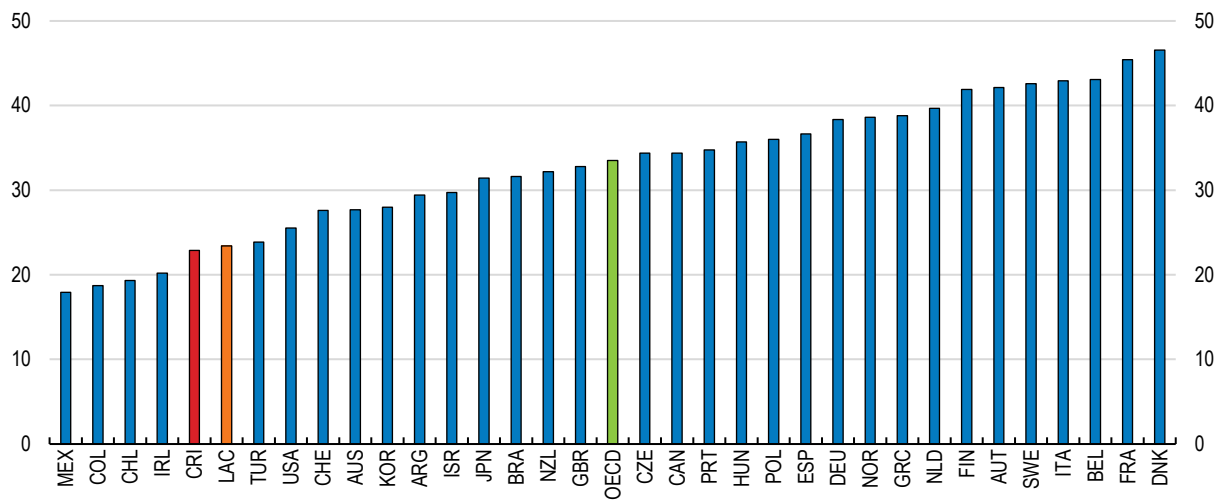
The public employment framework law, approved in March 2022, introduces a new single and unified salary framework for the public sector (excluding non-state public entities, state companies in competition and the Meritorious Fire Brigade). The framework includes equal pay scales for equivalent functions, rationalizes bonuses and makes them more performance based. Public institutions with autonomy or independence will define the job families and salary scales for exclusive and exclusionary functions assigned to them by the Constitution. Exclusive and exclusionary functions refer to strategic roles within independent institutions, determined to avoid possible infringement of power independence among government branches. The Ministry of National Planning and Economic Policy (MIDEPLAN), with the General Directorate of Civil Service, will define them for the rest of the functions of the public sector. According to estimates by the Inter American Development Bank annual savings would range between 0.5% and 0.8% of GDP for the whole public sector, and between 0.4% and 0.6% for the central government, depending on the new reference salaries.

Raising more revenue and enhancing the redistributive power of tax policy

Tax revenues are in line with regional peers but lower than in most OECD countries (Figure 1.21). High tax evasion, narrow tax bases and various tax expenditures mean that there is room to increase revenues in a way that supports growth and reduces inequality. Costa Rica's tax mix differs markedly from either the OECD or regional averages (Figure 1.22). The tax system is overly reliant on social security contributions, which account for more than one-third of total revenues, compared with the OECD average of 26% or less than 15% in peer Latin American countries. High social security contributions generate labour market distortions and favour informality (see also the informality section). This erodes the tax base and generates inequalities.

Figure 1.21. Tax revenues are low compared to OECD peers

% of GDP, 2020 or latest year



Note: LAC refers to Chile, Colombia, Mexico, Argentina and Brazil. All averages are unweighted.
Source: OECD Revenue Statistics database.

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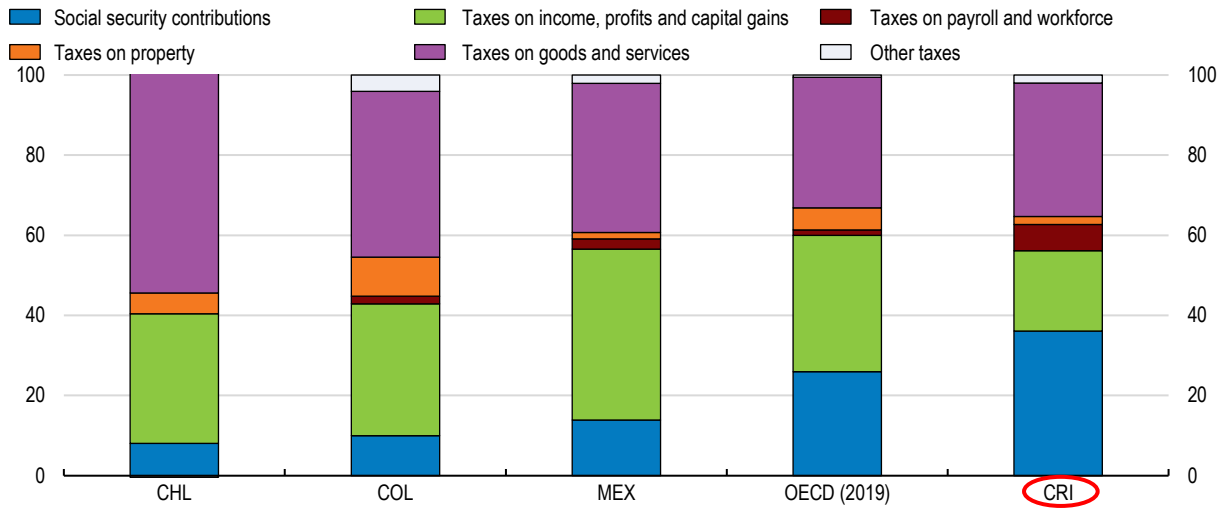
Figure 1.22. Costa Rica's tax structure relies on social security contributions

% of total taxation



Source: OECD Global Revenue Statistics.

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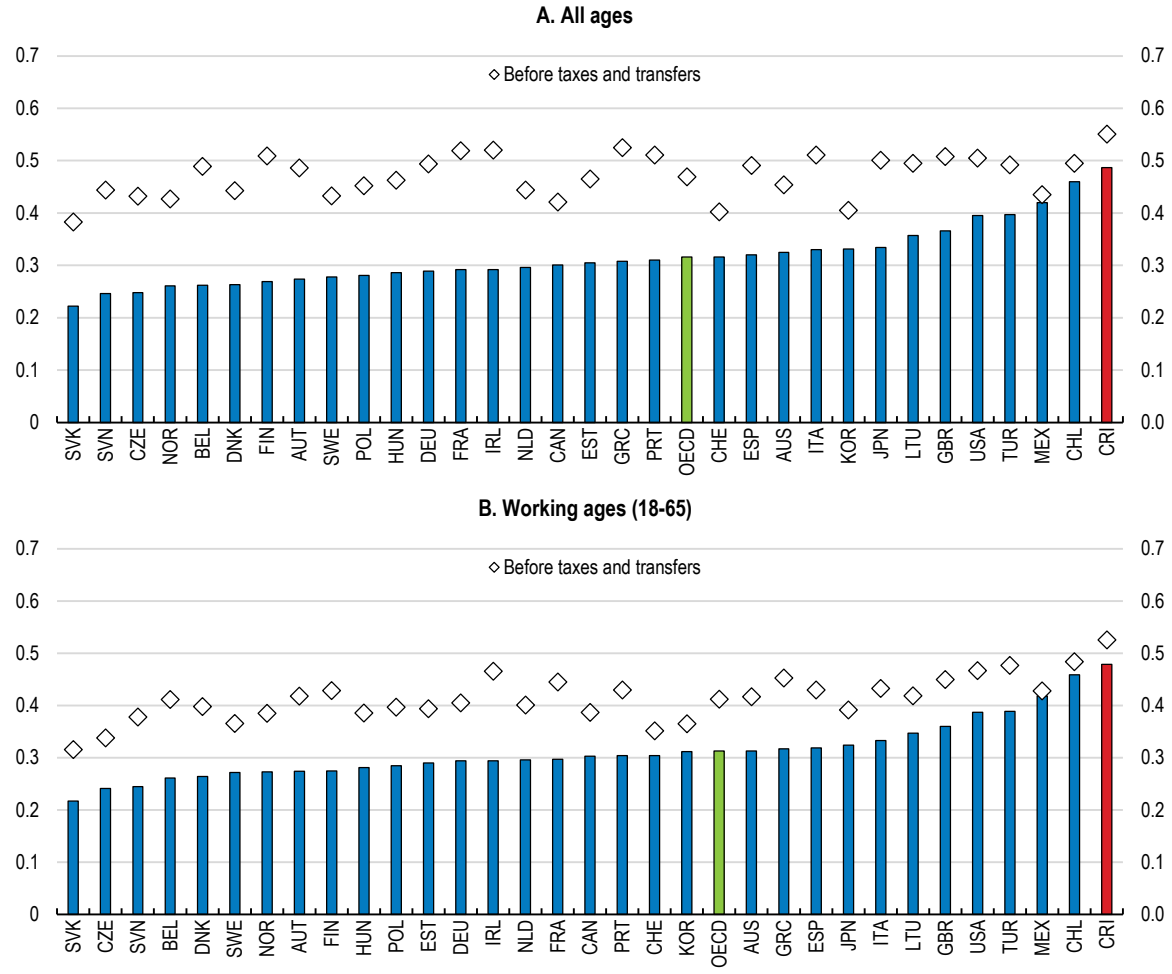
To raise additional revenue, the authorities are currently assessing new tax measures. With public debt still high and a tax system overly reliant on social security contributions and with a very weak redistributive power (Figure 1.23), Costa Rica should consider tax measures that improve the tax mix, make the tax system more progressive and raise additional revenue. In this regard, the authorities have announced plans to reform the personal income tax system and move to a system where all personal income sources are consolidated. At the moment, each personal income source is taxed separately. This change could increase revenues and the progressivity of the tax system.

Broadening tax bases also holds the promise of increasing revenues without increasing rates, and could also make the tax system more progressive. Tax expenditures are large, amounting to 4% of GDP in 2021. Tax exemptions granted to free trade zones, which amount to 1% of GDP, have brought economic advantages to the country, such as an increasingly diversified export basket. This suggests that the free trade zone tax scheme should be retained subject to regular and in-depth evaluations of its costs and benefits, focused on the additional investment, employment and productivity it generates. On the other hand, phasing out the exceptions that particularly benefit more affluent taxpayers should be prioritised, which includes the tax exemption on the additional monthly salary for most public employees *(Salario escolar)*. Starting to tax the income of cooperatives, which remain exempt despite some of them being large corporations, enjoying trade protection and monopolistic conditions in key markets, should also be considered. There remains also room to optimise reduced VAT rates. Taxing the spending on private education and health at reduced VAT rates is particularly regressive, as it disproportionately benefits high-income households.

Additional revenue collection could also come from taxes on immovable property, which account for around 6% of total revenues in the OECD and peer regional countries but less than 2% in Costa Rica. The central government is responsible for building and maintaining the cadastre while the local governments are responsible for the valuation of property. Valuation rules across local governments are very heterogeneous. Providing support to local governments to ensure that the same valuation rules are applied across municipalities would prevent unfair competition and increase revenues (OECD, 2017[8]). Exempting low value properties and establishing different tax rates depending on the property value could be useful to ensure progressivity, as exemplified by some OECD countries, such as Ireland.

Figure 1.23. The tax and transfer system could be more efficient in reducing inequality

Gini coefficient before and after taxes and transfers, 2021 or latest year



Note: Data for Costa Rica refer to 2021. OECD refers to an unweighted average of all member countries with available data. The diamonds for Mexico, Hungary and Turkey show the Gini coefficient after taxes and before transfers.
Source: OECD Income Distribution Database.

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Tax administration and collection reforms are critical. The authorities have already taken important steps, such as the roll out of electronic invoicing. Further reforms to strengthen tax administration and collection could include integrating the tax and social security contribution administrations or further modernising the tax administration through computerisation and risk-based compliance (OECD, 2017[8]). Measures to simplify the tax system could also help improve tax compliance. Numerous public agencies are involved in the collection of taxes. Beyond the Finance Ministry, municipalities, the Social Security Institute, the National Insurance Institute, the Central Bank, pensions and insurance operators, several SOEs and professional associations, all are involved in tax collection. More than 60% of the taxes are collected outside the Finance Ministry. Municipalities collect by themselves 21 taxes (CGR, 2021[9]). As a result, for the 99 taxes that remain active, there are 93 different IT platforms used in 143 public institutions. Moving towards a more centralised, digital and less fragmented tax payment and collection system could offer significant efficiency gains and savings that could reach 1% of GDP (CGR, 2021[9]) and facilitate tax compliance. Extending the use of prefilled tax returns can also help to facilitate compliance and reduce administration costs, as exemplified in several OECD countries (Box 1.4). Ongoing technical assistance to improve tax administration and public financial management, led by the IMF and with collaboration of the EU among other partners, have also a large potential to boost significantly tax efficiency and collection.

To ensure the medium-term stability and credibility of the tax system, it is also essential that Costa Rica remains proactive in the on-going international efforts to harmonise tax standards and avoid base erosion and profit shifting. Costa Rica's free-trade-zone regime is one of the elements in its strategy to attract foreign direct investment. Continuing to update domestic tax rules in line with new international standards is the best way to remain attractive for foreign direct investment and preserve its reputation for international cooperation and transparency on tax issues. At the same time, progress towards establishing a minimum global corporate effective tax of 15% means that other elements in the strategy to attract foreign direct investment, such as the availability of highly skilled workers (see Chapter 2), will gain emphasis.

Box 1.4. Prefilling tax returns

Prefilled income tax returns represent a tax simplification initiative that can foster compliance and reduce burdens for taxpayers and tax administrations. Their use began in Denmark in the late 1980s and subsequently has spread across OECD countries. Pre-filling entails the use by tax administrations of information already held by them (e.g. taxpayer identity information, elements of taxpayer history, and third-party reports of income and expenses) to populate fields within tax returns that are made available to taxpayers for examination.

In a number of countries, for example Finland, Hungary and Norway, tax administrations generate at the end of the year a fully pre-filled personal income tax return for the majority of taxpayers required to file tax returns. Australia currently prefills around 88% of all income amounts reported by individual taxpayers. Ninety percent of these are accepted without amendment by the taxpayer. Substantial use of pre-filling to fully or partially complete tax returns for a significant share of taxpayers also takes place in many other OECD countries (OECD, 2022[10]). In recent years, the use of prefilled returns has extended beyond personal income tax. For example, the availability of electronic invoicing systems allows tax administrations to pre-fill value-added tax returns, as is the case in Portugal (OECD, 2022[10]).

Strengthening the fiscal framework

To support ongoing consolidation efforts and enhance medium-term fiscal sustainability, Costa Rica should continue modernising its fiscal framework by introducing a fully-fledged multi-year expenditure framework and an effective and independent fiscal council, as recommended in previous OECD Economic Surveys (OECD, 2020[3]) and done in many OECD countries, such as Chile recently (OECD, 2020[11]). Costa Rica's high public debt implies that reducing the debt burden will be the medium-term focus of fiscal policy for several years to come. A multi-year expenditure framework would provide certainty and transparency about the medium-term plan, helping to plan and to align spending decisions with strategic objectives. The "Medium-term fiscal and budgetary framework" (*Marco Fiscal Presupuestario de Mediano Plazo*), published every year by the Ministry of Finance, detailing baseline expenditure forecasts for the year ahead, has been gradually enhanced and now covers both the central government and the non-financial public sector. Costa Rica could build on it to establish a fully-fledged multi-year expenditure framework, where multiyear targets are established. The medium-term framework publication now contains more descriptive and qualitative information about contingent liabilities but providing a quantitative assessment is a pending challenge.

Fiscal transparency and accountability would also be enhanced by establishing an independent and adequately resourced fiscal council. By providing non-partisan fiscal analysis, fiscal councils can enrich the fiscal policy debate and help to communicate fiscal risks and policy options. The law to establish an independent fiscal council was approved in March 2020 and its three members were nominated. However, no further action has been taken to enable the council to operate in a meaningful way. The council suffers from significant institutional weaknesses, such as a lack of clarity about the roles it has to perform or of a minimal technical support structure. Providing the three board members with independent technical

support is critical. Defining explicitly at which moments in the process of preparation of the medium-term fiscal plan the council would be consulted and by when it should issue its assessment, providing sufficient time for preparing such an assessment, would allow the council to fulfil its role. Mechanisms to ensure that there is some follow-up of the council assessment and opinions are also lacking and should be established.

Improving public debt management

With interest payments at about 5% of GDP, and accounting for an increasing share of the central government budget, improving debt management remains increasingly important. Both domestic and global interest rates are expected to put additional pressure on the interest bill. In a scenario of increasing funding costs, the debt-to-GDP ratio would remain higher for longer (Figure 1.16, blue line). Planned access to additional international loans and issuance of instruments in foreign currency could reduce financing costs and provide some savings, relative to placing the debt in local markets to local investors. Costa Rica is expecting to access significant multilateral funding in 2023, including through the IMF Extended Arrangement under the Extended Fund Facility. In total multilaterals are expected to provide about 4% of GDP, out of the 10% of GDP of financing needs expected in 2023. Accessing some of these financing lines and issuing instruments in foreign currency requires approval by the parliament.

Issuing debt in foreign currency can provide savings relative to placing debt in local markets but also brings foreign currency risks, which should be carefully considered. Establishing a debt management agency, a long-standing OECD recommendation, would help to manage those risks. Debt management has suffered from institutional fragmentation, as different departments are in charge of local and external debt, which creates overlaps and inefficiencies (OECD, 2018[5]). Debt management practices have recently improved but improving the institutional set-up would further buttress debt management. With a debt management office in place, Costa Rica could consider relaxing the requirement of approval by the parliament to issue debt in foreign currency. This would allow for putting in place multi-year debt management plans based on sound guidelines and principles, helping to take better advantage of market opportunities. Costa Rica would also benefit from continuing efforts to attract foreign investors to local-currency denominated debt, as recommended in previous OECD Economic Surveys.

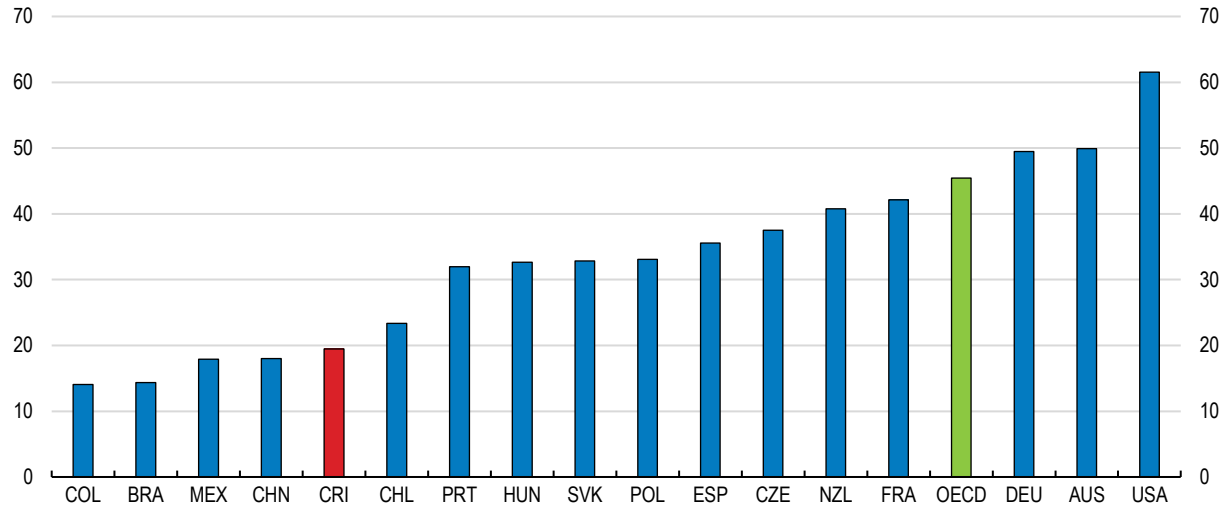
Strengthening productivity growth

Over the past 15 years, potential growth has declined markedly (Figure 1.1), from more than 5% per year in 2007, to around 2.3% now, according to OECD estimates. Falling employment rates and a shrinking working-age population have contributed to the decline. Boosting female labour market participation and further increasing employment rates hold the promise of improving growth prospects significantly. Still, population ageing will dampen aggregate growth substantially. Boosting productivity is therefore critical to uphold growth in GDP and living standards in Costa Rica.

The level of productivity is relatively low in international comparison (Figure 1.24). It remains at similar levels as in Latin American peers but below other emerging economies, such as those in Eastern Europe or Asia. One key factor helping to explain this is that Costa Rica remains a dual economy, combining a small number of large and relatively productive firms, largely focused on external markets, with another sector, mainly composed of local SMEs exclusively focused on domestic markets and unable to benefit from the opportunities provided by the integration into the global economy. Raising productivity by setting the right conditions for domestic companies to thrive and, at the same time, maintaining and reinforcing the commitment to foreign direct investment and trade, which has been key to increasingly diversify the export basket, remains a key challenge. Boosting the productivity of local firms would also facilitate their participation in global value chains.

Figure 1.24. Labour productivity is relatively low

1000s of PPP-adjusted USD per capita, 2021



Note: OECD average calculated as the simple average across OECD countries with available data.
Source: OECD Productivity database.

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Boosting productivity through more competition

Weak competition tends to translate into relatively high prices of goods for consumers and of inputs for firms. Both features can be found in Costa Rica (OECD, 2020[3]), which has led to a general categorization of Costa Rica as an expensive country, where a basic basket of goods and services costs significantly more than in neighbouring countries (Angulo, 2014[12]). Private firms report that rising costs is the main barrier to their operations (UCCAEP, 2019[13]), particularly in agriculture and manufacturing. The elimination of the minimum price of rice is an important and welcome step to reduce the cost of the basic goods basket in Costa Rica. Likewise, the planned elimination of minimum prices in 11 professional services will foster competition in key sectors, such as healthcare and construction.

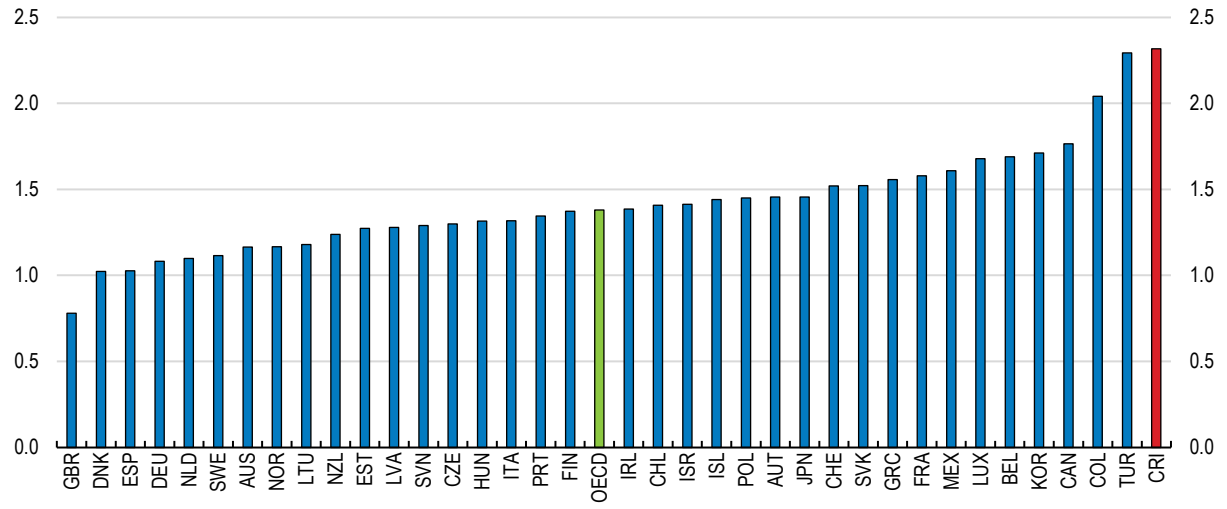
A fully independent and resourced competition authority is a key pillar of a solid competition framework. Many of the weaknesses in the competition framework, such as the lack of independence and resources of the national competition authority, were meant to be addressed by the new competition law approved in December 2019. However, in 2022, the national competition authority (COPROCOM) received less than one third of the budget granted by law. This severely hampers the authority's ability to perform its duties, as it remains understaffed and unable to buy equipment. Despite these constraints, two competition studies have been completed (professional associations and liner shipping). Providing the national competition authority with adequate financial resources, as established by law, is a necessary condition for boosting competition, which would translate into lower prices for goods and services, enhancing households' purchasing power and firms' competitiveness. Effective competition authorities, by promoting stronger economic growth, can also support tax revenues and have a positive fiscal impact. A well-resourced and fully operational national competition authority would be particularly beneficial at the current juncture when authorities are taking bold and valuable measures to improve regulations, open up key sectors of the economy and remove obstacles to competition (e.g. in the rice sector). Introducing a filing fee for merger control notifications could make available some additional resources. However, granting the budget established in the law would still remain critical. Making sure that the national competition authority receives a direct budget allocation would help secure the necessary resources. For the time being, the national

competition authority is a deconcentrated institution under the umbrella of the Ministry of Economy. This means that its budget is counted as part of the budget of the Ministry of Economy, which can create difficulties when establishing spending ceilings per Ministry to comply with the fiscal rule. Spending reviews can also support the necessary spending reallocation process that the Finance Ministry needs to undertake to grant the necessary resources to the national competition authority. It remains also important to continue granting adequate resources to the sectoral competition authority (SUTEL), which is in charge of protecting and promoting competition in the telecommunication sector.

Keeping a competition-friendly regulatory framework is another key building block to foster competition. Regulations of product markets serve legitimate objectives but, when ill designed, can impose unnecessary restrictions on competition. The OECD's Product Market Regulation indicator for Costa Rica shows that there is ample room to improve regulations (Figure 1.25), with high barriers to entry and state involvement. A key strategy to ensure pro-competition regulations, used by many OECD countries and lacking in Costa Rica, is to conduct regulatory impact assessments to inform the development of new laws or regulations. In many countries, there is also a requirement to include explicitly the assessment of the impact (i.e. costs and benefits) on competition in the laws or regulations. Adopting such a requirement can ensure that competition aspects are more systematically taken into consideration across the public sector.

Figure 1.25. Costa Rica has more stringent regulations than any other OECD country

Overall PMR score, index from 0 to 6 (most restrictive)



Source: OECD Product Market Regulation database.

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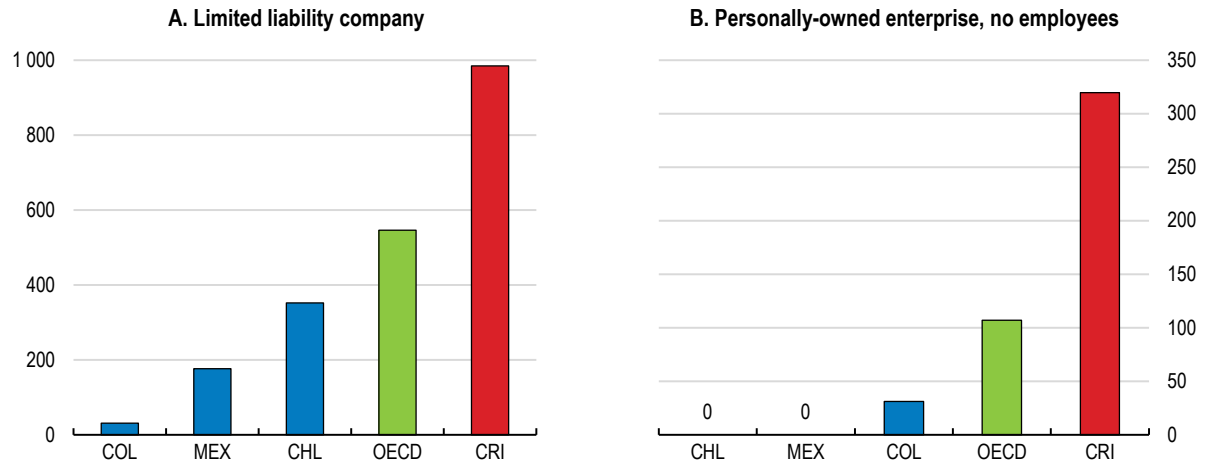
OECD countries have been boosting competition in their goods and services markets by facilitating entry. Costa Rica has ample room to follow suit. Among barriers hampering entry, administrative burdens and the license and permits system are the most problematic. Establishing a company is significantly more costly (Figure 1.26) and burdensome than in other OECD countries and in peer Latin American countries. Many OECD countries have reduced administrative burden by establishing virtual one-stop shops, where all administrative requirements can be met at once and online. Costa Rica is also moving in that direction, which should also help to facilitate the creation of formal firms. Pending challenges are that existing one-stop shops allow for solving all administrative requirements in one place and that they do so via online facilities.

Figure 1.26. Establishing a company is costly

PPP-adjusted USD



Note: The figures display the typical total monetary cost to complete all mandatory procedures to start a limited liability company and a personally owned enterprise with no employees.
Source: OECD Product Market Regulation database.

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There is also a need to deal with the stock of regulations, many of which penalize firms and competitiveness, with a view to streamline, eliminate duplications and those no longer needed and harmonise regulations across different public agencies. International experiences show that dealing successfully with the legacy of measures requires intensified public-private dialogue, in which the private sector can flag problems and contribute to the solution, and a strong technical team (Cadot, Malouche and Sáez, 2012[14]). In this spirit, the Ministry of Economy is compiling in cooperation with the private sector a list of regulations and procedures that can be phased out, including also specific deadlines for their elimination.

Embracing e-government can be a powerful means to facilitate firms' compliance with administrative procedures at a minimal cost. Costa Rica has been lagging in the use of digital tools to interact with citizens and firms. The pandemic triggered more digital interactions, which should be further pursued. A key obstacle for increasing the use of digital tools by government, citizens and firms is the digital signature mechanism, which is perceived to be too cumbersome. Those attempting to use it also face difficulties to get the same validity as with a handwritten signature by public institutions. The Central Bank is currently working towards a solution that would enable the use of the digital signature via mobile phones (Table 1.5). Some OECD countries (see Box 1.5) exemplify the cathartic effect that a widely accepted and user-friendly digital signature mechanism can have to reduce red tape and facilitate compliance with administrative requirements.

A significant number of economic sectors in Costa Rica remain state monopolies or are dominated by state-owned enterprises. This includes key sectors, such as electricity, transport, banking, insurance and petroleum products. SOEs governance has been gradually improved but important challenges lie ahead, such as the full implementation of international accounting standards, establishing and monitoring performance indicators for SOEs, strengthening the functioning of boards and reviewing boards remuneration and developing recommendations to support incentives that are aligned with good board practices (OECD, 2022[15]). To promote continuing progress in addressing these challenges, it will be important to maintain strong coordination and analytical capacity in the Presidency's advisory unit for state-owned enterprises.

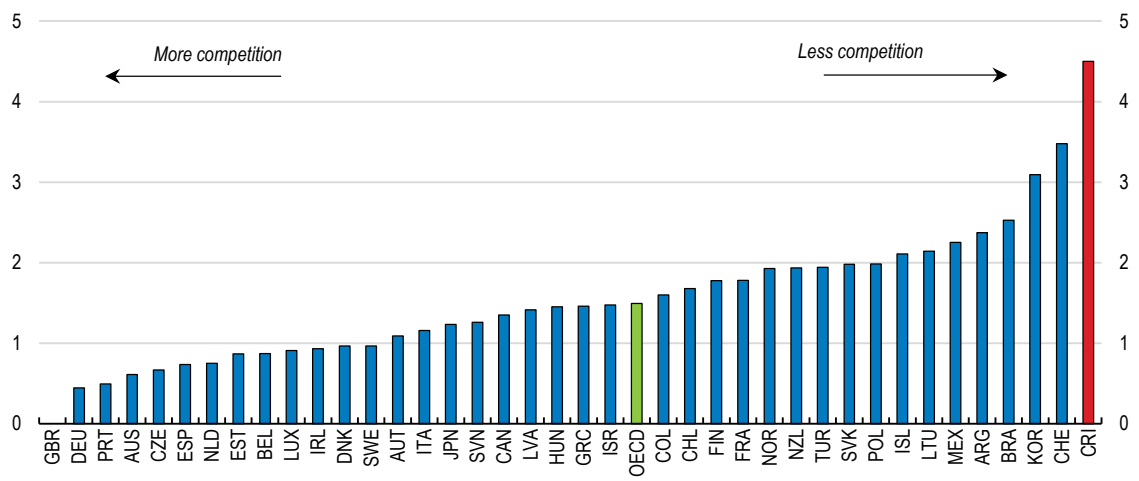
Box 1.5. The digital signature in Estonia

The Digital Signature Act in 2000 recognised digital signatures in Estonia as being equivalent to hand-written signatures, both in commercial transactions and in transactions with the public sector. The digital signature can be used directly through the national identification card, as the cards embed a chip that can be used as definitive proof of identification in an electronic environment. The signature can be used also through Mobile-IDs, or through Smart-IDs, which provide an identification solution for anyone that does not have a SIM card in their smart device but needs to securely prove their online identity. The dual use for commercial and public sector transactions, as well as the obligation for the public sector to recognise the digital signature, created an environment that stimulated the development of compatible public services as well as their take-up by the general population (OECD, 2015[16]). All digital public services can be accessed using the digital signature, including registration of businesses, electronic voting, electronic prescriptions, electronic health records, declaration of residence and social benefits claims. The use of digital signatures in Estonia is estimated to save 2% of GDP every year (OECD, 2019[17]).

As a whole, the SOE sector does not currently present a significant drain on the budget but some SOEs play a dominant role in critical sectors and their performance has critical economy-wide implications. A paradigmatic case is the electricity company, ICE, which dominates the electricity sector. It provides all transmission services in the country and is responsible for 44% of electricity distribution. One of its subsidiaries distributes around 32% of generated electricity. The share of allowed private-sector electricity generation is limited to 30%. Private-sector generators compete for the market rather than in the market, because to enter the market they must first win ICE tendering contracts. There are also barriers to foreign participation in the sector, as 35% of the capital of the firm generating the electricity should be Costa Rican. This regulatory framework implies high barriers to competition (Figure 1.27).

Figure 1.27. Regulatory barriers on electricity are high

Product-market regulation index for electricity



Note: This indicator is composed of information on how entry and conduct in the electricity sector is regulated, and on the level of public ownership.
Source: OECD, 2018 PMR database.

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ICE's operating performance is mediocre when benchmarked with peer institutions (World Bank, 2015[18]) and electricity prices have been higher than in regional peer countries. Effectively separating monopolistic activities (such as the operation of the transmission network) from activities that can be subject to competition (such as generation and retail supply) can bring large benefits in the form of innovation and

lower prices (IEA, 2019[19]). Costa Rica should also consider relaxing existing restrictions and caps on private sector participation, including those related to foreign ownership, as a way to spur innovation and competitiveness and meet the upcoming challenges for the electricity sector, such as the planned electrification of transport, a central pillar of Costa Rica's decarbonisation plan.

Boosting competition in the banking sector also remains an important challenge. The banking sector remains highly concentrated, with three public banks controlling around 60% of total assets, and the rest controlled by nine foreign private banks and two domestic private banks. A number of distortions and regulatory asymmetries fragment the market and hamper competition. Key asymmetries are the legal obligation for non-bank public institutions to deposit their cash in public banks or the requirement for public banks to pay contributions to a number of state funds. Phasing out those asymmetric regulations would boost competition and have an economy-wide positive impact by facilitating access by firms and households to financial services at lower cost. In line with OECD recommendations, the law to establish a deposit insurance scheme, covering both private and public banks, was approved in February 2020. Public banks still enjoy a full blanket State guarantee, covering all financial instruments, with the exception of subordinated debt. As state banks have large exposures to the sovereign debt market, systemic risk of doom loops remains high. Phasing out the blanket guarantee is a long-standing recommendation in OECD Economic Surveys.

Reducing informality: a win-win for productivity and inclusiveness

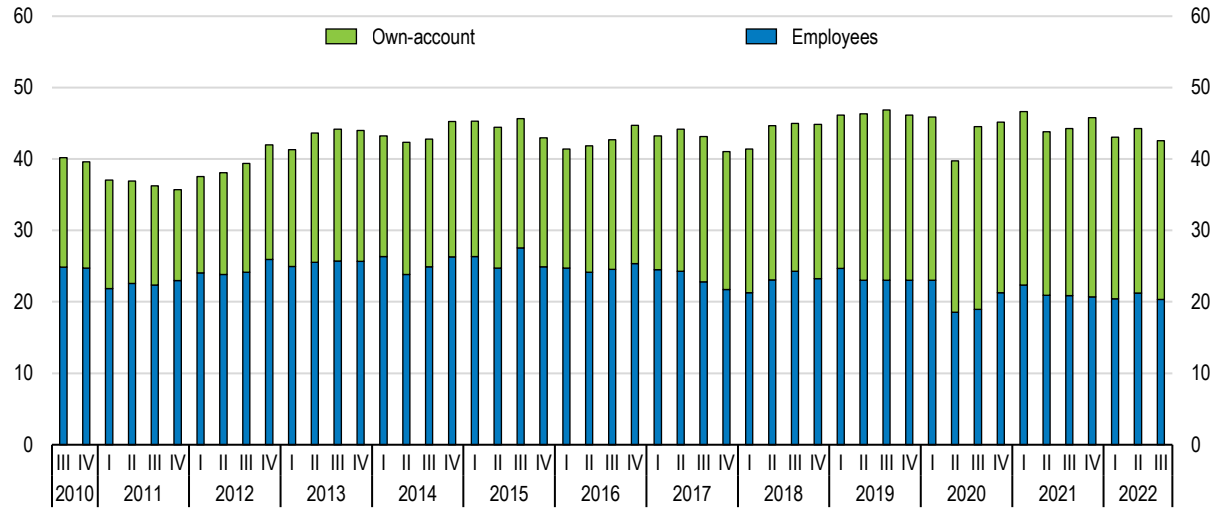
Informality, at around 45% of total employment, remains high (Figure 1.28) and is both a cause and a consequence of low productivity. A comprehensive strategy is required, with actions needed in several policy areas, such as reducing non-wage labour costs, facilitating the creation of formal firms, including by reducing the bureaucratic and economic cost of establishing a formal firm (as discussed above), helping that more Costa Rican acquire the skills needed to access formal jobs (as discussed in chapter 2), simplifying taxes and enhancing enforcement mechanisms.

Employer payroll charges are high in comparison with the OECD average (Figure 1.29), which hampers formalisation. Experience in some OECD countries, such as Colombia, indicates that reducing non-wage costs, by cutting employers payroll charges, can help to reduce informality. Available impact evaluations suggest that the reform led to a 2 to 4 percentage-point reduction in the informality rate in Colombia (OECD, 2022[20]). Costa Rica's relatively high pay-roll contributions indicates that there is ample room to move in this direction. At the end of 2019, authorities introduced lower employer and employee payroll charges for informal companies that become formal. The reduction was temporary (four years) and targeted at small firms (one to five workers). However, the scheme had little impact and it was taken-up by very few firms. A number of roundtables with the social partners have been held to discuss how to boost formalisation but such efforts have not translated into any significant policy initiative.

Payroll charges account for 37% of the wage bill with employers paying 72% of them. However, not all the payroll charges are allocated to finance the social security system (i.e. health and contributory pensions). Around 35% of the payroll charges go to finance other institutions, more notably the fund in charge of social protection programs (FODESAF), the vocational training unit (INA) or a stated-owned bank. This is a very regressive and inefficient way to finance these institutions, as it hampers the creation of formal jobs, eroding tax bases. Instead, those institutions could be financed in the medium-term fully through the general budget. This would facilitate formalisation without compromising the financing of the social security system. This change would even be positive for the social security system, as more workers would become formal workers and contributors. The institutions currently financed via the payroll charges are already receiving part of their financing from the general budget, which suggests that all institutional arrangements to facilitate the change are in place.

Figure 1.28. Informality is high

% of total employed population



Note: Informality is defined as the percentage of workers in employment meeting one of these conditions 1) not contributing to the social security system, 2) unpaid workers or 3) self-employed workers and employers who have companies that are not registered in the National Property Registry and do not keep a formal accounting.
Source: Instituto Nacional de Estadística y Censos: Encuesta Contiínua de Empleo.

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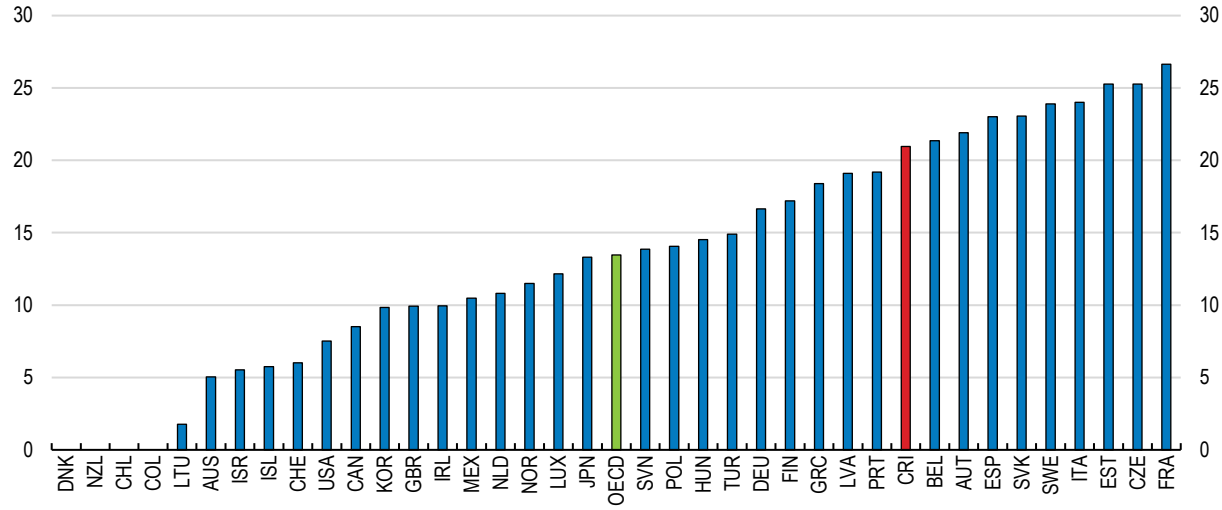
Figure 1.29. Employer payroll charges are high in international comparison

Employer contributions, % of labour costs, 2021



Source: OECD Taxing wages database.

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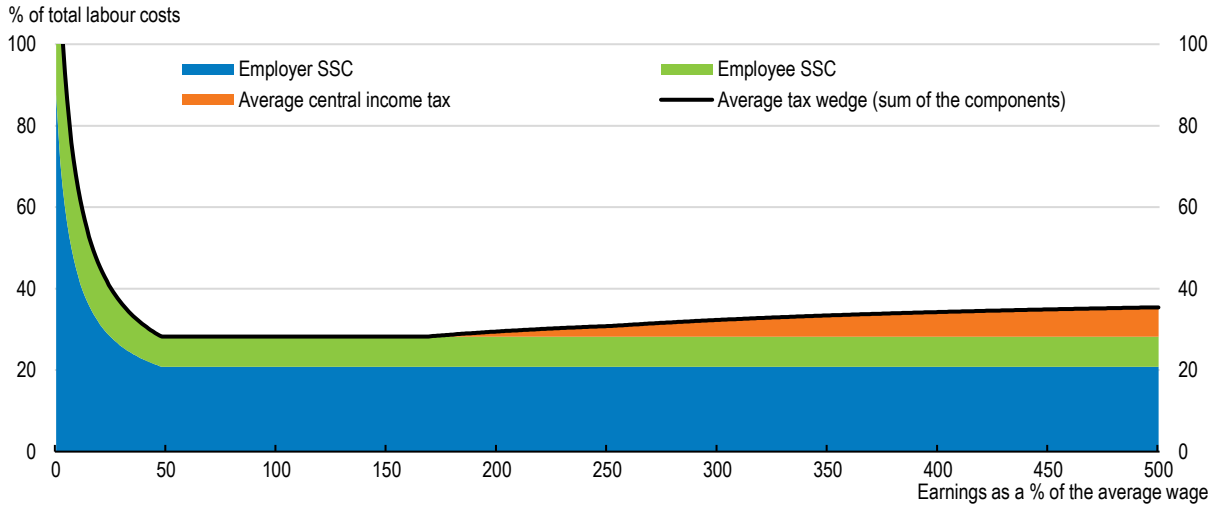
A high tax wedge can help to explain the incidence of informality. In Costa Rica the tax wedge is highly regressive at the bottom of the income distribution (Figure 1.30) This results from social security contributions that are levied at flat rates but with a minimum base contribution. Removing the minimum base, so that both workers and employers would contribute according to their reported earnings, would

reduce non-wage costs particularly for low-income workers. The Costa Rican Social Security Fund (CCSS) is planning to gradually introduce a lower minimum base contribution for low-wage and temporary workers, to facilitate their formalisation. This will apply to workers under 35 years old as of 2023, workers between 35 and 50 years as of 2024, and to all ages as of 2025. Another alternative to make social security contributions more progressive is to reduce or eliminate them for low-income workers. The associated loss of revenue could be compensated by other measures to increase revenues, as detailed in Table 1.7. Better enforcement should also be part of the formalisation strategy, and the reductions in employers' payroll charges could be implemented hand in hand with reinforced auditing, to strengthen the enforcement of labour regulations.

Figure 1.30. Low-income workers face a large tax wedge

Average tax wedge across earnings levels, % of total labour costs



Source: OECD, Tax Policy Reviews: Costa Rica 2017.

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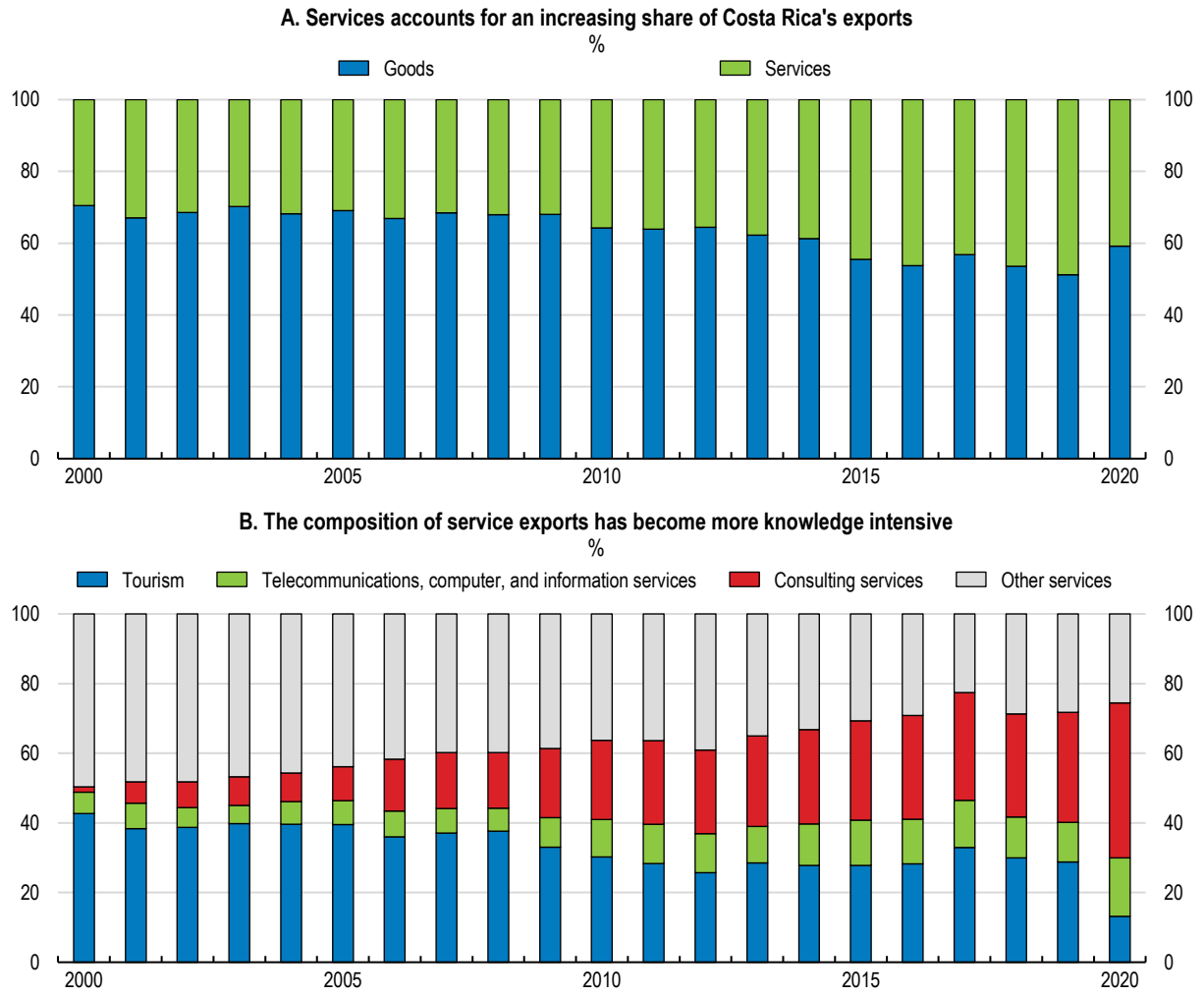
Table 1.5. Past OECD recommendations to boost productivity

Past OECD recommendations	Actions taken since the 2020 survey
Finance public research based on competitive and performance-based criteria and establish independent evaluation mechanisms.	No actions taken.
Enact a law or legal provision related specifically to protect reporting or prevent retaliation against whistle-blowers in the public sector.	No actions taken.
Introduce online one-stop mechanisms and ensure physical ones cover all licenses and permits and are present in all major cities. Eliminate the requirement for using a notary to register a company.	One-stop shops are being gradually rolled out, but they do not cover all permits. No actions taken.
Make the electronic signature mechanism more user-friendly.	The Central Bank is in the process of improving the digital signature mechanism.
Widen the scope of silent is consent rules and remove the need to require administratively their application.	The application of silent is consent rules has been simplified by means of sworn declarations.

Further spreading the benefits of trade integration

Costa Rica has greatly benefited from its open trade and foreign investment policies. The United States and the European Union are the main trading partners. As exemplified during the pandemic recession, Costa Rica's well diversified export basket, with an increasing share of high value-added goods, such as medical equipment (Figure 1.4, above), and services, such as business services (Figure 1.31), is a source of resilience during negative economic shocks. Exports of optical, surgical and medical equipment to the European Union have recently surpassed the exports of fruits. A stable pipeline of foreign direct investment flows, particularly in the manufacturing sector and from the United States (Figure 1.32), has underpinned this shift towards higher value-added exports.

Figure 1.31. High value-added services account for an increasing share of the exports basket



Source: OECD Dataset: Bilateral Trade in Goods by Industry and End-use (BTDIxE), ISIC Rev.4. OECD Dataset: EBOPS 2010 - Trade in services by partner country.

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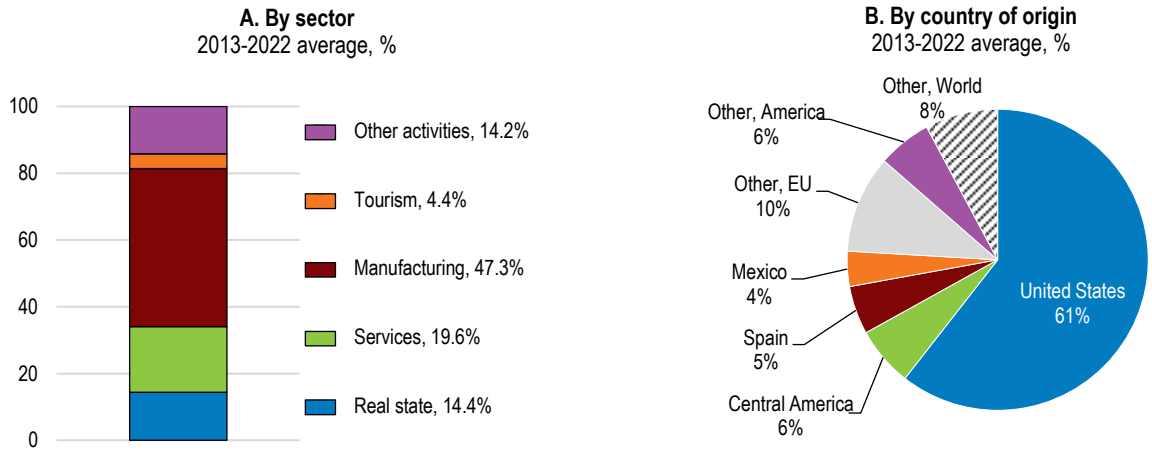
Figure 1.32. FDI inflows are larger in manufacturing and services



Note: Data for 2022 are estimates.
Source: Inter-institutional Foreign Direct Investment Group (Central Bank of Costa Rica, Costa Rican Investment Promotion Agency, Foreign Trade Promotion Enterprise, Ministry of Foreign Trade & Costa Rica Tourism Board).

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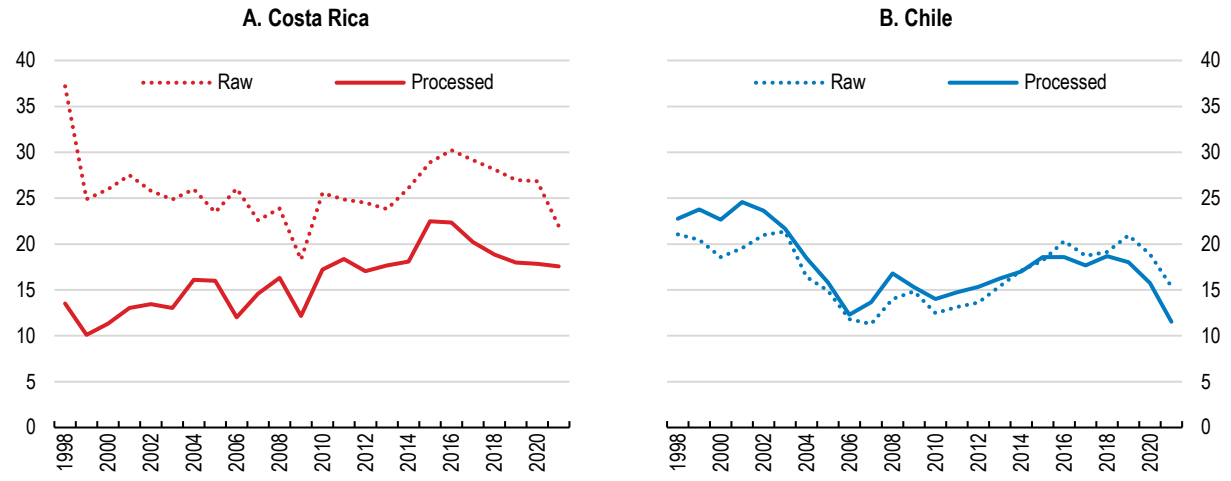
Nearshoring trends provide additional opportunities and efforts to increase trade integration have recently regained considerable impetus. Costa Rica's clean electricity matrix and its ambitious decarbonisation plan also provide the opportunity to become a global leader in carbon-free or low-carbon exports. The United States are Costa Rica's main exports destination, accounting for around 45% of total exports. There is room to further diversify export destinations and to boost trade relationships with other countries. To that end, the authorities have initiated negotiations to become a member of the Pacific Alliance, a trade bloc comprising Chile, Colombia, Mexico and Peru, where so far Costa Rica only has a status of candidate/observer. The Alliance accounts for 60% of Latin America's imports. If Costa Rica became a member, it would benefit from its geographical location in between the Pacific Alliance members, enhancing access to a large market and improving its prospects to attract further direct investment. It would also strengthen value chains in the region and offer a valuable platform to increase trade integration with Asia, given Costa Rica's bilateral free-trade agreements (FTAs) with China, Singapore and South Korea. SMEs could greatly benefit, using Latin American markets as a first step and trial ground before accessing more complex markets, such as the United States. Further integration in the Pacific Alliance would imply lowering tariffs in the agriculture sector, where tariffs are still higher in Costa Rica than on average in the OECD, particularly in sectors such as sugar. Model-based simulations about the impact of the tariff reductions associated with an integration in the Pacific Alliance suggest that further integration in the Pacific Alliance would have a direct positive impact on Costa Rican growth of 0.3% (CEPAL, 2021). Employment would increase in 15 out of 20 sectors, with more positive effects in dairy, meat, and processed food. Even if reallocation effects seem small, some sectors, such as forestry and timber would nonetheless be negatively impacted, and would need targeted retraining programmes to provide workers with new skills to move to new jobs. Costa Rica has also started negotiations with Ecuador to establish a free trade agreement and a roadmap to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.

Both manufacturing and services have greatly benefited from trade openness. The agriculture sector also contributed to good export performance. However, there is significant untapped potential in the agriculture sector. Costa Rica is one of the world's largest exporters of pineapples and an important supplier of banana and coffee. Even so, progress to move up in the value chain in other sectors, such as processed food products, has been uneven. The share of processed agriculture products in global trade has been increasing, which offers additional opportunities. So far, the share of processed agriculture exports in Costa

Rica remains lower than that of raw products (Figure 1.33). Organic production is another market segment where Costa Rica could capitalise on its strong reputation for both quality and sustainability. However, Costa Rica's share of organic production is below the world average, and lower than in many other countries in the region, despite its good export potential (OECD, 2017[21]).

Figure 1.33. Processed agriculture exports have not picked up

Share of raw and processed agriculture and food exports over total exports, %



Source: OECD calculations based on UN Comtrade database.

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Taking advantage of these opportunities will require boosting productivity in the agriculture sector, which would be facilitated by a better delivery of public policies in this area. This could be achieved by streamlining the complex institutional structure governing the sector, consisting of eleven institutions under the Ministry of Agriculture and Livestock. These institutions enjoy varying degrees of autonomy, and some have mandates that are established by legislation, posing challenges for the Ministry to achieve an effective coordination and risks of fragmenting responsibility, slowing decisions and duplicating functions. Effective governance is also impeded by the fact that the agricultural sector and its institutional structure are regulated by several hundred laws and ministerial decrees (OECD, 2017[21]).

Experience in OECD countries also suggests that non-distorting support provided either directly to producers or to the sector as a whole has a more positive influence on both GVC participation and domestic value added than market intervention mechanisms, such as minimum prices (OECD, 2022[22]). In this vein, phasing out minimum prices in the rice sector, as recommended in previous OECD Economic Surveys, is a very positive step, which would also facilitate access to basic goods at lower prices, benefiting low-income households in particular. Recent changes to facilitate more foreign direct investment in rural areas, such as strengthening the investment single window in municipalities, fostering vocational training and new regulations to prioritise access to digital services outside the San Jose Metropolitan Area, can be a more effective way to support productivity and job creation in rural areas.

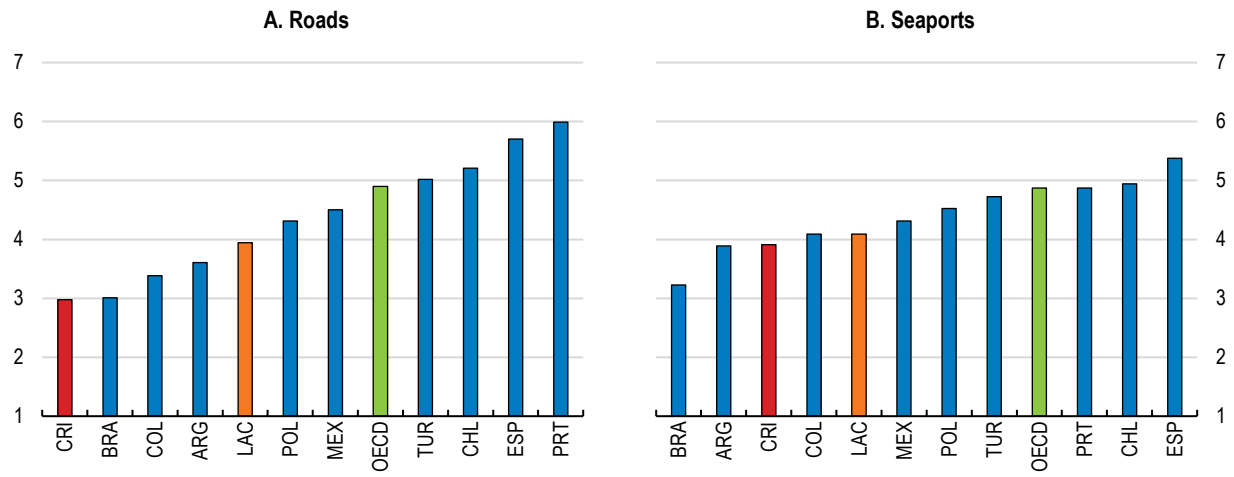
Closing infrastructure gaps

Infrastructure bottlenecks are large, particularly in road transportation (Figure 1.34). This not only hinders regional development but also has a detrimental impact on competitiveness, productivity and the environment. The road network is extensive, but the quality is poor, suffering from years of underspending due to weak governance, planning and execution. Reducing these infrastructure gaps would particularly help the agriculture sector, whose productivity has been constrained by the poor quality of rural roads.

Poor quality increases transport costs and production losses and limits the competitiveness of both large and small-scale producers, preventing them from accessing wider markets. Reducing these infrastructures gaps, would also help to spread the benefits of trade integration and foreign direct investment throughout Costa Rica. So far, San Jose Metropolitan Area has concentrated most of the benefits of the successful strategy to attract and retain foreign direct investment.

Figure 1.34. Costa Rica's infrastructure lags behind

Indices of the quality of roads and of the efficiency of seaport services, 1 to 7 (best), 2019



Note: LAC refers to the simple average of Argentina, Brazil, Chile, Colombia and Mexico.
Source: World Economic Forum Global Competitiveness Indicators.

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Previous OECD Economic Surveys recommended institutional reforms to favour sounder planning and clearer accountability. The public works sector has a complex institutional structure. Beyond the Ministry of Public Works, there are eight independent agencies with specific responsibilities. This structure contributes to duplications, excessive policy fragmentation, lengthy project preparation and delays in project execution. Recently announced plans to simplify the institutional framework of the sector and eliminate some public agencies hold the promise of recovering the ministry's stewardship and facilitating better planning and management. Project preparation and selection could also improve with a more extensive use of careful cost-benefit analysis.

The fiscal situation will continue to limit public investment for some time and well-designed PPPs could help to reduce infrastructure gaps. Public spending on infrastructure, at 1% of GDP is far below the latest Ministry of Public Works' National Transport Plan, that calls for gradual increases in infrastructure spending, to 4% of GDP by 2035, with two-thirds financed by the private sector. The PPP framework has recently improved thanks to a stable PPP agency and an independent project development fund financed by the Inter-American Development Bank. However, further improvements are needed, including increasing transparency and accountability by publishing more project information and evaluations online, and improving the capacity of the PPP agency to conduct evaluations (EUI, 2019[23]). This should be complemented with proper fiscal accounting of PPPs, including recording them as contingent liabilities in the budget.

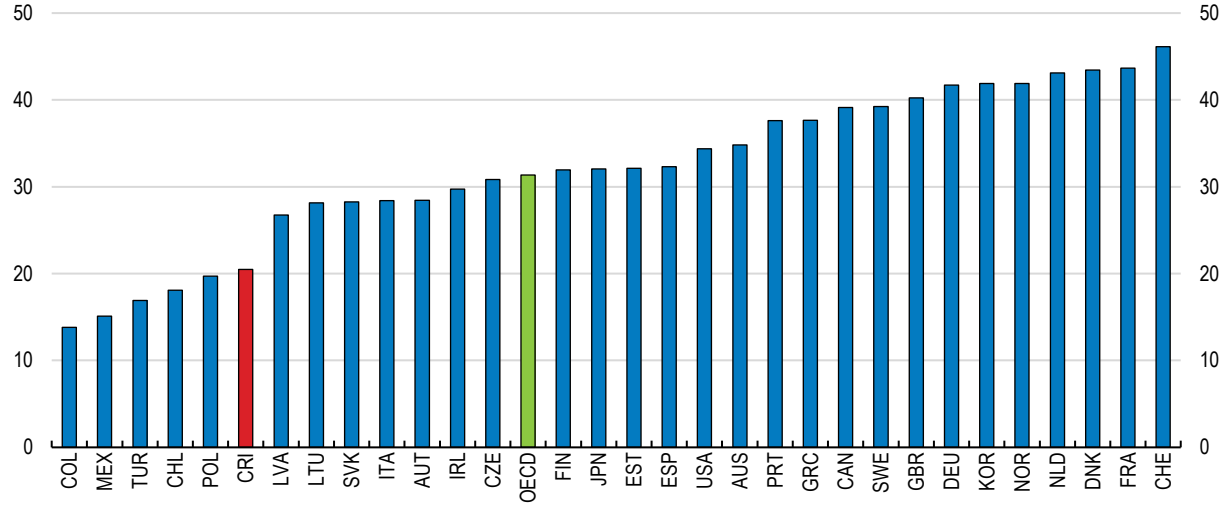
Making the most of digitalisation

Reliable and quality connectivity is essential to make the most of digital transformation. Costa Rica has greatly advanced in internet connectivity through mobile lines but lags in fixed broadband penetration (Figure 1.35). Around 34% of fixed broadband subscriptions allow for high-speed connections. Fostering competition, investment, and innovation in broadband development is therefore a fundamental priority. This will hinge on maintaining a regulatory framework that is flexible and facilitates the entry of new operators, contributing to further broadband deployment. According to the OECD Product Market Regulations index, regulatory barriers on e-communications are relatively high in Costa Rica (Figure 1.36). Excessive and sometimes inconsistent regulations across public institutions also hinders infrastructure deployment. Heterogeneous regulations at municipal level are a particular concern. Streamlining and harmonising regulations and setting common guidelines would facilitate infrastructure deployment and lower entry barriers for new operators. To advance in these objectives, the authorities have recently published a law to promote regulatory consistency throughout the country, to promote and facilitate the deployment of infrastructure. A law has also been approved to enable the use of public spaces to install telecommunications infrastructure and to ensure that all technical aspects for the development of telecommunication infrastructure are properly taken into account when designing and planning national roads.

Costa Rica's experience with the opening of the monopoly in mobile services in 2011 illustrates how competition can spur access and lower prices. Currently, Costa Rica displays prices of mobile services that are significantly lower than in regional peers and at par with the OECD average in terms of affordability (Figure 1.37, Panel B). Conversely, fixed broadband services prices remain significantly above those seen in OECD and regional peers (Figure 1.37, Panel A). At the same time, the fixed broadband market shows a high degree of concentration (Figure 1.37, Panel C). Opening to competition the fixed broadband market, by facilitating entry of new operators, can facilitate more affordable prices, which in turn will help to boost access and close divides.

Figure 1.35. Expanding access to fixed broadband is a challenge

Fixed broadband subscriptions per 100 inhabitants



Note: Data for Costa Rica refers to the year 2021.
Source: OECD Broadband Portal (database) ; SUTEL, Dirección General de Mercados.

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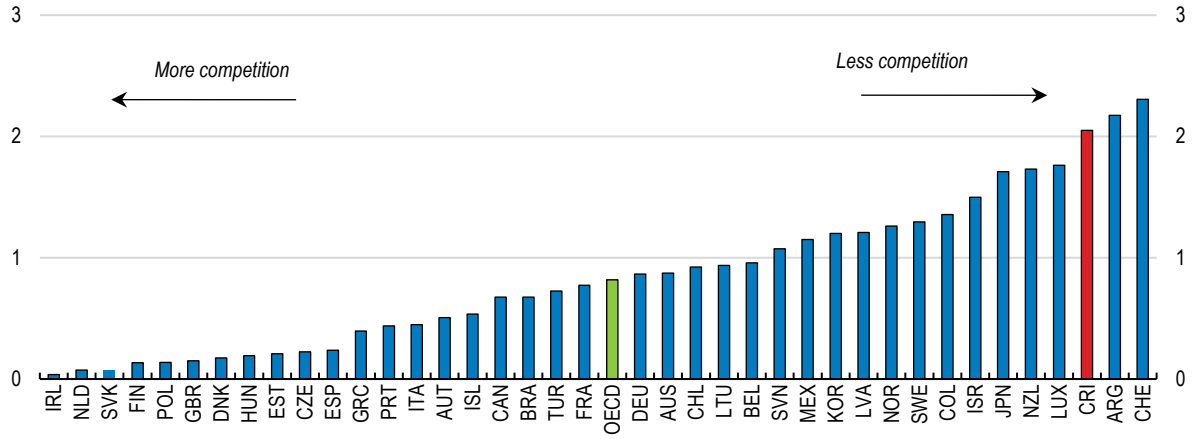
Figure 1.36. Regulatory barriers on e-communications are high

Product-market regulation index for e-communications



Note: E-communications include both voice services and data services.
Source: OECD, 2018 PMR database.

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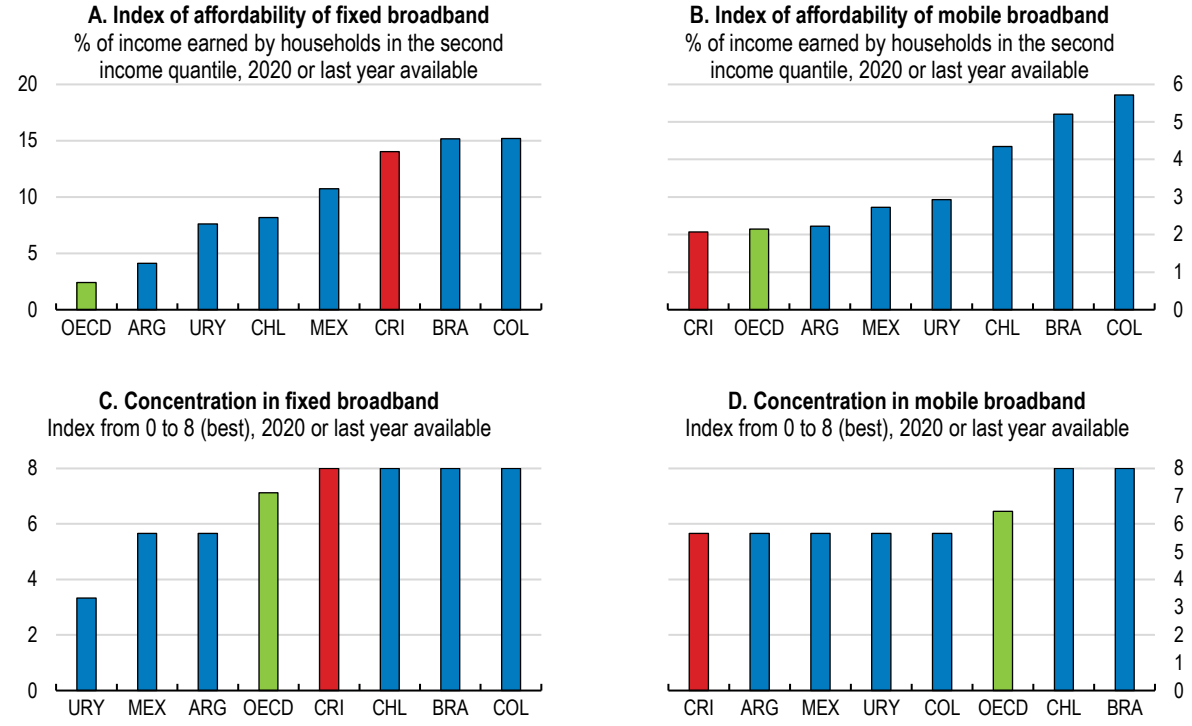
Figure 1.37. Fixed broadband subscriptions are expensive



Note: Panel A and B; The index of affordability of fixed broadband services is the monthly cost of a subscription to a fixed broadband service of 2 Mbps of speed as a share of the average income of a household in the second quantile of the income distribution. The index of affordability of mobile broadband services is the monthly cost of a subscription to a mobile broadband service of 1 GB of data as a share of the average income of a household in the second quantile of the income distribution.
Source: Interamerican Development Bank DigiLAC Indicators.

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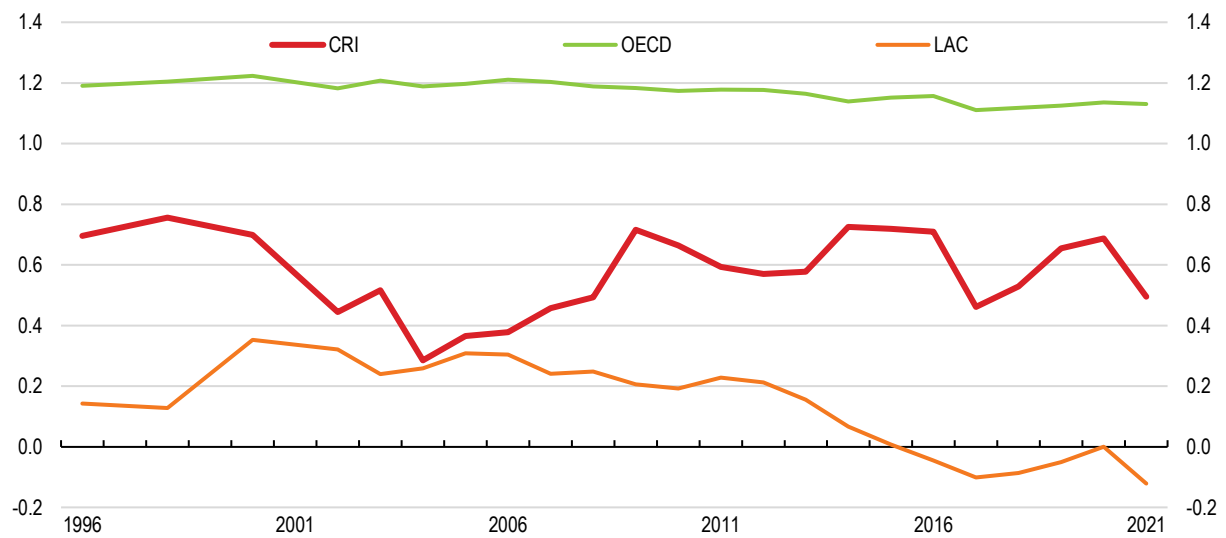
5G can act as a 'leapfrog' technology, allowing to fast-track digital development in rural areas. This would require more infrastructure and fibre deployment and new last mile connectivity solutions. Costa Rica lags behind other Latin American countries. There are already 22 5G networks deployed in Latin America, most notably in Brazil. Costa Rica should accelerate the release of the 5G spectrum. According to estimates by the regulator, the cost of delays in the release of the 5G spectrum would range between 8% and 12 % of GDP. The authorities have recently requested the release of 5G frequencies that the Institute of Electricity (ICE) has retained and remain unused. This would allow for licensing the spectrum, facilitating entry of providers. The deployment of 5G services would still take at least three years. Setting a transparent and robust concession process will be critical for an effective deployment and a competitive market.

Continuing to improve governance and reduce corruption

Corruption continues to be one of the top concerns for Costa Ricans. Costa Rica has made progress to foster integrity and combat corruption in the public sector. It ranks third in Latin America in terms of capacity to fight corruption, just behind Uruguay and Chile (AS/COA, 2021[24]). However, public perceptions about corruption remain higher than in OECD countries (Figure 1.38). The country has been regularly shaken by corruption scandals in recent decades. Policy efforts to reduce and prevent corruption are therefore warranted. The national strategy of integrity and prevention of corruption, presented in 2021, provides a useful framework for such efforts, as it defines priority areas for the next decade in matters of integrity, corruption, transparency, and probity.

Figure 1.38. Perceptions about corruption remain higher than in OECD countries

Evolution of "Control of Corruption", scale: -2.5 (higher corruption) to 2.5 (lower corruption)



Note: Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. LAC is a simple average of Chile, Colombia, and Mexico.
Source: World Bank, Worldwide Governance Indicators.

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Whistle-blower protection is an important tool to promote accountability. Costa Rica has a number of protection mechanisms for whistle blowers, victims and witnesses of acts of corruption that apply at the criminal and administrative levels. However, there is currently no dedicated law that would provide protection of employees in the public or private sectors from discriminatory or disciplinary action once they have disclosed wrongdoing (OECD, 2017[25]) (OECD, 2020[26]). This discourages public servants from

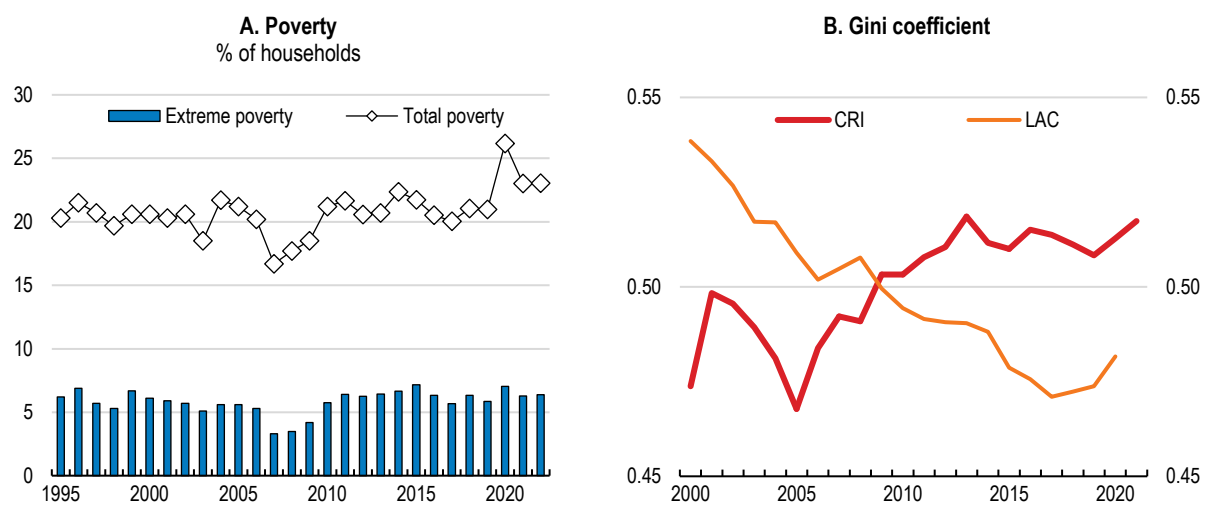
sharing valuable information about corruption cases with competent authorities. Costa Rica is currently working a bill to provide whistle-blowers with clear and comprehensive protection from retaliation, covering both the public and private sectors. Enacting a whistle-blower protection law or legal provision related specifically to protected reporting or prevention of retaliation against whistle-blowers, as recommended in the previous Economic Survey (OECD, 2020[3]), would be an effective step to boost corruption prevention.

The biggest corruption scandals have been linked to public procurement (UNCAC, 2021[27]). A significant part of procurement has been carried out through direct contracting, which is, according to the law, an extraordinary procedure that is faster and has fewer controls. The Integrated Public Procurement System (SICOP) brought together 20 virtual public procurement platforms and its use was made mandatory for the entire public administration in 2016. However, it has not yet been incorporated into all public entities. Until 2019, 30% of institutions were missing, and even those that have implemented SICOP do not use it for all stages of the contracting procedure, nor for all purchases. A recently adopted law intends to prevent the coexistence of multiple procurement regimes, to reduce the cases of exceptions to circumvent ordinary procedures and to introduce requirements for the application of direct contracting. Full implementation of the law would reduce the scope for corruption and at the same time boost public sector efficiency.

Redoubling efforts to improve equality of opportunities

Virtually universal health care and primary education and one of the highest pension coverage in the region have led to remarkable social outcomes, such as relatively long-life expectancy (above 80 years) and low infant mortality. However, Costa Rica faces substantial social challenges. Poverty, measured as reference to a poverty line, has remained largely unchanged at around 20% over the last 25 years and inequality has trended up (Figure 1.39). With unemployment at two-digit rates, informality affecting nearly half of the labour force and significant demographic changes ahead, efforts across different policy areas are needed to improve equality of opportunities. Improving education and training policies is a critical challenge (see Chapter 2) but there is also urgent need to upgrade social protection programmes, reduce gender inequalities and buttress the pension system.

Figure 1.39. Poverty has remained unchanged and inequality has trended up



Note: Panel A: Poverty measures are based on poverty lines. Panel B: The Gini coefficient is based on disposable households income. The indicator for Costa Rica was rescaled back before 2010. LAC is a simple average of Chile, Colombia, and Mexico.
Source : INEC Encuesta Nacional de Hogares (ENAHO) and Encuesta de Hogares de Propósitos Múltiples (EHPM); World Bank Poverty and Equity database.

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Upgrading social protection

Social policies are in the process of being enhanced, thanks to SINIRUBE, a common database putting together all registries from social programmes. It helps to eliminate overlaps and increase coverage by enabling identification of potential eligible beneficiaries not yet covered by the programmes. The tool has been used to assess the targeting of some social programmes (such as scholarships and non-contributory pensions). The authorities are planning to further increase the coverage of SINIRUBE and to incorporate into the database those individuals in remote locations or without access who are not yet included. SINIRUBE should become the building block of social policies and be the central tool to select beneficiaries for all social programmes. This would help to improve the targeting and evaluation of social policies. In some social programmes, more than 40% of beneficiaries are middle and high-income households (Table 1.6), while according to the law the programmes are targeted to those in poverty.

Table 1.6. There is room to improve the targeting of social protection programmes

Percentage of beneficiaries in each income quintile (2021)

Programme	Income quintiles					
	I	II	III	IV	V	
Scholarships for secondary education (*Avancemos*)	49	33	15	3	0	100
Scholarships for primary education (*Avancemos*)	53	32	13	2	0	100
Non-contributory pensions (*RNC*)	46	30	16	7	2	100
Insured on the account of the state (*Asegurados por cuenta del estado*)	55	25	14	5	1	100
Housing subsidy (*Bono familiar vivienda*)	31	26	23	16	5	100
Childcare services (*Red de cuido*)	56	25	17	3	0	100
School meals	39	29	20	9	4	100

Source: OECD calculations based on ENAHO.

There also remains room to reduce fragmentation in the social protection sector, which would help to increase coverage. Social protection is financed through a fund (FODESAF) that allocates resources to 21 institutions that are in charge of delivering more than 35 schemes. Better targeting and reducing fragmentation would facilitate reinforcing social protection in key areas, which would reduce inequality. The authorities are planning to move in this direction and aim at reducing the number of social programmes to 25. Reinforcing the social protection of children is a key priority, as poverty affects 40% of children and only 30% of poor children between 0 and 17 years old are in families receiving monetary benefits (Pacheco et al., forthcoming[28]). Experience in other OECD countries, such as Austria, Sweden, or Finland, show that targeted unconditional cash transfers can reduce children poverty significantly (Förster and Verbist, 2012[29]). Setting a universal cash transfer for poor children in Costa Rica would cost 0.21% of annual GDP (Table 1.7), and could be partly financed by improving the targeting of existing programmes. This in particular concerns the housing subsidy (*Bono familiar vivienda*), as 45% of its beneficiaries are middle or high-income households.

Table 1.7. Illustrative fiscal impact of some OECD recommendations

Measure	Change in annual fiscal balance (percentage points of GDP)
Spending side	
Universal pension for poor seniors	- 0.1
Universal cash transfer for poor children	- 0.2
Improved e-procurement and centralized purchasing	1.5
Total spending side	*1.2*
Revenue side	
Making social security contributions more progressive	- 0.6
Remove tax exemptions on additional salary for most public employees	0.3
Remove cooperatives tax exemption	0.1
Improving property tax collection	1
More centralised and less fragmented tax collection	1
Implementation of public employment bill	0.8
Total revenue side	2.7

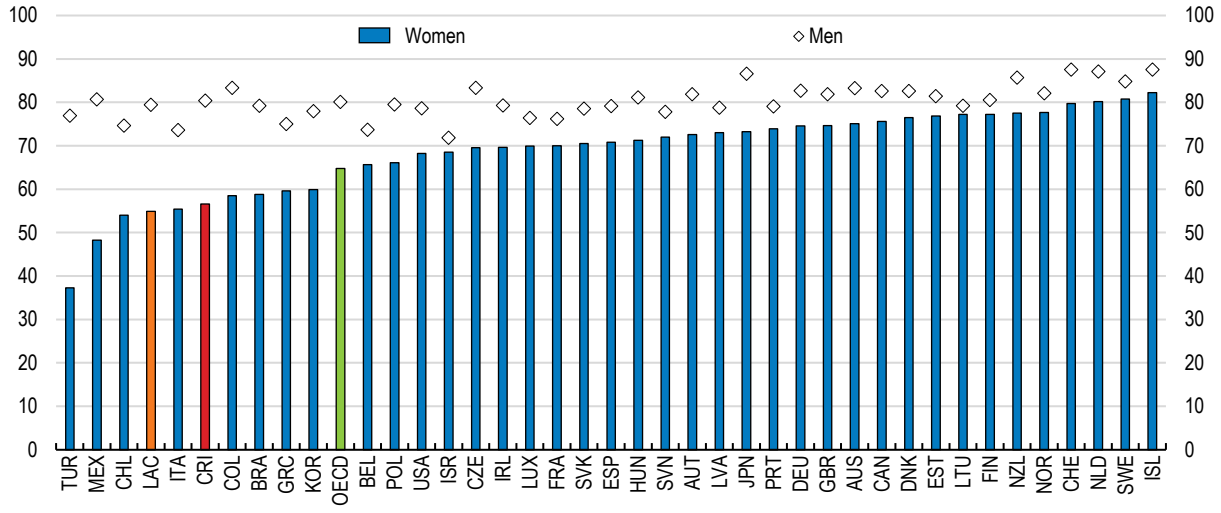
Note: The fiscal impact of introducing universal pensions and cash transfers for poor children, and of making social contributions more progressive are based on (Pacheco et al., forthcoming[28]). Savings from centralizing procurement and tax collections are based on General Comptroller reports (CGR, 2019[30]), (CGR, 2021[9]). The impact of the public employment bill is based on Inter American Development Bank estimates. It is assumed that Costa Rica gets to collect via the property tax as the average Latin American peers (Chile, Colombia, Mexico, Argentina and Brazil). The impact of removing tax exemptions is based on World Bank public finance review ((World Bank, 2019[7]).
Source: OECD calculations based on (World Bank, 2019[7]), (CGR, 2019[30]), (CGR, 2021[9]) and (Pacheco et al., forthcoming[28]).

Reducing gender inequalities

Female labour force participation continues to lag the OECD average (Figure 1.40). Participation is particularly low in low-income households, with more than 90% of women in poor households out of the labour force. In particular, women taking on family care responsibilities face difficulties to complete education or continue to be in the labour force. This affects women at all income levels but particularly those in low-income households (Figure 1.41).

Figure 1.40. Female labour market participation is low

Working-age (15-64) labour force participation rate, %, 2021



Note: LAC is a simple average of Brazil, Chile, Colombia and Mexico.
Source: OECD Labour Force statistics.

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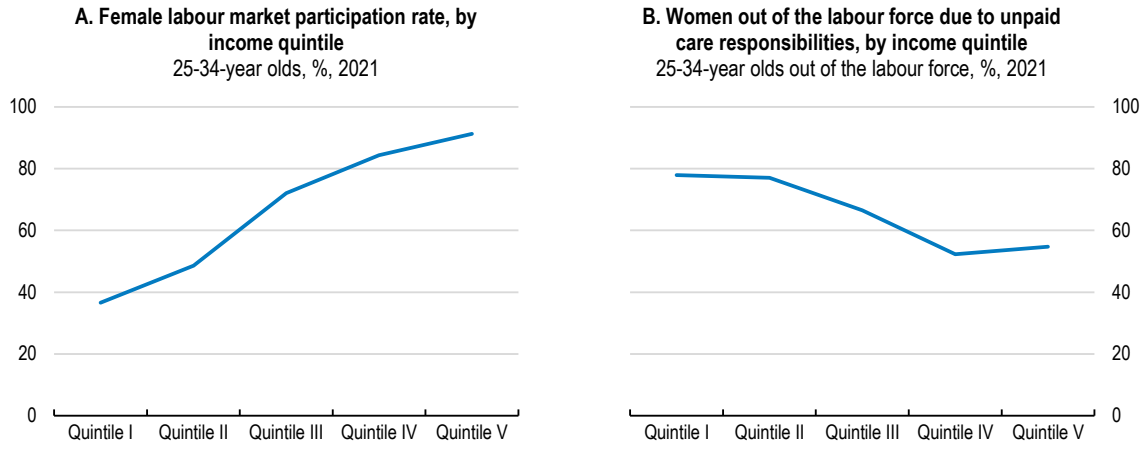
Figure 1.41. Care responsibilities hinder women's labour market participation



Source: INEC Encuesta Nacional de Hogares 2021.

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Expanding access to good quality affordable early childhood education and care should be a priority as both facilitates women's participation in the labour market and raises outcomes and equity in education (see also Chapter 2). The coverage of early childhood education and care for five-year-old children has recently increased but access to early childhood education should also be expanded for children under the age of four. Recent efforts to foster early childhood education include the elaboration of quality standards and preparations for the launch of a means-tested co-payment mechanism (Table 1.8). Prioritising access to early education by low-income workers and establishing co-payment mechanisms for higher-income households are an effective way to expand coverage in a difficult fiscal environment. Gradually expanding elderly care services, including both home-based and community-based care, would also contribute to higher female labour market participation among low-income households.

Table 1.8. Past OECD recommendations on social policies

Past OECD recommendations	Actions taken since the 2020 survey
Improve targeting and focus social spending program on low-income individuals.	Bono Proteger mitigated the impact of the pandemic on low-income workers. SINIRUBE, the registry of beneficiaries of social programmes, is being further enhanced.
Continue to increase the supply of affordable childcare.	A co-payment mechanism to improve access and supply of childcare is in preparation.
Introduce a paid leave entitlement reserved to fathers.	Starting 3 June 2022, all workers in the private sector can benefit from a special permit allowing two days off from work per week, during the first month after birth. During these days, workers shall receive their full salary, which is financed in equal parts by the employer and by the CCSS, the social security provider of the country. Public sector workers have also become entitled to a month of paid paternity leave.
Establish a comprehensive strategy to reduce informality, including shifting part of the tax burden from social security contributions to property taxes and strengthening enforcement mechanisms.	No actions taken.
Simplify further the minimum wage system.	
Link part of universities funding to responding to current and future labour market needs.	No actions taken.
Strengthen teacher recruitment, selection and training based on regular teachers evaluations.	There are plans to run teacher evaluations but there has not been progress in improving training nor recruitment.
Devote all social security contribution charges to finance the social security system.	No actions taken.
Use the average lifetime wage to calculate pension benefits.	A reform to the pension system was approved in 2021. Benefits are now computed using the highest 300 monthly contributions. Early retirement is no longer allowed for men while women can retire early at 63 instead of 60.
Link the retirement age to increases in life expectancy.	No actions taken.

Costa Rica has recently introduced paid leave entitlements reserved to fathers. In the private sector workers have become entitled to two days of leave per week, during the first month after birth. During those days, workers would receive their full salary, which is financed in equal parts by the employer and by the social security system. For public employees, the Public Employment Bill that enters into force in March 2023 grants workers a month of paid paternity leave. These are positive initial steps to promote a better sharing of paid and unpaid work between men and women. Promoting the take-up of these new paternity leave entitlements and gradually lengthening them, following the recent trend of many OECD countries, including France and Spain, can be additional steps to facilitate a higher female labour market participation.

Adapting the pension system to ageing

Costa Rica has been reaping the benefits of a significant demographic dividend, but trends are shifting. The share of the population over age 65 will triple over the next 50 years, from 10% in 2020 to 30% in 2070, according to United Nations projections. This demographic transition challenges the sustainability of the contributory pillar of the pension system, whose financing is heavily dependent on employment-linked contributions and is also hampered by informality. The statutory retirement age is 65, but women can opt for early retirement at the age of 60 if they have contributed for at least 37.5 years and men at the age 62 if they have contributed for at least 38.5 years. Individuals who have had volatile careers and long periods in informality usually do not qualify for a contributory pension and can get a minimum pension through the non-contributory regime, which is financed from the government budget. The total contribution period required for full pension entitlement is 25 years and 300 monthly contributions. Authorities have recently approved a package of changes to the contributory pillar, including using the highest 300 salary payments to compute the pension benefit, instead of the average salary of the last 12 years. Men will be excluded from the possibility of early retirement, while women could still retire at the age of 63 if they have contributed for 33.75 years. These changes will become effective in January 2024 and are expected to keep the financing of pensions sustainable until 2050. Policies aimed at promoting formal labour and female labour force participation would also help to finance pensions. Looking forward, linking the statutory retirement age to increases in life expectancy, as done in some OECD countries, would strengthen the link between contributions and pensions and improve the sustainability of the system. Automatic adjustment mechanisms, in which pension parameters are automatically adjusted to changes in indicators such as life expectancy, have become part of a standard toolset in pension policies among OECD countries (OECD, 2021[31]). Improving lifelong learning opportunities would also support longer career opportunities. Targeted career advice and guidance, together with efforts to align the training offer with the needs of the labour market (see Chapter 2), can facilitate participation of adults in training activities. More flexible approaches to learning, such as modular or online training, can facilitate combining work schedules with training participation.

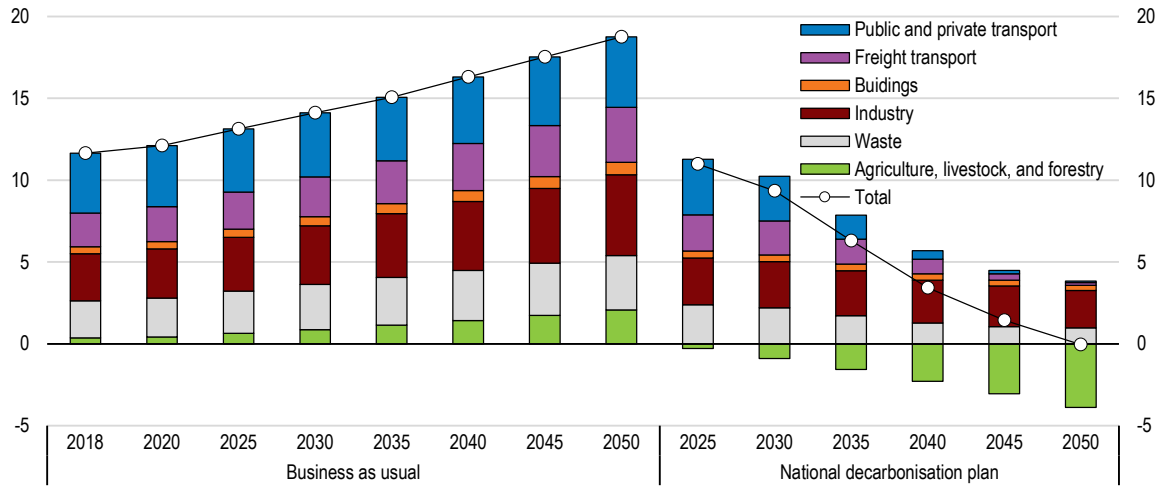
Beyond continuing to improve pension sustainability, increasing pension coverage is another fundamental challenge. Pension coverage is higher than in most countries in the region, but still around 30% of individuals older than 65 have no pension. Introducing a universal pension covering all poor individuals currently without income protection, and with the poverty line as defined benefit, would cost 0.13% of GDP (Pacheco et al., forthcoming[28]). A universal pension benefit, covering all individuals currently not receiving pensions, would cost 1% of GDP.

Transitioning towards net carbon neutrality

Costa Rica is a forerunner in efforts to reduce greenhouse gas emissions, a pioneer in the sustainable tourism sector, with 60% of its territory covered by forest, and it is the first tropical country to have reversed deforestation (Box 1.4). Almost 100% of the country's electricity stems from renewable sources (mainly hydropower). Its level of emissions is low by international standards, but emissions are increasing. Costa Rica aims at achieving the goal of net-zero emissions by 2050, which would require reducing emissions, particularly in the transport sector, and increasing emission sinks (Figure 1.42).

Figure 1.42. Costa Rica aims at being carbon neutral by 2050

Emissions, Mt CO_2e



Source: Ministerio de Ambiente y Energía.

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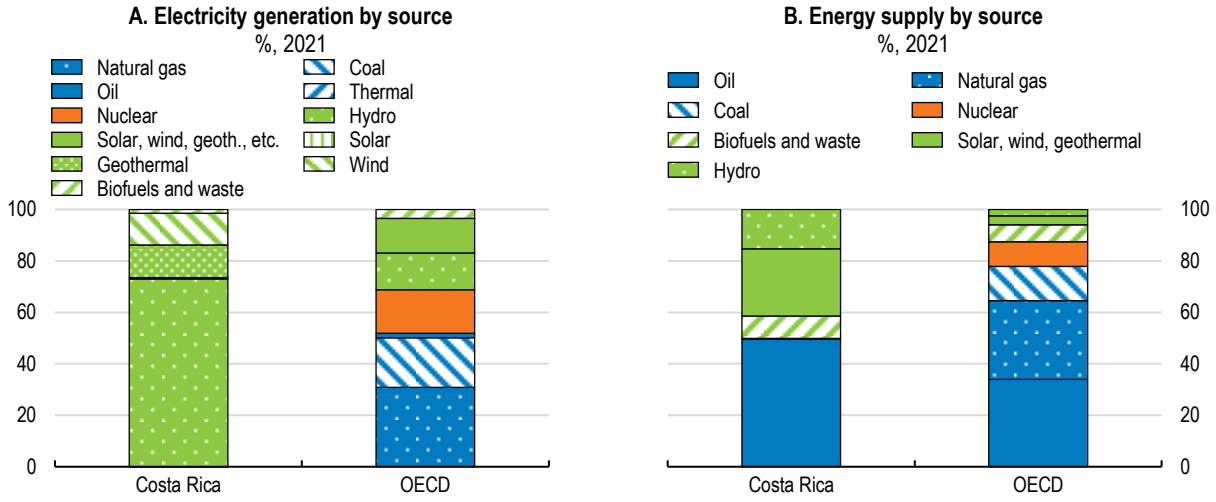
Reducing emissions in the transport sector is a key element of the government's strategy to transition towards net zero. In 2021, the sector accounted for 42% of carbon emissions and 79% of hydrocarbon consumption, largely explaining why oil remains a significant source of energy supply in Costa Rica while having an almost fully renewables-based electricity matrix (Figure 1.43). Emissions by the transport sector are increasing and driving up the total level of emissions in the country. The large increase in the vehicle fleet, especially private vehicles, is largely responsible for these increases. The lack of an efficient public transport network has encouraged widespread and increasing use of private transport to meet mobility needs, which has led to congestion, whose costs in the greater metropolitan area are estimated at 3.8% of GDP. About half the monitoring stations in key urban areas showed nitrogen oxide concentrations exceeding World Health Organization limits in 2019.

Transitioning towards clean massive urban and interurban transport will be critical to reduce emissions by the transport sector. This has been reflected in the national decarbonisation plan, where putting in place reliable, efficient and green public transportation is a key pillar. Some progress has been achieved in this area, such as starting some pilot exercises with electric buses. Improving the public transportation network in the great metropolitan area of San Jose is a critical pending challenge. Authorities are currently undertaking feasibility studies for an electric train line (*Tren Rápido de Pasajeros*) joining San Jose and the eastern part of the great metropolitan area. Costa Rica aims at having 30% of the public transport fleet electric by 2035, with the goal of 85% electrification by 2050. Upgrading the electricity grid would be key to cope with the significant increase of electricity generation and distribution that this transition implies. Digitalising and fully automating the grid would increase efficiency, reliability and facilitate incorporating distributed energy resources and storage.

There is also room to enhance regulations and tax design to facilitate the planned move towards a less-carbon dependent economy. Costa Rica, one of the pioneers in establishing a carbon tax, has room to improve the design of the fuel tax. At the moment diesel is taxed at a rate that is 60% lower than gasoline, despite its higher polluting nature. The tax on bunker fuel is also 10% lower than on regular gasoline. Gradually aligning the rates on diesel and bunker fuel with the gasoline rate would be a first step to reduce emissions by the transport sector. Going further and increasing the overall carbon tax would induce further emission cuts. Increasing the carbon price implies significant political economy challenges, especially at the current moment when global energy prices are high. Phasing in the increase gradually, once energy prices decline, and using part of the additional revenues to offset the effects of higher energy prices on low-income households, could facilitate buy-in.

Figure 1.43. Electricity is fully renewables-based and oil remains significant in the energy supply



Note: The data for the OECD refer to the year 2020. Panel A: In Costa Rica, about 0.2% of electricity is generated from a thermal source.
Source: Secretaría de Planificación Subsector Energía in Costa Rica and IEA.

StatLink https://stat.link/fuzp0w

There is also room to better design the vehicle tax to take into account environmental performance and incentivise the use of more energy-efficient vehicles (Table 1.9). Currently the rate is the same for all vehicles, regardless of their fuel consumption capacity or emissions. Toll fees have been frozen since 2002. Updating them, so that they reflect the cost of road use, and introducing congestion charges can facilitate the move towards cleaner and massive transport means. Giving the current environment of high pressures on costs of living, preparatory work for these changes could start and implementation take place once inflationary pressures abate.

The transition towards more energy-efficient vehicles would also imply a gradual reduction in tax revenues, which have been partly used to finance the Payment for Environmental Services (PES) scheme, key to halt deforestation in Costa Rica (Box 1.6). Following the decrease in fuel consumption during the pandemic, the funding available for the programme has already decreased. Looking ahead, broadening the financing sources of the programme would help to preserve its role in protecting forest lands and maintaining and reinforcing forests' role as valuable emission sinks.

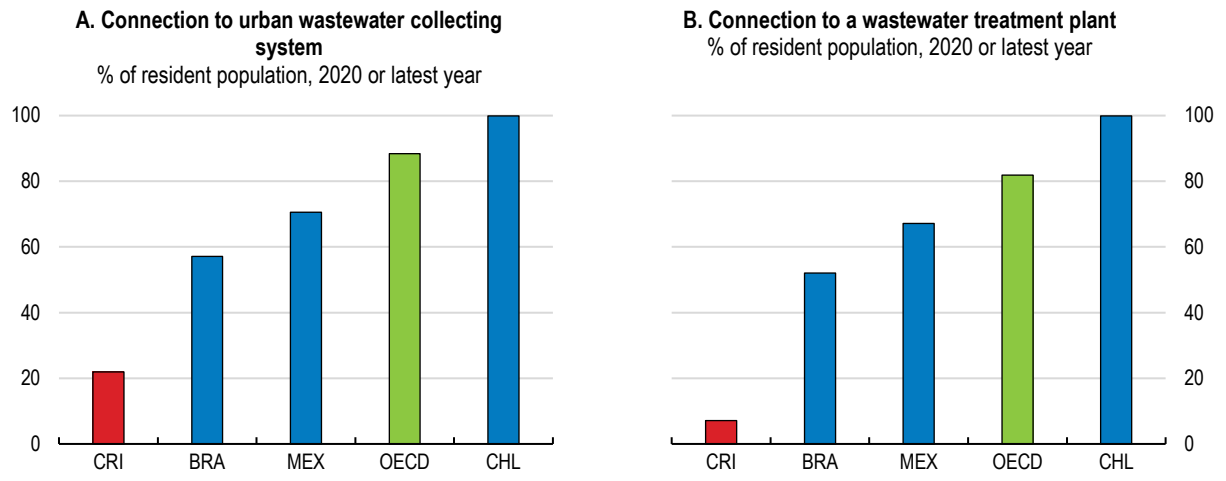
Box 1.6. Reversing deforestation in Costa Rica

The increase in forest-covered area seen in Costa Rica has been underpinned by the deployment of a Payment for Environmental Services (PES) scheme. The programme was launched in 1997 aiming at stopping the ongoing deforestation process. The programme offers compensation to landowners for providing particular eco-services. In the early stages, there were three contracts: forest conservation, which required owners to protect existing forest for 5 years; reforestation, where landowners had to plant trees in abandoned cleared lands and maintaining them for 15 years; and sustainable forest management, that required having low-intensive logging while maintaining ecosystem services for the logged forests (Robalino and Pfaff, 2013[32]). Since then, the programme has evolved to make it more effective in pursuing its objectives and to have a more inclusive participation. For example, in 2003 a new scale was created to include small-sized landowners, allowing them to combine agriculture activities and forest conservation (Sánchez and Navarrete, 2017[33]).

Table 1.9. Past OECD recommendations on green growth

Past OECD recommendations	Actions taken since the 2020 survey
Issue green bonds.	No action taken by the central government. New regulations have been put in place to foster issuance of green bonds by private companies and SOEs.
Modulate vehicle taxes according to pollution or emission performance. Introduce road use charges.	No actions taken.
Require separate waste collection by municipalities and improve wastewater treatment.	Most local governments now run selective collection but with few routes and only in main towns.

Figure 1.44. There is a need to improve wastewater collection and treatment



Note: OECD average excludes Colombia and Iceland (and the United Kingdom, Italy and New Zealand in Panel A).
Source: OECD Water Database.

StatLink https://stat.link/d6tx4g

There is also a critical need to improve wastewater collection and treatment (Figure 1.44). Most residual waters from homes and industries flow into rivers without treatment. Sanitation coverage increased between 2011 and 2018 but progress has stalled since then. Septic tanks, which create seepage risks to subterranean water sources, are used by 77% of the population. Without any additional policy change, sewage will only cover 15% of the population, far from the 100% target by 2045 established in the national policy of wastewater treatment. If existing plans are executed coverage will go to 38% (Estado de la Nación, 2021[34]). Public-private partnerships can help fund the much needed additional investment to reach the 100% target.

Table 1.10. Policy recommendations from this chapter (Key recommendations in bold)

MAIN FINDINGS	CHAPTER 1 RECOMMENDATIONS
Further strengthening macroeconomic policies	
Households debt has increased significantly, including in foreign currency. The coverage of the credit registry is low.	Strengthen the credit registry office to include information for a larger share of the population and covering all entities with lending activities
Costa Rica is particularly vulnerable to climate-related risks, which could have a significant impact on the financial system.	Phase in gradually a mandatory disclosure of climate-related risks by large financial institutions.
Inflation and its expectations have picked up strongly. Inflationary pressures are broad-based.	**Maintain a restrictive monetary policy stance to ensure the return of inflation to the 3% target.**
Dollarization remains high, with both credit and deposits in dollars representing 40% of the total credit and deposits. Two thirds of dollarized private debt is unhedged. Private banks face difficulties to collect local currency deposits and are forced to lend and borrow in dollars.	Preserve exchange rate flexibility and limit interventions to those necessary to avoid abrupt changes in the exchange rate. Eliminate the requirement on public institutions to deposit in state banks.
A vacancy in the Central Bank board remains unfilled, which potentially enables the Minister of Finance to vote in the Central Bank board meetings.	Fill the current vacancy in the Central Bank board.
The fiscal situation improved in 2021, thanks to the 2018 fiscal reform, but remains challenging, requiring sustained efforts to contain spending and boost public sector efficiency. The implementation of the fiscal rule has met significant opposition from different segments of the public sector.	**Maintain a prudent fiscal policy stance, including by ensuring a full and timely implementation of the fiscal rule.** **In the medium-term undertake a review of the fiscal rule to ensure that it continues to secure a prudent fiscal stance and sustainable debt dynamics.**
Containing spending and improving its efficiency and quality to better support growth and equity remains a critical challenge. Capital spending has historically been largely neglected. Infrastructure gaps remain significant. Medium-term growth prospects are falling.	**Based on spending reviews and sound cost-benefit analysis, continue to undertake the necessary expenditures prioritisation and reallocation and create space for capital spending to strengthen.**
Compensation of government employees accounts for more than half of total revenues. The salary structure contributes to income inequality.	**Fully implement the public employment framework law across the public sector.**
Tax revenues, at 23% of GDP, are hampered by high tax evasion, narrow tax bases and a multiplicity of tax expenditures. The tax system hardly reduces income inequality.	**Broaden tax bases by phasing out regressive exemptions, such as the tax exemption on the 13th monthly salary and the one benefiting cooperatives.** Apply market-based property valuation across the country.
Numerous public agencies are involved in the collection of taxes, which increases the cost of paying taxes and contributes to tax evasion.	Integrate the tax and social security contribution administrations and move towards a less fragmented tax collection system in order to facilitate tax compliance.
The law to establish an independent fiscal council was approved and three members nominated but no further action has been taken to allow the council to operate in a meaningful way.	**Provide the fiscal council with independent technical support and define its role more explicitly.**
Boosting productivity and formal job creation	
The national competition authority remains severely under resourced. An adequately resourced and operative competition authority is critical to ensure that ongoing efforts to improve regulations and open up key markets translate into lower prices for households and lower costs for firms.	**Provide the national competition authority with the financing set in the law.**
The number of regulations is large. Same administrative requirements are replicated across different public agencies. Regulations do not take into account their impact on competition.	**Reduce the stock of regulations and conduct regulatory impact assessments.**
Establishing a company in Costa Rica is costly and burdensome. Existing one-stop shops do not cover all administrative requirements.	Introduce online one-stop mechanisms covering all licenses and permits.
Regulatory barriers on electricity remain high. The state company dominates the market and has low operating performance. Electricity prices have been higher than in regional peer countries. The planned electrification of the transport sector will increase electricity demand notably.	Introduce separation between generation, transmission and retail supply and relax restrictions and caps on private sector participation.
Regulatory asymmetries hamper the performance of both public and private banks, fragment the market and reduce competition.	Gradually reduce regulatory distortions affecting public and private banks, including the requirement for public banks to pay contributions to a number of state funds.
Informality, at around 45%, remains high. It is both a cause and a consequence of low productivity and widens inequalities.	**In the medium-term eliminate payroll charges not allocated to finance social security and finance social programmes and vocational training from the general budget.** **Reduce social security charges for low-income workers**.

There is room to deepen trade with Latin American countries and other regions, which would facilitate further integration in global and regional value chains.	**Pursue ongoing renewed efforts to increase trade integration further, including becoming a member of the Pacific Alliance.**
There is untapped potential in the agriculture sector. Boosting its productivity would help the sector to benefit more from trade integration.	Reduce red tape and the number of agencies in the agriculture public sector.
Infrastructure gaps are large, following years of underspending due to weak governance, planning and execution. The public transport infrastructure sector has a complex institutional structure that hampers planning and execution.	Streamline the institutional structure of the public works sector and eliminate ineffective agencies. Publish online project information and evaluations on large infrastructure projects and expand the use of evaluations and cost-benefit analysis.
Digital connectivity through mobile lines has improved but fixed broadband penetration lags. Costa Rica lags in the deployment of 5G services.	Facilitate entry and higher competition in the fixed broadband market. Streamline and harmonise e-communications regulations. License the 5G spectrum through a transparent concession process.
Public perceptions about corruption have worsened and the country has been regularly shaken by corruption scandals. The biggest corruption scandals have been linked to public procurement.	Maintain policy efforts to strengthen anti-corruption mechanisms. Enact a whistle-blower protection law or legal provision to protect reporting and prevent retaliation against whistle-blowers. Ensure a comprehensive use of the integrated public procurement system across the public sector.
Improving equality of opportunities	
Only 30% of poor children receive a cash transfer. In some social programmes more than 40% of beneficiaries are middle or high-income households. Numerous institutions participate in the delivery of more than 35 social programmes.	**Set up a universal cash transfer for poor children.** **Continue to improve targeting and reduce fragmentation of social programmes.**
Around 30% of seniors (65 years and over) have no pension. The demographic transition challenges the sustainability of pension and health systems.	Link the statutory retirement age to increases in life expectancy. Set up a universal pension covering all poor seniors.
Strengthening green growth	
The transport sector is the main source of emissions. Meeting the plan to be net carbon neutral by 2050 will require reducing emissions in the transport sector and strengthening carbon sinks. Diesel is taxed at a rate that is 60% lower than gasoline.	Pursue efforts to strengthen the public transport network. **Align the tax rates on diesel and bunker fuel with the gasoline rate and gradually increase the carbon tax rate once high energy prices start falling, and channel part of the revenues towards low-income households.** Align taxes on vehicles with their emissions to encourage a shift towards less polluting vehicles. Update toll fees to ensure they reflect the cost of road use and introduce congestion charges.
The planned electrification of transport will imply a significant increase in electricity generation and distribution.	Digitalise and fully automate the electricity grid.
The increase in forest-covered areas has been underpinned by the Payment for Environmental Services scheme, offering compensation to land owners for providing eco-services. So far, the scheme has been financed only with fuel tax revenues, which will fall overtime.	**Broaden the sources of financing of the Payment for Environmental Services scheme.**
There is a critical need to improve wastewater collection and treatment. Large use of septic tanks add pressures on water resources.	Deploy additional investment on wastewater collection and treatment financed via PPP schemes.

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2 Improving the quality and efficiency of education and training in Costa Rica to better support growth and equity

Alessandro Maravalle, OECD

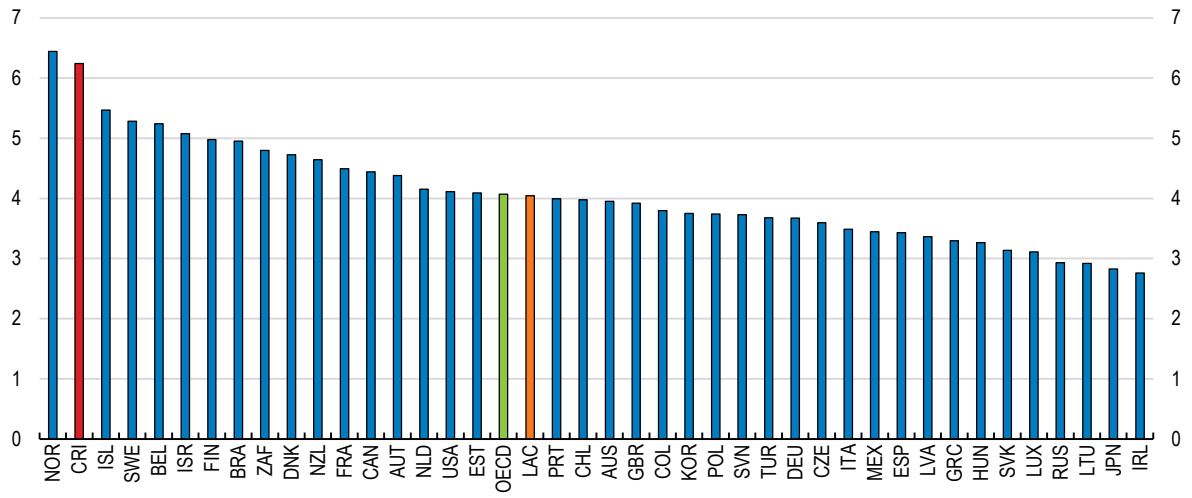
Alberto Gonzalez Pandiella, OECD

Education and training are a high priority for Costa Rica that devotes to them more than 6.5% of GDP, one of the highest spending shares among OECD countries. However, educational outcomes remain poor and firms struggle to fill their vacancies, particularly in technical and scientific positions, which may endanger Costa Rica's capacity to keep attracting foreign direct investment. Its complex fiscal situation requires Costa Rica to improve efficiency and quality of public spending in education to better support growth and equity. There is a fundamental need to improve the quality of early and general basic education to avoid that too many Costa Ricans leave education too early and without the skills needed to find a formal job. This requires a more targeted support to students with learning gaps, improving teachers' selection and training and expanding access to early education. Revisiting the university funding mechanism will improve its accountability and can help increase the number of graduates in scientific areas. Reforms in vocational education may increase the supply of high-quality technicians, which will reduce existing skills mismatches and help more Costa Ricans access better-paid formal jobs.

Education and training are a high priority in the political agenda of Costa Rica that spends around 6.5% of GDP on education (Box 2.1), the second highest share across OECD countries (Figure 2.1), though below the 8% achieved in 2017. Universal and high-quality education is crucial for equality, promoting social mobility and productivity. Training, re-skilling and up-skilling will become more and more a necessity to provide current and future workers with the right skills to integrate into a labour market whose needs change fast driven by technological change, climate change, digitalisation and automatisation.

Figure 2.1. Costa Rica has a strong commitment to education

Spending in education, % of GDP, 2018



Note: Data for Costa Rica refers to 2019. LAC refers to Chile, Colombia, Mexico, and Brazil. The education budget is distributed to the Ministry of Public Education (Preschool, I and II Cycles, III Cycle and Diversified Education); the Special Fund for Higher Education (5 public universities: UCR, TEC, UNA, UNED, UTN), and the Care Network, CEN-CINAI, INA and about 50 other institutions.
Source: OECD Education Database.

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Developing highly skilled talent is key to allow Costa Rica to keep transforming its production structure towards knowledge intensive and high value added sectors, also by continuing to attract a large and stable inflow of FDI (see Chapter 1). Currently, firms struggle to find highly qualified technicians and tertiary graduates, especially in scientific fields, leaving many formal jobs vacant. In the services sector, one job offer out of three is for technicians and one out of four for professionals with tertiary education (INEC, 2018[1]). In the industrial sector, around one third of firms report that technicians are the most difficult workers to recruit (UCCAEP, 2021[2]). Digital skills and a good knowledge of a foreign language, especially English, should be strengthened at any level of education, but especially at an early age. These skills, together with having completed secondary education, are becoming essential requirements for a formal job. However, the vocational educational and training system (VET) supplies mostly low-skilled technicians, provides little work practice and offers too few opportunities to acquire advanced digital skills or specialise in STEM sectors, fuelling a mismatch between labour demand and supply. The lack of talent in regions outside the Greater Metropolitan Area (GMA) limits their possibility of attracting foreign direct investment (FDI). Currently, 95% of the industry related to technology innovation and 70% of the export industry is located in the GMA, which corresponds to 3.7% of the territory of Costa Rica and hosts around 52% of the whole population.

Costa Rica has achieved near universal attendance in primary education but still too many young students in Costa Ricans do not complete secondary education. Grade repetition and educational exclusion remain sizable and affect disproportionately the most vulnerable, reducing their probability of finding a formal job and perpetuating social and economic inequalities. International students' assessments, such as PISA, show that the quality of education needs improving, with too many 15-year old students having low reading

skills and even worse performance in mathematics and sciences. Educational exclusion and poor learning outcomes prevent many young Costa Ricans from accessing tertiary studies, and the number of tertiary graduates has been stalling in recent years. The provision of educational services in Costa Rica has been discontinued during the last four years. The teachers' strike in 2018, to protest against the fiscal reform, and in 2019, to protest against a bill aimed at limiting the right to strike, caused cumulatively around four months of missed classes. The outbreak of the pandemic caused school closures and the shift from face-to-face to remote education in 2020 and 2021, thus provoking further disruption in the provision of educational services and aggravating pre-existing educational weaknesses and learning losses, with potentially scarring effects on current cohorts of students.

Increasing the quality of the education and VET system is also crucial to improve the resilience of the economy to the challenges of population ageing and technological change that Costa Rica faces (see Chapter 1). Many traditional jobs will be automated and the new ones that will be created will require new skills. A flexible and efficient VET system that provides the necessary reskilling and upskilling for at-risk or displaced workers, and produces more technicians in areas that are less at risk of automation in Costa Rica (e.g. telecommunication and information technology) (Amaral, 2019[3]), would avoid exacerbating inequality. Better-educated and high-productive workers are necessary in a future where fewer workers must be able to pay benefits to a larger number of retirees.

This chapter describes the main challenges that Costa Rica faces to increase access to education and training and improve its quality, and discusses policy options to tackle them. Costa Rica's limited fiscal space requires the government to prioritise where to concentrate its spending efforts. A substantial re-priorisation of expenditures in favour of compulsory schooling and ECECs and away from tertiary education, where spending per student is higher than in the average OECD country, would have large social benefits and contribute to reduce inequalities.

Box 2.1. The education system in Costa Rica

			Compulsory education																	
Educational level	**Preschool**				**General Basic Education**									**Upper secondary**			**Higher education**		
					Primary						**Lower secondary**								
Cycle	Nursery	Interactive I	Interactive II	Transition Cycle	I Cycle			II Cycle			III Cycle			IV Cycle			Short-cycle vocational	University	Postgrade
														Academic track					
														Artistic track					
														Technical track					
Grade					1	2	3	4	5	6	7	8	9	10	11	12			
Ages	0 - 3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18 - 21	18 - 22	> 22
ISCED	**ISCED 010**	**ISCED 020**			**ISCED 1**			**ISCED 2**						**ISCED 3**			**ISCED 5**	**ISCED 6**	**ISCED 7-8**

The education system in Costa Rica includes preschool or early child education and care services (ECES), primary education, (lower and upper) secondary education, and tertiary education. Compulsory education includes the last two years of preschool (Interactive II and Transition Cycle) and general basic education (primary school (I and II Cycles) and lower secondary school (III Cycle)).

Preschool education is divided into the following sections: Nursery (from birth to 6 months), Babies (from 6 months to 1 year old), Maternal Education Level 1 (from 1 year to 2 years old), Maternal Education Level 2 (from 2 years to 3 years and 6 months old), Interactive I (from 3 years and 6 months to 4 years old), Interactive II (from 4 years to 5 years old) and Transition cycle (from 5 years to 6 years old). Early age care services (0-3 years) are voluntary, while preschool is compulsory for children from four years of age. Babies, Maternal Education Level 1 and 2, and Interactive I belong to non-formal education.

Primary education is divided in two 3-year cycles and includes grades from first to sixth. Lower secondary education (III Cycle) goes from seventh grade to ninth grade.

Upper secondary education (IV Cycle, Educación Diversificada) is free but not compulsory. It comprises three tracks: the academic and artistic track, which last two years, and the technical track, which lasts three years. Completing upper secondary education is required to access higher education. Students completing the technical track obtain the qualification of mid-level technician.

Higher education is offered at universities (public and private), university colleges and higher education institutes. A bachelor's degree requires a four-year programme, the programmes of licenciatura last five years (six years in the case of medicine and surgery). Master's degrees' (going beyond university bachelor´s degree or licenciaturas) last two years. Doctoral academic programmes last at least three and a half years.

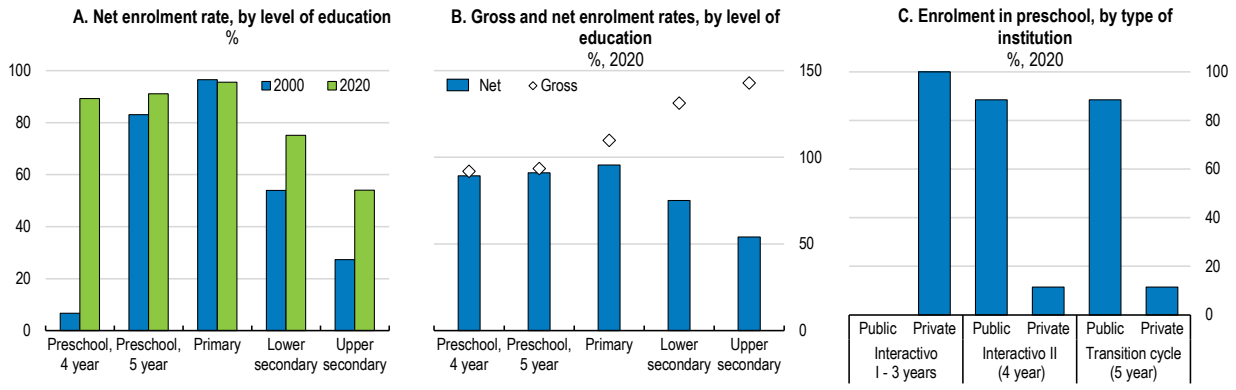
Strengthening pre-tertiary education

Pre-tertiary education does not equip all students with sufficient skills

Educational attainment could be increased further

Costa Rica has remarkably increased access to preschool for four-year-old children (Figure 2.2, Panel A) by making the last two years of preschool (ages 4 and 5) compulsory in 2018. This very welcome reform recognizes the fundamental role of preschool education on the cognitive and socio-emotional development of children. Experiences received between 2 and 5 years of age are key to reduce or prevent learning issues in successive phases of education (UNICEF, 2020[4]; PEN, 2011[5]).

Figure 2.2. Pre-school enrolment has significantly increased but enrolment in secondary school remains low



Note: The gross enrolment rate is the total enrolment in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education. It can exceed 100% because of early or late entry and/or grade repetition. The net enrolment rate is the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age.
Source: PEN 2021.

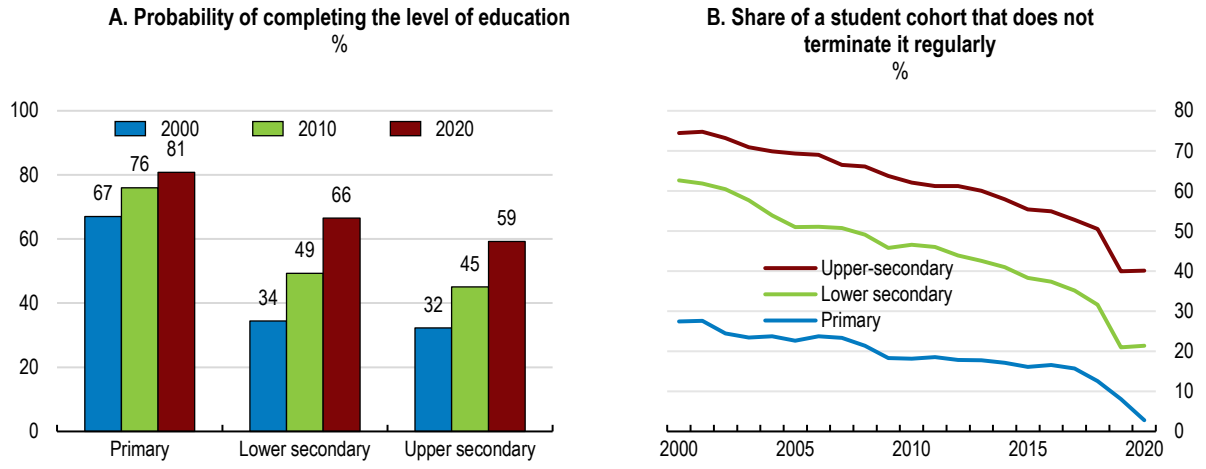
StatLink https://stat.link/rtw75z

At earlier ages (0-3 years), the enrolment rate is very low (below 3% compared to an OECD average of 36.1%) and the supply is offered almost entirely by private institutions (Figure 2.2, Panel C). Children from disadvantaged households are less likely to attend ECEC. While 60% of children from low-income households (first income quintile) are enrolled in preschool (from three to five years), the share is above 70% for children from high-income households (top income quintile) (SEDLAC, 2021[6]). Costa Rica should expand the coverage of early education and care to children below 4 years, giving priority to low-income households.

While most Costa Rican's now finish primary education, many of them still finish school without a lower or upper secondary degree (Figure 2.3). The net enrolment rate in lower and upper secondary school remains low (Figure 2.2, Panel B) and Costa Rica has the highest share of young adults with educational attainment below upper secondary among OECD members (Figure 2.4). This represents a serious limitation to the development of human talent and restraints the demand for higher education, as upper secondary schooling is a requirement to access it (Box 2.1). Completing upper-secondary schooling is becoming an essential requirement to find a job in Costa Rica. For example, three out of four jobs offered by private firms in the services sector required at least full secondary education (Figure 2.5) (INEC, 2018[1]).

A key problem to tackle is educational exclusion in secondary education. In recent years Costa Rica reduced educational exclusion by strengthening prevention measures (Box 2.2). However, a young Costa Rican had only a probability of 66% of completing lower secondary school, and even a lower probability of completing upper secondary school (59%), in 2018, the last year before the pandemic hit, (Figure 2.3, Panel A). Still too many students leave after primary school, which points to persistent issues in the quality of education (Figure 2.3, Panel B) and highlights the lack of policies to help students in the transition from primary to secondary education.

Figure 2.3. Educational exclusion and grade repetitions cause discontinuity across levels of education

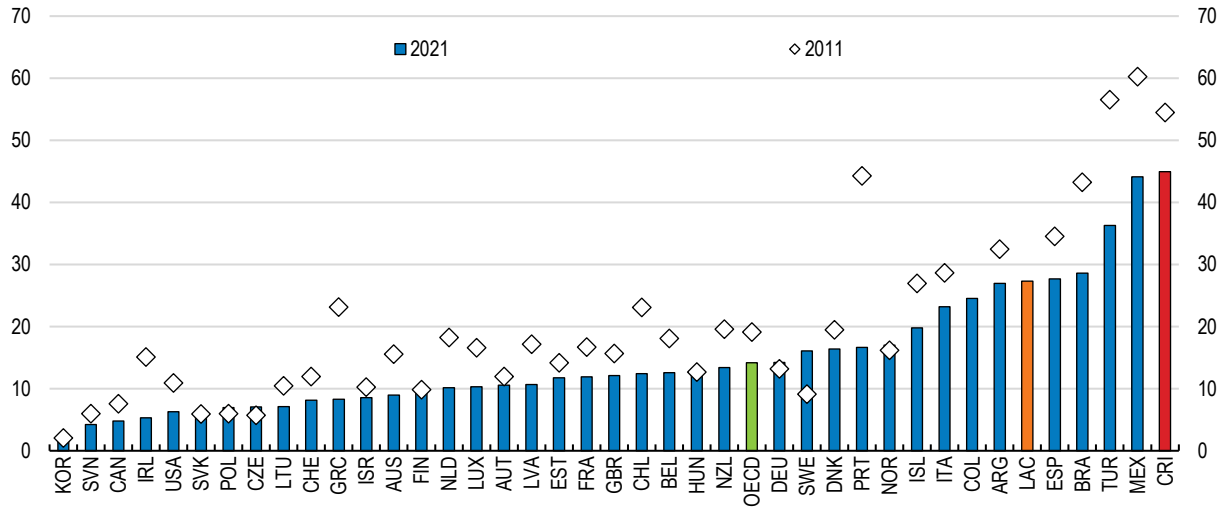


Note: Panel A: The probability of completing primary school refers to a person between 12 and 16 years of age, of completing lower secondary school to a person between 15 and 19 years of age and of completing upper-secondary school to a person between 18 and 22 years of age. Data for 2020 could be overestimated due to evaluation procedures being relaxed during the pandemic. Panel B: Share of a student cohort enrolled in the first year of an education level that does not terminate it regularly because of dropout or grade repetition.
Source: PEN 2021.

StatLink https://stat.link/zqm8f1

Figure 2.4. Close to half of all young Costa Ricans have below upper-secondary education, a low share in international comparison

Percentage of 25-34 year-olds with below upper-secondary education as the highest level attained



Note: LAC refers to Chile, Colombia, Mexico, Argentina, and Brazil.
Source: OECD Education Database.

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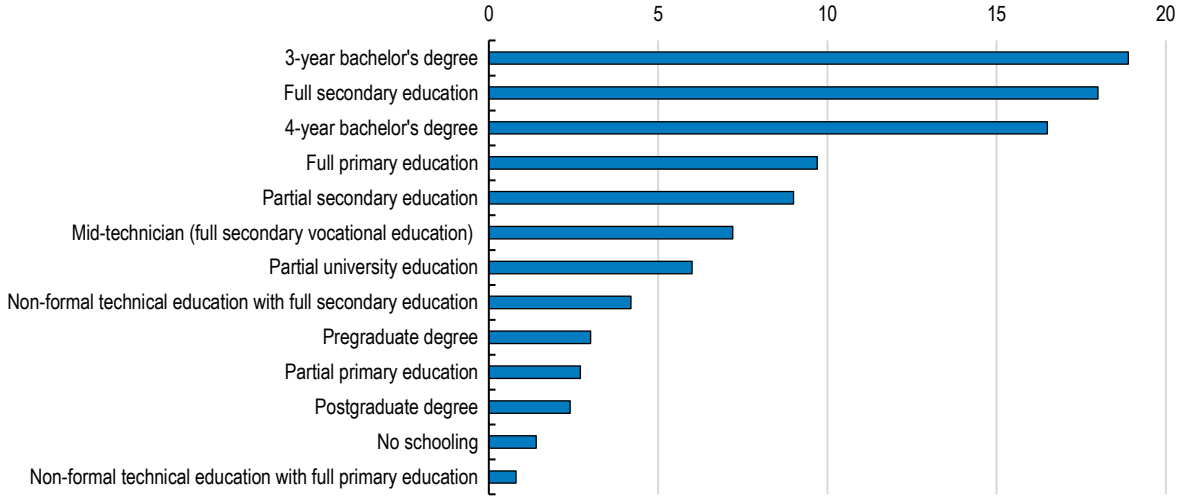
Figure 2.5. Secondary school educational attainment is essential to find a job

Distribution of job positions according to minimum education required, %, 2019



Source: INEC 2018.

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The quality of education needs to improve

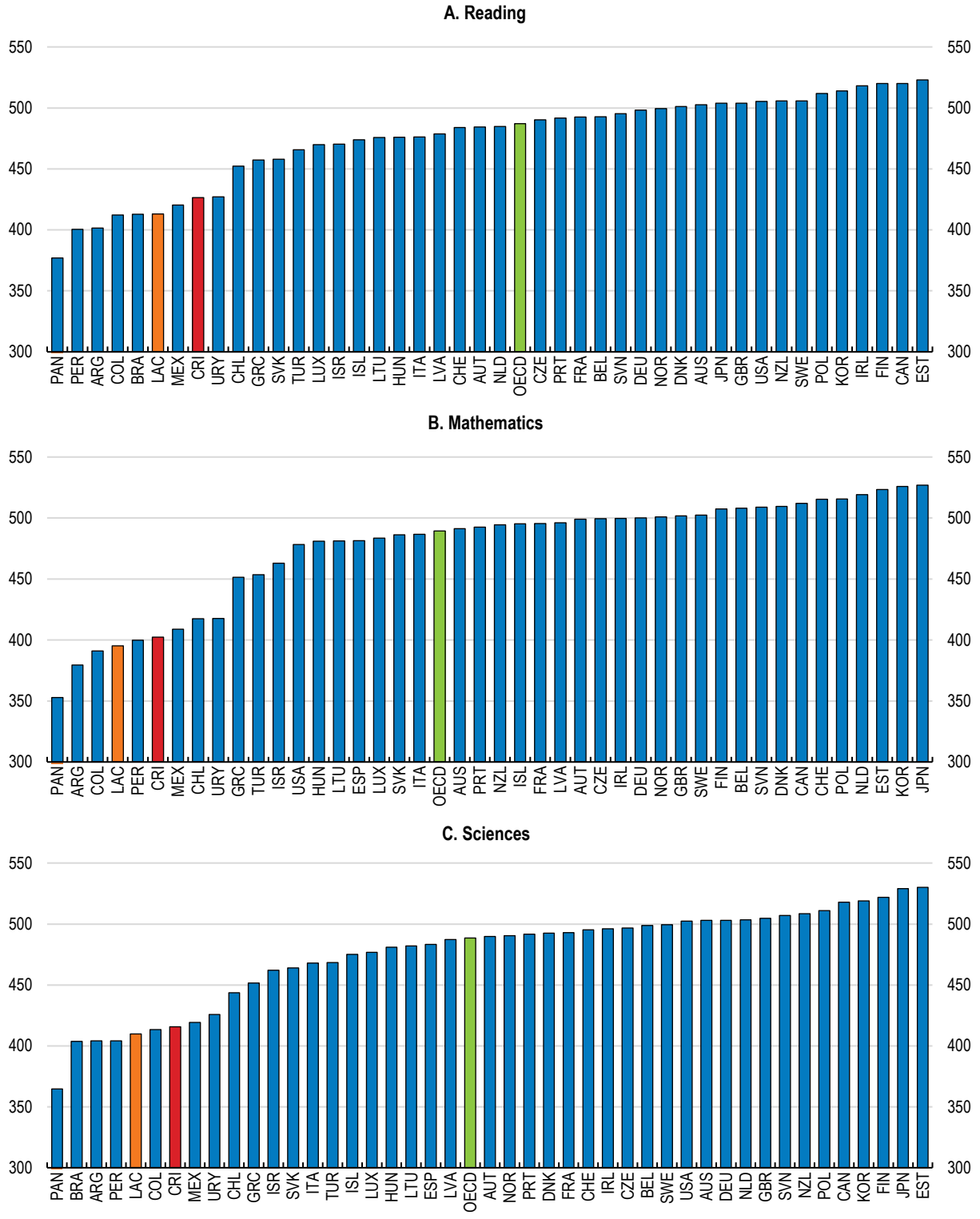
A consequence of the poor quality of education is that too many students in Costa Rica perform below the minimum level of skills in national and international student assessments. The performance of 15-year-old Costa Rican secondary students in the 2018 Programme for International Student Assessment (PISA) continues to be below the OECD average in reading, sciences and mathematics (Figure 2.6). The proportion of students scoring at the two lowest levels of performance is far higher than the OECD average (Figure 2.7). Results also show no improvement in reading and science scores between 2012 and 2018, once the impact of changes in the coverage rate are taken into account (OECD, 2019[7]). These results are in line with those from the 2019 fourth regional comparative and explanatory study (ERCE) (UNESCO, 2019[8]). Moreover, both ERCE 2019 and PISA 2018 show persistent gaps in performance between boys and girls, with girls outperforming boys in reading, and boys outperforming girls in mathematics and sciences. PISA tests also highlight that boys have better digital skills. National tests assessing educational performance in English knowledge show that only one third of the students (fifth grade and tenth or eleventh grade) achieve the level of knowledge of English that they are expected to have.

The pandemic has further exacerbated learning gaps. It caused discontinuity in the provision of educational services in 2020 and 2021, with Costa Rica recording one of the longest school closure among OECD countries (175 days) (OECD, 2021[9]). Shifting from face-to-face to remote learning led to a reduction of the curriculum covered at school, which together with difficulties with connectivity or in following classes, increased educational losses especially among students from vulnerable groups (e.g. poor, migrant, indigenous, students without internet connection and preschool students). The pandemic in 2020-21 also followed teachers' strikes in 2018 and 2019, thus extending to four years the period of time during which the provision of educational services were discontinuous in Costa Rica. Educational losses due to a protracted school closure may have a large impact on labour-market chances and career earnings of the affected students, especially for the most disadvantaged ones, and on GDP growth if adequate policies to make up for such losses are not put in place (Égert et al., 2020[10]; Hanushek and Woessmann, 2022[11]).

Several tests, among which the 2021 students' performance diagnostic tests performed on students from primary (I and II cycle) to lower-secondary school (III cycle), the 2019 ERCE tests, the Ministry of Education's school census, and the Test of English for Young Learners and Linguistic Performance Tests, were used as input in the National Comprehensive Plan for Academic Levelling 2022-25 (*Plan Integral de Nivelación Academica* 2022-25), that provided an assessment of learning needs after the pandemic. Results show that the share of students in need of support because of an insufficient or initial level of knowledge ranges between 10% (English) and 30% (mathematics) in primary school, and between 24% (English and French) and 38% (mathematics) in lower secondary (Figure 2.8). Educational needs are concentrated among students in first year of primary school, where one student out of three reports an insufficient level of knowledge of Spanish and mathematics. Still in 2021 no support staff had been provided to attend students most in need (Murillo, 2021[12]).

Figure 2.6. Costa Rica performs below the OECD average in reading, mathematics and sciences

Score in PISA 2018



Note: LAC refers to Chile, Colombia, Mexico, Argentina, Brazil, Panama, Peru, and Uruguay.
Source: OECD PISA International Dataset.

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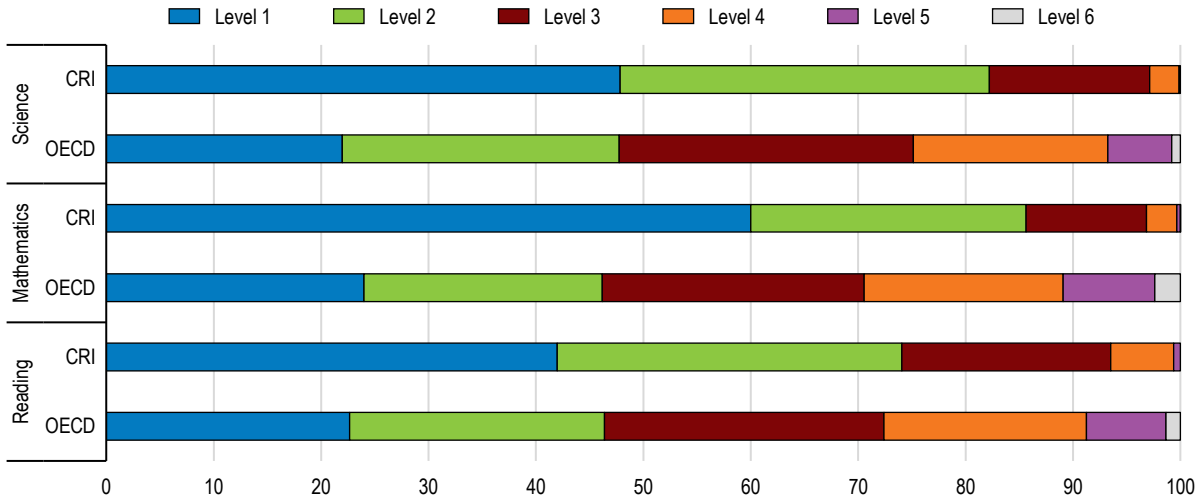
Figure 2.7. Most students in Costa Rica perform at the two lowest levels in PISA tests

Distribution students' PISA score in reading, mathematics and science by level, % of students, 2018



Source: OECD PISA International Dataset.

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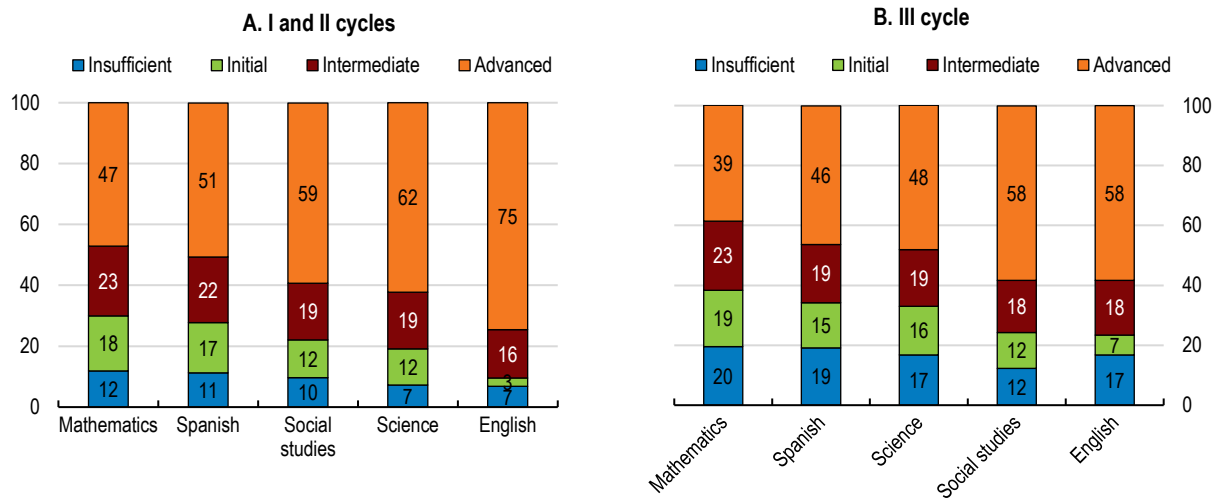
Figure 2.8. Learning needs are large

Share of student with insufficient level, by grade and subject, I to III cycle, 2021



Note: The knowledge of a student in a subject is considered as insufficient when it is below the level that a student of that grade should have acquired according to the grade curriculum.
Source: Ministry of Public Education.

StatLink https://stat.link/glijub

Box 2.2. Costa Rica's policies to reduce educational exclusion

Several policies exist in Costa Rica to reduce educational exclusion:

- The programme young adults (*Jóvenes Adultos*) targets the population above 15 years of age who did not complete primary or secondary school (potentially 1.4 million person, half of which are below 40 years of age).
- The National Grant Fund (*Fondo Nacional de Becas*, FONABE), until 2021, and currently the programmes *Avancemos* provide grants to participate in programmes for educational reincorporation for adults up to 40 years old. The Directorate of Equity Programs of the Ministry of Education provides post-secondary scholarships.
- The programmes I am in (*Yo me apunto*) and PROEDUCA, aimed to reduce educational exclusion in secondary school, were merged in 2018 into the Unit for the Permanence, Reintegration and Success in Education (*Unidad para la Permanencia, Reincorporación y Éxito Educativo*, UPRE). Since 2018 each school has a UPRE tasked with identifying, supporting and monitoring students at risk of exclusion from education.
- The strategy Building Bridges for the Future (*Construyendo Puentes para el Futuro*) was launched during the pandemic to strengthen the permanence in education of all students. It favoured the creation of networks among students, teaching staff, and families to provide support and maintain alive the links between students and schools.

Inequality in education is high

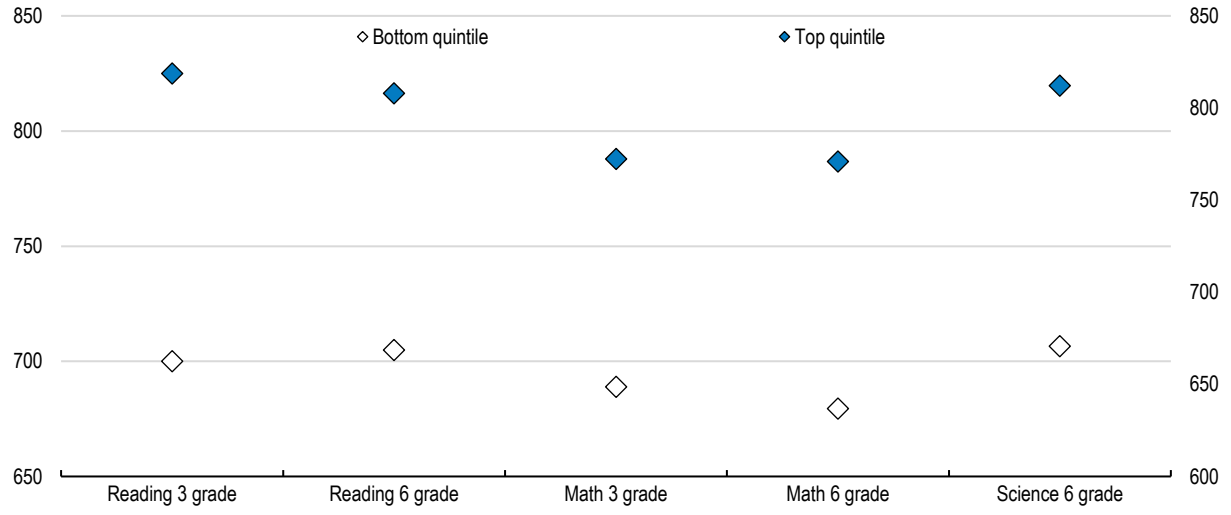
Learning outcomes in Costa Rica are strongly associated to socioeconomic conditions. Students from households with a high socioeconomic background are more exposed to cultural stimuli, benefit from better conditions for studying at home, including the availability of books, access to internet and digital devices, have better educated parents who may also pay for extra lessons, and have better educational performance (Figure 2.9). On the contrary, most low-performing students are from vulnerable groups (PEN, 2021[13]), including indigenous or immigrant population (Box 2.3), and have a higher likelihood of dropping out (Figure 2.10).

Reducing inequality of opportunities in education would improve substantially learning outcomes. For example, PISA tests show that students from private schools (around 10% of all secondary students) outperform those from public schools and that if all students performed as the average student from a private school, the score of Costa Rica in reading would increase to 460, approaching the OECD average of 485 (Bos, 2019[14]). However, students from private schools are mostly from high-income households (PEN, 2021[13]) and the performance disparity between public and private schools in Costa Rica actually disappears after accounting for students' and schools' socioeconomic status (OECD, 2021[15]).

The pandemic deepened inequality in education opportunities. Many families, especially those with a low socioeconomic background, were ill prepared to support the education of their children. Technological vulnerability caused many Costa Rican students educational exclusion, at least partially. Around 45% of the students enrolled in the 2020 academic year (535 thousand out of 1.180.000 students from primary to upper secondary) did not benefit from adequate conditions to continue receiving educational services because they lacked either technology devices (computer, tablet) or an internet connection (PEN, 2021[13]). Most of these students belonged to vulnerable groups. For instance, while around 78% of students from families in the top income quintile had access to a good internet connection, the share drops to 41% for students from families in the bottom income quintile (PEN, 2021[13]).

Figure 2.9. Higher family socioeconomic conditions are associated with a better educational performance

Average performance by socioeconomic condition, ERCE 2019



Source: UNESCO.

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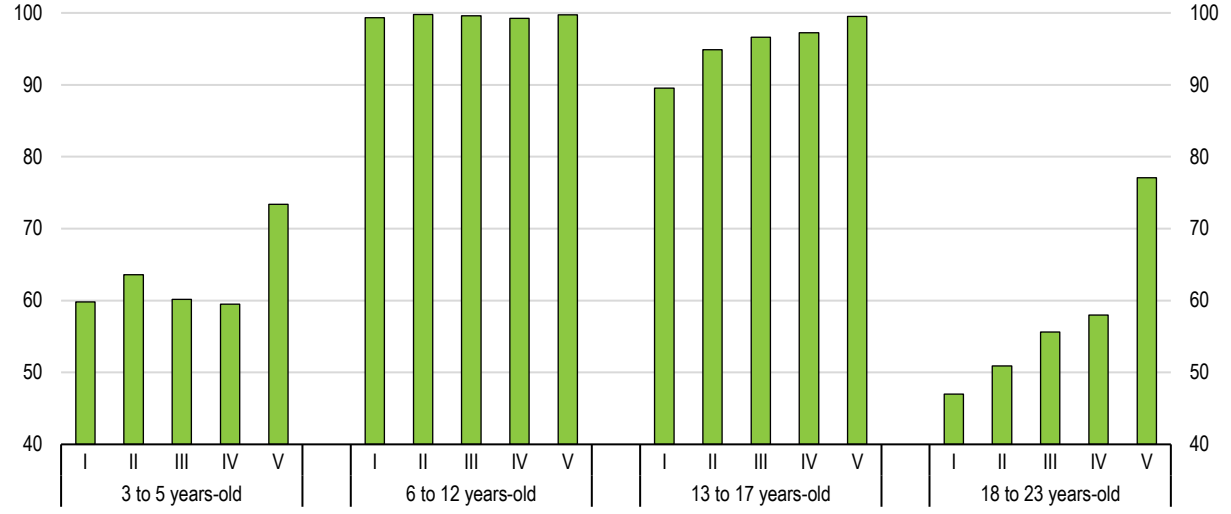
Figure 2.10. School attendance increases with the level of income

Share of a given population attending any educational level, by age and equivalised income quintiles, %, 2019



Source: SEDLAC Database.

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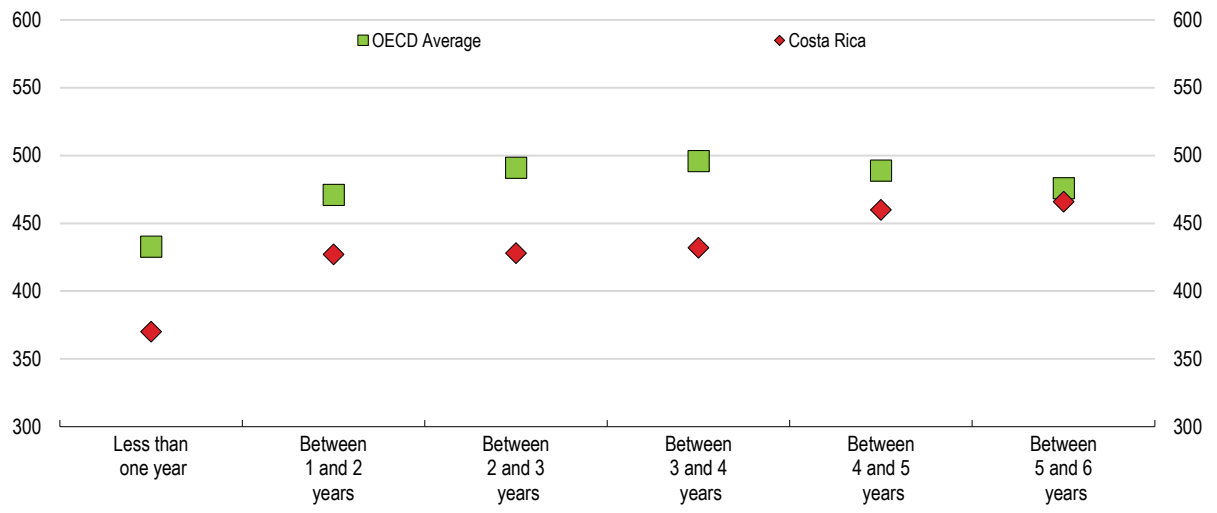
Figure 2.11. Attending preschool increases reading skills

Reading score by attendance to preschool



Note: Reading skills are defined as the capacity of reading, understand tests and implementing complex strategies to process information (analysis, synthesis, interpretation).
Source: OECD PISA Database.

StatLink https://stat.link/advknx

Box 2.3. Education and immigrant children in Costa Rica

Immigrants in Costa Rica are around 9% of the total population (Census 2011), a majority of which from Nicaragua (75% of the immigrant population). A large proportion of adult immigrants is employed in low-skilled and low-wage informal jobs in agriculture, construction and domestic services. Immigrants tend to be poorer than locals (OECD, 2017[16]) and their wage is on average around 60% of that of native workers (OECD, 2018[17]).

Young immigrants between 15 and 17 years are less likely than locals in the same age group to be enrolled at school, and those who attend school have worse learning outcomes. Immigrant students performed worse than native students in PISA 2018 in science (20 points less), reading (26 points less) and math (30 points less) (OECD, 2019[18]).

Despite a lower access to education, a worse economic condition and poor learning outcome, immigrants are less likely than locals to benefit from social programmes in education (conditional cash transfers, grants, transport and food aid) (OECD, 2017[16]). A specific academic levelling program for immigrant students and a better targeting of social programmes in education towards the immigrant population would reduce inequality of opportunities in education, and improve his perspective for future employability and social inclusion.

International evidence shows that attending preschool increases students' performance in any subject and at any level of education (OREALC-UNESCO, 2015[19]), and results from PISA 2018 confirm it (Figure 2.11). However, children from low-income households are far less likely to attend preschool than children from top-income households (Figure 2.10). Extending preschool may contribute to bridge the gap in results between Costa Rica and OECD countries (Bos, 2019[14]).

Expanding coverage and quality of early childhood education and care services

Investing in early education produces long term positive effects that are above their initial costs (OECD, 2017[20]), especially when targeting children between 0 and 3 years (Maureen M Black, 2017[21]). Given that in one third of the households with children below 6 years of age the adults have low educational attainment (PEN, 2015[22]), the benefits from extending access to ECEC since an earlier age are potentially large and would contribute to reducing inequality in education. The four-hour school day for children between three and five years of age could be extended (PEN, 2017[23]) to better attend children's learning needs, especially those from vulnerable groups.

The Ministry of Labour estimates that an additional 90 thousand children should attend ECECs. To this aim, further spending for infrastructure and additional preschool teachers would be required. A project of co-payment mechanism involving several stakeholders (households, firms, local governments) was launched on a small scale to provide alternative sources of funding to the expansion of the capacity of ECEC services for children below 4 years of age. If it proved successful, it could be scaled up. The design of childcare benefits should also be modified as currently many employed women from low-income households are not eligible for childcare benefits as the income threshold is too low.

The governance of the set of social policies targeting early childhood remains fragmented among several ministries - IMAS (social and economic inclusion), MEP (education services), the Health Ministry and PANI (human rights) that also has coordination tasks. Recent improvements in their coordination are represented by their interaction in the programmes NiDo, though for a limited period, and RedCudi. However, having a single institution with overall responsibility for delivering the national policy across the whole sector could provide better monitoring and accountability (OECD, 2017[24]).

There have been advances in coverage, quality, training and monitoring of ECEC provided within communities. However, mechanisms for evaluating the performance of preschool teachers and the overall quality of ECEC provision remains incomplete, as quality standards and teachers' performance evaluations exist only for early education services for children between 4 and 6 years old. Completing the ongoing process for the definition of qualification frameworks for the whole ECEs would help filling this gap.

Fully implementing the curricula reform

Costa Rica started in 2008 a curriculum reform to update content and teaching practices of all subjects from preschool to upper secondary to increase the quality of education. While study programmes have all been revised, their effective implementation in class is heterogeneous across subjects and levels of education. A full implementation of the reform would require retraining part of in-service teachers, adapting the formation of new teachers, adjusting the didactic material, providing an adequate infrastructure, and a continuous monitoring to adapt the content of the curriculum to the evolving needs of society.

Improvements in the curriculum are particularly important at the primary level. While the vast majority of primary schools (91.5%) offers the basic curriculum (Spanish, mathematics, science, social studies, civic education and English), only 8.5% of them offer the complete curriculum, which includes complementary subjects (informatics, music, plastic arts, physical education, industrial arts and home education), even though it should be offered by all primary schools since 2008. Lack of infrastructure and of teachers in specific subjects are among the causes of the incomplete coverage. Moreover, the wage scheme provides incentives for teachers to work in schools not offering the full curriculum but operating under a different regime (*doble jornada*) where they earn more by working more hours by teaching the same class to different groups of children attending the morning or the afternoon shift. However, students at schools operating under a *doble jornada* regime only attend one shift (morning or afternoon), thus receiving each month 60 hours of class less than what they would receive under a full time regime.

Extending the full curriculum to all schools would reduce the relevance of students' socioeconomic background on their performance and increase equity in education, as vulnerable students are less likely

to receive support from their families. A practical challenge for extending the full curriculum to all schools is the need for better infrastructure conditions and more food and transportation services for students. Modifying the economic incentive for teachers to work under a *doble jornada* regime could help increase the number of schools offering the full curriculum. In the medium-long run, adapting part of the curriculum to cover subjects related to local conditions and extend the range of complementary subjects (e.g. financial education, self-care strategies) would help meet the needs of local communities and improve students' development.

Giving the rise in digitalization, digital skills could be strengthened at any level of education, and the curriculum should also give sufficient attention to equipping students with digital skills since an early age. Digital skills do not depend only on having access to digital technology but also on how they are used (Erstad, 2010[25]). Acquiring good digital skills is fundamental to integrate in modern society and increase employability (Zúñiga, 2021[26]). Costa Rica should address inequality in education due to technological vulnerability by targeting universality of digitalisation. This could be achieved by legislating and implementing the National Programme of Digital Literacy, which is still pending; and making progresses in the implementation of the *Ley de Creación del Bono de Conectividad para la Educación* that aims to ensure access to connectivity throughout the country within five years.

Better supporting students at risk of educational exclusion

Further academic and economic support should be provided to low performing primary and secondary students to reduce educational exclusion and grade repetition and increase equality of opportunity in education. International evidence shows that providing learning support at an early age improves learning outcomes (UNESCO, 2019[8]) and helps reduce inequality in education.

Costa Rica could provide students with accumulated educational losses the necessary support through remedial programmes (Box 2.4), including offering additional or specialised pedagogical support, be it through teaching assistants and mentors, extending hours of classes, organising holidays programmes and after school tutoring (Box 2.5). Priorities could be defined on the basis of results from 2021 diagnostic tests that highlighted that students with learning gaps are concentrated in early grades.

Low-performing students, especially if from vulnerable groups, could benefit from policies strengthening personalised support. For example, France's 2016 lower secondary reform allows schools to allocate up to three hours per week to different forms of personalised support. In Portugal, the Education Territories of Priority Interventions Programme (TEIP) has successfully reduced educational exclusion in almost all school levels, by designing and implementing multi-year improvement plans in areas with a high average share of socially disadvantaged population. Also, many countries have invested in digital platforms that offer more personalised learning opportunities (Estonia, Korea, Slovenia and Latvia).

In Costa Rica, conditional cash transfer programs aimed to support education of vulnerable groups, like *Avancemos*, lose effectiveness for poor targeting, as a significant number of benefits are delivered to not vulnerable households (see Chapter 1). Other economic aid aimed at supporting access to education to students from vulnerable households (poor and extremely poor), who are around one third of all students across levels of education, also fall short of target. For example, only 10% of eligible households with children in preschool, and 56% of those with children in secondary schools, actually received any grant or economic aid in 2020 (PEN, 2021[13]). The National Registry of Beneficiaries of Social Programmes (*Registro Nacional de Información y Registro Único de Beneficiarios del Estado*, SINIRUBE) should become the central tool to improve the targeting of education policies towards low-income families.

Reducing class size could also help reduce educational exclusion in Costa Rica. A recent study finds some evidence that reducing the seventh grade class size by 10 students would increase the pass rate by 5 percentage points (from 70% to 75%) (Vega-Monge, 2021[27]). Costa Rica could attempt a cost-efficient strategy of reducing the class size in grades that record more dropouts (seventh and tenth grade).

International evidence highlights that providing professional development opportunities for teachers, the presence of a large vocational education programme and having attended preschool are factors strongly and positively correlated to reducing educational exclusion (Bonnet, Forthcoming[28]). Costa Rica could strengthen pedagogical support and in-service teacher professional development to further reduce educational exclusion. The range of training activities may include courses on education-related topics or methods; participation in a network of teachers formed specifically for the professional development of teachers; and mentoring and/or peer observation and coaching.

To reduce the role of socio-economic conditions on educational performance, public resources could be allocated among schools on the basis of student needs. For example, in the United Kingdom, the Pupil Premium Programme allocates additional funding to schools for each student receiving free school meal. This funding is used to put in place measures that improve the learning outcome of disadvantaged students. Schools are held accountable for their spending through inspections and online statements (OECD, 2021[29]).

Alternative measures could be found to grade repetition, which has generally unfavourable effects on repeaters' academic achievement (Goos, 2021[30]) and causes segregation by expelling low achievers. Creating a programme that addresses the shared academic needs of groups of students may be an efficient approach when it is not possible to provide customized intervention. Teachers may receive training to learn how to diversify their approach so as to meet the needs of their low-performing students. In addition, the learning time of low performing students could be extended through after-school, week-end or summer programs (Protheroe, 2007[31]).

Box 2.4. International examples of support to help students catch up educational losses

Several countries during the pandemic recruited temporary teachers or other staff in at least one educational level to implement measures to support students in need, and organised remedial programmes providing additional or specialised pedagogical support for students in need of special support, which in some cases was extended at the reopening of the schools. In France temporary teachers were hired to cover the absences of teachers testing positive and in Luxembourg temporary staff was hired to assist teachers with organisational and administrative tasks. Spain implemented a wide-ranging education recovery plan including teaching assistants and mentors providing personalised support to students with specific educational needs, both inside and outside of school hours. Finland and Denmark provided additional funding for remedial programmes, also targeted at disadvantaged students. In Portugal, schools provided students at risk with greater training and education. In France a learning holidays programme was organised during the summer of 2020 to help one million students catch up on learning.

Source: OECD (2021), Education Policy Outlook 2021: Shaping Responsive and Resilient Education in a Changing World.

Box 2.5. Tutoring for educational equity in Spain

In the spring of 2021, the Esade Centre for Economic Policy and the Fundación Empieza Por Educar launched Menttores, a programme providing free afterschool tutoring for deprived pupils hardest hit by Covid-19. Menttores consisted of an 8-week long, intensive online tutoring program, with three 50-minute sessions a week for pupils aged 12 to 15 (years one and two of compulsory secondary education in Spain) in Madrid and Catalonia. Priority was given to schools in low-income districts with a high share of immigrants. All afterschool tutoring was carried out using digital devices in groups of two pupils per mentor and focused on maths and social-emotional support (motivation, well-being, work routines). Fifty-two academic mentors took part. Forty-five of them were paid for, qualified secondary school

teachers and the remainder were volunteers. All of them received training. The programme was completed by 96.6% of pupils, attending an average of 17 sessions (70.8% of all sessions) and 920 minutes (76.7% of the target).

Results show that pupils taking part in the programme experienced a significant improvement, as the programme led to a 17% increase in end-of-year maths grades, the equivalent of six months of learning. Children who took part in the programme were 30% more likely to pass the subject (maths) than children in the control group. The programme reduced the share of pupils repeating the academic year by 8.9 percentage points, equivalent to a reduction by 75% compared to the control group. The programme also had a positive impact on pupils' socioemotional wellbeing and aspirations, as participants were 31% more likely to want to continue studying the academic track in upper secondary school (post-compulsory secondary schooling) than those who did not participate.

Source: (Arriola, 2021[32]).

Improving school infrastructure

In Costa Rica there is a poor governance of school infrastructure, which makes infrastructure projects difficult to develop and prone to fail to meet their timeframe and budget objectives. Costa Rica lacks an accurate inventory of its educational infrastructure and existing data are partial and based on school inspections from the Directorate of Educational Infrastructure (technical professionals in engineering and architecture) or the Ministry of Health (health and safety requirements). The lack of a complete inventory that provides key information on schools including their location, the population attended or the state of the infrastructure (building and equipment), prevents a timely planning of interventions and efficient use of resources to address prior educational needs, with the risk of not acting on schools with the greatest vulnerability.

School infrastructure needs are important. Around one fifth of schools (874 out of 4335), enrolling 21% of the student population, had infrastructure maintenance needs in 2021 (e.g. poor conditions of water supply, electricity, sanitation facilities, sewage or structures damaged by weather conditions), despite efforts to improve school infrastructure conditions over 2014-19, with an average investment of 50 billion colones (0.125% of GDP 2021). Around 88% of classrooms in primary and secondary public schools were assessed as in good condition in 2020, an improvement with respect to 73% in 2014 but below the almost 100% of private schools (MPE, 2021[33]). In 2020, because of the pandemic, resources planned for public education infrastructure were cut by 14% (10 billion out of 72) leaving many schools initially planned to be renovated unattended. The budget for school maintenance in 2022 (CRC 11 billion) is insufficient to attend the extra costs for maintenance (estimated at CRC 310 billion). Following inspections from the Ministry of Health, around 20% of the schools in 2022 received a health and safety risk notice (*orden sanitaria*) for not meeting health and safety requirements for the life and physical integrity of students and staff. The estimated cost of the interventions required to restore health and safety standards in these schools amounts to CRC 298.5 billion (0.75% of GDP 2021).

Costa Rica would benefit from having a centralised and standardised system of information of infrastructure projects that could provide a timely picture of ongoing projects and their status. Currently, information is dispersed across different departments, is not standardised and often outdated, which makes impossible an effective control and use of effectively available resources for construction works (around 95 billion colones).

A more efficient management of school infrastructure could produce some savings. For example, around one third of the 1587 single-teacher schools could be merged into larger schools with adequate infrastructure, under the condition that a public transportation system for students were available (Sanchez, 2016[34]).

In Costa Rica 3189 out of 4763 school have internet connectivity but the bandwidth is insufficient to meet current and future schools needs. The 2018 project Red *Educativa* del *Bicentenario* aims to provide all schools with broadband connectivity, but it is progressing slowly. As of December 2021, broadband internet connectivity had been provided to 52 of the 4514 schools.

Following past OECD recommendations, a law proposal was presented aimed at introducing standardised rules, principles and methods for public investment projects with the greatest impact to apply to all public institutions except for non-state public entities and state-owned companies operating in competitive markets. The proposal should include a taxonomy of public investment projects, the requirement of performing a cost-benefit analysis of the project and the inclusion of environmental criteria. This reform could help reduce the time required to carry out investments and increase efficiency. Well-designed Public-Private Partnerships could also help to reduce infrastructure gaps (see Chapter 1).

Social dialogue between local actors and main stakeholders in education proved successful in providing connectivity infrastructure for households and schools in remote areas. In the canton of Santa Cruz a pilot project involving local authorities, SUTEL and Costa Rican Electricity Institute (ICE), reduced the time necessary to obtain the required permissions for connectivity infrastructure from 15 months to 15 days, also by creating a one-stop shop in the local government. The ongoing project will provide all schools and around 2300 households with children in the area with internet connection. This initiative could be scaled up throughout the country.

Strengthening the digitalisation of education

Making better use of digitalisation could help improve the quality and efficiency of the education system by easing the monitoring of students' learning outcomes and of resource allocation. By integrating all data about students, schools and teachers, policymakers would have better information to design and target policy interventions, including providing support to vulnerable students and investing in infrastructure in underserved areas.

Costa Rica made progresses in the digitalisation of the education system with two digital platforms: SABER and SIRIMEP. The SABER platform aims at integrating all information of the educational system. It collects individual digital data of students and schools and it was key during the pandemic to help identify students suffering from technological exclusion and assess the state of internet connectivity in schools. The platform SIRIMEP leverages on SABER and was created during the COVID 19 pandemic as a short-term emergency tool to collect data on students' performance, easing the monitoring of students' progress. However, it suffers from operational problems and should be integrated with the unified system of the education system.

The General Comptroller (CGR, 2021[35]) detected weaknesses in the design of the platform SABER, including uncertainty about its funding, its scope and the exact timeline of its implementation as only three of eight phases have been implemented. Lack of integration with the ministry of education or academic management systems (virtual classrooms, virtual tools, collaboration, statistics, curricula, grades, evaluations), prevents early warning and analytical modules from producing the necessary input for decision-making. Ensuring the implementation of SABER is key to provide Costa Rica with a tool that would enhance the monitoring and assessment of students' learning outcomes, guarantee more equity in education and an efficient allocation of resources.

Introducing national student standardised tests, joint with an efficient information system collecting data on the evolution of students' performance, could help ensure continuity in the assessment of students' performance to quickly detect weaknesses in the education system, elaborate evidence-based policy solutions and assess their effectiveness. For example, these tests could be especially useful in areas such as the assessment of foreign languages competences. These tests should be carefully designed as to avoid potential problems related to the limited scope of their assessment with respect to the number of

subjects covered and depth of the assessment (Morris, 2011[36]). Teachers might also have incentives to focus their teaching on subjects and skills covered in the tests thus neglecting curriculum areas that are not assessed. Some of these issues could be minimised by careful design, such as including open-ended questions (written essays, oral communication and collaborative problem solving), as well as implementing other monitoring tools to better assess critical thinking, analytical or problem solving skills. Using standardised testing for diagnostic purposes only could reduce incentive to strategic behaviours on the part of schools and teachers.

Improving the quality of teachers

Improving the quality of teachers is relevant for any level of education. Indeed, foundations built at an early stage shape students' future performance, other than having an influence on their earning and employment trajectories.

Improving the selection of students accessing programmes in education

Assessing motivation and pedagogical aptitudes of applicants to programmes in education would help select potentially high-quality teachers. Having completed secondary schooling is the only requirement to access programmes in education in private universities, while in public universities the access is conditional on obtaining a threshold score in the entry exam. An assessment of motivation and aptitude could be introduced in the entry exam for programmes in education in public universities.

There is also a need to better match the number of study places with the needs of the education system. While the overall supply of graduates in education grew faster than the demand for new teachers between 2007 and 2014, there is scarcity of teachers in specific areas such as preschool education, special education and English in primary schools. This occurs because graduates in education receive a specific training that depends on the level of education (preschool, primary or secondary) and the subject they will be teaching. The participation in a public competition for a specific teacher's position is then limited to graduates with that specialisation. To reduce the observed imbalance between demand and supply, Costa Rica could consider the introduction of quotas in programmes of education where the supply is expected to remain above the demand in the short and medium term.

Improving the hiring system

Modifications to the hiring system would make it possible to select the best teachers and reduce inefficiencies. The current recruiting system focuses mostly on observables such as experience and educational attainment, which are imperfect proxies of a teacher's abilities. Costa Rica should implement promptly the eligibility test to select new teachers, as established by law in 2020 and in accordance with a 2012 ruling of the constitutional court that requires participants to public competitions to pass a test of knowledge (OECD, 2017[24]). Currently, such a test is required only for foreign language teaching positions (English and French). The introduction of a formal induction and probation period would also help ensure that initial teachers are supported at the beginning of their profession (OECD, 2017[24]).

The eligibility test could be designed in accordance with the standards that graduates in education should have at the end of their studies, as established in the 2022 National Qualification Framework for Tertiary Programmes in Education (*Marco Nacional de Cualificaciones de las Carreras de Educación*). The pass approval rate to the test could also give a signal about the quality of different tertiary programmes in education. This would push students to demand for quality programmes (PEN, 2018[37]) and provide universities with an incentive to revise their programmes according to the framework.

Almost all teachers have tertiary education in Costa Rica but the title by itself is not a guarantee of the quality of the training received, and evidence shows that programmes in education are heterogeneous in terms of content and quality (Badilla, 2016[38]). Universities may ask the National Accreditation System for

Higher Education (*Sistema Nacional de Acreditación de la Educación Superior*, SINAES) to accredit their programmes to signal that they fulfil minimum standards of quality. However, accreditation is not compulsory and in practice very few programmes in education are accredited (13%, SINAES 2022), most of them offered by public universities (35 out of 44). Evidence from teachers' quality assessments performed by the Ministry of Public Education (MPE) in English (2008 and 2015) and mathematics (2010) highlights that graduates from public universities tend to perform better than graduates from private universities (PEN, 2015[22]). However, the large majority of graduates in education are from private universities (around 70% over 2014-20). Moreover, few private universities currently offer to their students the possibility of engaging in teaching practices. Making teaching practices a part of the eligibility test for new teachers, or a compulsory requirement for the accreditation of any education degree, would push universities to widen their use.

The current recruiting system could be modified to provide a stronger incentive for students to attend accredited programmes. Public competitions for new teacher positions grant only two additional points to accredited programmes, out of a maximum score of 110. This is an insufficient incentive and students take into account other criteria than accreditation in choosing the programme to attend, such as a shorter duration (Lentini, 2017[39]). Making the accreditation of education programmes compulsory is an alternative venue to improve the preparation of future teachers (OECD, 2017[24]). The accreditation of a programme could be automatic when it is granted by an international recognised accreditation organisation.

Too many positions remain vacant at the end of each public competition, which points to inefficiencies in the recruiting system. Public competitions are commonly used by in-service teachers to move to a different school, which under current regulation is allowed for exceptional motives only (e.g. sickness). There is no penalty in refusing a place and in-service teachers can refuse it if it does not suit their preferences. Around four out of ten positions remained vacant in 2017 because they were refused (La Nación 2017). Vacancies are a cost for the Ministry of Public Education, which has to start a new hiring process, and for students, who risk not having a teacher at least for a part of the academic year. This system also makes it difficult to assign teachers to the schools that most need them. Costa Rica could improve the efficiency of the recruiting system by reducing the incentive for in-service teachers to use public competitions for mobility reasons. This could be achieved by modifying regulation to facilitate mobility of in-service teachers. Current financial incentives to encourage high value-added teachers to move to schools most in need could be strengthened (Box 2.6), though a pre-requisite for such incentives to be effective is a sound assessment system of teachers performance, possibly against measurable goals for each educational program.

Box 2.6. International evidence on addressing teacher shortages in disadvantaged areas

In Australia, the High-Achieving Teachers programme, which began in 2020, provides alternative employment-based pathways into teaching for high-achieving individuals committed to pursuing a teaching career. Over three years, the programme will recruit 440 high-achieving university graduates with the knowledge, skills and experience that schools need. Participants are placed in teaching positions in Australian disadvantaged secondary schools with shortages of teachers. The goal is that students at disadvantaged schools will benefit when high-achieving university graduates, including those with a science, technology, engineering, and/or mathematics degree and those from a regional background, are recruited to teach at their school.

In Canada, an ECEC centre in North Winnipeg, which is targeted to children with multiple risk factors and is located at the heart of an impoverished, predominantly Indigenous community, actively recruits and trains local staff, resulting in lower turnover than would otherwise be the case and greater trust between parents and staff.

France created Priority Education Zones (ZEPs) with special resources aimed at disadvantaged schools. The main objective of the ZEPs is to decrease the differences in academic achievement

between students with socio-economically disadvantaged backgrounds and other students. To attract teachers to these schools, the government has introduced various incentives. New teachers starting at ZEP schools are able to draw on a network of education advisors and mentors to support them. Smaller class sizes (no more than 25 students per class) with more time for teamwork, resources for cultural and sports projects with students, and paid consultation time are also meant to attract teachers to these schools. There are also bonus schemes with an annual premium of EUR 1 734 gross for teachers in schools in which 55% of the students belong to the least favoured socio-economic categories, and EUR 2 312 gross for those teachers in schools in which 70% of the students belong to the least favoured socio-economic categories.

In Spain, a credit system allows teachers working in more disadvantaged and diverse school settings in particular regions to obtain extra credits. These credits can be used to gain promotions, choose to move to another school and obtain a salary increase after six years.

Since the 1999-2000 school years, the state of Washington has awarded salary incentives for National Board Certified Teachers (NBCTs) in high-need schools. In 2007, Washington also introduced an additional bonus for teachers in high poverty schools. During the first year of the new bonus programme, the number of NBCTs in Washington increased by 88%. By 2013, the gap in board certification between low- and high poverty schools had not only decreased but reversed.

Source: (Brussino, 2021[40]; OECD, 2022[41]; Cerna, 2019[42]; OECD, 2017[43]).

Strengthening teachers' in-service training

Strengthening teachers' in-service training in terms of access, coverage and quality of training could help increase the quality of the education system in Costa Rica. It would also reduce inequality of opportunity in education.

A poor students' performance in reading skills highlights that more teachers could benefit from in-service training to acquire pedagogical skills and teaching practices that improve students' reading habits, such as asking students to read long and complex texts and using different types of texts (fictions, digital texts, charts, tables) in class (Barquero, 2021[44]; Reimers, 2008[45]). Preschool teachers, instead, could receive specific training to promote the early development of literacy and language skills through the use of best practices such as shared reading, increasing children's vocabulary and better attend to the needs of students with difficulties in oral communication (PEN, 2019[46]). Reading skills affect lifelong learning ability, and gaps in reading skills developed at an early age produce a persistent effect and perpetuate inequality. Strengthening reading skills of disadvantaged groups from an early age should be a priority for Costa Rica.

To make the change in the curriculum effective, more teachers could receive adequate training, and support by consultants or experienced peers, as to help them implement the new curriculum in class. Indeed, many teachers felt unprepared to apply the new teaching practices and continued to use traditional ones (PEN, 2018[37]). The introduction of a Teacher Mentoring Strategy in topics related to learning to read and write for primary school teacher from grade 1 to 3 is a welcome initiative.

Providing quality in-service training could help improve learning outcomes in mathematics and sciences. Theory and evidence highlight that inquiry learning is more effective than the traditional teacher-centred deductive approach in developing students' scientific literacy, problem solving and cognitive skills (Cairns, 2019[47]). Training could then contribute to extend the use of the inquiry learning approach in science education.

Integrating IT technology in the education system has the potential to improve its coverage and quality, to facilitate the teachers' professional development and help the learning process of students (Minea-Pic, 2020[48]). Recent initiatives have increased the supply of training for teachers in the use of IT for

pedagogical purposes, including a variety of courses offered virtually. During the COVID 19 crisis almost all teachers received virtual training on how to teach in a digital learning environment (e.g. creating a collaborative classroom or connect in professional learning communities) and, in 2021, around 2000 teachers participated to the Teacher Update Webinar Program aimed to develop digital and pedagogical competencies using Microsoft Teams. Costa Rica could nevertheless expand training in IT for pedagogical purposes and in developing digital didactic material (Zúñiga, 2021[26]). Including these trainings also in tertiary programmes in education could help more teachers have strong digital skills and the ability to use them effectively.

Despite the potential benefits of receiving in-service training, few teachers in Costa Rica use it. A 2015 survey found that only around 40% of the teachers surveyed had received professional training in the past year (PEN, 2021[13]), and around 80% of teachers had received in-service training between 2019 and 2021 (Plan Nacional de Desarrollo y de Inversión Pública 2019-2022). These numbers are low if compared to international experience, as according to OECD assessments around 94% of teachers in 31 countries in 2018 participated in at least one professional development activity in the previous year (OECD, 2019[49]). Moreover, post-training in class support is also weak in Costa Rica, as it available only for 30% of the trainings (PEN, 2021[13]). Post-training in-class support should be strengthened. Finally, the diffusion of the benefits of training to other teachers is also limited.

Despite access to training is available all over the year, it is concentrated at the end of the academic year to not interrupt the educational process. Access to training could be enhanced by making training more easily accessible all year long at least to a part of the teachers, thus accelerating the update of the teaching staff. Some of the teachers receiving training could be temporarily replaced by support teachers or graduates in education with the benefit that these would acquire teaching practice. A larger use of virtual training might also increase access to training and reduce its cost.

Better assessment of the results of teachers' training is needed. The Institute for Professional Development Uladislao Gámez Solano (UGS) is charged with the implementation of the 2016 National Plan for Continuous Training "*Actualizándonos*" (*Plan Nacional de Formación Permanente*) which aims to strengthen the teachers' training system. However, the UGS is understaffed to properly assess the outcome of training. Its monitoring and assessment department employs only nine people compared to the 80000 employees in the Ministry of Public Education. Given this limitations, the UGS evaluates the relevance, effectiveness and short-term impact of the training activities by asking training participants to assess how satisfied they are with the training received as well as providing an evaluation of the learning achieved and its applicability.

Strengthening the appraisal process

The current system for assessing teachers' quality does not create adequate incentives for principals and teaching staff to engage in a continuous process of improving the quality of the educational services they provide. The periodic report sent by the Ministry of Public Education to schools' principals, which highlights the weaknesses of their students on the basis of the results in national standardised exams, is rarely used as an input to take concrete actions (PEN, 2018[37]).

The yearly teachers' assessment prepared by school principals is ineffective in supporting a continuous improvement in teaching efforts. School principals restrain from signalling teachers' weakness to not deteriorate the relationship with the staff members (PEN, 2018[37]). Thus, almost all teachers receive a positive evaluation (99.7% in 2016). The Ministry of Public Education could increase the use of assessment tests of teachers' knowledge and use results for designing new training programmes. These tests are rarely used but helped improve the quality of English teachers in the past.

Following past OECD recommendations (OECD, 2017[24]) Costa Rica is developing a framework for the assessment of the quality of education that has to be presented for approval to the Higher Council of Education (*Consejo Superior de Educación*, CSE). The framework will indicate what tasks and evidence

should be considered for teachers' assessment, as well as provide guidance on how to give teachers feedback and provide support. Costa Rica has joined in 2021 the OECD Teaching and Learning International Survey (TALIS) to strengthen the monitoring of teaching quality in the educational system.

Improving the governance and regulation of Education and Administrative Boards

The management of public funding by Education and Administrative Boards (Box 2.7) (*Juntas Administrativas and Juntas de Educación*, EAEs) shows inefficiencies and lack accountability and transparency. The members of the EAEs do not always have the competencies that are necessary to carry out administrative tasks, such as the knowledge of relevant regulation, which causes an inefficient use of public resources. This is especially relevant in areas with indigenous communities where the members of the EAEs rarely receive training or supervision by the Ministry of Public Education nor official documentation that is translated into indigenous language.

The activity of the administrative boards is often hampered by municipalities that delay the appointment or the dismissal of their members or do not follow legal procedures thus opening up legal contentious, with repercussion on the continuity in the provision of education services. A reform of the regulation of the boards could help prevent the inaction of local municipalities from paralyzing the activity of EAEs. Reforming the minimum requirements of EAEs' members and ensuring that they receive an adequate training to fulfil their role could help improve their efficiency.

Box 2.7. The role of education and administrative boards in the education system

Education and administrative boards (*Juntas Administrativas and Juntas de Educación*, EAEs) are decentralized entities with legal personality and own assets that by law are tasked with guaranteeing the right to education and to establish a link between the school and the local community. In coordination with the school principal and teachers, EAEs manage the public funds received from the Ministry of Public Education (MPE) to provide schools with the goods (e.g. food, technical equipment or teaching material) and the services (e.g. transportation, and canteen services, technical support, payment of basic services) that they need as to guarantee the right to education. The members of the EAEs are appointed by the Municipal Council, must meet requirements set by law and should receive an adequate training to fulfill their role provided by the Ministry of Public Education. EAEs are obliged by law to use the Single System of Public Purchases (SICOP) when purchasing goods and, limitedly to the purchase of food supply, they are compelled to buy from the National Production Council (*Consejo Nacional de Producción*, CNP). EAEs must submit every year a budget accountability report that respect predefined accounting standards. In areas with indigenous communities the EAEs integrate a Local Indigenous Council made of members of the indigenous community.

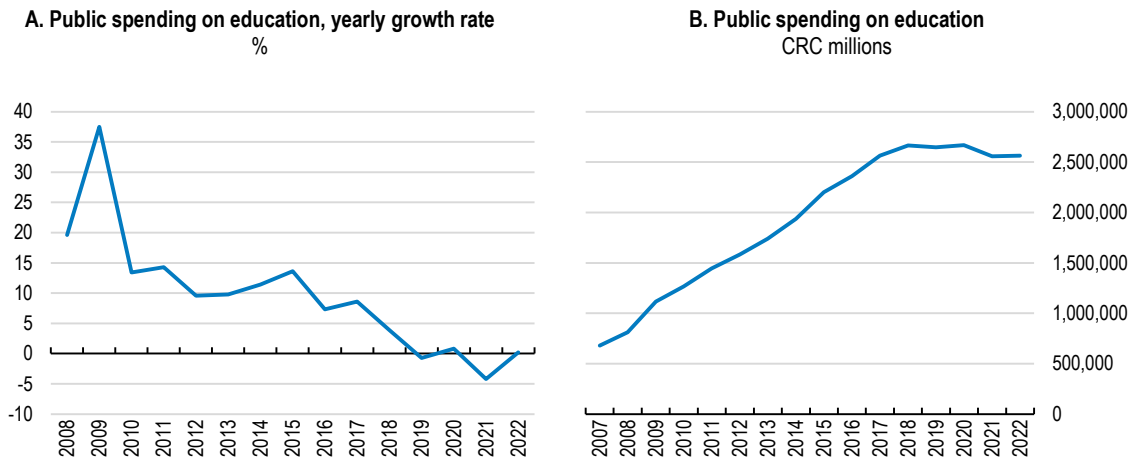
Financial controls over EAEs budgets are weak and overall it lacks a systematic supervision at the regional and national level, thus hindering a clear picture of the overall efficiency of the EAEs. The quarterly reports that EAEs must submit to regional Directorates often do not respect the required standards, or are submitted late and the Ministry of Public Education rarely orders external audits on EAEs budget report. A regulatory reform of the EAEs governance could help increase their accountability and transparency, also by digitalising budget procedures to ensure the respect of standards. A more frequent use of the power to order external audits could also help boost budget transparency of EAEs.

Evidence shows that the obligation that food purchases from the EAEs must pass through the National Production Council (*Consejo* Nacional *de Producción*, CNP) results in paying higher prices than if EAEs could operate freely in the market. Changing this regulation that de-facto assigns monopoly power to the CNP would permit EAEs to achieve large savings. Also, more EAEs should implement school orchards to promote their potential in supplying school canteen.

Prioritise spending in early stages of education to better support growth and equity

In Costa Rica, the constitution mandates a target budget for education of 8% of GDP, and significant resources have been allocated to education and training over time. However, large and increasing government deficits have raised the level of debt that is currently close to 70% of GDP (Chapter 1), implying that the fiscal rule will be containing spending in education in the next years (Figure 2.12). Against this background, Costa Rica has to prioritise its education spending and also address the learning losses suffered in recent years to avoid long-lasting scarring effects.

Figure 2.12. A tight fiscal space limits spending on education



Source: General Comptroller of Costa Rica.

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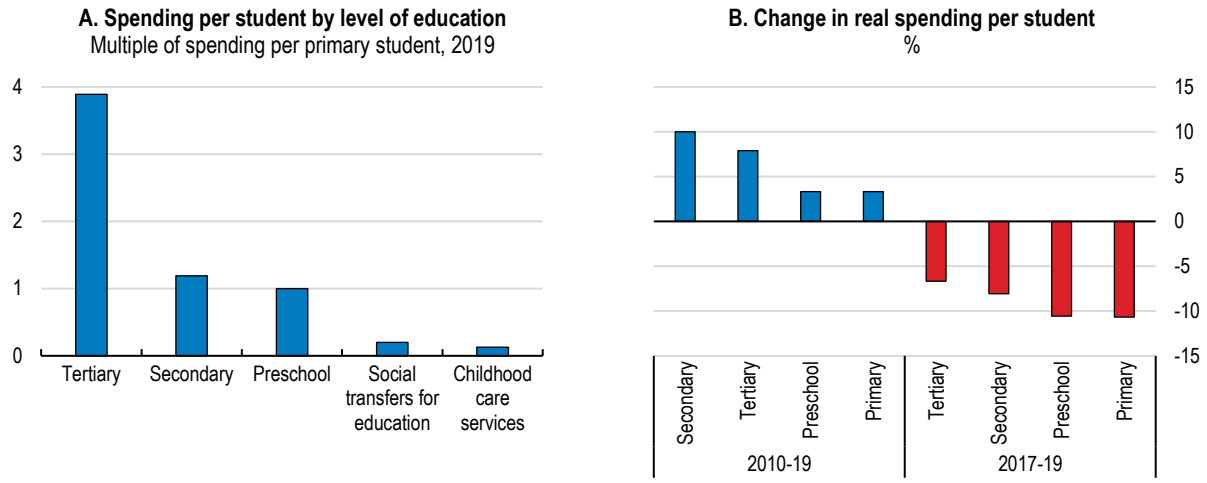
Overall spending on education has fallen in recent years, but it has fallen the least in tertiary education (Figure 2.13, Panel B) education. Moreover, current spending per student is the highest in tertiary education, around four times that in primary, secondary or preschool (Figure 2.13, Panel A). This is much higher than in the average OECD country, where total expenditure per student in tertiary education is around 1.7 times than in primary, secondary and post-secondary vocational non-tertiary (OECD, 2021[50]). Such a regressive spending structure needs to change and spending should be reprioritised towards earlier levels of education, as investment in these areas produce positive long-term economic and social benefits that are far higher than the initial cost (Psacharopoulos, 2018[51]; OECD, 2017[52]).

Addressing changes in spending needs due to low fertility rates require careful long-term planning. Smaller cohorts will lead to a gradual decline in the number of students in education. At the same time, enrolment rates in secondary and tertiary education are likely to increase, as they are currently low.

Spending containment measures should focus on current spending, as large increases in spending in the past did not lead to a substantial improvement in education infrastructure. Savings could be obtained by making a more efficient use of resources. For example, reducing grade repetition, which is high in secondary school in Costa Rica (above 10% on average between 2010 and 2018) and costly (4% of total spending in primary and secondary education for the average OECD country) could help (OECD, 2012[53]). The digitalisation of education might increase spending efficiency, for instance, by providing a clearer map of the distribution of teachers and students over the country, which would help avoid misallocating the teaching staff that causes schools to be under- or overstaffed. Digitalisation could also help reduce overreporting in the number of students in schools, which currently leads to larger than needed transfers.

Figure 2.13. Spending per student is the highest in tertiary education



Note: Between 2010 and 2022 the budget allocated to the Special Fund for Higher Education (FEES) grew by 2.5 times in nominal terms.
Source: PEN 2021.

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Improving tertiary education

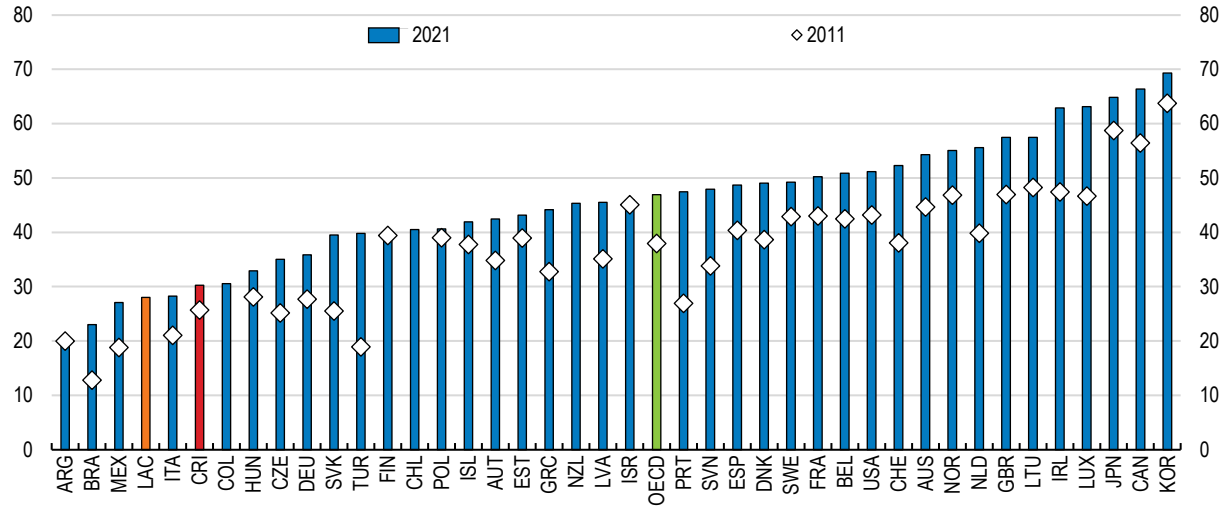
Boosting tertiary graduation rates and improving spending efficiency on tertiary education

The rate of higher education attainment has increased over the last decade. The proportion of young adults with higher education is higher than in some peer countries in the region such as Brazil, Argentina and Mexico, but still below the OECD average (Figure 2.14). However, the absolute number of degrees awarded by Costa Rican higher education institutions has stalled in recent years (Figure 2.15, Panel A). This is partially due to a high average time to graduation, favoured by the possibility of taking the same exam without penalty several times, the presence of students being enrolled in multiple degrees and the reduction in the number of graduates from private universities, and because there is no further room for an increase in the enrolment rate in tertiary education of students from advantaged socioeconomic groups, which was a major factor in the overall increase in the number of tertiary graduates in past years, having their enrolment rate already reached a very high level (Figure 2.18).

The stall in the supply of tertiary graduates contrasts with a relatively high demand for them, which translates into strong labour and economic returns to tertiary education in Costa Rica. Around one third of the jobs demanded by the private sector are for profiles requiring higher education in fields such as administration (40%), sciences and engineering (27%), education (12%) and telecommunication (8.2%) (CONAPE, 2021[54]). Tertiary graduates have the highest employment rate at around 70% (Figure 2.16, Panel A), and tertiary education provides access to formal jobs that are more resilient to economic fluctuations. During the COVID-19 pandemic, the reduction in employment and labour market participation rate of people with tertiary education was lower than for population with lower levels of qualification (Figure 2.16, Panel B). Earning advantages gained from obtaining tertiary education in Costa Rica are the fourth highest among OECD countries (Figure 2.17).

Figure 2.14. Tertiary education attainment has increased, but there is scope for improvement

Percentage of 25-34 year-olds with tertiary education as the highest level attained



Note: LAC refers to Chile, Colombia, Mexico, Argentina, and Brazil.
Source: OECD Education Database.

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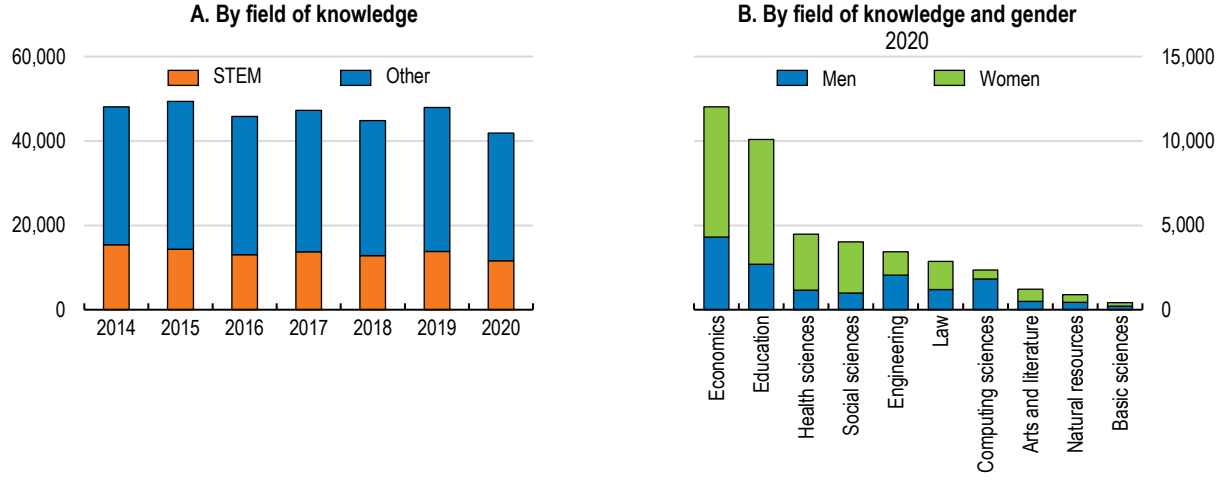
Figure 2.15. The number of tertiary degrees awarded has stalled recently

Total degrees awarded by field of knowledge and gender



Note: The chart report all degrees provided by the five public and 51 private higher education institutes and include all tertiary education qualification levels from ISCED 5 (short-cycle tertiary education) to ISCED 8 (PhD).
Source: HIPATIA Dataset.

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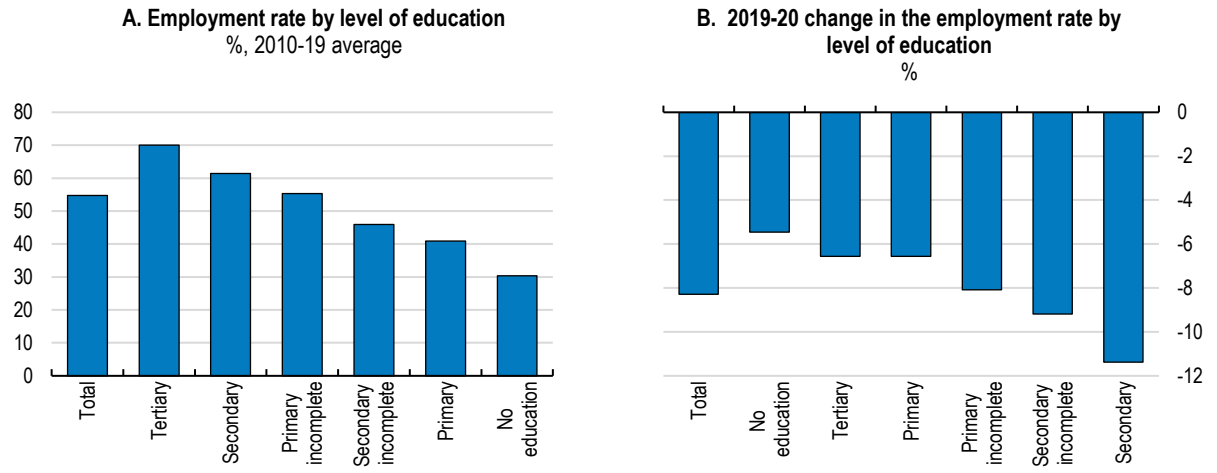
Improving spending efficiency on tertiary education is key for Costa Rica to boost tertiary graduation rates in an environment of limited fiscal space. Moreover, to increase secondary students' graduation rates and level of preparation, which is a prerequisite for increasing the demand for tertiary education, Costa Rica would benefit from reorienting spending on education towards pre-tertiary levels.

Figure 2.16. Tertiary graduates have the best employment outcomes



Source: PEN Dataset.

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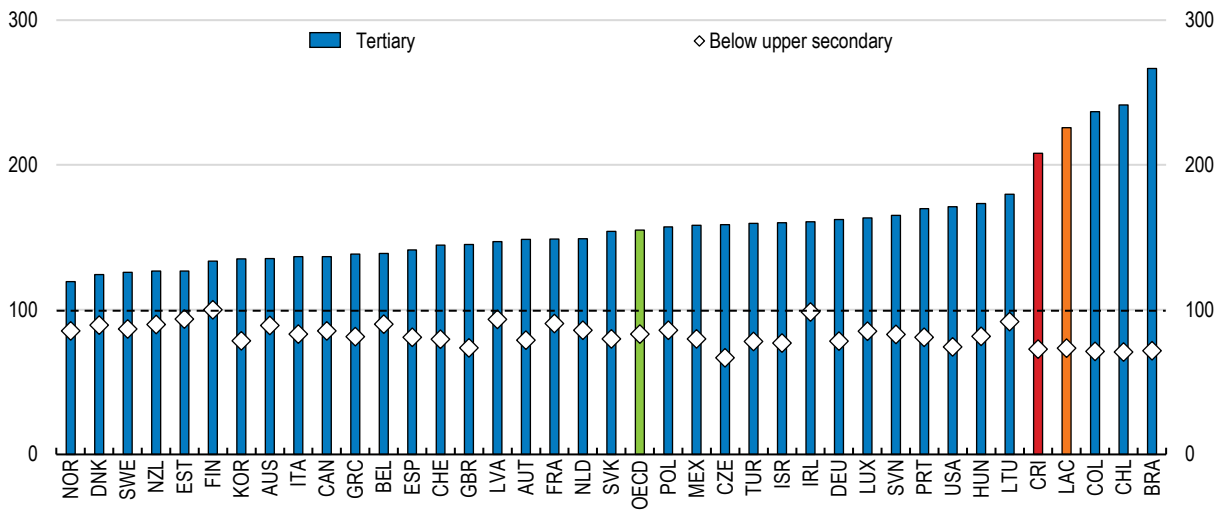
Figure 2.17. Economic returns to higher education in Costa Rica are among the highest across OECD countries

Relative earnings of workers, by educational attainment, 25-64 year-olds with income from employment (full-time full-year workers); upper secondary attainment = 100, 2020 or latest year



Note: LAC refers to Chile, Colombia, Mexico, and Brazil.
Source: OECD (2022), Education at a Glance.

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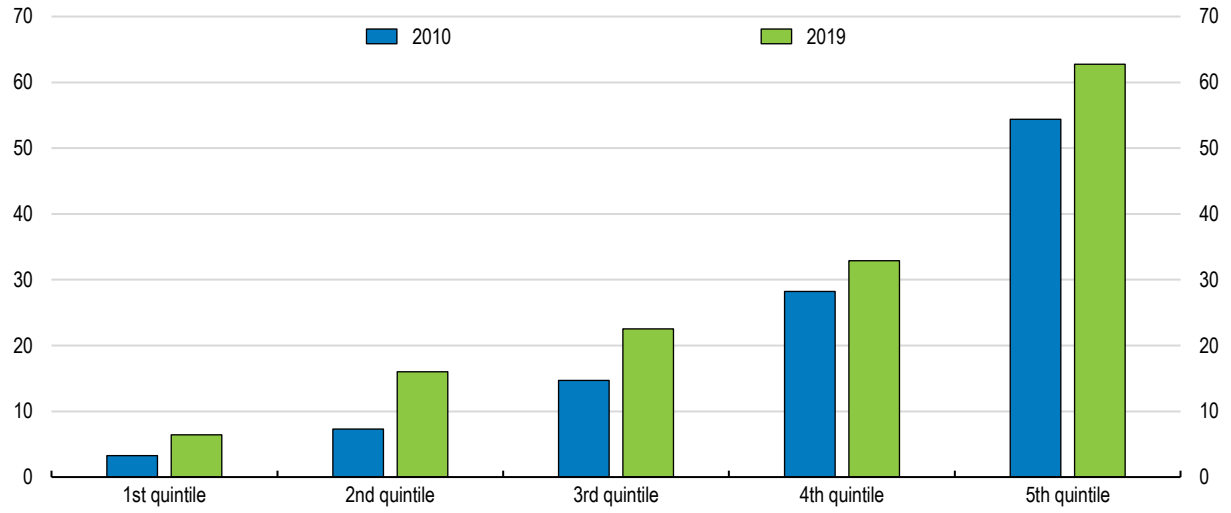
Improving access to tertiary education for vulnerable groups

Access to tertiary education is positively correlated with socioeconomic conditions, and the net enrolment rate in tertiary education of families in the top income quintile is around ten times as high as that of families in the bottom income quintile (Figure 2.18). These inequalities are persistent, and in the past decade the increase in the net enrolment rate of top income households was twice that of bottom income households.

Figure 2.18. Socioeconomic disparities translate in the access to tertiary education

Net enrolment rate in tertiary education, by income quintile, %



Source: SEDLAC.

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To continue increasing the share of youth with tertiary education, efforts must be focused on extending access to students with a more vulnerable background, who are currently less likely to complete upper secondary school, tend to have a worse preparation for higher education or lack financial resources to engage in tertiary studies. Improving the quality of education at earlier levels of education and reducing further exclusion in secondary education, are critical pre-requisites for increasing demand for higher education and equality of opportunities in education in Costa Rica.

Educational losses suffered by younger cohorts in recent years are more likely to affect students from vulnerable groups and represent a further challenge to the goal of increasing enrolment in higher education. Strengthening student support services through orientation, mentorship and levelling classes during primary and secondary school would reduce these losses and increase future demand for higher education.

Lack of funding and information about funding, hinder access to university to more vulnerable groups. Social spending (grants and social aids) that increases equality of opportunity in education should not be reduced despite the limited fiscal space. Costa Rica should improve the targeting of its funding system to increase tertiary education attendance of students with potential and from a vulnerable background who may be unaware of available funding and of the returns of tertiary education, especially in rural areas. Student loans for higher education from CONAPE have been decreasing since 2013, while potential beneficiaries have increased. The use of government-backed student loans, with repayment terms based on future income, could be expanded for students with a middle-class background. This policy would imply very low fiscal risk given the high economic returns of tertiary education, and could be used to promote enrolment in fields of national interest such as STEM areas. A pilot project providing loans that do not require any collateral for students at the *Instituto Tecnológico de Costa Rica* could be extended to other universities. Reducing the time required for graduating in public universities in some fields in which it is longer than in private universities (e.g. degrees in education), but without reducing the quality of education, could reduce the opportunity cost of attending tertiary education and increase demand.

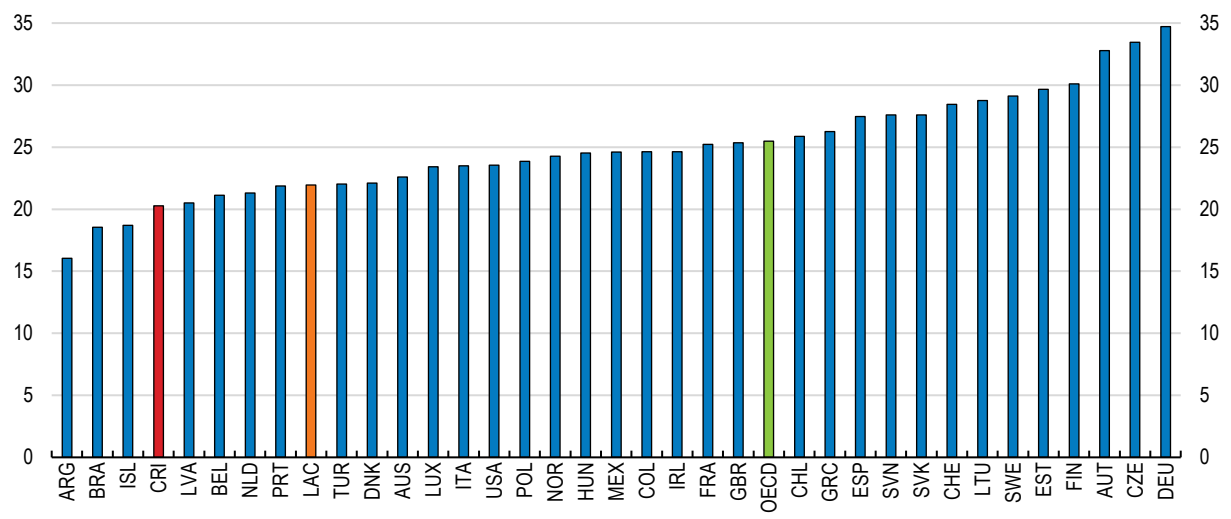
Making STEM fields more attractive to students, especially women

Graduation rates need to improve especially in sciences, technology, engineering and mathematics (STEM) fields. Even though the number of graduates remained stable or even increased in most STEM areas between 2015 and 2019, the share of STEM graduates remains low and below the OECD average (Figure 2.19) when all levels of higher education are taken into account (short-cycle tertiary, bachelor's, master's, and doctoral degrees). Increasing the share of graduates in STEM would help respond to the needs of the private sector, whose demand in fields such as telecommunications or integration of automatized systems in the production process is not satisfied by the current supply. Overall, information and telecommunications (IT) and engineering are among the fields providing the most opportunities to work in the private sector, while most graduates in education and, to a lesser extent, in health sciences are employed in the public sector (Figure 2.20), whose demand will be contained in the coming years.

In most STEM areas but medical sciences, where the number of women surpassed that of men in 2013, mostly due to nursing (Durán-Monge, 2022[55]), the gender gap in tertiary education has persisted or grown (telecommunications), and on average over 2014-20 the number of male graduates is twice that of female graduates. Exposing young girls to STEM fields and encouraging those who are interested to study scientific areas would help increase the number of women in STEM areas. Administrators and educators should create environments that correct existing negative perceptions that young girls may develop towards scientific disciplines. Mentorship programmes and highlighting of eminent women in the STEM industry may boost girls' confidence in pursuing their studies in scientific fields. In France, a mentoring programme for female PhD students was established in 2015 to provide career guidance and help them gain confidence and nurture their ability to value their skills (Morris, 2021[56]). In 2021, the programme involved 100 mentors from three universities. In the United States, since 2008, the Massachusetts chapter of the Association for Women in Science (MASS-AWIS) has organised a Mentoring Circle programme geared towards junior scientists from academia and industry to receive advice, support and information from experienced mentors (Fridkis-Hareli, 2011[57]).

Figure 2.19. Costa Rica has relatively few graduates in STEM

Tertiary graduates in STEM, % of all graduates, 2021 or latest year



Note: The distribution of graduates by field of study is calculated as the share of graduates from each field over the total of graduates. STEM includes all graduates (short-cycle tertiary, bachelor's, master's, and doctoral degrees) with a degree in natural sciences, mathematics and statistics; information and communication technologies; and engineering, manufacturing and construction. LAC refers to Chile, Colombia, Mexico, Argentina, and Brazil.
Source: OECD (2022), Education at a Glance.

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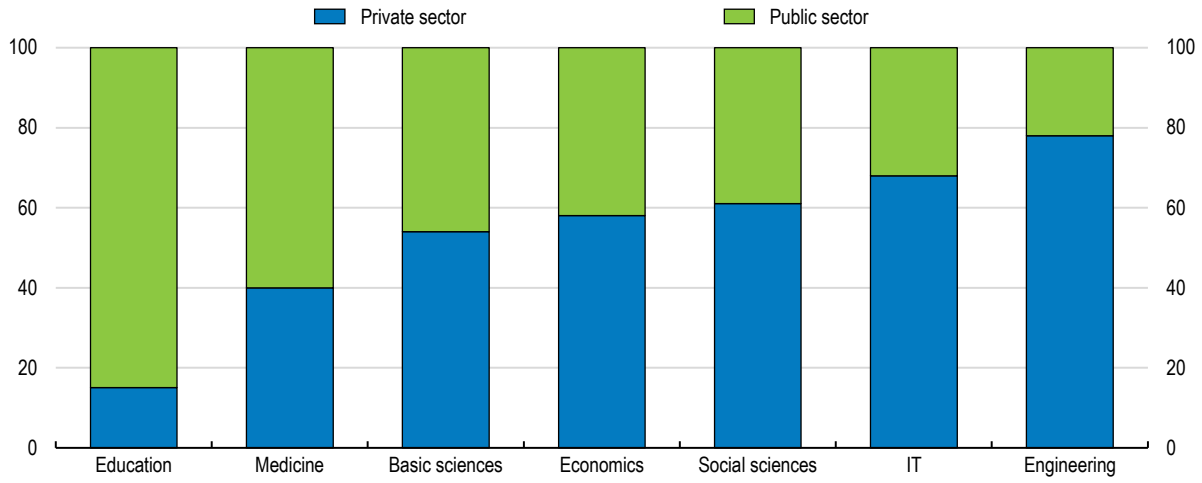
Figure 2.20. Graduates in education and medicine are employed mostly in the public sector

Sector of employment of people with tertiary education three years after finalising their studies, 2019



Source: PEN Dataset.

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Promoting innovations in higher education could also help increase the quality and the attractiveness of STEM fields. This could materialise through the integration of advances in knowledge and technology into new courses and degrees, more and higher-quality research, and a tighter relationship between higher education institutions and society and businesses. The connection with the business sector is key as the private sector demand for skills should feed back into the supply of tertiary educational services. Regulation is a major obstacle to the creation of new courses or degrees. In private universities, the authorization process is slow and cumbersome, with a high volume of requirements and standards to be met, and the discretionary power held by the CONESUP makes it uncertain. In public universities, the main obstacle to innovation is a long and complex decision-making process in which many players may use a veto power. Streamlining regulation in public and private universities would facilitate the opening of new courses and programmes, also in hybrid or distance modes, while preserving their quality.

Making public university funding more efficient, accountable and transparent

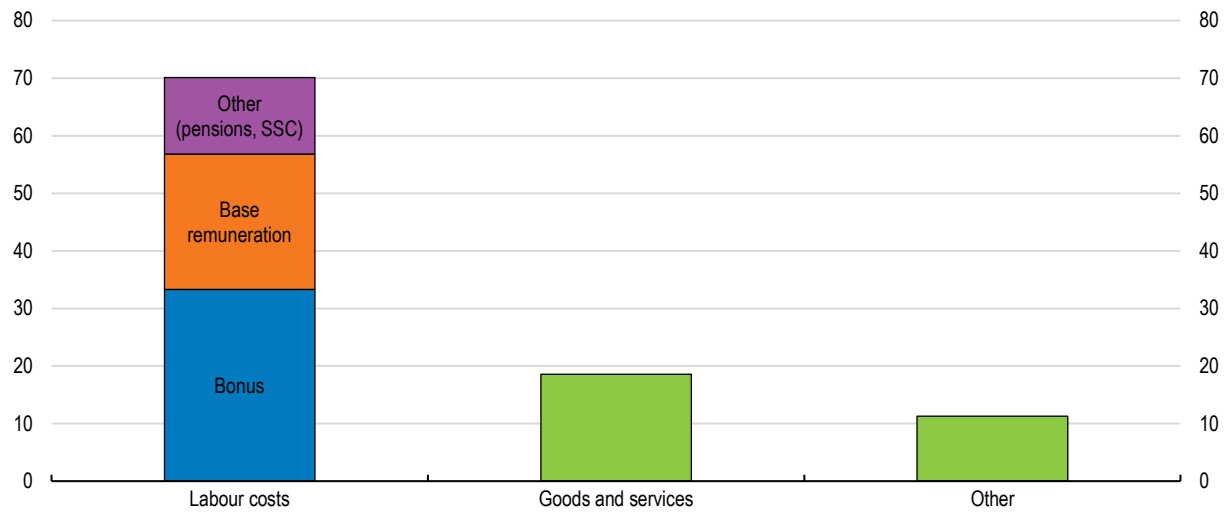
Improving spending efficiency at public universities

Public universities are characterised by a rigid spending structure with labour costs representing around 70% of total spending (Figure 2.21). Potentially large savings could be obtained by modifying the current wage scheme, which is characterised by a low basic remuneration and a variety of bonuses that tend to grow automatically and are difficult to modify (PEN, 2021[13]). Over time, these bonuses have become a permanent cost that outweighs basic remuneration. If spending for remunerations had been reduced by around 7.7% for the period 2021-24 this would have produced enough savings to make up for the cut in funding suffered in 2021 (Vargas, 2021[58]). The implementation of the public employment framework law approved in March 2022 has then the potential to generate sufficient savings. The reform introduces a single salary scheme with equal pay scales for equivalent functions, rationalises bonuses and annuities and sets a link between remuneration and performance. These are long-standing OECD recommendations (see also Chapter 1). To implement the reform, universities will define their own job categories and salary scales. Reducing the weight of salaries in total spending must however be done carefully to permit higher education careers to continue attracting talented people. Public universities might then relocate part of the

savings generated for increasing STEM supply (enrolment, courses, and equipment). This could be achieved also by sharing laboratories and equipment for engineering, IT and basic sciences with the *Instituto Nacional de Aprendizaje* (INA) or the private sector (CONARE, 2015[59]).

Figure 2.21. Labour costs are the largest spending component of public universities

Composition of public spending in public university, %, 2007-19 average



Source: PEN Dataset.

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Public universities could share a unique platform for the management of administrative tasks (grants, enrolment, accounting system, purchase of goods and services) and didactic services (courses syllabus, exams) so as to benefit from economies of scale and facilitate the exchange of information, collaboration and mutual recognition of courses among public universities (PEN, 2021[13]). Using IT technology to centralise the administration of regional branches of public universities that, except for the *Universidad Estatal a Distancia*, replicate to a smaller scale the administrative structure of the headquarter, could produce further savings (PEN, 2021[13]).

Broadening the sources of revenues

Public university fees are low in Costa Rica and represent between 3% and 10% of total revenues across public universities (Vargas, 2021[58]). Low fees are an implicit subsidy to students, benefiting mostly students from an advantaged socioeconomic background. In 2021, 55% of tertiary students were from households in the top two income quintiles, and only 35% from families from the two bottom income quintiles (PEN, 2021[13]). Making university fees more progressive would increase equality of opportunity in education. It would also increase revenues that will alleviate, but not solve, the funding problem. An analysis of the budget of the *Tecnológico de Costa Rica* (TEC) shows that if university fees doubled and all grants were eliminated, which should be avoided as it would limit access to higher education for talented students from vulnerable groups, still the increase in revenues would cover only 25% of the total cost per student (Arias, 2018[60]).

The share of revenues due to the sale of services ranged between 4.4% and 12.7% across public universities in 2019 (Vargas, 2021[58]). This source of revenue is generally related to the provision of training services to the public sector, thus it is likely to shrink in the medium term due to fiscal consolidation.

Modifying the budget mechanism to increase transparency and accountability and promote quality

Public universities have a constitutional right to operational autonomy, including on how to use and allocate the funds received. Every five years, they publish the National Plan of Higher Education (*Plan Nacional de la Educación Superior*, PLANES), in which they detail capital and current spending over the next five years and set performance indicators targeting educational inputs (e.g. number of courses offered, number of students enrolled), or outputs (number of research projects, publications in peer-reviews journals, number of researchers). However, failing to meet these targets implies no penalty nor impacts on future funding. In drafting the PLANES public universities could take into account the development goals set by the government in the latest National Development Plan (*Plan Nacional de Desarrollo*), but they are not bound by them.

Modifying the design of the funding system of public universities could steer the allocation of funds to encourage them to pursue national goals sought by society, such as delivering high quality education and training that meets the needs of learners, employers and communities; producing research of high quality that is socially or economically valuable; and supporting equitable access to learning by favouring the access to underrepresented groups (Box 2.8). For example, public funding could create incentives for public universities to reform their programmes in education as to adapt them to the new curriculum.

Institutional performance agreements, or quality agreements, could be adopted to assign part of the funding to public universities. Under these agreements, universities do not need to meet one-size-fits-all indicators but are required to demonstrate they have made efforts. In the Netherlands and Finland, these quality agreements are based on a limited number of specific, measurable, achievable and time bound indicators that can be assessed through qualitative as well as quantitative methods. In institutional performance agreements, only a small proportion of funding is made dependent on achieving goals. International evidence shows that these agreements tend to increase accountability, transparency, and strategic planning, but their impact on output variables may be limited (OECD, 2021[61]).

An alternative funding mechanism involves granting additional funding to higher education institutions conditional on achieving some system-wide performance goals. In Denmark, 7.5% of the teaching grant is awarded based on average study duration and the employment rate of graduates. In Ireland, 5% of the teaching grant is conditional on progress towards targets established by universities and public authorities. In the Netherlands, the new quality agreements that will run from 2019 to 2024 will assign a bonus by 2024 if progress is made with respect to goals that will be qualitatively assessed by the national accreditation body. Such agreements have been found to have positive effects in many Northern European countries. In Germany, they increased third party funding and improved graduation rates in universities of applied sciences. In many countries where they are applied they are found to increase the focus on results and induce a more strategic evidence-based decision-making in higher education institutions (Germany, Finland, Ireland and the Netherlands) (OECD, 2021[61]).

An indicator framework for quality assessment, but not closely linked to funding, is England's Teaching Excellence Framework (TEF), which scores institutions based on various student feedback and employment outcome metrics. The TEF is mainly used as a signalling tool, but top scores also allow institutions to charge slightly higher tuition fees.

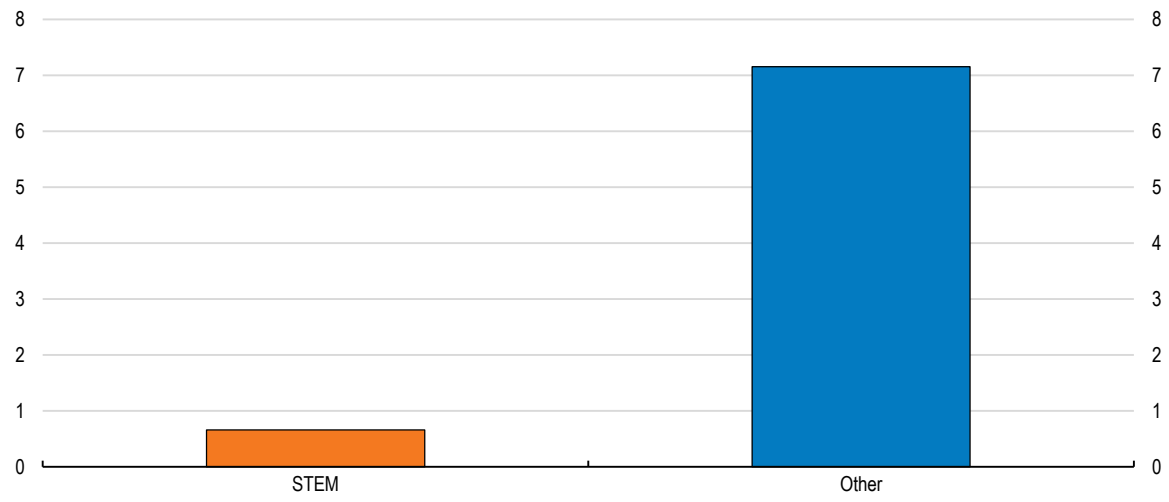
The funding mechanism could create incentives for public universities to better support the development of domestic innovation. The number of patent applications from residents shows that Costa Rica innovates less than peer regional countries such as Panama and Uruguay, and that most patents in Costa Rica are from non-residents (80%). Funding is not used to boost the number of postgraduates in STEM areas, which are few (Figure 2.22). The level of spending in R&D is limited (around 0.5% of GDP, compared to an OECD average of 2.5%) and is not allocated though a competitive process based on performance criteria, contrary to the situation in most OECD countries (OECD, 2017[62]). Funding excludes private universities as it is channelled directly to public universities through the Special Fund for Higher Education *(Fundo Especial*

de Educación Superior, FEES). Costa Rica also lacks a culture of open collaboration and exchange of information across universities and research centres that is observed in the most innovating systems.

In Costa Rica, collaboration between public universities and the business sector is weak (OECD, 2016[63]). Changing the way public research is funded can trigger stronger interaction (OECD, 2020[64]). In addition, also contrary to OECD practices, there are no centralised and independent external evaluation mechanisms of public funded research. Moving towards a performance-based and competitive funding and establishing the connection with the business sector as one of the eligibility criterion will increase incentives for universities to raise the quality and relevance of their research and innovation.

Figure 2.22. The number of postgraduates in STEM areas is insufficient to promote innovation

Postgraduate degrees, share of total degrees granted by universities, %, average 2014-20



Source: HIPATIA.

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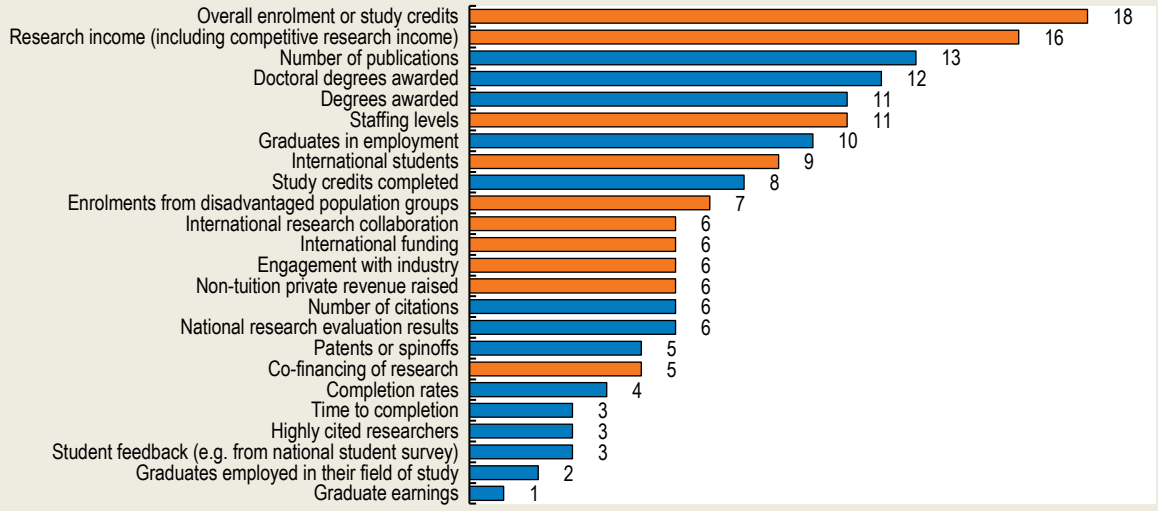
Box 2.8. OECD experience in linking public funding of higher education institutions to performance indicators

In a recent survey, 24 OECD jurisdictions (countries or states in federal countries) reported using output and outcome variables in a formula that is used to allocate at least a part of public funding to the higher education system (Figure 2.23). In some OECD jurisdictions, such as the United Kingdom, research funding is largely performance-based, while in Finland the whole education funding system is performance-based.

Input (e.g. overall enrolment, staffing levels) and activity oriented (research income, international research collaboration) indicators are easier to measure. However, these indicators may provide incentives to favour the quantity of enrolment over the quality of courses, or to expand courses in high demand by students or that are cheaper to deliver, but not in line with labour market demand. Output (e.g. completion rates, number of degrees granted, publication) and outcome (e.g. labour market performance of graduates) indicators may better capture the quality of higher education, but may also create risk-avoiding behaviour as institutions put emphasis on outputs that are more easily attainable both in teaching (reducing intake of less advantaged students to improve their performance) and in research (e.g. by pursuing less difficult research questions). Outcome-related measures might in principle be best suited to allocating resources where they are most effective in terms of labour demand but are complex to measure.

Figure 2.23. Input, output and outcome variables in formula-based funding allocation models

Number of responding jurisdictions using each criterion



Note: Total OECD jurisdictions responding = 27. In orange: input and activity-oriented factors. In blue: output and outcome-oriented factors.
Source: Golden and Troy (2021).

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Formulae used to allocate teaching funds tend to adopt input-based indicators, while those that are used to allocate research funds use more often output indicators. Not all indicators may receive the same weight in the formula and jurisdictions can increase the weight of a specific indicator to pursue specific goals. For example, some jurisdictions increase the weight associated to the enrolment of underrepresented groups for equity objectives (New Zealand, the Flemish Community in Belgium and a number of US states).

Studies find that performance-based funding in Europe is correlated positively with an increase in research productivity (Denmark, the Netherlands, Norway, Switzerland, the United Kingdom) and improved teaching efforts (United States and Denmark) because of better course articulation and transfer system as well as improved student support services (advising and counselling).

Studies on performance-based funding in the USA find no or minor positive effects on retention and completion rates, a modest positive effects on boosting uptake of STEM subjects and a positive impact on institutional efforts to improve academic and students support services. At the same time, negative unintended consequences were detected, such as limiting access through a tighter selection, thus disfavouring underrepresented groups for whom accessing and completing higher education is more challenging; exacerbating gaps across institutions, as lower performance institutions that end up with reduced funding do not have the resources to invest to improve their performance.

Source: OECD (2021), Resourcing Higher Education in the Flemish Community of Belgium.

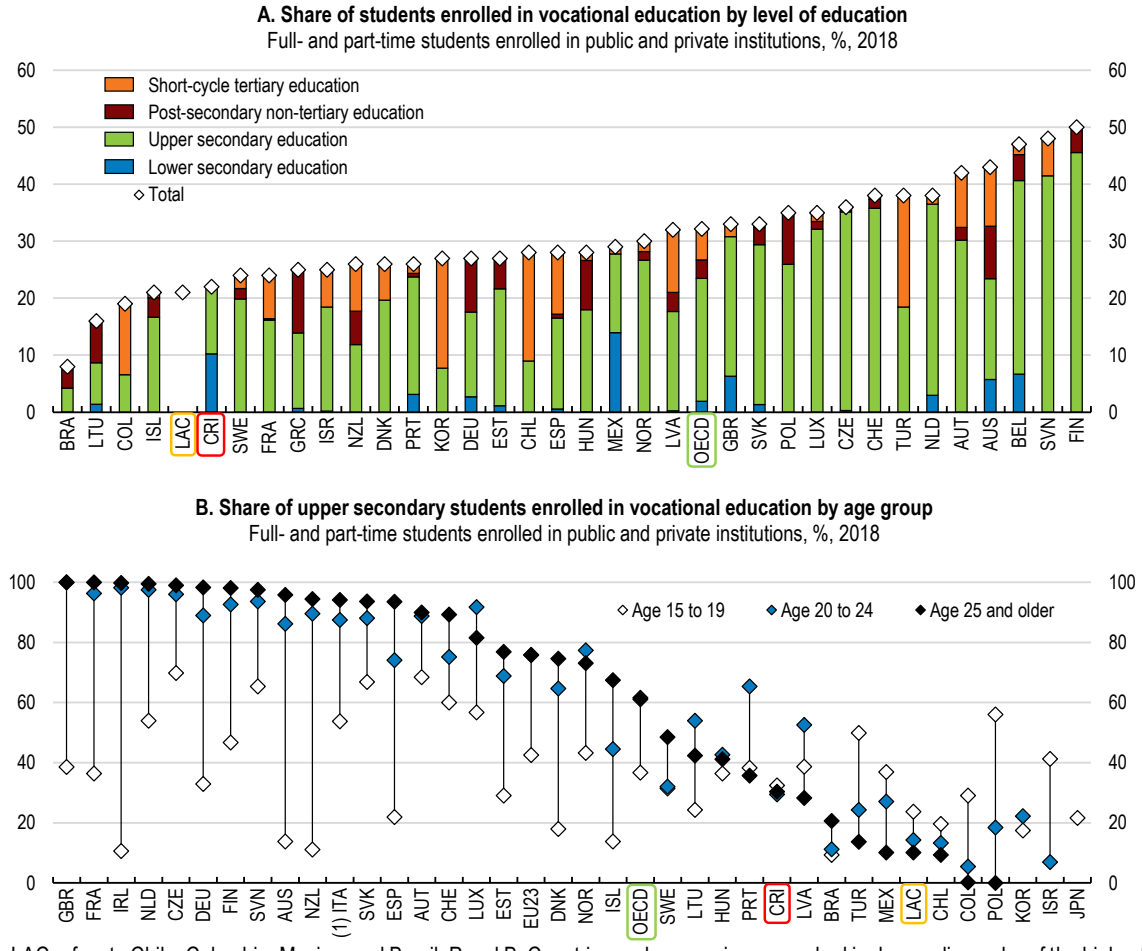
Better aligning the VET system with labour market needs

The VET system needs to equip more students with good and relevant skills

In Costa Rica only 22 % of students from lower secondary to short-cycle tertiary enrol in vocational education and training (VET), a proportion below the OECD average of 32% and that of peer countries in the region such as Chile and Mexico (Figure 2.24, Panel A). Around two thirds of VET graduates over 2000-20 are from Instituto Nacional de Aprendizaje programmes, another 26% from Ministry of Public Education programmes, and only 7% from other institutions (*parauniversidades*) (Box 2.9).

In Costa Rica a large share of the working age population has low educational attainment (below upper secondary education) and could benefit from VET to acquire relevant skills for the labour market (Figure 2.4, above). VET may match the needs of those who do not want to pursue an academic formation but rather a more practice-oriented (and sometimes shorter) education path providing a smooth access to the labour market. In many OECD countries, many young people (and in some cases also adults) enrol into formal VET programmes at the upper-secondary level to gain skills that improve their employability. On average, VET students represent 42% of all upper secondary students in the OECD compared to 32% in Costa Rica (OECD, 2021[50]), but the gap is even larger for the 20-24 year olds and above 25 year old age groups (Figure 2.24, Panel B).

Figure 2.24. Few students choose vocational education in Costa Rica



Note: LAC refers to Chile, Colombia, Mexico, and Brazil. Panel B: Countries and economies are ranked in descending order of the highest share of upper secondary enrolment in vocational education and training programmes among students aged 25 years and older. 1. Includes post-secondary non-tertiary programmes.
Source: OECD Education at a Glance 2021 and 2020.

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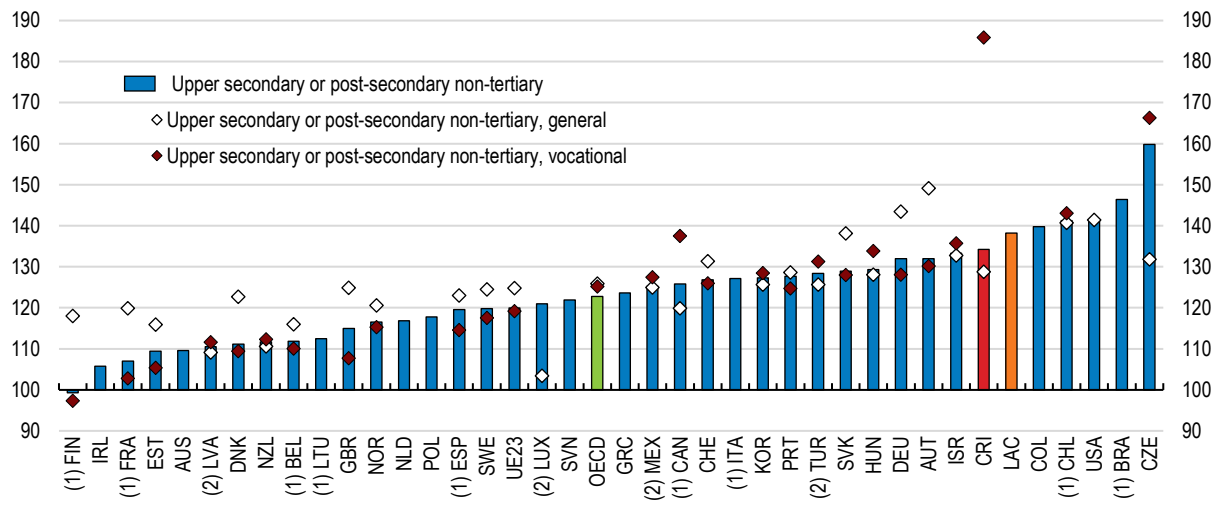
The low participation in formal VET programmes in Costa Rica contrasts with the relatively favourable earning and employment conditions of formal VET graduates. Earnings of a graduate from formal upper-secondary or post-secondary non-tertiary VET, who has a qualification of a middle level technician, is 86% higher than that of an adult with below upper secondary education and 44% higher than that of an adult with general upper-secondary or post-secondary non–tertiary education (Figure 2.25).

Such an earnings gap highlights a mismatch between demand for and supply of mid- and high-level technicians (level of qualification from three to five) (Blanco, 2019[65]) (Figure 2.26). Indeed, in Costa Rica the demand for technicians is high across many sectors. In the services sector, around 30% of the vacancies concern mid-level technicians, even more than the share of vacancies regarding higher education profiles (25%) (INEC, 2018[1]). In the private sector, 15 out of 100 jobs are for technicians (CONAPE, 2021[54]) and around one third of firms in the industrial sector report that technicians are the most difficult workers to find (UCCAEP, 2021[2]). Many firms report having problems filling their vacancies (Figure 2.27, Panel A) because applicants lack required skills or working experience, or do not have the minimum education requirements (Figure 2.27, Panel B).

Figure 2.25. VET graduates enjoy favourable earnings conditions

Relative earnings of adults with an upper secondary or post-secondary non-tertiary education compared to earnings of adults with below upper secondary education, by programme orientation, below upper secondary education = 100, 2018



Note: 1. Year of reference differs from 2018. 2. Earnings net of income tax of a full-time full-year worker. Countries are ranked in descending order of the relative earnings of 25-64 year-olds with an upper secondary or post-secondary non-tertiary education as the highest educational attainment level. LAC refers to Chile, Colombia, Mexico, and Brazil.
Source: OECD (2020), Education at a Glance Database.

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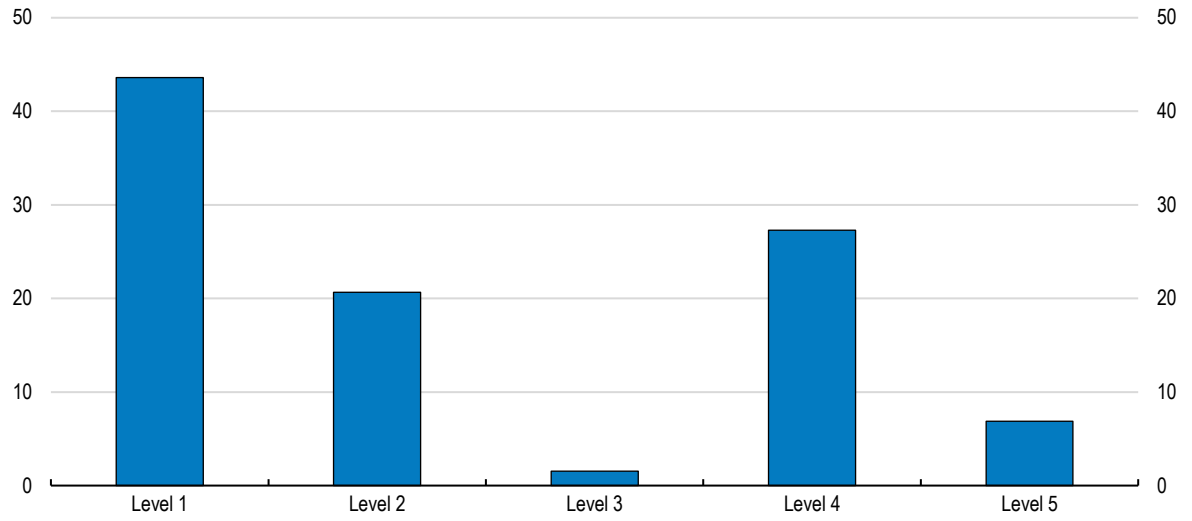
Despite the rising demand for specialised technicians, the number of graduates with such qualification from the National Vocational Training Agency (*Instituto Nacional the Aprendizaje*, INA), which provides training services to adults and produces the large majority of VET graduates, has actually dropped in recent years. The inability of INA to match its supply of training with the labour demand underlines the low employability of INA's graduates: only around 25% of them were hired in the field in which they had received training (CGR, 2017[66]), against a percentage of 44% for VET graduates from MPE.

Figure 2.26. Most of VET graduates have a low level of qualification

Distribution of graduated in VET by level of qualification, %, 2014-20



Note: The level of qualification were established in 2018 following the establishment of the National Qualification Framework.
Source: HIPATIA.

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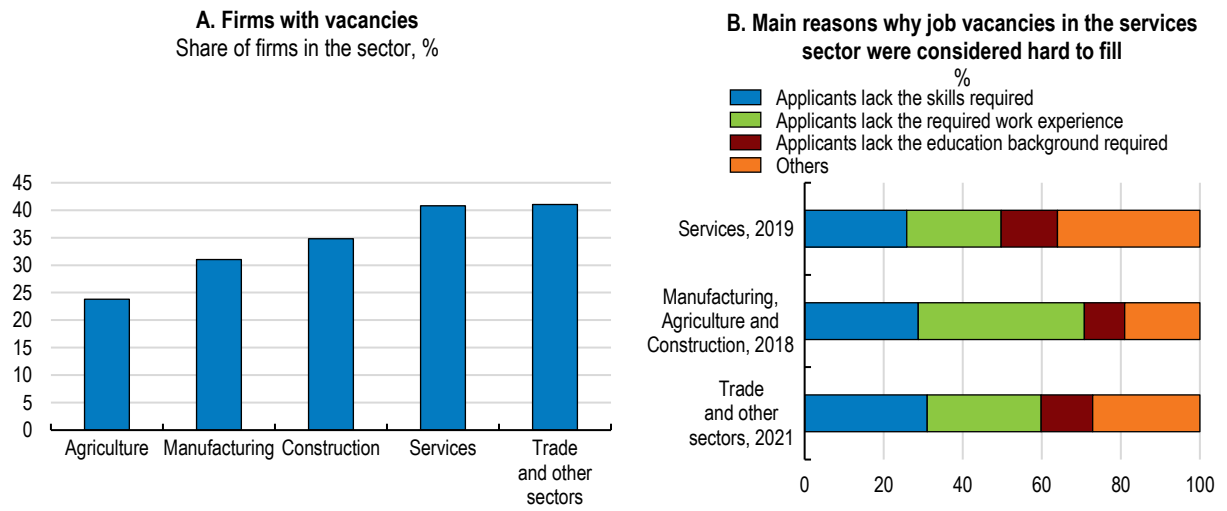
Figure 2.27. Lack of skills leaves many vacancies unfilled



Source: INEC.

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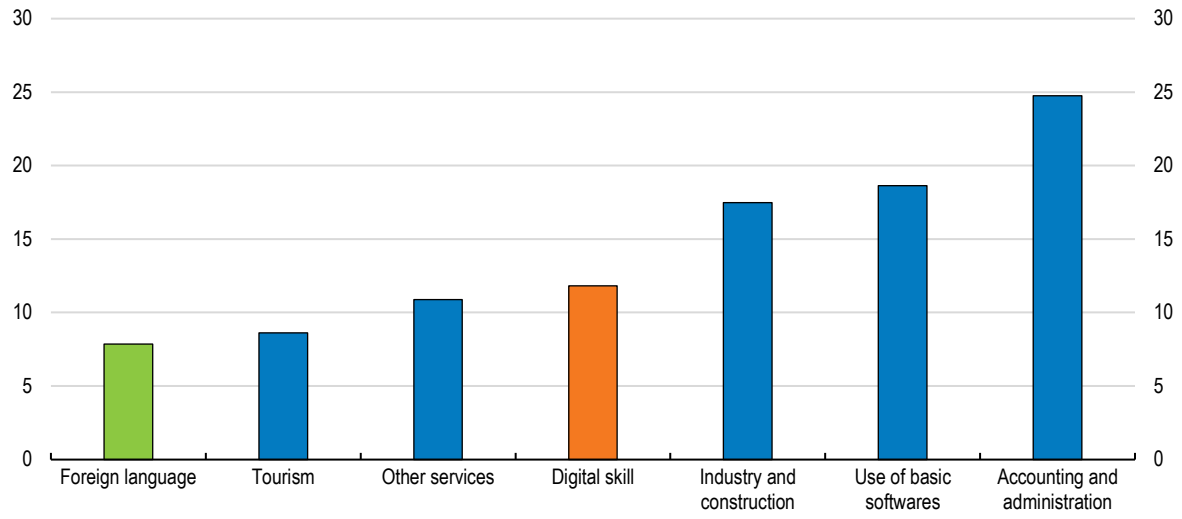
One of the factors behind the mismatch between demand for and supply of technicians is that few students enrol in VET programmes to acquire skills in high demand, such as digital skills, speaking a foreign language or specialising in STEM sectors (Figure 2.28). The majority of them receives training in accounting and administration or the use of basic software (e.g. office package). Women, despite representing around 58% of all VET graduates, are persistently under-represented in programmes providing digital skills (software analysis and development; design and administration of network and databases; electronics and automatisation) (Durán-Monge, 2022[67]).

Costa Rica should reform its VET programmes to increase the supply of skills that are in high demand in sectors such as IT (software development, services to business), bio-economy (Costa Rica contains nearly 6 percent of the world's biodiversity), advanced manufacturing and health sciences (Durán-Monge, 2020[68]). Retraining and upskilling workers into these specialisations would increase their employability and help employment recover after the recession caused by the pandemic. The launch in 2021 of new programmes in VET for technical careers in high demand (e.g. cybersecurity, web development, industrial electronics and artificial intelligence) and including courses to provide foreign language and digital competencies are welcome developments, but further reforms are needed. Moreover, strengthening the work practice component of upper-secondary VET would further increase their employability, as graduates in Costa Rica receive essentially a school-based formation (OECD, 2021[50]) (Figure 2.29).

Figure 2.28. Few VET graduates enrol in programmes to acquire digital skills or speak a foreign language

Distribution of graduates in formal and non-formal vocational training by kind of skills acquired, %, 2000-20



Note: Programmes providing digital skills include software analysis and development; design and administration of network and databases; electronics and automatisation.
Source: HIPATIA.

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Box 2.9. The vocational education and training (VET) system in Costa Rica

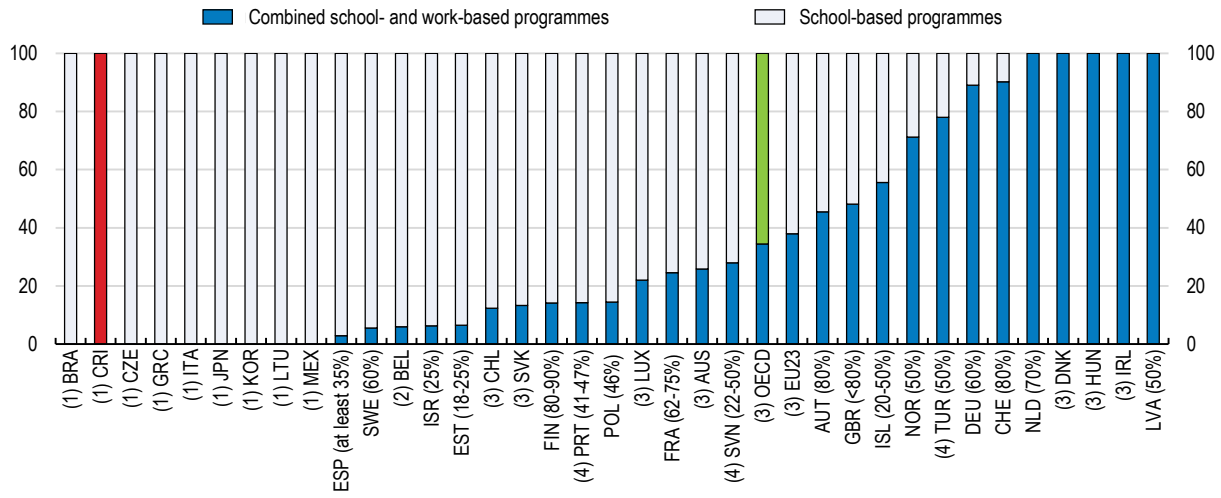
The vocational education and training (VET) system in Costa Rica has two main actors: the National Vocational Training Agency (*Instituto Nacional the Aprendizaje*, INA) and the Ministry of Public Education (MPE).

- The MPE provides formal VET through the technical branch of upper secondary school (*Colegios Técnicos Profesionales*). To complete their programmes students opt in most cases for 320 hours of professional practice or (in a minority of cases) for a professional project, mainly a desk-based exercise. Students completing formal VET education obtain the qualification of middle level technicians (technician of level 4) according to the National Qualification Framework and have the option to enrol into higher education.

- INA is in charge of non-formal VET and provides free technical training to people (above 15 year old) who may not have completed secondary schooling and who need to acquire or upgrade their skills to increase their employability. Working practice depends on the level of qualification associated with the programme. The number of hours of working practice amounts to 320 for a programme providing a qualification of technician of level 3 (National Framework of Qualification), and 184 hours for a programme providing a qualification of technician of level 2. There is no working practice for training programme providing a qualification of technician of level 1.
- Higher education institutions (public universities and *parauniversidades*) offer short-cycle (2-3 years) vocational programmes (SCVPs). Graduates from these programmes (*diplomados*) get a qualification of technician of level 5.
- Many private institutions provide VET education but a have marginal role overall as around 95% of VET graduates in 2022 attended INA or MPE programmes.

Figure 2.29. Formal VET programmes lack working experience

Distribution of upper secondary vocational students by type of vocational programme, %, 2018



Note: Figures in parentheses refer to the most typical duration of the work-based component as a percentage of the total programme duration for combined school- and work-based programmes. For example, in Germany, more than 98% of students in combined school- and work-based programmes are enrolled in a programme where the duration of the work component accounts for about 60% of the total programme duration. 1. Data on typical duration of the work-based component are not applicable because the category does not apply. 2. The most typical duration of the work-based component is at least 46% for the Flemish Community of Belgium and 60% for the French Community of Belgium. 3. Data on the most typical duration of the work-based component are missing. 4. The share of students enrolled in combined school- and work-based programmes as a percentage of all student enrolled in upper secondary vocational education is estimated based on the results of the INES ad-hoc survey on VET.
Source: OECD (2020), Education at a glance.

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Making the VET system more responsive to labour market needs

Recent reforms that introduced dual educational programmes and increased the flexibility of the National Vocational Training Institute (INA) have the potential to improve the outcome of the VET system (Box 2.10) by increasing its ability to adapt their supply to labour market needs. However, their implementation should be closely monitored to ensure they will produce the expected results, and address identified weaknesses by adapting regulation and legislation.

The 2019 dual vocational education and training law (*Ley de Educación y Formación dual*) is struggling to produce results. Three years after its legislation, very few firms actively participated in it (6% of SMEs and 8% of medium and large firms, UCCAEP 2021) and very few dual programmes materialised. The first programme was organised by INA and INTEL and started in 2022 involving 14 students, who will split their time between the company (3 days) and INA (2 days). Another seven dual education programmes were offered by INA in 2022 (Advanced Cuisine, Graphic Printing, Graphic Design, Preparation of Systems for Light Vehicles, Food and Drinks Service and Guest Services). The Ministry of Public Education actually offers two dual education programs (Web development and industrial electronics) that involve 19 students.

The introduction of a dual education system with no tradition in Costa Rica just before the outbreak of the pandemic has probably played a role in its slow start. Survey data show that a larger share of firms expressed interest in participating in such programmes (UCCAEP, 2021[2]). As highlighted by past OECD works (Álvarez-Galván, 2015[69]), the involvement of firms is crucial for a successful development of a dual education system. Social partners (professional and employers' organisations) must have real responsibilities in defining the overall vocational profile and the standards of the programmes, monitoring and evaluating students' progress, and grading and granting credits and diplomas. The current regulation provides a role for social partners and in theory enough flexibility regarding the duration of training and the sequence of training and teaching activities, to be attractive for firms. However, the dual education model might result more attractive for traditional sectors, but less for firms in sectors such as corporate finance or advance manufacturing such as medical equipment, where working practice must last for long periods and without discontinuity to be effective, thus preventing the alternation between working practice and class activity.

The 2021 reform of the INA introduces flexibility that could help re-orientate the supply of training services towards labour market demand, thus improving the employability of its graduates. However, some aspects of the reform raise doubts about its effective potential. The possibility to hire external VET teachers and outsource training services, yet to be regulated, is considered as an exception and not the rule, thus requiring a potentially complex procedure to ensure that the training cannot be provided internally. This may reduce *de facto* the flexibility in supplying training services that the reform aims at (Cornick, 2022[70]). Moreover, there is a risk that services initially offered by third parties will be eventually internalised, thus increasing their cost and lowering their quality, as occurred in the past with the *Caja Costarricense del Seguro Social*.

INA could consider the possibility of relying more systematically on external training providers for new programmes and in areas either not covered or with quality issues. INA could also strengthen its strategic decision-making function, following the example of countries such as Korea, Finland and Germany. To this purpose, it would be crucial to strengthen the supervision of the quality of training provided by external parties, for example through a theoretical and practical examination to be held at the end of the training and whose standards would be agreed by workers and employers association. The participation of representative employers associations that express the majority of firms, which are currently absent in some sectors of the Costa Rican economy, could contribute to further facilitate the implementation of these standards. INA should also use actively its new power to systematically assess labour market conditions so as to identify skills mismatches and find external parties able to provide the required training. Currently the use of this power is discretionary.

The INA's administrative procedure to access grants and economic-aid could be streamlined as it currently sets a high administrative burden on potential beneficiaries that may be a barrier especially for most vulnerable groups (individuals living in poverty or extreme poverty). The discretionary power in the assessment of demand for economic-aid could be reduced by introducing a homogeneous procedure that can be digitalised and standardised (Cornick, 2022[70]).

The reform broadened INA's goals, which now also include providing technical support for the development of firms, especially SMEs. This conveys the risk of duplicity with other public agencies (e.g. *incubadoras de empresas por universidades públicas*).

The bodies that link INA with the productive sector, Liaison Committees (*Comités de Enlaces*), could be modified so as to strengthen their function from a body that exchanges information to identify the skills needed by the private sector to a decision-making body. Integrating the Committees within the National Cluster Policy (*Política Nacional de Clusters*), so that each Committee could cover a specific cluster as identified in the Economic Territory Strategy for an Inclusive and Decarbonised Economy 2020-2050, could make it possible for INA to adapt its training services to local needs and provide each economic cluster with the required skilled workers, thus accelerating their expansion.

Costa Rica should ensure that conditions are met for the National System of Vocational Education and Professional Training (*Sistema Nacional de Educación y Formación Técnica Profesiona*l, SINEFOTEP) to effectively monitor the quality and effectiveness of VET programmes. In the past, the lack of action of the SINETEC, the institution that preceded SINEFOTEP, was a main factor in preventing the supply of professional training from shifting towards STEM areas (CGR, 2017[66]). The activity of the SINEFOTEP could benefit from setting clear goals in terms of desired development of the system of VET, as well as the development of a detailed analysis of the evolution of the labour market in the medium-long run, which could take into account the national industrial policy. These tools would help SINEFOTEP orientate the VET system as to best meet current and future demands of the labour market, at the national and regional level. The SINEFOTEP should dispose of adequate resources (staff and equipment), and its governance carefully designed, to effectively carry out its activity.

Box 2.10. Recent policies in vocational education and training (VET)

The 2018 National Qualification Framework for Vocational Education and Training sets the standards of VET programmes, including skills and knowledge that graduates are expected to acquire at the end of the training and the characteristics of the programme for each level of qualification (number of hours of classes and working practice). The framework requires that the content of VET programmes be the outcome of a collective dialogue involving all main stakeholders (private firms, professional associations, trade unions, teachers, universities).

The 2021 law No. 9931 reformed goals, governance, labour rules and the system of grants and economic-aids of the INA. The reform sets as INA's explicit goals increasing the employability of its graduates, promoting entrepreneurship and providing technical and financial support for firms' development, especially SMEs. The reform allows INA to hire teachers for a fixed term if INA teachers are unavailable or lack the required preparation. INA can also outsource training activities whenever they cannot be supplied internally conditional on INA having accredited the training programme. The new system of grants and economic-aids aims to increase the number of beneficiaries from vulnerable groups. Students can receive grants and economic-aid even when participating into training programmes offered by external certified centres. Economic-aid targets various needs (food, housing transportation) and include familiar assistance (child, elderly, sickness), which in the past was one of the main cause of educational exclusion. Working restrictions limiting the possibility for INA's teachers to engage also in a professional activity have been abolished. INA adapted its wage scheme to the 2022 public employment framework law.

The 2019 dual education and training law (Law No. 9728, *Ley de Education y Formación technical dual*) introduced the possibility for universities, INA, the Ministry of Public Education (MPE) and other educational institutions to offer dual education programmes. Students participating in this programme combine vocational education with working practice in firms under the guidance of a mentor, thus enhancing workplace learning and future employability. INA is charged with accrediting teachers and

mentors participating in dual educational programmes as well as providing grants and economic-aids to students. The design and authorisation of a dual educational programme requires the agreement of a professional association and the firm providing working practice and mentoring. The proportion between the time spent in the company and in the vocational course is not predetermined and may adapt to the specific characteristics of the firm and the sector it operates.

The National System of Vocational Education and Professional Training (*Sistema Nacional de Educación y Formación Técnica Profesiona*l, SINEFOTEP), replaced the SINETEC. SINEFOTEP is charged with coordinating VET institutions to ensure the quality of VET and its effectiveness in adapting to the needs of the private sector. Among its functions, the SINEFOTEP should facilitate the permeability across VET programmes offered by different institutions of the VET system, on the basis of the national qualification framework or vocational education and training; interact with the National Employment System to adapt the supply of VET programmes to the labour demand; and monitor for the quality of VET programmes. The SINEFOTEP has not yet entered in function.

INA successfully cooperated with the *Coalición Costarricense de Iniciativas de Desarrollo* (CINDE) to re-skill textile sector workers towards the rising cluster of medical appliances. INA and Microsoft organised a 3-month training in cloud computing services in 2021. The training programme was designed to provide skills that the CINDE had found to be in high demand. Graduates become specialists in Microsoft Azure cloud and obtained internationally recognized Microsoft certifications: Azure Fundamentals and Azure Data Fundamental. INA could scale up these successful initiatives.

Raising the attractiveness of formal VET

Costa Rica could improve the articulation between non-formal VET (Box 2.9) and the formal education system. Currently, non-formal VET does not provide a certification recognised in the formal system and that might provide opportunities to continue education, thus perpetuating the perception of VET as an inferior education. Some countries have such an option (e.g. Germany, Korea, and Finland). In Germany, post-secondary vocational programmes are regulated by standards set by regional authorities, though the articulation from vocational to academic programmes remains problematic (Godonoga, 2020[71]). In Denmark, VET programmes for adults (non-formal VET) allow graduates to access higher education qualifications at levels corresponding to those of the ordinary education system (Field, 2012[72]).

Costa Rica could create linkages between formal and non-formal structures to help make the education system more equitable and inclusive. This could require a reform of the system of certification of qualification through the recognition, validation and accreditation of knowledge and skills acquired through non-formal and informal education. Reforming the Young and Adult Education Programme (*Educación de Personas Jóvenes y Adultas*, EPJA) would also contribute to reach the many Costa Ricans who did not complete basic education or upper secondary education and provide them with more opportunities of training and requalification that could improve their employability.

Increasing the quality of VET teachers

Costa Rica has made progresses to increase the quality of VET teachers, and their professional experience, including allowing VET teachers to use a grant to participate in training and the possibility of hiring the mentors participating in the dual education programme. The Ministry of Public Education developed cooperation with CINDE, universities and firms to organise training courses for VET teachers. INA's more flexible hiring system has also the potential for high-quality professionals to become VET teachers. Abolishing the ban that hindered full-time VET teachers to work in the industry creates opportunities for increasing their professional experience that could then be passed on to VET students. However, INA and Ministry of Public Education requirements for VET teachers have not yet been made homogeneous.

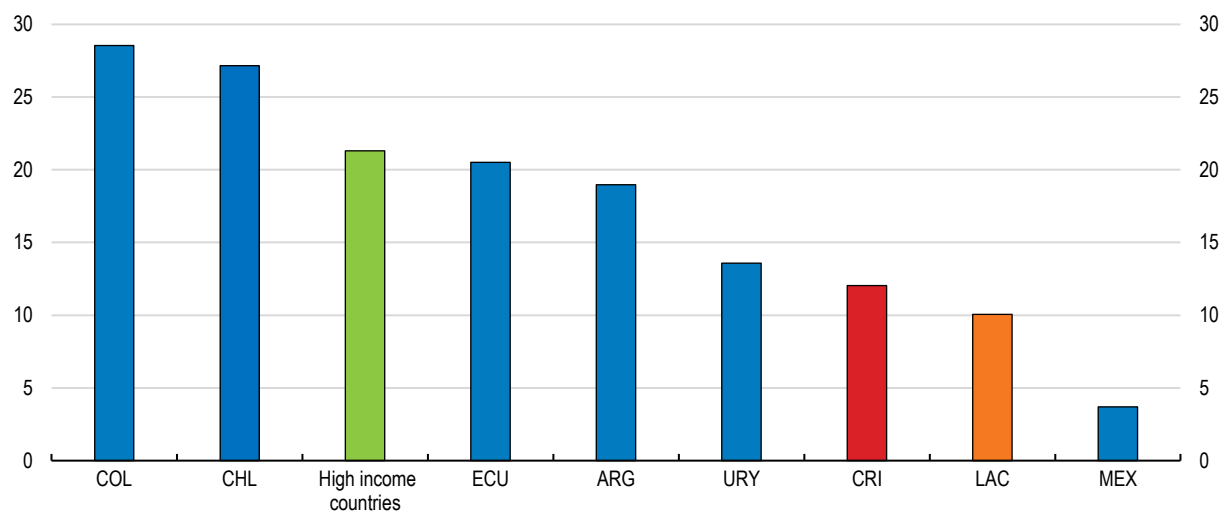
Improving the supply and attractiveness of short-cycle vocational programmes (SCVPs)

In Costa Rica short-cycle vocational programmes (*programas de Ciclo Corto*, SCVPs) are perceived as inferior to academic programmes and are chosen by very few students in tertiary education, contrary to what occurs in other countries in the LAC area such as Colombia and Chile (Figure 2.30). Strengthening the supply of SCVPs and promoting a larger demand for them would provide a double dividend. On the one side, evidence from countries where SCVPs are more developed show that they help to adapt the supply of skills to the needs of the economy. SCVPs can develop technical skills that improve employability in a shorter time (2-3 years) than longer tertiary programmes. On the other hand, SCVPs might increase tertiary education coverage by attracting students that would be interested in higher technical specialisation but are unwilling to pursue an academic formation. Evidence from the LAC area shows that students in SCVPs are on average from a more disadvantaged socioeconomic background and have higher graduation rates than students enrolled in longer tertiary programmes (Ferreyra, 2021[73]). Thus, strengthening the SCVPs offer could also help reduce inequality in education.

Graduates from SCVPs have on average lifelong earnings that are around 40% higher than those of students who just completed secondary schooling, though there is heterogeneity depending on the field of study and the quality of the programme. Evidence from countries where SVCPs are more developed shows that well-functioning SVCPs must have tight connections with the private sector, which provides working practice for their students, training for the teaching staff and cooperate in the revision of the curriculum (Ferreyra, 2021[73]). An information campaign covering the labour market potential of SCVPs (employment rate and average wage), their cost and the availability of funding may help overcome the stigma associated with them and increase their demand.

Figure 2.30. Short-cycle vocational programmes in tertiary education are not widespread

Enrolment in short cycle tertiary education, share of total tertiary education enrolment, %, 2019



Note: High Income countries refers to all countries classified as such by the World Bank; LAC refers to countries in the Latin American and Caribbean region.
Source: UNESCO.

StatLink https://stat.link/k50gbd

Table 2.1. Policy recommendations from this chapter (Key recommendations in bold)

MAIN FINDINGS	CHAPTER 2 RECOMMENDATIONS
Improving quality and equity in pre-tertiary education	
Children from disadvantaged households have a lower access to early education and care. Female labour market participation is hampered by caregiving duties, particularly in low-income households.	**Expand the coverage of early education for children below four years, giving priority to low-income households and using co-payment mechanisms.**
Few primary schools offer the complete curriculum thus reducing learning opportunities especially for vulnerable students. The implementation of the curriculum reform to update contents and teaching practices in education remains incomplete. Many teachers need to receive training to be able to implement the new curriculum and to address the needs of the most vulnerable students. Few universities have reformed their education programmes to prepare future teachers to implement the new curriculum in class.	Extend the number of primary schools offering the complete curriculum. Ensure teachers' pre-service and in-service training allow them to develop key knowledge and skills to support students and implement the new curriculum.
Many students have low digital skills, limited access to digital technology and need to strengthen foreign language competences.	Improve students' access to IT resources.strengthen their digital skills, also by legislating and implementing the National Programme of Digital Literacy, and strengthen bilingual education.
Educational exclusion and frequent grade repetition are large in secondary education and mostly affect students from vulnerable groups (poor, indigenous and migrants).	**Identify underperforming primary and secondary students and provide them with targeted and early tutoring support provided by well-trained teachers, prioritising those from vulnerable groups.**
Many schools lack broadband internet connectivity, especially in remote areas. A pilot project in the Canton of Santa Cruz shows that it is possible to improve broadband connectivity in cooperation with the private sector. Costa Rica lacks an accurate inventory of educational infrastructure, which contributes to a poor governance of school infrastructure and makes infrastructure projects difficult to develop.	Provide all schools with broadband connectivity, including by fostering cooperation with the private sector. Establish a complete inventory providing key information on schools (location, population and state of the infrastructure) for a timely planning of interventions. Adopt a centralised and standardised system of information of infrastructure projects to provide a timely picture of ongoing projects and their status.
The digitalisation of the education system is incomplete, information on students, teachers and schools are not integrated within a single system. Costa Rica currently lacks a national standardised test for primary and secondary students.	Complete the implementation of the digital platform that compiles information of education stakeholders (students, teachers and schools), and ensures that the information is used for evidence-based policymaking. Establish a national standardised test to be held yearly, at least for diagnostic purposes, to monitor the evolution of students' performance.
Students' performance in PISA tests continues to be below the OECD average and highlights issues with the quality of teaching. There is little control on the quality of education programmes to prepare future teachers and few private universities offer the possibility for future teachers to engage in teaching practices. The teachers' recruitment process is inefficient. Many teaching positions remain vacant as public competitions are used by in-service teachers for mobility. There is higher supply of graduates in specific fields of education than demand.	Introduce a national examination to recruit teacher candidates to the teaching profession on the basis of more direct measures of teaching aptitude. Make the accreditation of the programmes in education for future teachers compulsory and conditional on providing teaching practices. Create a process to facilitate mobility and to allocate the best and most experienced teachers to schools and regions most in need. Consider introducing a quota and entry test in education programmes where the supply of graduates is higher than the needs.
The current teachers' performance assessment is inefficient and a framework for appraisal has not yet been developed.	Establish a framework for the assessment of the quality of education that indicate what tasks and evidence should be considered for teachers' performance assessment.
Education and Administrative Boards (EAEs), in charge of managing the public funds allocated to provide schools with the necessary goods and services, are inefficient and lack accountability and transparency in the management of public transfers from the Ministry of Public Education.	Reform Education and Administrative Boards' regulation to prevent that the inaction of local municipalities paralyzes their activity. Reform the minimum requirements of Education and Administrative Boards' members and ensure that they receive an adequate training to fulfil their role. Digitalise Education and Administrative Boards' budget procedures and carry out more audits on their budget reports.
Spending in education is high and will be contained for several years. Educational losses from prolonged school closure affected especially low-income students and may produce scarring effects.	Re-prioritise education spending in favour of compulsory schooling and pre-school education.
Improving the quality of tertiary education	
The number STEM graduates does not meet the labour market demand. University funding mechanisms lack incentives for accountability and quality in education and research. A substantial gender gap persists in most STEM fields.	**Modify university funding mechanisms by linking additional funding for public institutions to system-wide performance goals such as increasing STEM programmes and the number of graduates.** Encourage young girls and women to pursue studies in STEM areas also through mentorship programmes.

Regulation in private and public universities hinders innovation in the supply of tertiary education.	Streamline regulation to facilitate the opening of new programmes and reduce the uncertainty of the authorization process faced by private universities by making the authorisation procedure faster and more systematic on the basis of objective criteria.
There is scope to improve efficiency in higher education spending.	Increase the progressivity of university fees and provide targeted grants to low-income students.
Reforming the VET system to increase high-quality employment for all	
Few students enrol in formal VET despite favourable economic conditions and a potential large demand for VET from the population with low academic interest or attainment.	Increase enrolment in formal VET by strengthening vocational orientation among students in lower secondary education.
Graduates from the National Vocational Training Institute (INA) are mostly low-qualified technicians and many have low employability.	Use the flexibility introduced by the recent reform of the INA to re-orientate its supply of training services towards programmes that provide skills in high-demand and increase the number of highly qualified technicians.
The 2019 dual vocational programme has a strong potential to reduce skill mismatches but is struggling to produce results.	Monitor and, if necessary, strengthen the involvement of firms and social partners (employers and workers association) in defining the standards of dual vocational programmes, monitoring and evaluating students and grading process.
The two institutions in charge of training (National Vocational Training Institute and the Ministry of Education) set different requirements for VET teachers.	Introduce homogeneous requirements for VET teachers based on the 2016 national qualification framework for VET education.
Short-cycle vocational programmes are chosen by very few tertiary students, while they can help quickly adapt to changes in skills needs and reduce inequality.	**Strengthen the supply of high quality short-cycle vocational programmes and promote a larger demand for them via an information campaign.**

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COSTA RICA

Costa Rica recovered well from the pandemic-induced recession. Sustained and resilient export performance continues to support growth, while consumption is hindered by high inflation and unemployment. The fiscal situation improved but remains challenging, requiring sustained efforts to contain spending and boost public sector efficiency for several years. Maintaining and reinforcing the commitment to foreign direct investment and trade, which has been key to diversify the export basket, and improving the conditions for domestic companies to thrive are key challenges to boost living standards and formal job creation. This would require reducing the regulatory burden, improving the tax mix, fostering competition in key markets and continuing decarbonisation and environment protection efforts. Supporting higher female labour participation and upgrading social protection will help to adapt to ongoing demographic changes and improve the equality of opportunities. Education and training are a high priority for Costa Rica that devotes to them one of the highest spending shares among OECD countries. However, educational outcomes remain poor and firms struggle to fill their vacancies, particularly in technical and scientific positions. Improving efficiency and quality of public spending in education is needed to better support growth and equity.

SPECIAL FEATURES: EDUCATION AND TRAINING; SKILLS

Volume 2023/3
February 2023

PRINT ISBN 978-92-64-62829-8
PDF ISBN 978-92-64-89828-8

ISSN 0376-6438
2023 SUBSCRIPTION
(18 ISSUES)

9 789264 628298