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BETTER POLICIES FOR BETTER LIVES

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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 Mexico were reviewed by the Committee on 22 November 2021. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 10 December 2021.

The Secretariat's draft report was prepared for the Committee by Alberto González Pandiella and Alessandro Maravalle under the supervision of Aida Caldera Sánchez. Statistical research assistance was provided by Véronique Gindrey and Roland Tusz, and editorial assistance by Karimatou Diallo. The Survey also benefited from contributions from Lou Turroques and Steven Cassimon. The previous Survey of Mexico was issued in May 2019. Information about the latest as well as previous Surveys and more information about how Surveys are prepared is available at https://www.oecd.org/eco/surveys/.

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Basic statistics of Mexico, 2020[1]

(Numbers in parentheses refer to the OECD average)[2]

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million)	128.9		Population density per km²	66.3	(38.6)
Under 15 (%)	25.8	(17.8)	Life expectancy at birth (years, 2019)	75.1	(80.2)
Over 65 (%)	7.6	(17.4)	Men (2019)	72.2	(77.6)
International migrant stock (% of population, 2019)	0.8	(13.2)	Women (2019)	77.9	(82.9)
Latest 5-year average growth (%)	1.1	(0.6)	Latest general election		July 2018
ECONOMY					
Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	1 095.4		Agriculture, forestry and fishing	4.1	(2.7)
In current prices (billion MXN)	23 357.4		Industry including construction	31.7	(26.2)
Latest 5-year average real growth (%)	-0.4	(0.8)	Services	64.2	(71.1)
Per capita (thousand USD PPP)	19.3	(46.2)			
GENERAL GOVERNMENT Per cent of GDP					
Expenditure	30.1	(48.5)	Gross financial debt (OECD: 2019)	61.0	(108.9)
Revenue	24.7	(38.1)	Net financial debt (OECD: 2019)	52.4	(68.1)
EXTERNAL ACCOUNTS					
Exchange rate (MXN per USD)	21.32		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	9.38		Machinery and transport equipment	59.9	
In per cent of GDP			Miscellaneous manufactured articles	9.3	
Exports of goods and services	39.6	(50.6)	Food and live animals	7.1	
Imports of goods and services	37.6	(47.2)	Main imports (% of total merchandise imports)		
Current account balance	2.3	(0.0)	Machinery and transport equipment	46.0	
Net international investment position	-51.8		Manufactured goods	12.2	
			Chemicals and related products, n.e.s.	11.1	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	53.1	(55.1)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	4.5	(7.1)
Men	68.3	(63.0)	Youth (aged 15-24, %, 2019, OECD : 2020)	7.2	(15.2)
Women	39.3	(47.7)	Long-term unemployed (1 year and over, %)	0.1	(1.3)
Participation rate (aged 15 and over, %)	57.6	(59.5)	Tertiary educational attainment (aged 25-64, %)	19.4	(39.0)
Average hours worked product	2,124	(1,687)	Gross domestic expenditure on R&D (% of GDP, 2018)	0.3	(2.6)
ENVIRONMENT					
Total primary energy supply per capita (toe)	1.4	(3.7)	CO2 emissions from fuel combustion per capita (tonnes, 2019)	4.5	(7.1)
Renewables (%)	9.6	(11.9)	Renewable internal freshwater resources per capita (1 000 m³, 2019)	0.7	
Exposure to air pollution (more than 10 µg/m³ of PM 2.5, % of population, 2019)	99.5	(61.7)	Municipal waste per capita (tonnes, 2012, OECD: 2019)	0.4	(0.5)
SOCIETY					
Income inequality (Gini coefficient, 2018, OECD: latest available)	0.418	(0.317)	Education outcomes (PISA score, 2018)		
Relative poverty rate (%, 2018)	15.9	(11.7)	Reading	420	(485)
Median disposable household income (thousand USD PPP, 2018)	6.4	(25.4)	Mathematics	409	(487)
Public and private spending (% of GDP)			Science	419	(487)
Health care (OECD : 2019)	6.2	(8.8)	Share of women in parliament (%)	48.2	(31.5)
Pensions (2019, OECD: 2017)	3.1	(8.6)			
Education (% of GNI, 2019)	4.5	(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.

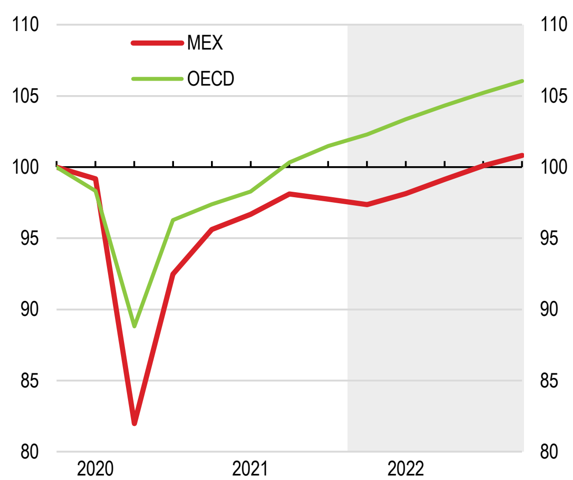
Executive summary

The economy is rebounding

The COVID-19 pandemic was particularly deep (Figure 1). Mexico's solid macroeconomic policy framework, underpinned by an innovative debt management, sound monetary policy and a flexible exchange rate, safeguarded macroeconomic stability and comfortable access to international capital markets. The manufacturing sector, deeply integrated in global value chains, led the recovery with the services sectors taking over recently as main growth driver. Labour market participation, which fell markedly, is recovering, but remains below pre-pandemic levels. Informal workers, women and youth were particularly hit, exacerbating long-standing inequalities.

Figure 1. The recession was deep

Real GDP, Index 2019Q4 = 100



Source: OECD Economic Outlook database.

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The last infectious wave peaked in January 2022 and vaccination is progressing. Looking ahead, the recovery will continue (Table 1). Exports will continue to benefit from strong growth in the United States. With a larger share of the population vaccinated and the gradual improvement in the labour market, consumption will also be a key growth driver. Investment will also pick up, driven by planned infrastructure projects. Inflation will edge down, after the significant increase in 2021. The latest fiscal plan foresees that the deficit will remain broadly unchanged in 2022 and gradually decrease thereafter. As such, the fiscal stance, while remaining cautious, has become less restrictive and provides mild support to the recovery.

Table 1. The economy is recovering

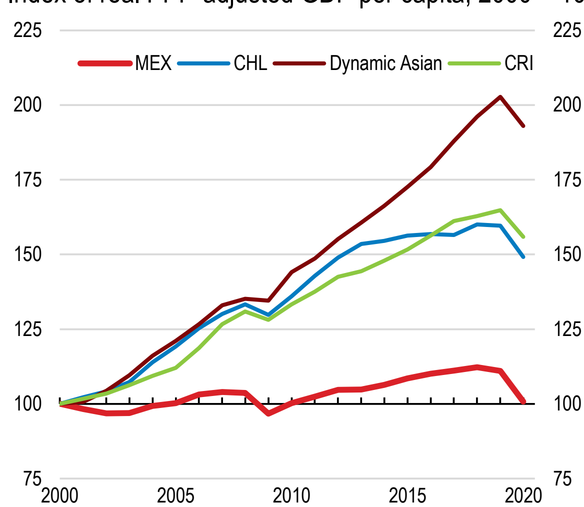
	2020	2021	2022	2023
Gross domestic product	-8.2	5.3	2.3	2.6
Private consumption	-10.5	7.3	2.0	2.3
Gross fixed capital formation	-17.8	10.4	4.4	4.5
Exports	-7.3	5.9	6.5	5.3
Imports	-13.7	14.6	6.0	5.8
Unemployment rate	4.4	4.1	4.0	3.9
Consumer price index	3.4	5.7	5.4	3.4
Public balance (% of GDP)	-2.9	-2.9	-3.2	-3.0
Public debt (net, % of GDP)	51.5	49.9	50.0	49.7
Current account (% of GDP)	2.3	-0.7	-0.8	-0.9

Source: OECD Economic Outlook database.

Mexico's potential to be a high-growth economy is large. It has transitioned from being an oil-dependent economy in the early 1990s towards a manufacturing hub, highly integrated in global value chains, today. The proximity to the United States export market is a fundamental competitive advantage. However, such potential remains unrealised and growth over the last decades has been low (Figure 2).

Figure 2. Growth has been low

Index of real PPP-adjusted GDP per capita, 2000 = 100



Note: Dynamic Asia includes India, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam.

Source: World Bank World Development Indicators.

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Medium-term growth prospects have weakened. Informality, low competition, financial exclusion and corruption are some of the factors hindering productivity growth. Weak investment and low female participation rates deteriorate growth prospects further. The updated trade agreement in North America can give fresh impetus to growth. However, a comprehensive reform agenda is needed to reboot investment and turn around productivity.

Tax revenues remain low

Mexico has been fiscally prudent over the years, broadly meeting its fiscal targets and ensuring fiscal sustainability despite having the lowest tax-to-GDP ratio in the OECD. Revenues have been resilient during the pandemic and the fiscal deficit widened only slightly.

Social spending and public investment have recently increased, but the pandemic has created additional needs, as poverty has risen, health and education systems are strained, and infrastructure gaps remain. Accompanying spending increases in these essential areas with a gradual increase in tax revenues would help to respond to these spending needs while maintaining and reinforcing Mexico's commitment to debt sustainability.

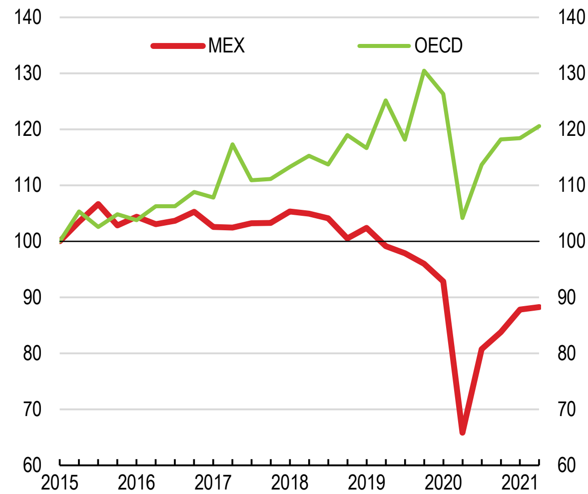
Broadening tax bases, by eliminating inefficient and regressive exemptions, holds the promise of increasing revenues without increasing tax rates. There is also significant room to strengthen subnational taxes, namely property and vehicle taxes.

Restarting investment and boosting productivity are key priorities

Investment, muted since 2015 and falling since 2019 (Figure 3), is hindered by uncertainty about domestic policy settings. Uncertainty particularly increased following proposals to reform the electricity market. With the appropriate policy settings, the potential for investment to restart is high. Mexico could reap further benefits from the strong recovery in the United States and the on-going reorganisation of global supply chains closer to consumer markets. Of particular importance are reforms to provide certainty about existing contracts and regulatory stability.

Figure 3. Investment has been weak

Gross fixed capital formation, index, 2015Q1 = 100



Source: OECD Economic Outlook database.

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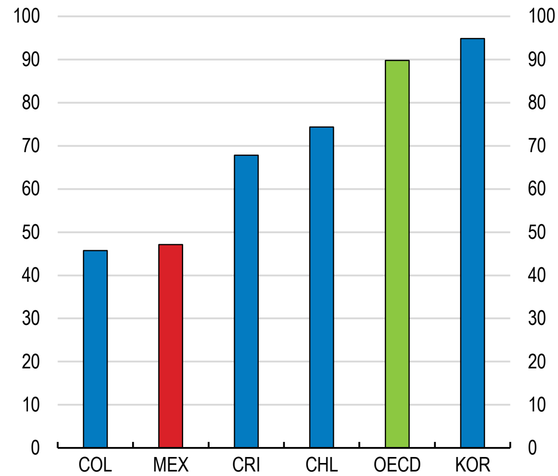
At around 55%, informality remains high and is both a cause and a consequence of low productivity. A comprehensive strategy is needed to reduce informality, with actions needed in several policy areas. Improving business regulations at state and municipal, which in some instances remain costly and complex, should be a key building block of that strategy.

Reforming trade regulations would also bring benefits to consumers and strengthen productivity. Mexico is well integrated into manufacturing value chains but there is room for further integration in services. Continuing to reinforce the anticorruption framework and strengthening implementation of already enacted legislation is also fundamental to boost productivity and improve governance.

There is significant room to improve access to finance by firms and households (Figure 4), which would boost growth and inclusion. Fostering competition in the banking sector would contribute to reduce interest rate margins, supporting SMEs access to credit. Fintech's potential to strengthen financial inclusion could be realised by upgrading digital payment regulations.

Figure 4. Access to finance is low

% aged 15+ with bank account, 2017



Note: Data for Mexico refer to 2018 and to adult population between 18 and 79 years of age.
Source: Global Findex Database.

StatLink https://stat.link/nywi70

Mexico was a pioneer among emerging economies in taking action on climate change mitigation and adaptation. However, additional policy action is needed to meet emission targets. Mexico's potential in the renewables sector is high but remains untapped. The electricity market reform under discussion proposes to establish a guaranteed market share of at least 54% for the public electricity company and to eliminate regulatory bodies overseeing competition and granting permits. Mexico is also increasing investment in fossil fuel exploration and extraction and building a new refinery. Transport is the second largest emitter sector. Experiences of several Mexican states attest the benefits of transitioning towards cleaner transportation means.

Efforts to improve the equality of opportunities should be redoubled

Mexico has one of the highest levels of poverty and income inequality in the OECD, which calls for continuing efforts to strengthen social protection, reduce gender gaps and improve education.

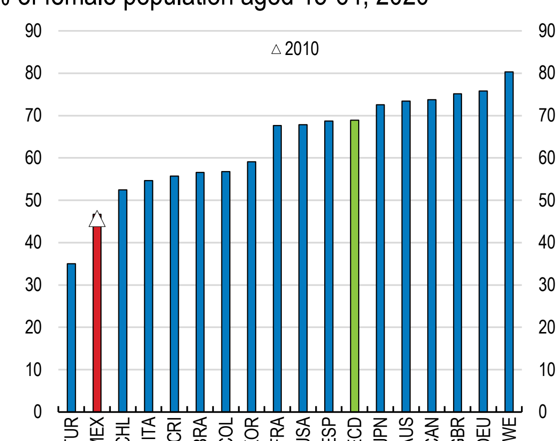
The pandemic and the associated increase in social vulnerability signal the need to continue strengthening the social protection system and making it more efficient and responsive to economic cycles. The number of recipients of social programmes has recently increased. Reducing fragmentation and improving targeting would offer the possibility of extending coverage further, particularly among low-income households.

Important reforms to labour market regulations and pensions are underway. Reforms to enhance conflict resolution, workers representation and collective bargaining hold the promise of facilitating labour disputes resolution and compliance with workers' rights. The reform of the pension system, agreed with the private sector, addresses some of its weakness, such as low benefits and limited coverage.

Mexico has made good progress in improving female political representation but labour force participation lags the OECD average and other Latin American countries (Figure 5). Care responsibilities fall disproportionally on women, hampering their prospects to complete education or be in the labour force. Reducing gender inequalities would boost growth and well-being significantly. Women have been particularly hit by the pandemic, as they were particularly affected by long schools closures and were more predominantly employed in sectors requiring in-person work.

Figure 5. Female labour market participation is low

% of female population aged 15-64, 2020



Source: OECD Labour Force Statistics.

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The education system was highly impacted by the pandemic. After one of the longest schools closure in the OECD, pre-existing inequalities are likely to widen further. Before the pandemic hit, best performing students had a similar level of performance as the OECD average. However, the gap between top and bottom students in Mexico was large and equivalent to four years of schooling.

MAIN FINDINGS	KEY RECOMMENDATIONS
Safeguarding the on-going recovery	
The share of the vaccinated population is rising but remains below the one observed in OECD and regional peers. Additional infection waves would hamper the recovery.	Accelerate vaccination.
Activity has rebounded. The recovery of the labour market is still ongoing. The fiscal stance for the near-term provides mild support to the recovery.	Stand ready to provide further targeted fiscal support if the recovery falters or the pandemic resurges.
Further improving macroeconomic policies	
Public spending is low in international perspective. Spending on social protection and public investment have recently increased, but the pandemic has strained health and education systems, poverty has increased and infrastructure gaps remain significant. Responding to increasing spending needs while maintaining commitment with debt sustainability requires increasing tax revenues. The tax-to-GDP ratio is the lowest in the OECD and lower than in regional peers.	Increase public investment, based on sound and transparent cost-benefit analysis, and spending on social programs, education and health, with a special focus on low-income households, over the medium-term. Broaden tax bases by phasing out inefficient and regressive exemptions and by reducing informality, and foster property tax collection by updating the cadastre using digital technologies.
The budgetary process has improved. The ability to run countercyclical fiscal policies and support the economy during downturns is limited. The existing current spending rule covers only around 36% of public sector expenditure.	Introduce a long-term debt anchor and widen the share of public spending covered by the spending rule. Establish an independent and adequately resourced fiscal council.
Inflation picked up well above 3%. The increase was triggered by supply chain disruptions and additional domestic pressures on some merchandise items. There are risks that price formation mechanisms may be affected in a generalised way.	Gradually increase the interest rate if inflation does not return to the 3% target. Tighten at a faster pace if long-term inflation expectations start to rise.
Support to PEMEX has increased to 1% of GDP. Despite new business plans, PEMEX remains a significant risk for the sovereign.	Strengthen PEMEX and other SOEs governance by aligning it to the OECD Guidelines on Corporate Governance of State-owned Enterprises.
Restarting investment and boosting productivity	
Investment has been weak since 2015. Reform reversals and planned regulatory changes in electricity and oil markets increase uncertainty and hamper investors' confidence.	Provide investors with certainty about existing contracts and regulatory stability.
Access to finance by firms and households is low. SMEs access to credit is hampered by high interest rate margins and information asymmetries. Digitalisation and Fintech can widen access to finance but their impact is hampered by barriers in digital payment markets and low digital skills.	Strengthen the credit registry system by ensuring that all lenders are able to access all credit history information. Upgrade digital payment regulations to facilitate entry in payment card market. Modify the school curricula to strengthen digital literacy from a young age and upskill teachers' digital capacity.
Corruption perceptions have fallen but remain higher than in peers. The toolkit to fight corruption has been strengthened but implementation efforts lag.	Continue to strengthen the fight against corruption, including by boosting technical expertise in anticorruption agencies.
At about 55% of workers, informality is high. Informality is both a cause and a consequence of low productivity.	Establish a comprehensive strategy to reduce the cost of formalization, including reducing firms' registration costs at the state and municipal level.
Competition has been weak in key sectors of the economy and a few companies tend to dominate markets.	Strengthen competition, including by ensuring that the competition authority remains independent and adequately resourced and by reducing regulatory burden.
Improving equality of opportunities	
Unemployment insurance schemes provide income protection for individuals losing employment and act as valuable counter-cyclical tools.	Establish a federal unemployment insurance scheme.
Education inequalities are large. Pandemic-related schools closures are likely to have long-term negative effects on skills and growth.	Put in place programmes aimed at reintegrating back to schools those who dropped during the pandemic and provide targeted support and tutoring to those with learning difficulties.
Female labour force participation at 45% is low. Family care responsibilities hamper women prospects to complete education or be in the labour force.	Establish a network of childcare facilities, giving priority to low income households.
Strengthening green growth	
Under currently implemented policies, Mexico's commitments to curb emissions, as in many countries, will be challenging to achieve.	Broaden the carbon tax base, gradually increase the rate, and use part of the revenues to offset the effects of higher energy prices on low-income households.
Mexico has huge untapped potential in renewables. A reform of the electricity market under discussion establish a maximum private participation of 46% in the electricity market and eliminates regulatory bodies overseeing competition and granting permits.	Maintain regulations that promote renewables generation and private sector participation. Upgrade the electricity grid by implementing smart grid technologies and integrating storage devices into the network.

1 Key Policy Insights

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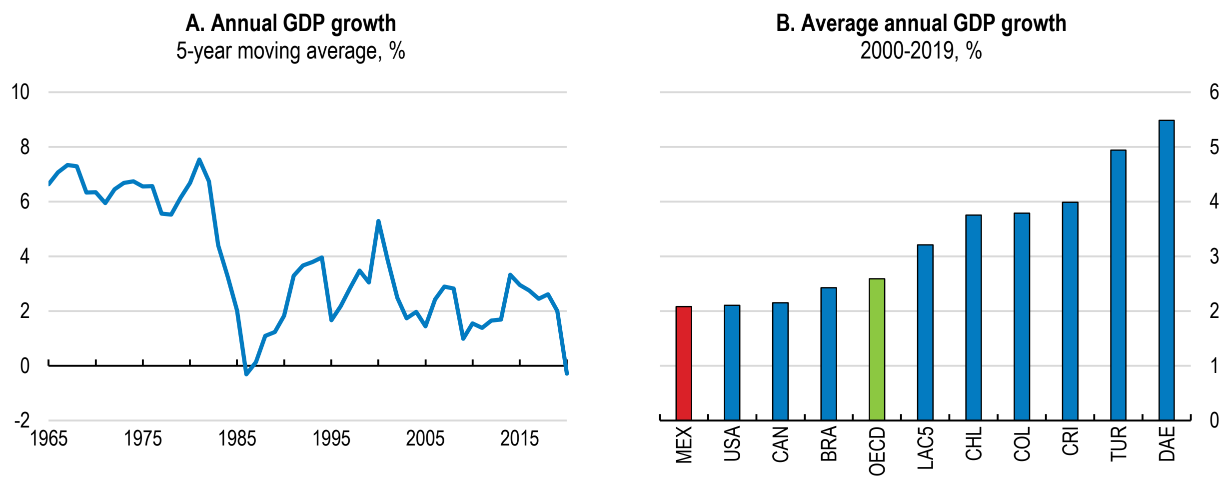
The economy is recovering from the pandemic-induced recession. Manufacturing and exports are above pre-pandemic levels and services are strengthening. Informal workers, women and youth were particularly hit, widening long-standing inequalities. Mexico's large potential to be a high-growth economy remains unrealised and growth over the last decades has been low. The updated trade agreement in North America can give fresh impetus to growth. Still, a comprehensive reform agenda to reboot investment and turn around productivity is needed. Stepping efforts to transition towards carbon neutrality would also help Mexico to seize new opportunities and address climate change.

Mexico is recovering but medium-term growth prospects have weakened

Mexico is recovering from a pandemic that had deep economic and social impacts. Informal workers, women and youth were particularly hit, exacerbating long-standing social challenges. Mexico's solid macroeconomic policy framework, underpinned by an innovative debt management, sound monetary policy and a flexible exchange rate, safeguarded macroeconomic stability and comfortable access to international capital markets. The recovery is underway, thanks to strong manufacturing and agriculture sectors and accelerating services, supported by the vaccination rollover. But medium term growth prospects have weakened and growth over the past two decades has been low (Figure 1.1). Poverty rates and regional inequalities remain high (Figure 1.2). Growth increased during the 1990s, thanks to trade integration into the world economy, but has stagnated since the 2000s. Informality, financial exclusion or corruption have hindered productivity growth. Low female participation rates and weak investment since 2015 have also impacted medium-term growth prospects (Figure 1.3).

Figure 1.1. Mexico has grown more slowly than its peers

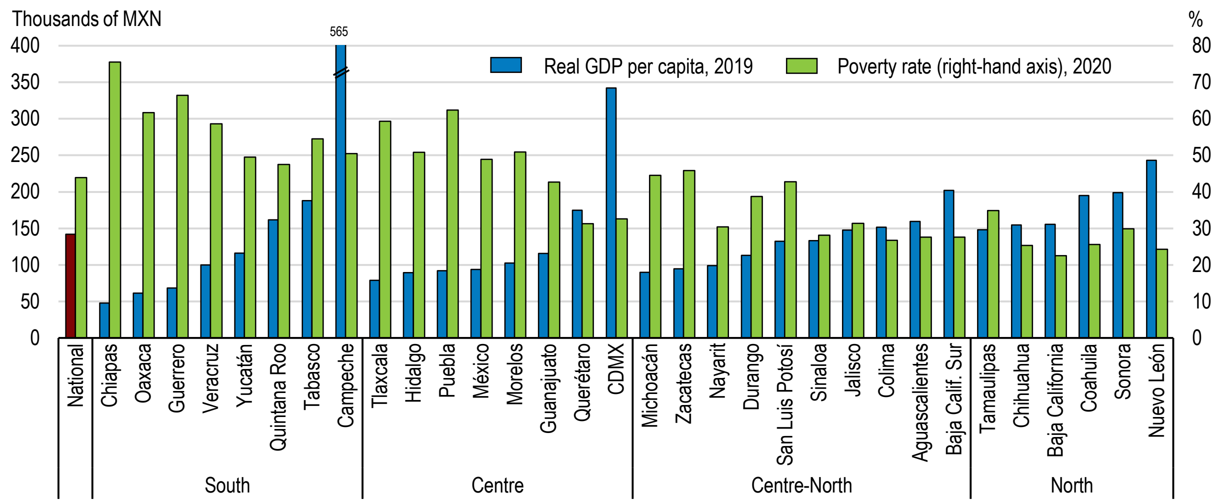


Note: Panel B: average annual growth refers to mean yearly GDP growth. LAC5 refers to Chile, Colombia, Costa Rica, Mexico and Brazil. DAE refers to a group of six dynamic Asian economies: India, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam. All country group averages are unweighted.
Source: OECD Economic Outlook database.

StatLink https://stat.link/lyrzi3

The updated North America trade agreement can give fresh impetus to growth, as it brings long-term certainty to trade, foreign investment and conflict resolution in the region. However, additional reform efforts to boost growth and realise Mexico's full growth potential are needed. These efforts would have substantial payoffs, according to simulations based on the OECD's quantification framework (Égert, 2017[1]). An ambitious package that would reduce barriers to investment and trade, particularly in services, improve access to finance, boost female labour participation and improve the control of corruption would raise GDP per capita by an additional 25% over 10 years (Table 1.1).

Figure 1.2. Regional differences are large



Note: The poverty rate refers to the multidimensional measurement of poverty, combining information on income and satisfaction of social needs, as compiled by CONEVAL. Campeche and Tabasco are the states where oil production is concentrated and GDP-per capita does not fully reflect living standards in those states.
Source: INEGI and CONEVAL.

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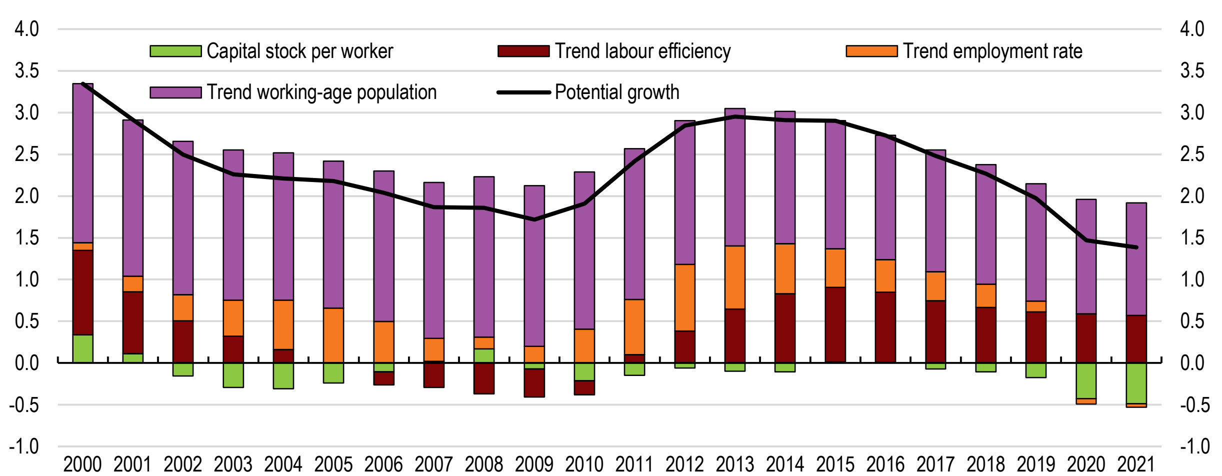
Figure 1.3. The economy's growth potential has fallen

2000-2021, %



Note: Potential growth is expressed as a percentage change. Contributions to growth are shown for the remaining variables. The OECD methodology is based on a Cobb-Douglas production function as described in (Chalaux and Guillemette, 2019[2]).
Source: OECD Economic Outlook 110 database.

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Table 1.1. An ambitious package of reforms could boost potential output significantly

Potential impact of structural reforms on GDP per capita at different horizons

Structural policy	Effect on the level of GDP per capita (%)		
	2-years	5-years	10 years
Boosting financial inclusion	1.1	3.0	4.1
Greater control of corruption	1.1	4.0	7.9
Lower barriers to trade and investment (PMR)	1.3	5.0	9.9
Higher female labour market participation	.	.	3.5
All above			25.2
Corresponding to an average annual growth of:			2.5

Note: These estimates were obtained based on numerical indicators of Mexico's policy stance in each policy area pertaining to the latest available date. The scenario about financial inclusion is based on the number of bank branches per 100 thousand adults, the barriers to trade and investment on the Product Market Regulation indexes and the active labour market policies scenario on the spending per unemployed person as a % of GDP/capita. The three scenarios, as the female labour market participation, assume that the gap with the OECD average is closed. The control of corruption is based on World Bank Governance indicator. This scenario assumes that the gap with the OECD average is halved. The quantifications are illustrative, as they are subject to uncertainty about both their magnitude and the time horizon of their materialisation.
Source: OECD calculations based on (Égert, 2017[1])

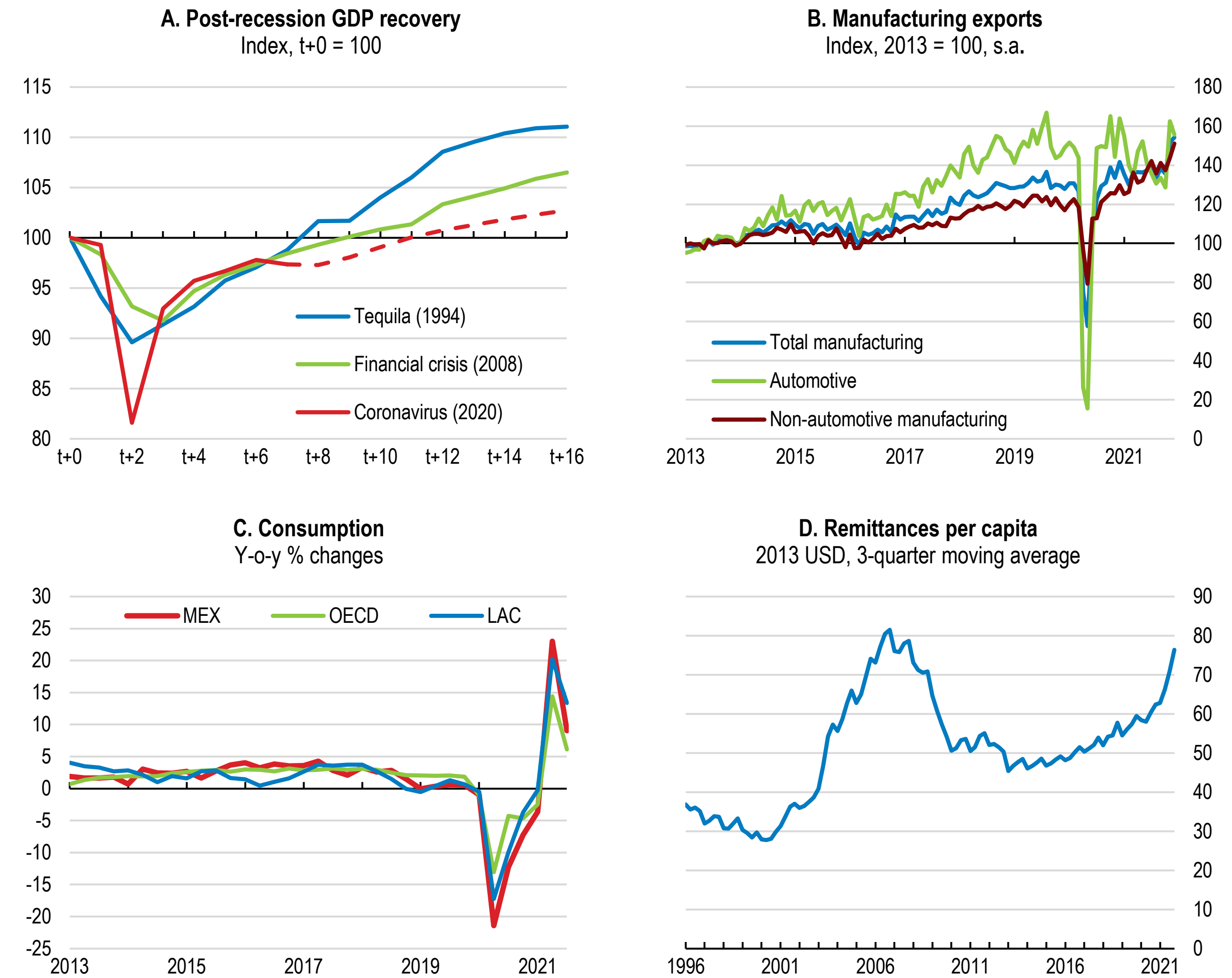
Against this background, the main messages of the Survey are:

- Maintaining and strengthening Mexico's solid macroeconomic policy framework is key for stability. The ability of fiscal policy to smooth out economic cycles and support growth during recessions can be enhanced, creating more space for public investment.
- Rebooting private investment and turning around low productivity growth are fundamental priorities. This will require comprehensive reforms to improve business regulations, boost competition, reduce informality, continue fighting corruption and transition towards carbon neutrality.
- Widening access to finance and strengthening digitalization would provide more equal opportunities and help to boost growth.

The recovery has broadened

The economy is recovering from the pandemic-related recession (Figure 1.4). External demand was the main driving force at the beginning of the recovery, with manufacturing exports above their pre-pandemic levels since February 2020, benefitting from the strong rebound in the United States. Consumption has also become a key growth driver, supported by higher mobility, the vaccination rollout and robust remittances. It is 2% below its pre pandemic level. Investment is recovering at slower pace and remains 8% below its pre pandemic level. The pace of the recovery is heterogeneous across sectors. While manufacturing and agriculture have recovered quickly and some services, such as retail, wholesale trade, education, health and financial services, are making progress, the recovery in leisure and hospitality lags behind. Tourism, an important source of jobs and revenues for several states, is 28% below pre-pandemic levels.

Figure 1.4. The recovery is underway

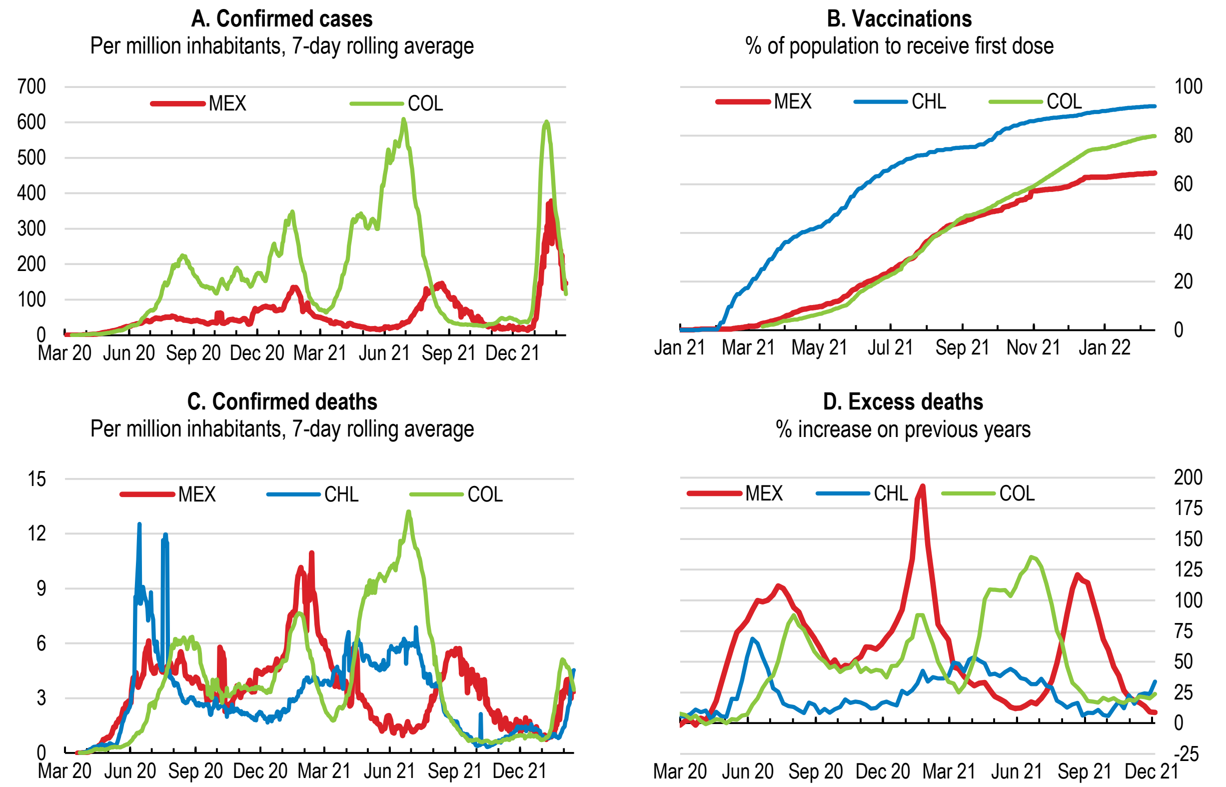


Note: Panel A: t+0 refers to 1994Q4, 2008Q3, and 2019Q4, respectively. A broken line indicates projections. Panel C: country group averages are unweighted. LAC refers to Chile, Colombia, Costa Rica, Argentina, and Brazil. Panel D: population figures projected from 2021Q1 onward.
Source: OECD Economic Outlook database; INEGI; OECD Population Statistics; and Bank of Mexico.

StatLink https://stat.link/sxbak9

COVID-19 cases have recently started to fall and vaccination is progressing (Figure 1.5). The authorities response to the pandemic (Box 1.1) included confinement and social distancing measures, put in place in March 2020, after the first confirmed case was reported at the end of February 2020. The last infectious wave peaked in January 2022 (Figure 1.5, Panel A). Thanks to progress in vaccination (Figure 1.5, Panel B) there were fewer casualties than in previous waves (Figure 1.5, Panels C and D). As of January 30, 64% of the population have received at least one dose. This represents about 85% of the population over 18 years. 60% of the population are fully vaccinated. The vaccination roll-out is showing significant heterogeneity across regions. Accelerating vaccination as much as possible continues to be a fundamental priority and would help to protect against possible new virus outbreaks.

Figure 1.5. COVID-19 cases have recently decreased and vaccination is progressing



Note: Panel D plots the percentage increase in recorded deaths from 2020-2021 compared to the baseline number of deaths in 2015-2019.
Source: Our World In Data.

StatLink https://stat.link/h1al3m

Box 1.1. Main policy responses to the pandemic

To address the pandemic, Mexico increased health expenditure by 0.4 % of GDP in 2020. In addition, Mexico took additional measures:

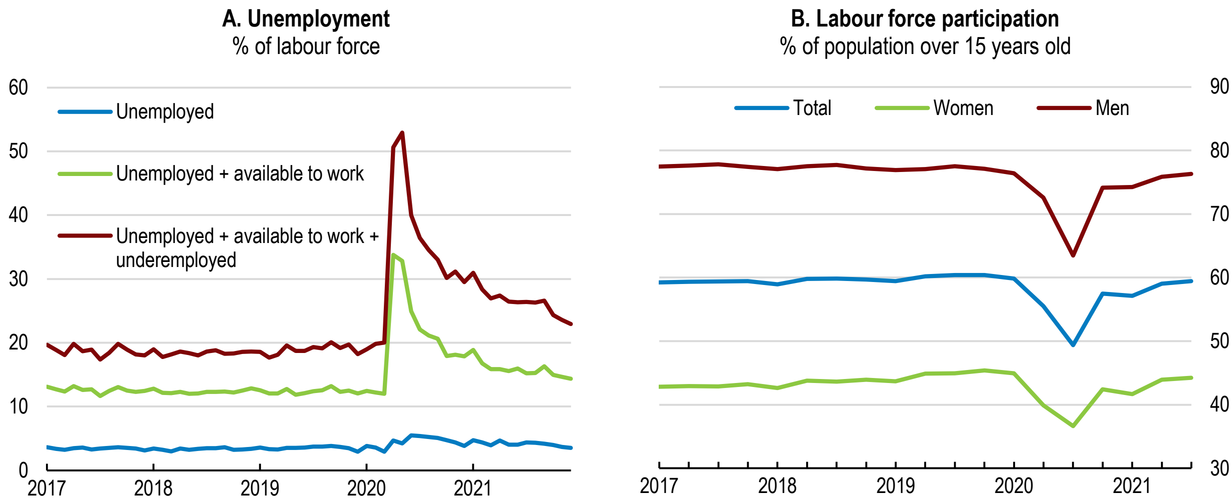
- Frontloaded payments of the old-age non-contributory pensions by 8 months.
- Accelerated procurement processes and VAT refunds.
- Provided loans to SMEs maintaining employees on payroll (*Créditos a la Palabra para empresas*).
- Loans to domestic workers and independent workers (*Créditos a la Palabra para personas*).
- Provided liquidity support and guarantees by development banks.
- A 3-month subsidy for workers who lost employment and hold a mortgage with the Housing Institute.
- Monetary authorities cut rates by 300 basis points from March 2020 through February 2021. The Central Bank also introduced measures to support the functioning of the financial system amounting to up to 3.5 % of GDP.
- Temporary changes in accounting standards to allow credit providers to defer loans for up to 6 months.

- Reduction of the total amount of monetary regulation deposits for commercial banks to support their access to liquidity.

Source: COVID Policy tracker database.

The labour market is gradually improving but challenges remain (Figure 1.6) and the pandemic has led to significant income losses, increasing poverty. The standard unemployment rate, at 3.9%, is still 0.6 percentage points above the level of late 2019. However, the rate jumps to 15% when considering also the population that remains outside the labour force and would accept a job, and to 24% when adding those who would like to work more hours. Labour market participation is gradually recovering, but remains below pre-pandemic levels. The recovery in participation is being slower for women, who were particularly impacted by the pandemic.

Figure 1.6. The labour market is gradually improving but challenges remain



Note: Panel A: the underemployment rate refers to the share of economically active individuals aged 15 and over who have the ability and desire to work more hours than their current occupation permits.
Source: INEGI.

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The economy is projected to expand by 2.3% in 2022 (Table 1.2). Exports will keep benefiting from buoyant growth in the United States, and consumption will grow thanks to an increasing share of the population being vaccinated and the gradual improvement in the labour market. Investment will be supported by planned infrastructure projects. Based on these projections, GDP would reach its pre-pandemic level by 2022Q3. Inflation will edge down, after the significant increase in 2021, that was triggered by higher energy prices supply bottlenecks in some inputs, such as semiconductors and pressures on some merchandise items.

Uncertainty about these projections remains very high. If infections increase again significantly, a reinforcement of containment measures may be needed, hampering economic activity. Inflation may be higher for longer than anticipated, eroding purchasing power, particularly of vulnerable households, and requiring a larger tightening of monetary policy than projected, which would weaken the recovery. Episodes of financial volatility may trigger greater risk aversion, reduce net financial inflows and increase Mexico's financing costs. An escalation of crime and violence could depress investment and compromise the recovery of tourism. Ongoing discussions about reform with some potential reversals in the energy sector creates uncertainty, which could further weaken the recovery. On the upside, if the recovery in trading partners is stronger than anticipated, exports and job creation could be more robust. Supply chain integration could deepen further thanks to the updated trade agreement with the United States and Canada and the relaunch of the high-level economic dialogue with the United States. The economy may also face unpredictable shocks, whose effects are difficult to factor into the projections. Should those shocks materialise, additional policy actions would be warranted. (Table 1.3).

Table 1.2. The recovery will continue

	2017	2019	2020	2021	2022	2023
	Current prices MXN billion	Percentage changes, volume (2013 prices)				
GDP at market prices	21,934.2	-0.2	-8.2	5.3	2.3	2.6
Private consumption	14,305.3	0.4	-10.5	7.3	2.0	2.3
Government consumption	2,548.0	-1.8	0.1	1.2	2.1	2.3
Gross fixed capital formation	4,845.7	-4.7	-17.8	10.4	4.4	4.5
Stockbuilding[1]	632.7	-0.2	-0.4	0.3	0.2	0.0
Total domestic demand	22,331.7	-1.3	-11.3	7.7	2.8	2.9
Exports of goods and services	8,258.6	1.5	-7.3	5.9	6.5	5.3
Imports of goods and services	8,656.1	-0.7	-13.7	14.6	6.0	5.8
Net exports[1]	-397.6	0.8	2.4	-2.9	0.2	-0.2
Memorandum items						
GDP deflator	-	3.6	3.4	5.7	5.4	3.4
Consumer price index (average)	-	3.7	3.8	4.7	5.6	3.4
Core inflation index[2] (average)	-	3.7	3.8	4.5	4.0	3.3
Potential growth	-	2.0	1.5	1.4	1.5	1.6
Output gap (% of GDP)	-	-4.5	-13.5	-10.2	-9.6	-8.7
Unemployment rate[3] (% of labour force)	-	3.5	4.4	4.1	4.0	3.9
Current account balance (% of GDP)	-	-0.3	2.3	-0.7	-0.8	-0.9
Public balance[4] (% of GDP)	-	-1.6	-2.9	-2.9	-3.2	-3.0
Net public debt[4] (% of GDP)	-	45.1	51.5	49.9	50.0	49.7

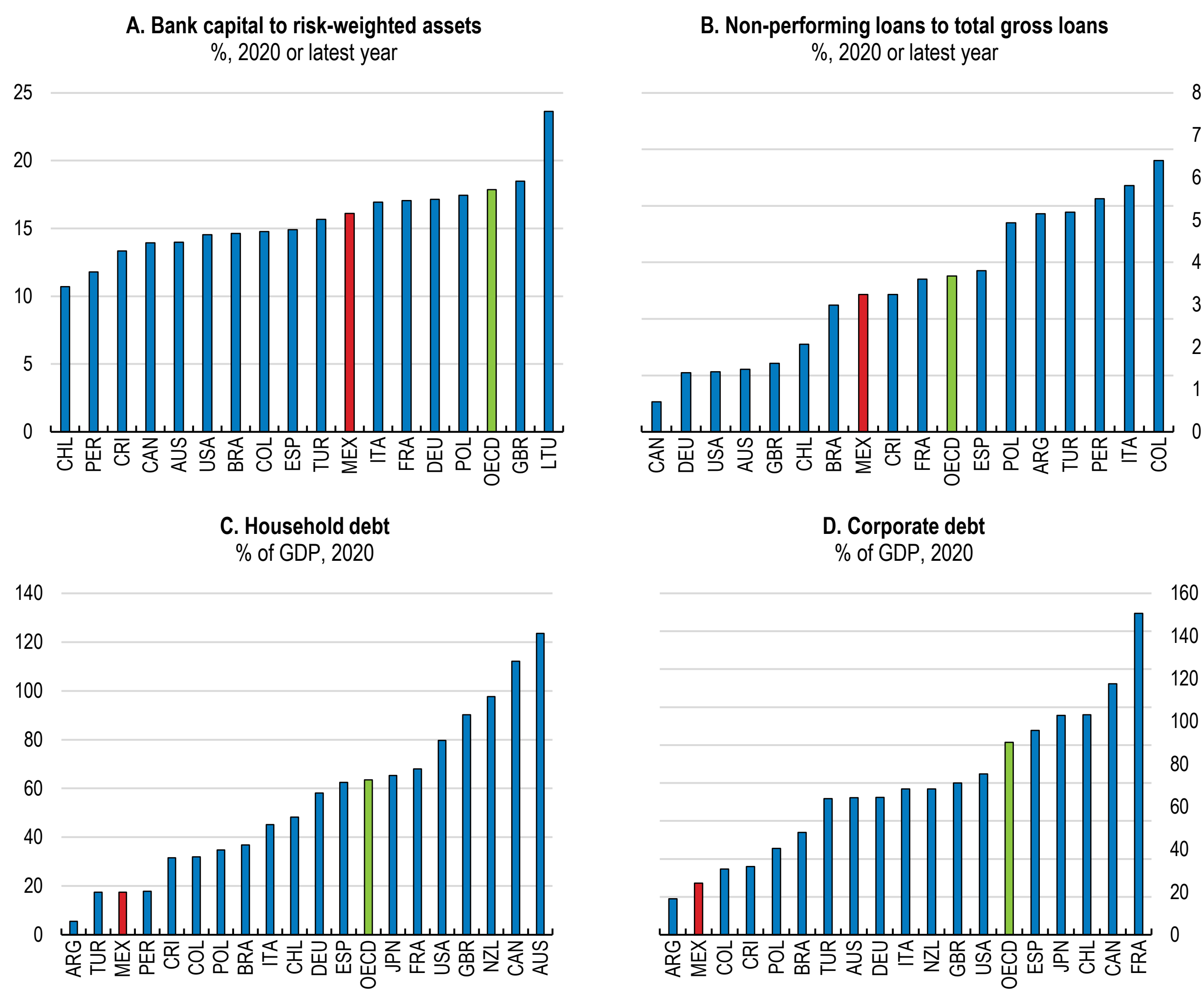
1. Contributions to changes in real GDP, actual amount in the first column. 2. Consumer price index excluding volatile items: agricultural, energy and tariffs approved by various levels of government. 3. Based on national employment survey. 4. Central government and public enterprises.
Source: OECD Economic Outlook database.

Table 1.3. Possible shocks to the Mexican economy

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 continue active debt management to re-profile debt maturity.
Reversal of reforms	Reversal of reforms or lack of reform progress that can hurt the business climate and investment in key sectors, such as energy.	Pursue reforms that facilitate private sector investment and reduce policy uncertainty in key sectors, such as energy.
Increase in social unrest	Political disruption that could hamper implementation of reforms and hamper investment and the medium-term growth outlook.	Pursue efforts to reduce inequalities based on broad agreements that go beyond political parties. Communicate that those reforms will help to share the benefits of growth more widely.
Environmental risks and natural disasters	Seasonal and unpredictable extreme weather events, such as hurricanes, droughts or floods, hampering the agriculture sector and adding pressure on food inflation.	Strengthen disaster risk management and foster climate change adaptation strategies, including its financing.

The financial system has been stable and resilient so far (Figure 1.7), maintaining sizable capital and liquidity levels above regulatory minima and sound profitability ratios. Non-performing loans remain so far contained, but the forbearance scheme put in place during 2020 has ended and non-performing loans may still increase, particularly if economic conditions deteriorate. Even if all loans within the forbearance scheme become non-performing, this would not trigger systemic stress (Banxico, 2021[3]). However, smaller and medium-sized banks, with a greater exposure towards SMEs and consumer loans, may be substantially impacted, even if they have built additional reserve buffers. The latest stress tests conducted by the Central Bank suggest that the banking system has sufficient capital buffers and liquidity to weather extreme economic events (Banxico, 2021[3]). Households and firms indebtedness remain low in international perspective (Figure 1.7, Panels C and D). Debt servicing costs for households and firms remain contained (Banxico, 2021[3]) Households debt are largely in the form of mortgages, which are concentrated in the upper part of the income distribution, which has been less affected by the labour market impact of the pandemic. The corporate sector remains naturally hedged against currency risks, as liabilities are well covered by revenues that corporates generate in foreign currencies in which they are indebted.

Figure 1.7. The financial sector appears resilient



Note: Panel A refers to regulatory tier 1 capital to risk-weighted assets.
Source: IMF Financial Soundness Indicators; and IMF Global Debt Database.

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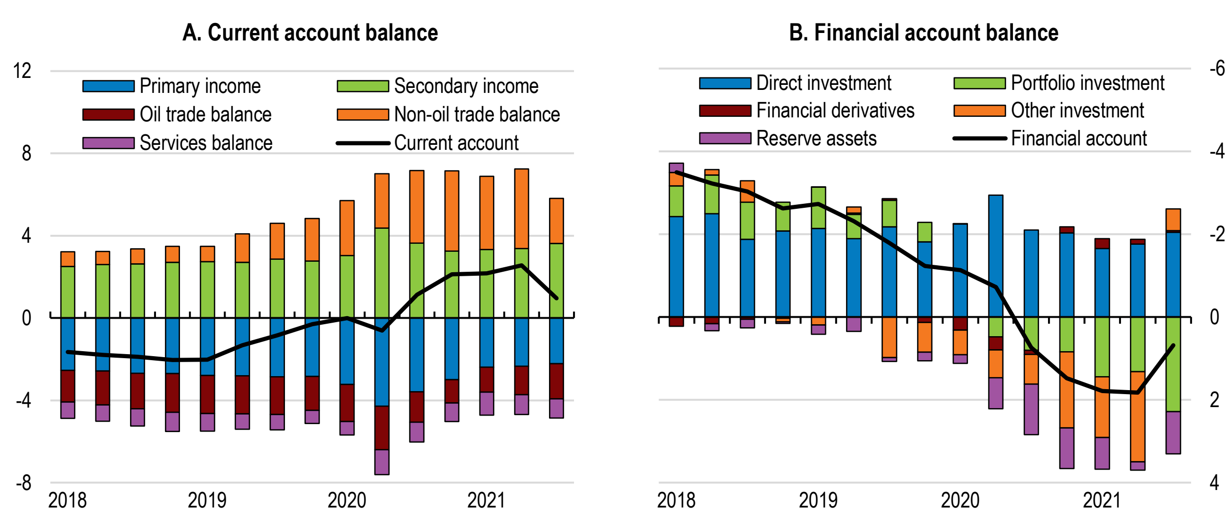
Mexico is actively assessing the potential financial impact from climate change and other environmental vulnerabilities. This includes transition risks, such as those associated with the policies to reduce global emissions, which could trigger sharp changes in asset prices and impact particularly firms without strategies to reduce emissions, as well as lenders to these firms, thus involving financial risks. Physical risks, such as those related to hurricanes, droughts, heatwaves, or floods area also included. Higher intensity or frequency of these events, which are relatively frequent in Mexico, can generate financial stability risks, including for insurance companies, thus reducing liquidity and decreasing assets values. The Ministry of Finance is developing a taxonomy to provide financial players and companies with transparent and consistent definitions of the activities that qualify as sustainable. It is also improving the regulatory framework, by incorporating environmental and social investment policy considerations for institutional investors, such as pension funds, insurance companies and development banks. This aims at facilitating that a higher proportion of investors incorporate environmental, social, and governance considerations into their investment process. Looking forward, based on the taxonomy that is under progress, phasing in mandatory disclosure of climate-related risks by financial institutions and listed companies would facilitate a more transparent management of these risks and provide incentives for allocating resources to cleaner activities. Evidence from France, which made climate-risk disclosures obligatory for asset managers, insurers and pension funds in 2016, shows that firms that had to disclose climate risks held 40% fewer bonds, stocks and other securities in fossil-fuel firms by value than those that did not have to disclose risks (Mésonnier and Nguyen, 2021[4]). The Central Bank is also taking steps to integrate climate-related risks into their risk management framework. This could be followed up by 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 moved into a 2.4% of GDP surplus in 2020 (Figure 1.8), as the recovery of external demand from the COVID-19 shock outpaced the recovery in domestic demand. The current account was also supported by strong remittances from abroad. Net foreign direct investment amounted to 2.3% of GDP in 2020. External debt remains contained (Figure 1.9). The flexible exchange rate is helping the economy to absorb external shocks, with further backstops provided by ample international reserves covering 40% of external debt, access to the US Federal Reserve and Treasury swap lines, as well as the IMF's flexible credit line. Mexico's risk measures have trended down, after peaking in April 2020 (Figure 1.10).

Figure 1.8. A positive non-oil trade balance and remittances drive the current account surplus

% of GDP



Source: Banxico.

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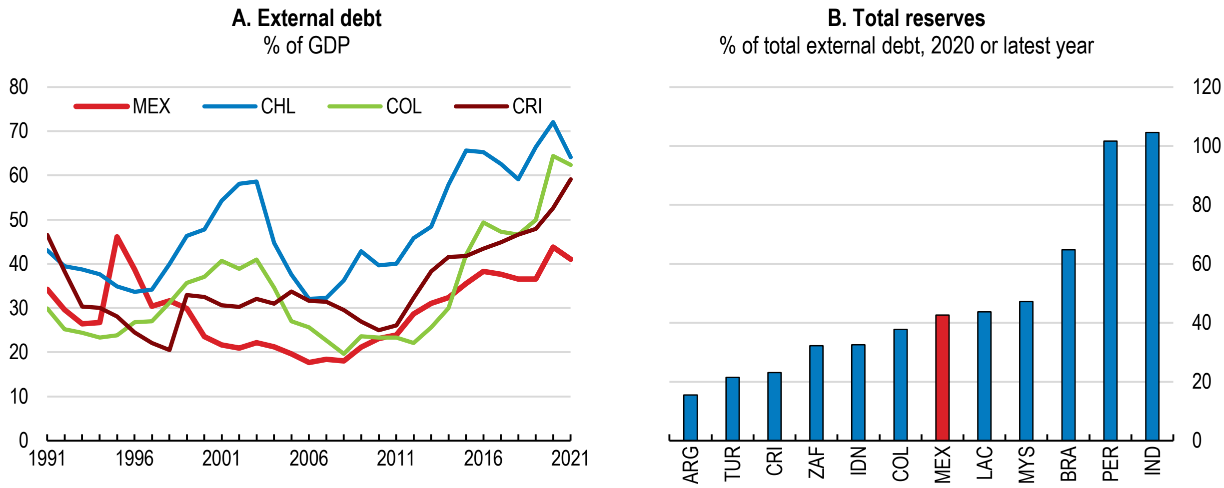
Figure 1.9. Reserves are solid



Source: IMF World Economic Outlook, April 2021; and World Bank World Development Indicators.

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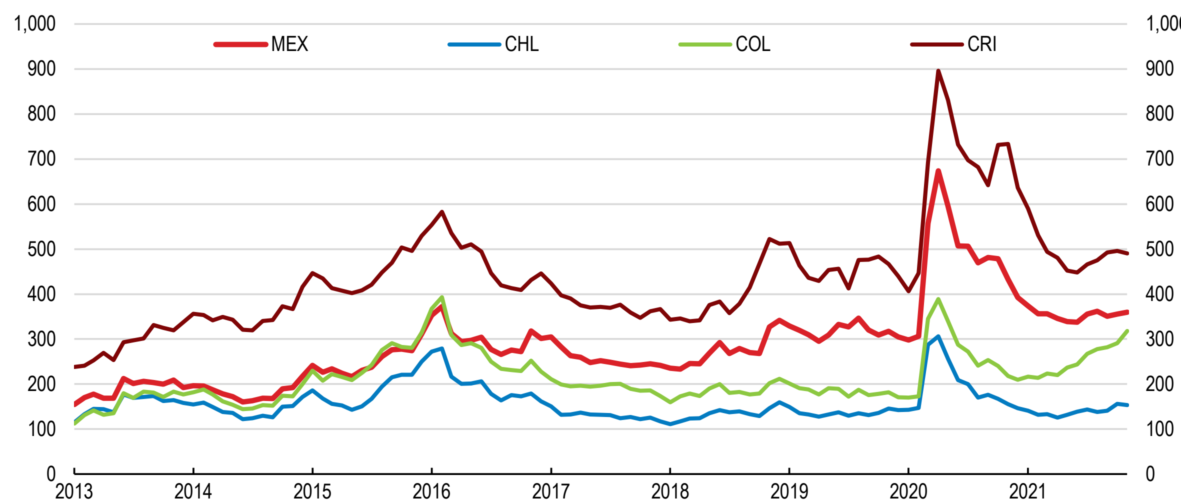
Figure 1.10. Sovereign risk premia have trended down

Sovereign risk bond spreads, basis points



Note: The sovereign risk bond spread is the spread of 10-year USD-denominated bond yields vis-à-vis US Treasury bonds.
Source: Refinitiv.

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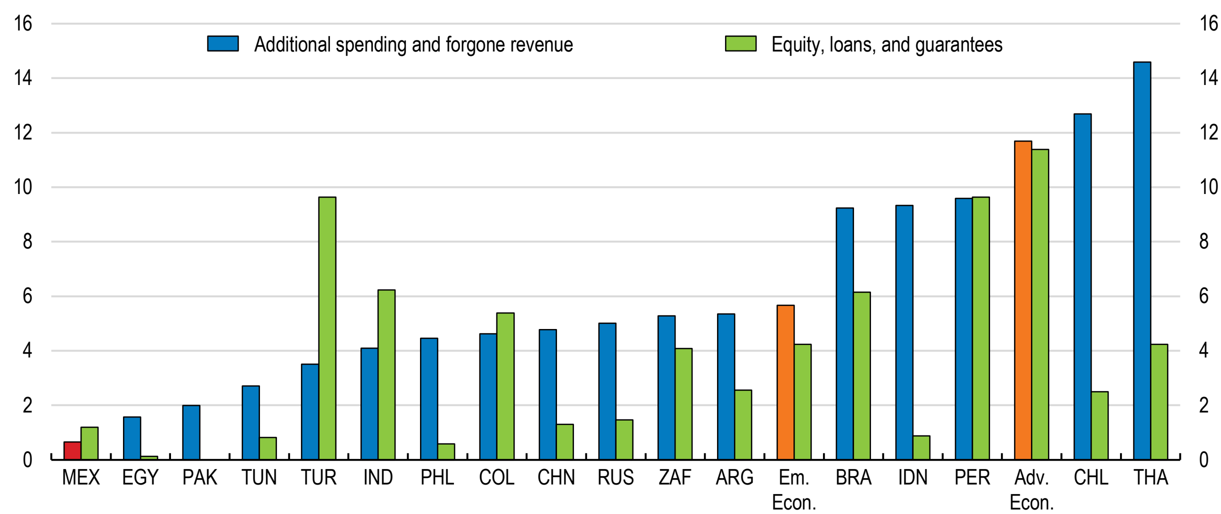
Macroeconomic policies can be further strengthened

Thanks to a solid macroeconomic framework, Mexico acted timely to mitigate the economic and financial impact of the pandemic. Monetary policy eased gradually and bold and innovative measures safeguarded financial stability and facilitated credit provision. Nonetheless, the initial fiscal response was one of the lowest among emerging markets (Figure 1.11). Public spending increased by around 0.7% of GDP, compared to 4.4% of GDP in emerging economies. Instead, the government opted for reallocating spending from operative spending towards social and health, increasing public sector programmable spending on social protection and health by 0.7 and 0.4 percentage points respectively in 2020, relative to 2019. Mexico opted also for expanding access to existing social programmes. Looking ahead, continuing to boost social spending, including on education and health, and public investment is fundamental to support the ongoing recovery and make it reach more people. Strengthening the fiscal policy framework is also a medium-term priority to enhance fiscal policy's ability to smooth out economic cycles and provide support during downturns.

Figure 1.11. Fiscal support provided as response to Covid-19 was low

Cumulative discretionary fiscal response, % of GDP



Note: Estimates as of September 27, 2021. Em Econ = simple average of emerging economies shown in chart. Adv. Econ. = simple average of AUS, BEL, CAN, CHE, CZE, DEU, DNK, ESP, FIN, FRA, GBR, ITA, JPN, KOR, NLD, NOR, NZL, SGP, SWE, USA.
Source: IMF Database of Country Fiscal Measures in Response to the COVID-19 Pandemic, available at https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19.

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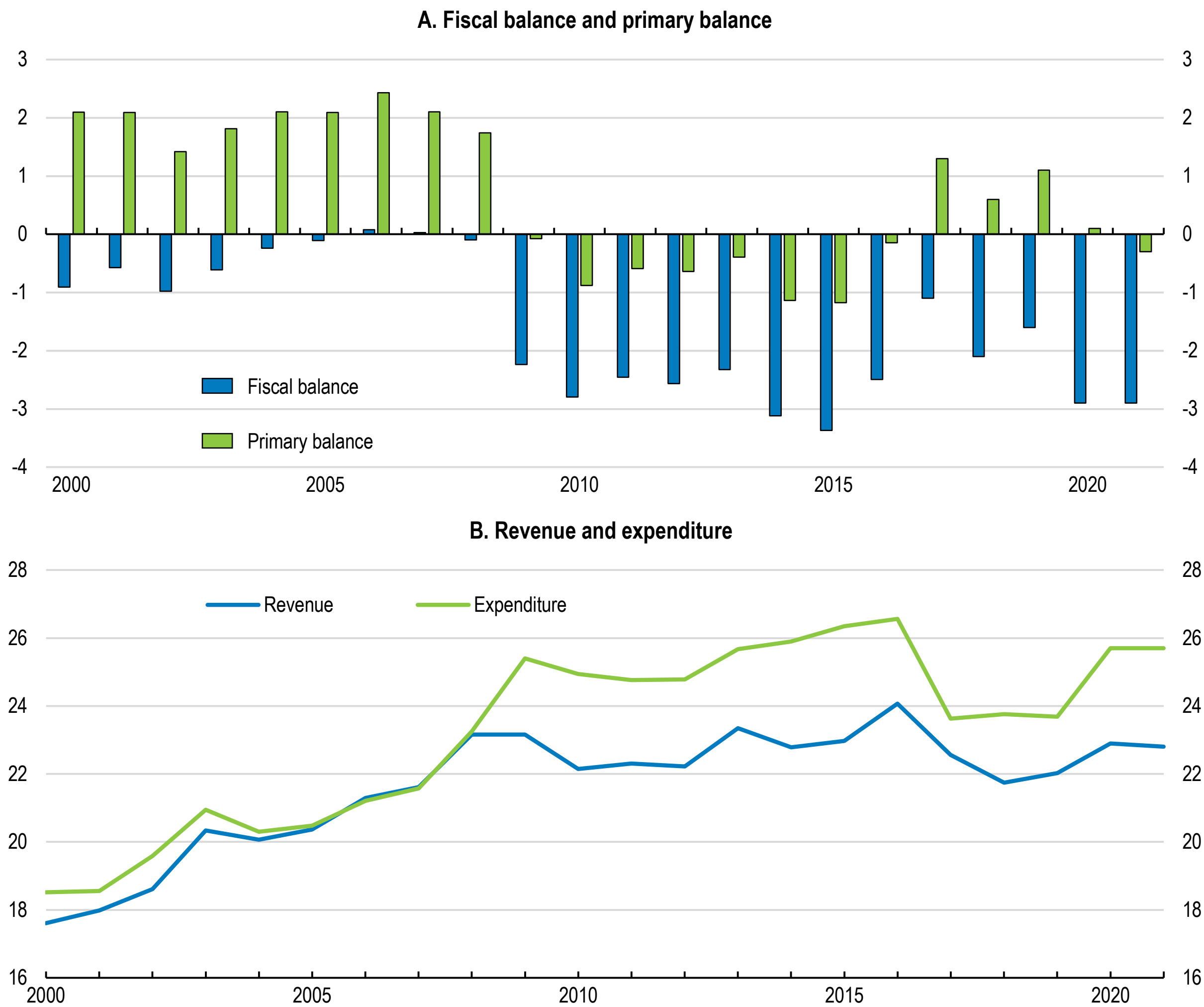
Gaining fiscal space and reinforcing the fiscal framework

Revenues were very resilient during the pandemic and the fiscal deficit widened only marginally in 2020. According to historical fiscal elasticities, tax revenues should have fallen significantly, given the fall in activity, but increased marginally instead. This was facilitated by changes in the tax code (Box 1.2) and by strengthening the prosecution of pending tax liabilities, which resulted in sizeable tax settlements with several large companies. Revenues were also supported by the stabilization funds, and by a skilful oil hedge, which safeguarded fiscal accounts from 2020's fall in oil prices. As a result, the fiscal deficit widened only slightly (Figure 1.12) and the official measure of public debt increased from 44% at end-2019 to 55% of GDP at end-2020, due to the budget deficit, the depreciation of the peso and the fall in GDP. The deficit is expected to increase during 2021 and the budget for 2022 foresees that it will remain broadly unchanged in 2022 and will gradually decrease thereafter (Table 1.4). As such, the fiscal stance for the near-term, while remaining cautious, is less restrictive than foreseen in the 2021 budget. This is a welcome change, as it will mildly support the ongoing recovery. If the recovery falters or the pandemic resurges, increasing social and health spending further and delaying the reduction of the deficit are warranted.

Figure 1.12. Tax revenues were resilient and the fiscal deficit increased marginally

Non-financial public sector, % of GDP



Note: In panel B, the widest definition of public revenues are displayed, including also social security contributions and State-Owned enterprises.
Source: Secretaría de Hacienda y Crédito Público; and OECD Economic Outlook database.

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Box 1.2. Measures to improve tax collection

Several measures have been implemented by the Federal Government throughout 2019 and 2020 to increase tax revenues:

- **Elimination of universal compensation**. Until 2018, VAT positive balances could be recovered by offsetting other taxes automatically and without prior authorisation from tax authorities. This opened space for tax evasion by using fake invoices to reduce tax liabilities. In 2019, universal compensation was eliminated, which increased tax revenues by 0.5% of GDP in 2020.
- **Strengthening sanctions**. As of 2020, crimes related to tax fraud are classified as serious criminal offences and the issuance of fake invoices are considered organized crime activities.

This aims at deterring tax evasion by increasing the perception of the risk of being detected and by hardening sanctions if found guilty.

- **Implementation of BEPS**. In 2020, 5 of the 15 Actions of the BEPS project were implemented. These measures could increase revenues by up to 0.4 percentage points of GDP by 2024.
- **Taxing digital services**. As of 2020, complexities for paying VAT for goods and services provided by international platforms offering intermediation services or digital goods were removed. Income tax withholding for participants on certain transactions, especially for platforms that offer intermediation services, were also introduced.
- **Phasing out tax expenditures in the special tax on production and services of fuels**. Revenues from taxes on fuel increased in 2019 and 2020 thanks to a change in the methodology to set fuel prices. Tax expenditures related to SMEs' payments on toll roads and diesel purchases for rail and mining companies were reduced.
- **General anti-avoidance rule**. Tax authorities are entitled to re-characterize a transaction as inexistent if it deems such transaction to lack a business purpose and only be pursuing a tax benefit.

Table 1.4. Evolution of main fiscal aggregates

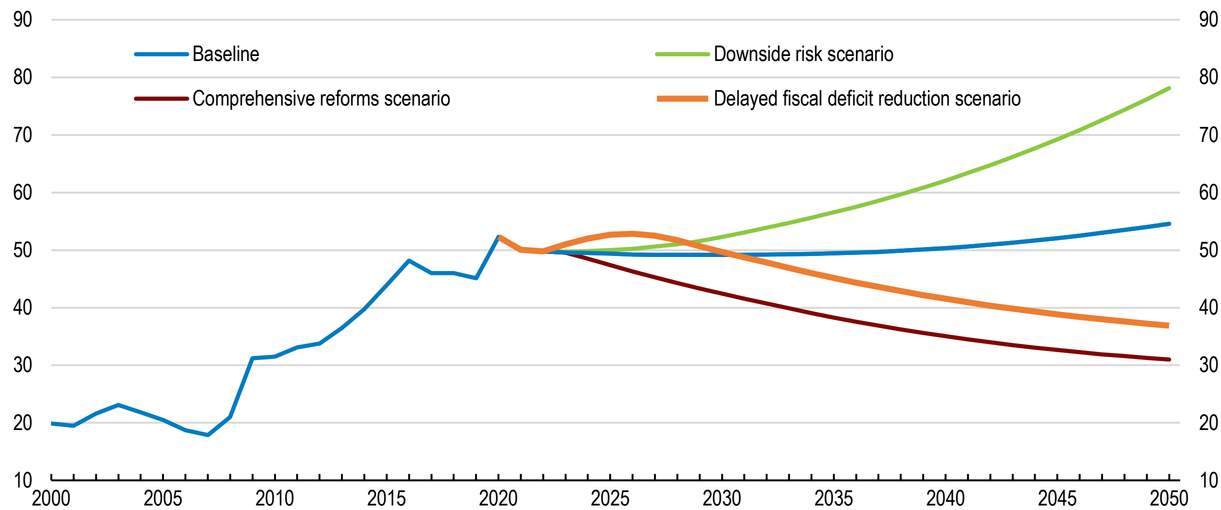
% of GDP

	2018	2019	2020	2021	2022*	2023*	2024*
Total revenues	**21.7**	**22.0**	**22.9**	**22.8**	**21.9**	**21.9**	**21.9**
Oil revenues	4.2	3.9	2.6	4.4	3.9	3.8	3.7
Non-oil revenues	17.6	18.1	20.3	18.3	18.1	18.2	18.2
Tax revenues	13.0	13.1	14.3	13.6	14.0	14.1	14.2
Personal	7.1	6.9	7.5	7.2			
VAT	3.9	3.8	4.2	4.3			
Corporate	1.5	1.9	2.0	1.5			
Imports	0.3	0.3	0.2	0.3			
Other	0.2	0.2	0.3	0.3			
Non-tax revenues	4.5	5.0	6.0	4.8			
Total expenditure	**23.8**	**23.7**	**25.7**	**25.7**	**25.1**	**24.7**	**24.4**
Primary	21.2	21.0	22.8	23.1	22.3	21.7	21.4
Programmable	17.3	17.3	19.1	19.6	18.7	18.1	17.7
of which: capital investment	2.6	2.3	2.8	2.6	3.1	2.9	2.6
Non-programmable	6.5	6.4	6.6	6.1	6.5	6.7	6.8
of which: transfers to states	3.6	3.6	3.6	3.5	3.6	3.6	3.6
of which: Interest	2.6	2.7	2.9	2.6	2.8	3.0	3.0
Primary public balance	0.6	1.1	0.1	-0.3	-0.3	0.3	0.6
Public balance	**-2.1**	**-1.6**	**-2.9**	**-2.9**	**-3.1**	**-2.7**	**-2.4**
Financing needs outside budget	0.0	-0.7	-1.2	-0.8	-0.4	-0.5	-0.5
Public sector borrowing requirements	*-2.2*	*-2.3*	*-4.0*	*-3.8*	*-3.5*	*-3.2*	*-2.9*
Gross public sector debt	*51.3*	*51.0*	*57.9*	*55.5*	57.4	57.4	57.4
Net public sector debt	46.0	45.1	51.5	49.9	49.7	49.5	49.4
Historical Balance of the Public Sector Borrowing Requirements	*44.9*	*44.5*	*51.7*	*50.1*	*51.0*	*51.0*	*51.0*

Note: * Are forecasts. Some rows may not add up due to rounding.
Source: Secretaría de Hacienda y Crédito Público.

Figure 1.13. Public debt is expected to stabilise

% of GDP



Note: In the baseline scenario real GDP growth and inflation follow OECD projections over 2021-23 and then gradually converge towards potential output growth and the inflation target rate of 3%, respectively; the exchange rate between the Mexican peso and US dollar is assumed constant over the simulation period. The interest rate yields is assumed to shift vertically following changes in inflation. The government primary balance is assumed to follow table 1.4 and remain constant until 2034 when aging costs, in the form of higher pensions and health costs, will gradually start to kick in. The downside risk scenario assumes a one-off shock of 10% to the exchange rate with the US dollar and a permanent upward vertical shift of 100 basis points in the yield curve, with respect to the baseline. In the comprehensive reform scenario a higher GDP growth is assumed over the period 2022-2031 under the hypothesis that structural reforms were implemented as to boost growth as reported in Table 1. In the delayed fiscal deficit reduction scenario, the deficit is assumed to stay at 3.2% until 2023, and fall gradually thereafter at the same pace as the reduction embedded in the Government 2022 Budget. It also assumes higher GDP growth stemming from comprehensive reforms. All scenarios and the baseline include aging costs.
Source: OECD calculations. Data prior to 2020 are from SHCP and refer to net central government debt.

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Mexico has been fiscally prudent over the years (Table 1.5), broadly meeting its fiscal targets and ensuring fiscal sustainability despite having the lowest tax-to-GDP ratio in the OECD (Figure 1.14), which is commendable. But this has been largely achieved by cutting spending, particularly public investment (Figure 1.15), hurting growth prospects. Overall public spending is low in international perspective (Figure 1.16), suggesting that there is limited room for further cuts. The government's 2022 Budget foresees an increase in social protection spending, to 5.1% of GDP in 2022 (from 3.8% in 2018). Capital spending has also increased to 3.1 % of GDP (from 2.7% in 2019), the highest level since 2016, although it is foreseen a gradual fall throughout 2023 and 2024. At the same time, the pandemic has created additional needs, as poverty has widened and the health and education systems are strained. Gaps in infrastructure remain also significant. For example, the increase in public investment needed to close the infrastructure gap in Mexico was estimated to be 1.3 percentage points of GDP a year (Woetzel et al., 2017[5]). Conducting rigorous and transparent cost-benefit analysis would ensure sound project selection and help to close that gap in a cost-effective manner.

Responding to these increasing spending needs in essential areas, while preserving debt sustainability, is the fundamental priority. The budget deficit is relatively low in international comparison (Figure 1.17) and access to markets remains comfortable. If government's medium-term fiscal targets were met, the public debt-to-GDP ratio would stabilise as of 2023 (Figure 1.13). But debt dynamics could worsen under a scenario of significant increases in global interest rates and exchange rate depreciation. Coupling spending increases in essential areas with a gradual increase in tax revenues, as outlined below, would help to respond to spending needs while maintaining and reinforcing Mexico's commitment to debt sustainability.

Strengthening tax revenues will also increase Mexico's ability to run anticyclical fiscal policies in the future. The ability of Mexico's fiscal policy to smooth cycles and support growth during recessions is hampered by a lower tax base than in peer countries, together with a country-risk premium and foreign exchange rate, which increases the cost of servicing debt, and weak automatic stabilisers on the spending side (e.g. there is no unemployment benefits system in place at the Federal level).

The additional tax measures could be designed, announced and legislated in 2022 and implementation start in 2023. Measures affecting individuals in higher income deciles, who have the lowest propensity to consume, could be prioritised. The comprehensive reform efforts proposed in this survey in Table 1.1 would also have a significant positive impact on public debt dynamics.

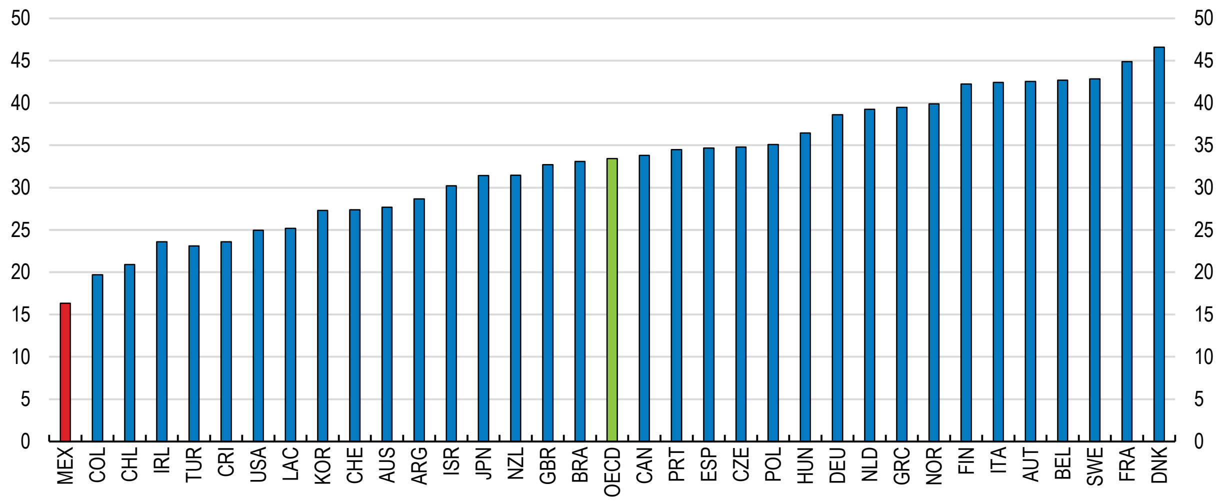
As Mexico is only at the beginning of its population ageing process, the fiscal costs of population ageing, which are included in the baseline projections, will not have much weight over the next decade but will start to kick in gradually thereafter. The reform of contributory pension system (more below) implies some savings for the budget over the next two decades. Conversely, recent rises in non-contributory pensions will increase spending. Public health expenditures have been estimated to rise by 1.5 % of GDP by 2065 (IDB, 2021[6]), although this does not account for any implications of the ongoing pandemic and for the expected increases on long-term care.

Table 1.5. Past OECD recommendations to improve macroeconomic policies

PAST OECD RECOMMENDATIONS	ACTIONS TAKEN
Maintain a prudent fiscal stance to keep the debt-to-GDP ratio stable and consider lowering it over the medium-term.	The announced budget for 2022 foresees an increase to 3.1% (from 2.9% in 2021)and a stable public debt-to-GDP ratio
Develop a comprehensive tax reform for implementation in the medium term.	Several measures have been implemented by the Federal Government throughout 2019 and 2021 to improve tax collection (See Box 1).
Broaden the VAT base by cutting exemptions and abolishing reduced rates while compensating the poor with targeted subsidies.	Digital services provided by foreign suppliers are now subject to VAT.
Increase the progressivity of personal income tax by lowering the income threshold for the top rate and further cut back tax allowances or convert them into tax credits.	No action taken
Build a nationwide property register to make more use of recurrent taxes on immovable property.	A cadastral information platform, facilitating the exchange of geographically referenced, is being created. Coordination between municipalities and states have been strengthened to improve cadastral data administration. Legal adjustments are being discussed in the senate to standardize at national level the property value and to use market valuation methods.
Establish a non-partisan, independent and adequately resourced fiscal council, along the principles defined by the OECD.	No action taken
Revise the Ley de Coordinación Fiscal to redefine and clarify responsibilities of public service delivery across the three levels of government and cut overlaps. Build capacity and professionalise the civil service at the state and municipal levels.	No action taken
Further strengthen the tax administration through adequate staffing and resourcing and improve technological capabilities.	The tax authority simplified tax filing, developed self-service oriented technological tools and increased enforcement and the effectiveness of inspection processes. All the above helped to strengthen the prosecution of pending tax liabilities.
Maintain the current monetary policy stance to curb inflation.	Monetary policy became supportive during the COVID-19 crisis by gradually decreasing the policy rate. The rate was increased gradually during 2021 as inflation was well above the 3% target.

Figure 1.14. Tax revenues are low compared to Latin American and OECD peers

% of GDP, 2019



Note: LAC refers to Chile, Colombia, Costa Rica, Argentina and Brazil. All averages are unweighted. It includes taxes on income and capital gains, taxes on goods and service, social security contributions, payroll taxes and property taxes.
Source: OECD Revenue Statistics database.

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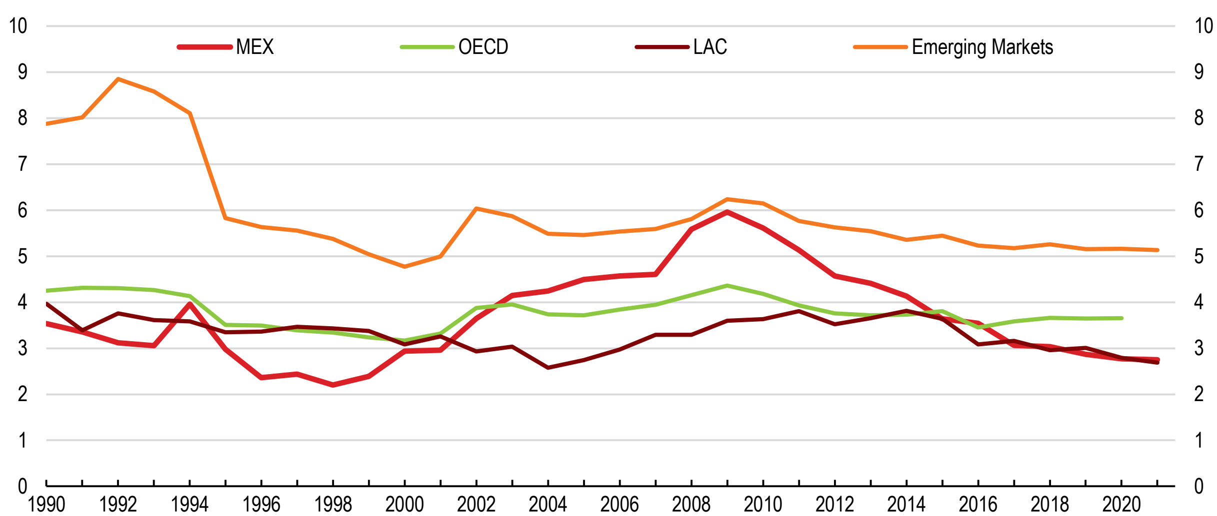
Figure 1.15. Public investment is low

% of GDP



Note: Country group averages are unweighted. Country groups are as follows: LAC: ARG, BRA, CHL, COL, CRI; Emerging Markets: ARG, BRA, CHL, CHN, COL, EGY, HUN, IND, IDN, MYS, MEX, PER, PHL, POL, ROU, RUS, ZAF, THA, TUN, TUR.
Source: IMF World Economic Outlook (October 2019); and OECD Economic Outlook database.

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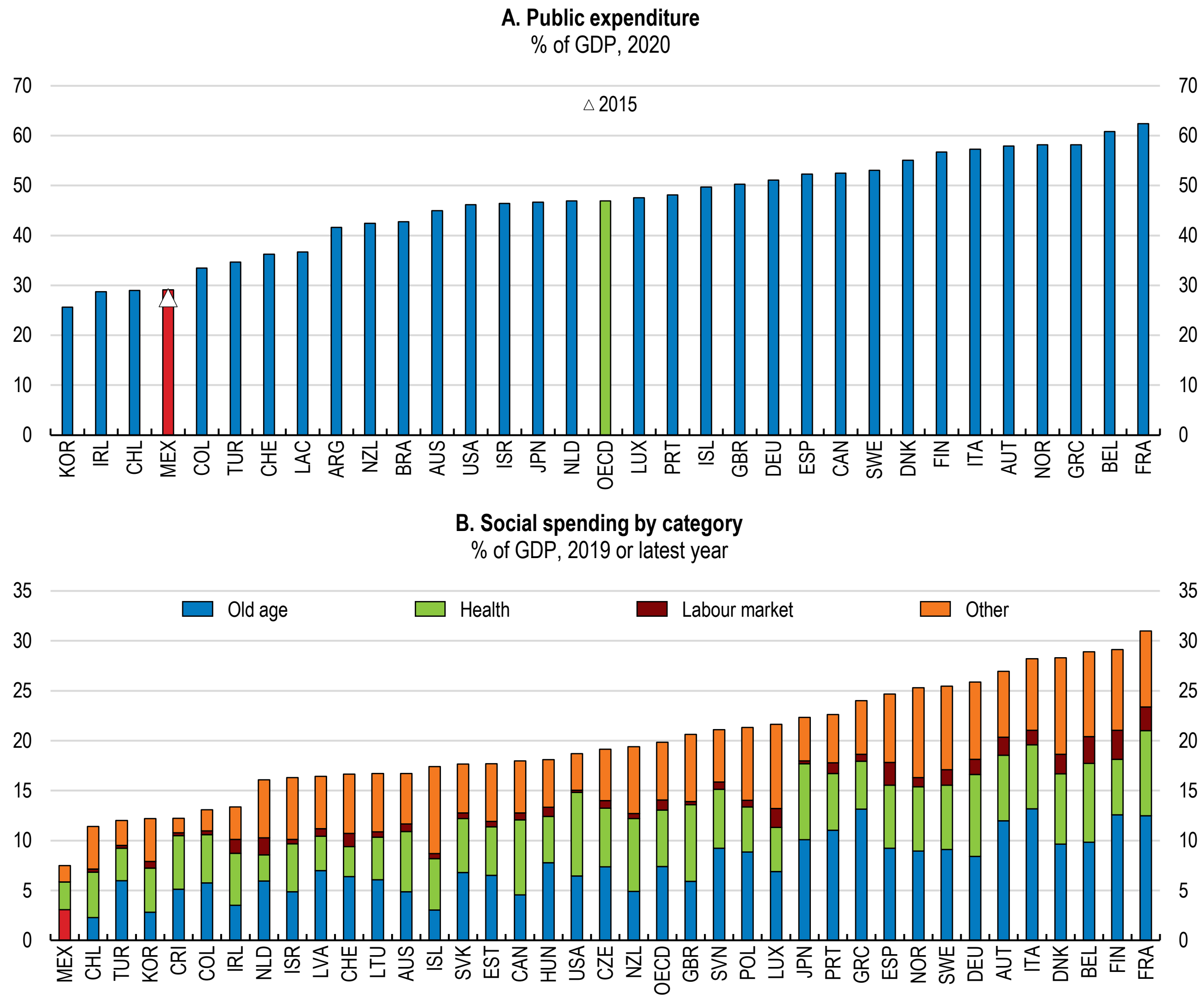
Figure 1.16. Public spending is low



Note: LAC is an unweighted average of Chile, Colombia, Costa Rica, Argentina and Brazil. OECD is an unweighted average.
Source: IMF World Economic Outlook, April 2021; and OECD Social Expenditure Database.

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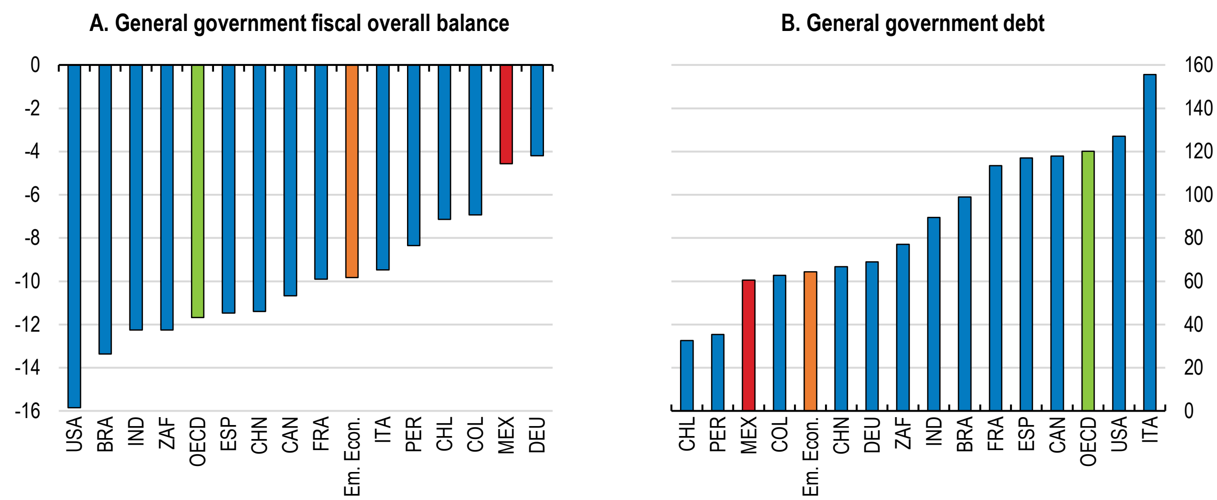
Figure 1.17. The deficit and public debt levels are low in international comparison

% of GDP, 2020



Note: Em. Econ.: simple average of emerging economies.
Source: IMF's fiscal monitor, April 2021 edition.

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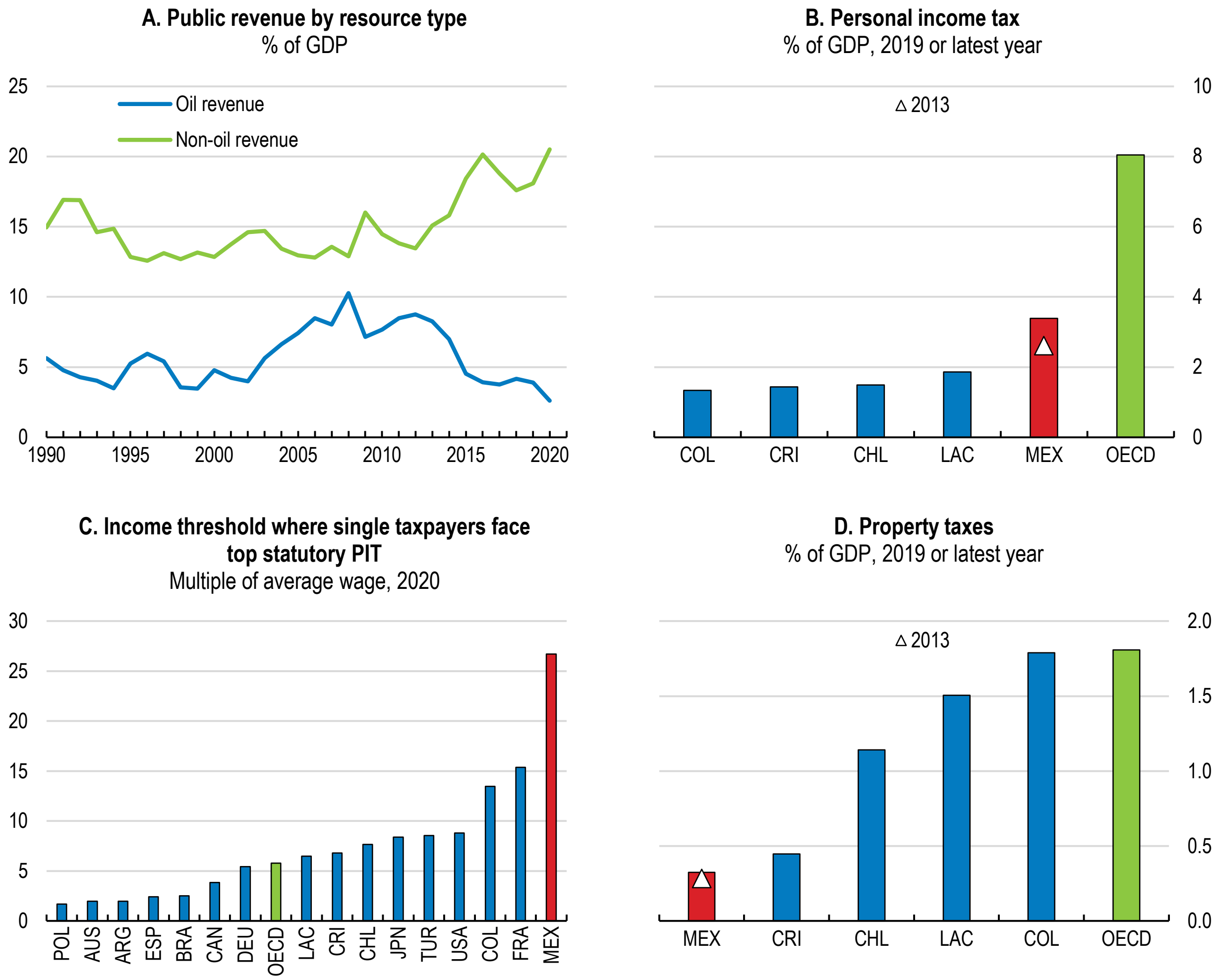
Raising more revenue in a progressive and growth-friendly way

Revenues have become less dependent on oil over time (Figure 1.18), increasing the resilience of the Mexican public finances to sudden and cyclical changes in oil prices. This trend will continue given recent reduction to taxes on PEMEX. Non-oil revenues have increased recently, even though Mexico continues to raise less revenue, as percentage of GDP, from all taxes (namely personal income, VAT and property taxes) than OECD and regional peers, with the exception of corporate taxes. As a result, non-oil revenue collections, in % of GDP, are about 6 percentage points below Latin American peers and about half of those of the OECD. Additionally the redistributive capacity of the tax and transfer system is low (as further discussed in the social section of this chapter).

The government has taken valuable measures to strengthen the tax administration that will continue to materialise in the coming years and has announced additional efforts to strengthen tax administration in its latest budget. However, financing high quality public investment, enhancing social protection and ensuring fiscal sustainability will require supplementing these tax enforcement measures with additional tax measures. Those additional measures could include broadening tax bases, by phasing out regressive and inefficient tax expenditures, and improving the design of some taxes, which remain currently underutilised, such as property, vehicle and green taxes. Such measures could also increase tax progressivity and incentives to operate in the formal economy, which could boost productivity and growth and enlarge further the tax base.

Figure 1.18. Dependence on oil revenues has fallen



Note: LAC is an unweighted average of Chile, Colombia, Costa Rica, Argentina and Brazil. OECD is an unweighted average of all member countries with available data.
Source: ECLAC; INEGI; OECD Global Revenue Statistics database; and OECD Taxing Wages Models.

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Broadening tax bases holds the promise of increasing revenues significantly without increasing rates. Tax expenditures are large across the personal and corporate income tax and the VAT (Table 1.6). Overall, they amounted to about 3% of GDP in 2020. Tax exemptions are particularly large in the VAT. As a result, VAT revenues are relatively low compared to their potential (Figure 1.19). A significant part of domestic consumption is taxed at zero rates or is exempt without a right to input tax credits. This offers opportunities to broaden the VAT base by reducing the scope of the zero rate and/or exemptions in ways that are not regressive. For instance, the zero rate that is applied to cultural goods benefits particularly high-income households and could be abolished or narrowed. Eliminating the VAT exemption for food and medicines could raise significant revenues, but even if accompanied by targeted subsidies to households in the lowest income deciles, it entails significant political economy difficulties. Before applying VAT on food, there is a need to improve the tools available to target social programmes (as discussed in the social section below) to ensure that lowest income households are duly compensated. Hence, it could be considered a medium-term option. Taxing food at a reduced rate would be another option, followed recently by Costa Rica (OECD, 2020[7]), that applies a 1% rate.

Table 1.6. Tax expenditures are large

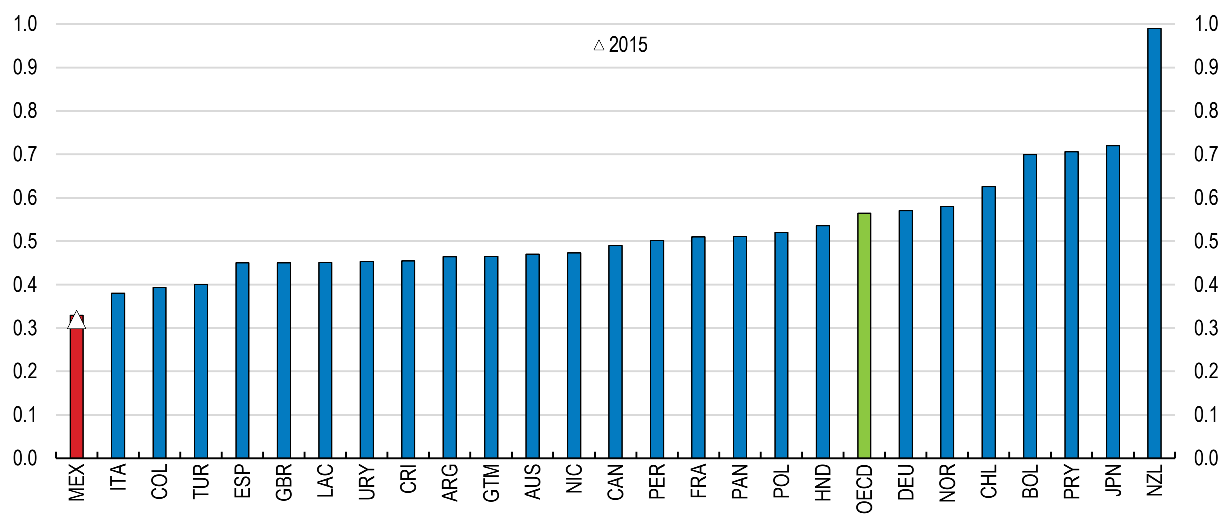
% of GDP

	2018	2019	2020
VAT	**1.4**	**1.4**	**1.4**
Zero ratings	1.1	1.2	1.2
Exemptions	0.3	0.3	0.3
Corporate income tax	**0.5**	**0.5**	**0.5**
Deductions	0.1	0.1	0.1
Exemptions	0.1	0.0	0.0
Others	0.4	0.3	0.3
Personal income tax	**1.0**	**1.0**	**0.9**
Deductions	0.1	0.1	0.1
Exemptions	0.7	0.7	0.7
Others	0.1	0.1	0.1

Source: SHCP.

Figure 1.19. The VAT revenue ratio in Mexico is low

VAT revenue as % of potential VAT revenue, 2019 or latest year



Note: A VAT revenue ratio of 100% suggests no loss of VAT revenue due to exemptions, reduced rates, fraud, evasion or tax planning. Data for Canada cover federal VAT only. LAC refers to Chile, Colombia, Costa Rica, Argentina and Brazil. All averages are unweighted.
Source: OECD Consumption Tax Trends (2020); and OECD Revenue Statistics in Latin America and the Caribbean (2021).

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Personal income tax expenditures are also large and regressive. Multiple tax allowances and exemptions narrow significantly the tax base. These include allowances for medical expenses, contributions to certain retirement accounts, health insurance premiums and deposits on special savings accounts and for the acquisition of shares of investment societies. Real interest expenditure of mortgage loans (up to a maximum property value) and educational expenditures are also deductible. Some of these deductions are generous, in particular, when combined together, and tend to benefit most affluent taxpayers. Scaling them back and phasing out the most regressive ones would improve revenues in a progressive way. Inefficient or regressive expenditures amount to at least 0.7 % of GDP (IMF, 2020[8]). There is also room to make the personal income tax more progressive by reducing the threshold for the top personal income tax bracket, which is very high in international perspective (Figure 1.18, Panel C).

Tax revenues could also be significantly boosted by reducing informality. In this vein, the authorities have recently announced a new tax scheme (*Régimen de confianza* in Spanish), targeted at self-employed and SMEs. The scheme includes flat tax rates based on revenues, reduces accounting requirements and facilitates computations by using pre-loaded information. This seem a promising initiative, with a large number of potential beneficiaries (21 million of self-employed and 2 million SMEs). This measure should be part of a comprehensive strategy to decrease informality, with actions in different policy areas, as discussed in the productivity section of this chapter.

There is also significant room to strengthen subnational taxes, namely recurrent taxes on immovable property and vehicle taxes. The collection of property and vehicle taxes have been hampered by low technical capacity and lack of political incentives at the state or municipal level. States collect the vehicle tax while municipalities collect the property tax. When well designed, a recurrent tax on immovable property (*predial* in Spanish) can act like a "benefits" tax, which makes local taxpayers pay for the local services they receive. Mexico lacks a comprehensive nation-wide property register and the existing information is sometimes outdated. First steps are being taken to build a cadastral information platform, which would facilitate the exchange of geographically referenced data among the three levels of government. The recent experience of some Mexican municipalities suggest that making use of modern technologies, such as photogrammetric flights, can help building and updating the cadastre with higher precision and speed, and at a lower cost than the traditional documentary registration, which is very labour intensive and costly to implement for small municipalities (Ethos, 2021[9]). Building on recent efforts by some states to support municipalities in cadastral data administration, states can help establish and coordinate the use of modern technologies across municipalities and help spread best practices. There is also room to facilitate the payment of the tax. Some states have successfully experimented with payment facilities that travel around municipalities according to pre-established timetables and calendars, facilitating that a larger number of citizens can make their tax payments easily and quickly. Exempting low value properties and establishing different tax rates depending on the value could be useful to ensure progressivity, as exemplified by some OECD countries, such as Ireland.

Taxes on vehicle ownership or use (*tenencia* in Spanish) were transferred from the federal government to the states in 2012. Currently, less than half of states raise vehicle taxes. The federal government could enhance incentives for states to collect this tax, for example by allocating higher federal transfers to those states increasing vehicle ownership revenue. Estimates from the Finance Ministry suggests that collection could increase to 0.2% of the GDP with compliance rate of 70%. Restructuring vehicle taxes so that they take into account environmental performance can also incentivise the use of more energy-efficient vehicles, as exemplified by several OECD countries such as France and Israel.

Fostering the collection of both the property and vehicle ownership taxes could be the building block for enhancing the fiscal federalism framework (Box 1.3), along the lines discussed in previous OECD Economic Surveys ((OECD, 2019[10]); (OECD, 2013[11])). States and municipalities remain heavily dependent on federal transfers to finance a growing share of public spending. This leaves the burden of raising tax revenues falling almost exclusively on the federal government and reduces incentives for efficient spending and active tax collection at the subnational level. The formulas determining the transfers from the federal budget to the regions (*Participaciones* in Spanish) could be upgraded to provide better incentives for states to collect taxes, for example by limiting further increases in transfers or by conditioning a share of them to increases in tax collection. Environmental criteria could also be introduced in the formula, to acknowledge efforts by states to preserve the environment and mitigate climate change. France and Portugal are two OECD countries whose intergovernmental transfer systems include environmental criteria, such as the size of protected areas (UNDP, 2016[12]).

Box 1.3. The allocation of responsibilities across different levels of government in Mexico

Mexico is a federal country with a three-tier government structure. It is divided into 32 sovereign states. Each state is composed of municipalities, about 2 454 of them in the whole country. The federal government is responsible for matters relevant for the whole country, such as macroeconomic policy, defence and research and development policy (OECD, 2013[1]). The states are responsible for the delivery of education and health. States are also co-responsible, together with the federal government and municipalities, for poverty alleviation and water management. Municipalities are purely responsible for local matters such as water distribution and are co-responsible for school building and implementation of social programmes with the federal and state government. The three levels of government are involved in infrastructure and transportation. Federal and state governments execute roads construction, while states or municipalities mainly do maintenance (OECD, 2013[11]). Federal transfers finance the bulk of sub-national expenditure, in particular in the areas of health and education. Transfers from the federal government amount to 92% of total subnational resources, the largest share among OECD countries with decentralised government structures. Sub-national governments' own-source revenues, for both states and municipalities, account for a small share of total tax revenues, approximately 6.7%, representing 0.9% of GDP. States and municipalities have full autonomy to set their own tax rates and/or bases over the payroll tax, vehicle taxes, property taxes, and user fees.

Strengthening the fiscal framework

Mexican authorities have been for some time considering ways to further strengthen Mexico's fiscal policy framework, as a way to safeguard and benefit fully from the credibility that Mexico has been gaining over the years. Buttressing the fiscal framework would also help enhance Mexico's ability to forestall future crises, rebuild fiscal buffers, and respond to shocks. The short-term priority for fiscal policy is to continue to support the ongoing recovery. Advancing with initiatives to upgrade the fiscal framework, even if implemented in the medium-term, would also have a favourable short-term impact, as they would boost confidence.

Mexico has three fiscal rules in place (Box 1.4). However, the rules do not provide a truly countercyclical policy framework and tend to favour pro-cyclical fiscal stances. The two budget balance rules favour that fiscal targets are met through discretionary spending cuts and they lack a link with a medium-term fiscal anchor. Mexico could introduce a debt limit, replacing the two balanced budget rules, to anchor fiscal policy over the medium-term, complemented with an enhanced spending rule. The coverage of the existing spending rule, at 36% of public sector expenditure, is too narrow, hampering its ability to smooth spending over the cycle. Enhancing the spending rule by widening the share of public spending covered, leaving out only interest payments, would limit fiscal policy pro-cyclicality more forcefully.

Box 1.4. Mexico's fiscal rules

The current fiscal framework includes three fiscal rules:

- *Balanced budget rule*. The federal budget can only run a deficit of up to 2 % of GDP if it is due to public investment by the federal government and some States Owned Enterprises (such as Pemex).
- *Public sector borrowing requirement (PBSR) rule*. Legislation requires that a target for the PBSR is specified in the budget document. This target is defined as achieving a non-increasing net public debt path relative to the previous year. This rule affects all public sector entities except subnational governments and the central bank.

- *Structural current spending rule*. The real growth rate of structural current spending is capped to potential output growth. Structural current spending is defined as programmable spending excluding interest payments, cost of fuels for electricity generation, physical and financial investment of the federal government, pensions, and the expenditures of Pemex and the electricity public utility company. As a result the rule covers 36% of public sector expenditure.

The upgrade of the rule could be complemented with a review and modernisation of the stabilization funds. There are currently two stabilization funds, one for the federal and one for sub-national entities. Both funds receive a share of the annual oil revenues, and aim at compensating for reductions in revenues with respect to those approved in the budget in a given year. Thus, the funds in their current configuration do not truly act as countercyclical tools, but mostly as revenue stabilizers. Creating a truly countercyclical fund, allowing saving in good times and spending during downturns, would increase Mexico's ability to smooth out cycles and protect more the economy against possible contingencies. Simplifying the rules to access the funds and focusing the funds on stabilizing revenues over the cycle, and not with respect to budgeted revenues, are good options to move in that direction.

The impact of an enhanced fiscal rule would be strengthened by introducing a multi-year expenditure framework. These frameworks have proven to be an effective tool to optimise public expenditure over the medium-term and ensure support to government strategic priorities. Today, almost all OECD members have a multiyear framework and they are being increasingly used among emerging economies. Mexico could also establish a fully-fledged multi-year expenditure framework, building on its recently improved budget preparation.

Mexico's budgetary process has significantly improved overtime, gaining transparency and accountability. The budget is analysed and debated with the legislative branch for over two months. This process could be supported and further enhanced by establishing an independent an adequately resourced fiscal council, as recommended in the previous OECD Economic Survey (OECD, 2019[10]). By providing non-partisan fiscal analysis, fiscal councils can enrich the fiscal policy debate and help to communicate fiscal risks and policy options. They can also provide long-term sustainability assessments and policy analysis. A growing number of OECD countries and emerging economies have successfully set up independent fiscal councils. Recently, several countries in the region, such as Brazil, Peru or Chile, have set up a council (Box 1.5).

Box 1.5. Fiscal Councils in emerging economies: the Chilean case

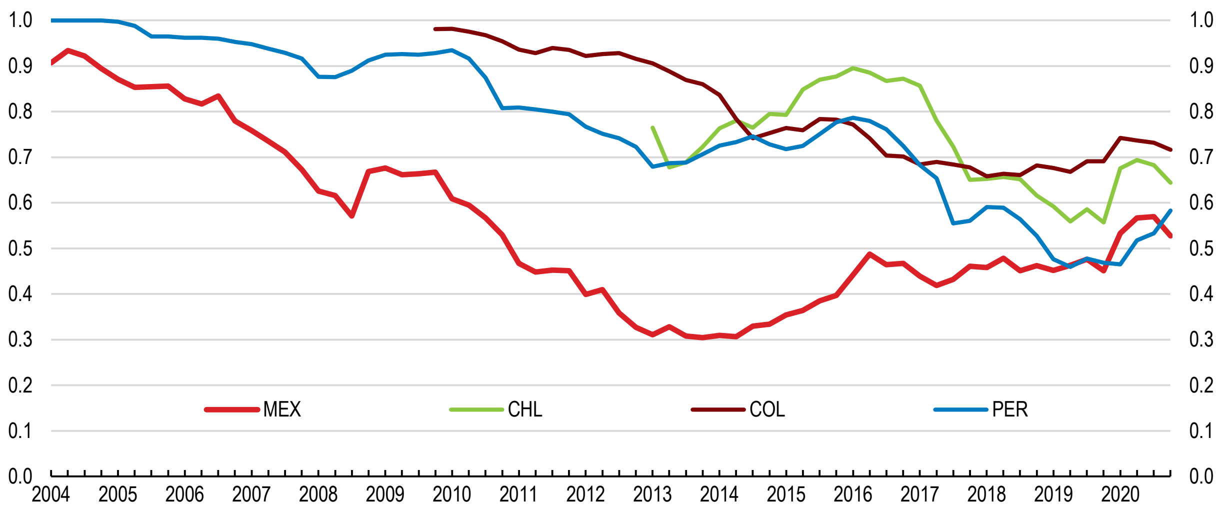
Chile has been gradually strengthening its fiscal framework over the last decades, which has contributed to sustain economic growth and keep public debt relatively low. A fiscal rule helped to shield public spending from the copper boom, generating savings that proved crucial when the country face negative shocks, such as the global financial crisis. A key additional step forward was the creation of an autonomous fiscal council in 2019 (OECD, 2021[13]). The council is composed of five members nominated by the President and approved by the Senate. It has own resources and the mandate of the members do not coincide with the government term to foster independence. It is tasked, among other things, with evaluating the calculation of the structural revenues, monitoring the compliance with the structural balance targets, proposing mitigating measures, and evaluating and proposing changes to the fiscal rule. The institutional framework of the council is in line with OECD good practices.

Debt management is sound and innovative

Active debt management during 2019 and 2020 has been key to provide liquidity, improve the maturity profile and manage risks. It has also reduced the debt's portfolio exchange rate risk exposure, diversifying its structure. This complements a successful strategy to attract investors to local currency debt (Figure 1.20), which has also helped to contain exchange rate risks. Having 60% of debt at fixed rates also mitigates the impact of higher interest rates. Mexico has also been successful in widening its investors' base, including by innovative initiatives such as the first emission of debt linked to United Nations Sustainable Development Goals (SDGs) (Box 1.6).

Figure 1.20. Mexico has attracted investors to local currency debt instruments

Original Sin Index (0-1)



Note: The Original Sin Index shows to what extent countries are able to place public debt to foreign investors in their domestic currency. It is defined as one minus the local currency share of foreign-held general government debt. A value close to 1 indicates that the country is unable to place public debt to foreign investors in domestic currency.
Source: IMF Sovereign Debt Investor Base for Emerging Markets dataset.

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Box 1.6. Innovative debt management: SDG bonds

In September 2020, Mexico became the first country in the world to issue a sustainable sovereign bond linked to the SDGs for an amount of EUR 750 million. The bond was placed for a 7-year term, maturating in September 2027 and paying a coupon rate of 1.35%, the second lowest coupon in the history of EUR bonds issued by Mexico. It was followed up with a second issuance in 2021 of a 15-year bond. These issuances allow to broaden investors' base and to access international funds committed to sustainable economic development.

These bonds are part of the SDG Sovereign Bond Framework (Hacienda, 2020[14]), which aims at strengthening the link between the federal budget and the SDGs. Through geospatial eligibility, criteria the framework intends to identify and select those budgetary items targeting states and municipalities with the highest social gap index. The social gap index is based on granular data collected through the Census of Population and Housing. Data considered include illiteracy rates, school attendance rates or, health services deprivation. A total of 899 municipalities (equivalent to 13 million of inhabitants out of national population of about 130 million) were selected. Whenever budgetary expenditures could not be tracked at the municipality level, the social gap index was considered at the state level instead. An amount equal to the net proceedings raised through SDG bonds will be allocated to social expenditures located in those municipalities or states, which tend to be located in the south of the country. The framework also include explicit reporting requirements to facilitate impact evaluation.

PEMEX remains a significant contingent liability

Market participants continue to assess PEMEX (the state oil and gas company) as a significant contingent liability for the sovereign (Moody's, 2021[15]). PEMEX has limited market access and there is a firm commitment from the government to continue supporting it through capital injections, tax reliefs and debt servicing. Current support amounts to about 1% of GDP. PEMEX is the most indebted oil company in the world and the ninth most indebted company in the world considering all sectors. Its debt currently stands at about 10% of Mexican GDP. Contingent pension liabilities are also large, amounting to 6.7% of GDP (Hacienda, 2021[16]). The authorities aim at strengthening energy security and build an energy system more resilient against natural disasters. With that aim, the role of PEMEX is being enlarged by boosting production and increasing refining activities, including by building new refineries. Such strategy may generate higher refining operating losses in the short and medium term, triggering additional risks for the sovereign.

PEMEX production increased during 2020 after a fall that averaged 4% during the previous 14 years. Recent tax reliefs also create the space for PEMEX to increase investment. However, further changes to its business strategy, putting a greater focus on financial objectives and seeking efficiency increases, would alleviate the burden carried by the sovereign. This would be facilitated by focusing production in profitable fields and reconsidering business lines operating at a loss. Reducing public subsidies for PEMEX and the public electricity company use of fuel oil and reallocating those resources to support investment in PEMEX to reduce fuel oil production would support the transition towards a cleaner energy sector. This could have a marked impact on regions highly dependent on oil, such as Campeche or Tabasco. Reinforcing retraining and education schemes in those regions would facilitate that affected workers can gain new skills, helping them to transition towards other economic sectors and avoiding long-term unemployment spells.

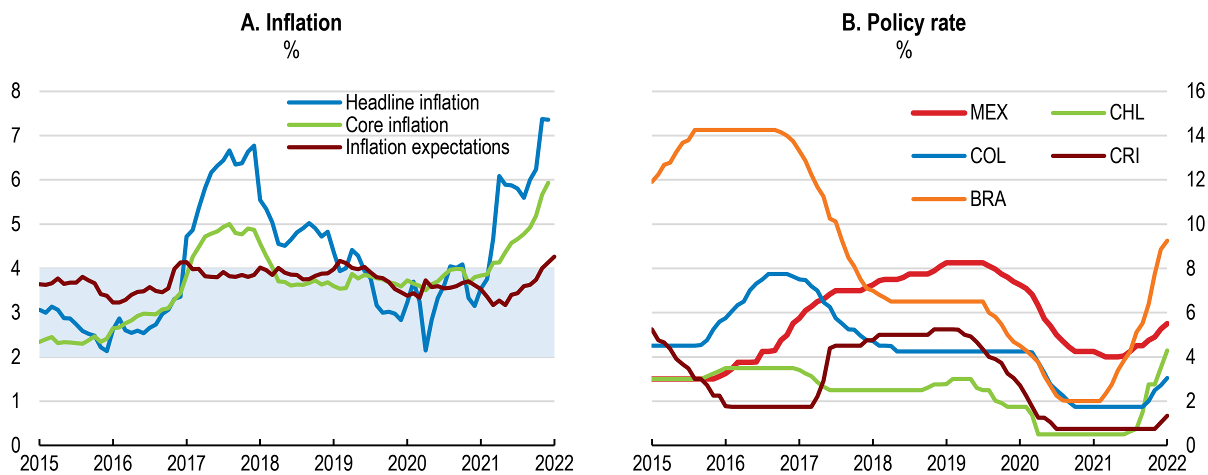
Strengthening PEMEX governance can contribute to improve its financial health and competitiveness and to mitigate contingent liabilities for the sovereign. Aligning governance with the OECD Guidelines on Corporate Governance of State-owned Enterprises (OECD, 2015[17]) would represent a first step to increase transparency and strengthen incentives to improve performance and accountability. Nomination procedures could be more competitive and merit-based, enhancing the objectivity and independence of the board members. The regulatory framework for procurement could be review to ensure that it gives PEMEX flexibility to compete in international markets and provides adequate safeguards for integrity (OECD, 2017[18]).

Monetary policy: containing inflation and supporting the recovery

Sound management of the monetary framework has supported the economy and the financial sector during the pandemic downturn and avoided creating additional pressures on the exchange rate, which could have triggered additional portfolio outflows. This was achieved by gradually reducing policy rates. Since the outbreak of the crisis, the Central Bank cut the target interest rate 325 basis points. The Central Bank also put in place significant liquidity and credit facilities amounting to 3.5% of GDP, a forbearance scheme and a swap line with both the United States Federal Reserve and the Unites States Treasury to support dollar funding.

As in many other economies, inflation increased significantly in the first part of 2021 (Figure 1.21). Given Mexico's high integration in global value chains, global inflation and supply chain cost-related disruptions exert significant pressure on headline and core inflation. Domestic factors, such as the recovery in the demand for some goods and services, additional pressures on some merchandise items (such as agriculture and livestock) and rises in gas prices are adding inflationary pressures. Medium and long-term inflation expectations remains anchored. The central bank increased rates in its last six meetings, leaving the rate at 6%, as it perceived that shocks weighing on inflation, while transitory, could affect price formation processes and long-term inflation expectations. Headline inflation is expected to decrease throughout 2022 and 2023 but uncertainty is high. Going forward, if inflation does not converge towards the 3% target, further gradual increases in interest rates are warranted. Faster increases could be required if long-term inflation expectations start to rise.

Figure 1.21. Inflation has strongly picked up



Source: Banxico; and Refinitiv.

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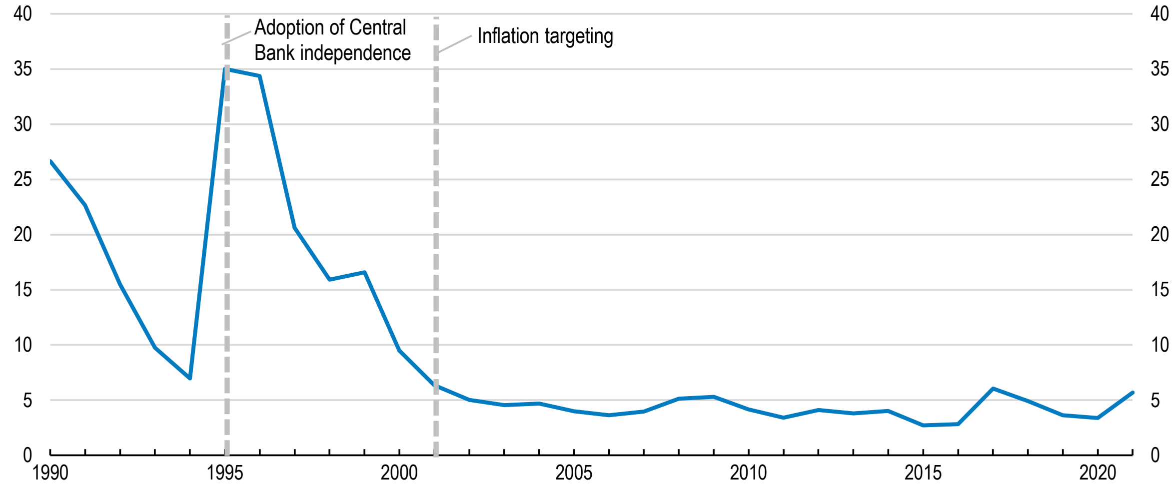
Since the central bank's autonomy came into effect in the mid-1990s, inflation and its volatility have significantly reduced (Figure 1.22), thanks to the robust inflation targeting framework and flexible exchange rate regime. Inflation expectations have also remained robustly anchored close to the 3% target. The monetary policy transmission has gradually strengthened, although boosting financial inclusion would strengthen transmission further (Box 1.7). Preserving legal and constitutional central bank autonomy and 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 start withdrawing part of the monetary stimulus. An independent central bank, focused on maintaining inflation low and stable, is vital for Mexico to navigate potential episodes of uncertainty and financial volatility, as its own experience during the last two decades testifies, and as illustrated as well by other countries in the region, and by most OECD countries.

Figure 1.22. Inflation has fallen significantly since introducing central bank independence

Annual consumer price inflation, %



Note: The Central Bank adopted in 2003 a fully-fledged inflation targeting framework. The multi-year inflation target was defined at 3 percent for CPI inflation. Prior to that, and since 1995, Mexico had annual inflation targets.
Source: OECD Economic Outlook database.

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Box 1.7. Assessing the monetary policy transmission in Mexico

The interest rate pass-through is a measure of the effectiveness of monetary policy. In particular, it assesses which percentage of a change in the short-term monetary policy reference rate is passed onto bank lending rates faced by households and firms. How fast market lending rates react to changes in the monetary policy reference rate is another indicator of the effectiveness of the monetary policy. A faster reaction points to a more effective monetary policy. Estimates of pass-through and speed of adjustment for four Mexican lending rates (Table 1.7 and (Maravalle, forthcoming[19])) indicates that there is significant heterogeneity in monetary policy transmission. The pass-through is significant for the reference lending rate. Mortgage lending rates and automotive loan lending rates, instead, are less sensitive to changes in the monetary reference rate. In most cases, it takes within two to three months to fully adjust. However, for the mortgage lending rate it takes longer, around one year.

Table 1.7. Pass-through and speed of adjustment vary across banking lending rates

	Lending Rate	Mortgage lending rate	Consumer credit rate	Automotive loan lending rate
Pass-through	0.97	0.43	0.80	0.36
Speed of adjustment	3 months	1 year	2 months	3 months

Note: The pass-through measures how much of a change in the monetary policy rate is transmitted to a lending rate. A value of 1 indicates full pass-through. The speed of adjustment measures how long it takes for the lending rate to adjust. The estimation is based on a Autoregressive Distributed Lag model with Error Correction Term à la (Pesaran, Shin and Smith, 2001[20]).
Source: OECD calculations based on (Maravalle, forthcoming[19]).

These estimates suggest that transmission is stronger in those segments of the financial market focused on lending to firms than in markets lending to households. This is consistent with findings that pass-through is stronger when capital markets are deeper and financial inclusion higher (Ma and Lin, 2016[21]). Households suffer from a higher level of financial exclusion and information asymmetries that hamper creditworthiness assessments. Measures to boost access to financial services by households and to facilitate creditworthiness assessments, for example by strengthening credit registries (see also chapter 2), could also help to reinforce further the transmission of monetary policy.

Restarting investment and strengthening productivity growth

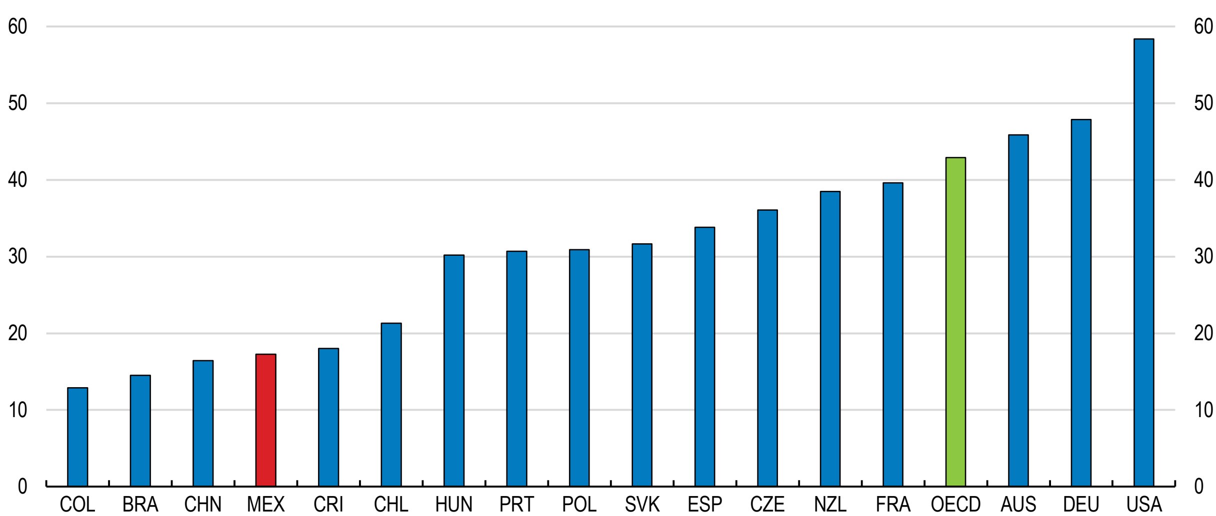
Over the last years, the economy's growth potential, which measures how fast GDP can grow sustainably, has declined from around 3% per year in 2015, to 1.6% projected by the OECD for 2023. The decline is due to a falling contribution of productivity to growth and, following weakness in investment, to a negative contribution of capital. The updated trade agreement with the United States and Canada creates new opportunities to restart investment and strengthen productivity. Previous OECD Economic Surveys have analysed some of the drivers of low productivity growth and low investment in Mexico, such as skills mismatches (OECD, 2019[10]), innovation (OECD, 2017[22]) or a perfectible fiscal federalism framework (OECD, 2017[22]). This chapter focuses on avenues to boost competition, reduce informality, improve the control of corruption and lower trade barriers in some sectors.

Boosting productivity through more competition

The level of productivity in Mexico is relatively low in international comparison (Figure 1.23). One key factor helping to explain low productivity is that the business sector is composed, on one hand, of a small number of large and relatively productive firms and, on the other hand, of a large number of SMEs. To the extent that large firms can exploit increasing returns to scale, knowledge spill-overs and specialization of employees, productivity typically increases with firm size (OECD, 2018[23]). Consequently, a high proportion of labour and capital resources are used in low-productivity firms, particularly micro and informal firms.

Figure 1.23. Labour productivity is relatively low

1000s of PPP-adjusted USD per capita, 2020 or latest year



Note: OECD is an unweighted average of all member countries with available data.
Source: OECD Productivity database.

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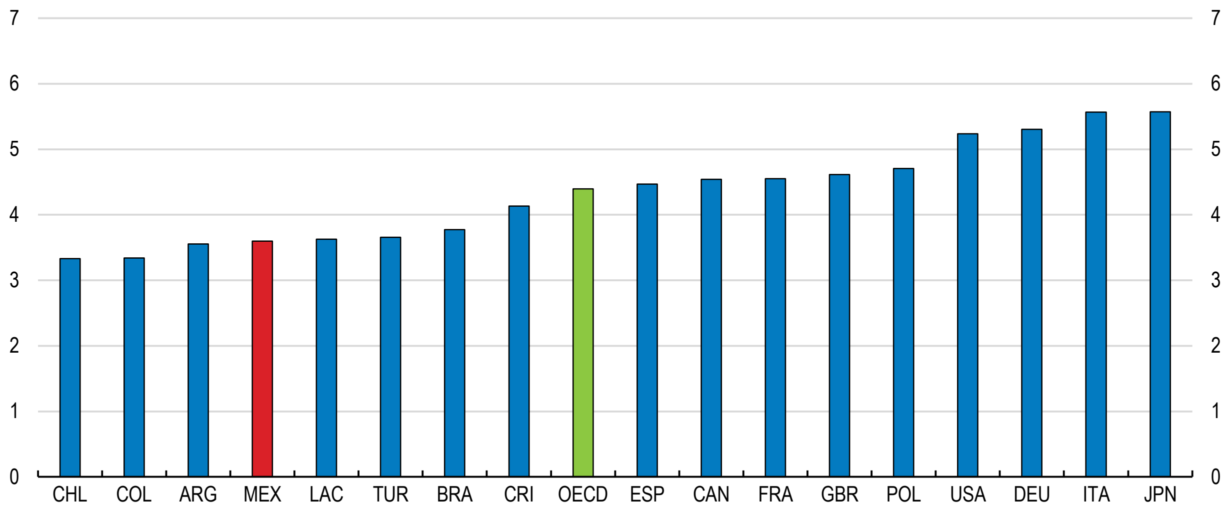
Figure 1.24. Markets are perceived to be dominated by a small number of firms

Extent of market dominance, index from 1 to 7 (best), 2019



Note: This indicator shows the extent of market dominance on a scale from 1 to 7 (best). In the World Economic Forum Executive Opinion Survey, it is the answer to the question, "in your country, how do you characterise corporate activity? [1 = dominated by a few business groups; 7 = spread among many firms]". LAC is an unweighted average of Chile, Colombia, Costa Rica, Argentina and Brazil.
Source: World Economic Forum, The Global Competitiveness Index 4.0 2019 dataset (version 10 April 2019).

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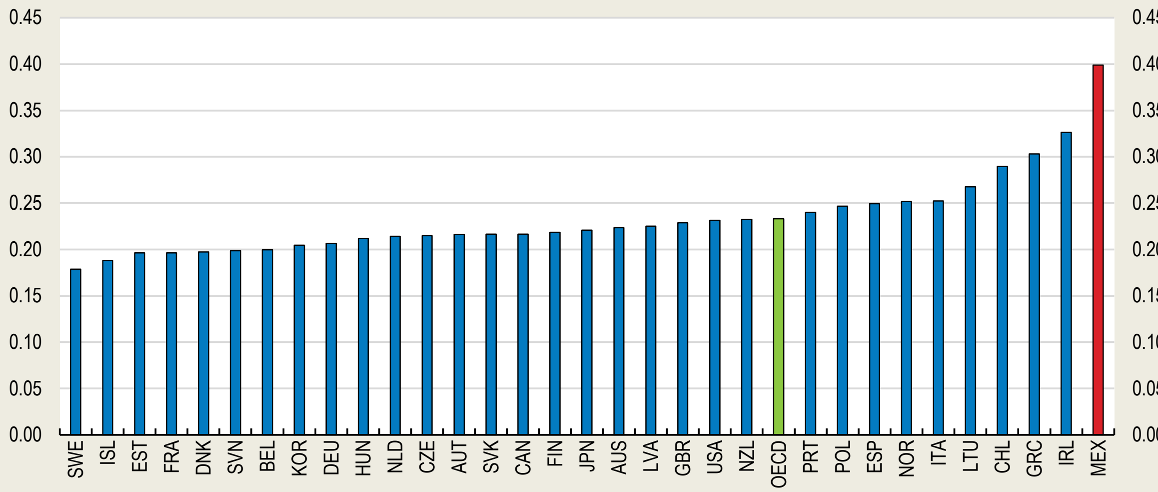
These features are typical of economies where competition is not strong enough to create an environment in which new entrants prompt incumbents to become more efficient (Klapper et al., 2006[24]). Competition has been weak in some key sectors of the economy and a few companies tend to dominate markets (Figure 1.24 and Box 1.8). High market power leads to higher prices, with a welfare loss for the poorest 10% Mexicans estimated to reach 31% of their income, compared with 6% for the richest 10% (COFECE, 2018[25]). Mexico's own experience in the telecommunication market attests than more competition leads to lower prices and higher quality (OECD, 2017[26]).

Box 1.8. Measuring market power in Mexico

The pressure of competitors and new entrants leads firms to set lower prices that reflect costs, to the benefit of consumers. In the absence of competition, firms gain market power and command high prices (De Loecker and Eeckhout, 2017[27]). Measuring market power can thus provide valuable insights about the degree of competition. Mark-ups measures help to assess to what extent firms are able to price their goods above their costs. High mark-ups can indicate weak competition in an industry or sector. Measures of mark-ups at sectoral level, computed for this Economic Survey (Gonzalez Pandiella and Tusz, forthcoming[28]), suggest that mark-ups in Mexico are higher than in most OECD countries (Figure 1.25). Wholesale and retail or mining are among key sectors where mark-ups indicators are highest and larger than in OECD countries (Figure 1.26).

Figure 1.25. The average mark-up at sector level is relatively high

Index from 0 to 1 (highest mark-ups), average 2015-2018



Note: Mark-ups are defined as gross output divided by gross operating surplus, following the methodology presented in (Égert and Vindics, 2017[29]).
Source: OECD calculations based on OECD Structural Analysis (STAN) database; and OECD Analytical database.

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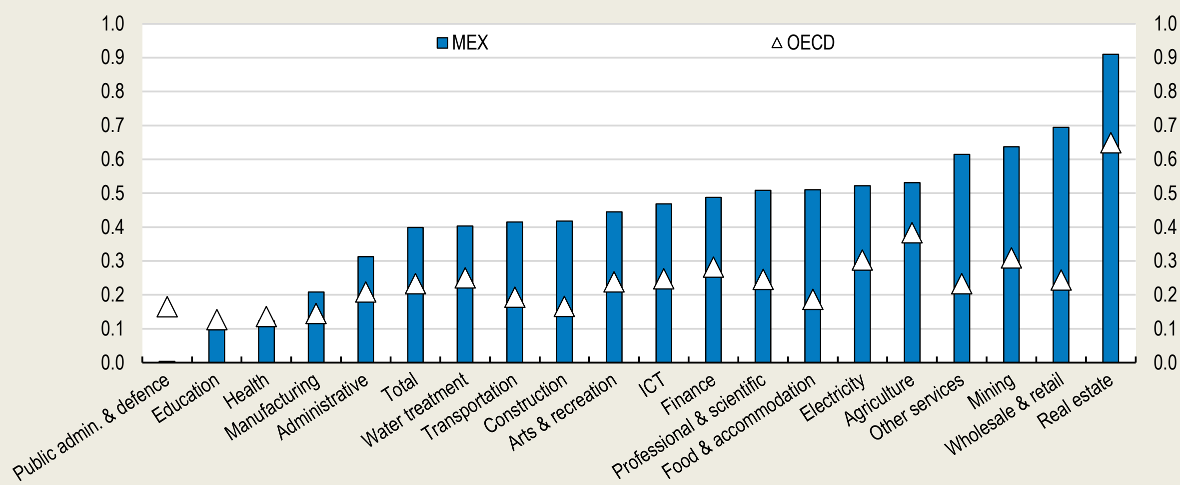
Figure 1.26. Most sectors have larger mark-ups than the OECD average

Index from 0 to 1 (highest mark-ups), average 2015-2018



Source: OECD calculations based on Structural Analysis (STAN) database; OECD Analytical database.

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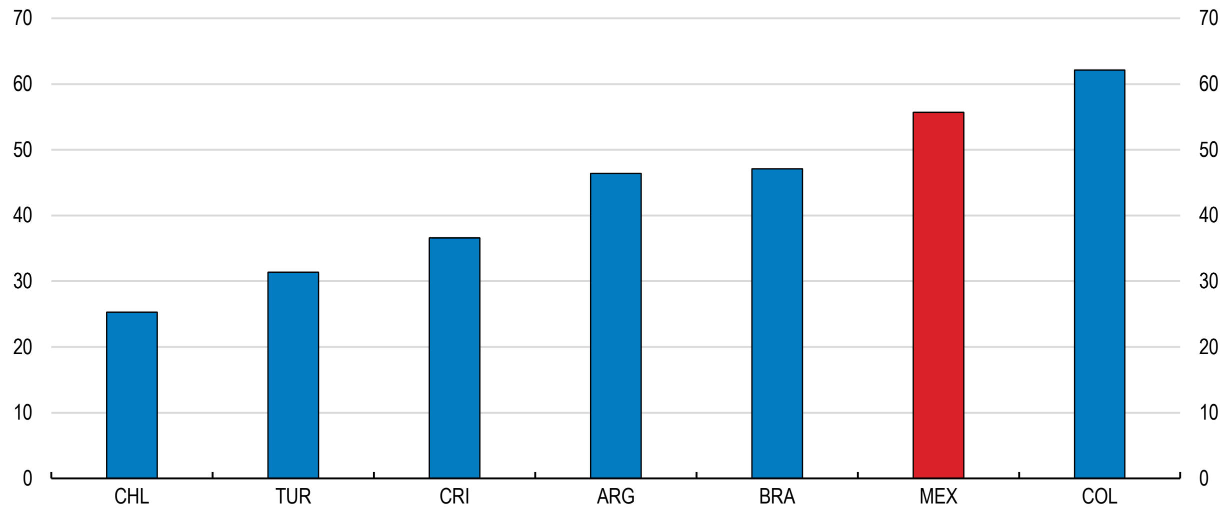
There is a need to strengthen competition. Improving regulations would be a fundamental way to boost competition. In some cases, this would involve reducing regulatory burden to facilitate firm's creation and a more dynamic business environment. In other cases, there is a need for improving the regulatory framework to reduce markets concentration, such as in the transportation market. A fully independent and resourced competition authority is another important pillar of a solid competition framework (Table 1.8). Mexico's autonomous competition authority, created in 2013, has been gradually exercising its authority more vigorously. The number of investigations had been increasing until recently. Attracting and retaining skilled staff has been a significant challenge, which has been exacerbated by a budget cut in 2019 and the establishment of salary ceilings for all public entities from the executive branch of government. The application of the salary ceilings was suspended for existing employees but applies to new recruitments and for internal promotions. This implies significant wage cuts for internally promoted staff and lower attractiveness for external candidates, including for positions in the competition authority board, putting at risk the ability of the competition authority to attract skilled staff. The status of the competition authority as an autonomous and independent body has also been challenged, and plans to change legislation to remove that condition and make it dependant on the government were announced, although not pursued. Going forward, it is important to ensure that the competition authority remains independent, that its budget is sufficient to carry out its functions effectively, and that its salary scale is appropriate to attract skilled staff and to continue building capacity. The competition framework would also significantly benefit from increasing the number of judges to assess competition matters, which remains very limited in Mexico.

Reducing informality: a win-win for productivity and inclusiveness

Informality, at around 55%, remains high (Figure 1.27) and is both a cause and a consequence of low productivity. There is no silver bullet to reduce informality. A comprehensive strategy is required, with actions needed in several policy areas. Beyond ongoing initiatives to facilitate tax compliance, as discussed in the tax section of this chapter, improving labour regulations and its enforcement and enhancing skills and their relevance in the formal labour market are key building blocks of a strategy to reduce informality, as discussed in previous OECD Economic Surveys of Mexico ((OECD, 2019[10]); (OECD, 2017[22])). Ongoing labour market reforms aimed at expediting the resolution of labour disputes could also reduce the potential costs associated to formalisation. The ongoing pension reform can also contribute to reduce informality among low-income workers, since, as of 2023, it reduces employers' social security for low-income workers, whose social security coverage would be instead partially finance via the federal budget. The reform to reduce fraud in outsourcing activities can also facilitate that more workers access formal jobs. Boosting financial inclusion (see also Chapter 2), by enabling a higher use of electronic payments and lower use of cash, can also foster formality. Strengthening the childcare network and fathers leave entitlements (see social section in this chapter) can also reduce female labour informality, which tends to increase significantly after the first child is born (Berniell et al., 2021[30]).

Figure 1.27. Informality is high

% of informal employment in total employment, 2020 or latest year



Note: Data for Costa Rica and Chile excludes own-use production workers and data for Argentina includes only main cities or metropolitan areas.
Source: ILO.

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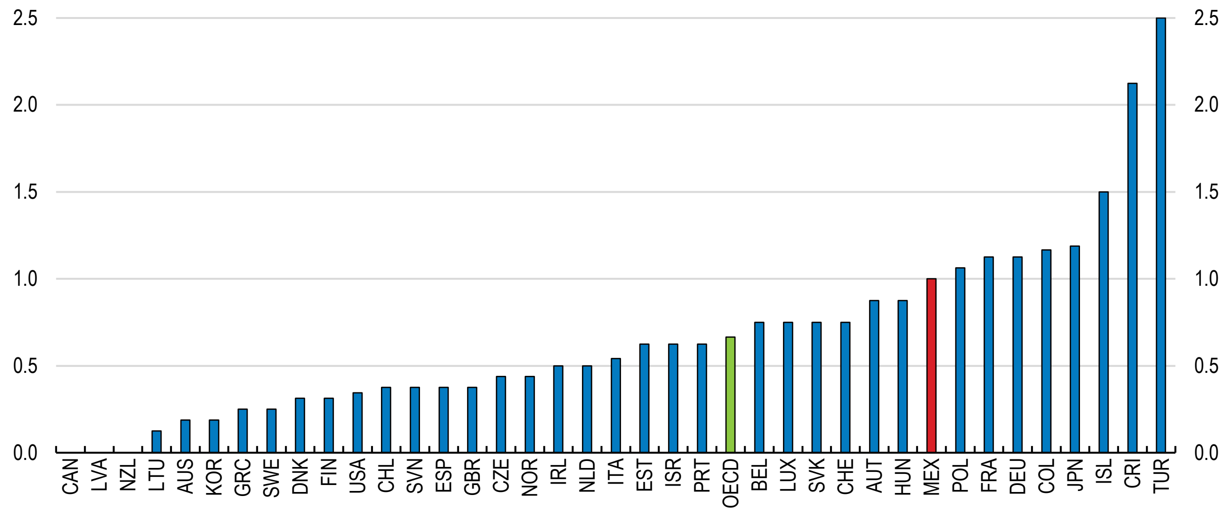
There is also room to improve business regulations, as in some instances they remain costly and complex, hampering the formalization of firms and jobs. This would also facilitate firms' entry and foster more competition. Mexico has made good progress in improving business regulations and easing the conduct of businesses overtime, although there is room to reduce the gap with OECD countries (Figure 1.28). Business regulations at the federal level have improved notably (OECD, 2019[10]). Conversely, there remains room to improve regulations at state and municipal level. Regulations can differ notably between municipalities in the same state, which implies significant barriers for small firms to formalise, grow and become more productive. A national strategy to improve regulations is being gradually launched, aiming at standardising regulations across different government levels and eliminate duplications. One-stop shop mechanisms in state and municipalities would significantly simplify and reduce the cost to start a business, as exemplified by several states and municipalities. The latest example is the state of Yucatán, that recently launched a fully digital single investment window. Increasing the use of digital tools, making possible that all administrative procedures related to starting a business can be resolved online, would also offer the double dividend of reducing the regulatory burden and the scope for corruption.

Figure 1.28. There is a room to facilitate start-up

Administrative requirements for limited liability companies and personally-owned enterprises sub-index, 2018



Note: The index goes from 0 to 6 (more restrictive).
Source: OECD indicators of Product Market Regulation.

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Table 1.8. Past OECD recommendations to boost productivity

Past recommendation	Actions taken since the 2019 survey
Ensure that the competition authorities and sector regulators have adequate resourcing and independence to carry out their mandates effectively.	The competition authority remains an independent body.
Complete the implementation of the National and Local Anticorruption Systems reforms and monitor the results. If needed, consider introducing a specialist, independent anticorruption agency that takes into account the federal structure of the government.	15 states have adapted their subnational policies to the national system and five more expected to do so in the short-term. Mexico improved 14 places between 2018 and 2020 in the Corruption Perception Index elaborated by Transparency International
Continue efforts to reduce crime and impunity	The National Guard was created in March 2019, aiming at having a more extensive and trained security force. 284 new police stations were created throughout the country and 60000 additional officials were recruited. Wage conditions have improved (they are 36% higher in the new police body)

Rebooting investment

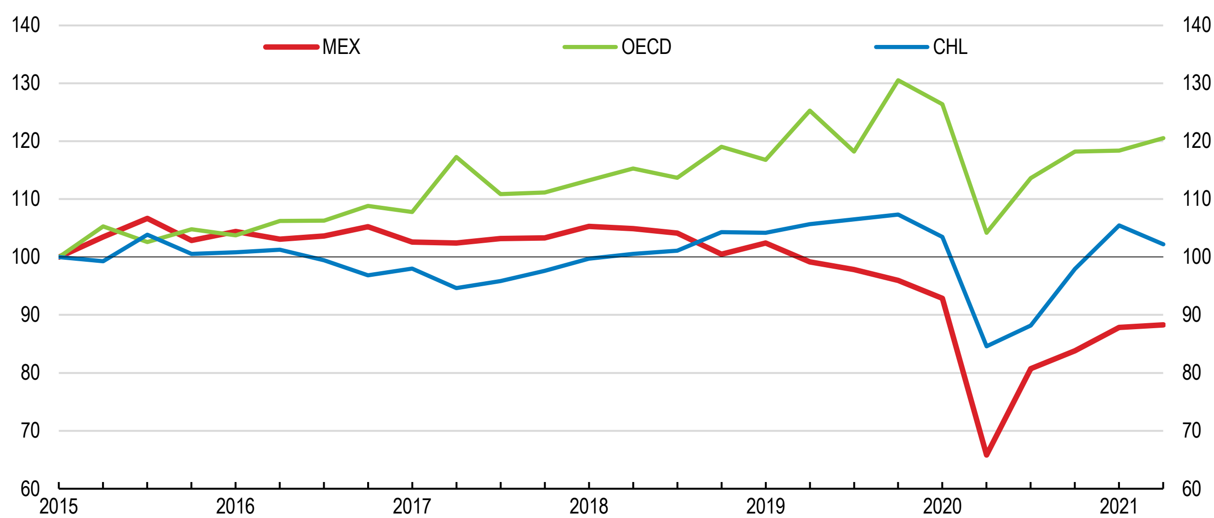
Investment has been muted since 2015 (Figure 1.29). It did not grow between 2016 and 2018, hampered by uncertainty at that time about the future of trade agreements in North America. It started to fall in 2019, after some existing investment projects were cancelled and global trade tensions. Uncertainty about domestic policy settings has remained high, following the renegotiation of established contracts, particularly in the energy sector, where the government pursues a policy of increasing energy security, strengthening the scope of the state owned PEMEX and the electricity public company, and overturning the 2014 reform that promoted private investment. Uncertainty increased at the beginning of 2021 (Figure 1.30), following the approval of the electricity reform bill, perceived as retroactively changing the rules under which investments were made and increasing legal and regulatory uncertainty (IMCO, 2021[31]), whose implementation was suspended by the court.

The potential for investment to restart vigorously is high. In addition to the updated trade agreement, the strong recovery in the United States and nearshoring trends, by which companies are likely to seek reducing supply chain disruptions risks by locating closer to their final markets, provide Mexico with historic opportunities. While some of these opportunities have started to materialised, harnessing Mexico's full potential would require providing investors, both domestic and foreign, with certainty about existing contracts and with regulatory stability.

The partnership established between the federal government and the private sector to launch a pipeline of infrastructure projects is a valuable initiative to strengthen investment and fill infrastructure gaps. The pipeline covers 67 projects, financed by the private sector, and amounting to 2.1% of GDP (Hacienda, 2021[16]). Boosting access to finance would also be key for the revival of investment (see Chapter 2). The pension reform (see social section in this chapter) has the potential to increase funding for infrastructure investment in the medium-term, as pension fund assets are expected to increase to 40% by 2038 (from 17% today). In the short-term, further integrating responsible business conduct considerations would also support investment. Environmental, social and governance considerations are increasingly taken into account by international investors and due diligence on these matters is also integrated in trade agreements with the United States and Canada (particularly in terms of labour, as further discussed in the social section of this chapter) and is mandated by major trading partners such as European Countries. In this vein, the sustainable taxonomy under development by the Finance Ministry can be a powerful tool to channel more investment flows towards activities with positive environmental and social impact.

Figure 1.29. Investment in Mexico is persistently low

Index, 2015Q1 = 100



Note: Total investment, OECD is an unweighted average of all member countries with available data.
Source: OECD Economic Outlook database.

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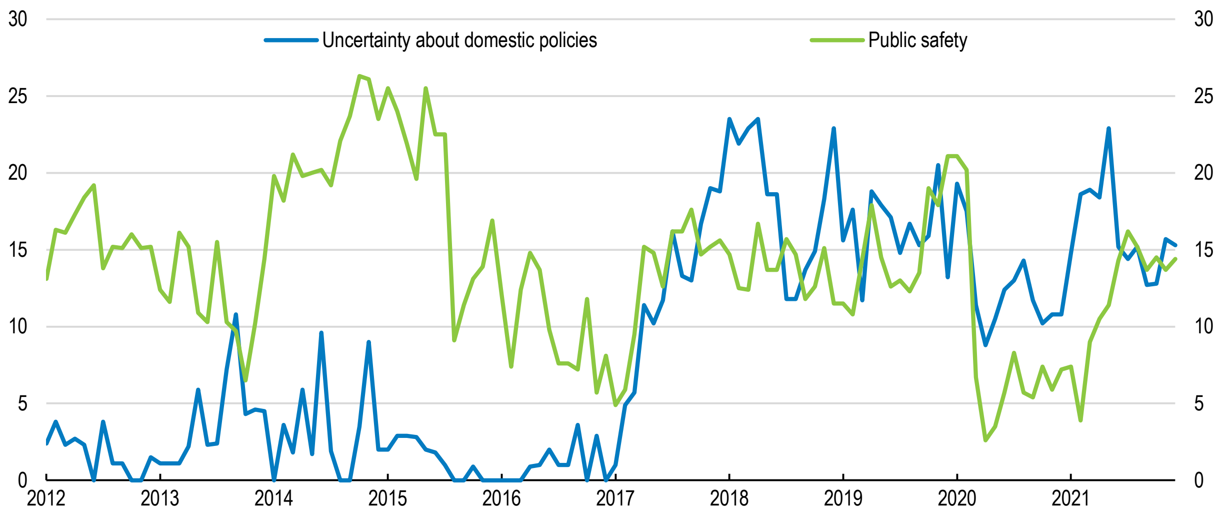
The recovery of investment may be hampered by the impact of the pandemic. SMEs in the formal sector were supported via small loans of MXN 25,000 (USD 1,260). According to a survey by the statistical institute 20% of SMEs disappeared during the recession (INEGI, 2020[25]). SMEs may struggle to repay their debts, particularly those in sectors whose recovery is lagging. Converting the loans into grants (i.e. the loan does not have to be repaid) can improve prospects for SMEs to invest and contribute to the recovery. Grants have been increasingly used among OECD countries, from wage subsidies to compensation for lost revenue or fixed costs and vouchers for digital, up-skilling in countries as Chile, Ireland or Sweden (OECD, 2021[32]). Several countries have also converted lending facilities to grants. For example, in the United States, the Paycheck Protection Programme, a loan aiming to incentivise small businesses to retain personnel, is forgiven if certain employee retention criteria are met. Mexico has already budgeted the loans under the subsidy category so their conversion into grant would be straightforward.

Figure 1.30. Uncertainty about domestic policies has increased

Share of specialists' responses identifying uncertainty and safety as risks for economic growth, %



Note: Specialists were asked the following question: "In your opinion, what are the three principal factors that will limit growth in economic activity over the next six months?"; they could select up to three factors.
Source: Banxico (Encuestas Sobre las Expectativas de los Especialistas en Economía del Sector Privado).

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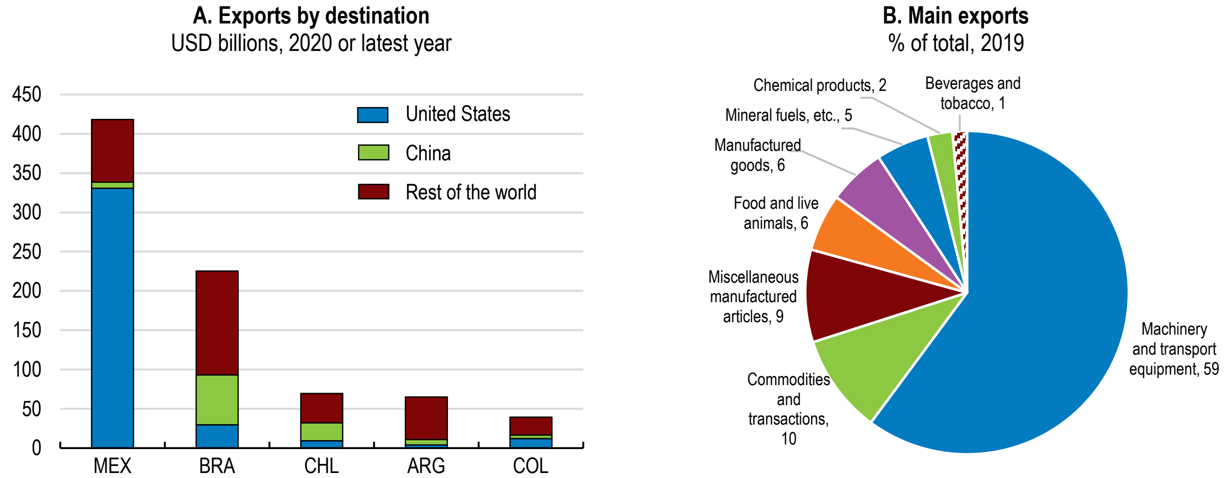
Enhancing trade integration in services

Mexico has greatly benefited from its open trade and foreign investment policies. It has 13 free trade agreements with more than 50 countries. As a share of GDP, exports of goods and services increased from 26% in 1996 to nearly 40% in 2019. Boosted by NAFTA, Mexico has become a manufacturing hub, with manufacturing comprising nearly 90% of its exports. The value of Mexico's manufactured exports more than exceeds the rest of Latin America's manufacturing exports combined. Insertion in global value chains (GVCs), supported by strong FDI inflows, has allowed Mexico to climb up the value chain, particularly in the auto industry, whose structure has become extremely interlinked with the United States. As a result, exports to the United States represent more than 80% of total exports (Figure 1.31).

Figure 1.31. United States is the main trading partner



Source: UN Comtrade; and UNCTAD.

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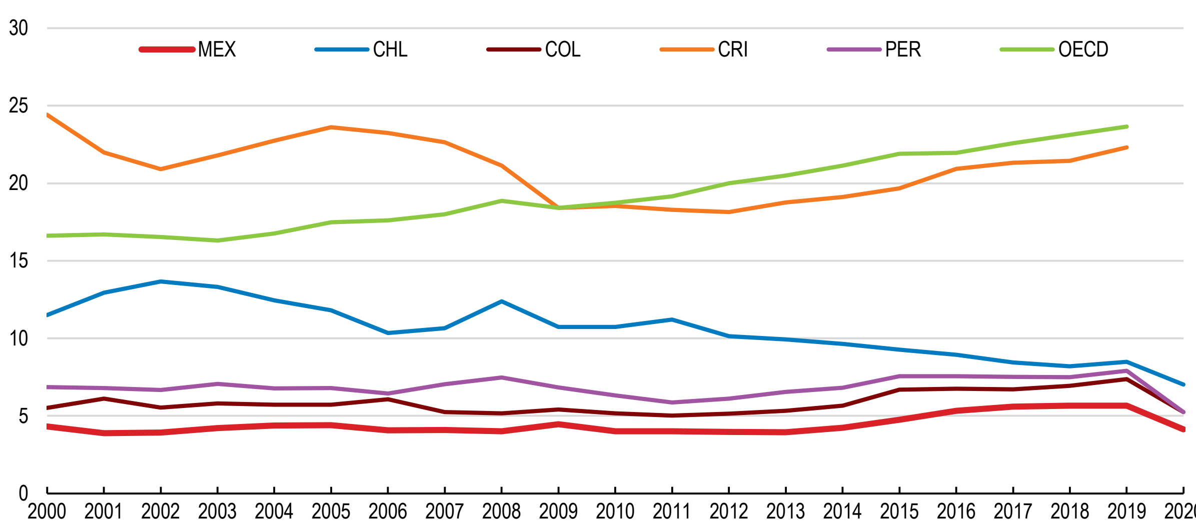
However, Mexico's high potential in trade is not fully exploited. Services exports have not mirrored Mexico's integration in manufacturing trade. The share of services exports is low and smaller than in regional peers (Figure 1.32). It has hardly changed in the last two decades, in contrast with OECD countries. Trade in services is an increasingly important part of global trade, and modern manufacturing is a heavy user of service inputs (OECD, 2017[33]). Boosting services competitiveness and integration in the world economy would reinforce Mexico's position in manufacturing trade.

Figure 1.32. Trade in services is low

% of GDP



Note: Trade in services is the sum of service exports and imports divided by the value of GDP, all in current USD. OECD is an unweighted average of all member countries, excluding Ireland and Luxembourg.
Source: World Bank World Development Indicators; and UNCTAD.

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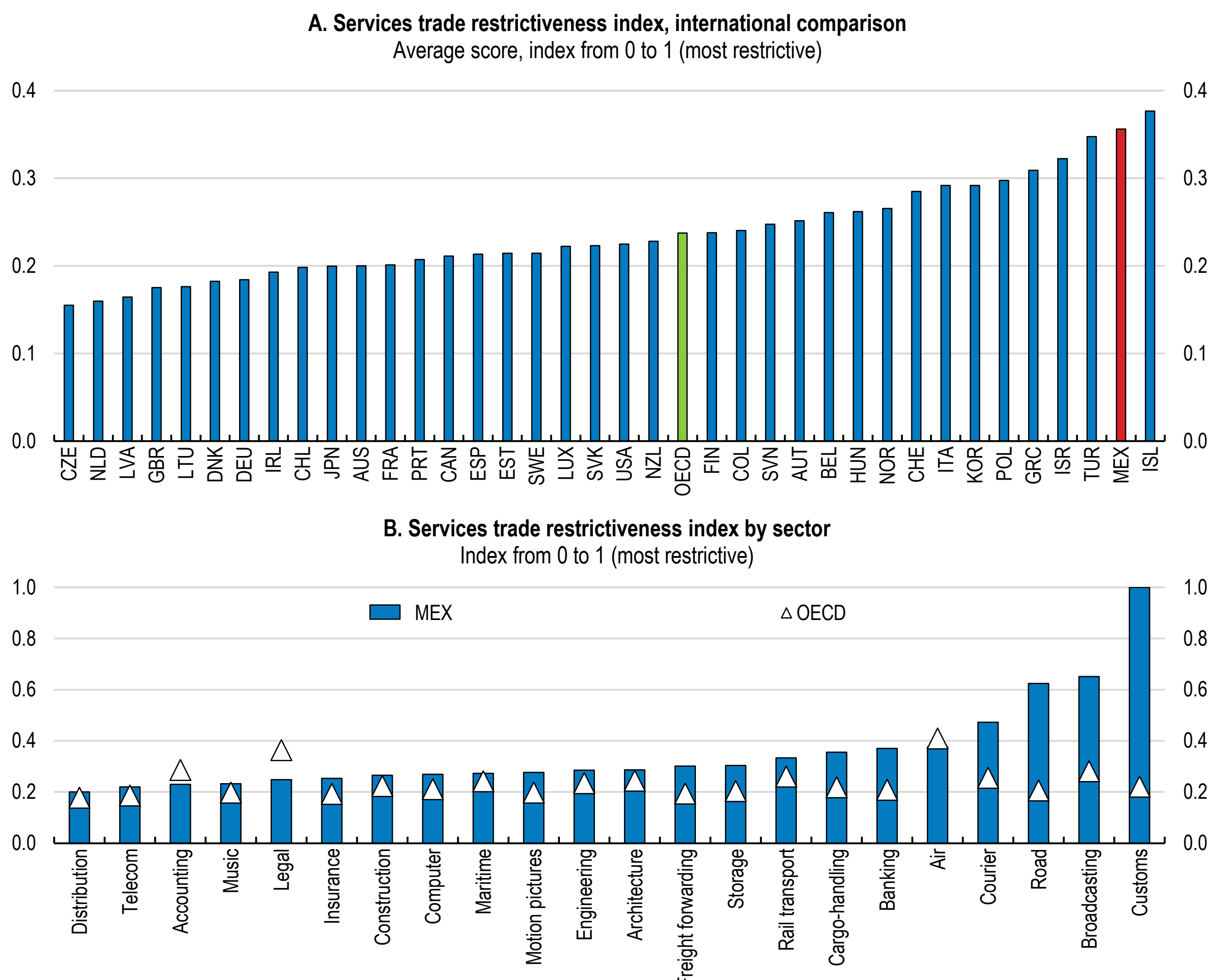
Reforming trade regulations would also bring benefits to consumers and strengthen domestic productivity. The cost of service trade restrictions fall disproportionally on SMEs. Hence, reforms in this area are particularly important for Mexico, as the participation of Mexican SMEs in global value chains is limited (OECD, 2017[22]). Restrictions on services trade are higher than in most OECD countries (Figure 1.33). Restrictions have been reduced over time in some sectors, notably telecommunications, but there is still a substantial gap with OECD in many sectors. Restrictions are particularly high in areas key for integration in GVCs, as logistics, customs brokerage, courier services, and road, rail and air transportation. Easing those restrictions would particularly benefit SMEs and firms in the south of the country, whose integration in trade is particularly hampered by high logistics and transportation costs. Work is ongoing to modernise trade agreements and legal frameworks in finance, with the aim of bringing certainty to foreign investors and further promoting cross-border financial services. This is a promising initiative to expand access to financial services, as discussed in chapter 2 of this survey. Boosting digitalisation, as also discussed in chapter 2, would also promote a more competitive, agile and innovative service sector.

Figure 1.33. Services trade restrictions are high in some sectors



Source: OECD Services Trade Restrictiveness Index.

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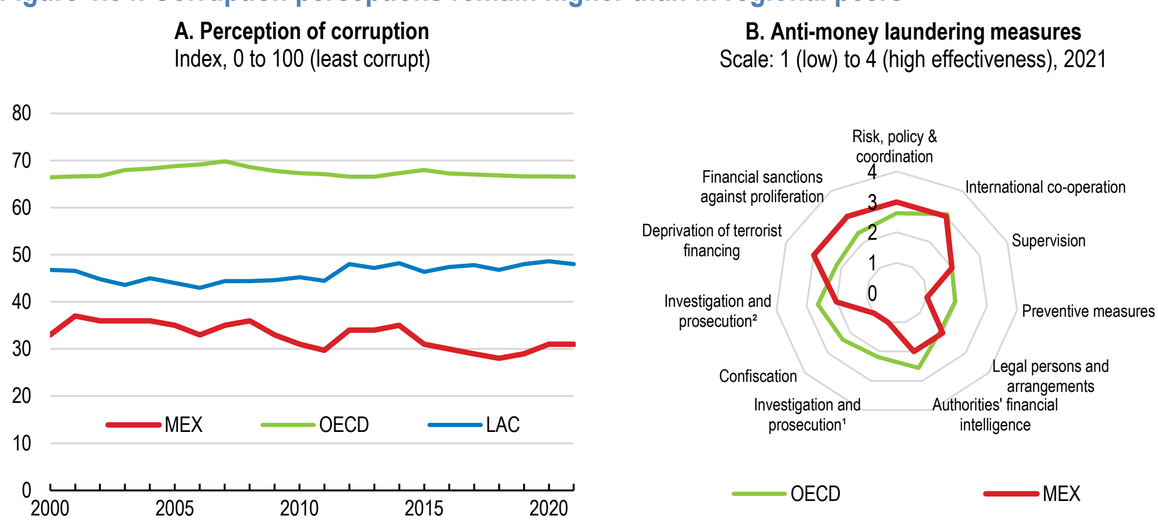
Looking ahead, additional efforts to transition towards carbon neutrality would help Mexico to maintain and reinforce trade competitiveness. The global transition to net zero greenhouse gas emissions by 2050 will require stronger policy action by all countries. Carbon pricing is expected to increase in many countries, which has triggered concerns about carbon leakage (whereby foreign emissions increase because of the introduction of domestic climate policies) and some proposals to introduce border carbon adjustment mechanisms. Strengthening efforts to reduce the carbon footprint, as further discussed in the climate change section in this chapter, could reinforce Mexico's medium-term trade competitiveness in a global economy that is transitioning towards lower carbon content. It would also help to harness all the potential of the updated trade agreement in North America, which has enhanced provisions to fight climate change.

Continuing to improve governance and reduce corruption

Systemic corruption hampers productivity, as it distorts incentives, undermines confidence in institutions and fair competition in markets, erodes public services, and undercuts social trust. The importance of quality of governance in explaining the differences in productivity across countries is well-documented (Hall and C. Jones, 1999[34]). Mexico has been significantly reinforcing its anticorruption framework overtime. Corruption perceptions have slightly fallen over the last years but the gap with OECD and regional peers remains notable (Figure 1.34).

The institutional framework to fight corruption has been strengthened but there are implementation gaps. Further progress has been made towards building the National Anticorruption system, with 17 states having so far adapted their subnational policies to the national system and five more expected to do so in the short-term. The Head of the Special Prosecutor's Office for Corruption-related Offences have been recently appointed but additional measures are necessary to finalise pending reforms (OECD, 2021[35]). This includes appointing the judges of the Federal Court of Administrative Justice. There is also significant heterogeneity among states anticorruption systems, both in terms outcomes and budgets (OECD, 2021[36]). Mexico could also consider involving more formally the private sector, including SMEs in the functioning of the National Anticorruption system, which could be done by engaging business associations in Citizen Participation Committees (OECD, 2021[37]).

Figure 1.34. Corruption perceptions remain higher than in regional peers



Note: Panel A: LAC refers to a simple average of Chile, Colombia, Costa Rica, Argentina and Brazil. Panel B shows ratings from the FATF peer reviews of each member to assess levels of implementation of the FATF Recommendations. The ratings reflect the extent to which a country's measures are effective against 11 immediate outcomes. 1. Refers to money laundering. 2. Refers to terrorist financing.
Source: Transparency International Corruption Perception Index; and OECD calculations based on Financial Action Task Force (FATF) data.

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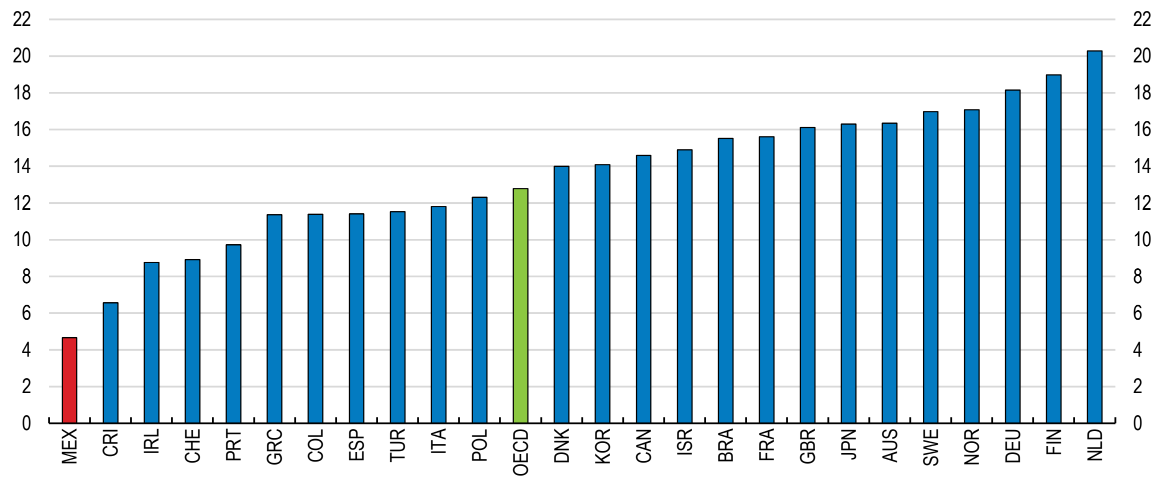
The toolkit to fight corruption has also been expanded. A national digital platform has been launched, putting together and interconnecting all data from federal agencies and the state anticorruption systems. The statistical institute has also put together a comprehensive catalogue of corruption indicators, assessing at state and municipal level the prevalent type of corruption and which procedures are more likely to be affected. The availability of more tools to fight corruption is a step ahead but it has to be followed up by willingness to make an effective use of them. Boosting technical expertise in anticorruption agencies would facilitate that corruption cases are pursued based on technical criteria. Boosting public procurement can serve as an additional tool to reduce the scope for corruption. Mexico's use of public procurement is the lowest in the OECD (Figure 1.35), and has been recently further hampered by an increasing use of direct awards and limits to access information. Strengthening transparency, stakeholder participation, access, e-procurement, as well as oversight and control, can contribute to high integrity in public procurement processes and to fight corruption, and will also contribute to higher public spending efficiency.

Figure 1.35. There is room to increase the coverage of public procurement

General government procurement % of GDP, 2020 or latest year



Source: OECD Government at a Glance database.

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There is also room to strengthen foreign anti-bribery enforcement (OECD, 2021[35]) . Over the last 20 years, Mexico has not successfully concluded any case of foreign bribery. Enacting specific legislation to protect public and private sector employees who report suspicions of foreign bribery is a necessary step ahead to strengthen whistle-blower protection and the fight against foreign bribery.

Redoubling efforts to improve equality of opportunities

The pandemic has exacerbated long standing social inequalities. The poverty rate, in its multidimensional definition, increased to 44% in 2020, from 42% in 2018 (Coneval, 2021[38]). Those with jobs linked to trade, such as in manufacturing, have recovered the income they had before the pandemic, while for those depending on tourism or other services not linked to foreign trade the recovery is taking longer. Informal workers had been particularly impacted. The government is prioritising reducing inequality in the short-term with social programs, complemented with a longer-term strategy based on infrastructure to boost growth and investment, job creation and productivity in southern regions. Expanding access to finance in those regions would also be particularly beneficial, as discussed in chapter 2.

The pandemic and the associated increase in poverty and social vulnerability signal also there is a need to continue strengthening the social protection system and make it also more efficient. Putting in place policies that mitigate economic fluctuations without discretionary government action would better equip Mexico against future economic shocks, facilitate recoveries and better shield Mexicans. Upgrading social protection.

All OECD countries except Mexico have in place an unemployment benefits system, which takes the form of insurance schemes, of unemployment assistance programmes or of a combination of both. Unemployment benefit systems provide income protection for individuals losing employment during a downturn and they also help to stabilize the economy, acting as a valuable counter-cyclical tool. As an increasingly open economy, Mexico's exposure to global economic shocks has increased notably. Establishing an unemployment insurance scheme would be key both from macroeconomic and social protection angles. It is possible for unemployed workers to make early partial withdrawals from their pension funds for up to three months of their latter base wage. However, these early withdrawals hinder future pensions and provides less protection to workers that are more vulnerable. Some states, such as Mexico City, have an insurance scheme, but the full benefits of the tool to pool resources that can be deployed during a downturn can only be achieved if the insurance scheme were established at federal level. To avoid increasing non-wage costs, the scheme could be partly financed by the employers' social security contributions that currently go to finance the housing fund (*Infonavit*) and partly with general taxes. This financing could provide strong incentives for labour formalization, since it would bring benefits for workers with a formal job, without implying additional cost for employers.

An upgraded social protection system should also safeguard informal workers, providing them also with income protection. A number of countries in the Latin America region have recently set up emergency measures to provide informal workers with support during the pandemic recession (Box 1.9). Establishing similar mechanism in Mexico, by which informal workers who lose temporarily their jobs get income support, would also be a key building block of an upgraded social system.

Box 1.9. Providing income support to informal workers during the pandemic recession

Reaching informal workers is a challenge for public policies. Out of tax or social benefit systems and, in many cases, without access to banking services, many informal stay out of the radar of public policies. Several countries in Latin America successfully launched innovative schemes to reach them and provide them with income support during the pandemic recession. Chile supported more than 2 million vulnerable and informal households through different cash transfers, handing out debit cards to those without a bank account (OECD, 2021[13]). Costa Rica launched *Bono Proteger*, a direct cash transfer to individuals losing their job or facing reduced working hours during the pandemic, including those in the informal sector (OECD, 2020[7]). Applicants had to fill out an online form, sign an affidavit as a statement of good faith, and provide a valid domestic or foreign document of identity and an IBAN. Those without a bank account would get one opened through the application process. Brazil used a smartphone application to provide an emergency benefit, reaching more than 50 million Brazilians (OECD, 2020[39]). Colombia payed out benefits to 1.5 million households, previously not covered by social benefits, also providing free digital banking products.

Indicative scenarios suggest that an upgrade of the social programmes would contribute to decreasing both income inequality and poverty rates (Box 1.10 and (Turroques and Gonzalez Pandiella, forthcoming[40])). The fiscal cost of such measures depends on the length and size of the benefits. Starting with three-month benefits would keep the fiscal cost contained (Esquivel, 2020[41]) and (Table 1.10). The number of recipients of social programmes has recently increased to 30% of all households (from 28% in 2018). This reflects government efforts to widen the scope of social policies to reach vulnerable groups, such as old age people and the disabled. Social programmes were estimated to prevent 4.6 million people from falling into extreme poverty and 3.3 more in working poverty during the pandemic (Coneval, 2021[38]). Non-conditional programs, such as scholarships (*Benito Juarez* programme) and non-contributory pensions (Pensión para el Bienestar de las Personas Adultas Mayores) have become the backbone of social policies (Table 1.11), replacing Prospera, a conditional cash households transfer programme in place for over 21 years. The shift implies a greater focus on nearly universal social programmes with the goal to expand support to more individuals, provide beneficiaries with more flexibility and lower administrative and operative costs. The share of households in the three lowest income deciles receiving monetary transfers has fallen, while for the rest of deciles, it has increased (Figure 1.36). This calls for strengthening efforts to reach more households in the lowest income deciles by strengthening means testing and increasing the size of programmes with larger coverage among lower-income households, such as early education scholarships.

Box 1.10. Impacts of some reforms on inequality and poverty: a simulation experiment

Simulations using Mexico's households data suggest that upgrading Mexico's social protection system, reducing informality and boosting female labour market participation would result in substantial decreases in inequality and poverty (Table 1.9). Introducing a 3-month unemployment benefit, complemented with income support, also for 3 months, for those informal workers that lose their job would cause poverty to fall by 11.6 percentage points. Closing the gap with the OECD in female labour market participation would trigger a fall in inequality, measured by the GINI index, by nearly 2 percentage points. Reducing informality of workers in lower income deciles would make inequality fall by 2 percentage points and extreme poverty by 1.5 percentage points.

Table 1.9. Impact on inequality and poverty of some reforms based on a simulation experiment

Redistributive impact of reforms on current income per capita by decile, 2020

Deciles	Current income (MXN)	Current income per capita (MXN)	Increase in current income per capita (%)		
			Unemployment benefits plus income support for informal (1)	Lower informality (2)	Higher female labour market participation (3)
1	2,673.2	1,066.5	238.35	54.39	52.23
2	5,041.7	1,802.5	165.26	17.83	24.71
3	6,871.2	2,299.7	128.54	5.24	14.82
4	8,666.9	2,733.1	103.08	0.79	8.30
5	10,610.2	3,159.7	80.57	0.00	5.21
6	12,866.8	3,669.6	58.43	0.00	0.00
7	15,617.5	4,278.3	38.44	0.00	0.00
8	19,340.4	5,133.9	21.49	0.00	0.00
9	25,398.9	6,615.1	6.82	0.00	0.00
10	51,572.9	13,581.9	0.64	0.00	0.00
Total	16,186.5	4,515.2	42.25	2.25	3.77
Current			Effects on poverty and inequality		
Poverty %		43.9%	32.3%	42.3%	41.5%
Extreme poverty %		8.5%	6.2%	7.0%	7.8%
Gini coefficient %		42.9%	47.2%	40.9%	41.3%

Note: These scenarios are indicative and are based on a set of assumptions, particularly: (1) Unemployed workers in the formal sector who earn less than 1.5 the minimum wage receive a benefit equal to the minimum wage for 3 months; Informal workers out of work who earn less than the minimum wage receive a subsidy equal to the minimum wage for 3 months; (2) The share of households working in the informal sector decreases in the four lowest deciles and become equal to average informality in the fifth one. New formal individuals in each decile got the same salary as the average wage of formal workers in the 5th decile. (3) The female labour market participation reaches the OECD average (70%) in the five lowest-income deciles. Women who enter the labour market get the average women wage.
Source: Estimations by (Turroques and Gonzalez Pandiella, forthcoming[40]) based on ENIGH-INEGI, 2020.

Table 1.10. Illustrative fiscal impact of some OECD recommendations

Measure	Change in fiscal balance (percentage points of GDP)
Spending side	
Unemployment benefit (3 months; minimum wage benefits)	- 0.4
Income support for informal workers (3 months; minimum wage benefits)	- 1
Boosting public investment	- 1.3
Expanding the childcare network	-0.7
Total spending side	*-3.4*
Revenue side	
Broadening personal income tax base	0.7
Broaden VAT	Up to 1.4
Strengthen property tax	1.2
Strengthen vehicle tax	0.2
Total revenue side	*3.5*

Note: The impact of putting in place unemployment benefits and income support for informal workers is based on simulations experiments presented in Table 1.9. The impact of boosting public investment is based on the assessment by (Woetzel et al., 2017[5]) on the increase needed to cover infrastructure needs. The impact of expanding the childcare network is based on (UN and ECLAC, 2020[42]). On the revenue side, it is assumed that the property tax reaches the average of the other OECD Latin American countries. The impact of broadening personal income tax and VAT are based on (IMF, 2020[8]), and on Mexico's finance ministry for the vehicle tax.
Source: OECD calculations.

Boosting coverage, targeting and efficiency of social programmes

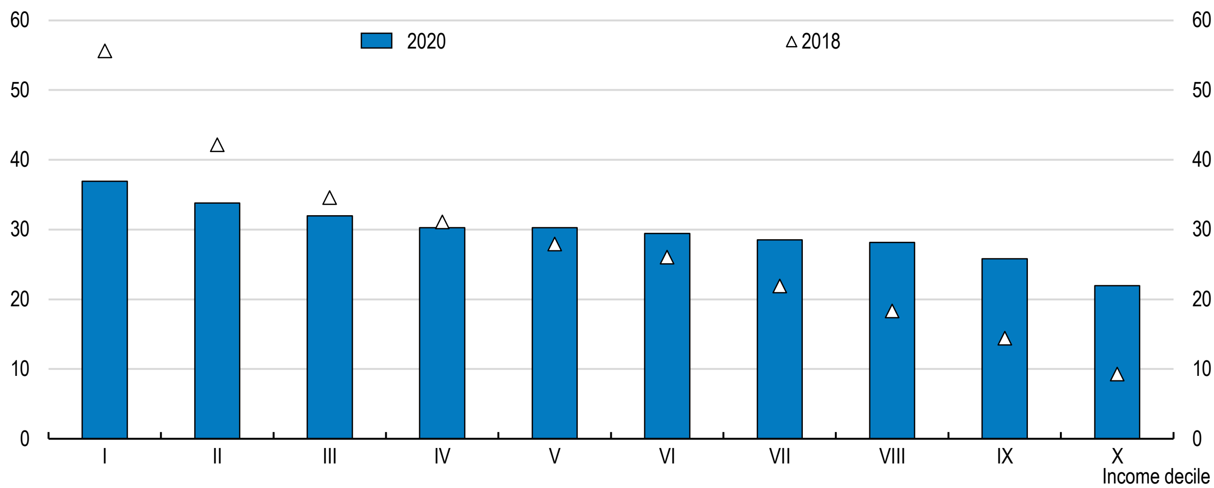
Mexico has also recently put in place *Sembrando Vida*, an innovative programme aiming at improving the quality of life of people in marginalized rural communities and promoting sustainable development. Participants in the programs receive a monetary transfer and support for agroforestry activities, such as planting trees for fruit or timber on small plots of land. Thus, the programme provides a direct monetary transfer but also in-kind support. The programme has been deployed in 20 regions and covers 430000 individuals (as of 30 August 2021). The program holds promise for achieving both climate and social development goals in marginalized rural areas. Evaluating thoroughly the program and strengthening its design based on the outcomes of the evaluation would be important steps ahead for realising its full potential.

Table 1.11. Past OECD recommendations on social policies

Past recommendation	Actions taken since the 2019 survey
Expand access to good quality, affordable childcare.	A constitutional reform was approved in 2020 by the Lower Chamber establishing the right to a decent care and creating the National Care System.
Increase the length of the pre-school day for three- to five-year olds.	No action taken
Reduce high female drop-out rates in education.	Several scholarships schemes have been put in place (*Becas Benito Juarez* and *Jovenes Escribiendo Futuro*). The VAT rate on menstrual products was reduced from 16% to 0% in Budget 2022. This improves the affordability of these products and facilitates that adolescents do not interrupt their learning activities.
Lower social security contributions for low wage earners.	According to the pension reform approved in 2020, employer's social security contributions will be reduced for low-wage workers. Social security would be instead partially financed by the federal budget.
Implement a coordinated approach to reduce informality, comprising lower administrative burdens to doing business, including tax compliance costs, and reduced dismissal costs while stepping up social protection.	All procedures with the Social Security Institute have been digitalised and can now be completed online. Programmes to facilitate the formalization of domestic workers and platform workers have been launched. A series of certifications to municipalities have been put in place, recognizing the simplification of regulations, procedures and services.

Figure 1.36. There is room for some social programmes to reach more low-income households

Share of households covered by key cash social programmes run at federal level, %



Note: This figure displays coverage of cash social programmes run at federal level, as captured in 2021 and 2018 Households Expenditure and Income Survey waves. For 2021 the programmes are Beca Bienestar para las Familias de Educación Básica, Beca Benito Juárez para Jóvenes de Educación Media Superior, Beca Jóvenes Escribiendo el Futuro de Educación Superior, Pensión para el Bienestar de Personas con Discapacidad, Apoyo para el Bienestar de los Hijos de Madres Trabajadoras, Seguro de vida para Jefas de Familia, Programa Jóvenes Construyendo el Futuro and Pensión Adultos Mayor. For 2018, the programs captured are Prospera, Procampo, Tarjeta SinHambre, Programa de Empleo Temporal (PET) and programs for adults over 65.
Source: Own computations based on 2021's and 2018's Households Expenditure and Income Survey (ENIGH, Encuesta Nacional de Ingresos y Gastos de los Hogares).

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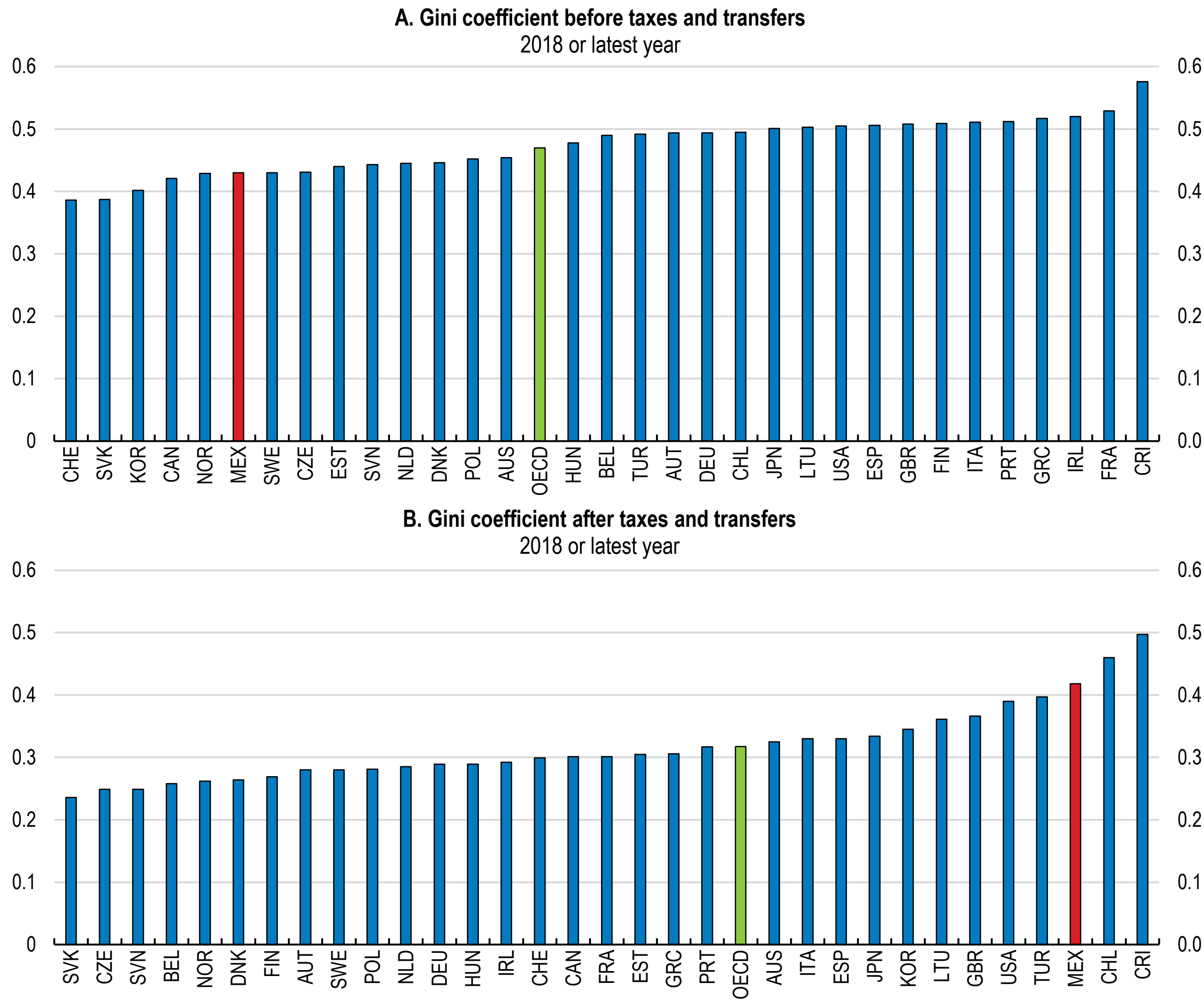
There is also room for gaining efficiency and boosting coverage by reducing programmes fragmentation, as there is a large number of schemes, run by different levels of government, with overlaps and gaps in coverage. The number of programmes run by the federal government has fallen from 272 in 2009 to 123 in 2021. Over half of these programmes (57%) are delivered directly and have a register of beneficiaries, while the rest are delivered through intermediaries, such as local governments, and some lack beneficiaries' registries. There are also 1444 programs run by states and 6829 run by municipalities (CONEVAL, 2021[43]). Establishing a comprehensive and unique registry of existing beneficiaries of social programmes would help to assess and improve efficiency and targeting. This would help to increase the ability of the tax and transfer system to reduce inequality, which is currently relatively low (Figure 1.37). To do so the registry should cover programs run by all levels of government. Based on this registry, reducing programme fragmentation and overlaps between programs run by different levels of government could result in significant efficiency gains, which could allow reaching some of those currently unsheltered. Recent progress by Costa Rica (OECD, 2020[7]) and Brazil (OECD, 2020[39]) in building universal registers of social programmes recipients illustrates that this is a promising avenue to focus spending on those more vulnerable and to expand coverage. Digitalising the registry and making use of modern tools, such as machine learning algorithms, and of new data sources, such as mobile phone and satellite data, can help to build a comprehensive registry, to improve the targeting social programs and to deploy emergency cash transfers, at relatively low costs.

Figure 1.37. The transfer and tax system redistribute little



Note: Data for Mexico refer to 2018. OECD refers to an unweighted average of all member countries with available data. Panel A: the data point for Mexico, Hungary and Turkey show the Gini coefficient after taxes and before transfers.
Source: OECD Income Distribution Database.

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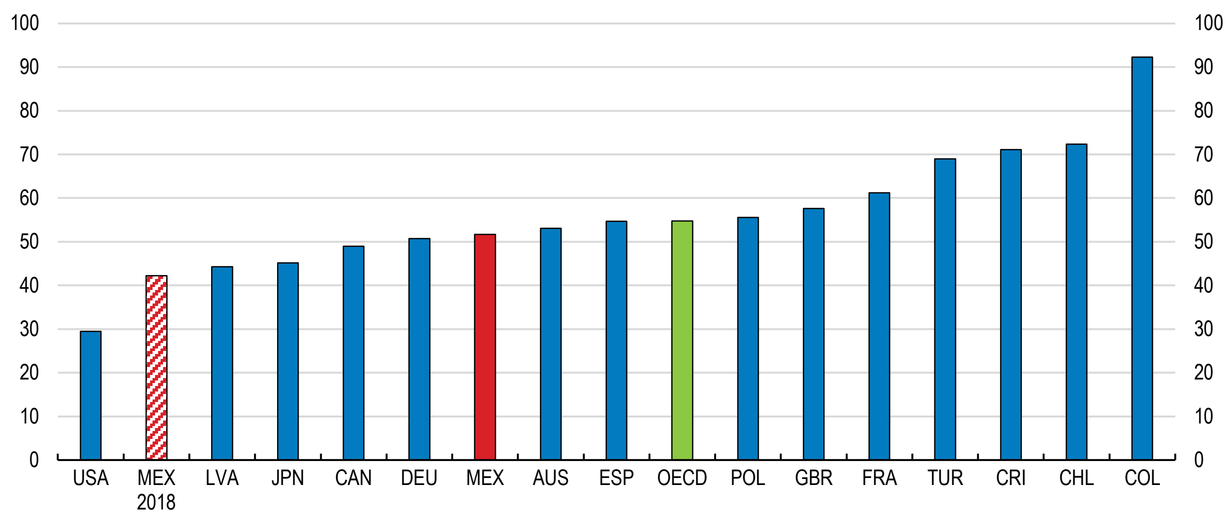
Key reforms of labour policies and the pension system are underway

The implementation of several important labour market reforms is underway. This includes reforms to respond to new requirements in the trade agreement in North America to enhance conflict resolution mechanisms, workers representation and collective bargaining. A key reform is the creation of a new labour justice system, with more emphasis on conciliation, as a way to expedite conflict resolution between workers and employers. Before the reform, it took four years to resolve a labour dispute, which increased costs significantly both for employers and workers. The conciliation and arbitration boards, in charge of conflict resolution, did not have an independent court and were overburdened. The reform created new independent and specialized courts, the so-called centres for labour conciliation and registration. They are expected to facilitate a quicker and more independent resolution of disputes. The target is that at least 60% of conflicts between workers and companies get resolved through these new conciliation bodies. When a conciliatory agreement is not reached, oral trials should allow a resolution in less than 6 months. The reform also established new rules for workers representation and collective bargaining, including personal, free, direct and secret vote to elect union leaders and negotiate the conditions of the workforce. The reform holds the promise of facilitating labour disputes resolution and compliance with workers' rights. Full implementation throughout the country, including at state level, will be key to realise its full potential. Reinforcing the mechanisms to guarantee the full application in practice of the right to freedom of association and collective bargaining and promoting effective social dialogue on labour-related policies would be key milestones in the implementation of the reform (OECD, 2021[37]).

Minimum wages, which were lower than in most OECD countries relative to median income (Figure 1.38), have been increased by 50% in real terms from 2019 to 2021. Further increases in the minimum wage are planned until 2024, until the minimum wage allows purchasing two basic consumption baskets (it covers currently 1.3 baskets). Around 13% of full-time workers earn the minimum wage (Conasami, 2021[44]). Before the pandemic started, the proportion of Mexican workers whose income was insufficient to meet basic needs fell in tandem with increases in the minimum wage. Previous evaluations suggest that past increases did not harm employment in the lower part of the distribution (Conasami, 2019[45]) but further evaluations of recent increases are warranted. Further increases should be gradual and aligned with productivity growth to limit their potential negative impact on formal employment, especially as the labour market is still gradually recovering from the pandemic recession.

Figure 1.38. The minimum wage has increased

Minimum wage as % of median wage, 2020



Note: OECD refers to an unweighted average of all member countries with available data.
Source: OECD Labour Force Statistics.

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A reform to reduce fraud in the use of outsourcing was approved in April 2021, and agreed with the private sector after its reformulation. Before the reform, around 20% of formal workers were subcontracted and under an outsourcing scheme. After the reform, subcontracting is only allowed for specialized services that are not part of the main activity of the firm. Subcontracting firms have to be officially registered in the Labour Ministry to be able to provide their outsourcing services. The reforms has the potential to reduce inequalities, as workers in subcontracting firms tend to have lower wages and job-quality, but also entails a risk of curtailing formal job creation. Flanking the reform with additional efforts to reduce the cost to formalise can mitigate this risk. It also remains important that the registration process remains flexible and agile overtime. Based on administrative data, around 2.7 million workers have migrated to standard contracts so far and the salary has increased around 12% on average.

Besides labour market reforms, Mexico has also started to implement a pension reform agreed with the private sector to address some of the weakness of Mexico's pension system, such as very low replacement rates and limited coverage (currently only 30% of the population gets a pension). Starting in 2023, employer's contributions will increase gradually over 8 years, 1% per year, from 5.5% to 13.87%. The number of minimum years to access pensions has been lowered from 25 to 15 years. It will be gradually increased and reach around 19 years by 2030. Government estimates suggest that the reform will expand access, reaching 80% of formal workers once the reform is fully implemented. Replacement rates would increase, particularly for low-income workers. The reform also caps the commissions that pension funds can charge by establishing a maximum based on a formula which uses commissions charged in comparator countries. The government has also announced a reduction in pension age eligibility to 65 (from 68) for non-contributory pensions and an increase in pension entitlements.

These pension reforms hold the promise of increasing access to pensions and pension adequacy in Mexico. The increase in non-contributory pensions is in line with previous OECD Economic Survey recommendations. These reforms will also boost capital markets in Mexico, as pension funds' assets will increase from 17% of GDP today to 40% in 2038. To avoid that higher employer contributions for some workers could deter formal job creation it would be important to flank the pension reform with complementary measures to reduce informality, such as reducing the cost to register formal firms. The reform of contributory pensions will have a limited budget impact, as their financing is borne by employers. However, public spending on pensions are expected to continue increasing, following increases in non-contributory pensions, the demographic transition, and the budget contribution to finance pensions in SOEs, such as PEMEX. Thus, spending on pensions is expected to increase to 5.3% of GDP in 2026, from the current 4%. This will increase budget rigidity and erode further Mexico's ability to respond to economic cycles, reinforcing the case for increasing public revenues.

There remains also a need to reduce fragmentation of the pension systems. Some states, municipalities or public universities run independent pension systems. There is no coordination neither across the various plans nor across the federal and local levels, even for non-contributory schemes (OECD, 2019[46]). The lack of portability of entitlements between schemes and entities also harms labour mobility. Unifying these schemes will reduce duplications and inequalities and facilitate a more efficient management.

There is also significant fragmentation in health services between the contributory system, the non-contributory system and public sector workers scheme. The non-contributory system suffered from lower coverage, as some diseases and treatments covered by the contributory scheme were excluded. To tackle this, the Institute of Health for Well-being (INSABI) was created in January 2020, aiming at offering universal and free health coverage. INSABI, whose start was disrupted by the pandemic, faces significant challenges. The share of the population that reports lacking access to health services increased to 28% in 2020, from 16% in 2018 (Coneval, 2021[38]), even if they are entitled to coverage by INSABI. This highlights that achieving a truly universal coverage remains a challenge. INSABI has inherited from the previous non-contributory scheme lower availability of staff and material resources, which highlights the need to strengthen public spending in this area.

Reducing gender inequalities would boost growth and well-being significantly

Female labour force participation continues to lag the OECD average and other Latin America countries (Figure 1.39). Mexican women suffer from a 10% pay gap. Women have been particularly hit by the pandemic and the recovery of female participation has been slower than for men, as they were particularly affected by schools closures. Violence against women, a long-standing issue, has also become more acute during the pandemic (Vaeza, 2020[47]).

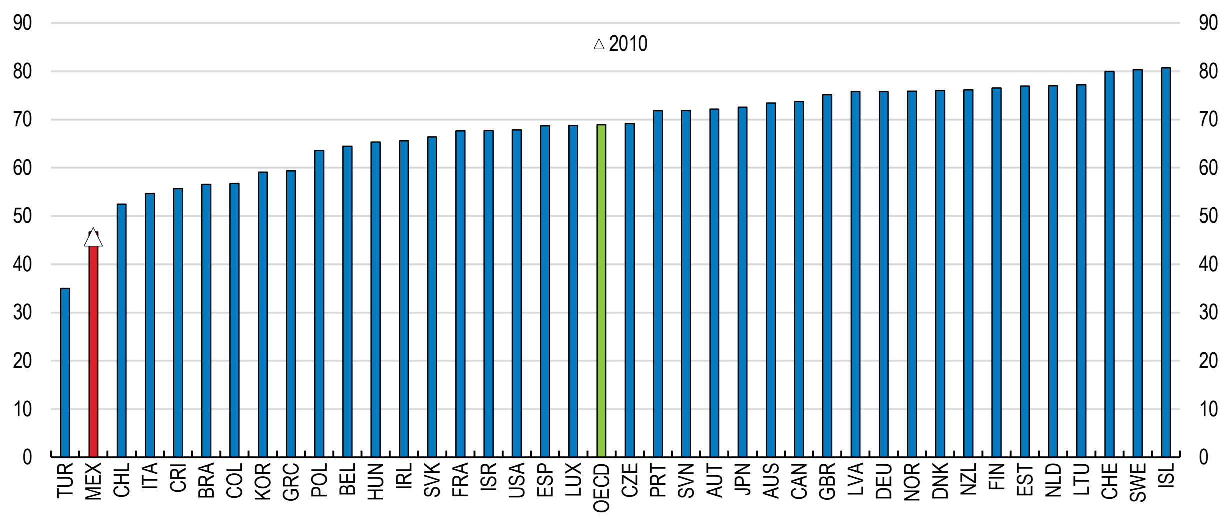
Care responsibilities fall disproportionally on women, hampering women prospects to complete education or be in the labour force. There has been some progress overtime in extending the coverage of early childhood education and care but there remains a gap with OECD countries or regional peers such as

Chile or Colombia. Recently a network of childcare facilities (*Estancias Infantiles*), that workers could access free of charge, was replaced by subsidies. But the subsidy was insufficient to cover the cost and the number of recipients was reduced. The Finance Ministry, in cooperation with other ministries and institutions from the federal government, is analysing different strategies to expand the childcare system in coordination with subnational governments and the private sector. Achieving full coverage for children under 6 years old would cost 1.2% of GDP annually, while Mexico already spends 0.5% of GDP (UN and ECLAC, 2020[42]). To fully grasp the potential benefits of an expansion of the childcare system, it is fundamental that low-income workers are prioritised and that access is not linked to labour market status so that informal workers also get access to the network.

To implement an efficient childcare system, there is a role for the federal government to coordinate efforts by subnational governments and the private sector, including by establishing general rules (e.g. quality assurance) and consolidating the information of the provision and quality of childcare centres. However, local governments could contribute to the design, given their knowledge of the particular needs in their area. Finally, for public childcare centres, coordination among the three levels of governments is crucial for a proper functioning. For example, local governments could be responsible of some expenditures as salaries, according to the current legal framework, and federal government could provide infrastructure (through existing programs, such as La Escuela es Nuestra).

Figure 1.39. Female labour market participation is low

% of female population aged 15-64, 2020



Source: OECD Labour Force Statistics.

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Promoting the take-up of paternity leave entitlements for fathers would also help. In Mexico, fathers are entitled to fives day of leave. Contrary to mothers leave that is financed via the Social Security system, fathers leave is fully paid by the employer. Fathers leave take-up has been low, as there is social stigma and is only available to formal workers. Financing the leave entitlement via the Social Security System, as done for mothers in Mexico and for fathers in many OECD countries, could facilitate take-up and break stigmas. Mexico could consider also lengthening parents leave, following the recent trend of many OECD countries, including France and Spain.

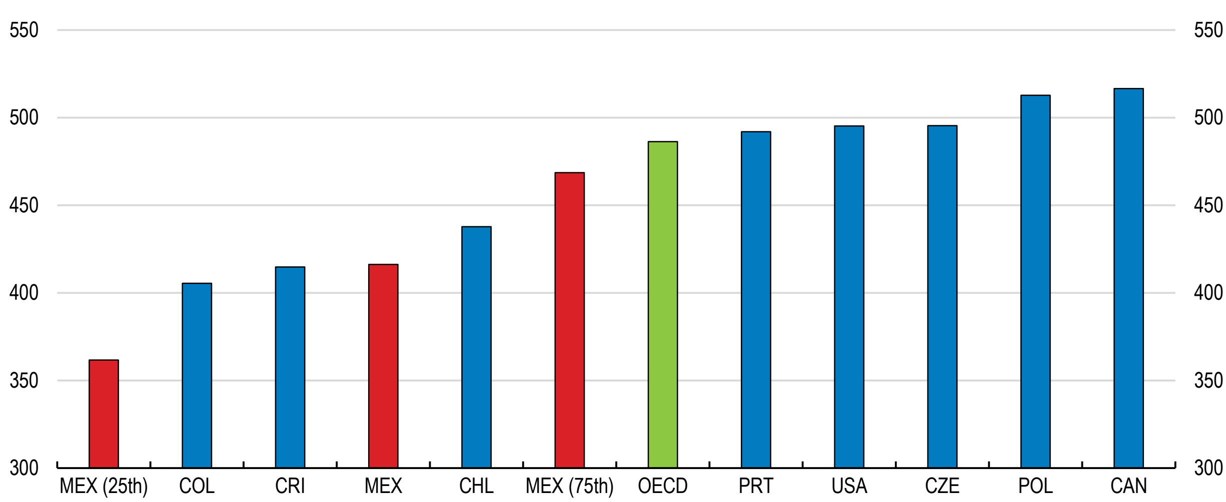
Mexico has made good progress in improving female political representation. The share of women in Congress has been on an increasing trend and reaches now 52%. In the current cabinet, 42% of ministers are women, in comparison with 31% in the OECD average (IMCO, 2021[48]). Conversely, Mexico female participation in private company boards, at 7%, is lower than observed in most OECD countries (27% on average). Promoting gender diversity in leadership positions in private companies can contribute to enhance diversity and improve economic outcomes. There is a requirement for listed companies to report on their progress to reduce gender imbalances, but the requirement is frequently unmet. Ensuring that the requirement is met would promote gender equality, as exemplified in several OECD countries, such as Australia or the United Kingdom (ILO, 2020[49]). Increasing gender pay gap transparency in those reports, by including mandatory pay-gap reporting, is a promising avenue to reduce gender pay gaps (OECD, 2021[50]), and is being done in half of OECD countries.

Boosting education outcomes

The education system was highly impacted by the pandemic, exacerbating longstanding challenges, such as a significant inequality. Before the pandemic hit, best performing students had a similar level of performance as the OECD average (Figure 1.40). However, the gap between top and bottom students was large and equivalent to four years of schooling. After one of the longest schools closures in the region and in the OECD (Figure 1.41), these inequalities are likely to widen even further. Differences in households' digitalization are particularly stark in Mexico, which prompted authorities to deploy learning tools via television rather than the Internet.

Figure 1.40. Educational inequalities are large

Mean score in reading, math and science in PISA, 2018



Note: MEX (25th) refers to the score at which 25% of students scored lower; similarly, MEX (75th) refers to the score at which 75% of students scored lower.
Source: OECD PISA 2018.

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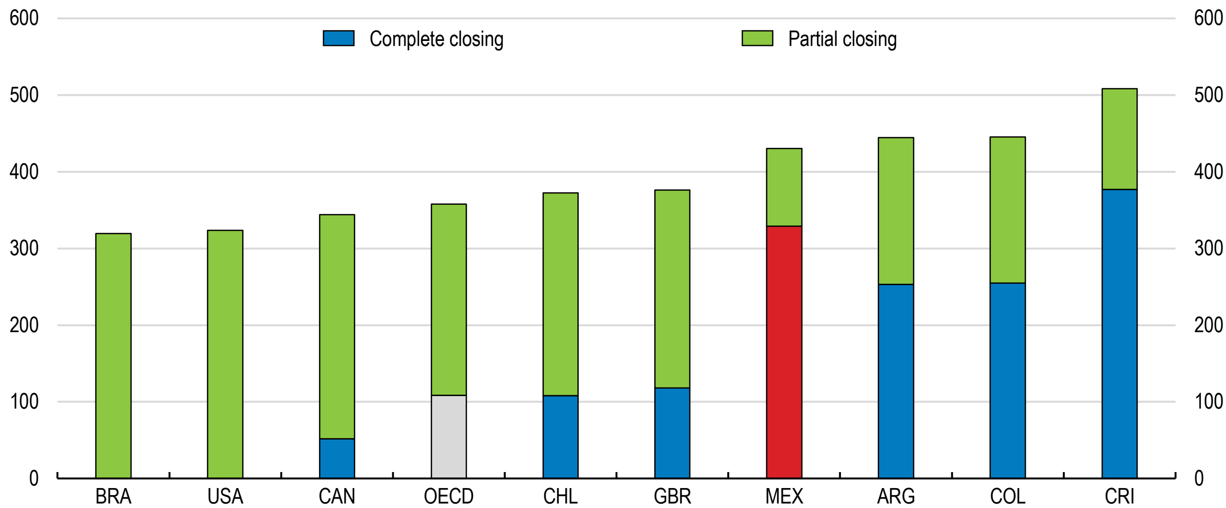
The impact of school closures is likely to be significant and long lasting. In the short-term, dropouts are likely to increase. In fact, in the midst of the pandemic, 3 millions of Mexicans at primary and secondary education level interrupted their studies and did not restart the 2020-2021 academic year (INEGI, 2021[51]). Schools closures imply a significant risk of further increases in the number of individuals exiting education with low skills, placing them at high risk of informality, poverty, and social exclusion. Putting in place targeted programmes aimed at reintegrating back to schools those who dropped during the pandemic would be essential to reverse the negative impact of school closures. Some of those who stayed in education may also require targeted support and tutoring to avoid that, after the weaker learning during the schools closure, they stay behind and end up dropping out. In this vein, Germany recently launched a scheme to provide additional teaching to pupils once schools were open again. Mexico has put in place a monitoring process that should help to assess learning gaps, and which would be a good basis to set-up additional tutoring to students. This would be fundamental to support youth in acquiring relevant skills to successfully engage in increasingly digitalised and greener economies, as reflected in the recently updated OECD youth action plan.

Figure 1.41. Schools have been closed for a long time

Cumulative days of school closing due to COVID-19 since 1 January 2020



Note: Partial closing refers to the following situations: recommended closing or significant changes to normal operations; required closing only of specific levels or categories (e.g. high schools, public schools); or the required closing of all levels in a targeted geographic area. Days with partial closing are counted as 0.5 days.
Source: Oxford Policy Tracker.

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Reallocating more resources towards the earliest stages of education (preschool and primary) could not only help to mitigate the effects of the pandemic but also make the education systems more equitable. This will facilitate that educational efforts reach the largest proportion of students. Efforts to make education more equitable could be reinforced by establishing numerical equity targets, such as for reducing the number of school-leavers with poor basic skills or the number of early school dropouts, and by allocating higher-quality teachers to schools with a higher share of vulnerable students. Experience in OECD countries suggests that establishing targets can be a useful policy lever by articulating policy in terms of what is to be achieved rather than in terms of formal processes or laws (OECD, 2007[52]). Upgrading schools infrastructure and strengthening teachers training, with a focus on more vulnerable areas, would also help to reduce inequality of opportunities. Mexico has put in place a program (*La escuela es nuestra* in Spanish) aimed at improving basic infrastructure in primary schools. The program prioritises more vulnerable schools. The current funding of the program has allowed so far for supporting around one quarter of the schools who requested support. Increasing funding allocated to this type of programmes would be a step ahead to improve schools infrastructure and reduce inequalities.

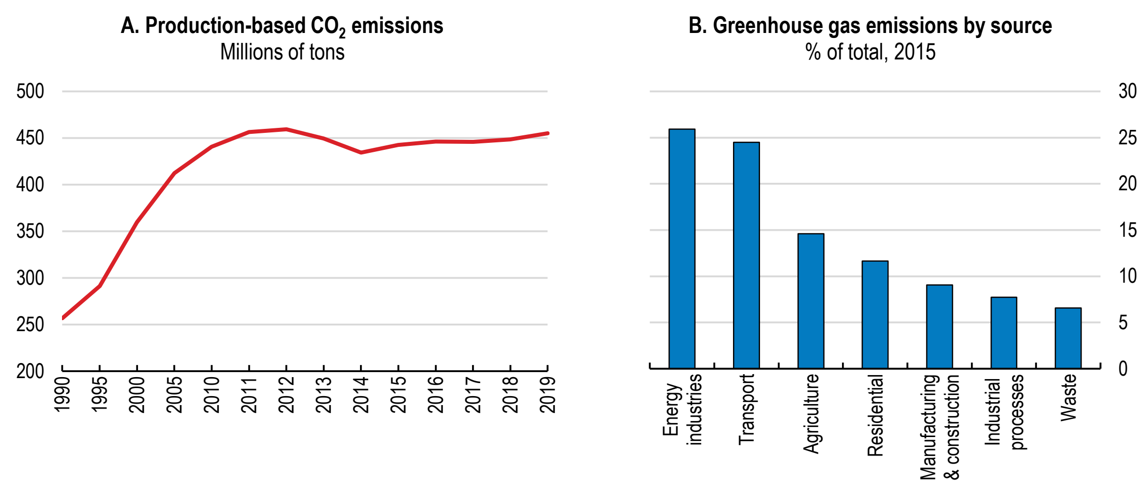
Reducing greenhouse gas emissions and mainstreaming climate-change mitigation

Mexico was a pioneer among emerging economies in taking action on climate change mitigation and adaptation. It was the first emerging economy to introduce carbon price mechanisms. It also began in 2019 a pilot program for the implementation of an emissions trading scheme, in collaboration with the local governments of California and Quebec.Mexico was also the first Latin American country to set its nationally determined contributions, which have been enshrined into Mexico's climate change law. In 2015, it committed to reducing greenhouse gas emissions (GHGs) by 22% relative to a business as-usual scenario by 2030, and targets have not been strengthened since then. Mexico, as other countries participating in COP26, will be revisiting the 2030 targets during 2022 to align with the Paris agreement temperature goal, taking into account national circumstances. Emissions had been on an increasing trend since 2014 (Figure 1.42, Panel A). They were estimated to fall by 13% in 2020 due to the pandemic recession. However, under currently implemented policies, this reduction will not been maintained and Mexico, as many other OECD countries, will not meet its emission targets (Climate Action Tracker, 2021[53]).

Mexico is the 12th largest contributor to GHG emissions globally (Semarnat, 2020[54]). Estimated costs of environmental harm in Mexico are high, amounting to 4.5% of GDP in 2019, according to estimates by the national statistical agency. The impact of climate change is already visible in Mexico. In the last 50 years, average temperatures in the country have increased approximately by about 1°C and the spatial and temporal distribution of precipitations has changed (Semarnat, 2020[54]). This is exacerbating water stress, a critical vulnerability for Mexico. Climate-change related events, such as droughts, heatwaves or floods, are frequent in Mexico.

Policy options to reduce emissions include gradually increasing carbon pricing, enhancing regulations, greening the energy matrix and transitioning towards cleaner transportation. Mexico has taken important steps towards greening the tax system through the introduction of the carbon price, a tax on pesticides and the phasing out of fuel subsidies. Going further would induce further emission cuts. There is room to broaden the scope of the carbon price, as coal is taxed at a reduced rate and natural gas is zero-rated. The overall carbon price remains low, at about two euro per tonne of emissions (OECD, 2019[55]). This is much lower than the low-end estimate of climate-related cost of carbon emissions of around 60 euros per tonne (Arlinghaus and K. van Dender, 2017[56]). Increasing the carbon price implies significant political economy challenges. Phasing the increase in a gradual manner and using part of the additional revenues to offset the effects of higher energy prices on low-income households could facilitate buy-in.

Figure 1.42. CO2 emissions are increasing



Source: OECD Green Growth Indicators.

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Energy and transport sectors are the largest emitters (Figure 1.42, Panel B). About 90% of primary energy supply comes from fossil fuels (Figure 1.43). 23% of the energy supply comes from gas. Renewables generation started to pick up modestly in 2012. With abundant renewables sources across the country, Mexico's potential in the renewables sector is high and much of it remains untapped. The regulations affecting renewables energy projects have been subject to significant uncertainty, as the Ministry of Energy has introduced several reform attempts, challenged legally by market participants and whose implementation was suspended by courts. A constitutional reform of the electricity market is currently in Congress (Box 1.11).

These reform attempts follows the suspension of long-term auctions for renewable energy generation in 2019. The auctions had triggered a significant flow of foreign direct investment and led to record the lowest price for a large- scale solar in the world (OECD, 2019[10]), also below prices of conventional sources. The oversupply of renewables permits, that exceeds the capacity of the grid and creates geographical unbalances, and the fluctuating and intermittent nature of renewable have been signalled by the Ministry of Energy as an argument to favour conventional-based generation. However, experience in OECD countries and emerging economies illustrates that renewables decrease the cost of energy and at the same time can provide flexibility to power systems and reduce the risk of blackouts (IEA, 2019[57]). Modernising the electricity grid, by implementing smart grid technologies, would be a fundamental step ahead to green the electricity mix. Smart grids would also improve efficiency, reliability, and safety and serve to integrate storage devices into the network (Binz et al., 2019[58]).

Box 1.11. An overview of the constitutional reform of the electricity market

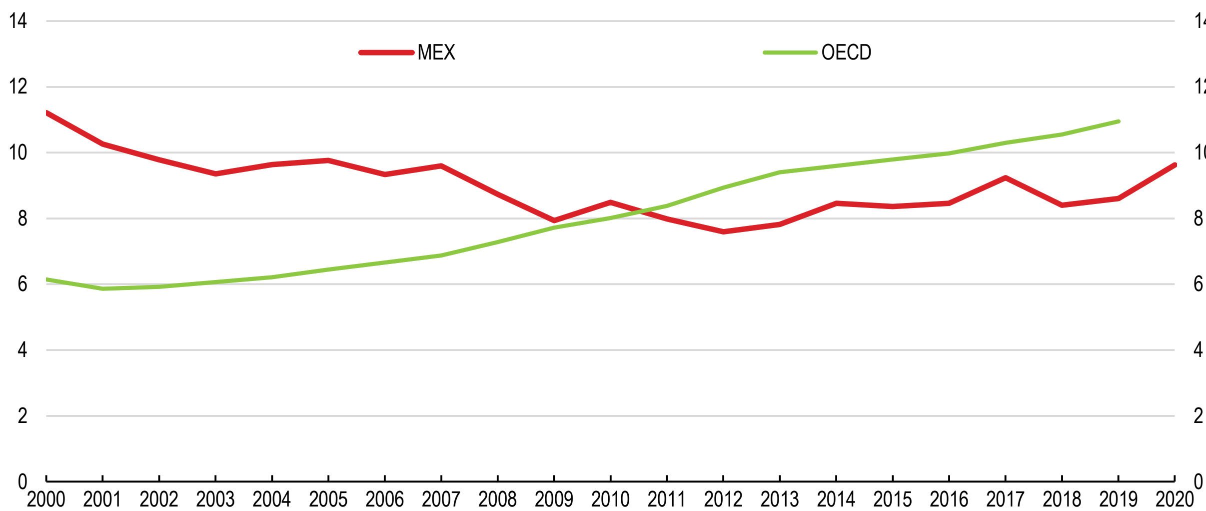
A constitutional reform proposal of the electricity market was announced in September 2021. The proposal will be discussed with key stakeholders and investors and is expected to be debated in Congress in 2022. With that reform, the Ministry of Energy aims at ensuring energy security, maintaining conventional plants as backups for renewables and at avoiding the oversupply of renewables permits, which exceeds the capacity of the grid and creates geographical unbalances. The proposal aims at phasing out some elements in private contracts which are deemed to be detrimental to the finances of the state-owned Federal Electricity Commission (*Comisión Federal de Electricidad* or CFE) and of the government, such as the subsidizing of the transmission fees. The proposal also aims at tackling problems in the design of self-supply mechanisms, such as the creation of a parallel electricity market. The initiative also attempts to redesign mechanisms to issue permits, particularly for renewables, to mitigate the oversupply problem. The reform proposal establishes a guaranteed market share of at least 54% for CFE. The constitutional reform also expands CFE's role in the oversight of the sector and eliminates independent sector regulators. CFE would also be in charge of setting tariffs and granting permits. The electricity reform also changes the rules for generators to access the grid, prioritizing the dispatch of electricity generated by the state-owned company. Prior to the reform, access to the grid was based on marginal power generation costs, giving priority to the least expensive generated electricity, which is renewables-based and largely generated by the private sector. Conversely, electricity generated by the state company is coming from hydroelectric, geothermal and nuclear centrals or is fuel-based.

Table 1.12. Past OECD recommendations on green growth

Past recommendation	Actions taken since the 2019 survey
Raise the carbon tax gradually and predictably, eliminate exemptions and reduced rates and compensate the poor.	Tax credits for fuel consumption for transport, fishing and mining, benefiting high-income taxpayers, were narrowed or eliminated.
Resume long-term auctions to encourage the supply of renewable energy, linking the remuneration of supply to market conditions.	No action taken
Allow and encourage municipalities to create joint metropolitan governance arrangements on their own initiative, in particular metropolitan transport authorities.	No action taken
Invest in integrated public transport systems focusing on improving access in low-income areas.	Large transport infrastructure projects are underway, involving 5 states. Around 461 kilometres of new bike lines, distributed in 5 cities, will become available by 2023.

Figure 1.43. The share of renewables in the energy matrix is lower than in OECD countries

Share of renewable energy in total energy supply, %



Note: OECD is an unweighted average of all member countries with available data.
Source: OECD Green Growth Indicators.

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In parallel Mexico is increasing investment in further fossil fuel exploration and extraction and building a new refinery. A reform of the oil market has also been approved, allowing the Ministry of Energy to suspend the licences already granted to private companies in case of imminent danger to national security, energy security, and the national economy. The Government would be in charge of the operations intervened during the suspension. The reform also adds new conditions, such as a minimum storage capacity, for a company to obtain and keep its permits.

Transport is the second largest CO_2 emitter sector. Mexico has one of the highest transport CO_2 emissions per unit of GDP in the OECD (OECD, 2021[59]). Mexicans are exposed to higher levels of air pollution than the population in other OECD countries (OECD, 2021[59]). Mexico City's road traffic congestion in the metropolitan zone ranks among the highest in the world (OECD, 2015[60]). Transitioning towards massive urban and interurban transport can have a material impact to reduce congestions and emissions. This would require channelling private and public investment towards massive transport projects.

Experiences of several states attest the multiple benefits of transitioning towards cleaner transportation means. Mexico City has recently prioritised mass transportation, establishing networks of exclusive lanes for public transport and for cycling and measures to curb cars traffic. The mass transit network will also expand, by increasing the length of metro lines and bus rapid transit lines. These changes hold the promise of reducing CO2 emissions substantially but their ambition could be expanded should more resources for investment become available. Increasing the uptake of electric and other low- and zero-emission vehicles would have the biggest effect in cutting emissions in Mexico City, as two thirds of all emissions come from private cars (Windisch et al., 2021[61]). Electric train systems in Guadalajara and Monterrey are other valuable examples illustrating the benefits of clean mass transportation. Cable cars in Mexico City, crossing hilly and heavily traffic-congested areas, is another innovative and clean public transportation initiative.

Mexico has taken valuable steps to mainstream green growth and climate mitigation policies. The framework built to issue sustainable bonds could also be deployed to target green sustainable development goals. The Finance Ministry is developing a taxonomy to promote the design of financial instruments to catalyse public and private investment into low-carbon and climate-resilient technologies.

However, there is room to give climate-change mitigation criteria a greater role when defining government policies in all areas. So far, climate change criteria is assessed occasionally, ex post, and only under the arduous insistence of the environment ministry. A paradigmatic example is the social programme *Sembrando Vida,* which provides rural dwellers an income in exchange for planting trees on their plots (see also social section in this chapter). The program was launched in 2019, conceived as a social programme, but has potential to mitigate climate change. However, only recently the environment ministry started assessing its environmental impact. Experience in some OECD countries, such as the Netherlands, where finance and environmental issues are within the same ministry, suggests that strengthening the link between finance and environment ministries can be effective to ensure that climate change criteria are fully embedded in policy design. Recent valuable steps taken by Mexico's finance ministry to green financial regulations suggest that this is a promising avenue in Mexico to give greater focus to environmental issues in the policy agenda.

The resources assigned for activities and programs associated with the mitigation and adaptation of climate (Annex 16 in the Federal Budget) increased by 22% in 2021 compared to that assigned for 2020. However, budget allocations for key environmental agencies, such as the Ministry of the Environment and Natural Resources, have decreased overtime (Muller et al., 2021[62]). Programmable spending on environment protection was 0.2% of GDP in 2014 and 0.1% in 2021's budget. Raising government revenues would create better opportunities to channel more resources to environmental agencies.

Table 1.13. Policy recommendations from this chapter

MAIN FINDINGS	CHAPTER 1 (Key recommendations are bolded)
Safeguarding the on-going recovery	
The share of vaccinated population is rising but remains below the one observed in OECD and regional peers. Additional infection waves would hamper the recovery.	**Accelerate vaccination.**
Activity has rebounded. The recovery of the labour market is still ongoing. The fiscal stance for the near-term provides mild support to the recovery.	**Stand ready to provide further targeted support if the recovery falters or the pandemic resurges.**
Further improving macroeconomic policies	
Public spending is low in international perspective. Spending on social protection and public investment have recently increased, but the pandemic has strained health and education systems, poverty has increased and infrastructure gaps remain significant. **Responding to increasing spending needs while maintaining commitment with debt sustainability requires increasing tax revenues. The tax-to-GDP ratio is the lowest in the OECD and lower than in regional peers.**	**Increase public investment, based on sound and transparent cost-benefit analysis, and spending on social programs, education and health, with a special focus on low-income households, over the medium-term.** **Broaden tax bases by phasing out inefficient and regressive exemptions and by reducing informality, and foster property tax collection by updating the cadastre using digital technologies.** Increase the progressivity of the personal income tax by lowering the income threshold for the top rate. Make some of the transfers to states conditional on levying the vehicle tax and on reconfiguring it to incentivise the use of more energy-efficient vehicles.
The budgetary process has improved. The ability to run countercyclical fiscal policies and support the economy during downturns is limited. The existing current spending rule covers only around 36% of public sector expenditure.	**Establish an independent and adequately resourced fiscal council** **Introduce a long-term debt anchor and widen the share of public spending covered by the spending rule.** Reform stabilization funds to focus them on stabilizing revenues over a multi-year cycle.
States and municipalities remain dependent on federal transfers, leaving the burden of raising tax revenues almost exclusively to the federal government. Currently, federal transfers do not acknowledge efforts made by states to preserve the environment or mitigate climate change.	Upgrade the formulas determining the transfers from the federal budget to the regions by providing better incentives for states to collect taxes and introducing environmental criteria.
Inflation picked up well above 3%. The increase was triggered by supply chain cost-related disruptions and additional domestic pressures on some merchandise items. There are risks that price formation mechanisms may be affected in a generalised way.	**Gradually increase the interest rate for inflation to return to the 3% target. Tighten at a faster pace if long-term inflation expectations start to rise.** Fully preserve central bank autonomy and maintain price stability as primary mandate.
Support to PEMEX has increased to 1% of GDP. Despite new business plans, PEMEX remains a significant risk for the sovereign.	Focus PEMEX activities in profitable fields, reconsider business lines operating at a loss and reduce fuel oil production. **Strengthen PEMEX and other SOEs governance by aligning it to the OECD Guidelines on Corporate Governance of State-owned Enterprises.**
The financial system enjoys adequate capital and liquidity buffers. Credit defaults and market corrections may materialise with delay. Mexico is actively assessing the potential financial impact associated to climate change risks.	Ensure that financial institutions with higher exposure to SMEs and households remain well capitalised. Phase in gradually a mandatory disclosure of climate-related risks by financial institutions and listed companies
Improving equality of opportunities	
Female labour force participation at 45% is low. Family care responsibilities hamper women prospects to complete education or be in the labour force.	**Establish a network of childcare facilities, giving priority to low-income households.** Lengthen fathers paid leave entitlement and finance it via the Social Security System. Ensure that listed companies report regularly on progress made to reduce gender imbalances, including mandatory pay-gap reporting.
Education inequalities are large. Pandemic-related schools closures are likely to have long-term negative effects on skills and growth.	**Put in place programmes aimed at reintegrating back to schools those who dropped during the pandemic and provide targeted support and tutoring to those with learning difficulties** Reallocate spending towards early stages of education Upgrade schools infrastructure and strengthen teachers training, with a focus on more vulnerable areas
Unemployment insurance schemes provide income protection for individuals losing employment during a downturn and act as a valuable counter-cyclical tool.	**Establish a federal unemployment insurance scheme.**

The number of programmes run by the federal government has fallen but, at 123, remains high. The number of programs run by states and municipalities is also large. Only 57% of the federal social programmes have a register of beneficiaries.	Create a registry of beneficiaries of all social programmes and use it to reduce fragmentation and duplications and extend coverage.
Restarting investment and boosting productivity	
Competition has been weak in key sectors of the economy and a few companies tend to dominate markets..	Strengthen competition, including by ensuring that the competition authority remains independent and adequately resourced, and by reducing regulatory burden.
Investment has been weak since 2015. Reform reversals and planned regulatory changes in electricity and oil markets increase uncertainty and hamper investment sentiment.	**Provide investors with certainty about existing contracts and regulatory stability.** Consider converting loans given to SMEs during the pandemic into grants
Integration in manufacturing value-chains is high but there are services restrictions that hamper SMEs competitiveness and trade integration.	Reduce barriers to trade and investment, particularly in services and in areas critical for integration in global value chains, such as transportation and logistics.
Corruption perceptions have fallen but remain higher than in peers. The toolkit to fight corruption has strengthened but implementation efforts lag.	Appoint the judges of the Federal Court of Administrative Justice. **Continue to strengthen the fight against corruption, including by boosting technical expertise in anticorruption agencies.** Strengthen transparency and use of digital tools in public procurement process, and limit direct contracting. Enact legislation to protect those who report suspicions of foreign bribery.
At about 55% of workers, informality is high. Informality is both a cause and a consequence of low productivity.	**Establish a comprehensive strategy to reduce the cost of formalization, including reducing firms' registration costs at the state and municipal level.**
Strengthening green growth	
Under currently implemented policies, Mexico's commitments to curb emissions, as in many other countries, will be challenging to achieve. **Mexico has huge untapped potential in renewables. A reform of the electricity market under discussion establish a maximum private participation of 46% in the electricity market and eliminates regulatory bodies overseeing competition and granting permits.** Budget allocations for environmental agencies remain low Air pollution creates significant health damages. Mexico is subject to unpredictable extreme weather events, such as hurricanes, droughts or floods	**Broaden the carbon tax base, gradually increase the rate, and use part of the revenues to offset the effects of higher energy prices on low-income households.** **Maintain regulations that promote renewables generation and facilitate private sector participation.** **Upgrade the electricity grid by implementing smart grid technologies and integrating storage devices into the network.** Increase budget allocations for environmental agencies. Effectively direct public and private investment into infrastructure that fosters mass transportation. Strengthen disaster risk management and foster climate change adaptation strategies.

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2 Expanding access to finance to boost growth and reduce inequalities

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The access to formal financial services in Mexico is particularly low. Access is also significantly unequal across income levels, gender, between rural and urban areas and across regions. SMEs access to bank credit is low, hampering firms' ability to grow and innovate. The use of cash and informal credit is still widespread, especially in rural areas, where financial infrastructure is underdeveloped. The diffusion of digital financial services is slowly advancing but remains low, hindered by a relatively low level of financial literacy and a digital divide. Expanding access to finance would enable Mexican households to invest in education and health, and better manage income shocks and smooth consumption. It would also enable Mexican firms to invest more, increase productivity and create formal jobs. Low-income households, small firms and more disadvantaged regions would particularly benefit, as it would unlock new economic opportunities for them. Boosting competition in the banking sector would facilitate SMEs access to credit by lowering interest rate margins. Upgrading the regulatory framework of the financial system would help increase competition and quality of financial services. The potential of the fintech sector is yet to be materialised, which would further increase competition and bring financial services to wider segments of the population. Strengthening financial education and digital literacy would facilitate a larger and better use of traditional and digital financial services.

Mexico has large room for improving financial depth and increasing access to finance. Despite recent improvements, it suffers from structural issues that have historically delayed its financial development, including low levels of financial literacy, a large informal sector, a costly enforcement of collateral repossession and mistrust in the banking sector. Access to financial services is significantly unequal across income levels, gender, between rural and urban areas and across states. Around one-eighth of Mexico's municipalities does not have even one financial access point, though most of them are located in rural areas not densely inhabited. Even if 92% of the adult population has access to a bank branch, in some states this share is significantly lower and reaches 56% in Oaxaca, 62% in Tlaxcala and 77% in Puebla. Regional disparities are reduced but remain when considering the access to any financial point. While around 98% of the population has access to one financial point, the share is as low as 81% in Oaxaca, 93% in Chiapas and 94% in Yucatan. The gender gap remains significant in the access to some financial services such as retirement savings.

Improving access to financial services and deepening financial markets can help boost growth, promote employment creation and reduce inequalities (OECD, 2017[1]; OECD, 2019[2]). Increasing depth (e.g. the size of bank credit to the private sector and of the stock and the bond markets) and access to financial products is positively correlated to economic growth (OECD/The World Bank, 2012[3]; Sahay et al., 2015[4]; Dabla-Norris et al., 2015[5]). Financial inclusion can be especially beneficial for emerging economies because an increase in its level appears to be linearly and positively related to growth (Sahay et al., 2015[4]). It is also associated to sharp declines in income inequality and poverty rates in countries at intermediate and advanced stages of financial development, provided that the pace of credit expansion does not lead to financial instability (Rajan, 2005[6]) because of poor regulation and supervision (Mehrotra and Yetman, 2015[7]).

As the access to financial services extends to a larger part of the population, and is no longer limited to the wealthy, it tends to benefit more lower-income households (Greenwood and Jovanovic, 1990[8]; Clarke, Xu and Zou, 2006[9]; Jahan and McDonald, 2011[10]), allowing them to invest in education, health and business opportunities, and manage income shocks as to smooth consumption, thus helping them to avoid poverty. With the vast majority of poor households working in the large informal sector, extending financial inclusion is a component of the comprehensive strategy required to reduce informality in Mexico, as further discussed in chapter 1 of this survey.

Expanding access to finance also offers significant synergies with other policy objectives. It can support the transition to a lower carbon economy by providing the private sector with better financing opportunities to invest in green technologies that can help to respond to climate change mitigation and adaptation challenges. Boosting financial inclusion can also support social protection policies by providing access to financial products that are attuned to the possibilities and needs of the more vulnerable population. Better access to finance can also help to reduce gender inequalities in wage and labour participation rate, which are large in Mexico (see chapter 1). Wider access to digital financial services can foster women entrepreneurship, particularly in digital activities.

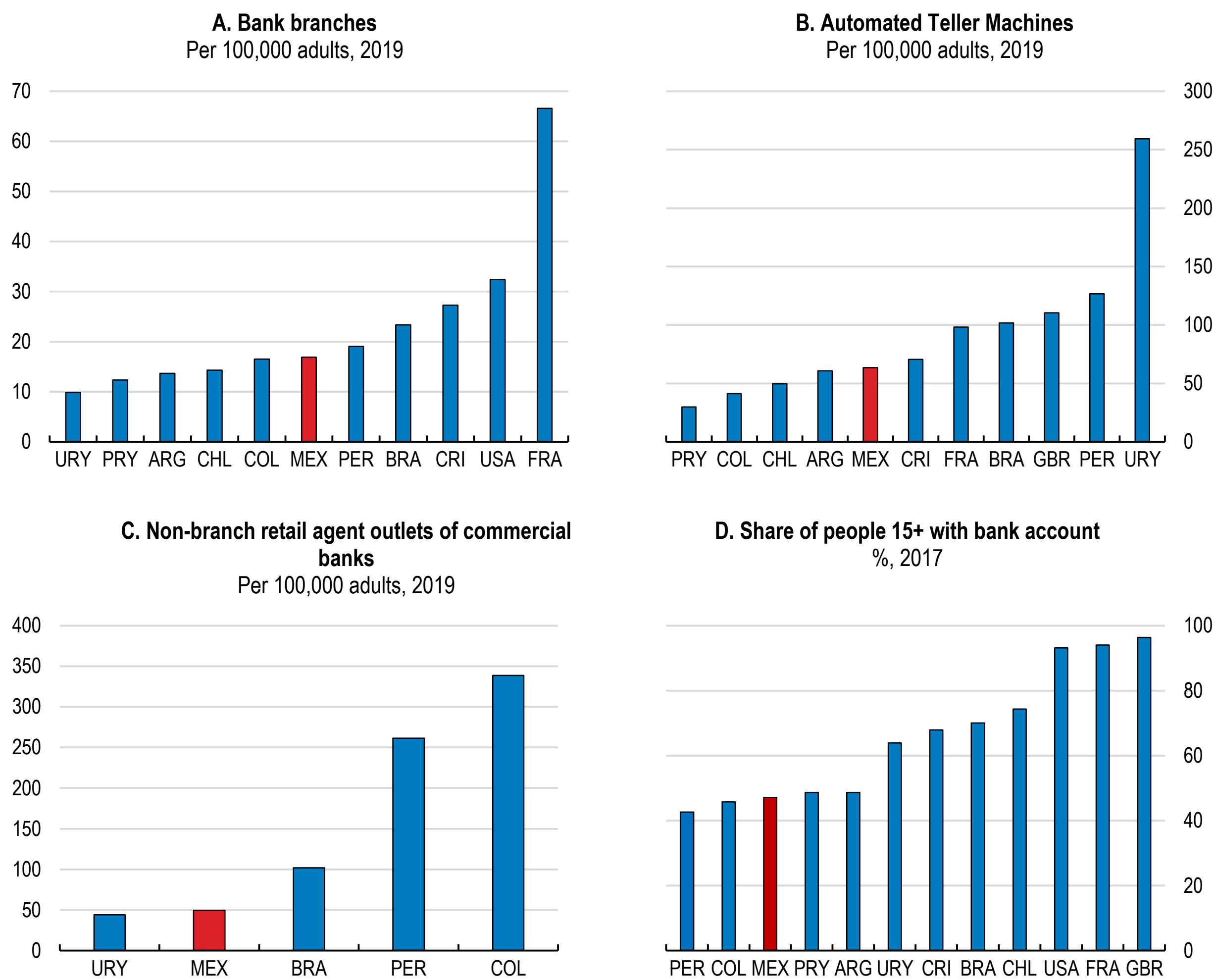
This chapter describes the main barriers to the development of financial markets in Mexico and discusses available policy options to tackle them. It also discusses complementary factors for financial development, such as reforms to improve competition among financial institutions as well as other economic reforms. For example, extending internet coverage would support mobile banking and help reduce regional inequalities. Expanding financial inclusion also requires a balance between public policy and private sector initiative. The government's role is also to provide a supportive regulatory environment that fosters competition and growth, as well as strong independent supervisory institutions that maintain financial risks in check. It is crucial to balance financial deepening with financial stability and consumer protection controls. The private sector on the other hand, can harness technological innovation and develop new products and business models to support financial inclusion.

Firms' and individuals' access to finance is low

Mexico ranks low in key financial inclusion indicators compared to both advanced economies and regional peers (Figure 2.1). For example, the share of adults with a bank account is low and so is the number of bank branches per 100 thousand adults. Only around 47% of the population aged between 18 and 79years of age held a bank account in Mexico in 2018, less than in other OECD members in the region such as Costa Rica (68%) and Chile (74%).

Indicators of financial depth, such as bank loans to households and bank deposits as a share of GDP, provide a similar picture (Figure 2.2). The size of domestic bank credit to the private sector is also low, at around 31.4% of GDP in Mexico in 2021, less than in Brazil (38%), Colombia (45%), Costa Rica (55%) and Chile (100%), and below what it would be expected on the basis of Mexican's economic fundamentals (Herman and Klemm, 2019[11]).

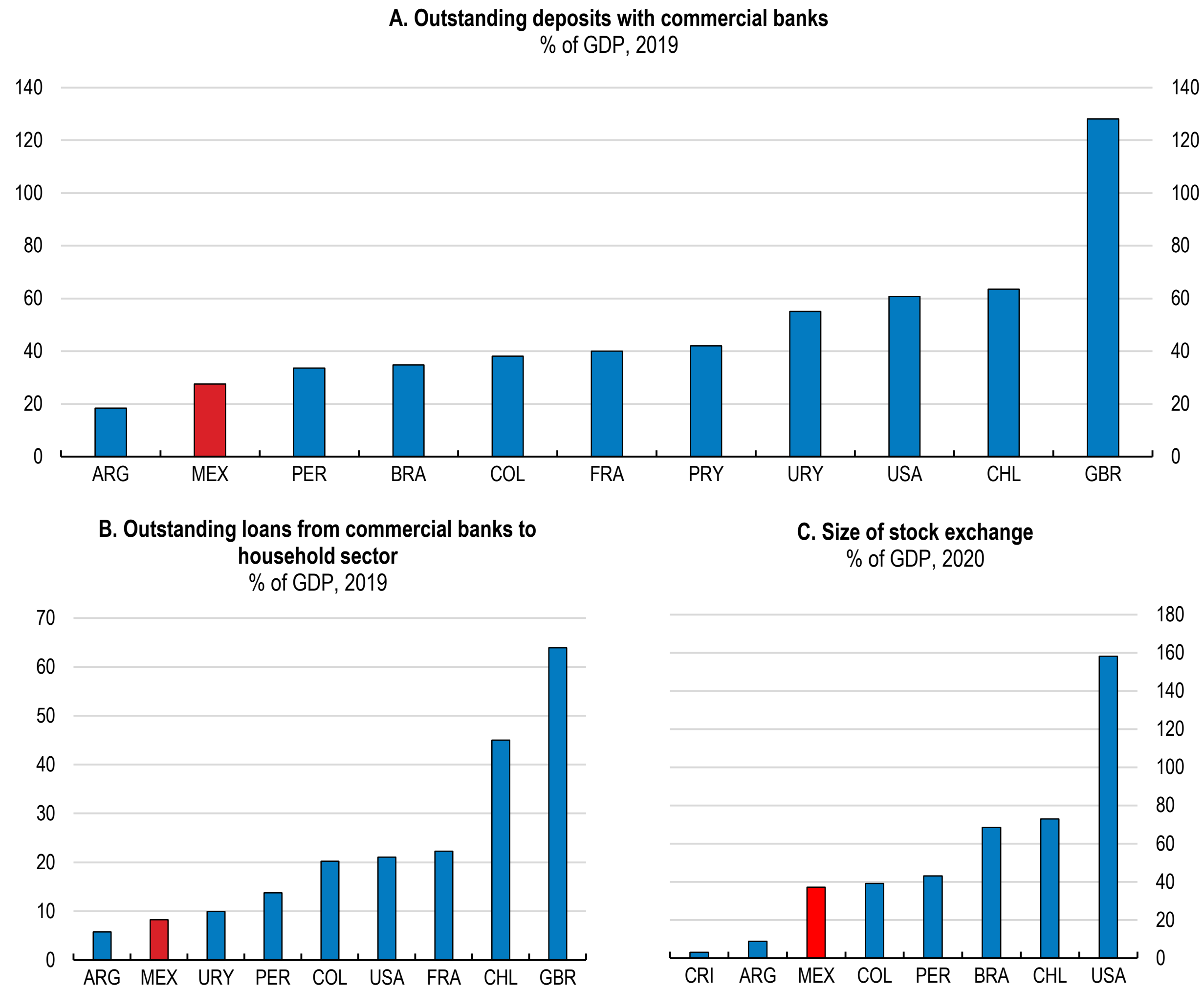
Figure 2.1. Mexico ranks low in access to formal financial services



Note: Panel A, B and C: data for Mexico refer to 2021. Panel D: data for Mexico refer to 2018 and refer to adult population between 18 and 79 years of age; data for the other countries refer to adult population aged 15 years or above.
Source: IMF Financial Access Survey; World Bank Global Findex 2017; Encuesta Nacional de Inclusión Financiera (ENIF) 2018; Comisión Nacional Bancaria y de Valores (CNBV) 2021.

StatLink https://stat.link/vp87rk

Figure 2.2. Financial depth is low



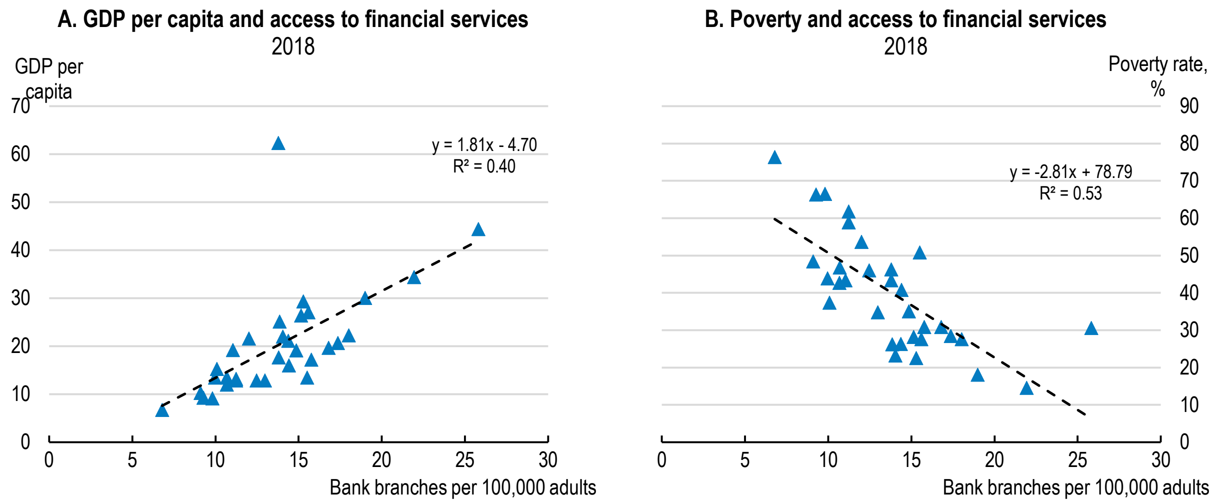
Note: Panel A: data for Mexico refer to 2021.
Source: IMF Financial Access Survey; Comisión Nacional Bolsa y Valor (CNBV).

StatLink https://stat.link/a4iv0u

Financial inclusion may promote diversification of regional economies (Acemoglu and Zilibotti, 1997[12]), which is conducive to higher regional growth and regional economic convergence (Porter, 2003[13]; Hausmann et al., 2014[14]; BANXICO, 2015[15]; BANXICO, 2018[16]). Access to financial services at the regional level in Mexico is positively correlated to growth (Figure 2.3, Panel A) and inversely related to poverty (Figure 2.3, Panel B). Increasing financial inclusion could then help reduce regional disparities across Mexican states, which are large and persistent (Box 2.2). However, establishing causality between financial inclusion, growth and inequality is challenging because of limited data availability and because policies aimed at promoting financial inclusion are very recent (Demirguc-Kunt, Klapper and Singer, 2017[17]).

Mexico established in 2011 the National Council for Financial Inclusion (*Consejo Nacional de Inclusión Financiera*), and in 2016 the National Policy for Financial Inclusion (*Política Nacional de Inclusión Financiera),* then updated in 2020, that sets objectives and policy actions to increase the access to financial services (banking account, credit, insurance and retirement savings), especially to low-income households, promote financial literacy, improve financial health and the effective use of financial services, boost competition in financial markets and improve protection of consumers of financial products. Several actions have been taken to expand the supply of financial services to a higher number of Mexican firms and households as well as their quality, such as the creation of around 10 million of bank accounts for beneficiaries of government transfers, the establishment of a digital payment platform *Cobro Digital* (CoDi) to facilitate digital payments and the creation of the Banco Bienestar within the National Development Plan 2020-24 (*Plan Nacional de Desarrollo*) (Box 2.1).

Figure 2.3. Higher regional access to financial services is associated with higher regional growth and lower poverty



Note: Panel A: GDP per capita are in constant PPP-adjusted 2015 USD.
Source: CNBV; OECD Regional Statistics; and CONEVAL.

StatLink https://stat.link/wize83

Box 2.1. Recent policy efforts to boost access to financial services

Financial inclusion

- People between 15 and 17 years of age can now open their first debit account and act as account holders. Young people can receive transfers from social programs through these accounts without the intervention of their representatives. As of September 2021, around 3.5 million bank accounts have been opened.
- As of 2020, a total of 10 million of bank accounts have been created for beneficiaries of government transfers, most of them between 2015 and 2020. Several government programs indirectly promote financial inclusion by creating bank accounts for the beneficiaries, among which "Jóvenes Construyendo el Futuro" and "Programas para el Bienestar de las Personas Mayores" stand out.
- 2,700 branches of the Banco del Bienestar are being constructed throughout the country to bring financial services to remote areas and working to bring connectivity to the smallest populations (less than 5,000 inhabitants). Banco del Bienestar aims at promoting financial inclusion by facilitating access to financial services especially among vulnerable groups. It also facilitates the access to several federal social programmes. Banco del Bienestar suspended lending in August 2021 following a sharp rise in the share of non-performing loans.
- Set up a banking Program for Migrants so that Mexicans living abroad can open a bank account remotely in Mexico (through Banco del Bienestar) and send money transfers to their families safely at reduced intermediation costs and fees.

- Incorporation of financial inclusion criteria, sustainable financing and with a gender perspective in the Performance Evaluation of Multiple Banking Institutions prepared every year by the Ministry of Finance.
- Cobro Digital (CoDi) platform to promote the use of digital payment services. As of October 2021, there are about 10.8 million accounts activated for the use of CoDi. To use CoDi is required to have a smartphone and a bank account.

Financial deepening

- Since 2019 it is possible to open credits associated with payroll with any bank. This scheme allows workers to use their payroll bank accounts as a source of payment for all types of credits and with any financial institution, under an open architecture. The objective of this measure is to expand access to the supply of loans under better conditions.
- Greater flexibility in the investment regime of the Retirement Fund Administrators (Afores). This measure seeks to facilitate that Afores can better diversify their investments and invest in productive infrastructure projects.
- Strengthening of incentives for the incorporation of companies to the Mexican stock market. This includes a lower income tax rate on profit returns where there was an initial public offering or harmonizing the tax treatment for national investors who buy corporate bonds with the one international investors have.
- Financial institutions, including Afores, are authorized to give and receive on loan the securities issued by companies.

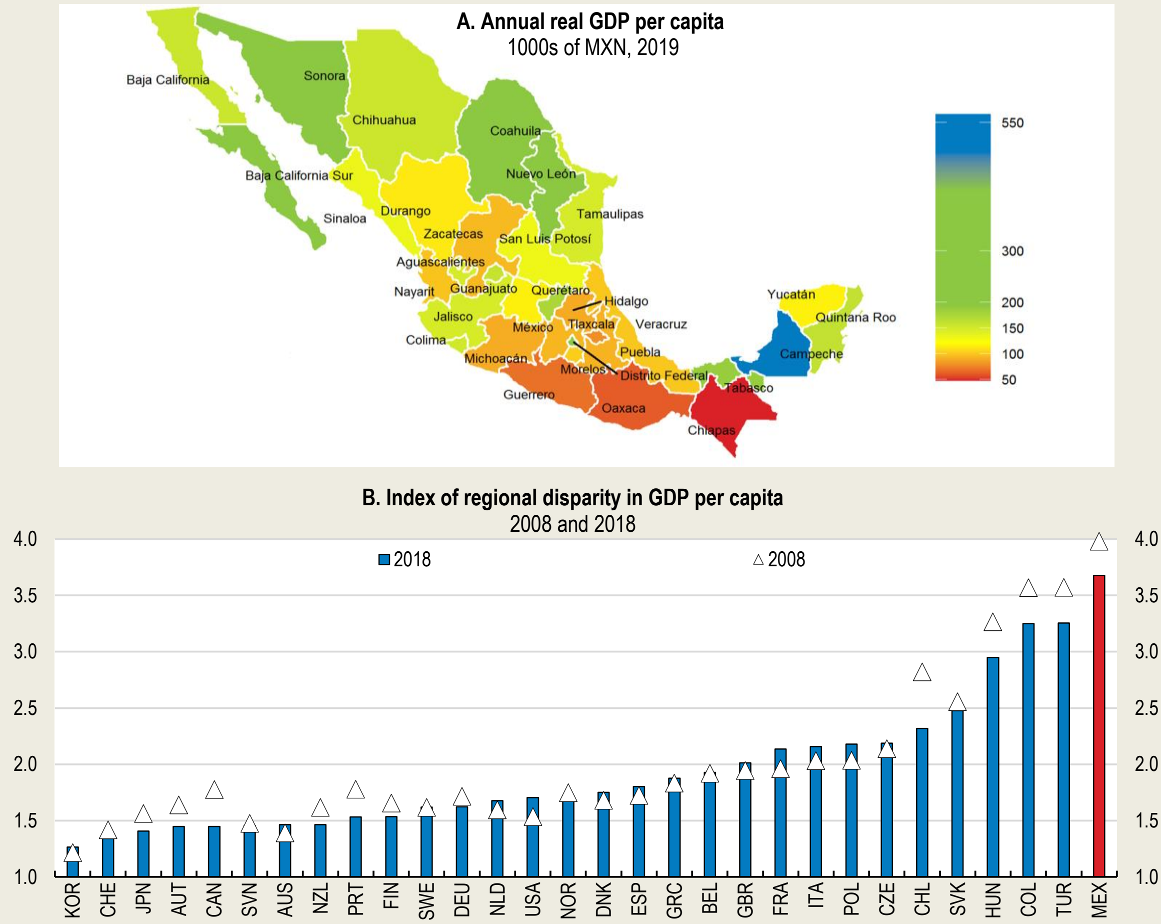
2021 Financial reform

- In September 2021 the authorization process for non-branch retail agent outlet of commercial bank (corresponsales bancarios) was simplified to promote the coverage of financial infrastructure.
- In July 2021 the weights to determine the capital requirements for credit risk for SMEs and other companies, consumer portfolio, and mortgage loans have been reduced to promote credit and economic reactivation.
- In July 2021 a new regulation to promote women's access to credit was issued. Based on delinquency rates statistics, women have a better performance when paying a loan. The change in regulation is an adjustment to the calculation of loan reserves granted to them.

Box 2.2. Regional economic disparities in Mexico are large and persistent

Regional economic gaps in Mexico are the largest among OECD countries (Figure 2.4 Panel B). The average real GDP per capita of the top three non-oil regions (Ciudad de Mexico, Nuevo León and Baja California Sur) is more than four times as high as that of the last three regions (Chiapas, Oaxaca and Guerrero) (Figure 2.4 Panel A).

Figure 2.4. Regional gaps in Mexico are the largest among OECD countries



Note: Panel B - The GDP per capita of the top and bottom 20% regions are defined as those with the highest/lowest GDP per capita until the equivalent of 20% of national population is reached. Based on GDP per capita values expressed at 2015 constant prices, using OECD country deflators and converted into constant USD purchasing power parities (PPPs), 2015 reference year. 2008-2018, except last available year for COL, LVA, LTU, NZL and CHE: 2017; JPN: 2016. Countries are ranked in ascending order of the 2018 ratio.
Source: INEGI and OECD Regional Statistics.

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Though Mexico has significantly increased its integration into the world economy over the last two decades, thanks to a robust macroeconomic framework that provided macroeconomic stability, not all regions have benefited equally. The North and Centre-North regions have significantly benefitted from foreign direct investment and trade integration and now host competitive manufacturing centres. For example, manufacturing exports from these regions are larger than the manufacturing exports from the rest of Latin America combined. Mexico also hosts relatively well-off oil regions, like Campeche and Tabasco in the South East, and vibrant technological hubs in Guadalajara (Jalisco), known as the Latin American Silicon Valley, and Tijuana (Baja California). At the same time, the Southern-West regions display weaker economic development and extremely high poverty rates (above 60%).

Boosting firms' access to finance

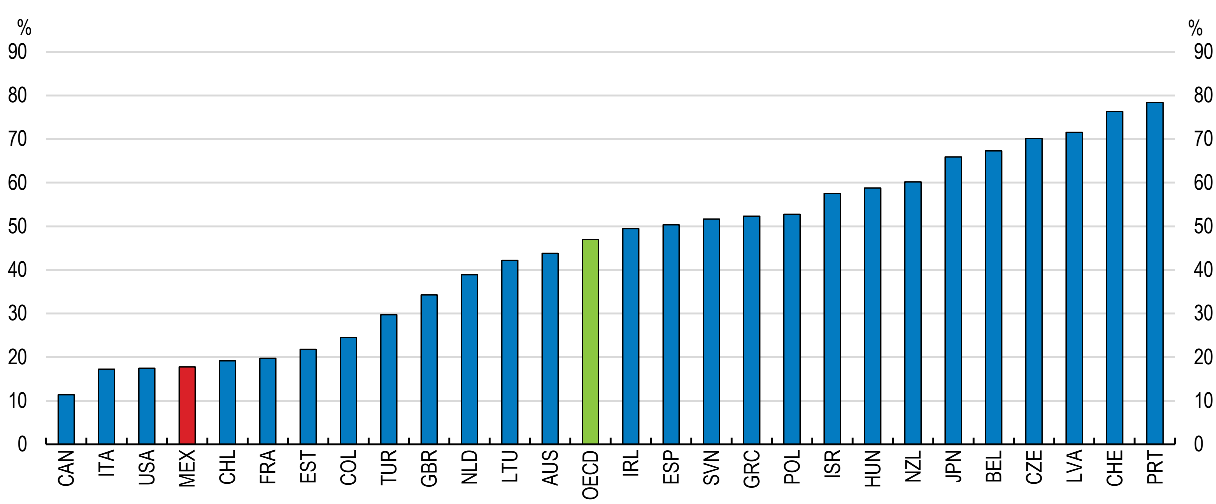
Improving access to bank credit

SMEs in Mexico account for 99.7% of all enterprises, 62.6% of private-sector employment and 35.2% of national gross production (OECD, 2018[18]). Credit guarantee programs facilitate credit access to SMEs in Mexico. Around 45% of all commercial bank credit to SMEs in 2020 was covered by credit guarantees provided by the development bank Nacional Financiera and, for export oriented firms, by the Banco Nacional de Comercio Exterior Credit. However, SMEs' access to bank credit is lower than in the average OECD country and regional peers such as Colombia and Chile (Figure 2.5). Improving access to financial services would intensify firm creation and growth, benefitting particularly small firms and start-ups (Guiso, Sapienza and Zingales, 2004[19]). Deeper and more inclusive financial markets, by easing financing constraints, tend to help especially SMEs grow more (Rajan and Zingales, 1998[20]). In underdeveloped financial systems, increasing the access of SMEs to finance also contributes to reduce inequality (Banerjee and Duflo, 2005[21]), as unequal access to credit is a barrier to economic opportunities and entrepreneurial activity. Financial development, by helping poor entrepreneurs without collateral to access credit supports their formalisation.

A high interest rate margin (Figure 2.6, Panel A), well above what is observed in Chile or other OECD countries, is one of the principal barriers to credit for SMEs. The spread between SMEs and large firms' loan rates is also relatively high (Figure 2.6, Panel B). Financing constraints are a main barrier to growth of SMEs in underdeveloped financial systems (Beck and Maksimovic, 2005[22]), and hinder formalisation as entrepreneurs who fail to raise funding tend to operate in the informal sector (Banerjee and Duflo, 2005[21]). Access to bank credit can also be particularly challenging for young and innovative firms that do not have collateral or a credit track record. Increasing financial inclusion of SMEs would be especially relevant in the Southern states, where it would help to curb poverty and provide new economic opportunities.

Figure 2.5. SMEs access to bank lending is relatively low

% of total business lending, 2019



Source: OECD, Financing SMEs and Entrepreneurs: An OECD Scoreboard database.

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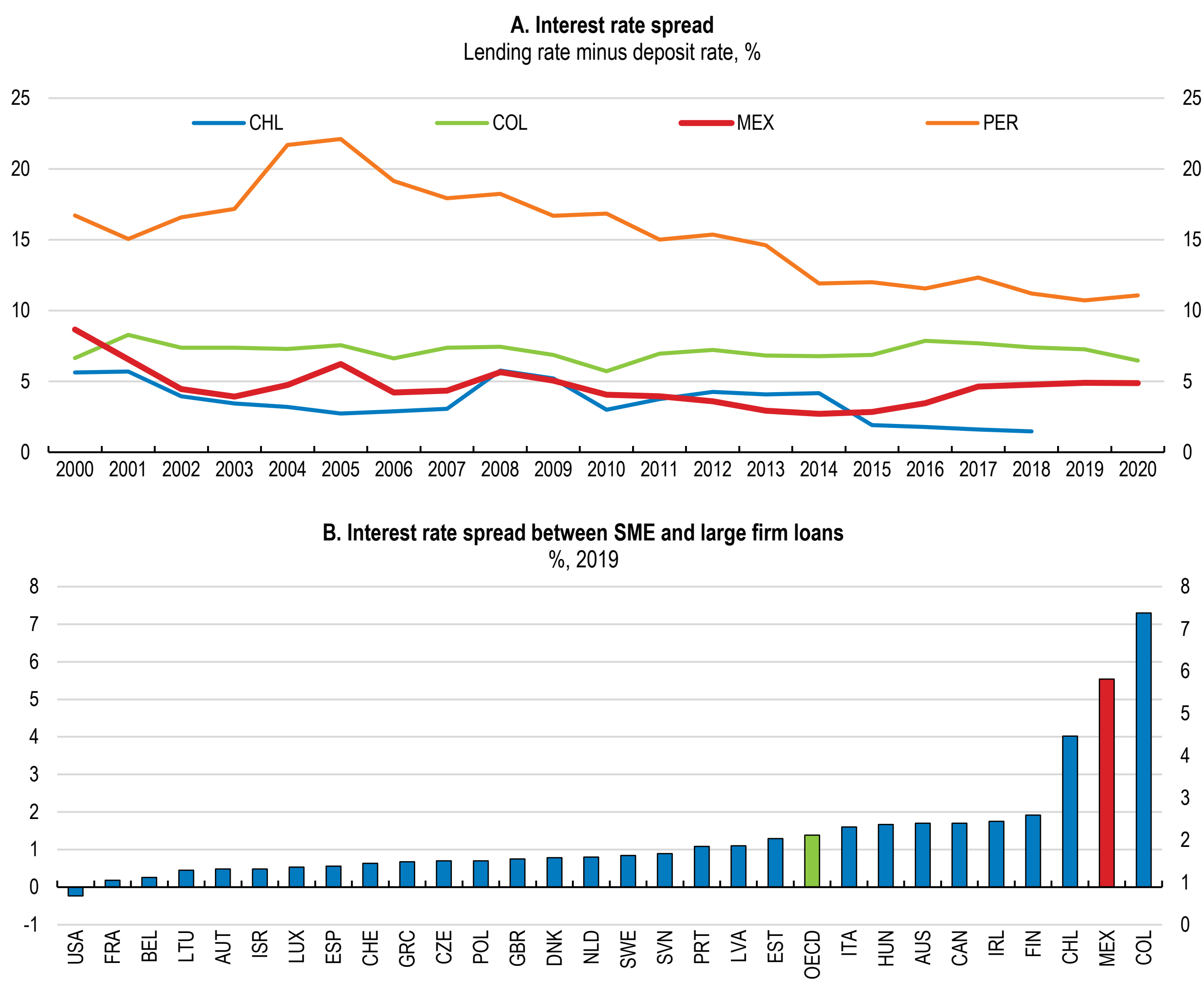
The high interest rate margin may signal low competition in banking lending. The three largest banks hold more than 50% of total bank assets (OECD, 2019[2]) and in the banking sector market concentration, which tends to be inversely related to the degree of market competition, has been flat since 2016 (Figure 2.7.). A financial reform in 2014 improved the overall degree of competition in the Mexican banking sector for a few years, but some large banks have increased their market power since (Bátiz-Zuk and Lara Sánchez, 2021[23]). Empirical evidence finds that banks with higher market power tend to lend at higher interest rates, especially if the loan is provided to microenterprises and small firms, and to firms located in central and Southern regions (Cañon, Cortes and Guerrero, 2020[24]). Market concentration is relatively high for consumer loan and mortgages, and low for the business loan market (Figure 2.7). Market concentration is also high in the credit card market (Téllez-León and Venegas-Martínez, 2019[25]). Fintechs have a great potential to promote more competition and access to credit to SMEs. (see section Accelerating the development of digital financial markets).

Figure 2.6. Interest rate spreads are high



Note: Panel.A: The interest rate margin is defined as the difference between the average loan rate and the bank deposit rate.
Source: World Bank and OECD (2017), Financing SMEs and Entrepreneurs 2017: An OECD Scoreboard, OECD Publishing.

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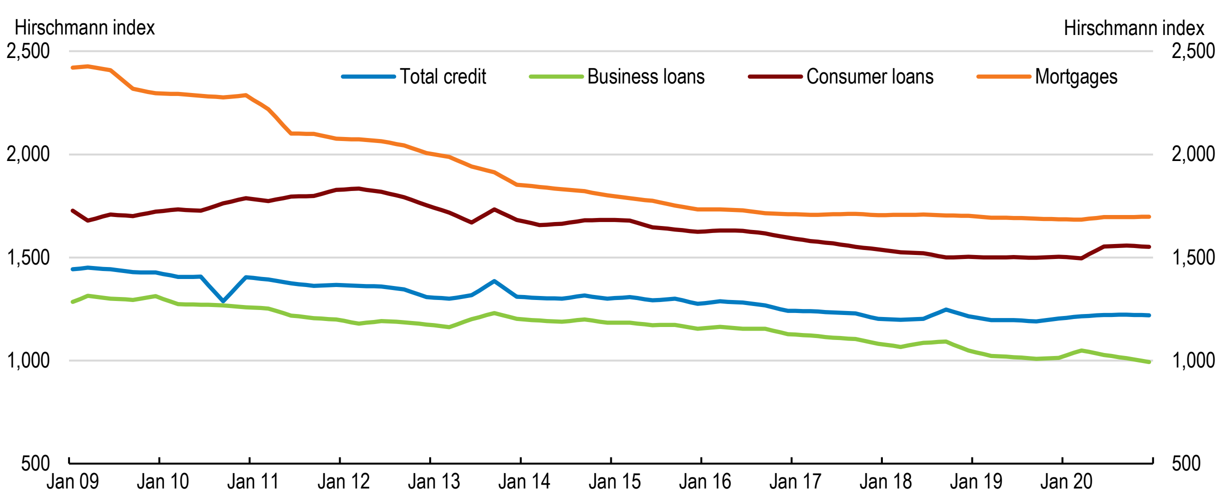
Information asymmetries between lenders and borrowers can also explain high interest rate spreads. Information infrastructures for credit risk assessment, such as credit bureaus, registries or data warehouses can reduce the perceived riskiness and help lenders identify investment opportunities. In Mexico there are three companies in charge of collecting credit history information for firms and individuals (credit bureau), two of them belonging to the same economic group. The Competition authority has found anticompetitive practices among these companies. By law these companies are obliged to share the credit history information they compile with the other credit registry companies but the companies belonging to the same group have not done so to protect their monopolistic position (COFECE, 2019[26]). Ensuring that all lenders are able to access credit history information in a comprehensive manner and under equitable conditions, can reduce information asymmetries and interest spreads. Experience in the United States, Argentina and Brazil (OECD, 2019[27]) attests that, when more information is exchanged and made available to lenders, default rates fall and lower spreads are charged to borrowers. Implementing the 2019 proposal by the Central Bank of Mexico to amend regulatory provisions so that a larger set of information is shared with credit registry companies, currently under revision, would represent a significant improvement.

Promoting access to credit for informal firms or individuals is a key challenge, as they tend to lack credit history. Using non-traditional sources of information, such as payment history, usage and payment of utilities, online activities or mobile history, has the potential to include informal firms into credit registries and so increase their access to credit (WorldBank, 2011[28]). This could be a promising avenue for Mexico to bolster information about this large segment of potential borrowers. A first step could be to create credit information based on payments history from public utility companies' records, such as water or electricity. Enlarging the available data and facilitating the exchange of information by promoting the development and diffusion of digitalisation tools for credit risk analysis bears the potential of reducing information asymmetries in the credit market. Fintechs have a great potential to promote the development of innovative open banking approaches to lower the costs to reach new customers and evaluate their credit risk, including underserved micro and small firms, thus resulting in an increased access to finance.

Figure 2.7. Concentration in the banking sector has remained flat since 2016

Concentration in the banking sector by type of credit



Note: The Hefindhal-Hirschmann index (HHI) is an indicator of market concentration. The HHI ranges from 0 to 10000, with higher values signalling that the market is more concentrated. Mexican competition authorities deem a market as highly concentrated when it has a HHI above 2000.
Source: CNBV Boletines estadisticos; OECD calculations.

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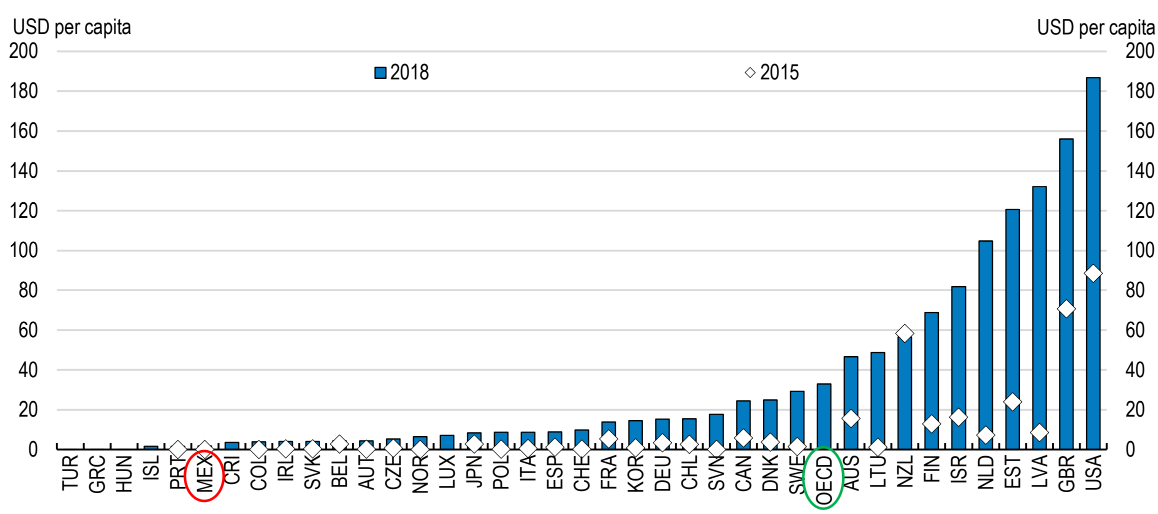
Broadening sources of finance

Developing non-bank financing can also provide additional funding for firms and make the Mexican financial system more balanced and conducive to entrepreneurship. Crowdsourcing is a potential source of financing especially for start-ups. It is part of the fast-growing online alternative finance market (OECD, 2020[29]) that is still small in Mexico relative to other countries (Figure 2.8). Other alternative financing instruments may be suitable and of interest for specific firm segments, depending on their risk-return profile, stage in the business life-cycle, size and financial skills. Asset-based finance instruments (asset-based lending, factoring, purchase order finance, leasing), based on the liquidation value of the underlying asset rather than the creditworthiness of the business, may be an alternative for firms with limited credit history and lack of collateral, firms with a solid base of customer but high investment in intangibles or high-risk and informationally non-transparent firms. The development bank, *Nacional Financiera,* provides a factoring service through the programme Cadenas Productivas, which is designed to discount SMEs accounts receivable, and that involved operations amounting to around 0.8% of GDP in 2020.

Alternative debt instruments (corporate debt, covered bonds) could suit large to mid-sized firms with stable earnings and low cash-flow volatility that need undertaking investment and do not wish dilution of ownership and control. Business angel investments may be an alternative for innovative start-ups requiring investment and business-building skills. Maintaining a flexible regulatory stance to allow alternative sources of funding to match the needs of the market over time would help to increase their relevance. The choice of regulating crowfunding through secondary regulation, as established by the 2018 Fintech Law, goes into the right direction, provided that the institutions responsible for issuing regulations are adequately resourced to effectively and rapidly adapt it to the needs of the market.

Figure 2.8. Online alternative financing is underdeveloped



Source: Cambridge Centre for Alternative Finance (2020), The Global Alternative Finance Market Benchmarking Report; G. Cornelli et al. (2020), "Fintech and big tech credit: a new database", BIS Working Paper, No. 887.

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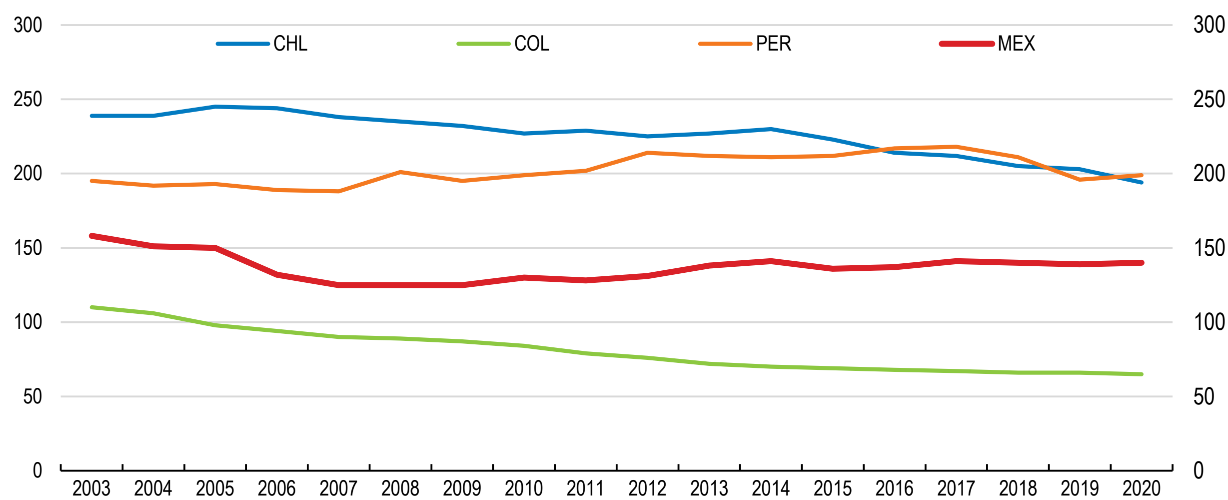
Mexico should also promote entry into the stock market and venture capital initiatives to broaden the funding market for enterprises. Developing further the stock market and venture capital can help the economy further develop, for example by helping manufacturing firms in the North and Centre-North maintain their international competitive advantages, move up in the global value chains and respond to the challenges raised by automation or digitalisation. The number of companies listed in the stock market is lower than in some peer countries such as Chile and Peru (Figure 2.9) in which, like Mexico, the role of SMEs in the economy is relevant in terms of the share in private-sector employment and output. Policy initiatives that facilitate the access of SMEs to the stock market by simplifying requirements and reducing costs may be particularly pertinent for Mexico. Ongoing initiatives aiming at lowering the tax burden for initial public offerings and harmonising the tax treatment for both domestic and international investors in corporate bonds are welcome. Several emerging economies, such as India, Thailand or Singapore, have successfully created specific stock market segments for SMEs, where listing and disclosure requirements are looser and costs are reduced (WEF, 2016[30]). For example, since the launch in 2012 of the Bombay Stock Exchange (BSE) for SME platform in India, the number of listed SMEs has rapidly increased as to achieve 362 in August 2021. Furthermore, SMEs are generally ill-equipped to deal with investor due diligence requirements. Training and tutoring can also help growth oriented-SMEs access the capital markets.

Figure 2.9. Few firms participate in the stock market



Source: World Bank, World Development Indicators database.

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Mexico has the potentiality to develop a successful venture capital ecosystem given its large domestic consumer market, closeness to the United States, and experienced entrepreneurs. It has positioned itself as the second-largest venture capital market in Latin America with 21 percent of the region’s investments. However, over the past five years, local fundraising volumes have stagnated. This slowdown can be attributed to a variety of factors, including market maturity and structural challenges. In terms of market depth — stock market size, sophistication, initial public offering (IPO) volume, debt market size, and transaction volume — Mexico has consistently ranked lower than regional peers in recent years (Haneine, Zdravkvic and Vilá, 2021[31]). Only one IPO has taken place in the last three years, as companies have opted for non-traditional structures, including strategic trade sales, rather than Mexico’s stock exchange. This contrasts with buoyant recent IPO activity in Brazil, with 26 IPOs registered in 2020 and another 28 only in the first semester of 2021. The reduction of IPO exit taxes from 30 percent to 10 percent in 2019 was a positive step to boost IPO activity, but the impact has been so far negligible.

Providing counselling and mentoring that enhance financial skills and planning would complement financial support for SMEs. These complementary services could be linked to providers of SME-targeted programmes, including governments, development banks and non-for profit organisations. Financial literacy programmes could be developed with a focus on SMEs entrepreneurs, whose needs go beyond those of the general population, following Portugal's example under its National Plan for Financial Education. Specific programmes could be tailored to improve the quality of start-ups business plans and SME investment projects using survey evidence on the level of financial literacy in micro and SMEs collected in 2021 following the methodological framework established by OECD/INFE 2020. In Italy a partnership between the government and the London Exchange Stock group aims to increase participation in a programme that offers training, tutoring and direct access to the financial community to SMEs. Developing the information infrastructure for credit risk assessment would help better assess SMEs credit risks and facilitate their access to credit. Japan established in 2001 the Credit Risk Database that provides credit risk scoring and related statistical service to facilitate the access of SMEs to bank credit. In France, the Euro-Secured Initiative uses the Central Bank credit assessment of non-financial companies and the internal rating from banks to overcome information asymmetries that limit the access of SMEs to capital markets.

Increasing individuals' financial inclusion

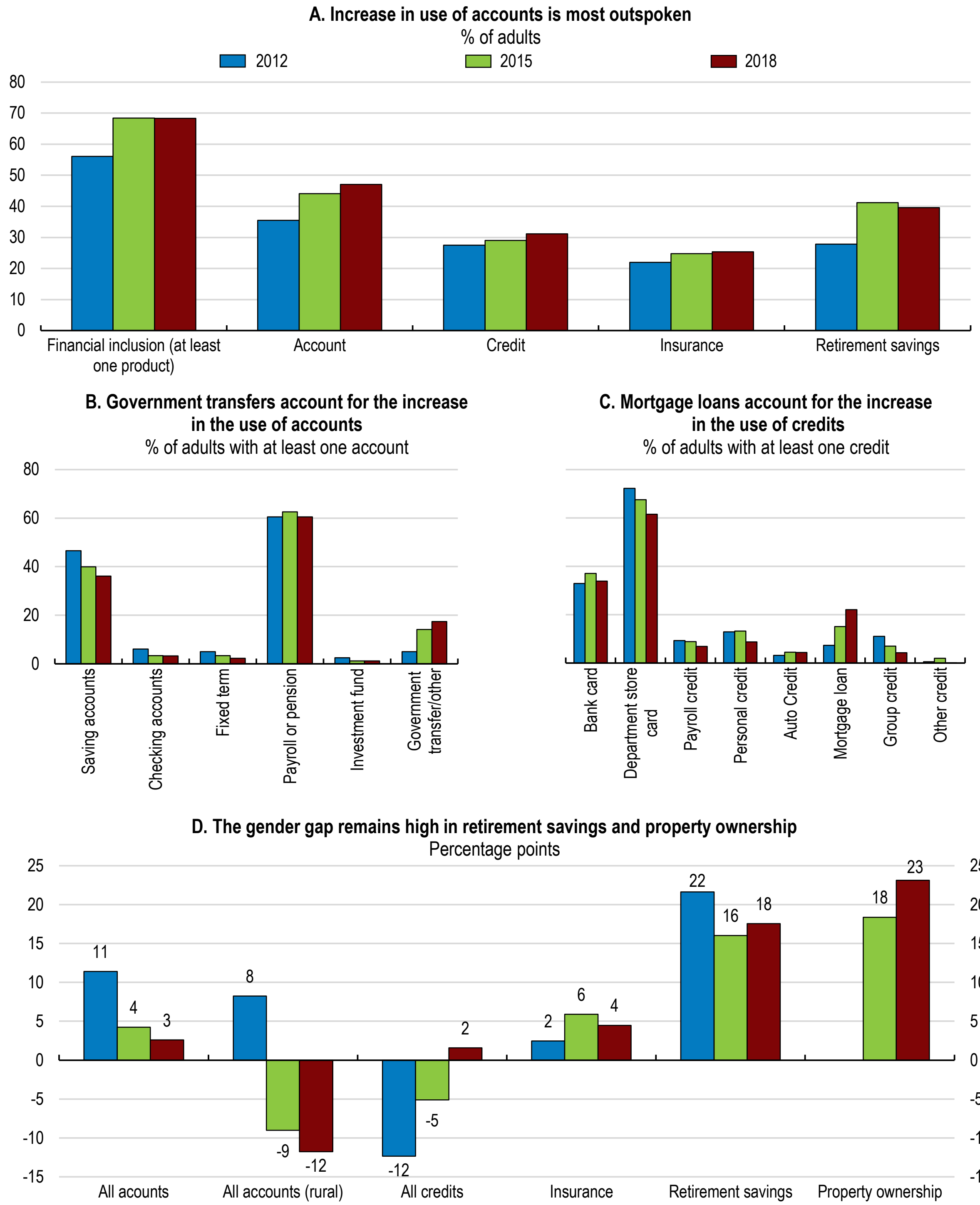
Increasing access to formal financial services

Individuals' financial inclusion has increased in recent years but there is significant room for further improvements. Less than 70% of adults had one financial product in 2018, with hardly any progress since 2015 (Figure 2.10, Panel A). However, there has been a significant increase in new bank accounts to receive government transfers (Figure 2.10, Panel B), notably among women in Southern states rural areas. This has contributed to reduce the gender gap in holding a bank account in rural areas (Figure 2.10, Panel D), and the overall gap in financial inclusion between rural and urban areas that fell by 4 percentage points between 2012 and 2018, despite remaining still high at 15 percentage points (CNBV, 2020[32]). The increase in access to bank accounts, however, does not appear to have been conducive to an equivalent increase in access to credit and insurance (ENIF, 2018[33]).

Mexico's positive experience with the creation of bank accounts for the beneficiaries of government transfers could be further extended following the example of other Latin American countries during the pandemic (see Box 1.9 in Chapter 1). Currently, six out of ten beneficiaries of federal social programmes receive transfers through their bank accounts. This strategy could be extended to all federal social programmes and those delivered by states and municipalities. This would also help reduce the scope for fraud or corruption associated with government transfers.

The gender gap in financial inclusion has significantly fallen between 2012 and 2018, but remains high in retirement savings and asset ownership (Figure 2.10, Panel D). The lower labour force participation of women compared to men may explain the gender gap in insurance and savings accounts, and represents a higher poverty risk for women (Fareed et al., 2017[34]). A recent reform modifying banking regulation to promote the access of women to financial instruments by lowering bank reserve requirements on bank loans to women is a promising initiative to close this gap. Promoting female education and access to formal jobs (see chapter 1) would also help closing the gender gap in retirement savings. As women have a lower level of property ownership, introducing mechanisms that promote the use of alternative forms of collaterals (Menkhoff, Neuberger and Rungruxsirivorn, 2012[35]), such as third-party guarantees, may also increase women's' access to finance.

Figure 2.10. Financial inclusion is slowly improving



Note: Panel D: the gender gap is the difference between the share of men and the share of women having access to a financial product.
Source: ENIF 2012, 2015 and 2018.

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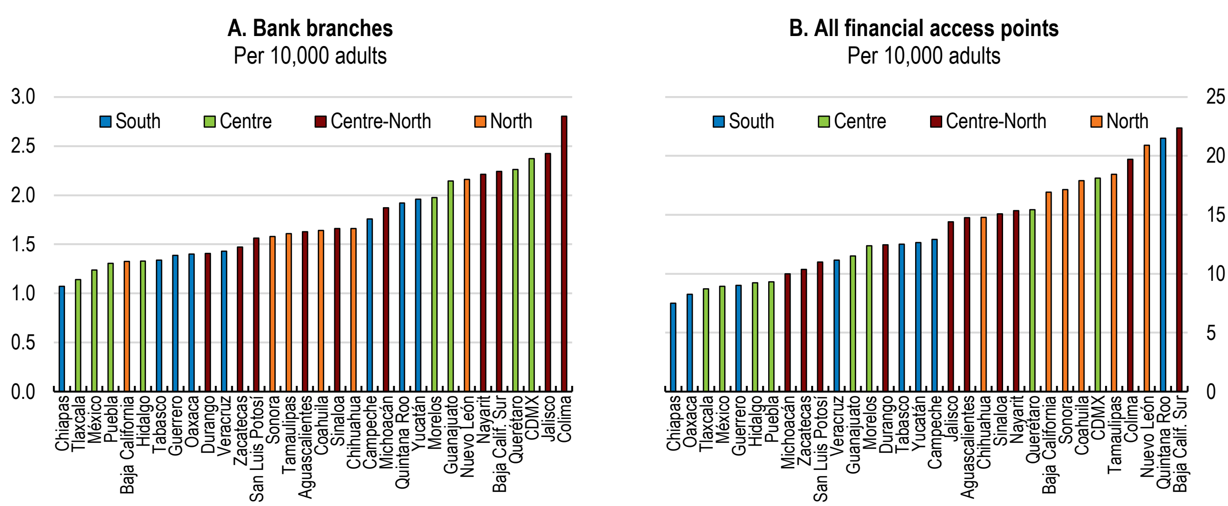
Further policy efforts to promote the increase in access points to financial services in underserved areas are warranted. The share of municipalities with financial access (Automated Teller Machines or ATMs, bank branches, non-branch retail agent outlets of commercial banks) went up from 68% to 77% between 2012 and 2018. However, regional gaps in financial infrastructure persist (Figure 2.11). While on average more than 90% of the population has access to financial infrastructure, in a few states an important share of the population lives in municipalities without a bank branch (Oaxaca, Puebla and Tlaxcala) (Figure 2.12, Panel A). Providing access to financial services by opening bank branches has proved especially beneficial to Mexico in the past. It promoted credit and increased income and employment, benefiting particularly informal low-income households, and reduced poverty (Bruhn and Love, 2014[36]). Recent government initiatives aiming at opening 2700 branches of the Development Bank (*Banco del Bienestar* in Spanish) in remote and rural areas (with less than 500 inhabitants) and the installation of 13500 ATMs across the country in *Centros Integradores de Desarrollo*, would contribute to close the regional and rural gap in financial inclusion. Recent regulatory changes to simplify the creation of non-branch outlets of financial services (*corresponsales bancarios* in Spanish) would also promote aggregate savings and financial inclusion as long as the new installations would cover municipalities previously underserved, inducing otherwise a substitution effect among formal savings instruments (Carabarín et al., 2018[37]). Fostering non-branch retail agents' outlets of commercial banks and point-of-sale terminals have been especially relevant to promote financial inclusion in Colombia for both individuals and SMEs.

Figure 2.11. Regional gaps in financial infrastructure persist



Source: Comisión Nacional Bancaria y de Valores Base de Datos de Inclusión Financiera, marzo 2021.

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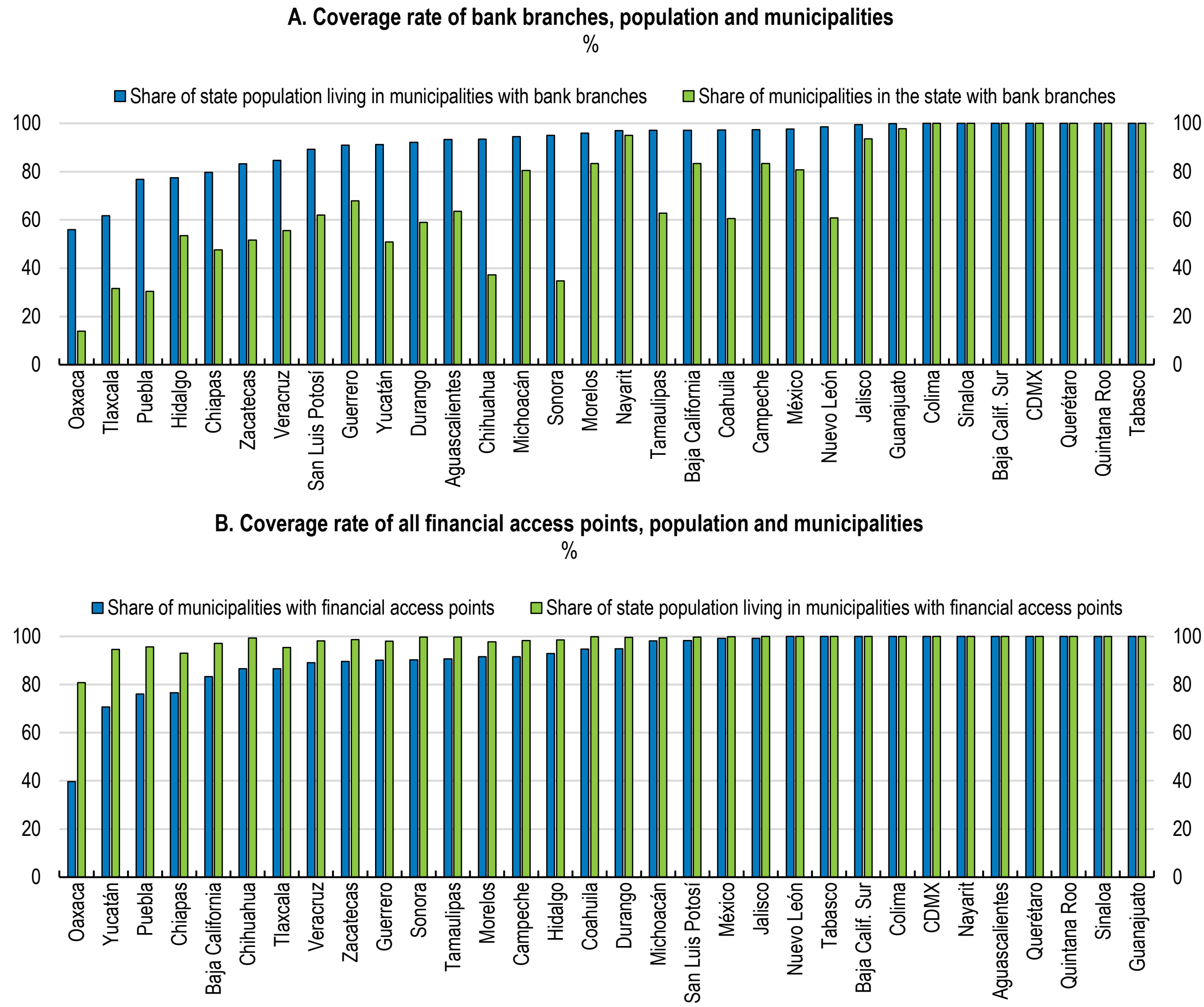
Figure 2.12. In some states a high share of the population has no access to bank branches



Source: Comisión Nacional Bancaria y de Valores Base de Datos de Inclusión Financiera, marzo 2021.

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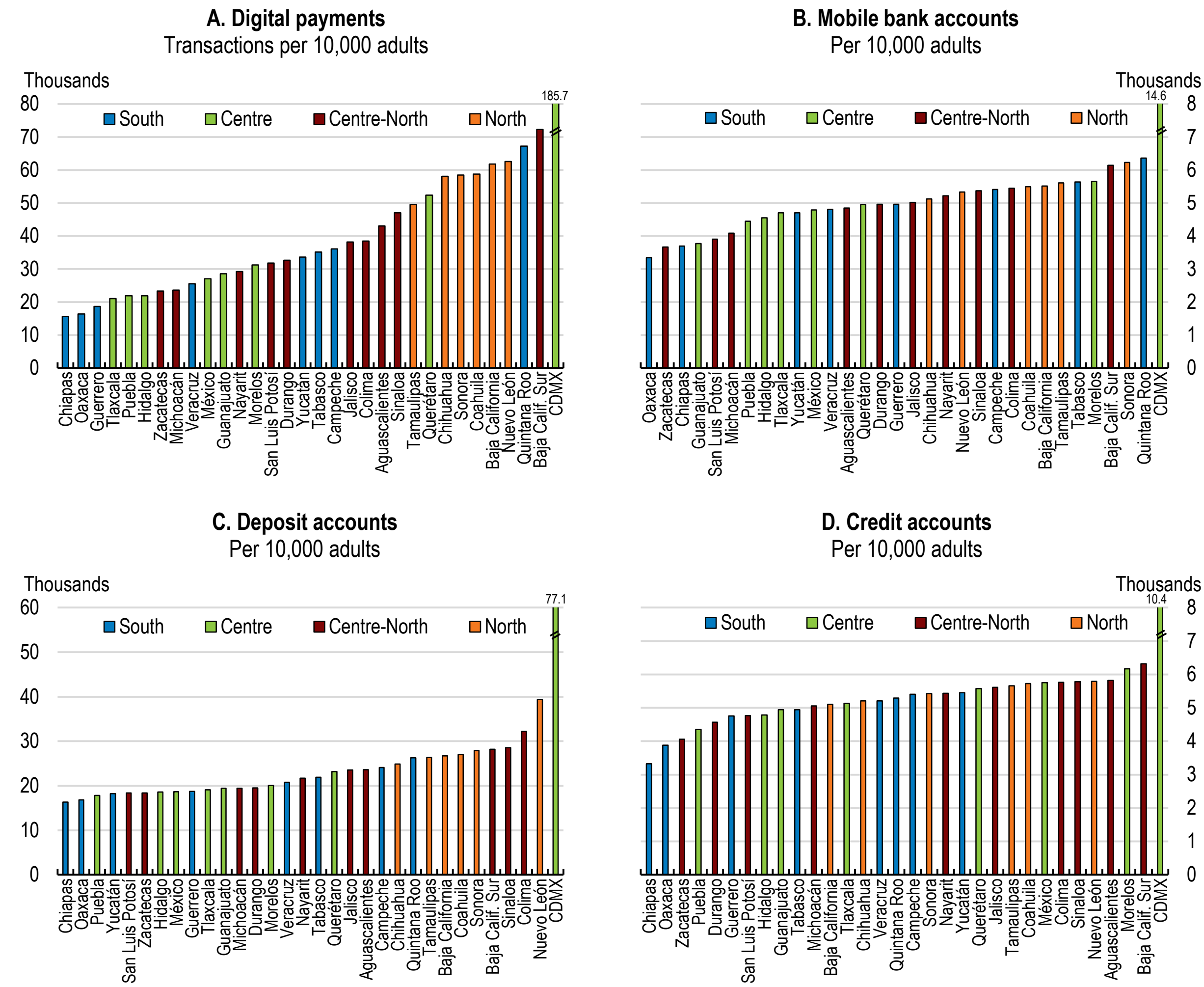
Regional gaps in the use of financial services are large (Figure 2.13). Except for Mexico City, which has the highest rate of use of financial products per inhabitant, financial services are used most frequently in Northern and Centre-North states (e.g. Nuevo Leon, Baja California, Baja California Sur) and the least in Southern states. Poorer states display a lower use of financial services as well as fewer access points to formal financial services. Increasing financial inclusion in these states would then be especially beneficial and help fill regional economic disparities.

Figure 2.13. Users of financial services concentrate in Mexico City and Northern states



Source: Comisión Nacional Bancaria y de Valores Base de Datos de Inclusión Financiera, marzo 2021.

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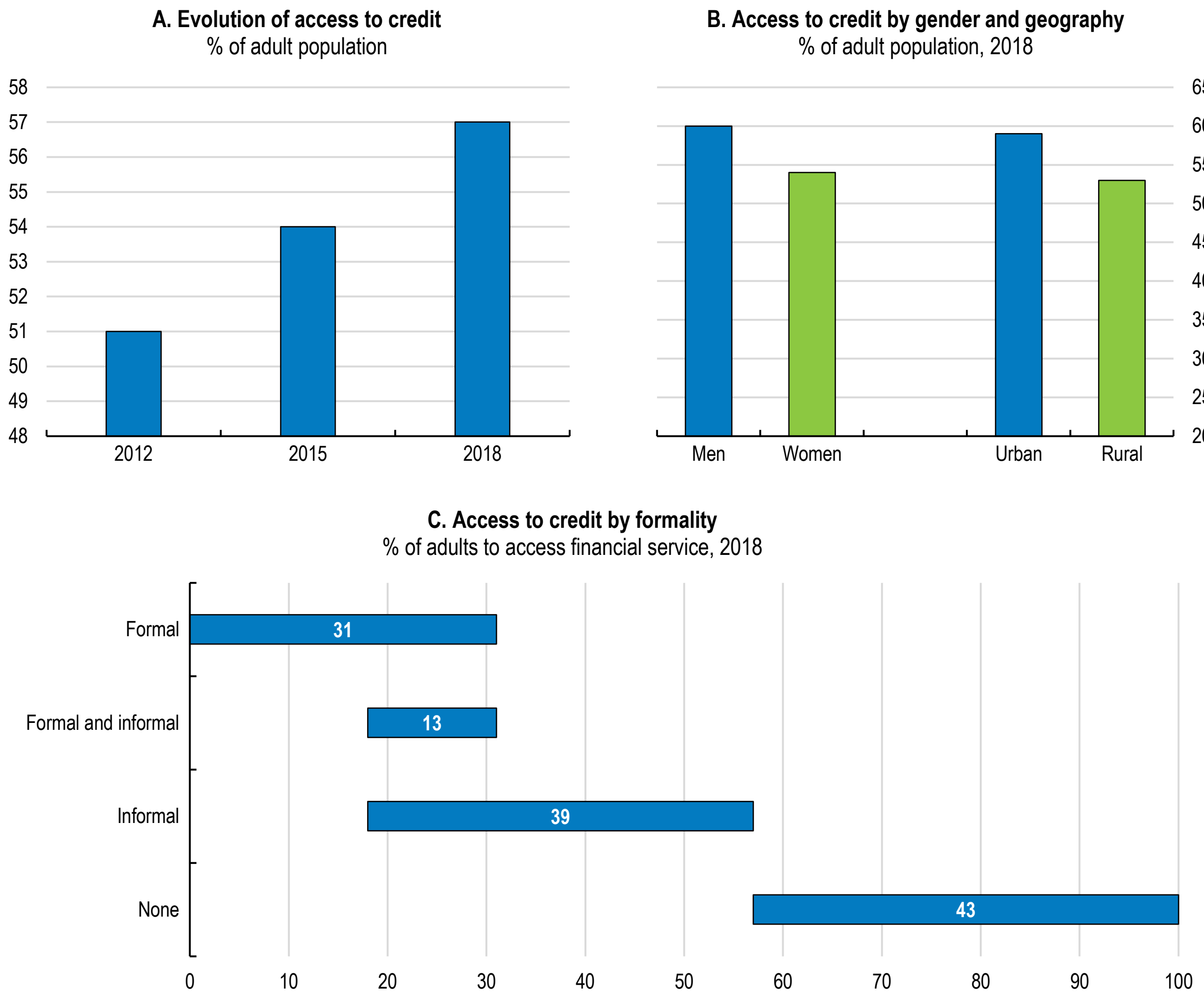
Individual access to credit has improved in Mexico (Figure 2.14, Panel A), but further efforts are required to reduce existing geographical and gender gaps (Figure 2.14, Panel B) and increase access to formal credit (Figure 2.14, Panel C) that would promote growth. A recent study of the Central Bank finds that increasing the size of private credit would be beneficial to growth, with a 10% increase in the ratio of banking credit to GDP increasing per capita GDP growth by around 0.7 percentage points (Torre Cepeda and Flores Segovia, 2020[38]). Regional disparities in access to credit are also large (Figure 2.15, Panel A). Northern states record the highest average rate of access to formal credit, while Southern states have the highest average access to credit, though it is prevalently from informal sources (friends, family or an informal lender) (Figure 2.15, Panel B). The lowest access to credit, both formal and formal, is found among the states in the Centre.

Figure 2.14. Individual access to credit has increased but there are gender and rural gaps



Source: ENIF.

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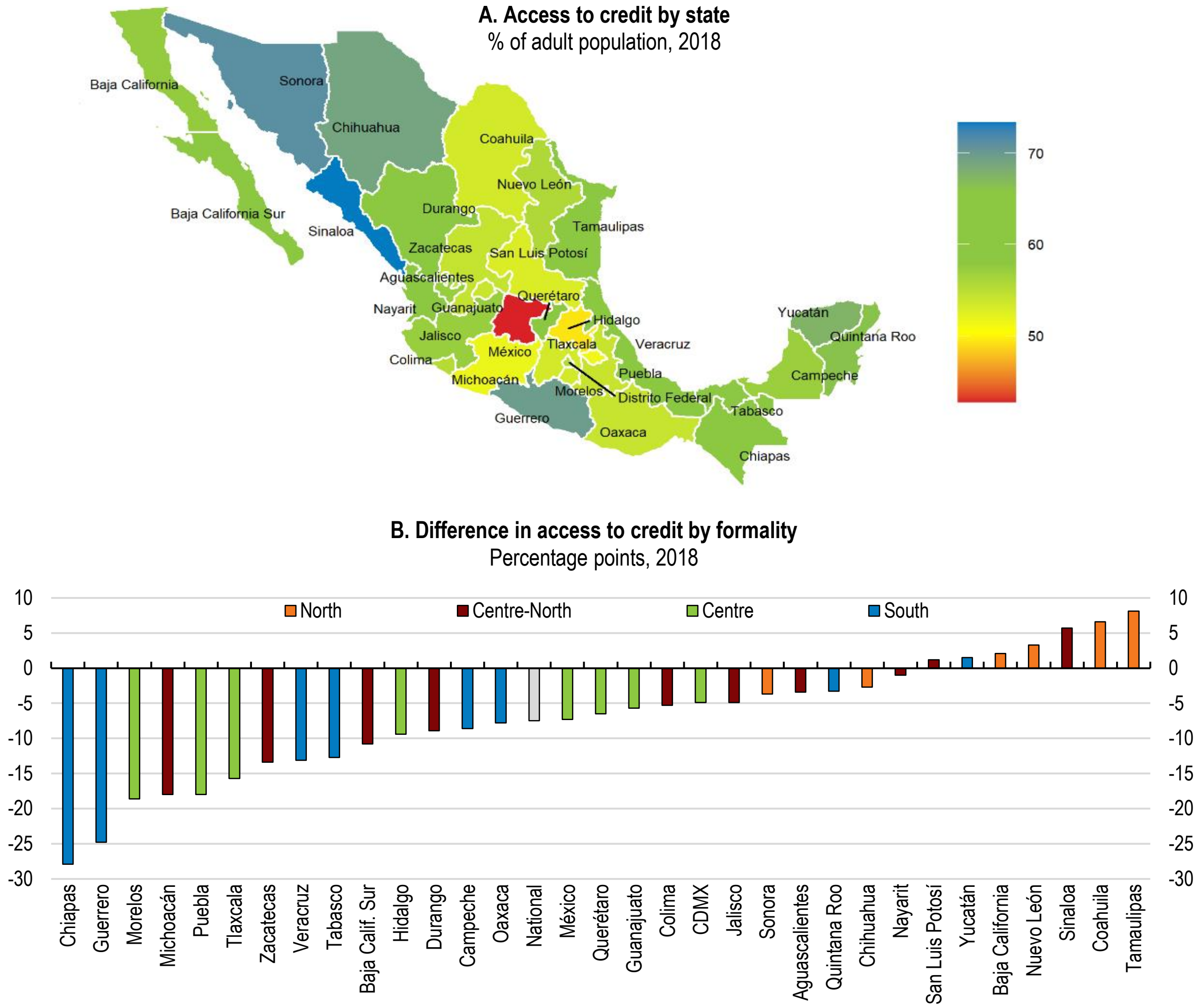
Around 39% of the adult population in Mexico used informal credit in 2018, increasing by 5 percentage points with respect to 2012. Family and friends are the most common source of informal credit, accounting for around 75% of all informal credits; other sources of informal credit (pawn house, *tandas de credito informal*) play a minor role. Informal credit is relatively more widespread in rural areas, where it is used by 41% of the adult population against 37% of the adults living in urban areas, and among men, with 40% of men using informal credit against 38% of women. The use of informal credit is widespread across adult of all educational attainment, but tend to decrease with the level of income, with 45% of the adults earning up to four times the minimum wage using informal credit against 31% of the adults earning more than this amount. Most recipients of informal credit use it for housing, health and emergency-related spending, to a lesser extent for education and business-related spending, and only a few use it for leisure (CNBV, 2021[39]).

A better access to formal credit would increase the ability of households to invest in human and physical capital and reduce the possibility of falling into poverty after a negative income shock (sickness, unemployment). Strengthening credit registries and initiatives to build credit history information for informal workers, as discussed above, could help more Mexicans get access to formal credit and reduce their dependence on informal credit channels.

Figure 2.15. Informal credit is common and easier to access in most states than formal credit



Note: Panel B plots the percentage point difference in access to formal and informal credit. For instance, a negative value means that it is easier to access informal credit than formal credit.
Source: ENIF.

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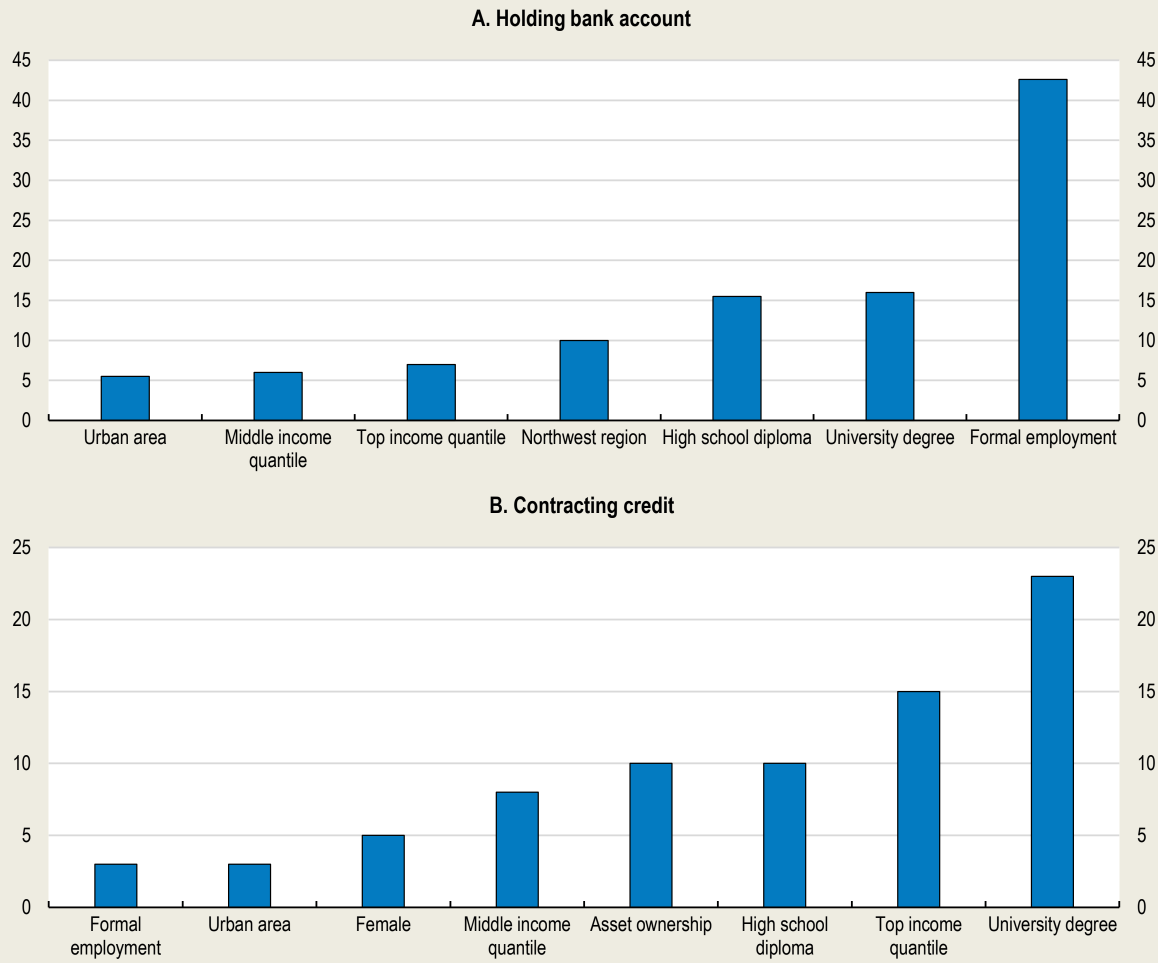
Working in the informal sector is the most important factor of exclusion from having a bank account (Box 2.3). As the majority of poor households works in the informal economy they tend to be excluded from formal financial services. This increases inequalities by imposing large opportunity costs on that part of the population who has then to rely on informal financial services which tend to be insufficient in size, unreliable and more expensive (Cull, Ehrbeck and Holle, 2014[40]). Policies promoting labour formalisation and reducing information asymmetries in the credit market appear to be among the most promising venues to promote financial inclusion. Reducing information asymmetry would benefit disproportionally the poor who often lack collaterals (Banerjee and Newman, 1993[41]). Strengthening financial literacy to increase awareness of consumer protection regulation and of the tools available to consumers would also help build trust in financial markets and reduce voluntary financial exclusion.

Box 2.3. Which factors hinder the demand for formal financial services in Mexico?

Using micro-data from the 2018 National Financial Inclusion Survey (*Encuesta Nacional de Inclusión Financiera* in Spanish), Cassimon, Gonzalez-Pandiella, Maravalle and Tourroques (forthcoming) estimate a set of Probit models to assess the main socio-economic characteristics that affect the probability of an adult to hold a bank account or to access formal credit and the main factors acting as a barrier to holding any of these two financial products.

Figure 2.16. Education, income and formal employment are the main drivers of financial inclusion

Average marginal effect on probability of accessing financial service, %



Note: The average marginal probability measures the average change in the probability of having access to a formal financial service (bank account or credit) for an individual who has a category of a socio-economic variable different from the benchmark category. The benchmark category of the variables reported in Panel A and B are: living in a rural area (urban or rural area variables); No income (income variable); West and Baijo region (regional variable); having pre-school/no school education (education attainment variable); working in the informal sector (sector of employment variable); female (gender variable); no asset ownership (asset ownership variable).
Source: Cassimon, Gonzalez Pandiella, Maravalle and Turroques (forthcoming).

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The analysis shows that working in the informal sector is the most important factor of exclusion from having a bank account (Figure 2.16, Panel A). The probability of holding a bank account of an adult working in the formal sector is 40 percentage points higher than that of an adult employed in the informal sector. This is in accordance with descriptive statistics showing that almost all adults with a formal job (96%) have at least one financial product. Other factors that are associated to financial exclusion, but to a lesser extent, are a low level of education attainment and geographical variables, such as living in a rural rather than an urban area or in a region different from the Northwest.

Results show that direct and indirect economic barriers are the main reasons for not holding a bank account. Around half of the adults without a bank account reports that it is due to high banking costs and commissions or not meeting the banking requirements. Some of the 26% of adults who report not holding a bank account because they do not need it might indicate that earning a low income does not allow them to have savings.

An insufficient financial infrastructure, instead, is a relevant obstacle to financial inclusion for a small share of Mexicans. Distance from a bank branch is rarely a cause for not holding a bank account, as it is quoted as a barrier to financial inclusion only by 2% of the adults.

Estimations show that the most important determinants of access to formal credit are the income level, wealth and education (Figure 2.16, Panel B), which are all related to the creditworthiness of the individual. Education, indeed, is often considered a proxy for creditworthiness in the presence of strong asymmetric information (Anjali et al., 2005[42]). Reducing such asymmetries would likely expand financial access to formal credit. Households with a higher level of education are also more likely to be aware of credit sources, and regions with greater average schooling use more formal credit in Mexico (Campero and Kaiser, 2013[43]). Asset ownership, another proxy for creditworthiness, also increases the probability of contracting a credit by 10 percentage points.

By looking at the reason for not applying for a credit, most respondents quote economic barriers (around 35%) such as high costs and not meeting the required requirements. However, around one in fourth claims personal preferences, such as dislike of indebtedness and mistrust in the financial sector. Voluntary financial exclusion because of personal preferences, such as mistrust in financial institutions or preferences for other saving mechanisms, also concerns around 15% of the adults not holding a bank account.

Estimations from the Probit model show that women have a slightly higher probability of receiving a formal credit than men, *ceteris paribus*. However, descriptive statistics show a gender gap in credit, with 60% of men having access to it against 54% of women. These results suggest that economic factors such as the lower participation rate of women and their relatively larger presence in the informal labour market, which is dominated by low wages, are key determinants of the gender gap in formal credit.

In replacing informal with formal credit among rural and vulnerable groups, it is important to understand what would be the overall impact on how they transfer resources within their own extended family network. These transfers may produce positive externalities if they help relax credit constraints faced by the most vulnerable members of the network who would not be able to obtain such transfers by themselves. For example, the Prospera program in Mexico led to permanent gains in consumption and investment within the whole family network as eligible households shared the transfers with members of the network who were not eligible (Aguilar, Barnard and De Giorgi, 2019[44]). A careful assessment of how transfers are shared within a family network in rural areas may help avoid that policies aimed at replacing informal with formal credit might end up damaging the most vulnerable members of the family network (Banerjee et al., 2021[45]).

An inefficient legal system is also a reason for the low level of bank intermediation in Mexico. Difficulties in collecting collateral may limit credit expansion and empirical evidence shows that better contract enforcement induces credit suppliers to increase loan size, lengthen loan maturity, and reduce loan spreads (Fabbri, 2010[46]; Jappelli, Bianco and Pagano, 2005[47]). Only a fifth of Mexican companies find judicial proceedings simple and fast (INEGI, 2016[48]), and the enforcement of civil courts judicial ruling is below most OECD countries ((WJP), 2017-2018[49]). Length of proceeding, procedural complexity and high cost discourage private companies starting in-court proceedings when they have a dispute on contract enforcement that failed to be settled out of court (INEGI, 2016[48]; (ITAM) and Gaxiola Calvo, 2017[50]).

Mexico implemented recent reforms in commercial dispute resolutions, namely setting up oral proceedings in commercial cases in the first instance (*oralidad mercantil en primera instancia*) and the creation of specialised commercial courts. International practice shows that specialised commercial courts help improve efficiency in the resolution of corporate disputes, as illustrated by the Delaware Court of Chancery in the United States, the Commercial Court in the Netherlands and specialised commercial courts in France (Teplova and Pascual Dapenda, 2020[51]). Initial evidence in some regions shows that ongoing reforms contribute to improve the effectiveness and efficiency of commercial dispute resolutions. For example, the establishment of specialised commercial courts in the Estado de Mexico reduced the average length for commercial trial by 40%. However the courts' workload remains high and regional disparities in the implementation and performance of these reforms remain large ((ITAM) and Gaxiola Calvo, 2017[50]), also due to variation between states in court infrastructure such as developing IT systems to support case managements by both judges and litigants (Teplova and Pascual Dapenda, 2020[51]).

Several initiatives have been launched to accelerate the implementation of the reform introducing oral proceeding in first instance, including the 2017 National Training Programme for Judges regarding Oral Proceedings in Commercial matters, which provides judges with training and tools for an effective use of oral proceedings, and the National Programme on Oral Proceedings, to ensure that oral trials comply with the new procedures. Mexican regions could accelerate the establishment of specialised commercial courts, including strengthening the training specialisation of judges for considering commercial and economic cases and improve court infrastructure.

Improve financial literacy effectiveness and public trust in financial markets

Financial literacy can support responsible financial inclusion. Individuals with a higher degree of financial literacy tend to use more financial products (CNBV, 2019[52]) and save more, and are more likely to ensure consumption smoothing (Lusardi and Mitchell, 2011[53]; Lusardi and Mitchell, 2014[54]). Policies aimed at promoting financial education, such as the *Semana Nacional de Educación Financiera*, have been able to spread across the population basic financial concepts. Mexico ranks just below the average G20 country in the index of financial literacy, but further efforts are warranted to effectively modify financial behaviours and bridge regional gaps in financial literacy in states such as Chiapas, Oaxaca, Colima and Zacatecas (Figure 2.17, Panel A). Mexico performs better than the average G20 country in the subindices of financial knowledge and financial attitude (Figure 2.17, Panels B and C). However, it has very poor performance in the ability to respect a budget and pay debt on time, the attitude to voluntary savings and the use of comparing financial products for decision-making (Figure 2.17, Panel D). Even if 58% of adults disposes of a high level of financial knowledge, only a fraction of them is able to translate this knowledge into healthy financial behaviours such as make a budget, being on time with debt payments or do voluntary savings and set long term financial targets (CNBV, 2019[52]).

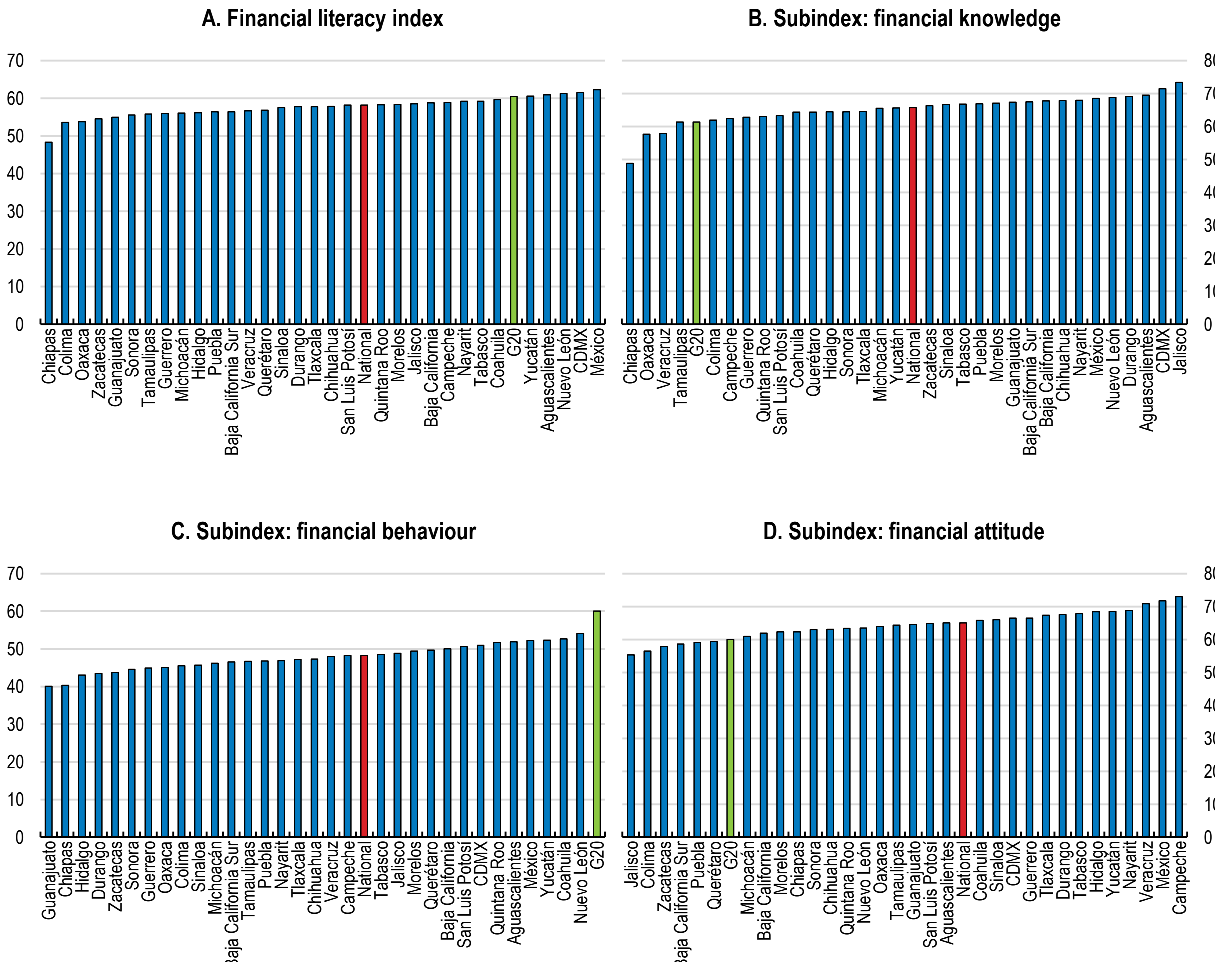
Programs of financial education should target low-income adults who tend to have a lower level of financial literacy. The gap in financial literacy between low-income beneficiaries of social programs and the national average is large. Increasing the initiatives combining access to social programmes with enrolment into a financial education programme would be a targeted way to close financial education gaps.

Financial education should also be taught in schools to provide younger generations with sound financial literacy, following the example of countries such as Peru, Estonia and Australia. In Peru, financial education is compulsory for students between 4 to 14 years, and students attending these courses have a higher degree of financial literacy (Frisancho, 2020[55]). Financial education in younger generations is important as they will require to save more along their lives given their relatively higher life expectancy and the transition from a defined benefit pension scheme to a defined contribution. In Estonia, financial literacy is considered an essential life skill and is part of the school program in both primary and basic schools, including activities in which children study entrepreneurship and make mini-companies. In Australia, financial education is part of the curriculum since an early age and until 16, and PISA results show that students in Australia have higher financial literacy scores that the average OECD country (OECD, 2021[56]). An initiative to include financial education courses at all compulsory education levels is being currently developed. The involvement of financial intermediaries and fintechs could further contribute to the diffusion of financial capabilities among the population (Box 2.4).

Mistrust of financial products is still high in rural areas, where consumers prefer informal financial products (i2i-CNBV, 2019[57]) and is a barrier to financial inclusion. A 2019 survey held in the state of Puebla reported that while one third of the respondents trusted informal financial products only around a fifth of them trusted formal products. To build up trust and effectively promote financial products within vulnerable groups, a personalised approach, exploiting the specific features of the underlying community network, is more likely to render positive results. The support of local leaders to a government initiative was very effective in promoting the adoption of mobile banking among women in rural areas in Peru (Brañas-Garza, Kovarik and Rascón-Ramirez, 2021[58]).

To increase the diffusion of formal financial instruments a better communication policy is also necessary to promote trust in financial markets both by increasing consumer awareness of existing financial consumer protection and by reducing the cost that potential users face in gathering information about the characteristics of financial products available in the market. In Mexico exist several tools to easily access financial information and ease comparison among financial products. For example, the Central Bank has developed a digital tool to compare costs of several types of credit products (credit card, mortgages, car, and personal and payroll credit) among financial institutions. The National Commission of the Retirement Savings System (*Comisión Nacional del Sistema de Ahorro para el Retiro*, Consar) provides a tool to compare pension funds (Seifores and Afores); the National Commission for the Protection and Defence of Users of Financial Services (*Comisión Nacional para la Protección y Defensa de los Usuarios de Servicios Financieros*, Condusef) provides a tool to compare saving and credit products; and the Office of the Federal Prosecutor for the Consumer (*Procuraduría Federal del Consumidor*, Profeco) devised a free digital tool to compare the cost of sending remittances. However, consumers rarely use these tools. Only 29% of the adult population who in 2018 contracted a bank account, an insurance or a credit compared among alternative financial products before purchasing one. This is far below the best performing G20 countries, such as Indonesia (83%) or France (78%). Also, few adults are aware of the legal instruments that can be used to complain in case of issues with financial products, only 25% of adults is aware that bank deposits enjoy public protection, and even less are aware of the existence of zero-commission banking account.

Figure 2.17. Mexico needs to strengthen financial literacy



Note: Financial literacy is defined as "the combination of awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing". The index is based on 2018 national survey on financial inclusion (Encuesta Nacional de Inclusión Financiera) and is built according to the methodology developed by the 2015 OECD/INFE Toolkit for financial literacy and financial inclusion. The index measures core financial competencies accounting for the aspects of knowledge, behaviours and attitudes that form the basis of sound financial decisions that benefit an individual. Financial behaviour includes financial control, that is the ability to respect a budget and paying debt on time, and financial resilience, which captures the attitude to voluntary savings and comparison of financial products for decision-making. Financial knowledge includes the assimilation of basic financial concepts. Financial attitude concerns the ability of individuals to do future financial planning.
Source: CNBV, SHCP 2019.

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Box 2.4. Good practices for increasing customers' financial literacy

Public and private sector may both contribute to improve financial literacy, which is especially important for low-income customers in emerging markets for whom financial services may be unfamiliar.

There are more than 70 case studies of digital initiatives and tools to support financial literacy that have been designed or already implemented by public authorities in more than 40 OECD/INFE members, recognising the potential of digitalisation for helping to meet the financial literacy needs of the general population and vulnerable target audiences (OECD 2021, OECD/INFE 2021(forthcoming)).

In Australia, the Australian Securities and Investments Commission created in 2011 a public website (moneysmart) offering several tools to support financial literacy, including the possibility of contacting a financial counsellors. In Brazil, the public website “Minha Vida Financeira “(my financial life) run by the Central Bank offers several digital programmes promoting financial literacy. In Chile, the Financial Market Commission (Comisión para el Mercado Financiero) established in 2019 a public website (Educa) that provides citizens with information on several financial areas (investment, insurance, banking) and products and financial legislation. In Mexico, the Central Bank, among other initiatives, launched in 2020 the online courses platform “Banxico Forma” targeted to children, youth and adults where they can learn about economic-financial decision making, the role of money in society and the functions of the Central Bank, using innovative methods such as escape rooms and gamification to encourage learning.

In the private sector, using insights from behavioural economics, banks in many countries have designed products to help customers use financial products effectively and develop healthy financial habits. The most widespread practices include using artificial intelligence chatbot to encourage vulnerable customers to use financial products more effectively; introducing incentives to increase savings such as lotteries; offering financial products that provide access to credit to informal workers and SMEs.

In Colombia, a financial institution launched a mobile based account targeting low-income rural customers employed in the informal sector. The account provides savings, small credit and transfers services, and integrate an artificial intelligence chatbot that sends text messages to encourage vulnerable customers to use financial products more effectively.

In South Africa, customers of a banking group may enter into a monthly lottery if they maintain a minimum balance in their account over the month. When the balance is above a certain threshold, the remuneration rate of the account increases and account maintenance fees are no longer required, thus providing an economic incentive for saving. The possibility of winning works as a positive reinforcement of savings behaviour.

In India, innovative banking products target SMEs with no formal income documentation and no credit history. After a one-time cash flow assessment operated by a loan officer, eligible customers are offered a credit and a credit literacy module that informs them about the terms of the loan, the consequences of delinquency, and how their repayment behaviour would affect their possibility of accessing formal credit in the future. SMEs can benefit from lower interest rates than from informal sources and receive timely nudges and reminders to help them stick to their payment schedule.

A credit cooperative in Mexico provides payroll loans with an automated savings option. Loan repayments and savings are automatically debited from the customers’ payroll, so that customers do not have the opportunity to spend the savings unless they make the extra step of withdrawing funds from the account. Initial results indicate that this mechanism contributed to increase savings.

Source: Kelly, S., D. Ferenzy and A. McGrath (2018), “Banking sector approaches to customer engagement and capability”, Center for Financial Inclusion, Mainstreaming Financial Inclusion best practice series. OECD (2021), Digital delivery of financial education: design and practice. OECD Publishing, Paris.

Embracing digitalisation is key to promote digital financial markets

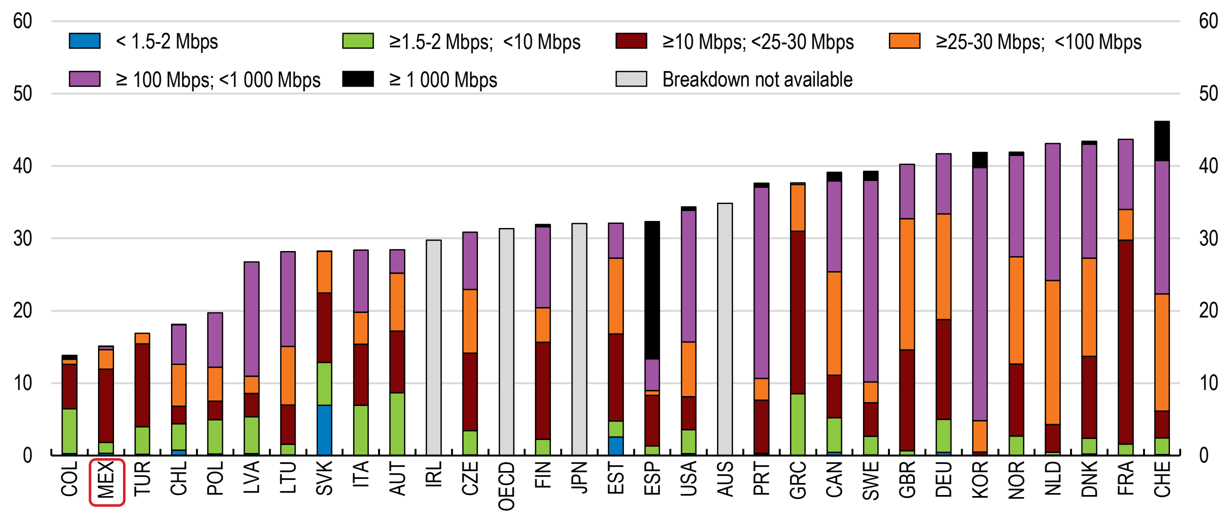
An effective diffusion of digital financial services requires a robust and broad digital infrastructure, adequate regulation to promote innovations and competition, and a broad use of digital technologies. An adequate level of financial and digital skills must then be sufficiently widespread among the population, as well as trust in financial institutions.

The digital infrastructure coverage is improving but still too few have access to it

Mexico ranks low in international comparison in access to digital infrastructure. The number of fixed broadband subscriptions per 100 inhabitants is well below the average OECD country, and most subscriptions feature a slow Internet download speed (below 25 megabits per second) (Figure 2.18) and are expensive (Figure 2.19, Panel A). Mexico performs better in access to mobile broadband, with a number of subscriptions around 20% below that of the average OECD country (Figure 2.20) and costs that are in line with the target set by the United Nation Commission on broadband connectivity for 2025 (a cost of accessing 4G mobile broadband services of 1 Gigabyte of around 2% of the average per-capita income) (Figure 2.19, Panel B).

Figure 2.18. Access to fixed broadband lags

Fixed broadband subscriptions per 100 inhabitants, by speed tiers, June 2019



Note: Mbps = megabits per second.
Source: OECD Broadband Portal (database).

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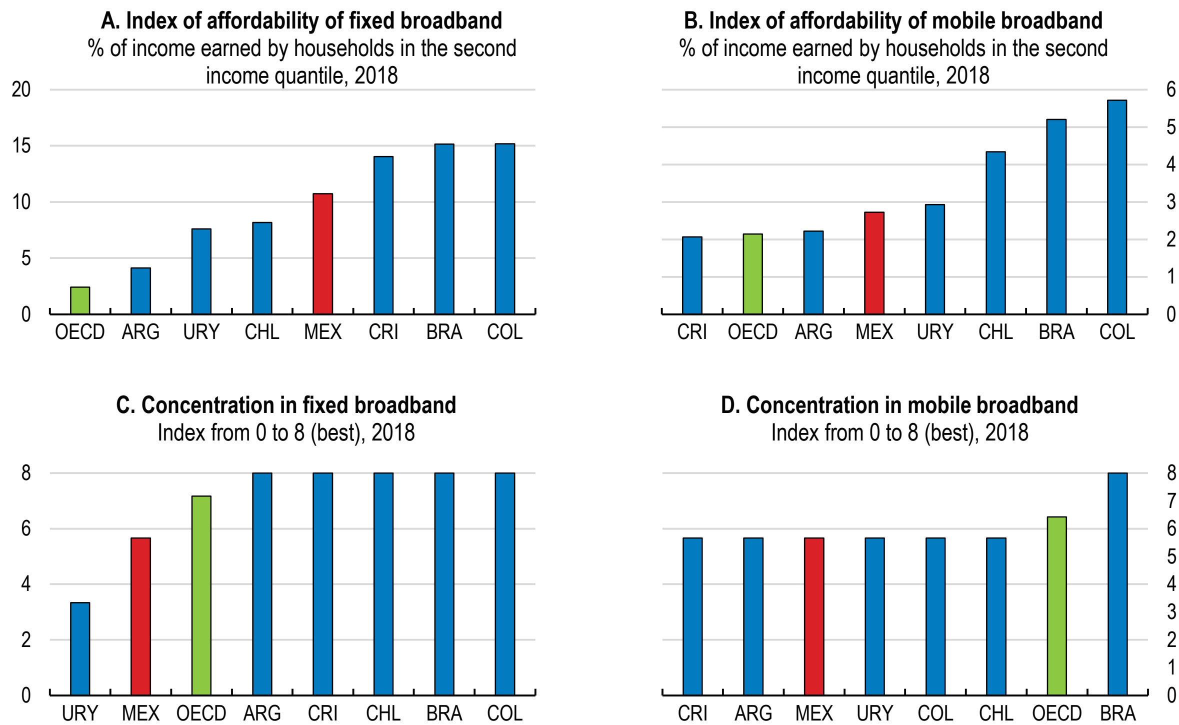
The 2014 reform of the telecommunications market improved access to mobile broadband and spurred competition, promoted investment, increased access and improved the quality of mobile services. The drop in the price of mobile connectivity has benefited particularly low-income households (Ennis, Gonzaga and Pike, 2017[59]) and regions lagging in connectivity. This illustrates the benefits of opening up markets by favouring the entry of new providers. It would be desirable that a similar improvement in prices extends to the fixed broadband market, where prices are still much higher than in the average OECD country.

Figure 2.19. 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 an household in the second quintile 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 quintile of the income distribution.
Source: Interamerican Development Bank DigiLAC Indicators.

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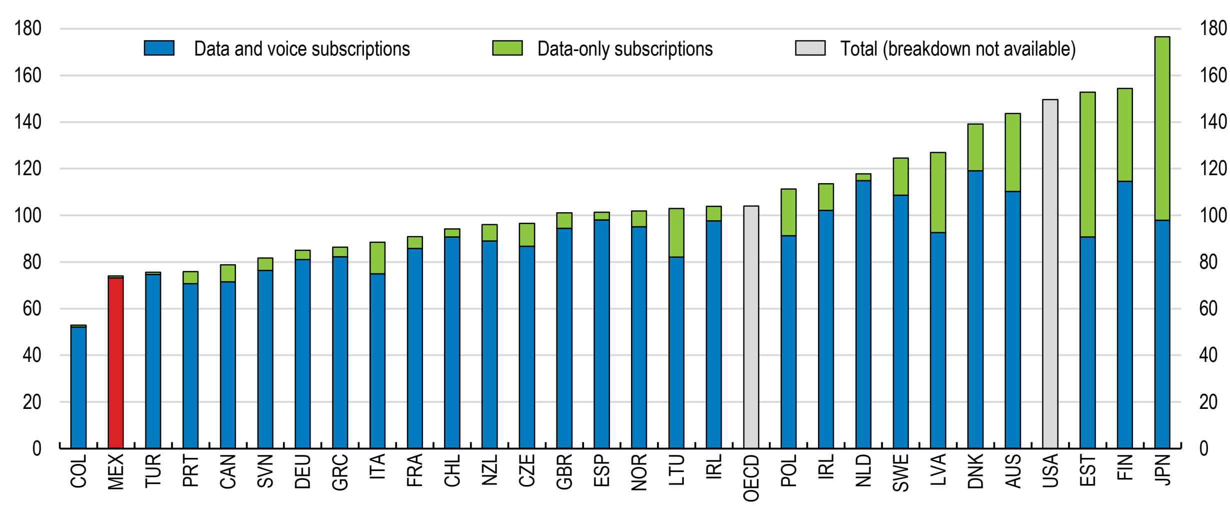
Two programmes in the National Development Plan 2019-24 aim at extending coverage and use of the Internet infrastructure. The "Programa de Cobertura Social 2021-21" aims at setting up telecommunication networks (broadband and internet) in remote areas, predominantly in South-East states (Chiapas, Oaxaca, Veracruz and Guerrero). So far, it has extended internet coverage to around one million people, increasing the number of Internet users by 600 thousand. The programme "Internet para todos" aims at extending the coverage of the public digital infrastructure from the current 70% to the whole country, addressing underserved areas also providing internet services through the state owned enterprise "CFE Telecomunicaciones e internet para todos" whenever private operators would not. The programme also includes subsidies and loans to SMEs that would invest in infrastructures to provide Internet access to final consumers. In September the National Digital Strategy 2021-24 has been announced, whose objectives include strengthening the process of digitalisation of the public sector and reducing regional gaps in digital infrastructures, also by extending internet infrastructure throughout the country as to provide universal access to digital technology. It also promotes free connectivity in public spaces.

Other than extending the coverage of its digital infrastructure, Mexico should incentivise investment that raises the connectivity speed of the fixed broadband and the development of a mobile 5G infrastructure. Enhancing regulations on the sharing of passive infrastructures – non-electronic infrastructure such as powers poles and ducts - that represent a large part of the cost of building telecommunication networks and often are a barrier for new entrants, would help achieve this goal (Martínez Garza Fernández, Iglesias Rodriguez and García Zaballos, 2020[60]). The deployment of an IT system that provides all operators with information on the availability of passive infrastructure and supports the process for requesting its use is a key tool for its efficient use. In Germany, a nationwide infrastructure atlas was created in 2012 by the German regulatory agency to provide operators with information about the location of all relevant infrastructure. This allows operators involved in broadband expansion projects to easily identify opportunities for a joint use of the existing infrastructure to negotiate with their owners. In Japan, network infrastructures inside tunnels of railroads, roads and subways provide an example of infrastructure sharing. Since 1994, they are built by the Japan Mobile Communications Infrastructure Association, whose members, mostly mobile network operators, then share its use.

Further development of digital government has the potential to improve the range and quality of public services, thus also increasing trust in government. In Mexico only 25% of the population used internet to interact with public authorities in 2019 (OECD, 2020[61]). The experience of Estonia and South Korea in successfully expanding digital government may be valuable. Estonia's success is based on the widespread use of electronic identification cards allowing citizens to digitally identify themselves and sign documents or actions. The creation of a national digital identification system, to uniquely identify citizens, and of the Population Register, the main government data repository, were a precondition for the diffusion of digital identification. The development of an adequate legal framework for data protection, privacy and security complemented the e-government ecosystem in Estonia. A widespread diffusion of digital identity with trusted identification, digital signature and a central infrastructure development contributed to increase the share of individuals using internet to interact with public authorities from 50% in 2009 to 80% in 2019. South Korea started promoting digital government since the early 2000s and in recent years has been among the top performers in the UN the e-government development index. The success of South Korea's strategy was based on a strong and continuous political commitment that ensured financial resources to develop the necessary ICT infrastructures, such as an internet superhighway network and a mobile broadband, and a national digital identification system through which firms and citizenships can easily and timely access public services.

Figure 2.20. The number of mobile broadband subscriptions is low

Mobile broadband subscriptions per 100 inhabitants, June 2019



Source: OECD Broadband Portal (database).

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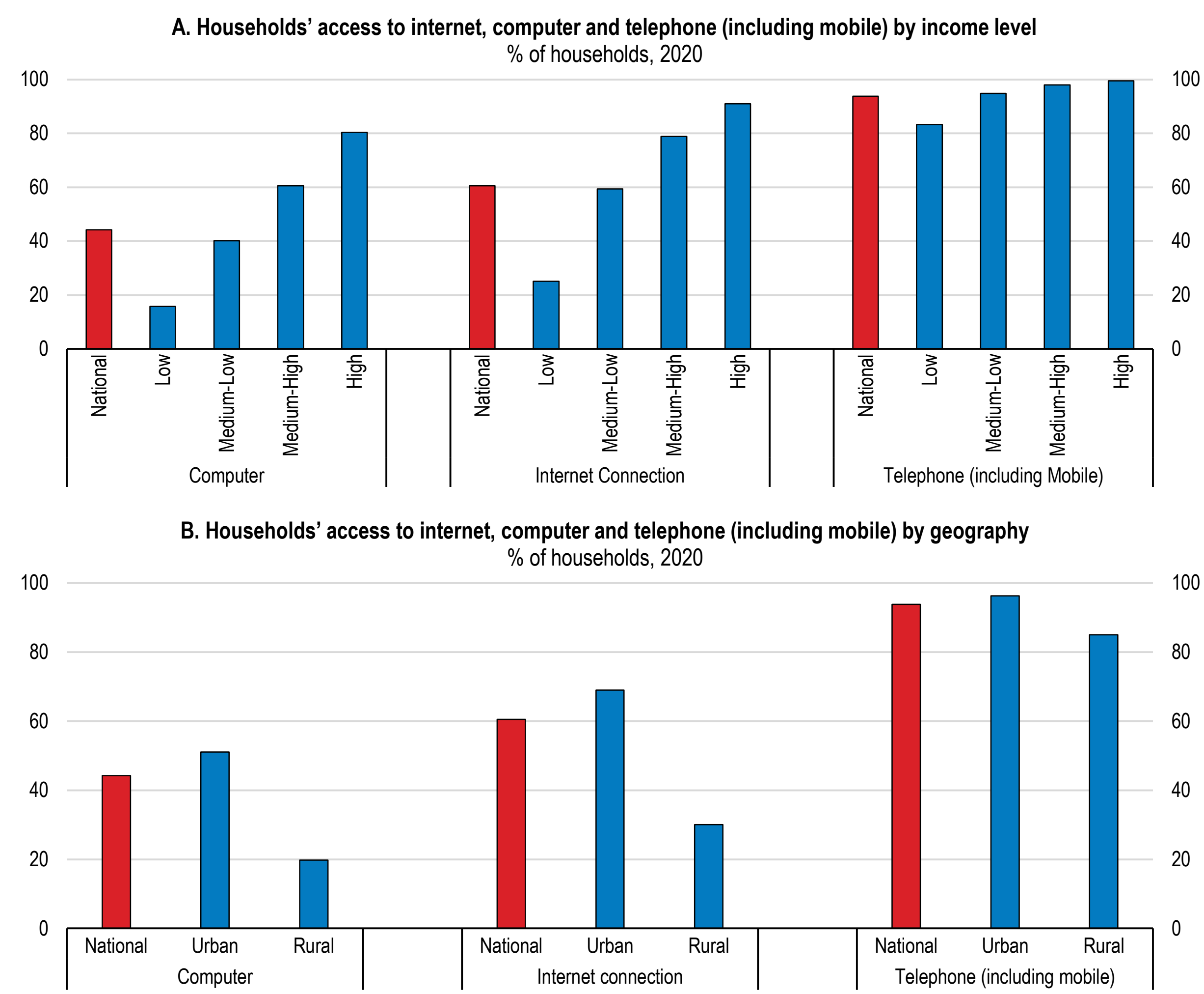
The diffusion of digital technology lags behind

There are large education, age and income gaps in households' access to digital technologies

Having access to and using digital technologies is far less common among households living in rural areas and among low-income households (Figure 2.21). There is also a wider divide in internet use related to age and educational attainment than in most other OECD countries (Figure 2.22. , Panels A and B). Younger generations (aged between 16 and 24 year old) in Mexico use the Internet on average more than twice as much as older adults (aged between 55 and 74 year old), and only less than 30% of older adults in Mexico use Internet at all, against an OECD average of 60%. Policy efforts to improve connectivity and affordability in most deprived regions and municipalities and among low-income households are needed.

The education gap in internet use among younger adults (Figure 2.22. , Panel A) highlights the risk of a persistent digital divide that might strengthen socio-economic disparities and enlarge inequalities (OECD, 2020[61]). People with higher education not only have greater access to the Internet but also use it intensively (Figure 2.23), gaining further possibilities of expanding their knowledge and job opportunities (following online course, finding better jobs) with respect to that part of the population with lower education attainment and no access to internet.

Figure 2.21. Low-income and rural households have low access to digital technology



Source: INEGI. Encuesta Nacional sobre Disponibilidad y Uso de TIC en Hogares, ENDUTIH 2020.

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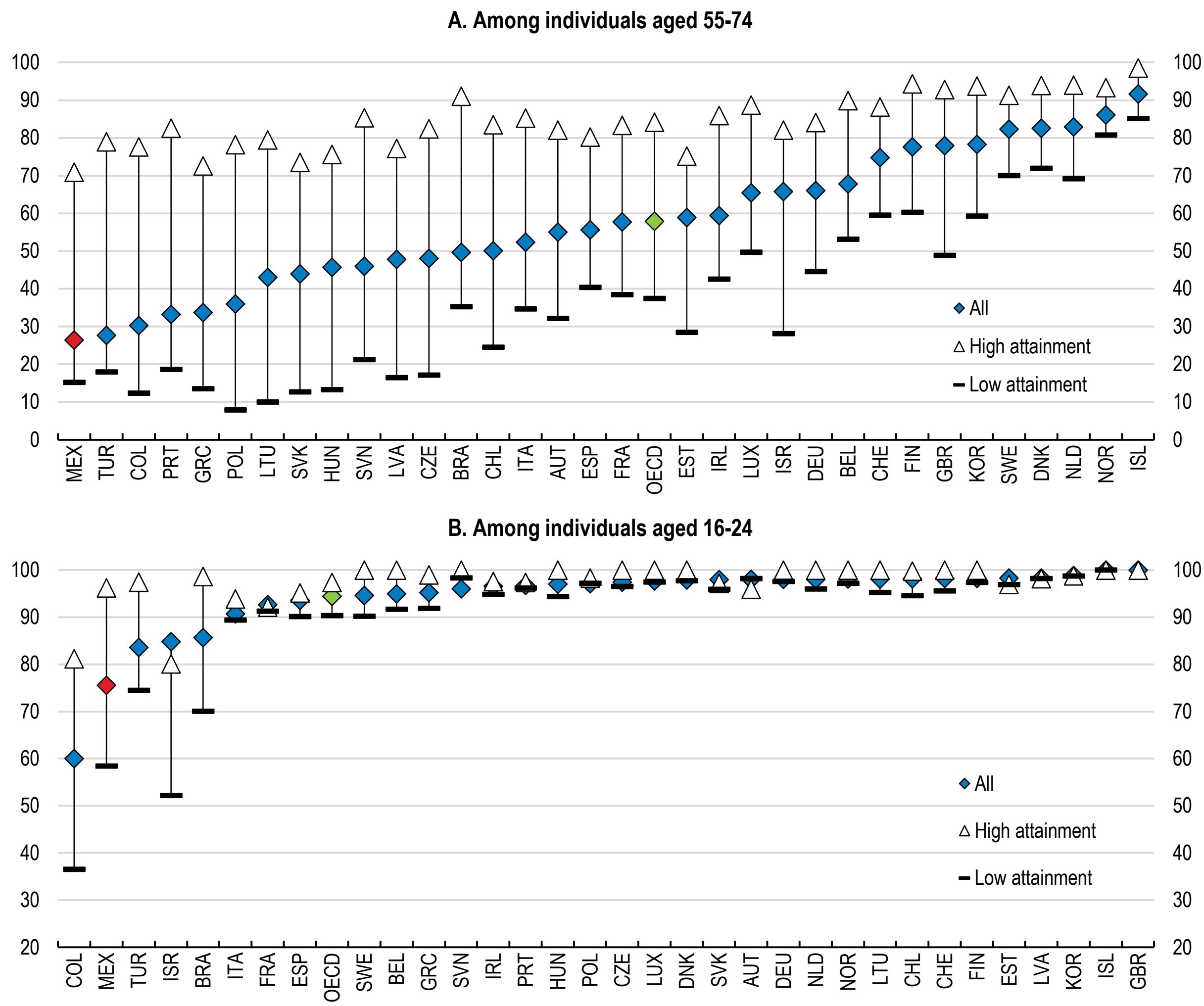
Figure 2.22. The digital divide in internet use is large in Mexico

Percentage of the population by age and educational attainment, 2019 or latest available year



Note: Frequent Internet use is by individuals using the Internet every day or almost every day. OECD is an unweighted average of countries with available data. Panel B: data for Israel refer to individuals aged 20-24.
Source: OECD Digital Economy Outlook 2020.

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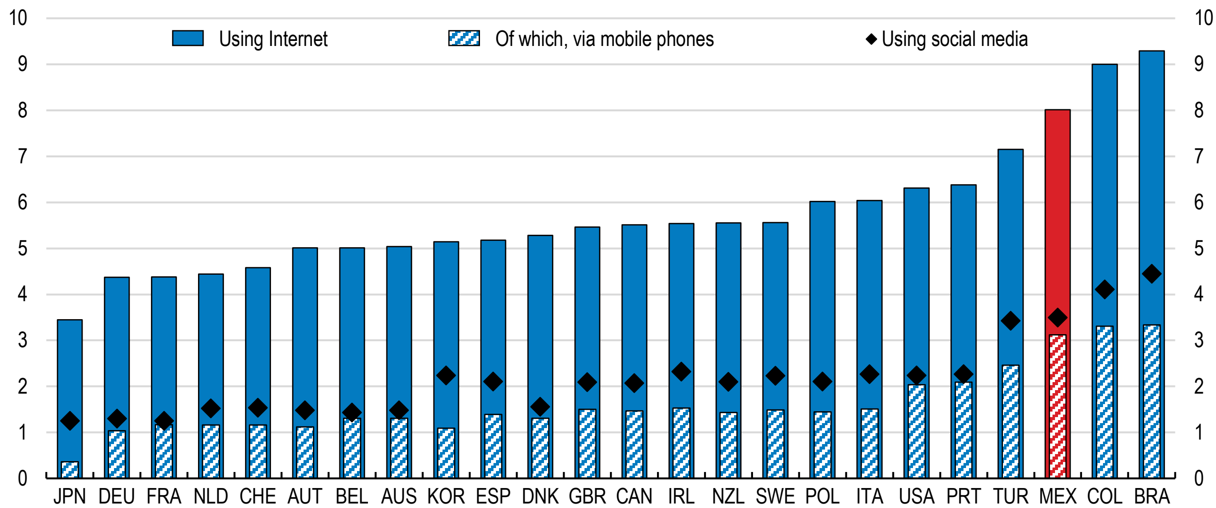
Figure 2.23. Average daily time spent using the Internet and social media

Number of hours, 2019



Source: OECD Digital Economy Outlook 2020.

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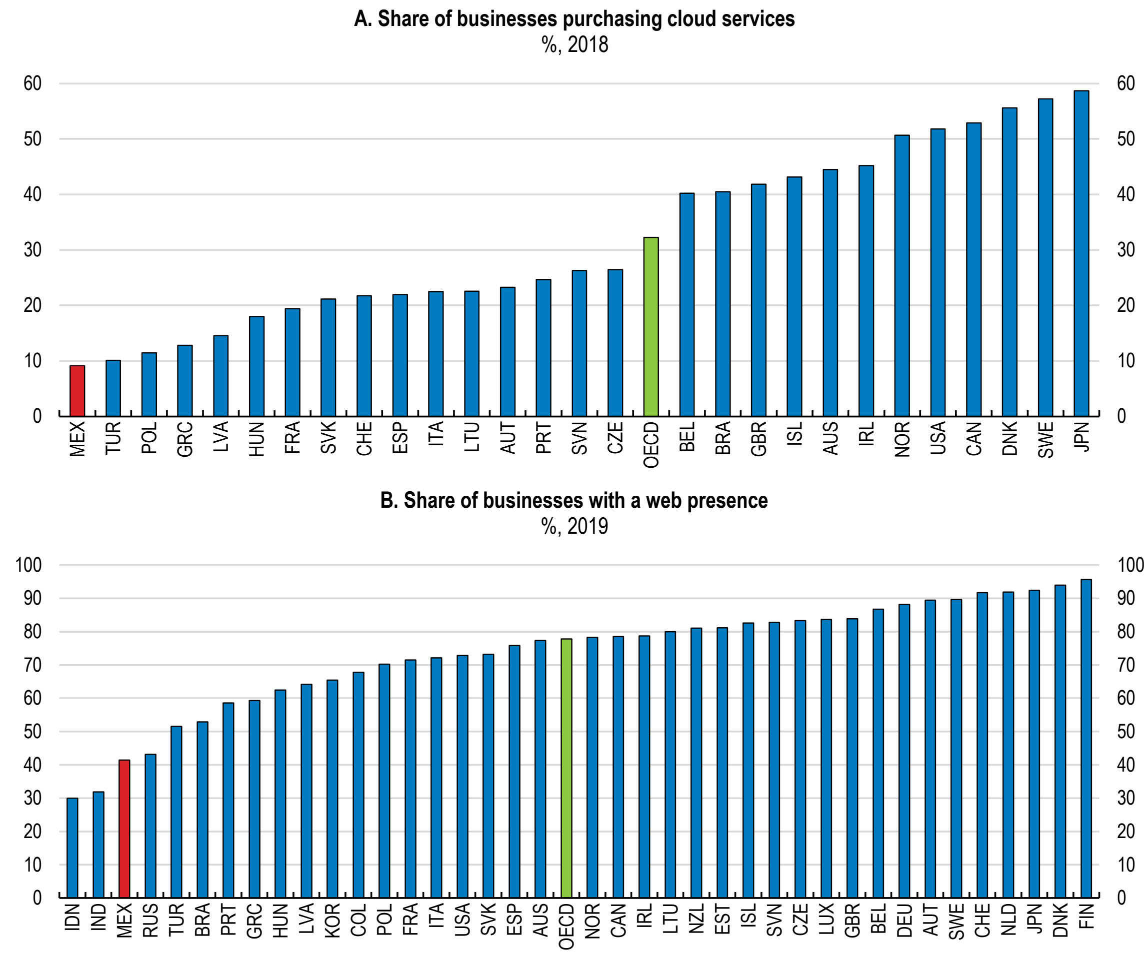
The business sector lags behind in exploiting the potential of digitalisation

Only about 9% of Mexican businesses purchased cloud services against 32% in the average OECD country (Figure 2.24, Panel A), the share of Mexican businesses with a web presence is well below other OECD countries (Figure 2.24, Panel B), and the penetration of key technologies for the development of the internet of things is one of the lowest among OECD countries (Figure 2.25). Still too few firms accept digital payments - only 35% in 2018, though in the retail sector the share reaches 57% (ENAFIN, 2018[62]) - thus contributing to a low diffusion of online purchases, which is below peers in the regions such as Chile and Brazil (Figure 2.26).

The COVID-19 pandemic has accelerated the adoption of digital tools by Mexican firms and recent policy initiatives have promoted the digitalisation of business, especially of micro and small enterprises. The programme "*#Le Atiendo por internet*" aims at helping two millions of micro and small businesses to start selling online. During the pandemic, the digital platforms "*Mercado Solidario*" and "MYPyMES.mx" were created to help small enterprises continue their activities online. Depending on the effectiveness of these policies in the near future, further policy efforts might be warranted to close the gap with OECD countries and regional peers.

The slow digitalisation of firms in Mexico is mirrored by a low average ICT task intensity of jobs in international comparison (Figure 2.27), even if there are large regional disparities. As international evidence shows that jobs are increasingly ICT-task intensive (OECD, 2020[61]), this calls for further efforts to engage in policies that favour a flexible learning environment to face the rapid pace of change at work brought about by digitalisation. Learning systems should be both lifelong (accessible to all at any age) and life-wide (promote and recognise learning acquired outside of formal education systems) (OECD, 2019[63]). Such policies would also reduce the risk of social tensions, as historically new technology adoption brought about a fear of changes in the society (Mokyr, Vickers and Ziebarth, 2015[64]) and disruption in the labour markets (Acemoglu, 2002[65]).

Figure 2.24. The Mexican business sector lags in adopting digital technologies



Source: OECD Digital Economy Outlook 2020.

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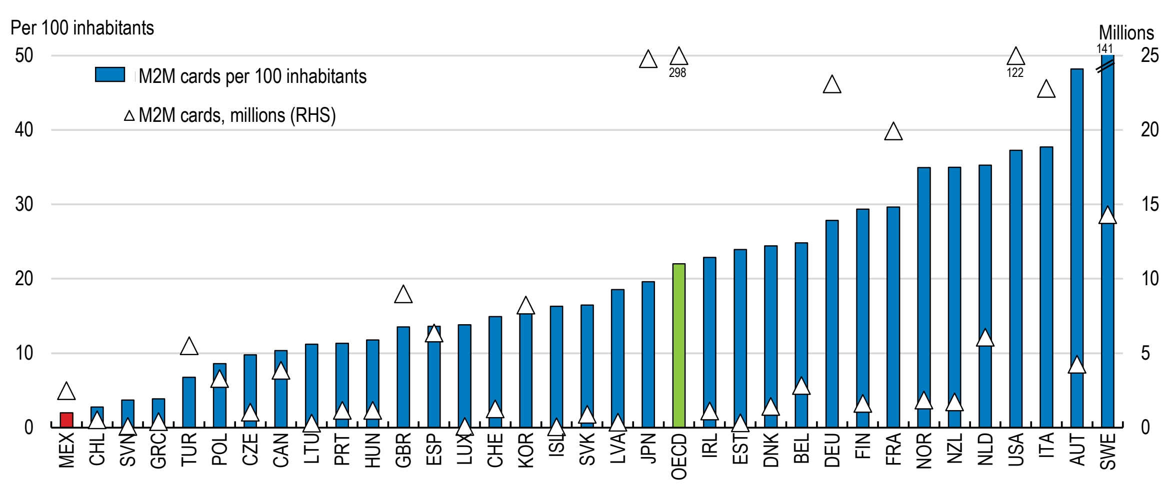
Figure 2.25. Mexico ranks last in the development of Internet of Things technology

M2M/embedded mobile cellular subscriptions, June 2019



Note: M2M = machine to machine. The number of M2M sim cards measures the penetration of a technology that is fundamental for the development of the Internet of Things.
Source: OECD Digital Economy Outlook 2020.

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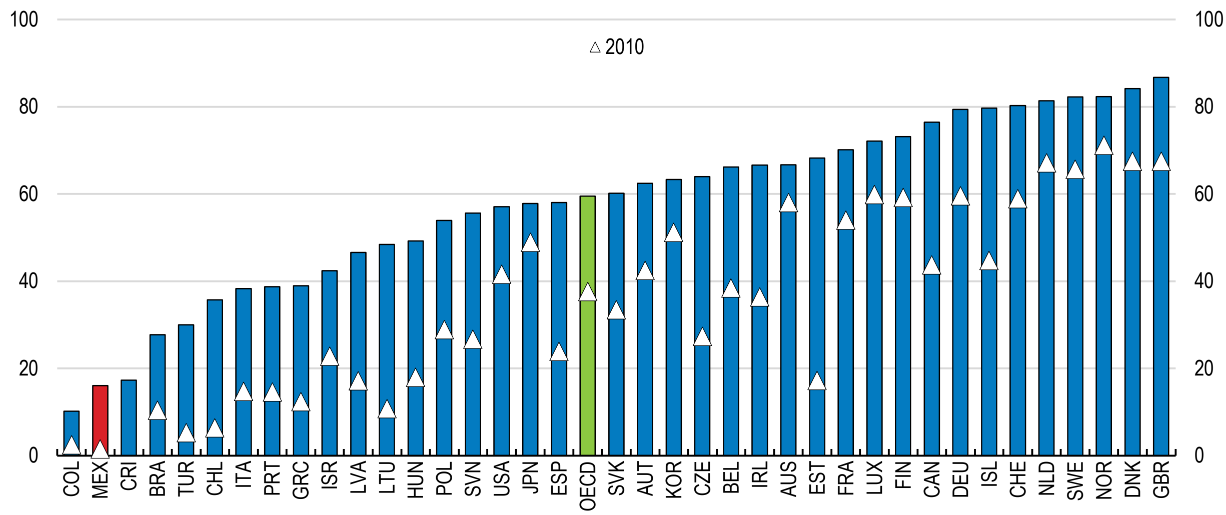
Figure 2.26. Online purchases are low

Individuals having ordered goods or services on line, %, 2019 or latest year



Note: Data for Mexico refer to 2018. OECD is an unweighted average of all member countries with available data.
Source: OECD Digital Economy Outlook 2020.

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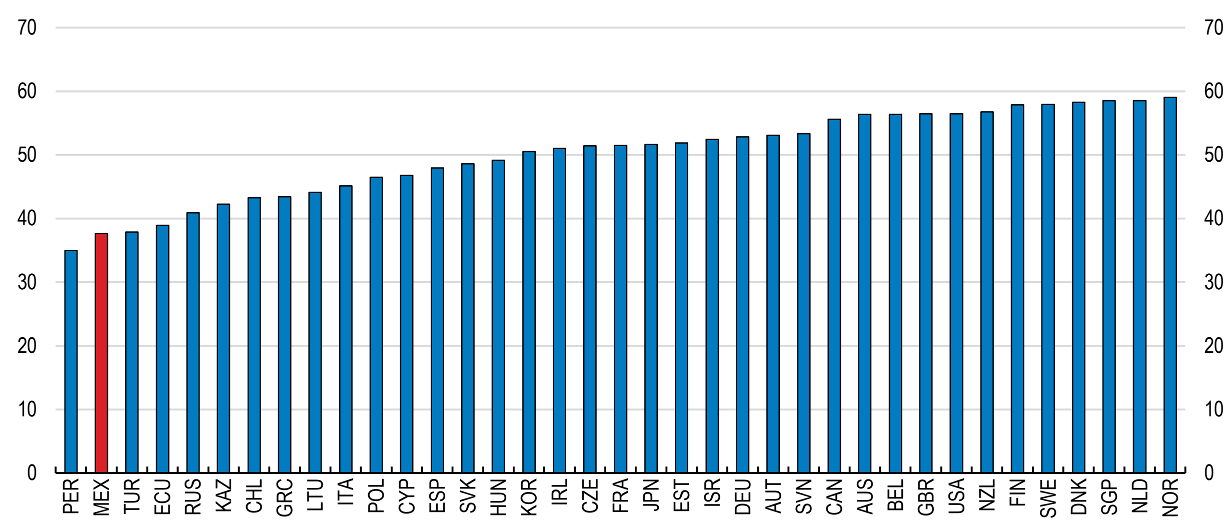
Figure 2.27. Mexico ranks low in ICT task intensity

Score points, 2018



Note: The ICT task intensity of a person's job describes the frequency with which they undertake ICT tasks at work. The ICT tasks considered relate to the frequency of: using word processing and spreadsheet software; using programming language; making transactions via the Internet (banking, selling/buying); using e-mails and the Internet; using ICT for real-time discussions; reading and composing letters, emails and, memos; and use of computers on the job.
Source: Survey of adult skills (PIAAC) 2018, OECD calculations.

StatLink https://stat.link/r912qx

Accelerating the development of digital financial markets

Digital payments are slowly advancing but remain low

The use of digital payments has been increasing in Mexico, but remains low in international comparison. In 2017, only one third of adults engaged in at least one digital payment in Mexico, against almost two-thirds in Chile. Since then, the share of adults using a debit or a credit card has increased, but their use remains limited: the number of credit card transaction per adult is very low in international comparison and only 55% of credit card holders used it in 2019 (CNBV, 2020[66]).

The use of cash remains dominant in Mexico. Most adults who are financially included use cash for small (90%) and large (78%) payments (ENIF, 2018[33]). Preference for cash and, to a lesser extent, mistrust in the financial sector are the main reasons for not using a debit card (ENIF, 2018[33]). Older adults and individuals living in rural areas are also far less likely to use digital payments, which points to an important digital and financial education gap across generations and between rural and urban areas (ENIF, 2018[33]). Regional gaps are also relevant, with Ciudad de Mexico, Quintana Roo and in general Northern states largely outperforming the other states in number of digital transactions (Figure 2.13. , Panel A). The Covid-19 pandemic and the associated confinement measures triggered a shift towards online purchases and digital payments. This creates a good momentum for the digitalisation of payments that could be reinforced by additional policy efforts.

The diffusion of digital payments is a priority to effectively promote financial inclusion and inclusive growth as digital payments favour the access to other financial services (Demirguc-Kunt, Klapper and Singer, 2017[17]). Digital payments also lower the cost, and increase the speed, of making and receiving payments. This is especially relevant in rural areas where distances to a government office, bank branch or money transfer operator may be large, which further highlights the need for extending digital infrastructure to rural underserved areas. They reduce security risks associated to handling cash, helping to reduce the incidence of crime (Wright et al., 2014[67]) and allow for direct payment of government transfers, thus increasing transparency and reducing the risk of bribes (Muralidharan, Niehaus and Sukhtankar, 2014[68]). They may contribute to reduce the gender gap by granting women control over the transfers received in their account, thus reducing the possibility of a kinship tax (Morawczynski and Pickens, 2009[69]).

Digital payments may also help build a credit record, thus facilitating households' access to credit and allowing financial institutions a better credit risk assessment (Cook and McKay, 2015[70]). This is especially relevant in large informal economies like Mexico where the use of cash is more widespread (GPFI, 2018[71]). Digitalisation has the potential to grant firms and individuals that operate in the informal sector a greater chance to access formal financial products, thus boosting financial inclusion. Moreover, digital financial services might also reduce informality in the long run by relaxing credit constraints (Capasso and Jappelli, 2013[72]) and boosting productivity (Beck and Hoseini, 2014[73]).

Promoting competition in the payment card market

The Central Bank and the National Banking and Securities Commission (*Comisión Nacional Bancaria de Valores*, CNBV) should modify secondary regulation to remove regulatory barriers that prevent competition in the Mexican payment card market, as signalled by the Mexican competition authority (COFECE, 2020[74]). Current regulation prevents the entry of competitors to the unique domestic digital payment system (Box 2.5) because of uncertainty about what rules, operational standards and costs would apply to digital payments involving a buyer (cardholder) and a seller (business) using different payment systems (cross-system transaction). In the absence of a clear regulation on cross-system transactions, the potential risk is that the network administrator of the dominant domestic payment system would impose its rules and costs as to prevent price competition. This risk deters the entry of new players (COFECE, 2020[74]) in the payment card market where the overall degree of concentration remains high, with the five largest banks accounting for about 80% of the market (Bátiz-Zuk and Lara Sánchez, 2021[23]).

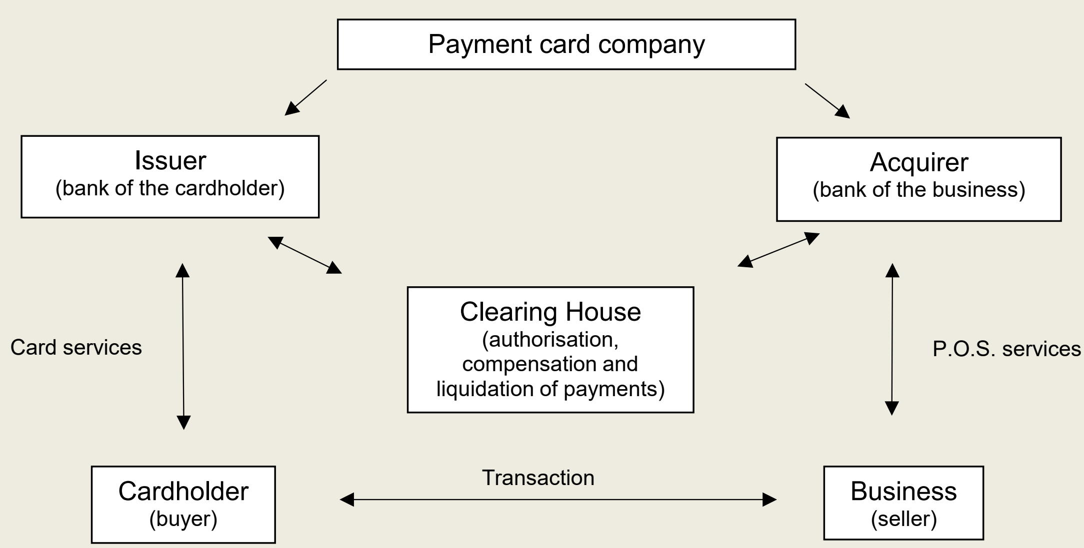
The authorisation process of a new clearing house participating in the digital payment system should be amended to guarantee impartiality. Currently, such authorisation is conditional on the technical approval of incumbent clearing houses, which are required to ensure interoperability among different payment systems. This technical approval, however, should be subject to a time limit, which is currently absent, thus provoking an excessively lengthy authorisation procedure. Also, the liquidity guarantee of digital payment transactions should be shifted from the company to the clearing house, who holds better information to evaluate the counterpart risk, to incentivise competition.

Vertical integration between banks participating to the digital payment system (issuers or acquirers) and the clearing house should be discouraged. The use of data collected by the clearing house grants the banks that hold a control participation in the clearing house an anticompetitive information advantage in marketing their products. The Competition authority has recently suggested that such banks should sell shares corresponding to at least 51% of the capital of the clearing house. To avoid anticompetitive behaviours, the bylaws of firms operating in the digital payment market (issuers, acquirers or a different clearing house) should ban the hiring of former executive staff of a clearing house (COFECE 2020).

Box 2.5. The payment card market in Mexico

The payment cards market is a two-sided market where a payment card company acts as a platform by selling card services to cardholders (buyers) and, through a point-of-sale terminal (POS), to businesses (sellers). The card payment system can be closed or open. In the closed system the credit card company directly provides POS services to sellers and issues cards to buyers, without intermediaries. In the open system, instead, a payment card company provides card and POS services to buyers and sellers indirectly through banks or other financial intermediaries (Figure 2.28). Accordingly, cardholders buy card services from a bank (issuer) and businesses buy POS services from another bank (acquirer). In an open card payment system, when a cardholder buys a product from a seller, the transaction is cleared at the level of the two banks by a clearing house, which is responsible of the authentication, authorisation, compensation and liquidation of any card payment.

Figure 2.28. What does an open card payment system look like?



In Mexico there is a closed credit card payment system, which is operated by American Express, and a single domestic open payment system where two other card payment companies (VISA and MasterCard) operate. The rules and operational standards of the domestic payment system are set by the Mexican Bank Association (*Asociación de Bancos de México*). So far, four clearing houses have been authorised to operate in the domestic card payment system: Prosa (owned by Banorte, Santander, HSBC and Scotiabank), E-Global (owned by BBVA and CITIBANAMEX), Visa Mexico and MasterCard Mexico. However, so far Visa Mexico and MasterCard Mexico have not yet become operational.

Realising FinTech's potential

Fintech has the potential to accelerate the development of digital payments, boost financial inclusion and increase competition in the financial system. Such potential remains so far unrealised. Mexico was a pioneer with the Fintech law in 2018, however, its full effects have not yet materialised since a slow authorisation process of new fintech firms was experienced in part related to a natural learning curve experienced during the initial phase of implementation of the law. However, the aforementioned challenges are expected to dissipate over time. As of mid- October 2021, out of the around 76 fintech firms who demanded for operating in the digital payment and crowdfunding markets, 17 have received full authorisation and 37 a conditional authorisation subject to providing missing documentations or complementary information, and will get the full status once complied with such requirements.

Financial innovations appear still insufficient to promote the necessary level of investment that would ensure adequate security and efficiency in the digital payment system. Technical disruptions that limit the availability of digital payments are frequent and the number of digital frauds is increasing, with online financial frauds representing 70% of all financial frauds in the first quarter of 2021. This has negative repercussions on the level of trust in digital payments and their diffusion. Temporary regulatory sandboxes for fintechs, allowed by the Fintech Law, have the potential to promote financial innovations (OECD, 2020[75]) by enabling fintechs to experiment with new financial products and services temporarily and in a controlled environment. The access could become permanent conditional on the absence of security issues following a congruent observational period. Promoting financial innovations would multiply the potential of fintech-bank relationship that have proved beneficial for financial inclusion in several countries (Box 2.6).

Box 2.6. Fintech-bank partnerships

Fintech-bank partnership may increase financial inclusion by providing low-income consumers affordable financial services (credit and savings, person-to-person transactions, business-to-person transactions) through technologies including biometric identification, on-boarding, cloud computing and open application programming interfaces (APIs) (to facilitate integration of IT systems within and between institutions, and across sectors, thus promoting competition and transparency) and distributed ledger technology to make verification and completing transactions faster and easier. These partnerships are also mutually beneficial. Banks benefit from the possibility of offering new products, reaching a larger customer base and improving product efficiency and customer experience. Fintechs get access to capital and scale their technology.

One of the fintech areas with great potential for financial inclusion is the deployment of artificial intelligence (AI) models in lending, to reduce the cost of credit underwriting and facilitate the extension of credit to 'thin file' clients, potentially promoting financial inclusion (OECD, 2021). The use of AI can create efficiencies in data processing for the assessment of creditworthiness of prospective borrowers, enhance the underwriting decision-making process and improve the lending portfolio management. It can also allow for the provision of credit ratings to 'unscored' clients with limited credit history, supporting the financing of the real economy (SMEs) and potentially promoting financial inclusion of underbanked populations (OECD, 2021). AI techniques and models are frequently outsourced to third-party fintechs, except in the case of large financial institutions with in-house capabilities to build such products.

Partnership aimed at reaching unbanked segments of the population.

Fintechs can help financial institutions reaching unbanked segments of the population via on-boarding, as digital technologies overcome physical barriers and long distances and reduce the cost of acquiring and serving low-income segments of the population.

A bank-fintech partnership has extended insurance to 10 million customers in Africa and Asia through an IT platform designed to serve large volumes at lower costs. In South Africa, a bank-fintech partnership allowed 17 million beneficiaries of social grants to open a bank account and receive a debit card in 10 minutes by accessing public locations (churches, town halls).

Partnership offering mobile payments platforms to existing customers in the lower market segment.

Bank-fintech partnerships in India offer customers a blockchain payment network to safely transfer money through a free mobile wallet. In Ghana, a bank-fintech partnership developed a mobile payments platform for underbanked merchants that allows customers to open digital wallets and perform functions such as monitoring their finances, paying bills, sending money, making online and in store payments.

Partnership collecting and using customer data to better assess creditworthiness and design new products.

Fintechs can provide tools that use multiple data sources to achieve a more comprehensive understanding of the risk of customers who have limited or absent documentation (thin-file). Limits to the transfer and use of data from banking institutions to the fintech, and vice versa, set by national regulations however, may limit the scope of such initiatives.

In Colombia, a bank-fintech partnership has improved credit assessment for thin-file customer. In Spain, a financial institution increased the approval rate of credit to file-thin customers up to 70-80% from 0-20%, by adopting a new credit scoring risk model based on psychometric data developed by a fintech.

In India, the partnership between a small finance bank and a fintech has led to important efficiency gains in reaching underserved micro and small firms through the development of on boarding technology. In four years, loan processing time was reduced by 40%, the number of loans processed per agent rose by 50% and the customer base expanded by 230%.

Partnership increasing customer engagement and product usage.

In Mexico and Colombia, a bank-fintech partnership developed a two-way SMS communication platform aimed to increase customers' use of financial services. The platform sends tailored text messages to customers to remind and nudge them to save and become active users of bank services.

Source: Kelly, S., D. Ferenzy and A. McGrath (2017), "How Financial Institutions and Fintechs Are Partnering for Inclusion: Lessons from the Frontlines", *Center for Financial Inclusion, Mainstreaming Financial Inclusion best practice series.*

Fostering the digital finance ecosystem

The Central Bank, within its general strategy to promote financial inclusion (Box 2.7), created the platform *Cobro Digital* (CoDi) to facilitate the diffusion of digital payment. CoDi may be used for online and physical transactions and without costs for the users. To be able to access it, users (sellers and buyers) must have a bank account in a financial institution adhering to CoDi. Buyers, also need a 3G smartphone. Despite the increasing number of digital payments passing through CoDi since its launch in November 2019, its diffusion appears limited by communication issues. Recent survey-based evidence shows that only 10% of fixed broadband internet users know about the existence of CoDi, and just around 2% of them have ever used it (IFT, 2021[76]). Moreover, the use of CoDi among vulnerable groups may be limited, as they are less likely to hold a bank account or own a 3G mobile. Adding the option of using digital wallet applications within CoDi, possibly provided by fintechs, would increase the benefits from its use for consumers and facilitate its diffusion.

Mexico might increase the uptake of digital payments by exploiting the potential of digital instruments that are not dependent on bank accounts, as allowed by the 2018 Fintech Law. Cash-in cash-out (CICO) networks, that enable customers to convert cash into digital money, and vice versa, and to transfer it via mobile, proved to be very effective in promoting financial inclusion in Kenya. Within two years from its introduction, the CICO network M-pesa, became the dominant money transfer mechanism in Kenya, thanks to a widespread cellular network and the ability to transfer money instantly, securely and inexpensively through an extensive network of outlets (Mbiti and Weil, 2011[77]) where customers may deposit money in return for digital currency (e-float) by showing a valid identification. The digital currency can then be transferred via phone, even to recipients not registered in the network. By increasing the volume of money in circulation, the M-pesa promoted growth through the expansion of many small businesses (Haas, Plyler and Nagayaran, 2010[78]).

Recent policy initiatives should provide Mexico with a unique digital identity registry, which is currently missing in Mexico. The share of adults with an identity document in Mexico is 89% (Global Findex 2017), below Costa Rica, Brazil and Peru (98%) or Chile (99%). The Mexican identity registry (*Registro Nacional de Población*, RENAPO) reported that 0.8% of the Mexican population, mostly underage and indigenous population, lacked an official identity document (INEGI, 2015[79]). More importantly, the identity system was fragmented, with several institutions issuing each a different identity document, but without a coordination mechanism to centralise all the information. This has so far prevented the creation of a unique identification registry.

In 2020 the government created a digital identity document, to be used in all public administrations, and a digital National Population Registry, that should be operative within the next two years. The digital identity connected to a unique registry will boost the development of digital on boarding, which has the potential to speed up and reduce administrative burdens involved with contracting digital financial products, as well as reduce the probability of digital frauds and identity theft, thus increasing consumer protection. Developing digital on boarding would improve the process of identification and verification of new customers, making it easier for individual to open an account, simplifying documentation requirements, minimising the costs of creating an account remotely and facilitating the delivery of financial services.

An adequate regulatory framework is a further prerequisite for developing digital on boarding successfully. In 2020 the CNBV, also in reaction to social distancing measures implemented during the pandemics, simplified the regulation on digital on boarding and extended its scope, by including corporates, and its coverage, by allowing *sociedades financieras populares*, a non-profit deposit taking institutions, to use digital on-boarding. In September 2021 new regulation extends digital on-boarding to remotely open accounts, sign contracts and validate transactions to brokerage houses, investment funds, small banks and other non-banks deposit-taking institutions and credit cooperatives.

Policymakers should continue to promote open finance and further support data-sharing initiatives that would improve credit risks assessment and financial inclusion. In compliance with the 2018 FinTech law, a new regulation has established in 2020 procedures on data sharing among clearing houses. This is a positive step in favour of open banking. However, further interventions would be beneficial, such as establishing open platforms where pooling data relevant for credit assessment originating from different data repositories such as credit reporting service providers (CRSPs), court records, company registry, public utilities payments and collateral registry; public information such as tax filing, company registration and other government services could also be digitalised and made available. The minimum reporting threshold could be reduced or eliminated and credit information sharing made mandatory. Expanding the scope of data available for credit assessment would help to build credit history and adopt alternative indicators of credit worthiness that would benefit the most vulnerable individuals and firms, especially SMEs, with limited or no credit history (Box 2.6). In the future, the development of a biometric registry system could make possible the creation of a single platform connecting all public institutions, thus greatly reducing administrative costs for businesses and citizenships.

The development of open finance would also greatly benefit from the creation of the unique identifier for individuals and unregistered MSMEs or company/legal registration number for registered MSMEs, as data from all providers could be easily linked to the same individual or MSMEs. However, authorities should also encourage transparency and disclosure of scoring methodologies of CRSPs that use alternative data to deal with the opaqueness over the use of alternative data.

Box 2.7. The strategy of the Central Bank to promote financial inclusion

The Central Bank of Mexico aims to promote transparency, efficiency and competition in the provision of financial services, while ensuring consumers protection. In carrying out its function of oversight over the financial system it strikes a balance between harnessing the opportunities provided by technological innovation to expand financial inclusion and limiting the risks for the stability of the financial system and the consumers represented by the introduction into financial markets of new products and new players. More generally, the strategy followed by the Central Bank in exerting its oversight over the area of digital financial services is summarised by the following principles:

1) Adopting the principle of “same activity, same risk same regulation”.

2) Enforcing interoperability and net neutrality in the offer of digital financial services.

3) Fostering competition and avoiding mergers among dominant players.

4) Ensuring operational continuity with large providers.

5) Achieving international coordination to address jurisdictional gaps.

6) Ensuring full customer protection.

7) Strengthening the standards for cybersecurity.

Boosting digital skills to facilitate diffusion of digital financial services

In Mexico there are still too few students with the skills to thrive in the digital era, as shown by an average PISA score in reading, math and science that is below the average OECD country (see chapter 1). Early disadvantage in acquiring foundation skills leads to further disadvantages when it comes to the acquisition of further skills and competencies later in life and policies should aim at a widespread diffusion of basic literacy and numeracy skills (OECD, 2020[80]). The acquisition of a good level of cognitive skills and a higher educational attainment appear to enable a more diverse and complex internet use (OECD, 2020[61]), including of digital financial tools.

Excessive cost of training and lack of time because of child care responsibilities are the two main barriers to access training for informal workers and non-workers, having prevented around half of them from engaging in training despite willing to do so (Box 2.8). Strengthening the child care network, as discussed in Chapter 1, would facilitate women’s uptake of training opportunities and help them to improve their digital skills. Vouchers, grants, stipends and scholarship targeting digital skill training can help to reduce or eliminate the direct and opportunity costs of skills training for informal workers. Drawing on OECD country experience in basic skills programmes, free digital skill programmes could be provided via specialised centres (as in Flanders in Belgium and Ontario in Canada) or through a system of vouchers which individuals may use in training centres of their choice (as in Vienna in Austria) (OECD, 2017[81]; OECD/ILO, 2019[82]; Palmer, 2020[83]).

Box 2.8. Has Mexico the right skills to embrace digitalisation?

The 2018 Survey of Adults Skills (OECD, 2019[63]) provides a framework to compare Mexico's relative performance in adults' proficiency in key cognitive skills (literacy, numeracy and problem solving), and on how these skills are used at home, at work and in the wider community. Less than 1% adults in Mexico achieves high proficiency in numeracy, literacy and 10% in problem solving, which is far below the performance of the average OECD country in each cognitive skill. (Table 2.1. Moreover, a large proportion of adults (around 39%) lacks very basic computer skills in Mexico.

Numeracy and literacy present the largest regional gaps in average proficiency (Figure 2.29), with Ciudad de Mexico and Northern states having the best performance.

Table 2.1. Few adults in Mexico have a high level of cognitive skills in comparison to the average OECD country

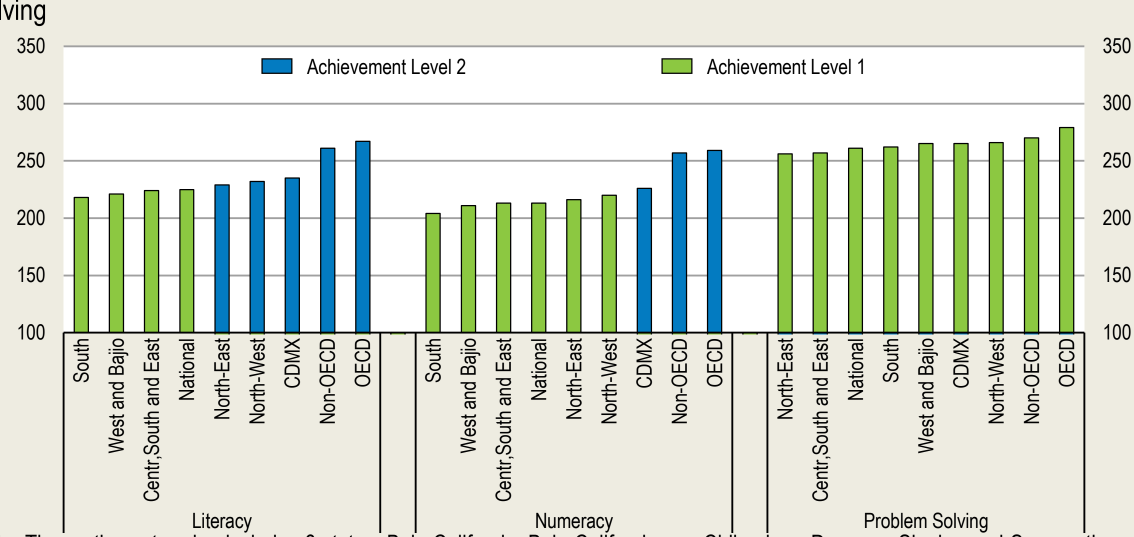
Proportion of adults (aged 16-65) achieving the two highest level of proficiency in numeracy, literacy and problem solving

	OECD	Mexico
Literacy	10%	0.8%
Numeracy	11%	0.7%
Problem Solving	30%	10%

Note: The two highest level of proficiency in numeracy and literacy are 4 and 5; in problem solving they are 2 and 3.
Source: OECD 2019, Mexico country note Survey of adults skills results.

Figure 2.29. Mexico has large regional gaps in cognitive skills

Proportion of adults (aged 16-65) achieving the two highest level of proficiency in numeracy, literacy and problem solving



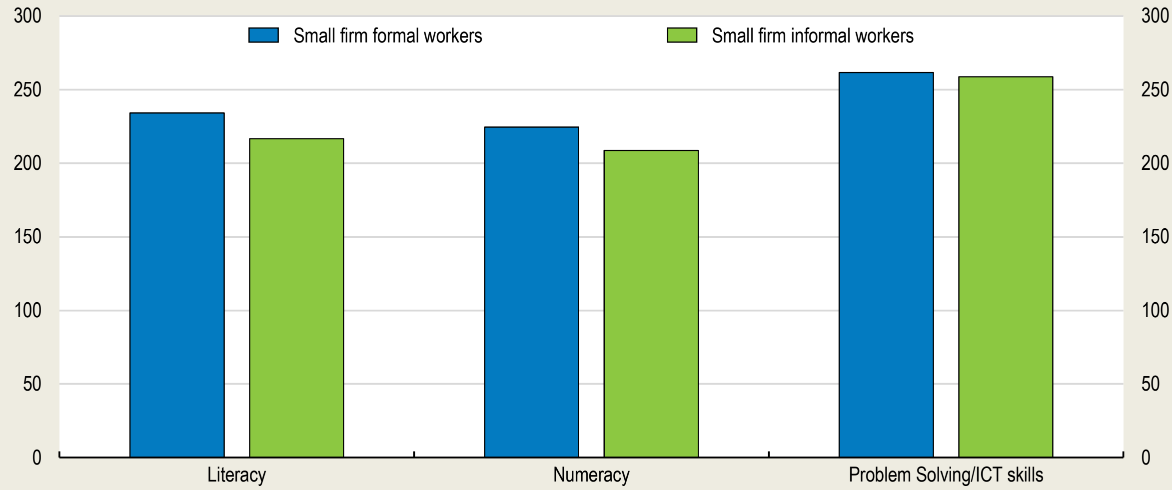
Note: The north-west region includes 6 states: Baja-California, Baja-California sur, Chihuahua, Durango, Sinaloa and Sonora; the region North-East includes 4 states: Cohauila, Nuevo Leon, San Luis Potosi and Tamaulipas; the region West and Bajio includes 8 states: Aguascalientes, Colima, Guanajuato, Jalisco, Michoacán, Nayarit, Queretaro and Zacatecas; the region of Centre, South and West includes 6 states: Hidalgo, Mexico, Morelos, Puebla, Tlaxcala and Veracruz; the South region includes 7 states: Campeche, Chiapas, Guerrero, Oaxaca, Quintana Roo, Tabasco and Yucatan. Ciudad de Mexico is considered as a region by itself. In the numeracy and literacy domain a score range [0-175] corresponds to an achievement level below 1; the score range [176 - 225] corresponds to an achievement level 1, the score range [226 - 275] corresponds to an achievement level 2, the score range 276 - 325] corresponds to an achievement level 3, the score range 326 - 375] corresponds to an achievement level 4, the score range [376 - 500] corresponds to the maximum achievement level 5. in the problem solving domain a score range [0-240] corresponds to an achievement level below 1, the score range [241 - 290] corresponds to an achievement level 1, the score range [291 - 340] corresponds to an achievement level 2, the score range [341 -500] corresponds to the maximum achievement level 3.
Source: Survey of adult skills (PIAAC) 2018, OECD calculations.

StatLink https://stat.link/yw4vg2

Informal workers have on average lower levels of cognitive skills than formal workers (Figure 2.30) and achieve worse education attainment. Informal workers and non-workers are also less likely to receive training than formal workers, and when they receive some training it is of shorter duration.

Figure 2.30. Informal workers have lower cognitive skills than formal ones

Score points, 2018



Source: Survey of adult skills (PIAAC) 2018, OECD calculations.

StatLink https://stat.link/c8nev9

Access to funding for training is a relevant barrier for informal workers: among those of them who have received training, only slightly more than half received funding from their employer, compared to 85% of formal workers.

Mexico has set up important initiatives to promote digital skills and inclusion. The online platform *MexicoX* offers over 230 courses for specialised and academic training for teachers and has benefitted more than 1.5 million users. The program *@prende.mx* has provided schools with technological equipment, knowledge-sharing platforms for teachers on using technology as part of the learning process, and has run pilot projects aimed at improving students' access to digital technology. An assessment on the effectiveness of these policies on broader education outcomes or skills development would be useful. Moreover, more attention should be devoted to low-skilled workers that will increasingly face pressures to upskill and reskill as a consequences of the digital revolution.

Table 2.2. Policy recommendations from this chapter

MAIN FINDINGS	CHAPTER 2 (Key recommendations are bolded)
Boosting firms and individuals access to finance	
Access to finance by firms and households is low. SMEs' access to credit is hampered by high interest rate margins and information asymmetries. Contract enforcement is hampered by long, complex and costly legal procedures.	**Strengthen the credit registry system by ensuring that all lenders are able to access all credit history information.** Increase the use of alternative source of information (e.g. public utility companies' records) to develop credit scores for informal firms. Accelerate the establishment of specialised commercial courts throughout states and improve courts infrastructure.
Few companies participate in the stock market.	Simplify requirements and reduce costs for SMEs to participate in the stock market.
Financial exclusion is prevalent among informal workers, adults with low-income and living in rural areas.	Promote the use of alternative digital data generated from transactions between households and firms (payments of utilities, loan payments) and between individuals and the government, to improve credit risk assessment of (especially low-income) individuals. Increase the number of social programmes delivered through bank accounts as to include all programmes run by the federal government, states and municipalities.
Mistrust of financial product is a barrier to the use of financial products and few adults are aware that bank deposits enjoy public protection.	Increase awareness of consumer protection legislation and zero-commission bank accounts by promoting communication campaigns, organising public events and cooperating with stakeholders.
Regional gaps in financial education are large and financial knowledge does not translate into healthy financial behaviours (ability to respect a budget, make payments on time).	Reform financial education programmes to reinforce the practice of respecting a budget, making payments on time and encouraging voluntary savings. Focus financial education on low-income adults, by granting compulsory courses to the beneficiaries of social benefits.
Promoting digital financial markets and the use of digital payments	
Digitalisation and Fintech can widen access to finance but their impact is hampered by barriers in digital payment markets and low digital skills.	**Upgrade digital payment regulation to facilitate entry in the payment card market.** Eliminate uncertainty in secondary regulation on which rules (operational standards and costs) apply to transactions involving two clearing houses. Modify the regulation requiring the approval of incumbent clearing houses to ensure impartiality. **Modify the school curriculum to strengthen digital literacy from a young age and upskill teachers' digital capacity.**
Low financial innovation causes technical disruptions and a high fraud rate in the digital payments system.	Monitor and, if necessary, upgrade regulation to promote the use of regulatory sandboxes for fintechs to experiment with new financial products in a controlled environment.
Access to fixed broadband is low and expensive.	Increase competition in the fixed broadband market by facilitating the entry of new providers.
Preference for cash hinders the diffusion of digital payments.	Create incentives for the use of digital payments via cash rebates, government sponsored lotteries or consumer rewards.
The business sector lags behind other countries in the adoption of digital technologies.	Monitor and, if necessary, increase the funding of government programmes that support micro and SMEs (technical assistance, grants) selling online.

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MEXICO

Mexico is recovering from a pandemic that had deep economic and social impacts. Informal workers, women and youth were particularly hit, exacerbating long-standing social challenges. Mexico's solid macroeconomic policy framework safeguarded macroeconomic stability. But medium term growth prospects have weakened and growth over the past two decades has been low. Poverty rates and regional inequalities remain high. Informality, financial exclusion or corruption have hindered productivity growth. Low female participation rates and weak investment since 2015 have also impacted medium-term growth prospects. Maintaining and strengthening Mexico's solid macroeconomic policy framework is key for stability. The ability of fiscal policy to smooth out economic cycles and support growth during recessions can be enhanced, creating more space for public investment. Rebooting private investment and turning around low productivity growth are fundamental priorities. This will require comprehensive reforms to improve business regulations, boost competition, reduce informality and corruption and transition towards carbon neutrality. Widening access to finance and strengthening digitalization would provide more equal opportunities and help to boost growth.

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