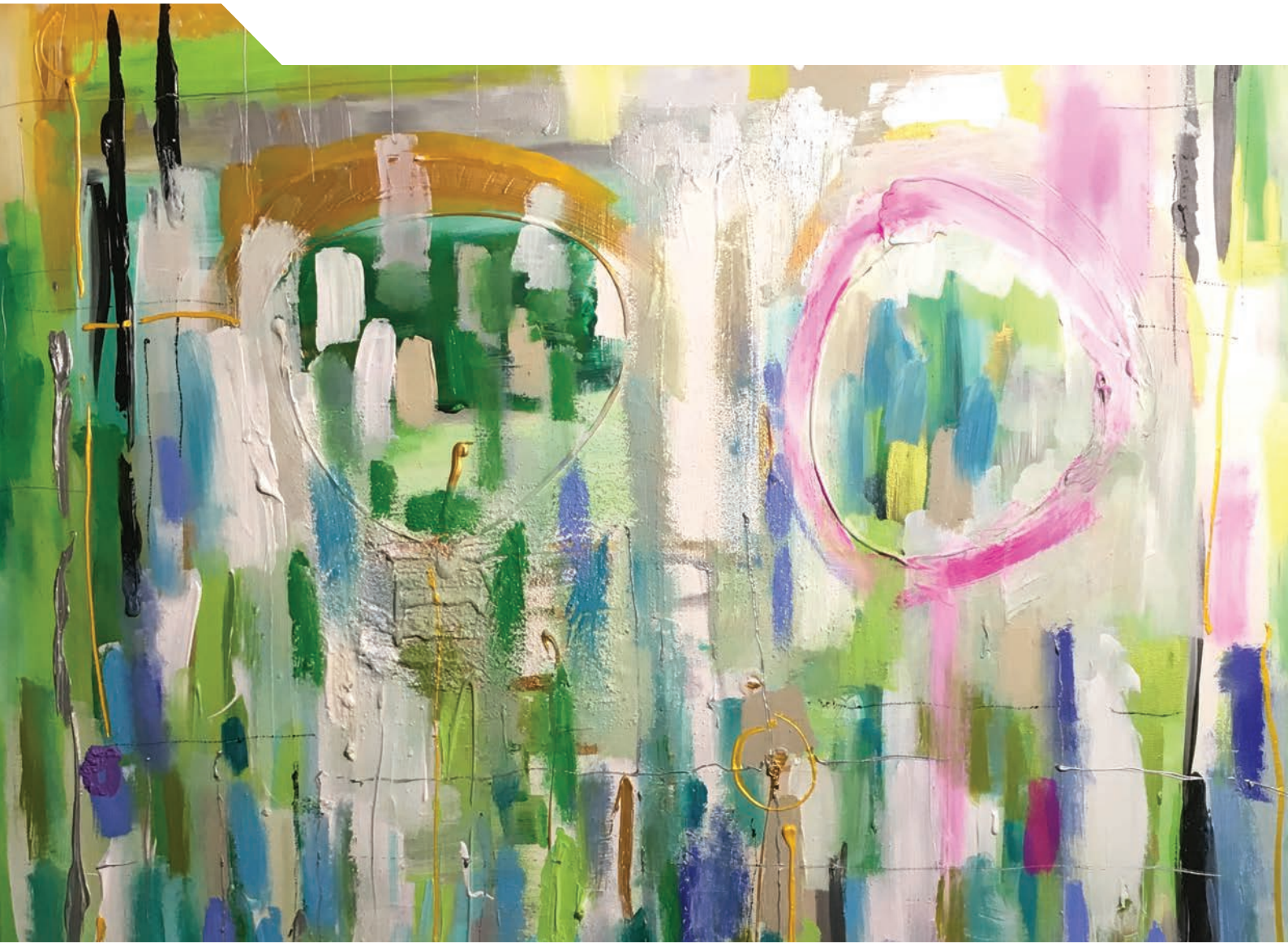
Getting it Right

STRATEGIC PRIORITIES FOR MEXICO



OECD

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STRATEGIC PRIORITIES FOR MEXICO

OECD
BETTER POLICIES FOR BETTER LIVES

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Foreword

I am pleased to present the third edition of the *Getting it Right* series for Mexico, which brings together the multidisciplinary knowledge of the Organisation for Economic Co-operation and Development (OECD) on the progress achieved and challenges being faced by Mexico. It provides analysis and recommendations from the perspective of international best practices in public policy aimed at promoting a more solid, sustainable and inclusive growth.

During the past five years, Mexico has launched a very ambitious reform package to face challenges in areas of public policy that were in need of structural changes for decades. The Pact for Mexico, a historic agreement signed by the three main political parties of the country, laid the foundations for promoting a series of reforms in areas crucial to the development of Mexico, including the labour market, budgetary policy, the financial sector, telecommunications, economic competition, the education system and the energy sector; to which other reforms – on electoral policy, the national code of criminal procedure and the law on *amparo* (protection of constitutional rights) – were added.

The OECD supported the Mexican government in the design, promotion and implementation of many of these reforms and estimated that the effective implementation of a subset of these could add up to two percentage points to its GDP growth over a period of just five years. Indeed, some concrete results are already visible. The proportion of informal workers has been reduced by three percentage points, providing more workers – particularly the most vulnerable – with access to stable income, training opportunities and financial services, as well as health and pension coverage. The reach of health services and education has improved, as well as educational performance, even in the case of underperforming students. The prices of broadband Internet services have been reduced by up to 75%, while the number of subscriptions has increased by about 50 million. Committed investments in the energy sector already amount to 175 billion dollars. These are examples of some very important achievements. It is worth recognising this progress.

However, there is still much to be done. Most Mexicans still live in conditions of poverty and vulnerability. Inequality remains extremely high, both in terms of income and opportunities, and also across different regions. For example, living in one of the worst-off states can mean being four times as likely to be at risk of poverty and seven times as likely to drop out of school and work longer hours for lower pay than people living in the better-off states. In addition, despite the progress, nearly 30 million people are part of the informal workforce, without access to stable income, training opportunities, financial services or health or pension coverage. Mexico lags behind many of its OECD peers in the educational performance of 15-year-olds and in terms of the school dropout rate. The application of the rule of law continues to be weak, especially at the state and municipal levels, and more than 60% of the population perceives government corruption as widespread. It is not surprising that Mexico's productivity is still the lowest in the OECD and that growth in productivity is still slow.

Mexico needs to redouble its efforts and continue to improve its policies in order to promote a more resilient, more inclusive and more sustainable growth. It is very important that the next government of Mexico starts from the basis of the reforms implemented, adjusts them, improves them and supplements them with a second wave of reforms in various areas of public policy. More work needs to be done in order to strengthen institutions, increase government capacities at the subnational level, combat corruption and reinforce the rule of law. The proper functioning of the public sector is a prerequisite for the effective implementation of reforms in other areas. Moreover, implementing additional reforms of the tax system is crucial to strengthen its collection capacity, its effectiveness and its redistributive potential. Mexico needs to increase tax revenue to finance the necessary investment in infrastructure, education, health, poverty reduction, family support and social security. At the same time, a multi-dimensional strategy to combat informality is required, focused on increasing the benefits of the formal economy, reducing the costs of joining it and strengthening the evaluation of regulations. Meanwhile the transparency and efficiency of the use of public resources need to be improved.

The OECD is ready to maintain and further strengthen this solid partnership with Mexico. We are ready and eager to support the next government in its own reform process, through the analysis of the country's challenges, the proposal of public policies to face them and the commitment to support the implementation of legislative and institutional changes. We hope that this document will help to feed the national debate in these pre-electoral times and lay the foundations for a new era of collaboration between the Mexican government and the OECD in order to continue designing, developing and implementing better policies for a better life in Mexico.

Acknowledgements

This report is part of the OECD series of publications *Getting It Right*, which was conceptualised and launched by Chief of Staff and Sherpa Gabriela Ramos in 2006. This is the third edition of the series, which presents a detailed assessment of the economic challenges faced by member countries and partners at the time of a democratic transition and provides analysis and international comparisons to support the design of public policies.

The publication was supervised and co-ordinated by Gabriela Ramos and Isabell Koske, with the support of Tara Marwah and Francesca Bertolino. Juan Yermo contributed substantive inputs. The authors of the various chapters would like to thank the following OECD officials for their valuable contributions: Carlotta Balestra, Anna Bolengo, Boele Bonthuis, Simon Buckle, Miguel Cárdenas Rodríguez, Luisa Dressler, Kate Eklin, Dana Ghandour, Pedro Herrera Giménez, Antonio Gomes, Jean-Jacques Hible, Katia Karousakis, Xavier Leflaive, Patrick Lenain, Virginie Marchal, Petur Matthiasson, Mariana Mirabile, Michael Mullan, Edward Perry, Andrew Reilly, Oriana Romano, Ronald Steenblik, Megha Sud, Elena Tosetto, Christine Uriarte and Kurt van Dender. Isabelle Renaud provided production and administrative support.

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Chapter 1

Introduction

*Gabriela Ilian Ramos and Isabell Koske**

In the last few years, Mexico has launched the most ambitious reform package of its recent history, becoming the OECD leader in terms of the promotion and implementation of structural reforms. Some of these reforms have already started to bear fruit in key areas for Mexico's development, such as education, energy, telecommunications, tax revenue and informality. However, this effort must be continued with effective implementation, and there must be no going back. Other reforms, in particular relating to institutional change, must be introduced in order to enhance the quality of both public policies and institutions. In many aspects of well-being, including education, health and security, among others, Mexico still lags behind the OECD average and regional development remains very uneven. The role of the State and its efficiency should be reinforced to provide an appropriate framework where business and citizens can progress. Advancing in this direction is crucial for Mexico's development. The capacity of the public sector is weak, both in terms of human and financial resources, corruption remains widespread and the rule of law is weak, all hindering the effective implementation of policies. These factors, along with widespread poverty, vulnerability and inequality, hold back economic growth and prevent it from being translated into gains in well-being, as Mexico is not using all available talent. Mexico has taken measures to tackle these issues, but important implementation gaps remain. Moreover, reform efforts have not always gone far enough. It will be important for the next government to build on the current reform efforts, ensuring the full and effective implementation of already legislated changes, adjusting them as needed and improving them to take gains even further. Additional reforms should be launched in several priority areas, including the rule of law, institution building, education and social protection. A strategy focused on inclusive growth and productivity must be endorsed. Only then will Mexico be able to deliver a higher quality of life for all its people.

* The authors would like to thank Mario López Roldán for his contribution to the development and fine-tuning of this chapter's messages.

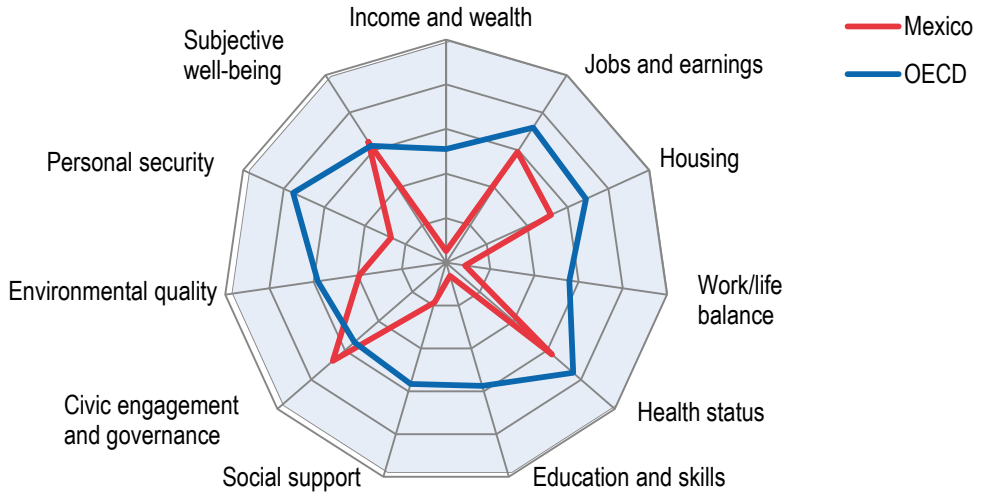
Mexico is now the world's 11th largest economy (in terms of gross domestic product [GDP] measured at purchasing power parity). Over the past three decades, the country has gone through tremendous structural changes that transformed a relatively protected, oil-dependent economy in the early 1990s into a booming manufacturing, international investment and export centre. Mexico has strategically promoted free trade and integration into global value chains (GVCs) and is increasingly becoming an international trade hub. Mexico is now a top global exporter of cars and flat screen TVs, among other products.

Despite this important progress, well-being still lags behind the OECD average in many areas (Figure 1.1). Notwithstanding the decrease in marginality, 53 million people still lived in poverty in 2016 (43% of the Mexican population) (Figure 1.2), according to a broader measure by CONEVAL (*Consejo Nacional de Evaluación de la Política de Desarrollo Social*), which accounts for different dimensions of well-being. Indeed, according to these estimates, most Mexicans live in either poverty or vulnerability (based on CONEVAL data, only 22.6% of the population is "not poor" and "not vulnerable"). At the same time, income and well-being inequalities are still among the highest in the OECD.

Employment and earnings in Mexico remain below the OECD average, and work/life balance is still unsatisfactory, as the country ranks second in terms of the number of employees working for 50 hours or more per week. Inter-regional disparities are still significant. Living in one of the worst-off states can mean being four times as likely to be at risk of poverty and seven times as likely to work longer hours for lower pay than people living in the better-off states.

FIGURE 1.1. **HOW'S LIFE IN MEXICO?**

Mexico's average level of well-being relative to other OECD countries, latest available year



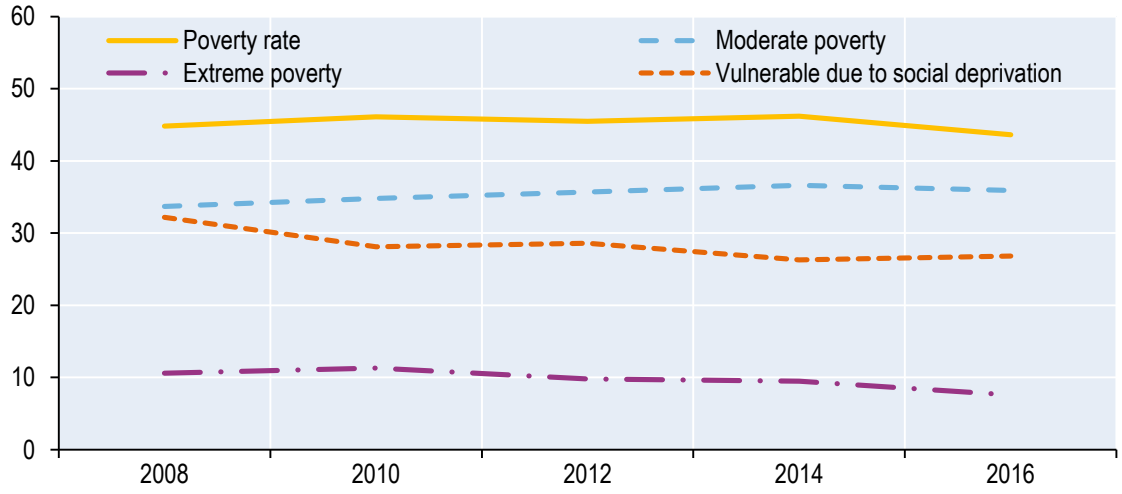
Note: Each well-being dimension is measured using one to four indicators from the OECD Better Life Initiative set. Normalised indicators are averaged with equal weights. Indicators are normalised by re-scaling (linearly) to be from 0 (worst) to 10 (best).
Source: OECD (2017), *Better Life Initiative 2017*, http://www.oecd.org/statistics/better-life-initiative.htm.

Personal security is a concern for many Mexicans: Mexico has the highest homicide rate in the OECD, with around 16 homicides per 100 000 people in 2015 according to the World Bank. In addition, only 46% of people report feeling safe walking alone at night in the area where they live, compared to an OECD average of 68%. Mexico also still performs below the OECD average in terms of its environmental performance. Only 67% of people say they are satisfied with the quality of their water, considerably lower than the OECD average of 81%, and one of the lowest rates in the OECD.

All these issues have a regional dimension. For instance, regional gaps in education outcomes are large, and differences in informality and poverty rates among Mexican states are staggering. Furthermore, anti-competitive practices vary widely, which hinders entrepreneurship. Although financial inclusion, a key enabler of economic growth, poverty reduction and women's empowerment, remains a nationwide concern, it has improved considerably in some municipalities.

FIGURE 1.2. **WHILE POVERTY HAS STARTED TO FALL ON SOME MEASURES, IT REMAINS VERY HIGH**

Poverty rates as a percentage, measured in terms of income and six social dimensions of well-being



Note: The multi-dimensional poverty measure considers income plus the following six social dimensions of well-being: access to social security; access to basic education; access to health services; access to food; housing quality and space; and access to basic services within the housing unit. The population in extreme poverty is the group whose income cannot ensure adequate nutrition (based on the minimum welfare line) and that is deprived in at least three of the six social indicators. The population in poverty includes those whose income cannot ensure adequate access to nutrition and basic services (the welfare line) and who are deprived in at least one of the social indicators. Moderate poverty represents the share of the population that is poor, but not extremely poor. The category of "vulnerable due to social deprivation" represents the share of the population who are deprived in at least one of the social indicators.

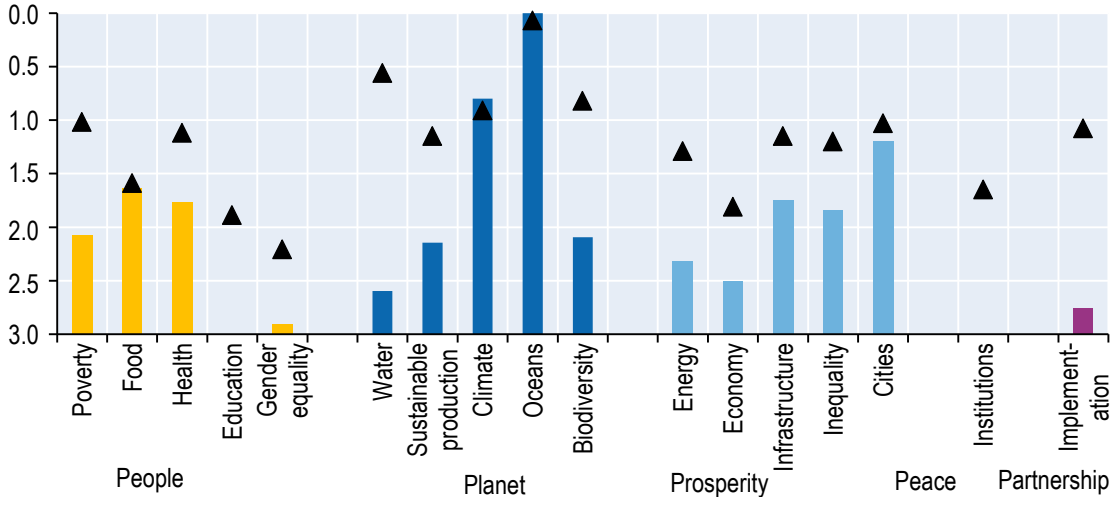
Source: Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL).

Mexico's mixed performance in terms of well-being is also reflected in the country's position on the Sustainable Development Goals (SDGs). Mexico is on average closer to reaching the goals in the Planet category than the goals in the other categories (Figure 1.3). Gaps are particularly wide on education, institutions and gender equality (SDGs 4, 5 and 16). Mexico is either ahead of, or fairly close to, the OECD average distance on several goals, including food,

climate change, oceans and cities (SDGs 2, 11, 13 and 14). On other goals, Mexico is further from achieving the SDG targets than the OECD average, and considerably so on education, water, biodiversity, institutions and implementation (SDGs 4, 6, 15, 16 and 17). Mexico places a high importance on the SDGs, as signalled by the establishment of a National Council of the 2030 Agenda for Sustainable Development, which is headed by the President and includes representation from 32 state governments, 20 federal agencies, international agencies, the private sector and universities. The National Development Plan 2013-18 is considered the central instrument for aligning and ensuring coherence with the SDGs.

FIGURE 1.3. **MEXICO STILL HAS SOME WAY TO GO TO ACHIEVE THE SDGS**

Current distance from reaching the Goals and the 5Ps of the 2030 Agenda



Note: This figure shows Mexico's distance to travel towards each of the 17 Goals of the 2030 Agenda. The y-axis indicates the distance from reaching the target in standardised units. 0 indicates that the level for 2030 has already been attained, and the axis starts at 3 as most OECD countries have already attained this level. Distances to target are aggregated at the goal level (all targets weighted equally). To make the level of achievement within the country more distinct, in this figure, data on Official Development Assistance (ODA) are excluded in Goals 1 to 16. Nonetheless, total ODA, ODA focusing on capacity building and national planning, as well as ODA commitments to statistical capacity building, are included in Goal 17 "implementation" and under Partnership.

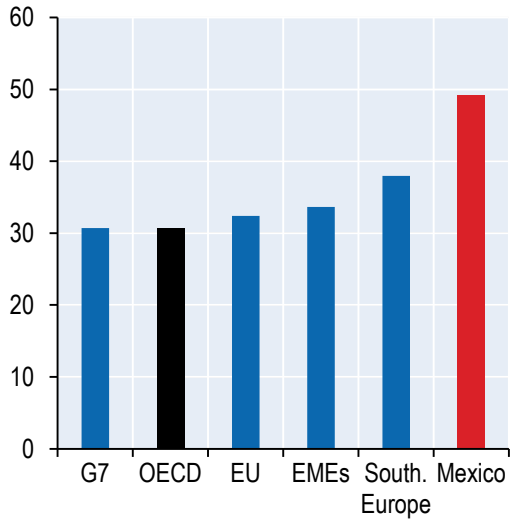
Source: OECD (2017), *Measuring Distance to the SDG Targets: An Assessment of where OECD Countries Stand*, www.oecd.org/std/OECD-Measuring-Distance-to-SDG-Targets.pdf.

Ambitious reforms have been launched to tackle Mexico's long-standing problems, but much more work lies ahead

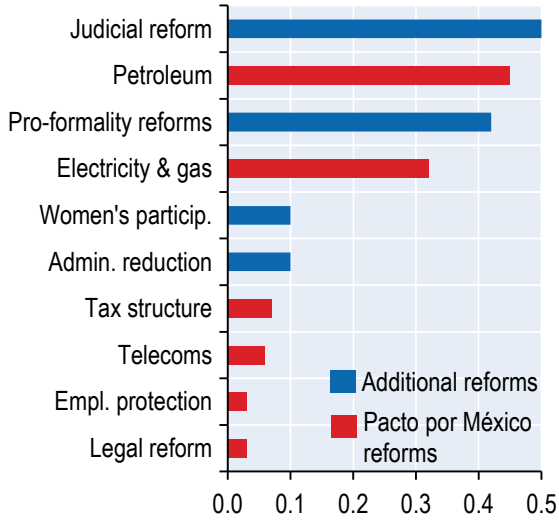
Since 2012, the government has enacted major structural reforms aimed at strengthening growth, improving well-being and fostering equality. The initial wave of reforms, kicked off by the multi-partisan political commitments in the *Pacto por México*, has led to notable progress across a range of areas and has put Mexico at the forefront of reformers among OECD countries (Figure 1.4). Key laws and constitutional amendments were approved, and secondary laws or regulations passed (Table 1.1).

FIGURE 1.4. **MEXICO'S HIGH REFORM ACTIVITY IS CONTRIBUTING TO BETTER ECONOMIC PERFORMANCE**

A. Share of OECD *Going for Growth* recommendations with significant action taken, 2013-16, in percentage



B. Expected boost to annual growth on average over the five years following reform, in percentage



Note: Panel A: EU includes OECD member countries that are also part of the EU. Emerging market economies (EMEs) include Brazil, Chile, Colombia, Hungary, India, Indonesia, Mexico, People's Republic of China (hereafter "China"), Poland, South Africa and Turkey. Southern Europe includes Greece, Italy, Portugal and Spain.

Sources: OECD (2017a), *Economic Policy Reforms 2017: Going for Growth*, http://dx.doi.org/10.1787/growth-2017-en; OECD (2015), *OECD Economic Surveys: Mexico 2015*, http://dx.doi.org/10.1787/eco_surveys-mex-2015-en.

A sound macroeconomic policy framework has allowed for growth to be resilient amid a challenging global environment. Although uncertainty regarding a potential globalisation backlash has recently curtailed investment, non-oil exports have remained robust, owing to Mexico's high level of integration into global value chains. Although the collapse in oil prices reduced government revenues and led to cutbacks in energy sector investments, the tax policy reform enacted in 2014 proved timely and allowed to offset this effect. Tax revenues have increased recently, helping the government to contain the fiscal deficit and attain its fiscal consolidation objectives.

Strong efforts have been made to open sectors such as energy and telecoms to more competition. Institutional settings have improved with the establishment of a new National Productivity Commission, independent competition authorities and an expanded number of sector regulators, while their independence has also been strengthened. OECD estimates suggest that a subset of Mexico's reforms could add two percentage points to GDP growth after five years (Figure 1.4, panel B). Some impact is already showing up in the data, especially on productivity growth, which is picking up (Figure 1.5). Moreover, in the telecom sector, the number of mobile broadband subscriptions rose from 24 million in 2012 to over 74 million in 2016, while prices for mobile telecommunication services declined by 61% for the OECD medium-usage basket and by 75% for the OECD high-usage basket. These achievements are helping advance Mexico's transition to a digital economy.

TABLE 1.1. **MEXICO HAS LAUNCHED AN AMBITIOUS SET OF REFORMS**

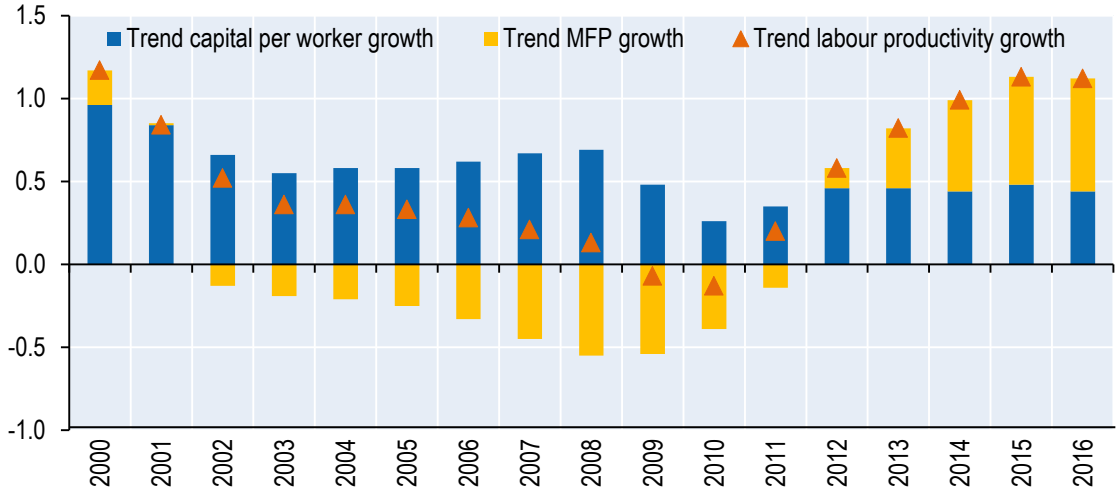
Key reforms launched since 2012 and their goals

Structural reforms	Purpose of the reform
Reforms with implementation well advanced	
Tax policy reform	Raise more revenue, reduce dependency on oil revenues, plug tax loopholes, enlarge the tax base, increase progressivity and simplify the tax system. Strengthen enforcement.
Financial sector liberalisation	Provide more access to credit at a lower cost and improve competition in the banking sector.
Telecommunications and broadcasting reform	Protect consumer interests, by promoting competition to reduce the cost of telecom services and increase access.
Election system reform	Increase women's participation in political life; allow re-election of mayors and parliamentarians by 2018.
Competition policy and regulatory reform	Strengthen competition policy and improve the regulatory environment.
Energy market openness	Open the oil and gas sector to private operators; liberalise the electricity sector.
Reforms with gaps in implementation	
Labour market reform and tackling informality	Improve incentives to join the formal sector and update and upgrade Mexico's labour laws.
Education reform	Substantially revamp the education system and introduce a "new education model", which seeks to promote equality of opportunities by harmonising access to good quality education, reducing inequities across schools, institutionalising teacher and general education system evaluation and strengthening school autonomy.
Anti-corruption and transparency reform	Strengthen the National Anti-corruption System and step up sanctions to those convicted of corruption, and improve public sector transparency and public governance.
Judicial reform	Improve the efficiency of the justice system.
Innovation system reform	Boost research and development, and infrastructure; develop more clusters and special economic zones. Promote digitalisation.
Fiscal federalism	Strengthen fiscal responsibility at the subnational level.
Reforms that have not advanced enough	
Modernisation of agriculture	Promote farm consolidation and private sector investment in agriculture by relaxing rigidities in land tenure system and removing disincentives on land privatisation.
Unemployment insurance, pensions and social benefits	Reduce income risks related to unemployment and boost the incomes of the elderly poor.
Health system reform	Further integrate, expand and improve the health system.

Source: OECD Secretariat.

FIGURE 1.5. **THANKS TO THE AMBITIOUS REFORMS PRODUCTIVITY GROWTH IS STRENGTHENING**

Trend in labour productivity growth, as a percentage



Note: MFP = multi-factor productivity.

Source: OECD (2018), *The Global Forum on Productivity – Compare Your Country Tool*, http://www.oecd.org/global-forum-productivity/data/.

To tackle high levels of poverty and inequality, Mexico has implemented significant social programmes, which have increased coverage and benefits. For instance, PROSPERA, the cash transfer programme, has proven successful in increasing school attendance, fighting malnutrition and providing extended health care to poor families. Helped by these investments and Mexico's National Inclusion Strategy, the share of people living on less than 50% of the median income fell by two percentage points during 2012-14.

With the aim of fighting informality, the government stepped up supervision for firms with 50 or fewer employees. It introduced labour, tax and social security reforms, simplifying tax compliance and substantially reducing personal, social security, value added and excise tax obligations for the first decade of firms' operation. These reforms, which include incentives to help new firms expand (including access to government-backed financing and training and a series of electronic tools to simplify tax compliance), have induced 1.5 million informal firms to join the tax system since 2014. A dynamic service sector is also supporting formal employment growth, taking the unemployment rate to a ten-year low.

To improve learning outcomes, Mexico launched important education reforms that work towards putting students and schools at the centre of the system. Mexico's new education model was introduced in 2017 with the aim of ensuring that children receive a quality education that prepares them for 21st-century challenges. Mexico has also made efforts to improve school environments, invest in more and better infrastructure, refine evaluation and assessment practices, foster equity and inclusion, and raise the quality of the teaching profession. The 2013 Professional Teaching Service (*Servicio Profesional Docente*) established a teacher evaluation system that appraised almost 87% of teachers on a voluntary basis in 2016. After making some adjustments to the process, the National Institute for Educational Assessment and Evaluation (*Instituto Nacional para la Evaluación de la Educación*, INEE) reintroduced the mandatory nature of teacher appraisal in 2017. These evaluations are a major step towards improving Mexico's education system and by all means need to be continued. As a consequence of the reform, the education system now focuses on learning outcomes, with the students at the centre of this effort.

To close gender gaps in labour market outcomes, gender equality budgets have been increased, with major resources dedicated to advancing women's economic autonomy. Public scholarships are keeping more girls in upper secondary school. An increase in the quantity and quality of childcare centres is giving mothers more childcare options – a key tool for improving women's labour force participation. Women's access to financial services was improved by strengthening the programmes of the National Development Bank. In 2017, financial sector regulation was changed to enhance women's participation in boards and decision-making positions in companies listed on the Mexican Stock Exchange. To advance gender equality in public institutions, Mexico incorporated a gender perspective in its National Development Plan 2013-18, among others, and introduced gender parity with the 2014 electoral reform. As a result, Mexico now has the highest female representation in Congress in the OECD. Mexico has also adopted laws against harassment and discrimination in the workplace, and a general law against violence against women.

Mexico has also launched important reforms to better protect the environment. The government ratified the Paris Agreement and is unconditionally committed to reducing greenhouse gas (GHG) emissions and short-lived climate pollutants, implying a 22% reduction of GHG emissions and a 51% reduction of black carbon, relative to current levels, by 2030. Changes to the climate change law now mandate the creation of a cap-and-trade system. Progress in improving access to drinking water and sanitation has also been considerable and the government has taken steps to raise the efficiency of water use. Water use tariffs have been significantly increased since 2014, and incentives to better use and treat water have been introduced. To better protect its precious biodiversity, the government established 11 new protected areas between 2009 and 2015, increasing coverage to 91 million hectares. Mexico also uses a range of other policy tools to conserve and sustainably use biodiversity, including subsidies and payment for ecosystem services (PES). In fact, Mexico's PES programme is one of the world's largest.

However, while this set of reforms has laid the foundation for higher prosperity and well-being, it is just a first step. Fully implementing the legislative and institutional changes is now crucial to ensure continuity and allow the reforms to show the desired effects. Moreover, reform implementation has been slow in areas that are essential to guarantee the effectiveness of the overall reform process, notably in fighting corruption, enhancing transparency and improving the rule of law and the functioning of the judicial system (Table 1.1). For example, while reforms such as the establishment of the National Anti-corruption System created a good foundation to fight corruption, implementation is still a work in progress. Mexico is in the midst of appointing several key positions, including the Anti-corruption Attorney, and states are still developing the necessary legal reforms to implement local anti-corruption systems. Moreover, reforms have not always gone far enough. This is in particular the case for public governance reform, but also in the areas of pensions and health care.

Public sector weaknesses are the main impediment to progress as they hamper the effective implementation of policies

Strengthening Mexico's public sector is a prerequisite if the country wants to achieve stronger, greener and more inclusive growth. As with economic performance, there are wide disparities in the capacities of the public sector between the national and the regional level and across different regions. The federal government, along with some state governments, has been able to build a more capable workforce and an institutional setting that provides more certainty and effective services. However, institutional capacity is weak on average and progress made in the economic and social institutional infrastructure (in terms of

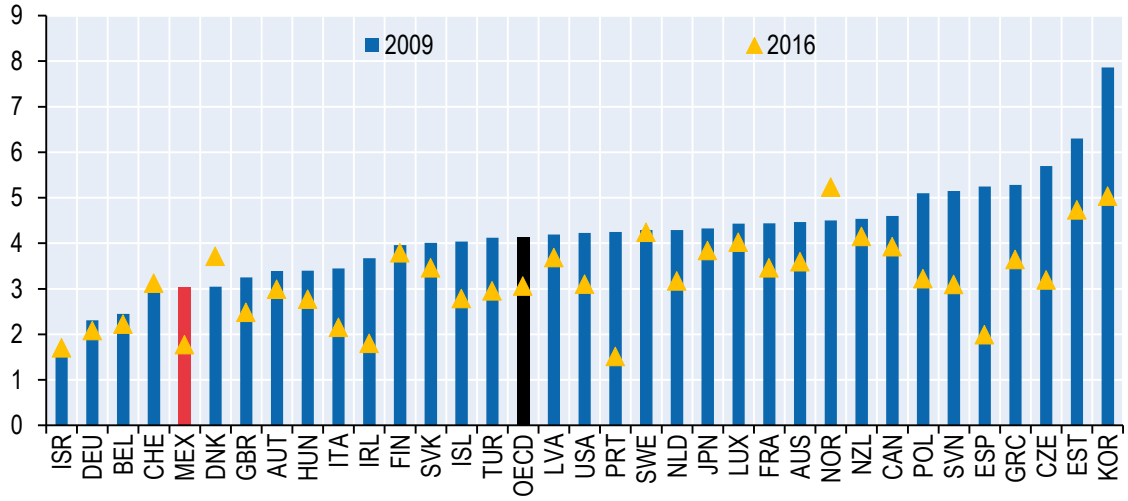
effectiveness and access) has not been followed by improvements in the judicial system and the rule of law, both of which are still weak in international comparison. In addition, insufficient public revenues hamper the government's ability to fulfil its obligations in terms of infrastructure investment and social spending.

While tax revenues have increased thanks to the 2014 tax reform, they remain very low in international comparison. Revenues are too low to foster sustainable development and support the necessary spending on infrastructure, education, health care, poverty reduction, family support and social protection. Government investment is low by international comparison and, in fact, has declined in recent years (Figure 1.6). While there is room to improve the efficiency of spending, there is also potential to raise additional tax revenues, including by broadening the tax bases and adjusting the tax mix by stepping up taxes on immovable property and environmentally related taxes. A more decisive fight against informality and corruption would improve tax collection and enhance the redistributive role of its tax system. A co-operative effort is needed to provide the State with the necessary capacities to boost development, human and financial resources, competencies and skills, and tools to fight corruption. Strengthening governance is particularly important at the regional level, where there is still high institutional disparity and, in many cases, widespread corruption.

Even though successive governments have worked towards improving the functioning of Mexico's public sector (e.g. the possibility to re-elect municipal leaders for more than one term has recently been made possible), institutional capacity remains low and uneven, especially at the state and local levels. A majority of municipalities, for example, lack a professional workforce. Policy delivery is further hampered by unclear and overlapping responsibilities across levels of government along with inadequate resources. While the share of states and municipalities of total public expenditure is in line with the OECD average of federal countries, the difference between taxing power and spending responsibilities is larger in Mexico. In fact, Mexico's subnational governments have one of the lowest shares of resources from tax revenue among OECD countries.

FIGURE 1.6. **GOVERNMENT INVESTMENT IS FALLING**

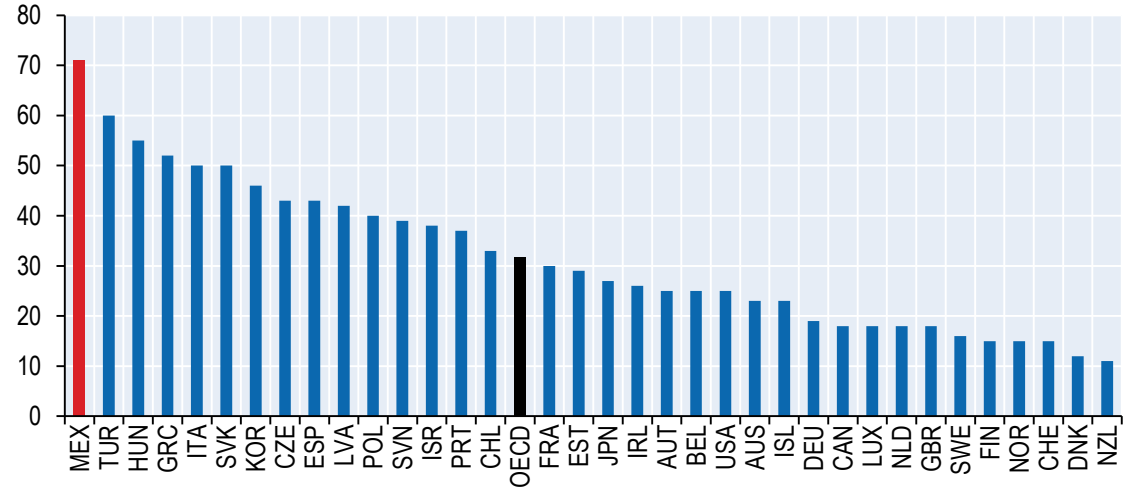
Government investment as percentage of GDP



Source: OECD National Accounts Statistics (database).

FIGURE 1.7. **MEXICO IS THE POOREST PERFORMER FOR CORRUPTION ACROSS THE OECD**

Perceived level of public sector corruption,
index from 100 (most corrupt) to 0 (least corrupt), 2017



Source: Transparency International (2017), *Corruption Perceptions Index.*

Corruption and the perception of corruption also remain major issues, both at the national level, but even more so at the local level. More than 60% of people believe that government corruption is widespread (Figure 1.7). Advancing reforms in this area is therefore absolutely critical. Corruption hinders the effective implementation of policies not only because it skews the system to benefit those who are in a position to pay bribes, but also because it erodes people's and firms' trust in government. Moreover, it means that significant amounts of money are not spent in a way that would advance the Mexican economy (e.g. on productive investments by firms).

Also, Mexico's justice system faces immense challenges, notably in terms of credibility, effectiveness, timeliness and integrity. For instance, in 2016, 83% of Mexicans perceived the judiciary as corrupt, well above the OECD average of 65%. In addition, unequal access to justice remains a major issue. To better meet justice needs, Mexico has amended its Constitution and other laws to facilitate the enforcement of constitutional rights. It has also profoundly changed its criminal justice system, which is key to improving personal safety and the rule of law. The challenge is now to ensure coherent public policy on justice and security both across states and the federal level and across all justice stakeholders at each level of government. Moreover, addressing the lack of training of criminal justice stakeholders, from police to lawyers and judges, is crucial.

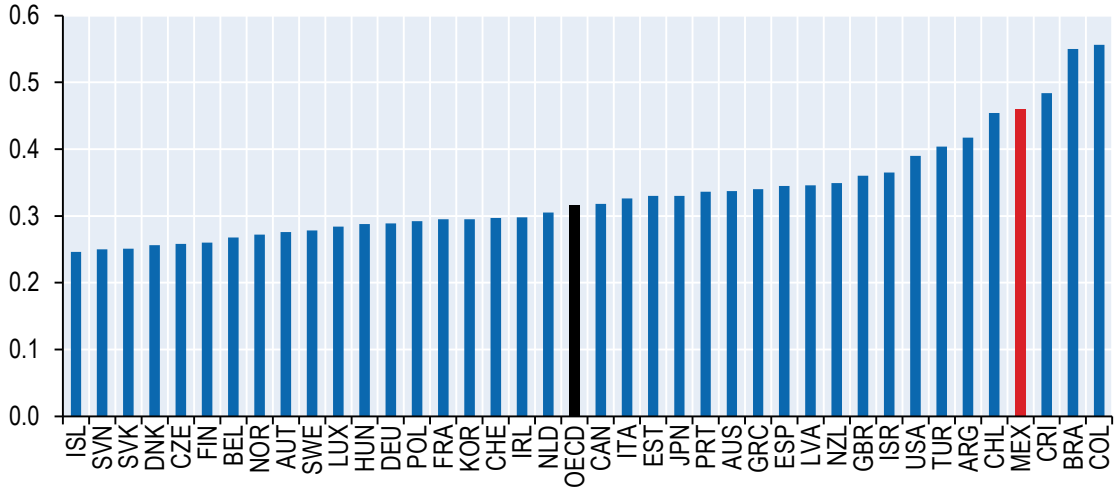
Advancing inclusion is not only important from a social perspective, it is also a prerequisite for Mexico to realise its economic potential

In 2014, inequality of disposable income as measured by the Gini coefficient was 0.46 (Figure 1.8). This measure is down from about 0.50 in the mid-1990s, but still about 50% higher than the OECD average of 0.315. The decline in relative income poverty since the late 1990s has slowed and it is still high in comparison to other OECD countries and some Latin American countries at similar levels of per capita GDP. In 2014, almost 17% of Mexicans had an income after taxes and transfers of less than the median, almost twice the OECD average. Mexico's tax and transfer system, in fact, does little to improve equality. The difference between inequality (as measured by the Gini coefficient) before and after taxes and transfers is the lowest in the OECD. Moreover, despite improvements, Mexico's social safety net remains weak.

These high levels of income inequality hamper both economic and social progress in Mexico as people from lower-income families are not able to live up to their potential. While Mexico has still a relatively young population, the demographic bonus is declining rapidly, raising the importance of fully using all available talent. As in other OECD countries, family background still has a strong impact on an individual's life chances. The education outcomes of children are strongly related to the socio-economic status and education of their parents. For instance, youth from high-income families are three times as likely to enrol in tertiary education as those from low-income families (Figure 1.9). A person's education level not only influences her means to improve her socio-economic conditions, but also her health outcomes. For example, in Mexico a 30-year-old man with tertiary education degree can expect to live 5.3 years longer than a 30-year-old man with education below upper secondary (Figure 1.9).

FIGURE 1.8. **INCOME INEQUALITY REMAINS VERY HIGH IN MEXICO**

Gini coefficient from 0 (perfect equality) to 1 (perfect inequality), 2015 or nearest available year

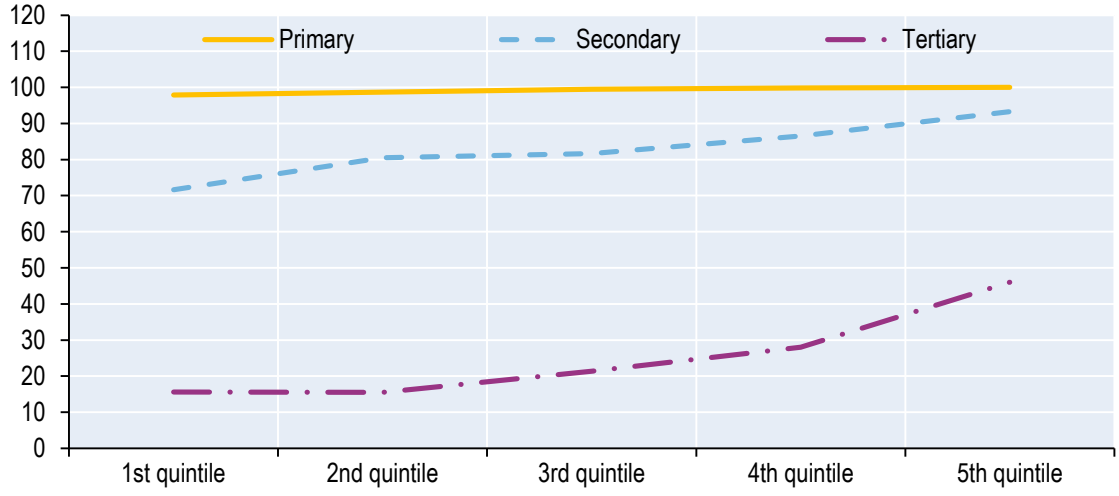


Note: Income defined as equivalised disposable household income.

Source: OECD Income Distribution Database, http://oe.cd/idd.

FIGURE 1.9. **YOUTH FROM HIGH-INCOME FAMILIES HAVE A HIGHER PROBABILITY OF ENROLLING IN TERTIARY EDUCATION THAN THOSE FROM LOW-INCOME FAMILIES**

Net enrolment rates by income decile, percentage, 2014



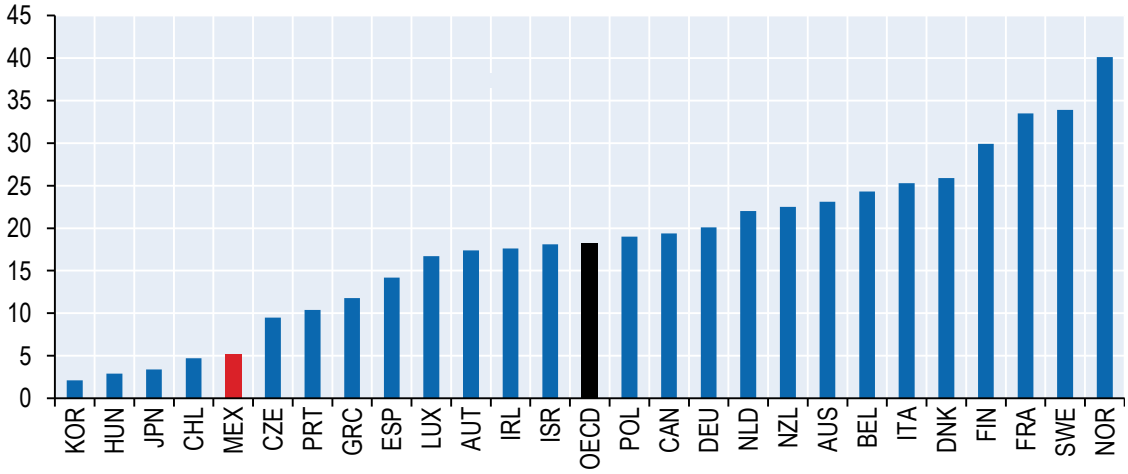
Source: SEDLAC and World Bank (2018), *Base de datos socioeconómica para América Latina y el Caribe.*

Similarly, persistent gender inequalities do not only reduce the well-being of women, but also limit the country's growth potential. While Mexico has made progress in increasing prime-age (25-54 years-old) women's participation in the labour force since the early 1990s, it remains lower than the OECD average and significantly lower than men's participation rate. OECD estimates suggest that halving the gender gap in labour force participation between Mexican men and women by 2040 could increase per capita GDP by nearly 0.2 percentage points, per year, over baseline projections. Mexican women earn on average 17% less than men, which is partly a result of women's career breaks, occupational and sector segregation in low-paid and

informal jobs, differences for paid and unpaid work hours, and discrimination in hiring and promotions (OECD, 2016a). The participation of mothers is particularly low, in part owing to the lack of good quality and affordable early childcare for children aged two and younger (for children aged three to five, the situation has improved over the last years). The gender gap in terms of family responsibilities is the highest among OECD countries, with Mexican women spending about four hours more than men on unpaid work per day. Also, less than 10% of seats on boards are held by women, a low level compared to other OECD countries (Figure 1.10). Moreover, while Mexican women are well represented in the Mexican Federal Public Administration (accounting for 51% of public employees in 2016), they fill only one-third of managerial positions. Despite progress, reducing violence and aggression against women and making inroads on access to justice continue to be pending items on the national agenda, as well as at the regional level, where performance is highly unequal. Focusing efforts on particularly vulnerable groups, such as single mothers, will be key to achieving real progress on this agenda.

FIGURE 1.10. **WOMEN TAKE UP FEWER LEADERSHIP POSITIONS THAN MEN**

Proportion of women on boards, 2015

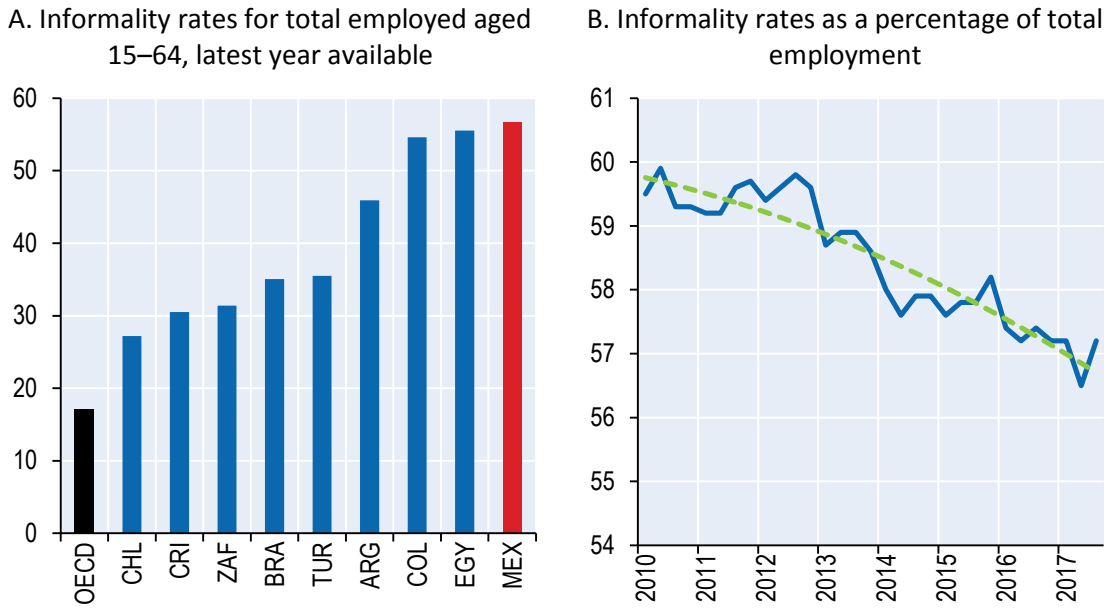


Source: OECD Labour Force Statistics Database and *MSCI ESG Research Survey of Women on Boards.*

Unequal access to opportunities by Mexico's indigenous people is another important obstacle to stronger and more inclusive growth. Indigenous people face persistent disadvantage and discrimination, and have lower rates of educational attainment, literacy and school attendance than non-indigenous Mexicans. Of indigenous Mexicans over age 15, 19% are illiterate compared to just 6% of non-indigenous Mexicans. Indigenous people also tend to be concentrated in lower-paying jobs. Designing effective policies that provide equal educational opportunities regardless of the socio-economic background, giving every student the same chance to succeed, is therefore crucial. Mexico also faces significant challenges in ensuring a good quality of life for those in old age. Old age poverty is much higher in Mexico, touching 25.6% of those over 65 in 2014, twice the OECD average. Pensions have a propensity to transmit a significant part of working life inequality to old age. On average, about two-thirds of the increase in wage inequality is transmitted to pension inequality in OECD countries, with Mexico close to the OECD average. The defined contribution system of individual accounts, introduced in 1997 for private-sector workers and in 2007 for public-sector workers, has been relatively successful in increasing the capacity of the Mexican economy to finance pensions.

However, contributions to the system are too low to guarantee pension benefits of more than 50% of final salary. Moreover, as the contributory pension system only covers formal sector workers who are in dependent employment and registered, a large part of the working-age population is not reached. Like all pension systems in OECD countries, the Mexican system has a non-contributory old-age social protection component for those individuals who have been unable to accumulate enough rights or assets, but the levels of this safety net are very low (6.2% of average earnings, OECD, 2017d).

FIGURE 1.11. **DESPITE SOME PROGRESS, INFORMALITY REMAINS HIGH**



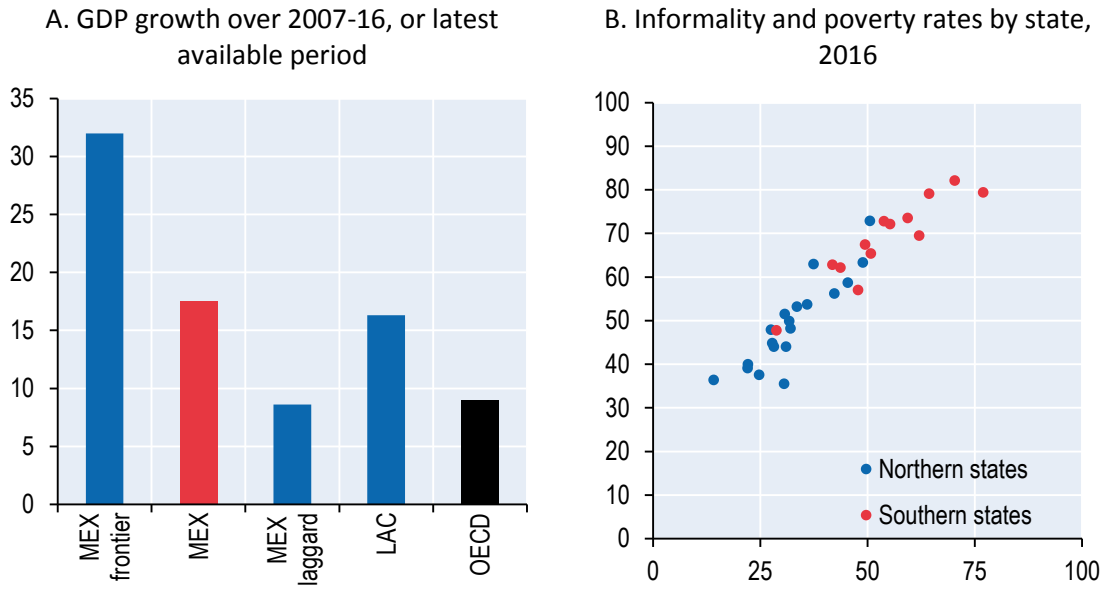
Note: In panel A, informality is defined to include: (i) employees who do not pay Social Security contributions, and (ii) self-employed who do not pay Social Security contributions (Chile, Costa Rica and Turkey), or whose business is not registered (Argentina, Brazil, Colombia, Egypt, Mexico, Peru and South Africa).

Sources: OECD (2016b), "Closing gender gaps in the labour markets of emerging economies: The unfinished job", in *OECD Employment Outlook 2016*, http://dx.doi.org/10.1787/empl_outlook-2016-8-en; OECD (2017c), *OECD Reviews of Labour Market and Social Policies: Costa Rica*, http://dx.doi.org/10.1787/9789264282773-en; INEGI, *Encuesta Nacional de Ocupación y Empleo.*

Informality remains widespread, amounting to close to 57% by the end of 2017 (Figure 1.11). Informality is concentrated in very small informal firms (which employ more than half of Mexico's informal workers) and in the South. Informality harms vulnerable workers by offering lower wages and fewer career progression opportunities, as well as excluding them from labour market and social protection regulations. Informality also represents a significant hurdle for the up-skilling of the Mexican workforce. First, firms in the informal sector do not provide learning and training opportunities and invest little (or not at all) in their workers. Second, the informal sector represents a viable alternative for students who drop out from education, halting the development of their skills in formal education or training. As a consequence, and also due to the resulting misallocation of resources, informality is a major drag on productivity.

The inequalities at the individual level are reproduced at the spatial level (Figure 1.12). Disparities between a highly productive modern economy in the North and in the Centre and a low-productivity, traditional economy in the South, have increased. Inter-regional differences in per capita GDP among small regions, as measured by the Gini index, were the second highest in the OECD in 2013, albeit the gap has decreased since 2008. The richest region was six times richer than the national average. Productivity in the region with the highest level, Campeche, was 12 times higher than in the least productive region, Chiapas.

FIGURE 1.12. **REGIONAL DISPARITIES REMAIN LARGE**



Note: Panel A: The fastest-growing states are: Mexico City, Querétaro, Nuevo León, Tabasco and Aguascalientes. The slowest-growing states are: Baja California, Baja California Sur, Chiapas, Nayarit and Tlaxcala. States most dependent on the oil sector (Campeche and Tamaulipas) are excluded since they suffered from both a deep recession since the collapse of oil prices and from the trend of declining oil production.

Source: INEGI and CONEVAL.

These spatial differences in economic performance are mirrored in differences in broader measures of well-being. Regional disparities are due to unequal resource endowments and investments, distance from markets, long-standing power imbalances, ethnic and racial disadvantage and institutional weaknesses (see below). Providing regions with the means to tap their full potential is crucial for stronger and more inclusive growth in Mexico. This implies investing in the capacity of regional and local governments to successfully design and deliver policies, but also in dearly needed transport and digital infrastructure to better connect laggard regions with the rest of Mexico and with other countries.

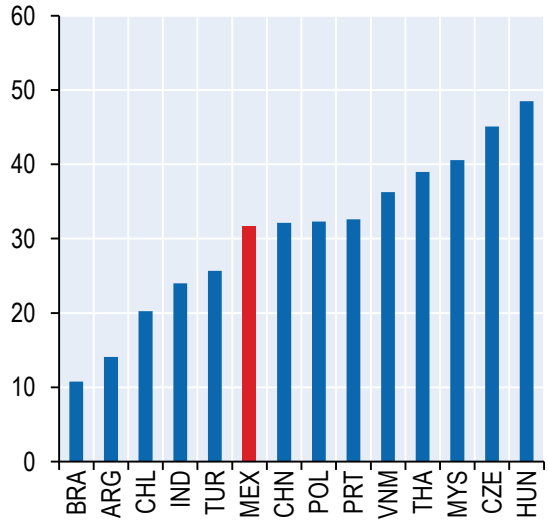
Building on recent competition-enhancing reforms is key to fully reap the benefits of globalisation and digitalisation

While Mexico's integration into global value chains (GVCs) is successful, it remains incomplete. Following the North American Free Trade Agreement, Mexico became the prime

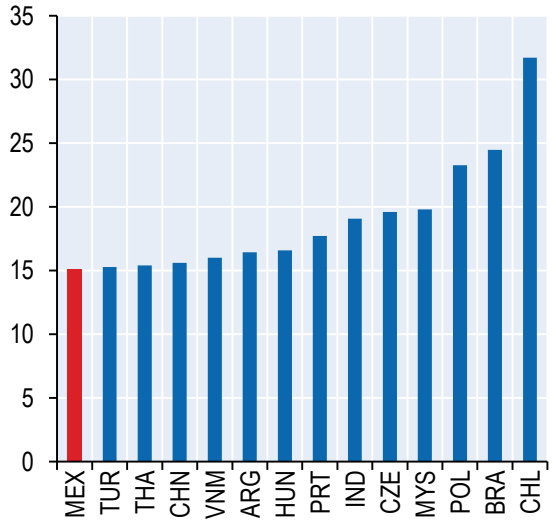
supplier of intermediate goods and assembler for the US manufacturing sector. Its integration into GVCs has therefore been mostly through its integration into the US business cycle, making the country very exposed to economic developments in the United States. In recent years, domestic content has increased and imported content declined, meaning that more domestic value added is present in Mexico's exports. Still, Mexico has room to do even better (Figure 1.13, panel A). Moreover, the share of Mexican value added embodied in foreign countries' exports is low by international comparison (Figure 1.13, panel B).

FIGURE 1.13. **MEXICO HAS ROOM TO FURTHER INTEGRATE INTO GLOBAL VALUE CHAINS**

A. Backward participation (share of foreign value added in Mexico's gross exports), 2011



B. Forward participation (share of domestic value added embodied in foreign countries' exports), 2011



Source: OECD (2017b), *OECD Economic Surveys: Mexico 2017*, http://dx.doi.org/10.1787/eco_surveys-mex-2017-en.

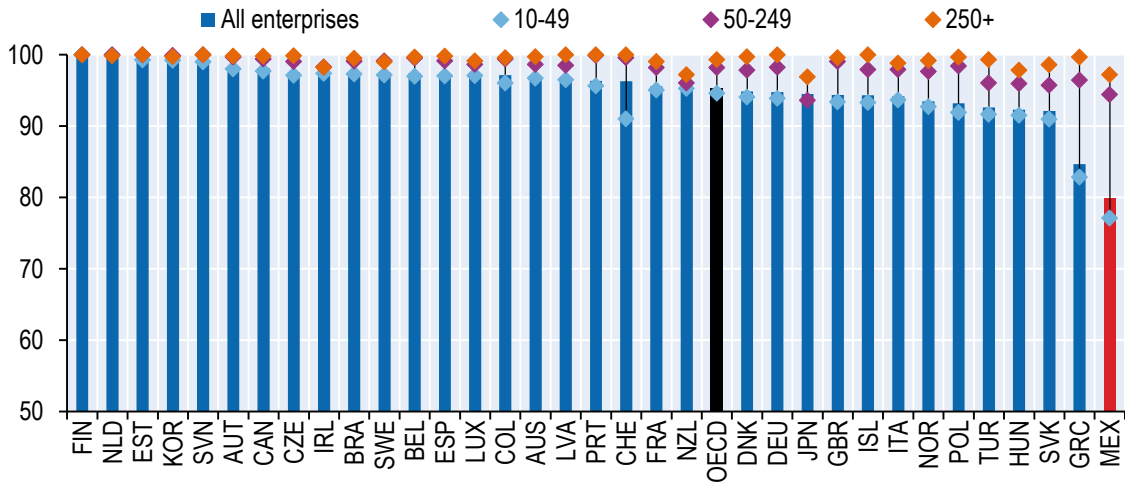
To draw more value-added from its global engagement, Mexico needs to further improve its capabilities in knowledge- and skill-intensive activities within GVCs. The highest level of value creation in a GVC is often found in certain upstream activities, such as new concept development, design, research and development (R&D), or the manufacturing of key parts and components, as well as in certain downstream activities, such as marketing, branding or customer service. Boosting innovation is vital for Mexico to move up value chains. Private sector R&D expenditure in Mexico is well below that of nearly all OECD and BRICS countries (Brazil, Russia, India, China and South Africa). Obstacles to raising the country's innovative potential include a weak domestic research and skills base, an underdeveloped knowledge-based start-up environment and institutional challenges. Co-operation between public and private research centres is weak and the early stage financing framework insufficient.

Further reducing barriers to foreign investment and services trade in productive sectors not yet well integrated into GVCs but with high comparative advantages is also important. While barriers to foreign investment and services trade have been reduced in key sectors – notably media and telecoms – a substantial gap remains to OECD best practice in nearly all sectors. In particular, sectors that are key determinants of GVC integration (e.g. logistics) have stringent

regulation. Despite important efforts to reduce administrative burdens, they remain substantial. More progress is particularly needed at the local and state levels, where entry barriers often remain substantial and high sectoral concentration persists. Greater harmonisation of rules with trading partners could yield a further boost to trade flows.

FIGURE 1.14. **MEXICO LAGS BEHIND OTHER OECD COUNTRIES IN TERMS OF ENTERPRISES' BROADBAND CONNECTIVITY**

Share of enterprises with a broadband connection, 2016



Notes: Except where otherwise stated, the sector coverage consists of all activities in manufacturing and non-financial market services. Only enterprises with ten or more employees are considered. Size classes are defined as: small (10–49 employees), medium (50–249 employees) and large (250 employees or more). For country exceptions, see note 2 at the end of the chapter.

Source: OECD, *ICT Access and Usage by Businesses* (database), http://oe.cd/bus.

Mexico is not yet fully reaping the benefits of the digital revolution. Employment in the information and communication technologies (ICT) sector is just above 1% of total employment and, in contrast to other OECD countries, has declined in recent years. The sector's contribution to private sector research is also low. In 2015, it accounted for only 0.17% of total business expenditure on R&D, well below the OECD average of 0.40%. Internet usage is low in Mexico, largely due to low skills. Only 85% of all 16-24 year-olds are using the Internet, compared to figures close to 100% in most other OECD countries. Similarly, the share of enterprises with a broadband connection in Mexico is well below that in other OECD countries (Figure 1.14).

Economic growth is coming at a cost to the environment, an important component of people's well-being

Mexico's per capita emissions of greenhouse gases – excluding most of those due to forest clearance – are well below the OECD average, but have been rising. Emissions per unit of GDP have declined very little over the past 25 years and are now not much below the OECD average. GDP growth since 1990 has been accompanied by a decline in energy intensity (total primary energy supply per unit of GDP), but in recent years the decline has faltered. The legal and institutional framework that Mexico has put in place provides a good basis to tackle these

issues. The problem going forward will be to deliver on the promises, which will require overcoming institutional weaknesses.

Avoiding water stress is another important issue for Mexico. The country still has the lowest rate of connection to public wastewater treatment plants in the OECD and water-use efficiency remains low by OECD standards. Due to population growth, Mexico will have to provide an additional 36 million people with drinking water and 40 million people with sanitation services over the next two decades, a significant challenge. Multi-level and river basin governance issues are an important obstacle to progress as are overlaps and gaps in regulatory functions and inconsistencies across water, agriculture and energy policies.

Mexico is one of the most biodiverse countries in the world, being home to more than 10% of the world's biodiversity. But Mexico's biodiversity and ecosystem services are under threat, with many species either "critically endangered", "endangered" or "vulnerable". Terrestrial biodiversity loss is caused by a multitude of factors, including the conversion of natural ecosystems for crop and livestock production; urban expansion; poor agriculture, livestock and forestry management practices; and infrastructure construction. Marine biodiversity loss is mostly due to overexploitation by fisheries, pollution from agricultural run-off and sewage, and habitat modification. Weaknesses in the institutional framework for biodiversity management are a key hindrance to tackling these problems effectively.

Fostering stronger, greener and more inclusive growth requires a set of bold reforms in several complementary policy areas

To tackle these challenges, Mexico needs to continue past reform efforts, ensuring the effective and full implementation of already legislated reforms and complementing them with additional reforms. In doing so, it is crucial for Mexico to realise complementarities between reforms in three different areas, namely reforms to continue building a highly competitive economy, reforms to foster inclusion and reforms to strengthen institutions. Making growth more inclusive will not only ensure that higher growth translates into widespread gains in well-being, but it will also help the pro-competitiveness reforms to reach their desired growth-effects by allowing firms to use all available talent. Improving the functioning of public institutions, including equipping them with the required financial and human resources, in turn, will help ensure an effective implementation of policies in the other two areas. For instance, they will allow a proper enforcement of the new competition law and the enhanced regulatory management framework, they will allow social policies to be well-targeted and provide sufficient support, and they will assure that public services are not skewed and mainly benefit the better off or well-connected.

This report has been prepared to help the next government of Mexico identify the necessary policy actions and prioritise them. It proposes an integrated package of policy recommendations destined to bolster growth and well-being and improve the lives of the Mexican people, based on experiences from OECD countries.

Chapters 2 to 4 investigate how Mexico can further strengthen its public sector to ensure the efficient and effective delivery of policies. Chapter 2 first looks into Mexico's tax and transfer

system, proposing ways to raise additional tax revenues, while at the same time identifying potential to improve the efficiency of spending. It also makes suggestions for how to raise the redistributive effect of Mexico's tax and transfer system. Chapter 3 focuses on Mexico's institutional framework, discussing measures to better fight corruption, make the judicial system more effective and strengthen the rule of law. Chapter 4 examines how Mexico can reduce the wide regional disparities in well-being by fostering greater fiscal, technical and human resource capacity, as well as transparency at state and local government levels. It also looks at how cities can better reap the productivity benefits associated with scale and how the tourism sector can be better used for regional development objectives.

Chapters 5 to 8 focus on making growth more inclusive to ensure that all Mexicans can contribute to and benefit from it. Chapter 5 discusses how Mexico can enhance the quality and equity of its education and skills system. Concentrating efforts on those at the bottom will be crucial; ensuring that the education system provides them with the tools they need is crucial. In particular, early childhood care and education is important in this regard since its impact on people's skills and dispositions lasts a lifetime. Chapter 6 then takes a look at Mexico's labour market and social policies, proposing ways to reduce informality, create more good-quality jobs and strengthen social protection. Chapter 7 investigates how Mexico can make further inroads on gender equality by removing barriers to paid work, fighting violence against women, changing social norms and expectations and mainstreaming gender in all policy areas. Chapter 8 takes a closer look at Mexico's health care system. While significant progress has been achieved in recent years on expanding health care coverage, low health care spending and high out-of-pocket costs lead to inequalities in access to quality services. Moreover, the fragmentation of the system remains a major issue as it leads to performance differences across sub-systems and states, gives rise to duplication and coverage gaps, and lowers the overall quality of care.

Chapter 9 discusses how Mexico can fully reap the benefits of globalisation and digitalisation by building on past competition-enhancing reforms and ensuring that they are more widely spread across firms, regions and people. Continuing the liberalisation in the energy and telecommunication sectors is crucial in this regard, but Mexico also needs to remove remaining barriers in services trade to further facilitate the country's integration into global value chains. Despite important progress, there is room to strengthen competition law even more, particularly as regards public procurement and combating bid rigging. Strengthening innovation policies is also crucial, not least to allow the country to fully reap the benefits of the digital transformation.

Chapter 10 looks into how Mexico can tackle its multiple environmental challenges as a clean and diverse environment is a key element of people's well-being. Delivering on the country's climate change commitments will require progressively increasing carbon taxes and ensuring that rates more uniformly reflect the carbon content of fuels. Strengthening the institutional framework for biodiversity management and reforming environmentally-harmful government support in sectors such as agriculture and fisheries are also important. Promoting water-use efficiency across sectors, allocating water where it creates most value and encouraging investment in water infrastructure will help Mexico address its water management challenges.

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Chapter 2

Strengthening Mexico's fiscal policy

Sónia Araújo, Bert Brys and Karolin Killmeier

While Mexico has made significant progress in strengthening its fiscal policy over recent years, revenues remain too low to finance spending on infrastructure, education, health care, poverty reduction, family support and social protection. Although there is room for improvement on the efficiency of public spending, potential to raise additional tax revenues clearly exists, including by broadening the tax bases and adjusting the tax mix by focusing more on immovable property and environmentally related taxes. A more decisive fight against informality would improve tax collection and enhance the redistributive role of its tax system. This has to be accompanied by a strong agenda to increase the effectiveness and transparency of public spending and the fight against corruption.

Fiscal policy is crucial for building fair and inclusive societies. Mexico has implemented numerous initiatives to strengthen its fiscal policy framework over the past decade and has also enacted important reforms to strengthen the quality of social spending. PROSPERA, the revamped cash transfer programme launched in 2014, following *Progresa* (launched in 1997) and *Oportunidades* (introduced in 2002), covers multi-dimensional needs such as health, education and nutrition, and also extends assistance to financial services and access to jobs. PROSPERA has been successful in raising school attendance, reducing malnutrition and extending health coverage to poor families. Mexico also took up the challenge of achieving the Sustainable Development Goals. It implemented an ambitious and timely tax reform in 2013-14, which was instrumental in raising non-oil tax revenue collection.

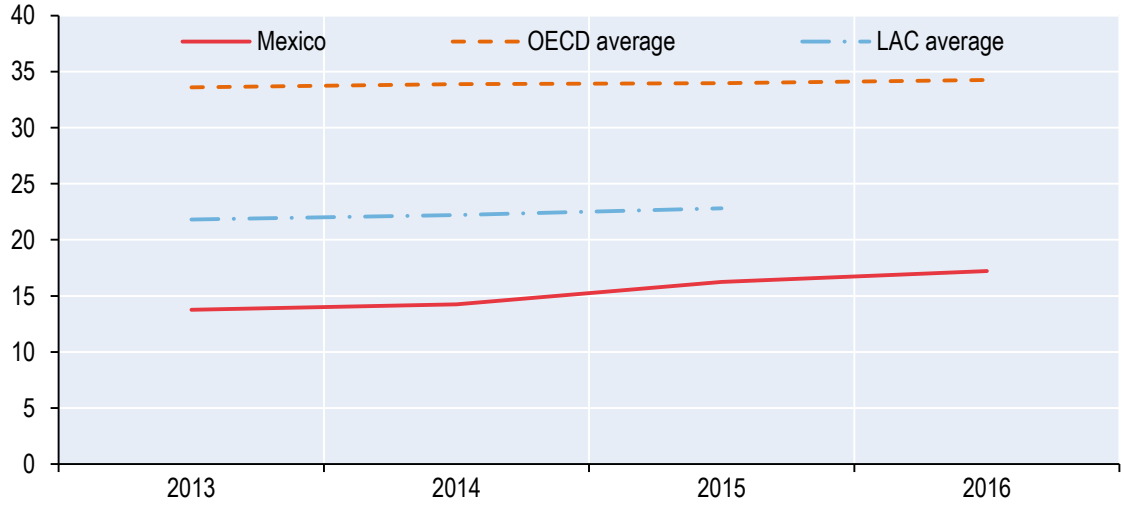
However, the fact that 43% of Mexicans continue to live in poverty and that wage inequality remains high relative to other OECD countries, calls for further action. Mexico needs to redouble its efforts and undertake additional measures to strengthen its fiscal capacity. Despite the 2013-14 tax reform, tax revenues remain too low to support deeply needed infrastructure and social spending. Government investment amounted to 1.8% of gross domestic product (GDP) in 2016, one of the lowest shares in the OECD, and down from 3% in 2009. Social spending as a percentage of GDP remains one of the lowest among OECD countries, despite having increased from less than 2% of GDP in 1985 to almost 8% in 2012. Cash transfers account for less than 3% of GDP, including spending on labour market activation programmes and unemployment insurance. Increasing tax collection is therefore absolutely crucial for Mexico to foster development and greater well-being. In addition, spending needs to be made more efficient. There is scope to raise the effectiveness of both fiscal policies and cash transfer programmes.

Further raising tax revenues

In October 2013, Mexico introduced an ambitious tax reform, which took effect in 2014. Reforms were made to a wide variety of taxes, including the personal income tax (PIT), the corporate income tax (CIT), and consumption and energy taxes. The top personal income tax rate was raised to 35% (albeit levied at very high income levels only), and limits were imposed on tax deductions. A capital gains tax and dividend tax of 10% were also introduced. In terms of corporate income taxation, limits on depreciation allowances were imposed and an alternative tax regime (IETU) was eliminated. A number of loopholes and exemptions have been removed or reformed. The preferential tax treatment of *maquiladoras* was revised. Consumption taxation was broadened by abolishing the reduced value added tax (VAT) rates in the border regions, and again, special exemptions for *maquiladoras* were removed. Mexico also introduced a tax on high-caloric foods and sweetened beverages. These changes have started yielding results.

FIGURE 2.1. **DESPITE AN INCREASE, TAX REVENUES REMAIN VERY LOW IN MEXICO**

Total tax revenues as a percentage of GDP before and after the 2013/14 tax reform



Note: LAC = Latin America and the Caribbean.

Source: OECD, *Global Revenue Statistics* (database).

Tax revenues increased by more than 3.4 percentage points of GDP between 2013 and 2016. Taxes on goods and services (+ about 1.5 percentage points), and CIT and PIT (+ about 0.8 percentage points) were the taxes that recorded the largest revenue increase between 2013 and 2015. Nevertheless, tax revenues as a percentage of GDP remain low when compared to other countries of Latin America and the Caribbean (LAC) and the OECD (Figure 2.1). In particular, tax revenues from the PIT, at 3.3% of GDP in 2015, are well below the OECD average (8.4% for the same year). There is also ample scope to raise more revenues from recurrent taxes on immovable property, as they amounted to only 0.3% of GDP in 2015 compared to the OECD average of 1.9% for the same year.

Tax expenditures declined significantly, from about 6% of GDP in 2005 to about 3% in 2015, according to data from the tax administration. The reduction in corporate tax expenditures was particularly large, although certain corporate tax incentives are included in the benchmark tax system and therefore remain outside the scope of the analysis underlying the results in Table 2.1. There continues to be room to remove inefficient tax expenditures and further broaden tax bases. For instance, reduced rates of VAT could be phased out while paying attention to equity concerns. Further efforts are also necessary to limit exemptions on personal income, which accounted for about 0.9% of GDP in 2015.

TABLE 2.1. **TAX EXPENDITURES HAVE DECLINED**

Tax expenditures, percentage of GDP

	2005	2010	2015
Corporate income tax	2.3	1.1	0.2
Personal income tax	1.3	0.7	0.9
Value added tax	1.7	1.5	1.3
Specific consumption taxes	0.2	0.6	0.0
Various tax reliefs	0.2	0.1	0.2
Total	**5.7**	**3.9**	**2.7**

Source: Mexico Tax Administration (SAT).

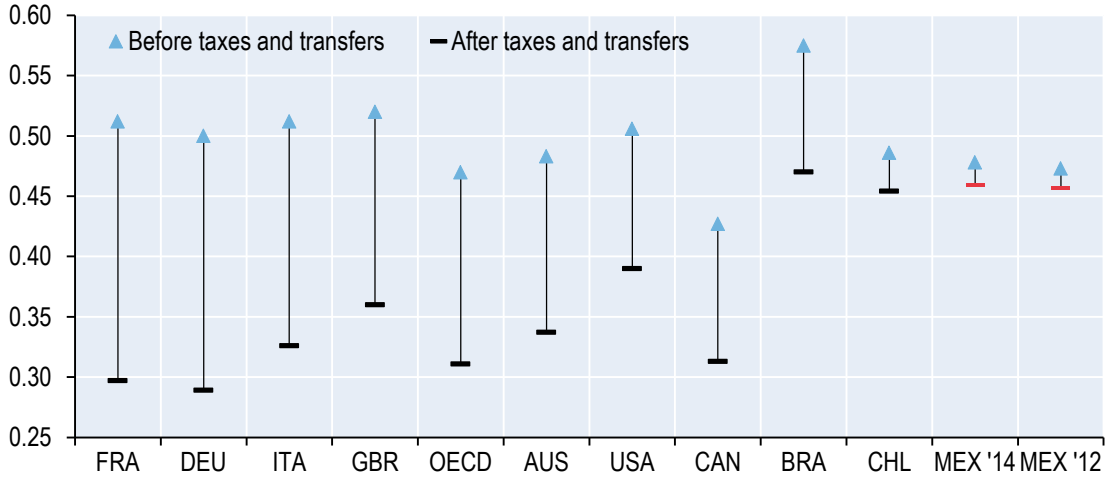
Raising the redistributive effect of the tax and transfer system

Before the 2014 reform, Mexico was the OECD country where the tax and transfer system was doing the least to reduce income inequality: the Gini coefficients for market income and for disposable income (i.e. after taxes and cash transfers) were almost identical. Although the reform moved the Gini coefficient of disposable income in the right direction, the impact of the reforms in strengthening equality was very modest (Figure 2.2) and further reforms will be needed.

Inclusive growth also requires constant labour market activation, which raises skill levels and has positive effects on health and well-being (OECD, 2015). Targeted reductions in social security contributions (SSCs) and well-designed earned income tax credits (EITCs) have proven to be effective means of encouraging labour market activation (OECD, 2011). EITC and SSC reductions that lower the labour tax wedge and therefore raise after-tax earnings are particularly effective for workers who tend to have high labour supply elasticity, including young and older workers, women, the low-skilled and single-parent households. When considering this, policy makers should focus on the design of EITCs and other in-work benefits, as well as their integration into other labour market policies such as minimum wages, and the levels and eligibility conditions for unemployment benefits (Immervoll and Pearson, 2009).

FIGURE 2.2. **THE TAX REFORM SLIGHTLY INCREASED THE REDISTRIBUTIVE EFFECT OF MEXICO'S TAX AND TRANSFER SYSTEM, BUT IT REMAINS LOW**

Gini coefficient before and after taxes and transfers, 2014



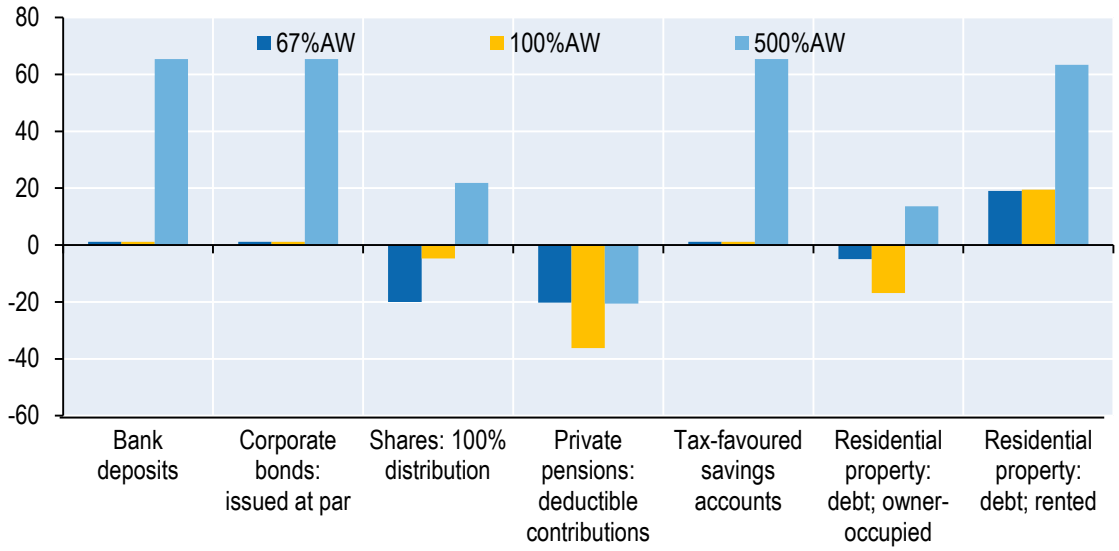
Source: OECD, *Income and Poverty Database.*

Strengthening the role of the PIT would enhance the role of the tax system to lower disposable income inequality. Taxing capital income is particularly important because capital income is more likely to be earned by those on higher incomes (Wakefield, 2009). As Mexico taxes certain types of capital income at the individual level rather lightly (Figure 2.3), there is scope to re-evaluate the taxation of capital income and also to strengthen the progressivity of capital income taxes. For instance, third-pillar private pension savings (up to a certain limit) and owner-occupied immovable property are taxed relatively lightly. Mexico could also remove or redesign those capital income tax expenditures that disproportionately benefit higher incomes and introduce an inheritance tax.

Information exchange agreements and further international co-operation in areas like beneficial ownership will reduce opportunities for evasion of tax on capital income in Mexico and other OECD countries. These changes mean it could become possible for policy makers to raise effective tax rates on capital income and increase tax progressivity while reducing economic distortions and income shifting (Brys et al., 2016). Such efforts need to take into account that high wealth individuals can change their tax residency and even their citizenship in response to tax increases.

FIGURE 2.3. **PRIVATE PENSION SAVINGS AND OWNER-OCCUPIED IMMOVABLE PROPERTY ARE TAXED RATHER LIGHTLY**

Effective tax rates on household savings, single taxpayers, 2016



Note: AW = average wage.

Source: OECD (2018a), *Taxation of Household Savings*, http://dx.doi.org/10.1787/9789264289536-en.

Fighting informality through tax reform

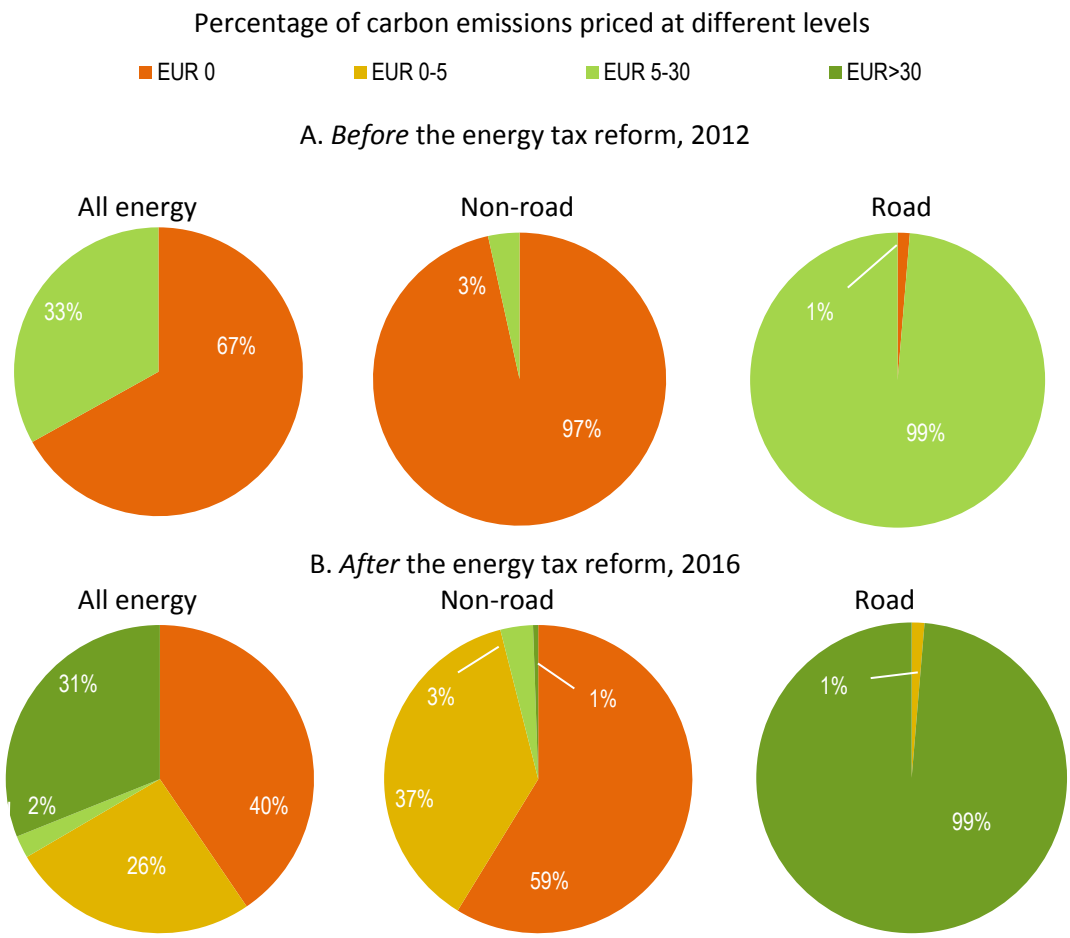
Tax reform can also help improve equality by contributing to Mexico's fight against informality. To this end, the government should enforce compliance with social security contributions for all workers in formal companies. There has been strong take-up in the fiscal regime for incorporation (*Régimen de Incorporación Fiscal*, RIF), which has induced 1.5 million informal firms to join the tax system since 2014. However, there is too little awareness of the *Régimen de Incorporación a la Seguridad Social* (RISS), which was introduced in 2014. The RISS offers temporarily reduced contribution rates for workers joining the national social security system (IMSS). This programme has design features that borrow from the successful experiences of countries such as Brazil that have made important inroads in fighting informality.

In addition, the integration of income and social security administrations could reduce tax evasion as firms tend to understate labour cost to the IMSS and overstate it to the tax administration. For example, merging the tax and social security administrations and using a single tax ID number would limit auditing needs across institutions.

Reforming environmental taxes in an equity-friendly manner

In a significant policy effort, Mexico has moved away from transport fuel subsidies and considerably increased its special taxation on these fuels; hence fuel prices now reflect more closely the external costs of using transport fuels (Arlinghaus and Van Dender, 2017). As a result, carbon emissions from road transport are now almost fully priced in line with the climate cost of carbon emissions, a very conservative estimate of which lies at EUR 30 per tonne of carbon dioxide (tCO_2). However, fuel tax rates remain too low to cover non-climate external costs, such as local air pollution or congestion (OECD, 2018b).

FIGURE 2.4. **MEXICO'S TAX REFORMS INCREASED THE SHARE OF EMISSIONS COVERED BY A CARBON PRICE, BUT AT LOW RATES**



Source: Arlinghaus, J. and van Dender, K. (2017), "The environmental tax and subsidy reform in Mexico", OECD Taxation Working Papers, No 31, OECD Publishing, Paris, http://dx.doi.org/10.1787/a9204f40-en.

A newly introduced carbon tax applies to fuels outside of the transport sector since 2014, but the statutory and effective carbon tax rates are very low. They do not consistently reflect the carbon content of the underlying fuels. In particular, natural gas is zero-rated under the carbon tax, and the rates on coal are very low, despite coal being one of the most carbon-intensive fuels. As a result, the share of carbon emissions priced at or above EUR 30 per tCO_2 remains very low outside of road transport (Figure 2.4).

To move towards a more consistent implementation of the polluter-pays principle, while at the same time further increasing the revenues raised from energy and carbon taxes, Mexico should increase the share of emissions priced in line with the climate cost of carbon emissions. In addition, it should harmonise carbon tax rates across the different fossil fuels.

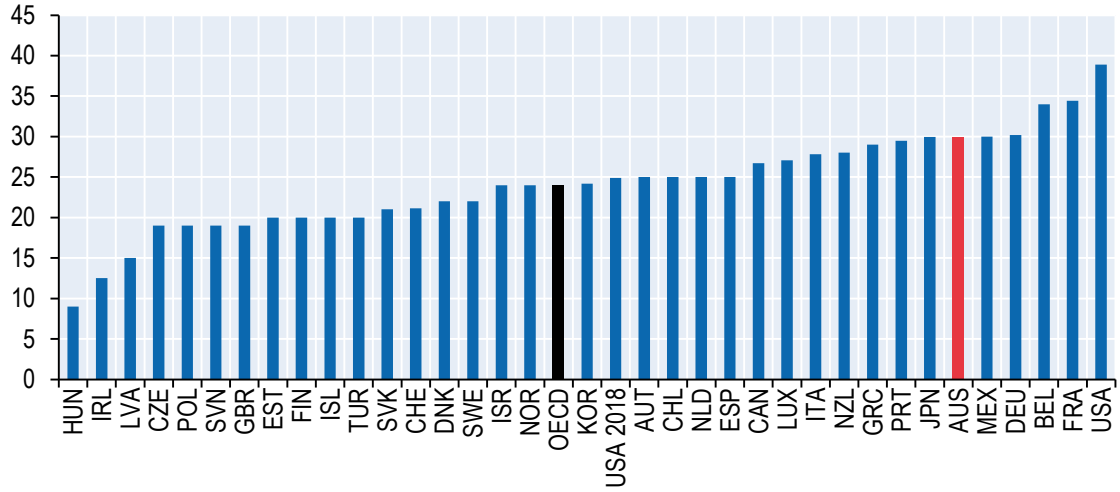
The gradual implementation of these energy tax reforms initially increased their political acceptability, but when tax rates are increased further, more attention may need to be devoted to analysing and addressing distributive effects. In general, compensation for the cost increases from energy and carbon taxes, where deemed necessary, should not be provided through reduced rates or exemptions, but instead through targeted transfers to vulnerable groups that maintain the environmental integrity of market-based instruments.

Strengthening the investment climate through tax reform

The corporate tax rate in place in Mexico is high by international standards. The statutory corporate income tax rate stands at 30%, well above the OECD average of about 24% (Figure 2.5). Furthermore, many countries have recently reduced their corporate income tax rate, or are planning to do so in the near future, which will make Mexico's tax rate appear even higher by international standards.

FIGURE 2.5. **MEXICO'S CORPORATE TAX RATE IS HIGH BY OECD STANDARDS**

Statutory corporate tax rates in OECD countries, 2017, in percentage, including subnational government taxes



Source: OECD Tax Database, http://dotstat.oecd.org.

Mexico's high corporate tax rate could reduce the incentives for foreign companies to invest in the country. Such foreign investment has played a key role for the country's integration into global supply chains and boosted output growth and job creation. Remaining attractive to foreign direct investment is essential: Mexico needs such investment to boost its productivity, attract innovative technologies and make progress towards higher living standards.

In 2017, the United States legislated a major tax reform. Taking effect in 2018, the reform has shifted the country from a worldwide system with tax deferral closer to a territorial tax system, cut the federal statutory corporate income tax rate to 21% and introduced some fundamental changes to its international tax rules. If subnational government taxes are included, this brings the US tax rate very close to the OECD average. The US tax reform might have significant implications for the investment climate in Mexico. Mexico should therefore evaluate the impact of the reform on its investment climate, including the impact on the *maquiladoras* sector and the taxes those businesses pay. As Mexico cannot afford a decline in tax revenues, any CIT cut would need to be offset, for instance by further broadening the VAT base, cutting back VAT exemptions and limiting to the maximum possible extent the practice of reduced VAT rates.

Growing disparities among states and sectors in Mexico motivated a new plan to introduce special economic zones (SEZs) by the government. These zones are intended to support development in less developed states, and have the potential to attract investment, improve infrastructure and reduce regulatory barriers in these regions. The first three such zones were established by a decree in 2017. The government is still working on the regulatory framework to allow investors to ask for permissions and authorisations to start their activities in SEZs. In each of these initial zones, private sector investors have already been identified. Tax incentives are being provided, using criteria based on the degree of local sourcing and related contributions. These initiatives and their implementation will need to be monitored in the context of a cost-benefit analysis and assessed in light of the recent US tax reform. In addition, these zones could be linked with Mexico's emerging technology clusters and their high value-added products, such as aeronautics, to help spur positive spillovers across different sectors and domestic suppliers. CONACYT, Mexico's national research and science council, is identifying where such opportunities exist, and aims to map them at state level (State Innovation Agendas). By forging complementarities between these two policies, the implementation of State Innovation Agendas should harness the skills potential of Mexico's young population, create more job opportunities and help Mexico move up the production value chain.

Key recommendations

- **Increase tax revenues to finance necessary higher public spending and investment, while at the same time significantly increasing public spending efficiency.**
- **Raise more revenues from recurrent taxes on immovable property and green taxes, and introduce an inheritance tax.**
- **Further cut back VAT exemptions and limit to the maximum possible extent the practice of reduced VAT rates, while compensating the poor through targeted subsidies.**
- **Increase efforts to lower tax evasion by integrating the income tax and social security administrations as part of a strategy to raise more tax revenues to finance necessary expenditures.**
- **Consider progressively lowering the CIT rate while raising property taxes and green taxes.**

- **Abolish VAT exemptions and limit to the maximum possible extent the practice of applying reduced VAT rates, while offsetting this by increasing subsidies to the poor.**
- **Strengthen the role of the personal income tax by limiting exemptions.**
- **Further broaden income tax bases and remove inefficient tax expenditures.**
- **Strengthen awareness of in-work subsidies for formal workers and strengthen enforcement on large firms employing informal workers.**

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Chapter 3

Enhancing public governance

Alessandro Bellantoni, Jacobo García Villarreal, Elena Gentili, Chloé Lelièvre, Santiago González and Giulio Nessi

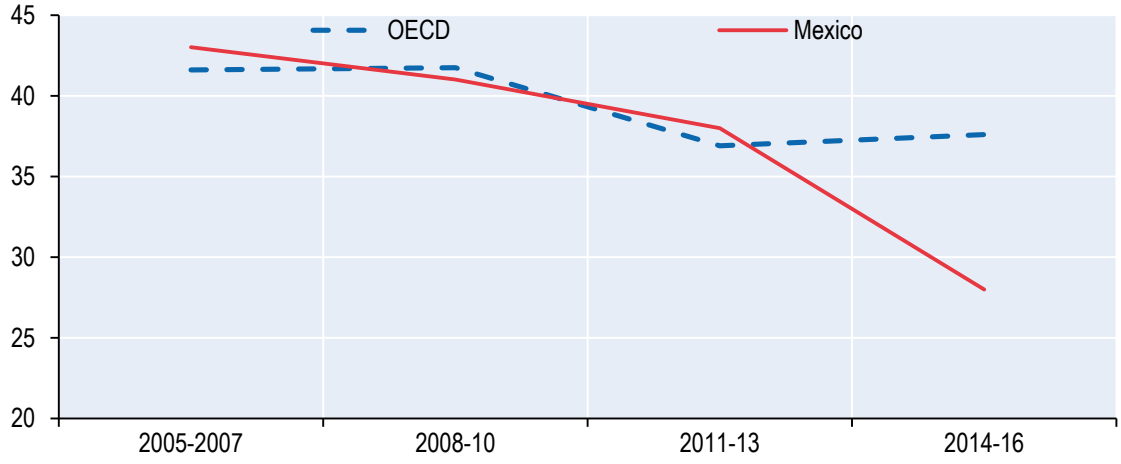
Strong institutions are crucial for strong, inclusive and sustainable growth, not least because they are a necessary requirement for the effective design, promotion and implementation of structural reforms. While successive Mexican governments have worked towards improving the functioning of Mexico's public sector, institutional capacity remains low and uneven. This hampers the capacity to provide the high quality public goods and services required for speeding up development, especially at the state and local levels. As a result, trust in government institutions keeps falling. To fully reap the benefits of past structural reforms and implement additional ones, the government urgently needs to increase the level of trust. Stepping up the fight against corruption is crucial in this regard. A number of recent reforms, including notably the establishment of the National Anti-corruption System, have created a good foundation to fight corruption. However, even though there is an urgent need to deliver on this agenda, implementation seems to have stalled. Mexico has also enacted important reforms to strengthen its judicial system, but efficiency, capabilities and transparency are still lacking. There is a pressing need for strong, independent law enforcement agencies and coherent public policy on justice and security both across states and at the federal level. Further advancing the open government agenda will also help rebuild trust in government, for instance through more constant and transparent engagement procedures with civil society.

Successive governments have acted to improve the functioning of the public sector in Mexico – professionalising the civil service, streamlining regulations, modernising procurement systems, enhancing digital services and so on. However, the effectiveness of the public sector in many areas remains comparatively low and uneven across different regions, leading to low levels of confidence in public institutions. This affects institutions most directly concerned with public safety and the rule of law, but also extends to other public bodies. Trust in government is one of the most important and basic foundations upon which the legitimacy and sustainability of political systems are built. Trust in the authorities affects their capacity to govern, make policy decisions and implement policies, programmes and regulations. It also facilitates compliance with rules and regulations, reducing the cost of enforcement, and increases the confidence of investors and consumers. On the other hand, corruption leads to waste of public resources, lowers the quality of public services and also has damaging effects on government decision making. Mexico is involved in an intense national debate over public trust in government. Mistrust in institutions, leadership and business is widespread. Over the past few years, the major political parties have agreed that greater transparency and accountability across all aspects of public policy are necessary in Mexico if that trust is to be rebuilt.

The erosion of public trust has been a recurring issue for many years, but came firmly to the forefront of public debate in many OECD countries with the onset of the 2008 global financial crisis and ensuing recession. On average in OECD countries, trust in government decreased from an average of 41.6% in 2005-07 to 37.6% in 2014-16, but since 2011-13 the downward trend has stopped and trust levels are stabilising (Figure 3.1). In a sharp contrast to the OECD average, the reduction of trust levels in Mexico has been much steeper over the past five years. Trust in government decreased from 38% in 2011-13 to 28% in 2014-16. Several reasons could explain this trend: the economic slowdown experienced over the past five years, the outbreak of several corruption scandals involving high level government officials, deteriorating security conditions, low capacity to deliver public goods and services and a challenging global environment for the very open Mexican economy.

FIGURE 3.1. **TRUST IN THE MEXICAN GOVERNMENT IS ON A STEEP DOWNWARD TREND**

Percentage of people saying that they have trust in their national government



Source: Gallup World Poll.

Trust in public institutions is advanced not only by the content and outcome of public policies, but also by the way in which they are designed. Well-informed decisions should be evidence-based and supported by controls of vulnerabilities, such as protocols and practices to manage conflicts of interest, and by lobbying regulations to ensure integrity and transparency. Law enforcement authorities at municipal, state and federal level should be strong, well-resourced and independent.

Furthermore, the diminishing levels of trust in government institutions signal that the government's capacity to keep implementing reforms is weakening. To fully reap the benefits of past structural reforms, particularly those recently put in place under the auspices of the *Pacto por México,* and to implement additional ones, the government urgently needs to increase the level of trust. To this end, actions are needed to address the key drivers of institutional trust, i.e. responsiveness, reliability, openness, integrity and fairness (OECD, 2017a). Such actions are needed at all levels of government, including state and local levels where there is huge scope for improvement (see Chapter 4).

Strengthening public sector integrity and the anti-corruption system

To fight Mexico's high levels of corruption, Mexico launched the National Anti-corruption System (NACS) in 2016 – the highlight of President Peña's integrity reforms. The package of laws creating the system marks a turning point in Mexico's approach to anti-corruption policies, and aims to overcome some key shortcomings of the past, such as fragmentation in policies and insufficient co-ordination both across and between levels of government. In addition, the new laws bring states under the remit of the system, strengthen enforcement mechanisms for investigating and sanctioning integrity breaches by public officials and firms, and reinforce oversight by increasing transparency, auditing powers and the strong involvement of civil society. Notably, the General Law on Administrative Responsibilities (*Ley General de Responsabilidades Administrativas*, LGRA), the Integral System for Citizen Complaints (*Sistema Integral de Quejas y Denuncias Ciudadanas*, SIDEC), the Code of Ethics for federal public officials and the Rules of Integrity for

the exercise of public duties illustrate Mexico's commitment to developing a civil service aligned with the principles of legality, honesty, loyalty, impartiality and efficiency.

Along with the NACS, other reforms created the National Auditing System and the National Transparency System. While these reforms represent a more coherent approach to promoting integrity in the public sector, several challenges have delayed implementation. First, several key positions in the NACS have not been filled, including the Anti-corruption Attorney, judges of the Third Section and 15 magistrates of the Administrative Justice Federal Tribunal (*Tribunal Federal de Justicia Administrativa*, TFJA). Furthermore, the appointment of the Auditor General (*Auditor Superior de la Federación*, ASF) is pending in Congress, which means that two of the seven seats in the Co-ordinating Committee of the NACS remain unfilled. Second, there is a lack of clarity regarding the role of the Citizen Participation Committee (*Comité de Participación Ciudadana*, CPC). Even though the General Law on the NACS describes the CPC functions, in practice it is not clear to what extent it should be involved in, for example, corruption investigations, or whether it should be limited to providing strategic orientations for the NACS. Third, local Anti-corruption Systems have not been consistently implemented across federal states. While some states are quite advanced, others have not even fulfilled the main legal reforms (see Chapter 4). Fourth, the whole of government has not been mobilised to support anti-corruption efforts (COPARMEX, 2017). For example, the CPC has noted the need to access information from government agencies and to have its requests addressed in a timely manner, for instance, regarding "shell companies" ("*empresas fantasma*") (El Financiero, 2017).

The OECD has worked with federal entities to strengthen their integrity frameworks and public procurement practices and the 2017 OECD Integrity Review of Mexico provided over 50 specific proposals to improve the integrity of Mexico's public sector. Also the implementation of the Convention on Combating the Bribery of Foreign Public Officials in International Business Transactions is being evaluated by the OECD. The follow-up review to Phase 3 of the evaluation was published in 2014, highlighting various issues that Mexico urgently needs to tackle. A major issue for Mexico and many other Parties to the Convention is that of corporate liability for the bribery of foreign public officials. The General Law on Administrative Liabilities (GLAR) was enacted in 2016 as part of the NACS package of reforms. It introduces a new regime for corporate liability in Mexico and addresses some of the issues identified in the Phase 3 report, such as autonomous liability (from the liability of natural persons); liability of state-owned enterprises; and a range of sanctions including fines and additional penalties, such as suspension from certain public advantages, against companies that violate the GLAR.

It is unclear whether GLAR provides for the possibility of confiscation measures against legal persons, vital in bribery cases where the instrument and proceeds of the corrupt transaction should be confiscated. In line with the abovementioned more general concerns about the implementation of the NACS, more work is required to ensure the proactive and effective implementation of the GLAR, including adequate resourcing and capacity building within respective enforcement agencies. Furthermore, it is unclear how the GLAR interacts with pre-existing schemes of criminal and administrative liability of legal persons in Mexico and how possible parallel enforcement procedures will be co-ordinated. Another issue is whistleblower protection. The OECD's Working Group on Bribery recommended that Mexico enact legislation to ensure that public and private sector employees, as well as auditors who report in good faith and on reasonable grounds suspected acts of foreign bribery to competent authorities, are protected

from discriminatory or disciplinary action. The NACS recognises the role of whistleblowers in reporting cases of corruption to the relevant authorities and goes so far as to require anonymity and notification of case progress to whistleblowers, as well as the need for strong internal reporting mechanisms as part of corporate compliance programmes. However, further action is needed to ensure comprehensive protection for whistleblowers in the public and private sectors.

All these challenges, along with corruption, have eroded trust in government and contributed to the decline in this area seen in recent years. If this decline in trust is not addressed with political commitment, the recent reforms run the risk of becoming another wasted opportunity. Furthermore, if corruption is not tackled effectively, it will be impossible to address many of the other challenges facing the country, such as declining productivity and competitiveness, stubborn inequality and serious regional security issues.

Indeed, when justice and law enforcement institutions are captured by corruption, the security of citizens and firms is at risk. When corrupted, institutions that are intended to protect individuals and uphold property rights can be negligent or even outright criminal. Typically, organised crime cartels target justice and law enforcement institutions as a means of: (i) obtaining information on investigations, operations or competitors; (ii) attaining protection for continued illegal activities; (iii) obstructing investigations and justice proceedings against them; and (iv) becoming directly engaged in criminal activities, running drug or prostitution rings (Center for the Study of Democracy, 2010). Corruption of justice in Mexico is a growing concern and increases in violence over the past ten years have been attributed at least partly to the growing presence of organised crime, which thrives in areas with more corrupt and weaker justice institutions.

The full implementation of the NACS is imperative to change this situation. While the NACS reforms deserve to be acknowledged, whether they lead to real change will depend on the extent and success of their implementation. The letter of the law now needs to translate into extensive institutional, behavioural and cultural change. Coherent action of state institutions (i.e. the three branches of government, autonomous bodies, federal states, municipalities) and the whole-of-society are crucial to avoid politicisation and demonstrate a real commitment with integrity, completing the nominations to lead the different institutions of the NACS and mobilising resources (i.e. political, financial, information, and so on) for the adequate functioning of the system.

To advance a more coherent integrity system and build a culture of integrity, Mexico should focus on four central themes: (i) strengthening institutional arrangements for coherence and co-operation; (ii) building a culture of integrity; (iii) strengthening the lines of defence against corruption; and (iv) enforcing the integrity framework for deterrence and greater trust in government (OECD, 2017b). Furthermore, advancing transparency, integrity and efficiency in public procurement is vital, since this is one of the most risky government activities in terms of corruption. A co-operation established with the OECD to advance good procurement practices in the construction of Mexico City's New International Airport (*Nuevo Aeropuerto Internacional de la Ciudad de México*, NAICM) led to the selection of open tenders to advance transparency and competition in the selection of contractors for the main works, the publication of 292 contracts following the Open Contracting Data Standard and the development of a protocol to manage conflict of interest situations, a Code of Conduct for public officials and an Ethics Committee to provide advice on ethical dilemmas (OECD, 2018c). Such efforts should continue to maximise results and sustain the good practices already implemented.

Dealing with insecurity more effectively

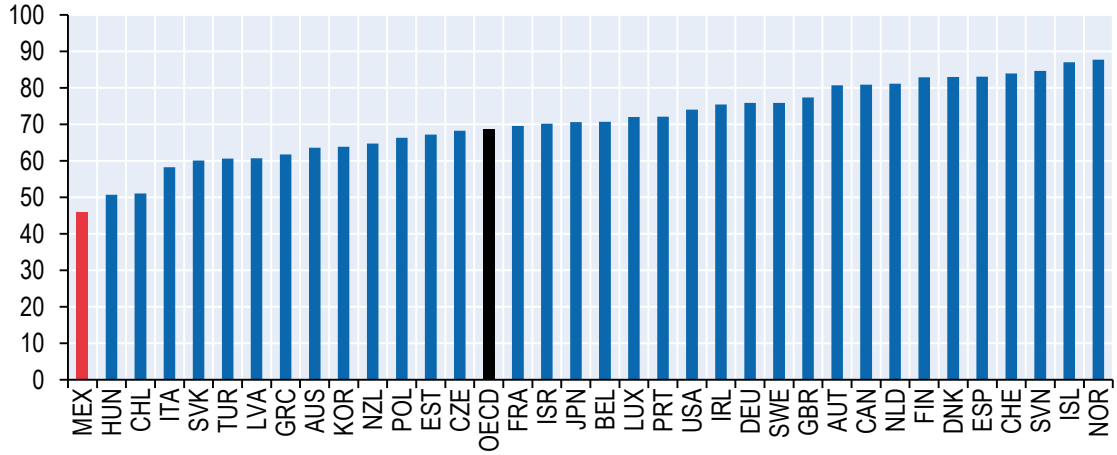
Mexico's high levels of violence directly affect trust in institutions (especially the police and court system) and perceptions of safety. Moreover, personal and property insecurity in Mexico reduces incentives to make long-term investments. Business costs for investors and firms tend to increase in the form of insurance and security systems procured in the absence of quality legal systems and reliable enforcement of contracts, and also as a direct result of extortion practised against companies by organised crime groups. In addition, exposure to crime and unsafe environments can result in a "brain drain", as qualified workers seek out more secure regions to work. Low levels of trust in the justice system will prevent victims and witnesses from reporting crimes. It is difficult to estimate rates of violence and rates of underreporting, but the National Survey of Victimisation and Perceptions of Public Security offers a baseline. The "dark figure" ("*cifra negra"*) of crime is high with an estimated 93.7% of crimes being neither reported nor investigated in 2015 (INEGI, 2017).

Security is affected not only by the direct experience of being the victim of a crime, but also by the perception of the risk of being a victim. Fear of crime can influence behaviour, restrict a person's sense of freedom and threaten the foundation of communities. Mexican citizens feel the least safe among OECD countries in walking alone at night (Figure 3.2). This situation is particularly detrimental for women victims of violence (see Chapter 7).

Part of the problem is lack of co-ordination between justice and security institutions. To improve policy co-ordination in justice and security, Mexico needs to clearly assign responsibilities across the administration and levels of government; ensure adequate resources, training and independence for law enforcement officials; close fiscal and capacity gaps; and ensure that information on criminal activity is shared among law enforcement agencies. Appropriate accountability measures need to be put in place, and relevant information made available to the public. Advancing the reforms of the Office of the Attorney General (*Procuraduría General de la República*) could improve national security policy and crime prevention. A more effective judicial system at the federal and state levels is also crucial for making Mexico more secure (see the following section).

FIGURE 3.2. **MEXICO IS THE POOREST PERFORMER FOR SAFETY ACROSS OECD COUNTRIES**

Percentage of population aged 15+ feeling safe when walking alone at night, 2015



Source: OECD (2016), *OECD Better Life Index – Edition 2016 Database.*

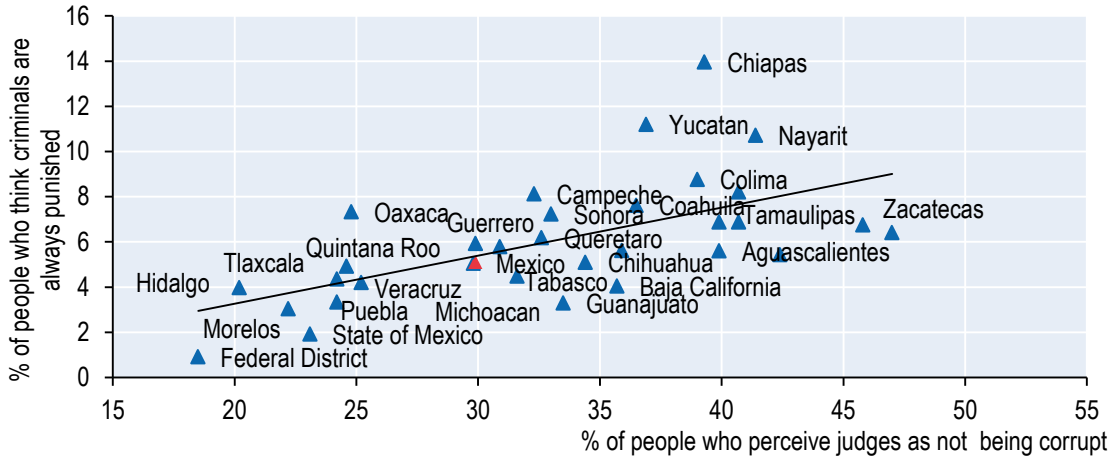
Improving the effectiveness of the judicial system

An effective justice system is a strong enabler of inclusive growth, security, the rule of law and a sound public administration. In addition, justice institutions are critical for ensuring scrutiny and accountability of public institutions. Moreover, the Mexican judicial system faces low levels of trust, with only 32% of the population expressing confidence in justice institutions (OECD, 2018b). This can partly be explained by ineffective accountability mechanisms and, hence, a lack of transparency and professionalism in the judicial sector. Between 2006 and 2016, the perception of corruption in the overall judiciary reached 83%, above both the average across Latin American and Caribbean countries (79%) and the OECD average (65%) (World Bank, 2016). Trust in law enforcement and criminal justice are both positively associated with the perception that judges are not corrupted, another indicator where Mexico fares very poorly: only 30% of Mexicans considered judges as non-corrupted in 2014 and this share was below 25% in the Federal District, Hidalgo, Morelos, Estado de México, Oaxaca, Puebla, Quintana Roo and Tlaxcala (Figure 3.3).

Mexico has enacted important reforms to its judicial system. The implementation of reforms in the criminal and civil justice sectors should add a half percentage point to Mexico's gross domestic product (GDP) growth in the medium term. But further efforts are needed to consolidate and build on this progress. The challenge is to ensure coherent public policy on justice and security both across the states and the federal level and across all justice stakeholders at each level of government. In some OECD federal countries, a separate federal public structure for justice (e.g. Ministry or Department of Justice) is in charge of developing, co-ordinating and monitoring justice policies. A more holistic justice policy system in Mexico aligning the roles and responsibilities of all justice stakeholders could provide needed coherence. The second wave of legal reform, tackling structural bottlenecks such as enforcement of legal rights and applying the oral proceeding to all civil and commercial cases, also needs to be fully adopted and effectively implemented.

FIGURE 3.3. **MANY MEXICANS LACK TRUST IN LAW ENFORCEMENT AND PERCEIVE JUDGES AS CORRUPT**

Trust in law enforcement and perception of corruption of the judicial system, 2014



Source: OECD (2015), *Measuring Well-being in Mexican States, based on INEGI data*, http://dx.doi.org/10.1787/9789264246072-en.

Mexico also still faces challenges in making justice more effective at the local level. For instance, in 2017-18, civil court decisions were enforced in only 39% of cases, according to the World Justice Project (WJP, 2018). This is well below the average for Latin America. Moreover, there is a need to improve efficiency. Contract enforcement proceedings take on average 2.5 months for small and medium-sized enterprises (SMEs) in the states of Campeche and Mexico, where specialised courts are now operating, whereas in Tlaxcala, the same procedures take approximately 10 months (OECD, 2018a).

Once reforms have been made to systems and structures, professionalisation of the sector is a crucial next step to ensure success. Steps to enhance merit-based appointment and performance frameworks, open justice strategies and judicial capacity can be key to tackle the culture of impunity. For example, all public legal and judicial professions, from lawyers to police to judges, need to be trained in the new adversarial criminal system in Mexican states. In Estado de México, bailiffs have recently been professionalised through training and merit-based management and their numbers have been expanded. A merit-based system for managing judges and their staff has been developed, but such professionalisation measures need to be applied consistently throughout the country.

Access to justice in Mexico is not only a right *per se*, but also an enabler of other rights, including housing, health and education. Yet awareness of existing legal aid mechanisms is low: only 54% of the population knows where to get advice when experiencing a legal problem. It will be crucial for Mexico to promote legal literacy and alternative dispute resolution mechanisms.

Building on past investments in open government reform

Important progress in the area of open government has been made during the 2012-18 administration. As chair of the Open Government Partnership (OGP) and member of the OGP

Steering Committee, Mexico has pushed for an ambitious global open government agenda. At the same time, at the national level, Mexico has been one of the first countries to link its open government agenda to the national development and public sector reform agendas. Mexico's second and third OGP Action Plans had a stronger focus on outcomes than processes, a characteristic that is not as common as expected in most OGP plans.

The General Transparency Law of 2015 was a very positive step, and strengthened the role of the National Institute for Transparency, Access to Information and the Protection of Personal Data. In April 2015, the Law to Make Mexico City a More Open City reinforced the country's open government efforts at the local level, and helped spread the benefits of open government reforms across the entire state apparatus. Mexico has pioneered the move towards what the OECD has termed an "open state" by involving other branches of power, subnational governments and independent state institutions in the country's open government agenda, including by creating the Open Mexico Network and the Alliance for an Open Mexican Parliament in 2014.

Despite the impressive progress made, there is scope for further improvements. The incoming government should focus on building greater trust with civil society actors through more constant and transparent engagement procedures, and through the co-creation and co-implementation of open government strategies and initiatives. There is also significant potential to further institutionalise the country's open government efforts. In particular, the responsibility for the design and implementation of open government policies has shifted from the Office of the Presidency to the Ministry of Public Administration. The country should consolidate responsibility for the design and implementation of open government policies into a national co-ordination position and elaborate a full-fledged national Open Government Strategy. It will also be crucial to further improve the impact evaluation of open government strategies and initiatives and to continue the ongoing move towards an open state through the exchange of good practices and lessons learned between branches of power and levels of government. To this end, it will be vital to include all regions across the country in the open government and open state reforms.

Key recommendations

- **Undertake a comprehensive reform of all mechanisms and institutions supporting the rule of law, including the justice sector, the alternative dispute resolution mechanisms, the prosecutorial services, the police and legal empowerment of citizens and businesses.**
- **Undertake a functional review of the justice policy-making system to better align the roles and responsibilities of the Ministry of the Interior, the Attorney General, the Supreme Court and a potential Ministry of Justice.**
- **Fully implement the second wave of legal reform, introducing oral proceedings for all civil and commercial justice cases.**
- **Improve trust in government by strengthening the responsiveness, reliability, openness, integrity and fairness of public institutions.**
- **Fully implement the National Anti-corruption System (NACS), drawing on the recommendations of the OECD Integrity Review of Mexico.**

- **Link up databases of tax, asset and interest declarations and audit them on a risk-based basis.**
- **Transform existing ethics committees in public sector entities into dedicated units (e.g. integrity contact points) focusing on preventing corruption and promoting a culture of integrity in their respective organisations.**
- **Ensure comprehensive protection for public and private sector whistleblowers for corruption and other misconduct, such as by specifically prohibiting reprisals, entrenching confidentiality of reporting (and sanctions for violation of confidentiality) and better defining and formalising the reporting channels.**
- **Take measures to ensure proactive and effective implementation of the General Law on Administrative Liabilities (GLAR) and its new corporate liability regime, including ensuring that confiscation measures can be imposed against legal persons.**
- **Review the adequacy of resources for effective implementation of the GLAR and take measures to build the expertise and capacity of relevant law enforcement authorities to investigate and sanction companies.**
- **Build greater trust with civil society actors through more constant and transparent engagement procedures, and through the co-creation and co-implementation of open government strategies and initiatives.**
- **Consolidate responsibility for the design and implementation of open government policies into a national co-ordination position and develop a full-fledged national open government strategy.**
- **Further improve impact evaluation of open government strategies and initiatives and foster the exchange of good open government practices and experience among branches of power and levels of government.**
- **Diffuse the open government principles and practices of transparency, integrity, accountability and stakeholder participation to the subnational level and provide greater support especially to those regions that are facing challenges in their efforts to developing and implementing their open government agenda.**

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Chapter 4

Fostering development at the regional level

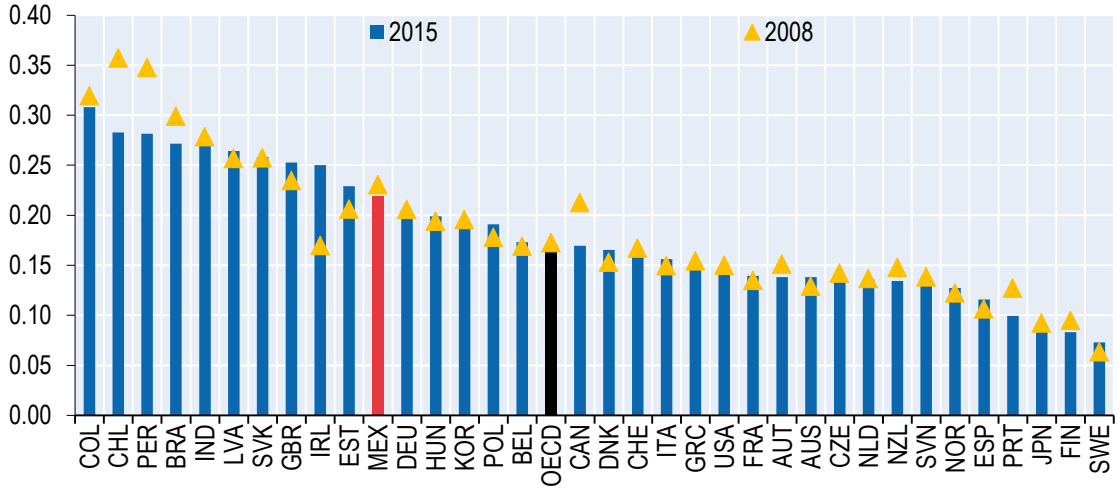
Anna Bolengo, Oscar Huerta Melchor, Alexander Lembcke, Giulio Nessi, Ana María Ruiz, Jane Stacey and Isidora Zapata

Mexico's success in achieving its national development goals requires continued efforts to foster inclusive sustainable development across all its regions and cities. Inter-regional disparities remain high in Mexico relative to other OECD countries, due in part to stark differences in the capacity of state and local governments. It is crucial for lagging states to catch up with their best-performing peers. While Mexico's rapid urbanisation has increased opportunities for city-dwellers, Mexico's cities are not reaping the full extent of possible productivity benefits associated with scale. National urban policy approaches that focus on the quality of the urban environment, not simply the quantity of housing, are needed to reduce sprawl and the environmental and social impacts of having workers living far from jobs. The recent adoption of the 'right to the city' principle will be a key instrument in the implementation of the New Urban Agenda in the country. One of the economic development opportunities for many cities and rural areas alike is the tourism sector. New models that further diversify the offer beyond coastal tourism, as well as cultivate local tourism clusters, will require a greater accent on implementation across levels of government. Greater fiscal, technical and human resource capacity, as well as transparency for state and local governments, should underpin regional development efforts.

Inequalities in Mexico have a strong place-based component. Inequalities in gross domestic product (GDP) per capita across regions in the country are among the highest of OECD countries (Figure 4.1). The GDP per capita gap between the fastest-growing and slowest-growing states has been widening. The spatial differences in the rate of informality contribute to these regional disparities. Getting regional policies right is key for Mexico's economy, which is strongly differentiated across its geography – from its northern regions that are among the most industrialised in the country, to its central capital region home to a megalopolis among the largest in the world, to its southern regions with lower levels of development.

Policies that support the development of regions, as well as the quality of governance, particularly at subnational level, can promote both growth and inclusion. Cities can play an important role in spurring growth in surrounding areas. To do so, the cities in Mexico need to reach their full potential. Better governance of metropolitan areas and national policies that promote higher quality urbanisation will help that growth potential. Tourism activities, a notable share of the Mexican economy, can be further diversified with increased value in ways that benefit regions across the country. To gain efficiency and effectiveness in Mexico's multi-level governance system, improved capacities and integrity at the state and municipal levels are essential. Mexico would also benefit from revising, redefining and clarifying responsibilities at all levels of government, including strengthened revenue-raising capacities of municipalities. This needs to go hand-in-hand with stronger accountability mechanisms to limit corruption at the subnational level. A one-size-fits-all policy approach will fail to tailor strategies and integrate sectoral policies to the needs and opportunities of each region. The creation in 2013 of the Ministry of Agrarian, Territorial and Urban Development was an important step to support the development opportunities of different regions.

FIGURE 4.1. **SPATIAL INEQUALITIES ARE SUBSTANTIAL IN MEXICO**
Gini index of inequality of GDP per capita across TL3 regions



Note: Data for 2008 and 2015 or closest year available. Calculation for Mexico excludes the state of Campeche. TL3 regions. Australia, Canada, Chile, Mexico and the United States TL2 regions, as well as for Brazil, Colombia, India, Peru and South Africa.

Source: OECD (2018), *OECD Regional Statistics* (database).

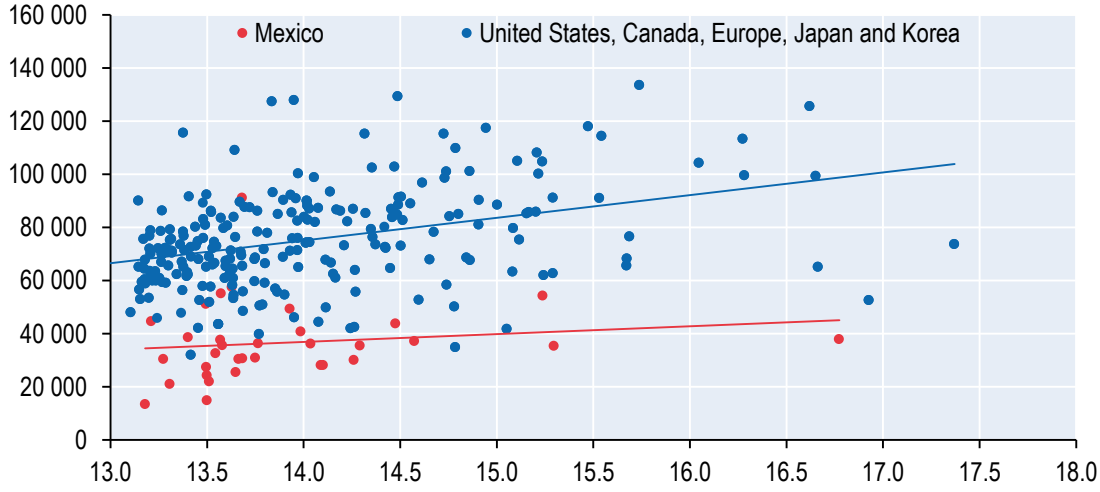
Helping Mexican cities fully capture agglomeration benefits

Getting Mexico's cities right is crucial for the country's economic development and for improving its living standards. More than 50% of Mexico's population lives in one of 33 metropolitan areas, 17% of the total population in the Valle de México alone. Mexico has undertaken ambitious housing and urban policy reforms in parallel to its adoption of a series of structural reforms emerging from the 2012 Pact for Mexico (*Pacto por México*). Mexico's rapid urbanisation has increased opportunities for city-dwellers, including higher incomes, increased educational opportunities and expanded access to formal housing for an increasing share of formal-sector, salaried workers. The productivity of workers, and therefore wages, is generally higher in larger cities. Such cities also typically offer a wider range of amenities, as well as more, and more varied, jobs than smaller cities or rural areas. But often these benefits are counter-balanced by the fact that larger cities suffer more from congestion, pollution and high housing costs, especially when metropolitan areas are poorly governed.

In Mexico, there is clear evidence of positive agglomeration benefits, as the productivity of workers generally rises with city size. However, the degree of those benefits is comparatively lower than in other OECD cities (Figure 4.2). Analysis of wage premiums shows that cities located near Mexico's northern border are more effective in translating their size into a productivity premium, while those in the south tend to be less effective. Given the size of Mexico's largest metropolitan area around the capital, Valle de México, its productivity is lagging more than 10 percentage points behind its potential. Fragmented administrative structures at metropolitan scale are found to have a productivity penalty and detract from resident well-being. More than 40% of the Valle de México's residents commute across a municipal-level boundary to go to work or school, and some cross state boundaries.

FIGURE 4.2. **MEXICO DISPLAYS LOWER AGGLOMERATION BENEFITS THAN OTHER OECD COUNTRIES**

Labour productivity in OECD metropolitan areas and population size, 2010



Source: Ahrend, R. et al. (2014), "What makes cities more productive? Evidence on the role of urban governance from five OECD countries", OECD Regional Development Working Papers, No 2014/05, OECD Publishing, Paris, http://dx/doi.org/10.1787/5jz432cf2d8p-en, except Chile.

The development of Mexican cities has been strongly shaped in recent decades by the housing finance system INFONAVIT. Since 1972, INFONAVIT has significantly transformed the

housing development process, advancing the country's transition from informal to formal housing on a grand scale. The quantitative success of the housing model has some important qualitative shortcomings. These include persistently high vacancy rates (among the highest in the OECD at 14.2%) and housing located far from jobs and urban centres. Many cities are sprawling, highly polluted, socially segregated and economically underperforming. Urban sprawl also has significant consequences for mobility and the environment, contributing to rising rates of car ownership and making the provision of efficient, quality public transport alternatives more challenging and costly. Informal housing development also continues in many urban and rural areas, particularly for low-income households without access to formal housing finance assistance.

While attempts to improve urban development outcomes have been made by previous administrations (e.g. the *100 Ciudades* programme), these efforts had little success in changing the way cities developed, in part given the housing finance system. The shift undertaken by Mexico in recent years is in line with an increasingly transversal conception of urban policy that is also seen across a growing number of OECD countries. Mexican authorities will need to develop a coherent national urban policy that takes into account the broader impacts of housing development on the urban environment and people's well-being. The reforms to the General Law for Human Settlements in 2016 set the basis for the development of more sustainable, resilient, productive, inclusive and safe cities for all residents in what is referred to as "the right to the city". It will be a key instrument for implementation of the global New Urban Agenda.

Using tourism for regional development

Tourism plays a crucial role in Mexico's economy, and has performed strongly in recent years. The sector directly accounts for 8.7% of GDP, 5.9% of full-time paid employment (in the formal sector) and almost 80% of service exports. It provides jobs for millions of Mexicans and contributes positively to Mexico's balance of payments. Domestic tourism is also significant, contributing 82 of every 100 Mexican pesos consumed by tourists.

However, the potential of tourism to promote regional development in Mexico remains largely unrealised, and the sector faces competitiveness and sustainability challenges. Mexico's multi-level government structure has implications for the governance of tourism and the implementation of tourism policy. Such horizontal and vertical co-ordination is legally underpinned by the General Tourism Law 2009, but is challenging to achieve in practice. The south-southeast region accounts for around 54% of total tourism GDP in Mexico, and international demand is heavily concentrated in coastal destinations, notably Cancún, the Riviera Maya and Los Cabos. The state of Quintana Roo alone accounts for almost half of international arrivals (47.5%) and almost two-thirds of international overnights (62%). Domestic tourists are more evenly spread across the territory and make an economic contribution in regions that do not attract international visitors (Figure 4.3).

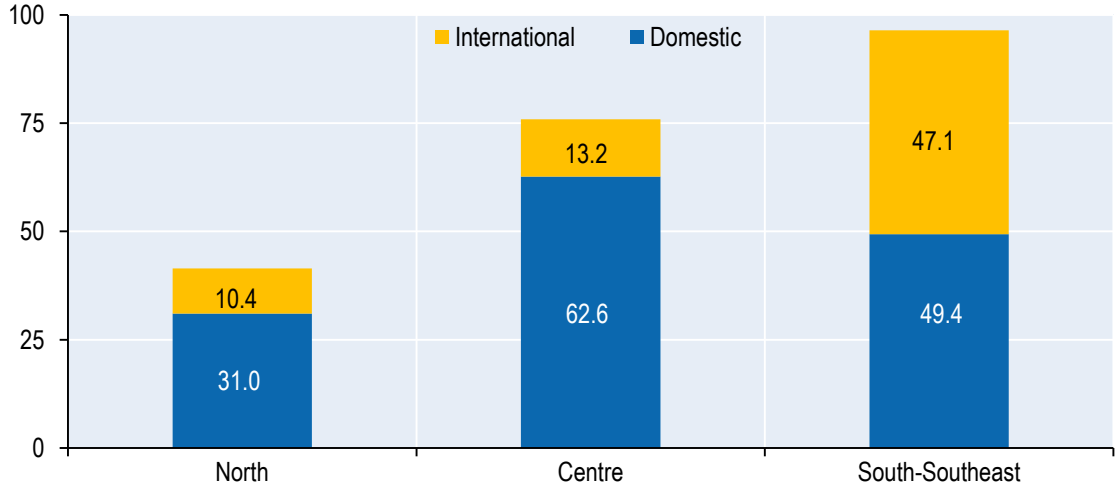
Developing a more diversified, higher-value tourism offer that spreads wider economic and social benefits across regions is now recognised as a central principle of policy and planning. A commitment to more sustainable and inclusive tourism development is underscored in the National Development Plan 2013–18. The Regional Development Programmes 2014-18

contain plans to harness the sector's capacity to stimulate regional economies and support local communities. Mexico's rich and unique natural, cultural and built resource base is distributed across the territory, and the potential to package new and innovative tourism experiences is significant.

Moving to a more geographically distributed model of tourism development will require greater involvement by government agencies with a more diverse and fragmented group of small and micro enterprises. The development and implementation of regional dispersal measures focused on developing new tourism products, routes and clusters across the country is another opportunity. This type of tourism development relies heavily on co-operation between different levels of government and different actors, as well as the provision of supporting infrastructure and facilities. For example, improved transport connectivity is critical, as the infrastructure deficits currently limit tourism's development potential, particularly in certain regions.

FIGURE 4.3. **TOURISM OPPORTUNITIES VARY BY REGION**

Domestic and international nights in hotels by region, millions, 2014



Source: OECD (2017a), *Tourism Policy Review of Mexico*, OECD Publishing, Paris, based on data from DATATUR, *Compendium, extract May 2016.*

Raising subnational efficiency and transparency

Mexican states and municipalities are key actors in regional development policies and investments. In line with OECD federal countries, Mexican subnational governments are responsible for an important share of public expenditure and investments, 52% of total public expenditure and 79% of total public investment (higher than the OECD federal country average of 66%). States account for the bulk of subnational investment, around 57%.

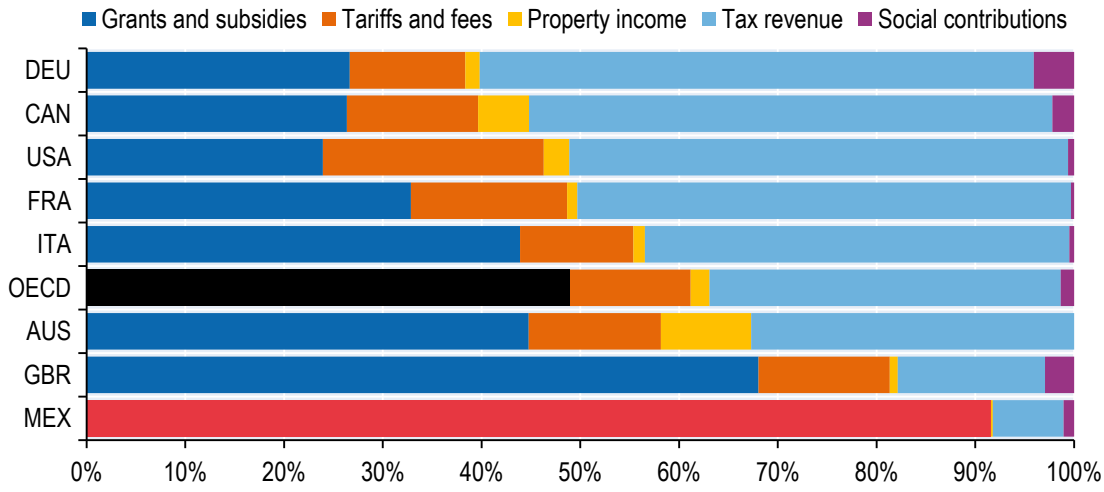
The fiscal gap – the difference between taxing power and spending responsibilities – is significant compared to other OECD countries. In Mexico, the share of subnational tax revenue is among the lowest of OECD countries, whether federal or unitary (Figure 4.4). Instead, subnational governments are almost exclusively funded through earmarked grants and subsidies, a share by far the highest in the OECD (OECD/UCLG, 2016). Low tax autonomy

provides a disincentive for subnational governments to exploit their own revenue-raising potential and build up their administrative capacities (OECD, 2015).

While Mexico has undertaken a process of decentralisation for several decades, the country remains centralised in practice. While during the decentralisation reforms of the 1990s, Mexico transferred significant competences to subnational governments, they still have limited margins of manoeuvre. Indeed, states and municipalities strongly depend on earmarked funds from the central government, which takes most of the strategic decisions (OECD, 2017b). Municipalities have no legislative function and can only make regulations within the framework of state and federal laws. Despite the 2013 fiscal reform that modified the guidelines of the Transfer Fund for Municipalities (FFM) to encourage tax revenue collection from municipalities and states, these jurisdictions are still reluctant to use their taxing power.

FIGURE 4.4. **STATES AND MUNICIPALITIES ARE FUNDED MOSTLY THROUGH GRANTS AND SUBSIDIES INSTEAD OF TAXES**

Subnational government revenue by type, 2015



Source: OECD (2017c), *Subnational governments in OECD countries: Key data*, https://www.oecd.org/regional/regional-policy/Subnational-governments-in-OECD-Countries-Key-Data-2017.pdf.

Mexico is characterised by a complex system of overlapping competencies and spending responsibilities, particularly in the realms of implementation and financing (OECD, 2017b). Health and education are two of the most affected areas in which the different levels of government have responsibilities defined by law. Responsibilities overlap in other areas as well, such as road construction and maintenance that are split between the three levels, with the construction mainly executed by federal and state governments, and maintenance mainly carried out by states or municipalities (OECD, 2015).

Overlapping and unclear assignment of responsibilities undermine the effectiveness of regional development policy delivery and public investments, and make service provision more costly and policy making more complicated. It also contributes to a democratic deficit and hinders efforts at transparency and citizen engagement when the public does not know who ultimately is responsible for important public services. Mexico needs to review the

distribution of roles, responsibilities and rights across levels of governments to enhance the efficiency of service delivery and public investments.

Strengthening multi-level co-ordination instruments can help tackle this issue. Mexico has several forms of formal co-ordination mechanisms. In practice, however, the relationship between the federal and the state governments tends to be on an ad hoc basis. Some of the existing vertical co-ordination mechanisms and policy co-ordination fora are The National Conference of State Governors (*Conferencia Nacional de Gobernadores*, CONAGO) or the National Institute for Federalism and Municipal Development (INAFED), within the Ministry of the Interior (SEGOB). However, Mexico lags behind several OECD countries in terms of co-ordination experience within and across levels of governments. At the federal level, there is also a strong tendency towards sectoral fragmentation of public action (OECD, 2017b).

Developing transparent and accountable institutional settings at the state and local levels is a major priority for the government of Mexico. In response to a national trend of accelerated debt growth among subnational governments, in 2016 the Congress enacted a Federal Financial Discipline Law for States and Municipalities. The main objective of the law is to promote sustainable public finances, a responsible use of public debt, and to reinforce accountability and transparency at the subnational level. Setting a specific legal framework, providing clear budget objectives and designing tools to monitor and control public debt are major steps towards improving subnational public finances in Mexico. However, and despite recent improvements, there is still space to improve budget practices towards a more planned, accountable, participative and transparent budget process at the state level so as to ensure that the objectives of the law are translated into concrete and tangible results.

Strengthening capacities at the state and municipal levels

Weak and uneven capacities at the state and municipal levels also hamper regional development. Technical and institutional capacities are not uniform across Mexican subnational governments. At the municipal level, in particular for urban issues, the capacities of many local administrations tend to be misaligned with their responsibilities. For example, a majority of municipalities lack a professional workforce in charge of urban planning, property registration, valuation, cadastre management, risk management and other related fields (OECD, 2015). Past efforts to address these challenges have been hindered by frequent municipal staff turnover given three-year, non-renewable terms for most mayors. Recent reforms to allow the re-election of mayors could help give more continuity to government's development programmes and strengthen the capacity of municipal public workforces.

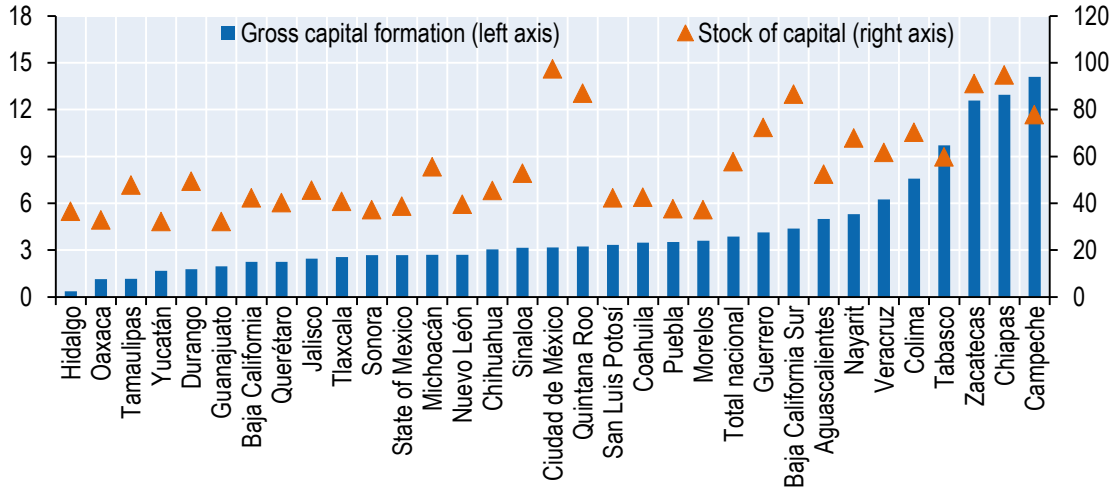
The current civil service system does not help improve the efficiency and quality of local public services and investments for development efforts. It accords subnational government officials a lower status (in particular, municipal public servants), including lower salaries and fewer chances for advancement. The principles of the professional career service (*Servicio Profesional de Carrera*) could be included in local administrations' public employment regulations and encourage the development of merit-based human resources policies (recruitment, promotion and career progression). Improving the forward-looking planning and management of the subnational workforce, and enhancing the performance orientation are key measures to strengthen the capacity and capability of subnational governments.

Making the most of infrastructure investment

Boosting infrastructure investment in all Mexican states can enhance regional development and help reduce territorial disparities. The level of infrastructure investment varies widely across states (Figure 4.5). Oaxaca, for example, has a stock of capital of almost 33% (calculated by the ratio of physical capital over GDP), well below the average stock of capital of almost 55%, and much lower than some other states such as Zacatecas. Also, in terms of net investment (measured by gross capital formation), there are large differences across Mexican states.

FIGURE 4.5. **THERE ARE LARGE DIFFERENCES ACROSS MEXICAN STATES IN TERMS OF INVESTMENT**

Gross capital formation and stock, percentage of GDP, 2013



Note: Gross capital formation (left axis) is calculated as the annual variation of physical capital over GDP; likewise, the stock of capital (right axis) is measured with respect to the regional GDP.

Source: OECD (2017b), *OECD Territorial Reviews: Morelos, Mexico*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264267817-en.

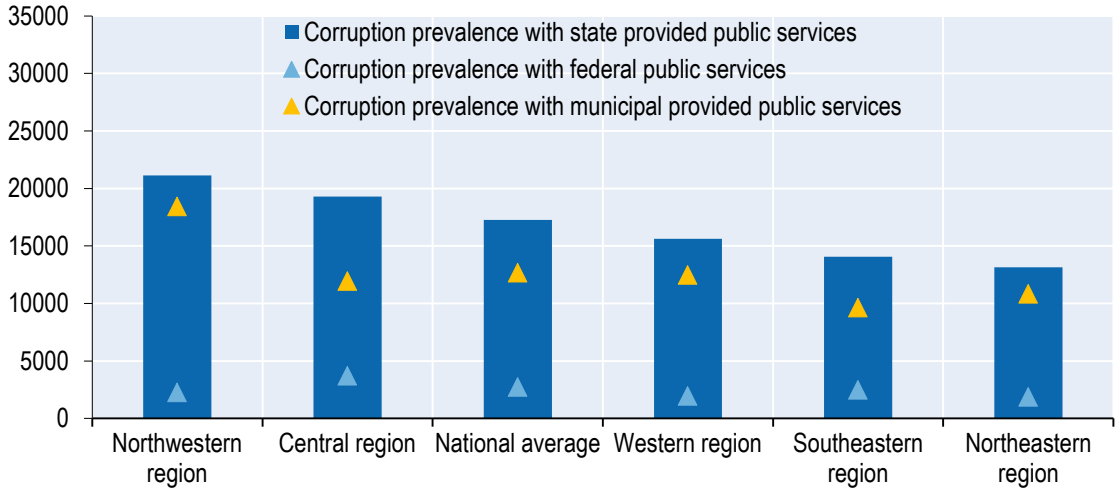
The diversity of investment profiles across Mexican states calls for differentiated infrastructure investment strategies tailored to their social, economic and environmental needs. The investment mix will inevitably vary among urban, rural or mixed Mexican regions. This requires strong co-ordination efforts across sectors and jurisdictions to achieve complementarities and invest at the relevant scale, in line with the *OECD Recommendation on Effective Public Investment across Levels of Government* (OECD, 2014). Indeed, effective multi-level governance mechanisms to better manage infrastructure investment throughout its "life cycle" can increase the impact of infrastructure on regional development and productivity outcomes (OECD, 2013). Effective co-ordination among levels of government helps to identify investment opportunities and bottlenecks, to manage joint policy competencies, to ensure adequate resources and sufficient capacity to undertake investment, to resolve conflict and to create trust (OECD, 2014).

Strengthening integrity at the subnational level

The National Anti-corruption System (NACS) recognises the need to strengthen integrity and the fight against corruption in states and municipalities, both through greater co-ordination between the federal, state and municipal levels, as well as via the establishment of Local Anti-corruption Systems (LACS) in each state (see Chapter 3). Indeed, corruption is a concern at all levels of government in Mexico, but particularly at state and local levels, where Mexico's National Statistics Office (INEGI) observes a greater incidence of corruption in comparison to the federal level (Figure 4.6).

FIGURE 4.6. **CORRUPTION IS MORE PREVALENT AT THE STATE AND MUNICIPAL LEVELS THAN AT THE FEDERAL LEVEL**

INEGI's "corruption ratio" by level of government and region



Source: INEGI (2015), *Mexico's National Statistics Office, National Survey on the Quality and Impact of Government*, http://www.beta.inegi.org.mx/proyectos/enchogares/regulares/encig/2015/.

Although all states have formally laid the foundations of their own LACS, subnational entities in Mexico are still suffering a number of shortcomings in creating comprehensive and coherent public integrity systems. Building on the OECD integrity work with subnational entities a number of priority issues have been identified. For example, the implementation of LACS needs clear commitment and action plans from political leadership. The LACS should allow all kinds of municipalities to express concerns and share good practices. Mainstreaming integrity through a network of integrity contact points at the entity-level, including a "train the trainer" model, could help. Governance tools to further integrity are also an opportunity, such as an electronic procurement system that can ensure that transparency, accountability and information analysis are built into all steps of the process.

Key recommendations

- **Implement productivity-enhancing policies at federal and state level adapted to the growth needs of different types of regions to continue to address inter-regional gaps.**

- **Promote more inclusive and sustainable "smart growth" of cities through brownfield redevelopment in central areas; plan for – rather than restrict – growth in strategic peripheral areas; and adopt a multi-modal approach to urban transport.**
- **Improve access to affordable housing by removing barriers to the development of the rental market (including the tax burden on rental properties) and addressing the high housing vacancy rate.**
- **Think and act at the metropolitan level by: moving away from sectoral planning towards metropolitan planning; strengthening collaboration across municipalities; and better linking the federal Metropolitan Fund to clear metropolitan projects.**
- **Make the most of the expertise of the National Fund for Tourism Development (FONATUR) to drive the implementation of a new model of tourism development with a more diversified, higher value portfolio of products.**
- **Promote a more integrated approach to tourism and regions with mechanisms to better align strategic policy priorities across plans and programmes, as well as across the three levels of government and with engagement of the private sector.**
- **Review funding for tourism projects within a regional context and support the creation of routes bundled with transport, clusters of firms integrated into tourism value chains, and strategic destination developments.**
- **Strengthen the revenue-raising capacities of municipalities through property tax reform, updating fee structures and improving systems to facilitate tax collection.**
- **Redefine and clarify responsibilities of all levels of government and make sure that the definition of functions and responsibilities is understood, agreed and accompanied by the allocation of adequate resources.**
- **Explore asymmetric assignment of responsibilities to various local governments based on population size, rural/urban classification and fiscal capacity criteria, for instance, granting large cities responsibilities for some services that are provided directly by higher levels of government in other cities.**
- **Strengthen capacity building at the local level after a clear assessment of existing capacity gaps, including professionalisation of subnational civil servants.**
- **Ensure that states and local governments consolidate and strengthen their annual budget processes to comply with national standards, paying particular attention to capital budgeting and project prioritisation, revenue forecasting, citizen engagement and predictability of budget allocations.**
- **Monitor progress and compliance with the Federal Financial Discipline Law for States and Municipalities, increasing support from the central government for those states facing difficulties with compliance.**
- **Promote good practices at subnational level with respect to the Local Anti-corruption Systems (LACS), including through peer learning and governance tools such as e-procurement.**

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Chapter 5

Raising the quality and equity of Mexico's education and skills system

Caitlyn Guthrie, Manuela Fitzpatrick, Cuauhtemoc Rebolledo-Gómez and Diana Toledo Figueroa

Mexico has one of the largest and most complex education systems in the OECD. Despite its geographic, cultural and socio-economic diversity, Mexico has made significant progress in expanding and strengthening its education system. Today, nearly all children between the ages of 4 and 14 are in school and the country is working to raise upper secondary and tertiary education completion. Mexico's constitutional reform in 2012 made quality education a right for all Mexicans and has led to positive changes in the management of the education system and helped professionalise the teaching workforce. Effective implementation of this reform will be key to strengthening the country's education system. Mexico has also progressed towards an education and training system that is more relevant to the labour market. Despite this progress, the country still faces major challenges. To make headway on its path of educational improvement, Mexico's system-level policies should maintain their focus on improving the educational success of students from diverse backgrounds and delivering quality education across all types of schools, including upper-secondary and vocational education and training institutions. They should also work to improve students' transitions from school to work so that young people are able to reap the benefits of technological progress and find success as their country becomes more integrated into the global economy. Recent OECD evidence suggests that in complex education systems like Mexico's, implementation is not about executing education policies, but rather about building and fine-tuning them collaboratively with a range of stakeholders. Building the capacity of Mexico's states and other agencies so they are well placed to engage in the dialogue on reform implementation is therefore crucial.

Mexico has one of the largest and most complex education systems in the OECD, with over 36 million students, 2 million teachers and 260 000 institutions from primary to tertiary education. The national education system in Mexico is led by the Ministry of Public Education, which must cater to the education needs of a large and highly diverse population. For example, Mexico was the 11th most populated country in the world in 2015, with a population of 120 million people, of which about 23% lived in rural areas and 45% of the total population was less than 25 years old.

Fostering better education and skills outcomes is crucial to building a more productive, healthier, fairer and more cohesive society. A better skilled workforce would ensure that Mexico is well prepared for the changes technology is expected to have on work and its content in the coming decades. Mexico's vanishing demographic bonus further highlights the importance of making full use of all available talent. In this context, workforce adaptability will be crucial in ensuring that Mexican firms and workers can reap the benefits brought about by technological progress and further integration into the world economy.

Aware of these potential gains, Mexico has taken important steps to improve the coverage and quality of its education system. In November 2012, the Mexican government made a series of commitments, aimed at improving the quality of basic education; increasing enrolment and improving the quality of upper secondary and tertiary education; and restoring the leadership of the Mexican state in the national education system, while maintaining the system's character. A constitutional reform in 2012 made quality education a right for all Mexicans and has set out plans to increase education coverage; to improve teaching and learning conditions by providing more autonomy to schools and establishing full-time schools; to create a professional teacher service; and to promote system improvement with more transparency and consolidation of the evaluation authority. Furthermore, constitutional autonomy over the evaluation of Mexico's compulsory education system was given to the National Institute for Education Evaluation (*Instituto Nacional para la Evaluación de la Educación,* INEE) in 2012. The implementation of these reforms is well underway, but efforts should be maintained to reap the benefits of these changes.

As part of the efforts undertaken to address these goals, Mexico introduced a New Education Model (*Nuevo Modelo Educativo*) in 2017. It proposes (among other things) a curriculum for compulsory education to ensure that all students are able to develop the skills required in the 21st century, focusing more on developing socio-emotional skills and core competencies rather than on memorising material through repetition. Other specific reforms are being implemented to strengthen Mexico's teaching profession, and evaluation mechanisms have been evolving to provide greater consistency and transparency in the system. For example, following the establishment of the teacher evaluation system (in 2013), nearly 87% of teachers were appraised in 2016.

Mexico has also been working to raise completion rates in education and improve the labour market relevance of its education and training system by expanding private sector involvement, increasing the number of apprenticeships, and raising the supply of training and vocational programmes. Due to the competitiveness of the global economy and labour market, more Mexican youth are being encouraged to study and pursue careers and research in science, technology, engineering and mathematics (STEM) fields. This is particularly

relevant for girls, and along with the OECD, the Ministry of Education launched the "NiñaSTEM Pueden" to develop a network of female mentors in the STEM fields to encourage girls to pursue these disciplines. In addition, the Ministry of Education developed new textbooks eliminating gender stereotypes.

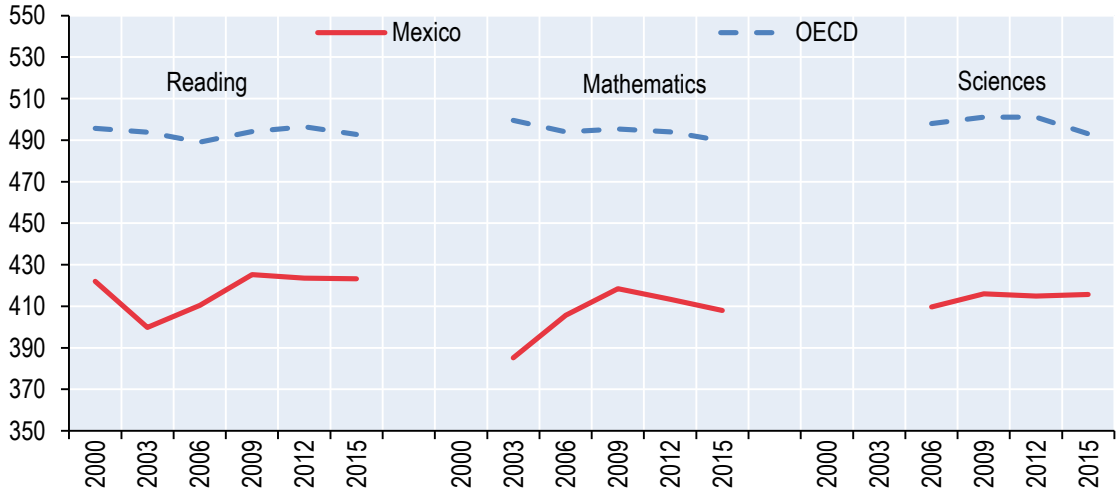
Despite the progress that has been made, the Mexican education system is still faced with major challenges regarding coverage, the quality of student learning and transitions to the labour market. While enrolment rates in upper secondary education have seen an impressive increase from 65.9% in 2012-13 to 74.7% in 2016-17, only around half of 15-17-year-olds from a disadvantaged background are enrolled in education (53% of those in extreme poverty and 72.9% of those in moderate poverty), compared to 93.8% of their advantaged peers. And overall, student learning outcomes remain weak: Mexico was the lowest scoring OECD country in the science domain of the Programme for International Student Assessment (PISA) in 2015, with a mean score of 415 points, compared to the OECD average of 493 points (Figure 5.1).

Spending on education remains another challenge. Although Mexico's education expenditure corresponds to a high share of the country's gross domestic product (GDP) and total public expenditure, it remains low in absolute terms. In 2014, Mexico's per student expenditure at the primary level was USD 2 896 compared to the OECD average of USD 8 733. Per student expenditure at the secondary level is also much lower than the OECD average. Providing sufficient funding and reflecting on how resources can be more efficiently allocated will be key to making reform happen.

Mexico's comprehensive education reforms are well-designed to address current challenges, but implementation and subsequent evaluation will be key. Mexico's reform processes need the appropriate capacity and clarity among stakeholders to distribute responsibilities across the decentralised education system. A stronger dialogue with the states and other agencies is also needed to make Mexico's New Education Model a reality.

FIGURE 5.1. **LEARNING OUTCOMES IN MEXICO REMAIN WEAK**

PISA scores, 15-year-olds



Source: OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

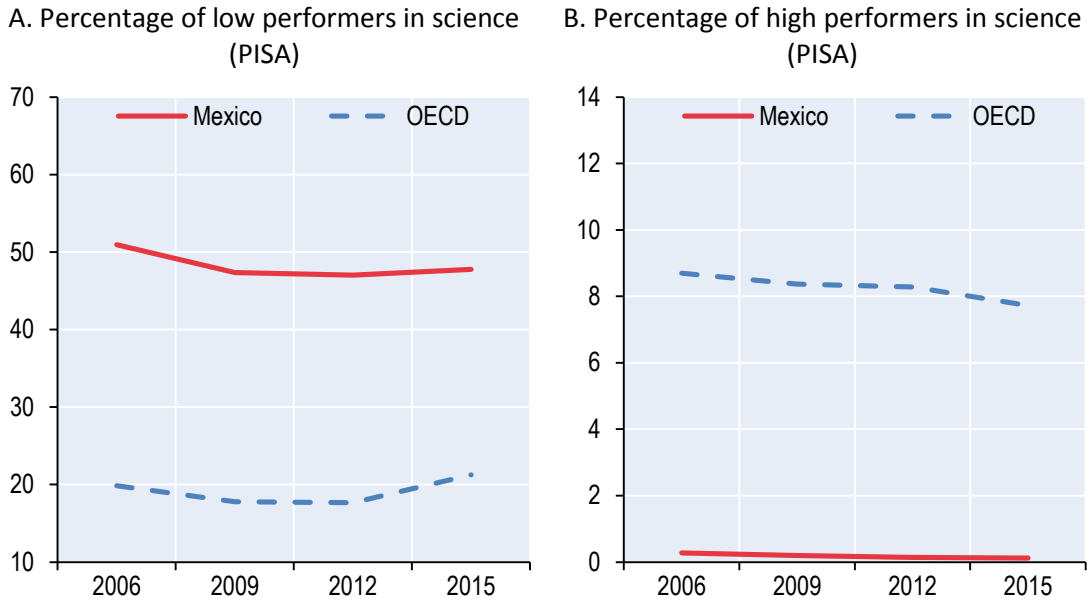
Improving access to quality education for all students

Mexico has one of the largest and most complex education systems in the OECD. Catering to the country's geographic, cultural and socio-economic diversity is a major challenge for the definition and delivery of quality education services. Mexico recently created five regional blocks (*Regiones Educativas*) that could be helpful to increase social participation in education and improve the provision of education services across the country. Furthermore, the OECD has advised Mexico to increase synergies between the Ministry of Education, the Ministry of the Economy, the Ministry of Finance, the Ministry of Labour and the National Council of Science and Technology (CONACYT), to improve the quality and relevance of education for the country's shorter- and longer-term development needs.

Students in Mexico often attend schools with other students whose socio-economic background is similar to their own. Socio-economic status had a lower than average impact on science performance in PISA 2015, accounting for 10.9% of the variance in performance (OECD average of 12.9%). While this is positive, it is in part because the most advantaged students in Mexico perform below their peers with a similar socio-economic background in other OECD countries (with an average of 446 score points for the most advantaged Mexican students, compared to 540 score points for their peers in other OECD countries on average).

Mexico had the largest share of students performing below Level 2 in the PISA 2015 science test: 48% compared to the OECD average of just over 20%. However, this group showed an average improvement of seven score points every three years between 2006 and 2015 (Figure 5.2). Mexico should continue working to reduce its share of low-performing students, while raising the number of high-performing students. At less than 1%, Mexico's share of top performers in science remains well behind the OECD average (8%).

FIGURE 5.2. **MEXICO HAS MANY LOW-PERFORMING AND FEW HIGH-PERFORMING STUDENTS**



Source: OECD (2016), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, http://dx.doi.org/10.1787/9789264266490-en.

Early childhood education and care (ECEC) policies can improve students' opportunities to succeed later in life. While Mexico has made significant progress in expanding access to ECEC in recent years, efforts should be continued to improve access to affordable and good-quality ECEC, particularly for children under the age of three. In 2002, ECEC was made compulsory starting at three years of age and while the enrolment of three-year-olds in ECEC has nearly doubled since 2005, only one in two three-year-olds (45.8%) was enrolled in 2015, lower than the OECD average of 77.8%. By age four, nearly 90% of children were enrolled in pre-primary education in 2015 – above the OECD average of 87%. This is excellent news, as ECEC can make a substantial contribution to achieving inclusive growth: when children from vulnerable backgrounds benefit from these services, it helps to level the playing field.

At the same time, participation of children in ECEC varies widely among regions. According to national data, in 2014-15 net coverage ranged from 92.5% in Tabasco to 58% in Quintana Roo. Mexico should also take steps to improve the quality of ECEC. This could include increasing the educational requirements for care assistants working with very young children and lowering child-to-staff ratios.

Language is another equity challenge for Mexico's education system. Despite improvements, large performance gaps remain for indigenous Mexican students whose language spoken at home is different from Spanish, the language of assessment in PISA 2015 (64 score points). A national study also found that only 9.8% of monolingual indigenous students between the ages of 15 and 17 continue to be enrolled at school, and this is often in classes with lower age groups. Highly qualified teachers and school leaders are key to improving the learning outcomes for indigenous students and they should be equipped with textbooks and materials in their own languages. This is of utmost importance given that 43% of teachers in indigenous schools report a lack of specific textbooks in indigenous languages and a large proportion of them (15-25%) say that their proficiency levels in indigenous languages are low.

According to OECD evidence, certain prevailing policies in Mexico favour social equality, such as a long period of compulsory education (longer than usual for OECD countries) and limited ability grouping. Compulsory education in Mexico is longer than the typical duration across the OECD, and Students are first formally streamed into different educational pathways at the age of 15, which is later than the OECD average of 14. However, grade repetition can lead to increased student disengagement and early school leaving. In PISA 2015, 15.8% of Mexican 15-year-olds reported that they had repeated a grade, compared to the OECD average rate of 11.3%. Mexico should provide more support for low achievers and those at risk of dropping out instead of relying on costly policies like grade repetition to repair learning gaps. To encourage students to stay in upper secondary education and reduce the risk of social exclusion, the Movement Against School Dropout (*Movimiento Contra el Abandono Escolar*) (2013–14) focuses on information dissemination, participatory planning and community outreach. Activities include the physical and digital distribution of handbooks and yearly workshops in schools on dropout prevention. Some evidence suggests that the policy has had a significant impact in reducing dropout, although stronger monitoring mechanisms should be introduced to ensure efficacy.

Mexico's educational geography presents another challenge to equity and quality. Around 23% of Mexico's total population lived in rural areas in 2015, nearly half of whom were less than 25 years old. PISA 2015 shows that there is a gap of over one year of schooling between students in urban and rural areas. This is indicative of the importance of the education system in delivering quality education opportunities to eventually improve life opportunities for a large and diverse population in the country. National evidence highlights that resources could be allocated more equitably across schools and municipalities, as rural, indigenous and/or multi-grade schools currently have less access to resources than more advantaged schools. Access to resources has also varied across states, the most disadvantaged being sometimes the ones that have benefited the least, even with increases of expenditure.

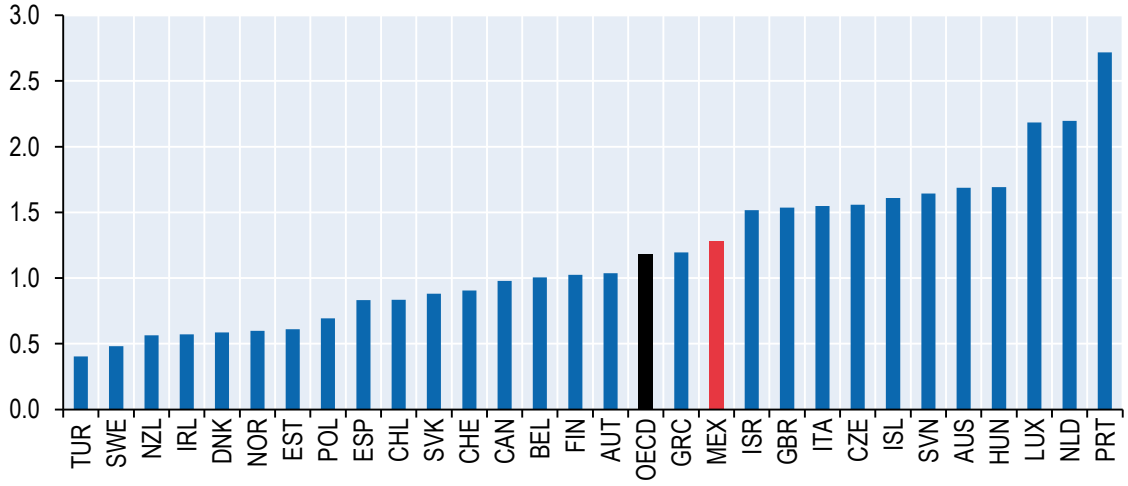
In addition to the comprehensive reforms mentioned above, Mexico has a number of public initiatives that address equality issues. For example, the cash transfer programme, PROSPERA, formerly known as *Oportunidades* or *Progresa*, encourages disadvantaged families to send their children to school and to medical check-ups. It covers around 6.5 million Mexican families, and has helped to increase enrolment rates for secondary school, reduce the incidence of anaemia among children, and cut poverty rates in rural areas. Along with this, additional efforts need to be continued to improve the quality of education opportunities provided for all. In 2014, the Programme for Inclusion and Educational Equity (*Programa para la Inclusión y la Equidad Educativa*) was introduced to strengthen the capacities of schools and educational services that serve indigenous children, migrants and students with special educational needs, as well as learning via television in remote areas (through the existing *telesecundarias*) and unitary multi-grade schools. This is done through financial, academic and infrastructure support to disadvantaged schools. In 2016, 170 000 students benefited from the programme. Mexico should maintain its commitment to improving and transforming the education system.

To put students and schools at the centre of its education system, Mexico needs to provide sufficient resources to make this possible. Public expenditure on education grew by 11.9% between 2008 and 2014 (the biggest increase in the OECD over the period); however, Mexico's expenditure on education remains low in absolute terms. Mexico not only needs to allocate an adequate amount of resources to education, but also to reflect on how resources

can more efficiently reach schools. Policy efforts such as the Full-time Schools Programme (*Programa Escuela de Tiempo Completo*), *Escuelas al CIEN* (National Certificates of Education Infrastructure, 2015) and the Schools at the Centre Programme (*Programa La Escuela al Centro*, 2016), aim to provide effective education materials and infrastructure, while improving the equity and delivery of education in schools.

FIGURE 5.3. **PUBLIC INVESTMENT IN TERTIARY EDUCATION IN MEXICO PAYS FOR ITSELF IN TERMS OF HIGHER TAX REVENUES FOR GOVERNMENT**

Ratio of government returns to government costs of investment in tertiary education



Note: Data are for a 17-year-old single taxpayer with no children, who undertakes a four-year course of non-job-related education.

Source: OECD (2017b), *Taxation and Skills*, http://dx.doi.org/10.1787/9789264269385-en.

New OECD research suggests that higher government spending on skills would even pay for itself in terms of higher tax revenues by raising the skills of those on lower incomes and, hence, raising their wages (OECD, 2017a). In most OECD countries, including Mexico, skills investments made by government are self-financing in terms of future personal income taxes (Figure 5.3).

Supporting teachers and school leaders to raise learning outcomes

Data from the OECD Teaching and Learning International Study (TALIS) 2013 reveal a key strength of Mexico's teaching service: 95.5% of teachers said that if they could choose again, they would still choose to become a teacher. Teachers in Mexico are committed despite having slightly longer teaching hours and larger class sizes than the OECD average. After an increase in statutory salaries between 2005 and 2015, Mexican teachers now receive pay that is competitive within the national context, although their salaries remain lower than the OECD average (except for upper-secondary teachers).

Attracting, retaining and developing good quality teachers is essential for quality learning. In TALIS 2013, nearly a quarter (24%) of Mexican teachers reported not feeling prepared to teach, compared to the TALIS average of 7%. Moreover, Mexico had the lowest proportion of teachers who reported having completed a teacher education or training

programme (62%). Fortunately, teachers reported high rates of participation in professional development activities and Mexico has been working to strengthen teaching and school leadership through comprehensive reforms focused on their overall professional pathways.

The General Law of the Professional Teacher Service (*Servicio Profesional Docente*) was introduced in 2013 to consolidate the teaching service and set out the basis for selection, appointment, promotion and tenure possibilities for teachers. The law aims to upgrade the overall status and career perspectives among quality teacher candidates. The National Strategy for Continuous Training of Teachers (2016) goes a step further and intends to improve the skills of basic and upper secondary education teachers, especially those who showed below average qualifications in teacher assessments.

Providing teachers with timely and evidence-informed feedback is another important part of strengthening the profession. Mexico's comprehensive teacher appraisal system (introduced in 2013) includes examinations and regular performance evaluations, which then serve as a criterion for potential promotions, rewards and incentives. Despite the fact that teacher appraisal was no longer mandatory in Mexico, almost 87% of teachers followed an appraisal process in November 2016, according to the Ministry of Public Education (*Secretaría de Educación Pública*, SEP) statistics. After making some adjustments to the teacher evaluation process, the National Institute for Education Evaluation (*Instituto Nacional para la Evaluación de la Educación*, INEE) reintroduced the mandatory nature of teacher appraisal in 2017 and over 1 million teaching staff were evaluated that year.

Good school leaders are essential for improving the quality of teaching and learning environments in schools. School leaders in Mexico score slightly lower in the PISA 2015 index of educational leadership, which measures the levels of Principals' engagement in leadership activities. Nevertheless, Mexico is taking important steps to strengthen school leadership. The General Law of the Professional Teacher Service (2013) also aims to professionalise school leaders by introducing a transparent selection and recruitment process and an induction process during the first two years of practice.

The implementation of Mexico's reforms to improve teaching and learning conditions should be continued, monitored and evaluated to ensure they produce the desired results. Teachers and school leaders should continue to be supported, both with material resources and relevant professional development opportunities, to help raise the achievement and learning outcomes of their students. This is especially important for those working in challenging contexts.

Preparing students for the future

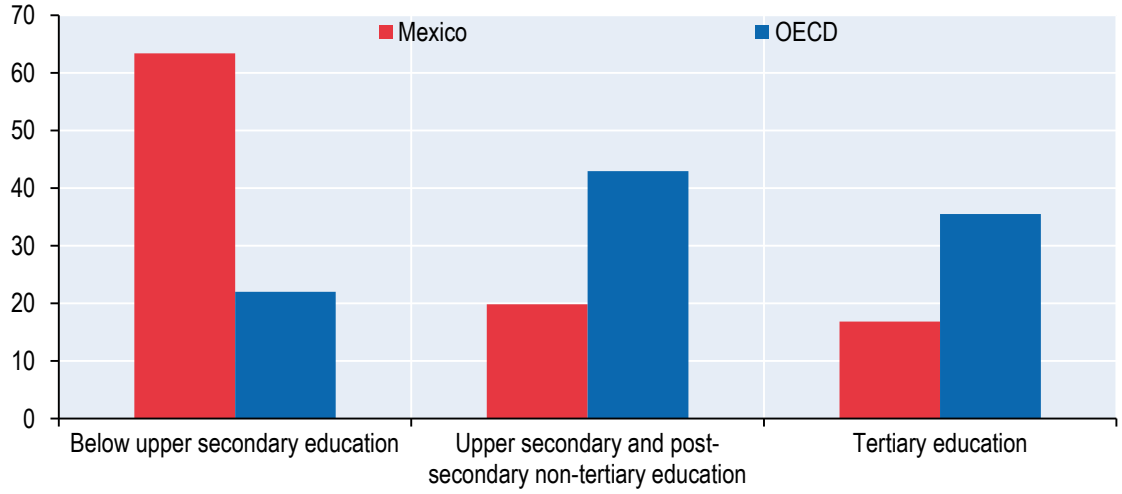
Young people need to develop the right mix of skills to keep abreast of changing labour-market needs and succeed in adult life. To raise the skills of its youth population, Mexico made upper secondary education compulsory in 2012 with the goal of attaining universal coverage by 2022. Enrolment rates in upper secondary and tertiary education have seen impressive increases (e.g. the total population of 15-year-olds enrolled in upper secondary and tertiary education secondary education and above has increased by 300 000 since 2003,

of which 60 000 have been added just since 2012), but progress has not been equitable and the share of Mexican adults with these levels of education remains below the OECD average. Moreover, Mexico has one of the largest shares of the population with an educational attainment below upper secondary (63%) among OECD countries (Figure 5.4). This leaves the country with a rather poorly qualified workforce. Furthermore, Mexico has one of the highest rates of 18-24-year-old NEET (not employed or in further education or training) in the OECD (Figure 5.5). There is also a large gender gap in NEET: one in ten young men, but more than three in ten young women are NEET.

Labour market perspectives and a country's capacity to develop skills effectively can play an important role in the educational decisions of the population. This is especially true in Mexico where attainment levels are relatively low. A boost in manufacturing activities and informal employment has also generated an increase in the relative demand for low-skilled labour and decreased the opportunity cost of leaving education. This contributes to low graduation rates from upper secondary education (Figure 5.6). At the same time, Mexico is one of the countries in which a higher number of firms report having difficulties in finding the skills they require (30.9% against 14.8% in the OECD) and where, in turn, firms' investment in their workers is below the OECD average.

FIGURE 5.4. **MANY MEXICANS HAVE ATTAINED ONLY BELOW UPPER SECONDARY EDUCATION**

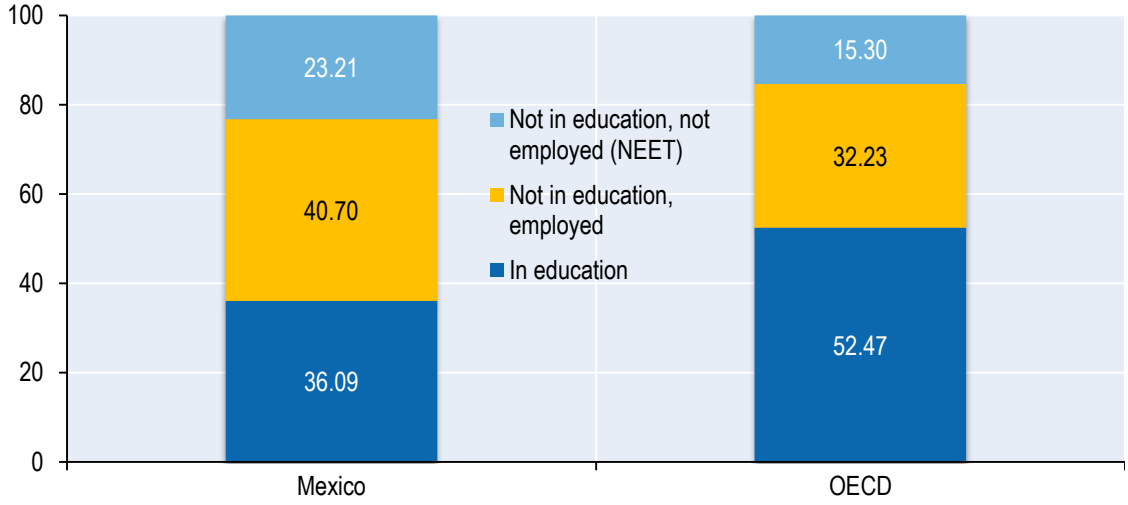
Education attainment of 25–64 year-olds, 2016, as a percentage of population



Source: OECD (2017a), *Education at a Glance 2017: OECD Indicators*, http://dx.doi.org/10.1787/eag-2017-en.

FIGURE 5.5. **MANY YOUNG MEXICANS ARE NEITHER IN EDUCATION NOR TRAINING NOR WORK**

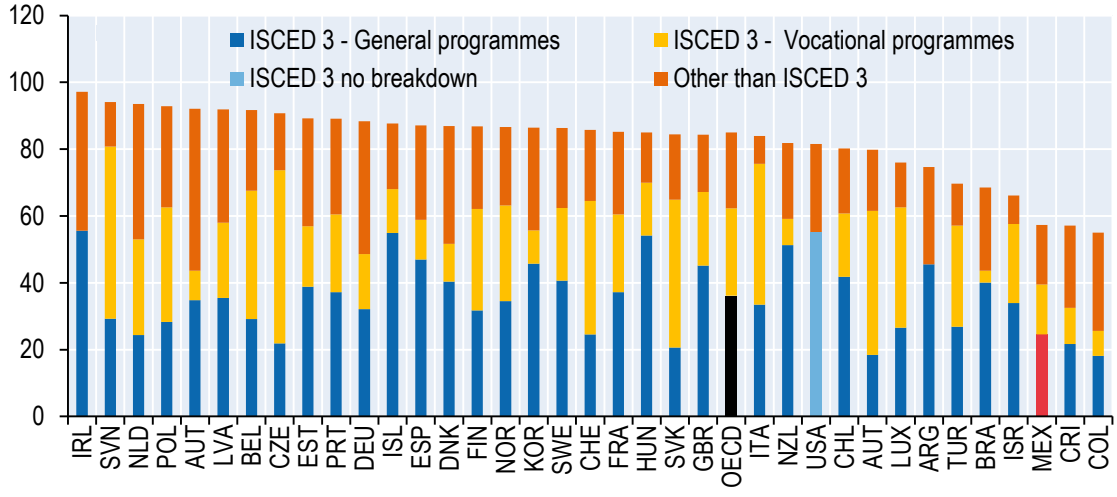
Percentage of 18–24 year-olds in education and not in education, 2016



Source: OECD (2017a), *Education at a Glance 2017: OECD Indicators*, http://dx.doi.org/10.1787/eag-2017-en.

FIGURE 5.6. **PARTICIPATION IN UPPER-SECONDARY EDUCATION IS RISING, BUT STILL BELOW THE OECD AVERAGE**

Enrolment rates of 15–19 year-olds, by programme level and orientation, 2015



Note: ISCED 3 corresponds to upper secondary education.

Source: OECD (2017a), *Education at a Glance 2017: OECD Indicators*, http://dx.doi.org/10.1787/eag-2017-en.

High quality vocational education and training (VET) can help make education more attractive and relevant to students' needs, thus limiting their disengagement and ensuring successful completion. Enrolment in VET programmes at upper secondary level in Mexico (38.2% of students follow a vocational upper secondary programme) is lower than the OECD average (45.7%). Recent reforms have aimed to improve the attractiveness of VET by making it more relevant to labour market needs. Private sector involvement was expanded, the number of apprenticeship places per company increased, and the vocational component of the dual

track model strengthened. The unemployment rates for 25–34 year-old Mexicans with upper secondary education or post-secondary non-tertiary education are among the lowest in the OECD. In 2016, only 5% of all those with this level of education were unemployed, compared to the OECD average of 9.2%.

At the same time, employment rates for 25–34 year-olds with tertiary education are slightly lower than the OECD average – 79.9% were employed in 2016, while the OECD average was 82.9%. Still, higher levels of education translate into better pay in Mexico. Holders of tertiary education credentials earn over twice as much as adults with upper secondary education as their highest qualification. This is the second highest earnings differential among OECD countries after Chile. Furthermore, an average of seven out of ten tertiary graduates have stable contracts compared to only two in ten among those who did not finish compulsory education.

Due to the increasing competitiveness of the global economy, Mexico has been encouraging students to pursue careers and research in STEM fields. In 2016, one quarter of tertiary-education adults had a degree in one of these fields, on par with the OECD average. However, the expansion of tertiary education in Mexico presents challenges in terms of strengthening the system's quality and relevance to the labour market and meeting the country's development needs (OECD, 2017c). The National Productivity Committee (NPC) has been leading efforts to co-ordinate and align skills policies with the needs of Mexico's productive sectors and major clusters, such as the aerospace and automotive industry.

Closing the gap between the supply and demand of skills requires co-ordinated efforts among different ministries and stakeholders. There is scope for even greater co-operation in the NPC, especially between representatives from sub-national authorities. Tackling skills imbalances through policy requires good co-ordination between the national and regional levels. It also requires up-to-date and high-quality information on skills needs and the skill levels of the population to inform training provision and career choice. In 2019, Mexico will have data available from the OECD Survey of Adult Skills (part of the Programme for the International Assessment of Adult Competencies, PIAAC). This will not only provide a measure of Mexican adults' skill proficiency in different areas, but also information on how skills are used at home, at work and in the wider community.

In addition to raising education attainment levels, Mexico should provide opportunities for adults to upgrade and adapt their skills. This is especially important for Mexico's most vulnerable populations and those with low levels of skills. Addressing the barriers to adult learning, especially for low-skilled individuals, will require working on various fronts such as increasing incentives for investments in training, developing mechanisms to allow the portability of training rights between employers, fostering motivation and removing time and other constraints. Such policies will be important to avoid leaving people behind, increase future prosperity and ensure the well-being of the Mexican people.

Key recommendations

- **Continue to implement the Education Reform, which includes Mexico's New Education Model, as this has the potential to provide greater transparency in the country's education outcomes, accountability systems and evaluation processes.**
- **To increase the reform's chances of success, ensure that stakeholders have the appropriate capacity, support and clarity regarding their various responsibilities across the different contexts of the Mexican education system.**
- **Maintain key stakeholder engagement to achieve greater relevance and ownership of policy changes as the education reform implementation progresses.**
- **Ensure adequate flexibility in the implementation roadmap to adapt to the diverse educational contexts within Mexico, while consistently moving towards the system's overall goals for improvement.**
- **Strengthen the understanding of evaluations as improvement instruments and ensure that the indicators used to measure the quality and progress of Mexican education capture educational improvement from within a variety of cultural and socio-economic contexts.**
- **Support teachers and school leaders to make the best use of assessment results to improve learning environments and student outcomes.**
- **As teachers are key allies for the improvement of an education system, continue to strengthen the profession through the Professional Teacher Service, by providing timely and relevant information to teachers on what they should improve (through teacher appraisal processes), how they could improve (through continuous education opportunities) and why they should improve (through incentives and stimuli practices).**
- **Continue to advance policies to improve the educational success of students from diverse backgrounds, regardless of their gender (for example, by continuing to support policies such as NiñaSTEM Pueden). As part of these efforts, reflect on how resources (human and material) can be allocated more efficiently and equitably to reach ECEC institutions and schools that are at greatest socio-economic disadvantage in order to raise attainment and deliver quality education across all types of schools.**
- **Work strongly and relentlessly to raise the quality and coverage of ECEC programmes, especially for children until the age of three, to contribute to more inclusive outcomes.**
- **Make upper secondary education more attractive and relevant to students' needs, encouraging their engagement and school completion.**
- **Continue to work towards improving the quality and coverage of VET programmes and ensure they are well-aligned to labour market needs.**
- **Increase synergies across the system, in order to make education more relevant for Mexico's shorter and longer term development needs, for example, between the Ministry of Education, the Ministry of the Economy, the Ministry of Finance, the Ministry of Labour and CONACYT.**

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Chapter 6

Reforming Mexico's labour market and social policies

Dana Blumin, Oliver Denk, Paolo Falco, Valerie Frey,
Pascal Marianna and Sébastien Martin

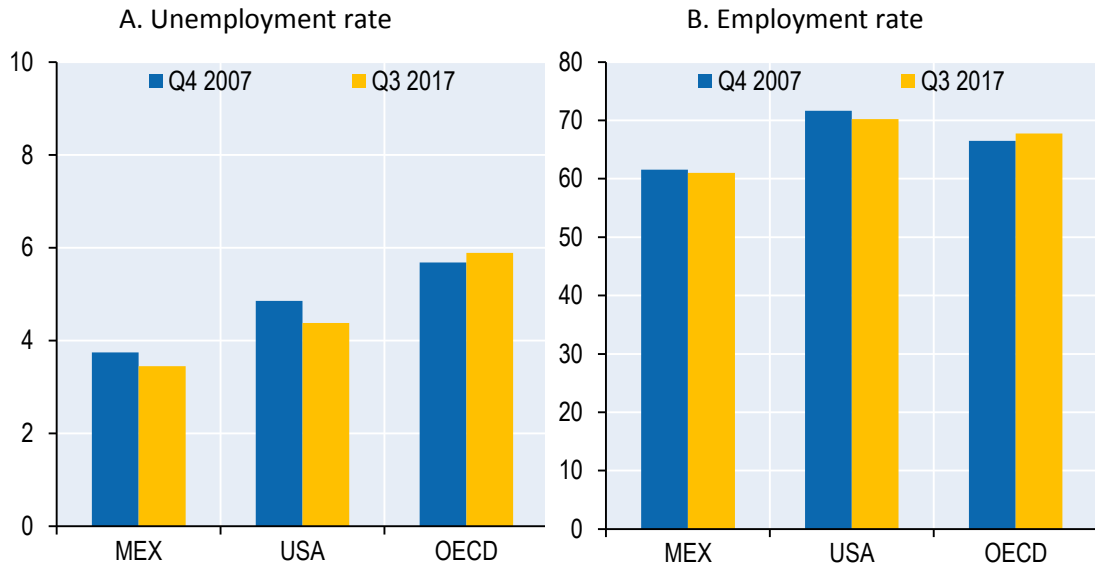
Mexico's labour market has overcome the crisis well, both compared with Mexico's situation in 2007 and the experience of the OECD as a whole. The labour market is, however, marked by pressing structural challenges. High levels of informality, poor quality jobs, an insufficiently developed social protection system and high levels of inequality continue to challenge Mexico. Past policies have begun to correct some of these trends, but much more needs to be done to improve the functioning and inclusiveness of the labour market and the social protection system and to speed up the reform process.

Mexico's labour market has now moved on from the severe cyclical downturn that followed the global financial and economic crisis. The unemployment rate has fully recovered from the impact of the crisis, standing at 3.4% at its latest reading and therefore somewhat below the rate at the onset of the crisis in 2007 (Figure 6.1). This is 2.5 percentage points lower than in the OECD on average and the fourth lowest rate among the 35 OECD countries. The recovery has been somewhat slower in terms of employment rates, which are still half a percentage point below where they were before the crisis. This reflects a decline in the labour force participation of youth and, to a lesser extent, of older workers. Over the next two years, employment and unemployment are projected to stay broadly stable.

However, the difficulties that workers face in the labour market are greater than what is suggested by Mexico's relatively low unemployment rate. The absence of a public system of unemployment benefits in Mexico, unique among OECD countries, means that many job losers cannot afford a lengthy search for a suitable new job and must take up the first option available. Spending on active labour market policies is also practically non-existent. Informality remains quite high, and women's participation low.

Mexico's overall labour force participation is the second lowest in the OECD after Turkey. This result is largely driven by the low share of women in the labour market, a rate that has remained stable over the past decade while that of men declined. Many barriers prevent women from fully participating in the economy (see Chapter 7).

FIGURE 6.1. **MEXICO'S LABOUR MARKET HAS RECOVERED RELATIVELY WELL FROM THE CRISIS**



Source: OECD Short-Term Labour Market Statistics (database).

Moreover, economic growth has not been inclusive enough to achieve better living conditions for many families. The Mexican labour market scores poorly compared with other OECD economies in terms of earnings quality – which takes account of the level and distribution of earnings (further discussed below) – as well as different measures of inclusiveness related to income inequality, gender labour income equality and the integration of disadvantaged groups.

For example, one in seven working-age persons live with less than half the typical household income compared with one in ten on average across the OECD (Figure 6.2). These trends in the so-called "low income rate" have further worsened since the global crisis, and women (in particular those with caring responsibilities), youths, migrants, and indigenous people are frequently disadvantaged in the labour market.

Enhancing job quality and reducing informal employment

Poor job quality is a major policy concern throughout the OECD and an especially pressing one in emerging economies such as Mexico. Labour market performance should not be judged solely on the basis of the number of jobs available and the number of people in the labour force, but also on the quality of employment (OECD, 2014).

Overall, Mexico's levels of job quality present a mixed picture, but a number of important challenges are evident. Earnings quality in Mexico is the lowest in the OECD, due to the relatively low levels of average earnings and the high levels of earnings inequality. Labour market insecurity, as captured by the risk of unemployment, is relatively low. However, when the risk of extreme low pay is also accounted for, insecurity is significantly above the OECD average (OECD, 2015). The incidence of job strain, an indicator of the imbalance between the demands placed upon workers and the resources at their disposal, is slightly below the OECD average. But a relatively high share of workers in Mexico experiences very long working hours (OECD 2017a, 2015). Job quality is especially low for workers from disadvantaged socio-demographic groups (OECD, 2015). In Mexico, young people, and older and low-skilled workers tend to experience poor performance in terms of both job quantity and job quality. These are the groups that face the highest barriers to the best jobs. Young workers, in particular, often struggle to access better employment opportunities due to lack of credentials and prior experience. As a consequence, these groups often fall back into informal jobs, which are of significantly lower quality (see below).

FIGURE 6.2. **LABOUR MARKET PERFORMANCE IN MEXICO IS CHARACTERISED BY LOW EARNINGS QUALITY AND LOW INCLUSIVENESS**

Note: An upward ↗ (downward ↘) pointing arrow for an indicator means that higher (lower) values reflect better performance. Earnings quality: Gross hourly earnings in USD adjusted for inequality. Labour market insecurity: Expected monetary loss associated with becoming unemployed as a share of previous earnings. Job strain: Percentage of workers in jobs characterised by a combination of high job demands and few job resources to meet those demands. Low income rate: Share of working-age persons living with less than 50% of median equivalised household disposable income. Gender labour income gap: Difference between average per capita annual earnings of men and women divided by average per capita earnings of men. Employment gap for disadvantaged groups: Average difference in the employment rate for prime-age men and the rates for five disadvantaged groups (mothers with children, youth who are not in full-time education or training, workers aged 55-64, non-natives and persons with disabilities) as a percentage of the employment rate for prime-age men.

Source: OECD calculations using data for 2015 or latest year available from multiple sources. See OECD Employment Outlook 2017, Table 1.2. for further details.

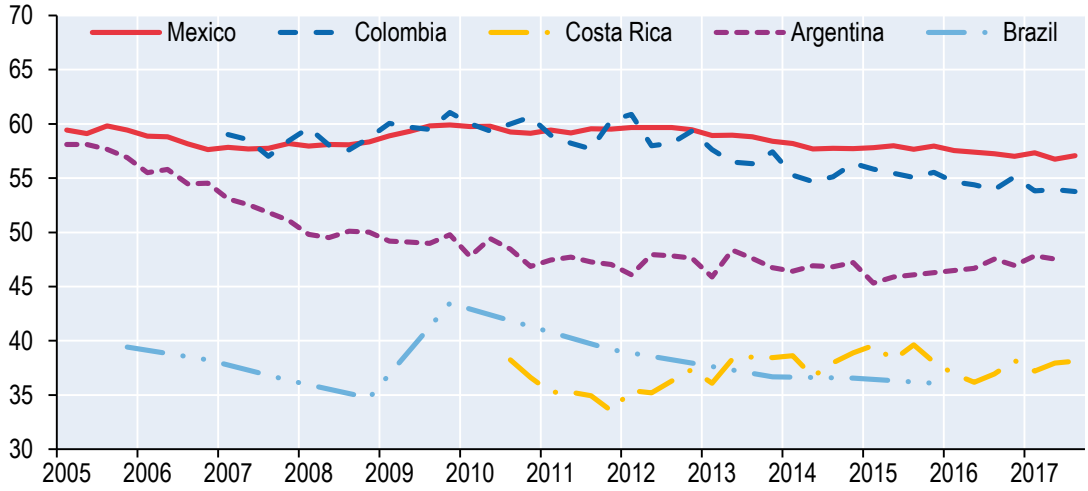
A comprehensive strategy to enhance job quality includes a broad range of measures (OECD, 2015). First, more effective social protection systems (discussed below) and labour laws can enhance the quality of existing jobs. Second, given the potential scarring effects of a bad job early in one's career, it is important to help workers find high quality jobs early in their working lives. This is particularly important for low-skilled workers, who face the highest risk of being trapped in undesirable jobs with limited career prospects. Policy interventions in this area are very diverse and include a strengthened academic and vocational education, quality

training and apprenticeship programmes, as well as active labour market programmes. Finally, policies to curb informality will have immediate impacts on job quality in countries with high levels of informality, like Mexico.

Despite recent improvements, informal employment remains high in Mexico. According to the latest available data, the proportion of informal workers in the Mexican labour force was 56.5% in the second quarter of 2017, the highest among OECD countries and one of the highest in Latin America (Figure 6.3). Informality is concentrated in very small informal firms that employ more than half of Mexico's informal workers, and in the southern states of Mexico.

FIGURE 6.3. **INFORMALITY REMAINS HIGH**

Informal employment, in percentage of total employment (persons aged 15 or more)



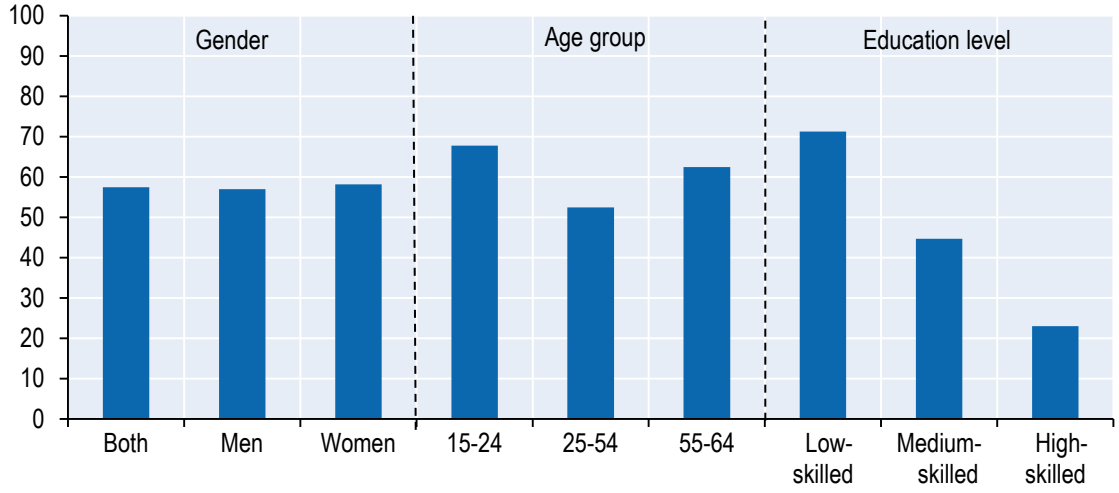
Note: Informality for Argentina, Brazil, Colombia, Costa Rica is defined to include: i) employees who do not pay social security contributions; and ii) self-employed whose business is not registered. Figures for Mexico refer to the official indicator of informal employment (TIL1). Annual data for Brazil and seasonally adjusted series only for Mexico. Data for Argentina refer to selected urban areas. According to the National Statistical Authority of Argentina (INDEC), LFS series published after the first quarter of 2007 and until the fourth quarter of 2015 must be considered with caution.

Source: INEGI, series based on the ENOE (Encuesta Nacional de Ocupación y Empleo) and OECD calculations based on microdata of the Encuesta Permanente de Hogares (EPH) for Argentina, the Pesquisa Nacional por Amostra de Domicílios (PNAD) for Brazil, the Gran Encuesta Integrada de Hogares (GEIH) for Colombia and the Encuesta Continua de Empleo (ECE) for Costa Rica.

The risk of informal employment varies considerably according to the socio-demographic background of workers (Figure 6.4). While the share of informality is slightly above 50% in the age group between 25 and 54, it amounts to 62% and 68% among older workers and youth respectively. Low-skilled workers (those with less than high-school) are three times as likely to work informally as workers with tertiary education. Among the former group, the incidence of informal employment is above 70%, while among the latter it is 23%. Men and women face similar rates of informal employment on average, but in specific occupations men and women have different rates of informality. For instance, female workers who are self-employed are more likely to be working informally than men (OECD, 2016a).

FIGURE 6.4. **RISK OF INFORMAL EMPLOYMENT VARIES CONSIDERABLY BY THE SOCIO-DEMOGRAPHIC BACKGROUND OF WORKERS**

Percentage of informal employment by indicated group, 2016



Note: Includes agricultural and non-agricultural sector workers.

Source: OECD estimates based on microdata of the Encuesta Nacional de Ocupación y Empleo (ENOE).

Informality is associated with low productivity, as resources remain trapped in informal activities and are not used in more productive ones, dragging down Mexico's growth potential. There is also a link between informality and poor job quality along several dimensions, including pay, labour market security and quality of the working environment. Furthermore, workers in informal firms tend to receive less training and are less likely to accumulate human capital.

Addressing labour market informality and job quality is also one of the biggest challenges for the Mexican pension system and it is crucial to ensure adequate pensions. As the contributory pension system only covers formal sector workers, a large part of the working-age population is not reached. Moreover, mobility between the formal and informal sectors is high, which generates significant contribution gaps. As a result, only 25% of the population aged over 65 received an old-age contributory pension in 2010 (Villagómez and Ramírez, 2013). Even workers who are in formal employment will often only contribute little given the prevalence of poor job quality.

A comprehensive strategy to fight informality should be based on three pillars: increasing the benefits of formality, decreasing the costs of formalisation and improving enforcement methods (OECD, 2015). In recent years, Mexico has put in place several reforms to tackle informality from different angles (OECD, 2017a). It stepped-up enforcement measures for firms with 50 or more employees. It introduced tax reforms – via the Régimen de Incorporación Fiscal (RIF) – that have induced 1.5 million informal firms to join the tax system since 2014. The government also put in place labour market reforms that strengthen incentives to join the formal sector. Addressing the remaining implementation gaps will help fulfil the benefits of these reforms. For instance, it could increase awareness of the social security regime for incorporation (Régimen de Incorporación a la Seguridad Social, RISS) which offers reduced contribution rates for workers joining the national social security system IMSS. These are welcome steps in the right direction.

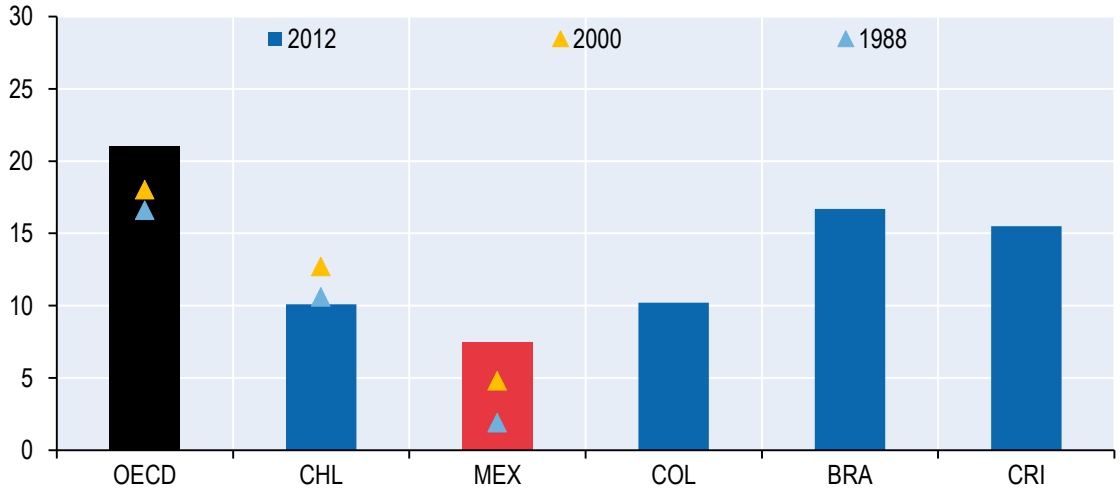
Strengthening social protection

In Mexico, social protection policies function in an environment characterized by high levels of informality and widespread poverty. The long-standing challenge of a large informal sector led over time to the creation and expansion of non-contributory social protection programmes, as social security programmes designed for formal workers miss about half of the working population.

Mexico's public social expenditure as a share of gross domestic product (GDP) is still comparatively low, despite significant increases in past decades. Mexico spent almost three times more on social programmes in 2016 than in 1988. However, this still amounts to only one-third of the OECD average, and Mexico's social spending is lower than that of Chile, Colombia, Brazil or Costa Rica (Figure 6.5). Tax evasion and avoidance (see Chapter 2) and the high levels of informality result in lower government revenue, which makes it difficult to increase social spending. Relative poverty reduction through cash transfers is still smaller in Mexico than in most OECD countries. Mexico's tax revenues as a share of GDP are the lowest among OECD Members. According to the OECD Revenue Statistics, in 2016 Mexico had a tax-to-GDP ratio of 17.2%, compared with the OECD average of 34.3%. The resulting low public budget, together with structural issues such as inefficiency in public spending and corruption, result in a relatively low leverage from the Mexican State in financing the necessary higher public social spending and investment.

FIGURE 6.5. **SOCIAL SPENDING IN MEXICO REMAINS INADEQUATE TO TACKLE POVERTY**

Public social expenditure, percentage of GDP



Note: Public social expenditure refers to benefits with a social purpose including the following policy areas: old age, survivors, incapacity-related benefits, health, family, active labour market programmes, unemployment, housing and other social policy areas. This does not include education related expenditure. Estimates for 2016. Data for Mexico, Chile refer to 2015, 2014 for Costa Rica, 2013 for Colombia, 2010 for Brazil. Latest data for Mexico and Costa Rica are based on ECLAC. Data for Chile are not comparable overtime due to a break in series in 2005.

Source: OECD (2016), OECD Social Expenditure database (SOCX) (www.oecd.org/social/expenditure.htm); OECD (2016) Society at a Glance, OECD Publishing, Paris; OECD Social Indicators (database), Economic Commission for Latin America and the Caribbean (ECLAC).

Over the past three decades, Mexico has invested in and implemented many significant social programmes to tackle poverty. Today, Mexico's main social programmes for the poor are large both in coverage and expenditures. PROSPERA, the country's primary anti-poverty programme, covered almost 6.8 million families in 2016, with 28.1 million total beneficiaries benefiting from conditional cash transfers – equal to nearly 23% of Mexico's population. The programme *Pensión para Adultos Mayores* (PAM), Mexico's social pension for individuals aged 65 and above, benefited 5.4 million elderly people in 2017 (equal to just over 60% of the population aged 65 and above), though the benefit level is still below the extreme poverty line. Spending on PROSPERA (formerly *Progresa*/*Oportunidades*) and PAM amounts to 5.4% of total social public expenditure (0.45% of GDP) and 2.6% of total social public expenditure (0.22% of GDP) respectively. PROSPERA, PAM and other innovative programmes like *Programa de Estancias Infantiles para Apoyar a Madres Trabajadoras* (day-care centres, PEI) have contributed to a reduction in extreme poverty in Mexico, while at the same time encouraging families' take-up of education and health services (OECD, forthcoming).

Despite these achievements, however, coverage gaps remain and the country faces challenges in moving PROSPERA recipients out of benefit receipt and into productive employment. There are few mechanisms for improving "graduation" from PROSPERA and, indeed, it is not often measured (OECD, forthcoming). Although education and health services are a key component of PROSPERA, access to educational and health services is unequally distributed across the country, and remote localities are still regularly underserved by the state. The quality of health and educational services remains a major concern (see Chapters 5 and 8). Improving access to good-quality health and educational services is a necessary condition for conditional cash transfer programmes to work, but improving the quality of services will require greater public investments and more inter-institutional co-operation across ministries and levels of government. Federal ministries and state and local governments face challenges to achieve a whole-of-government approach to poverty reduction. PROSPERA, for example, would benefit from a simplified design and institutional co-ordination. Given the many levels of governance in Mexico, there are also many public assistance programmes that overlap in terms of objectives, benefits accrued, and beneficiaries, although Mexico is starting to build a social beneficiary database to address this issue (OECD, forthcoming).

As in other OECD countries, Mexico has difficulty transitioning cash benefit recipients into jobs – especially formal ones. PROSPERA recently introduced a linkage (*vinculación*) component aimed at connecting cash beneficiaries with labour market opportunities, but in practice this tool is underused. There is no conditionality around this part of PROSPERA, and potentially useful institutional linkages with other ministries and the private sector are missing, which limits PROSPERA's ability to connect beneficiaries with jobs (OECD, forthcoming).

Additional measures could also be taken to reform the housing programme for workers, managed by the Institute of the National Workers' Housing Fund (INFONAVIT). Under this programme, workers contribute on their wages for housing purposes. The system could be made more flexible and allow workers to use such contributions for other purposes, such as unemployment or retirement benefits.

Better fighting poverty in old age is also crucial. Even for those who are in formal employment, contributions to the mandatory pension system are too low to guarantee pension benefits of more than 50% of final salary. According to a recent OECD study (OECD, 2017b), a contribution rate of 6.275% may lead, in the best case scenario, to a replacement rate of only 26% for a full career average earner, the second lowest replacement rate among OECD countries. This low replacement rate is mostly the result of the low mandatory contribution rate. A 50% replacement rate can be achieved with a 75% to 90% probability by contributing on average 13% to 18% over 40 years (OECD, 2016b). Recent legislation, which ensures all remaining funds in the housing account at the point of retirement are transferred to the pension system and annuitised, rather than being taken as a lump-sum, will help increase future pensions. However, as the housing account can be withdrawn during working life, there will be considerable variation in its future value and it will therefore not be beneficial to all.

Due to its implementation of a randomised experimental design in the initial phase of *Progresa* (subsequently renamed *Oportunidades* and now PROSPERA), Mexico has a strong international reputation for rigorous evaluations of social programmes. Yet Mexico's commitment to embedding rigorous evaluations in the design and reform of programmes has tapered in recent years. Significant recent changes to social programmes – such as the reduction of the pension age for PAM, the introduction of the labour linkage component of PROSPERA and the introduction of PEI (day-care centres) – were not introduced using randomised or quasi-experimental methods. This lack of pre-planning for evaluation has hampered evaluations of programme effectiveness.

A major step towards improved poverty and inequality evaluation and the effectiveness of poverty-reducing measures is Mexico's new social beneficiary database, which is currently being developed and implemented. Mexico's social protection system is fragmented across many individual programmes operating in different contexts and at different levels of government. To better co-ordinate these programmes, the Integrated Social Information System (*Sistema de Información Social Integral*, SISI) is a computing platform that has been put in place with the aim of assembling data from social programmes at the federal, state and municipal level. It will consolidate information to further improve the possibilities of identifying poor and vulnerable households in the country, and to detect overlap and duplications across programmes, thereby laying the groundwork for an integrated national social protection system.

Mexicans' high reliance on informal jobs leaves more than half of all workers outside the traditional, employment-based social protection system. Yet even workers with formal jobs have little security in the event of job loss, as unemployment insurance does not exist in Mexico. While Mexico has made important gains in social and labour market policies, it must continue to expand access to good-quality social protection, facilitate beneficiaries' transition to productive employment, and improve equality of opportunity to ensure inclusive growth.

Key recommendations

- **Reduce informality through a multi-pronged approach that includes i) improving the quality of public services and strengthening the link between contributions and benefits in social protection schemes; ii) simplifying tax and regulatory systems (see Chapters 2 and 9); and iii) giving enforcement agencies, such as the labour inspectorates, sufficient resources to carry out their work effectively.**
- **Renew efforts to introduce a national system of unemployment insurance.**
- **Improve the targeting of social benefits (e.g. conditional cash benefits) and expand access to ensure that those individuals most in need receive social protection.**
- **Increase the quality of and access to social services, particularly education and health, to reduce regional inequalities and ensure comprehensive social protection.**
- **Facilitate beneficiaries' transition to productive employment, in order to reduce benefit dependence, for example by improving the linkage (*vinculación*) component of PROSPERA.**
- **Increase the number of contributors to the mandatory pension by reducing informality.**
- **Increase contribution levels to the mandatory pension system to ensure more funds are ring-fenced within pensions.**
- **Increase the safety-net benefit to alleviate old-age poverty, but ensure that this does not act as a disincentive to formal employment.**
- **Strengthen institutional linkages across ministries and levels of government in order to make social protection more effective.**
- **Recommit to rigorous evaluation in the design and reform of social programmes, in order to assess better programme effectiveness.**
- **Ensure that resources continue to be invested – and increased – in important social programmes, such as PROSPERA and PEI, under the condition that programme effectiveness and coverage are improved.**
- **Simplify the administrative procedures for accessing cash transfers.**
- **Step-up the role of social workers in reaching out to marginalised families to tackle extreme poverty, in particular in remote areas in the South.**
- **Raise and broaden the minimum pension to expand the old-age safety net.**

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Chapter 7

Towards greater gender equality

Valerie Frey, Fianna Jurdant, Caitlyn Guthrie,
Pinar Guven, Gaëlle Ferrant and Gamze Igrioglu

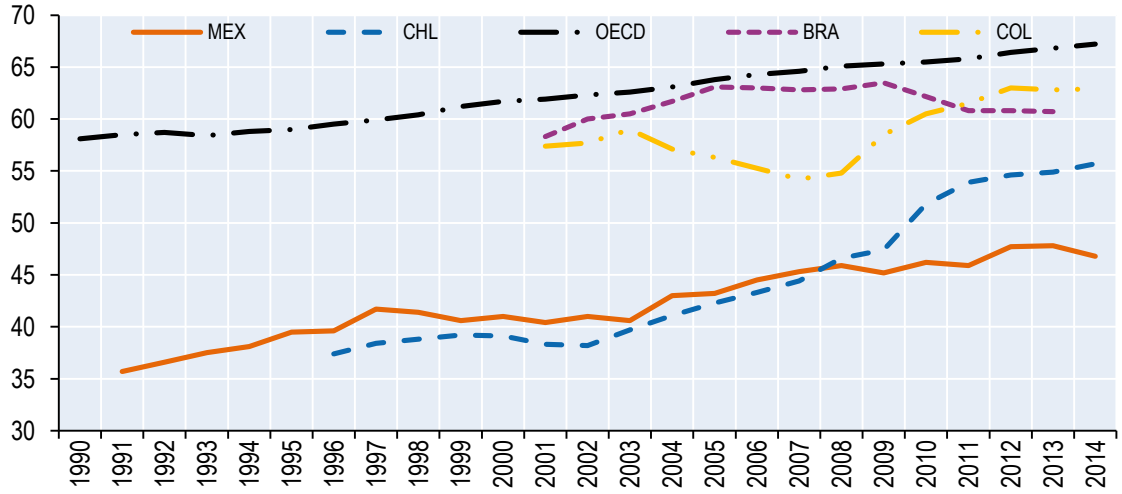
Mexico has a long way to go on the road to gender equality. Over the past two decades, Mexico has achieved some progress thanks to comprehensive laws strengthening women's rights. However, entrenched acceptance of discriminatory social norms, legal loopholes and inadequate public support for working parents undermine gender equality. Although women's educational attainment now matches men's, fewer than half of working-age Mexican women are in the labour force. Nearly 60% of Mexico's working women hold informal jobs, with little social protection and low pay. Mexico's adolescent pregnancy rate remains five times as high as the OECD average, and the share of young women not in employment, education or training is nearly four times the rate for young men. Across all age groups, Mexican mothers are less likely to be employed than mothers in most OECD countries. Violence against women remains widespread. Aside from the moral imperative, greater gender equality will ensure a more efficient use of Mexico's resources and promote sustainable inclusive growth.

Social and economic outcomes for Mexican women and girls continue to lag not only behind outcomes for women in the rest of the OECD, but also behind women's outcomes in many other middle-income Latin American countries (OECD, 2017a). In 2016, fewer than half (47%) of working-age Mexican women participated in the labour force, a rate far below the average for Mexican men (82%) and the OECD average for women (67%) (Figure 7.1). Women face barriers in advancing to leadership roles, and experience occupational and sectoral segregation in both private and public sector jobs. Many women are trapped in informal jobs, which offer low pay, inadequate social protection and little safeguard against poverty.

Women are still underrepresented in managerial positions, both in the public and private sectors. In 2017, only 4.7% of large companies in Mexico had more than three women on the board (MSCI, 2017), compared to 47% in OECD countries. Meanwhile, women managers in Mexico represented 36% of total managerial employment in 2016, slightly above the OECD average of 32%. Unlike many other OECD countries, Mexico has not established a policy to enhance women's participation in corporate leadership. However, in 2017, a sub-index measuring the participation of women on boards was introduced in the Mexican Stock Exchange's Sustainability Index.

FIGURE 7.1. **MEXICAN WOMEN'S LABOUR FORCE PARTICIPATION IS IMPROVING, BUT LAGS BEHIND MOST OF THE OECD**

Female labour force participation rates, 15-64 year-olds, selected countries, 1990-2014



Note: Data for Brazil and Colombia in 2006 are interpolated.

Source: OECD Employment Database (2016).

Self-employment is widespread in the Mexican labour market. While both men and women face challenges to growing their business in Mexico, including inadequate access to credit and a difficult business environment, male self-employed workers are more likely to be employers and to be formally registered with the government. In contrast, self-employed women tend to be own-account workers and are more likely than men to work informally, often as domestic workers or street vendors. Among Mexican businesses participating in international trade,

men entrepreneurs are more likely than women entrepreneurs to export to businesses only, while women entrepreneurs are more likely to export to individual consumers only, reflecting traditional polarisation in manufacturing and services sectors.

Women are more likely than men to live in poverty in Mexico, and even more so in the case of indigenous women. Women of indigenous origin have less education and are far more likely to be illiterate than indigenous men and non-indigenous men and women. Indigenous women also have worse maternal health outcomes, including mortality (OECD, 2017a). Indigenous women in rural areas are often beyond the reach of the state and consequently face constraints in securing land and property rights as they are more likely to lack legal documentation, such as identification cards and birth certificates required to access land assets (OECD, 2017b).

Mexico's extensive legislative framework on gender equality has brought about real and substantive improvements in women's rights and well-being over the past decade. However, legal loopholes and discrimination remain, which undermine the legislative progress and expose women and girls to ongoing discrimination. For example, the high prevalence of early marriage is partly due to the slow progress made in taking action (through national legislation, among other means) to end the practice. The minimum legal age of marriage is set at the state level, and ranges from 14 to 18. Even where laws exist, unregistered unions may be seen as a solution to get around the legal age of marriage (OECD, 2017b). As a result, in 2016, 23% of girls have been married before their 18th birthday, the eight highest number of child brides in the world (UNICEF, 2016).

Gender inequality comes at a high moral and economic cost. The participation of women in the labour force is crucial for promoting and sustaining economic growth, and the gains are largest in countries where large gender gaps persist, like Mexico. OECD models project a sizable impetus to growth in Mexico if women are able to engage in the labour market at rates similar to men. In Mexico, halving the current gender gap in labour force participation among 15- to 74-year-olds by 2040 could potentially add 0.16 percentage points to the projected average annual rate of growth in per capita gross domestic product (GDP) for the period 2013-40, boosting the projected average growth rate to 2.46% per year. By 2040, this extra growth would translate into an increase of around USD 1 100 in GDP per capita, relative to the baseline scenario. This is one of the largest projected pay-offs to gender equality in the OECD (Adema et al., 2015). Given Mexico's sizeable (and growing) pool of well-educated women, the losses are enormous if these women – and their valuable human capital – are not fully incorporated into the economy.

Removing barriers to paid work

As in the rest of the world, women and girls face a number of barriers to paid work in Mexico. Stereotypes, social norms, legal loopholes and restrictions, and discrimination still limit their choices. Mexican women perform over three-quarters of all unpaid housework and childcare in their homes – one of the highest burdens of unpaid work in the OECD – and these hours in unpaid work restrict time that could be spent in paid work. The culture of long work hours has also had effects on labour force participation, as fathers are more likely than mothers to be able to spend long days at the office (OECD, 2017a).

Discriminatory practices and attitudes, as well as legal loopholes related to workplace protection continue to obstruct women's equal employment opportunities (OECD, 2017b). For example, Mexico does not provide for parental leave for fathers after the maternity and paternity leave periods end and the law does not prohibit prospective employers from asking about family status. Across age groups, Mexican mothers are far less likely to be in paid work than mothers in most OECD countries: 25- to 54-year-old mothers are about eight percentage points less likely to be in paid work than comparably-aged women without dependent children in other OECD countries. Mexico's motherhood labour force participation gap is larger than most countries in the OECD, including Chile (4 percentage points) and Colombia (about 3 percentage points). This has implications not only for gender equality, but also for children. Maternal employment is strongly negatively correlated with child poverty across countries, and, indeed, Mexico has one of the highest child poverty rates in the OECD.

Parental leave allowances and early childhood education and care (ECEC) supports are relatively weak, gender norms regarding the behavior of fathers remain inegalitarian. Eligible mothers in formal jobs are entitled to 12 weeks of publicly-funded paid maternity leave, while eligible fathers are entitled to five days of employer-sponsored paternity leave. These are among the lowest entitlements in the OECD, and the fact that paternity leave is sponsored by an employer rather than the government likely reduces fathers' take-up.

ECEC is another important tool, not only for improving children's educational outcomes, but also for reducing mothers' unpaid work burdens and enabling them to enter the workforce. Participation in ECEC in Mexico has grown enormously over the past decade, especially following the introduction of compulsory preschool. Children aged three- through five-years-old are now enrolled in preschool at rates comparable to the OECD average. SEDESOL's Programme of Childcare Facilities to Help Working Mothers (*Programa de Estancias Infantiles para Apoyar a Madres Trabajadoras*) offers a useful example of rapidly expanding childcare access, at low cost, for very young children. Notwithstanding this progress, demand for ECEC still far outpaces supply, especially for children under age three, and quality of care remains a concern.

Young women and mothers, in particular, face high barriers to paid work. Mexico's share of young women not in employment, education, or training (so-called "NEETs") is 35% – the second-highest rate in the OECD. Young women are nearly four times as likely as young men to be NEETs in Mexico. Motherhood is a key driver of NEET status. Additionally, Mexico's adolescent pregnancy rate remains the highest among OECD countries (OECD 2017a), and often leads to young women's school dropout.

Achieving gender equality in the public sector

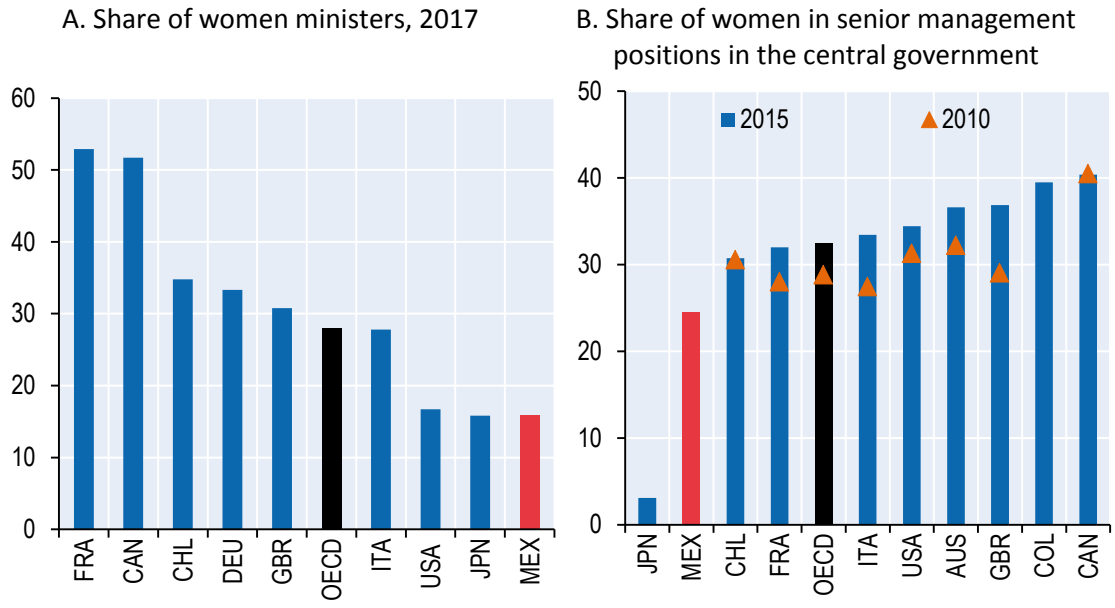
Important reforms were initiated by the 2012-18 administration to advance gender equality in public bodies, including the electoral reform introducing gender parity in 2014 and the Protocol to Address Political Violence Against Women of 2016. Between 2012 and 2017, Mexico also made significant progress in increasing women's representation in the Congress, placing itself among the top countries in the OECD and globally. In the Chamber of Deputies, women made up to 42.6% of seats in 2017, considerably above the OECD average of 28.8% and far higher than the rate of women's representation achieved in 2012 (26.2%). These achievements mostly reflect the successful implementation of the parity measures established in Mexico's

Constitution in 2014, in line with the 2015 OECD Recommendation on Gender Equality in Public Life and the 2013 OECD Recommendation on Gender Equality in Education, Employment and Entrepreneurship. Women's increased representation in Mexico's Congress has resulted in an upsurge of proposed bills to prevent gender-based violence, discrimination and accelerate gender equality and women's empowerment (OECD, 2017a).

Despite impressive progress, there is further scope for improving gender equality in key positions of power and influence in public bodies. For instance, gender balance is still not achieved in the chairs of ordinary commissions in the Congress. The gender gap in the executive branch remains significantly wide, and women still occupy far fewer political positions than their male counterparts at all levels of government (Figure 7.2, panel A). In state-level cabinets, women held an average of only 16.8% of seats in 2015; ranging from all-male cabinets in Sonora and Yucatán to 55% representation of women in Morelos. The gender gap in the judiciary is akin to that of the political executive. Women occupy only 21% of offices in first instance courts, 19% in appeal courts and 18% of judgeships in supreme courts in Mexico.

In public employment, women make up 51% of Mexico's public employees. However, there is a wide gender gap in top managerial positions in central government. In 2015, women held only 24% of senior management posts, compared to the OECD average of 32% (Figure 7.2, panel B). Mexican women in public employment are also affected by lower occupational and sector-related segregation (OECD, 2017a).

FIGURE 7.2. **MEXICO HAS SCOPE TO FURTHER IMPROVING GENDER EQUALITY IN KEY POSITIONS OF POWER AND INFLUENCE**



Source: Panel A.: Inter-Parliamentary Union (IPU) and UN Women "Women in Politics", 2015 and 2017. Panel B.: OECD (2016), ''Survey on the composition of the workforce in central/federal government''.

Many barriers continue to restrict women's equal participation in public decision-making positions. Among them are political harassment and violence against women holding office; sexual harassment; difficulties in balancing professional and personal life; and inadequate maternity and parental leave. Key initiatives to overcome these inequalities

include the 2016 Protocol to Address Political Violence Against Women, and the 2016 instruction of the President of Mexico to the Executive Cabinet to seek certification by the Mexican Standard for Equal Employment Opportunities and Non-Discrimination.

Fostering a greater participation of women in STEM fields of study

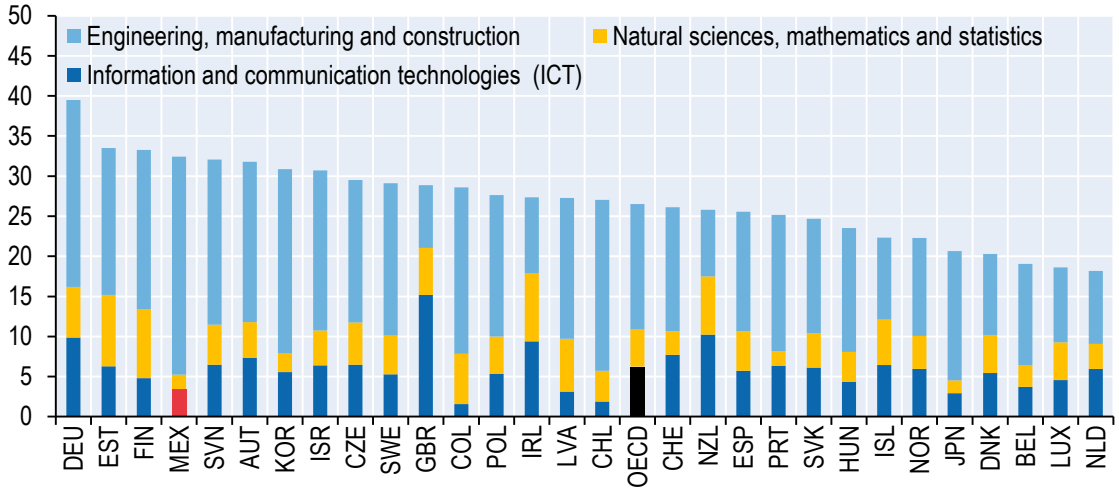
Mexico has adopted measures which have succeeded in narrowing the gender gaps in primary, secondary and tertiary education enrolment, but both girls and boys continue to face challenges in the educational system (see Chapter 5). As in many other countries, boys in Mexico outperform girls in the science and mathematics domains of PISA, while girls perform better than boys in reading. Furthermore, many young women in Mexico are lost in the transition from secondary school to tertiary education and/or the labour market, resulting in high female NEET rates.

Like in other OECD countries, not enough girls and women enter the potentially lucrative fields of science, technology, engineering and mathematics (STEM). However, due to the increasing competitiveness of the global economy and labour market, Mexico has endeavored to increase the number of students and researchers in science and engineering. Mexico's overall share of new entrants to tertiary STEM (32%) is now slightly above the OECD average (27%) and many of these new entrants are women (Figure 7.3): nearly half of new entrants to degrees in natural science, mathematics and statistics in 2015 were women. Furthermore, the share of new female entrants in information and communication technologies (ICT) (28%) and in engineering, manufacturing and construction (27%) were above the OECD averages (19% and 24%, respectively).

Still, more can be done to empower women to pursue STEM careers by raising awareness and combating gender stereotypes. The OECD-Mexico "NiñaSTEM Pueden" initiative, launched in 2017, has created a network of Mexican women engaged in prominent careers in science and mathematics to visit schools and encourage girls to be ambitious and pursue STEM studies. A greater female presence in these areas could have a positive effect on Mexico's economic performance.

FIGURE 7.3. **MANY NEW STEM STUDENTS ARE WOMEN**

Share of women among new entrants to tertiary education, by STEM field of study, 2015



Source: OECD/UIS/Eurostat (2017), Table C3.1. See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

Fighting violence against women

Sexual harassment is widespread in Mexico. In 2011, 63% of Mexican women over 15-years of age declared that they had been victims of some kind of violence in their lifetime. In addition, 47% of Mexican women who have had at least one intimate male partner report having been victims of violence.

Many of these Violence Against Women (VAW) related crimes go unreported for various reasons, including fear of further victimisation and threats (towards the woman and her loved ones), stigma, lack of means for self-support and lack of institutional protection. One major factor behind underreporting is mistrust in the criminal justice system (see Chapter 3).

Mexico is making progress on measuring VAW, conducting regular surveys on the prevalence of VAW, and also on prioritising its prevention and eradication. Important legal instruments protect women from violence, and the Mexican government has rolled out a multi-pronged approach to addressing VAW, entitled the Integrated Programme to Prevent, Address, Sanction and Eradicate Violence Against Women, 2014-2018. This programme proposes several strategies and policies to eradicate VAW and includes many government actors. Following the dispositions of the Belém do Pará Convention, spousal rape has been included in national legislation. Similarly, to improve the access of victims to legal support, Justice Centres for Women have been established across the country (OECD 2017a, 2017b). Despite these efforts to strengthen legal and legislative frameworks, culture and inertia discriminatory attitudes complicate the implementation of these laws: for example, 16% of women agree that domestic violence is justified under certain conditions.

To further address gender-based violence, Mexico should strengthen links between justice and social services and make them more responsive to the specific legal needs of women and girls. It is also important to tackle gender stereotypes within the justice system through

specific training initiatives to improve awareness of the legal needs of women and girls. Improving the analysis and monitoring of women's legal needs and disaggregating data collection will help with gender mainstreaming and the development of tailored responses to those needs.

Changing social norms and expectations

Gender-neutral laws and policies are not enough to guarantee equality due to discrimination in social norms. Securing women's rights and promoting gender equality requires gender-responsive laws, policies and programmes that take into account the structural barriers to equality. Discriminatory social norms overlap with development outcomes throughout a woman's life-cycle: they will determine whether she has any opportunity to forge her own pathway to empowerment and to contribute to the empowerment of her community. Public policies can only go so far in promoting gender equality if inegalitarian attitudes, sexism and misogyny persist in society.

Mexico's extensive legislative framework on gender equality has brought about real and substantive improvements in women's rights and well-being over the past decade. However, the plurality of legal systems and the persistence of discriminatory customary practices undermine the legislative progress, and expose women and girls to ongoing discrimination. According to the OECD's Social Institutions and Gender Index (SIGI), discriminatory formal and informal laws, social norms and practice are more pervasive in Mexico than in other OECD countries, except Turkey (OECD, 2014). Among other actors, the media in Mexico widely contribute to perpetuating gender stereotypes, inequalities and the "traditional" role of women. This is something which must be addressed and confronted through informed debate, scientific evidence, policy formulation and a responsible regulatory framework which recognizes the important role the media plays in promoting gender equality.

Mexico would benefit from a holistic approach that takes into account the role of discriminatory social norms. First, harmonising customary laws (i.e. traditional laws that shape gender relations in indigenous communities) with national laws in line with Mexico's international human rights' commitments (e.g. the Convention on the Elimination of All Forms of Violence against Women, CEDAW) would significantly improve women's rights and wellbeing. Regarding early marriage, for example, harmonising these laws by removing discrimination would have direct benefits for girls by challenging the social expectation that they should marry before the age of 18. Second, designing and launching a campaign to create awareness would transform social norms into sources of empowerment for women and men. In some cases, legal protection can be insufficient to prevent discrimination, due to poor implementation and awareness of these laws. The MenCare campaign (*Campaña de paternidad* or *Programa de los Cómplices por la Equidad*), for example, promoted men's involvement as equitable, non-violent fathers and caregivers as a means to achieve family well-being, gender equality and better health for both parents and children.

While representative public opinion polls reveal the strong persistence of patriarchal gender norms in Mexico, the younger generation gives cause for optimism. Young Mexicans are more gender progressive than their older counterparts across many measures, but especially so in accepting women's equal role in the labour market and access to education. When similar

survey questions are asked in consecutive waves (e.g. the question on priorities regarding boys' versus girls' higher education, and on child well-being when mothers work), there is also evidence that attitudes are evolving with time across age cohorts (OECD, 2017a).

Mainstreaming gender in all policy areas

Some of the challenges faced by Mexico in implementing effective gender equality policies stem from underlying governance challenges. These include difficulties in the timely engagement of stakeholders, limited capacities to integrate gender-sensitive data and analysis in decision making and absence of standard gender mainstreaming tools (OECD, 2017a).

During the 2012-18 administration, Mexico made significant improvements in its approach to dealing with gender gaps in a comprehensive manner. INMUJERES has played a key role in boosting gender equality policy frameworks (through PROIGUALDAD) and promoting measures such as gender quotas, which have proven to be very effective to increase gender equality in political participation. With the National Development Plan (2013-18) mandating the federal public administration to implement gender equality as a cross-cutting principle, Mexico is among the few OECD countries to have successfully aligned its legal, policy and planning instruments to build a gender perspective into all government actions. Subnational governments have also adopted such frameworks, though not all to the same degree. Reconvening the National System for Equality between Women and Men in 2016 under the chair of the President of Mexico sent unmistakable signals about the importance of this political agenda. The OECD has worked with Mexico hand in hand on this initiative, contributing evidence and international comparisons. Mexico works to advance gender-budgeting by earmarking funds to programmes that seek to promote gender equality and women's empowerment. Gender mainstreaming is also a requirement in Mexico's Federal Budget and Fiscal Accountability Act.

Despite these strides, there is scope for further strengthening gender mainstreaming. The absence of a standard gender analysis tool and sex-disaggregated data makes it difficult for the federal administration to meaningfully apply a gender lens to its policies and budgets. Policy evaluation also remains fragmented and would benefit from a stronger gender perspective. Mexico performs well within the Latin American and Caribbean region when it comes to the collection of sex-disaggregated gender statistics. However, line ministries still seem to struggle with the systematic collection of data to inform sectoral policies such as justice, trade and the environment. The available data generated by the National Institute for Statistics and Geography (INEGI) is not systematically used to inform the general design of all sectoral policies from a gender perspective. Mexico could make progress in closing gender gaps, such as those found in employment, unpaid work, violence and access to decision-making roles (see Chapter 6) if it addressed these gaps.

Putting social institutions at the core of the policy response can help open new and sustainable paths to promote gender equality. Constitutional and legal protections do not suffice to protect women's rights and empowerment opportunities due to discrimination in social institutions, which intersect and overlap to reinforce women's marginalisation (OECD, 2017b).

Key recommendations

- **Shorten the social security contribution period to ensure that more women are eligible for publicly-funded maternity leave, and add at least two weeks of paid maternity leave – equalling a total of 14 weeks – to bring Mexico closer to international best practice.**
- **Provide more than the current five days of paternity leave to fathers, publicly fund the paternity leave period and incentivise fathers to take the leave for which they are eligible.**
- **Increase places in preschool for children aged three to five years-old, and increase the length of the preschool day for three- to five-year-olds, as most programmes are currently only a half-day long.**
- **For infants and children under age three, expand childcare supply and improve the quality of care.**
- **Ensure that men and women have equal time to combine work and family responsibilities by reducing Mexico's labour market culture of excessively long work hours and enabling access to flexible work arrangements.**
- **Reduce women's disproportionate responsibility for unpaid household labour by changing gender norms at home, involving the private and public sectors as stakeholders, and investing in time-saving technology and public infrastructure.**
- **Ensure greater access to formal employment in both private and public sectors and employment-related social security by incentivising formal jobs, enforcing labour laws and reinforcing the link between contributions and social security pay-outs.**
- **Consider introducing pay transparency measures to shine light on pay inequality.**
- **Recommit to evaluating gender programmes and to evaluating gender outcomes in all areas of social, economic, and public life.**
- **Expand the collection and availability of sex-disaggregated data and develop a standardised tool for gender analysis.**
- **Raise awareness among line ministries about the use of sex-disaggregated data in sectoral policy making, monitoring and evaluation.**

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Chapter 8

Moving towards a high-quality health system

Michael Padget, Chris James and Michele Cecchini

Mexico has made significant progress on health in recent years. Life expectancy is up, infant mortality is down and, thanks to the introduction of the programme *Seguro Popular*, health care coverage has risen dramatically. Yet, progress has been slower in Mexico than in other OECD countries. For this reason, Mexico still remains well below OECD averages on a number of key performance indicators, including life expectancy, health spending, cardiovascular mortality and obesity. Low health care spending and high out-of-pocket costs lead to inequalities in access to quality services and have impeded progress. The fragmentation of the health system also must be addressed in order to harmonise performance across sub-systems and states, and enhance its overall level. Obesity is a significant and growing public health problem in Mexico, resulting in high rates of diabetes and cardiovascular death. In order to deliver on the objectives set out for equality of care in the 2012 Pact for Mexico, significant reforms are necessary, including raising health spending in low-spending areas and on prevention, ensuring greater equality of care through a more harmonised system and expanded services, particularly in rural areas.

There has been steady progress across a wide variety of health outcomes in recent years. Nonetheless, Mexico still trails other OECD countries in a number of key health indicators. Life expectancy at birth in Mexico has increased steadily in recent years thanks to the impact of reforms such as the *Sistema de Protección Social en Salud* (including the insurance scheme *Seguro Popular*), which greatly increased access to health care. However, this rise has been slower than in other OECD countries. Overall life expectancy at birth in Mexico in 2015 was 75 years, more than 5 years lower than the OECD average of 80.6 (below the level reached in several countries with similar levels of economic development). Since 2000, the average life expectancy in Mexico has only risen by just over one year, compared to an average gain of more than three years across OECD countries. These lower life expectancies affect both males (72.3 years compared to the OECD average of 77.9 years) and females (77.7 years compared to the OECD average of 83.1 years). A number of factors negatively impact life expectancy in Mexico, including high infant mortality, mortality from cardiovascular disease and high obesity rates.

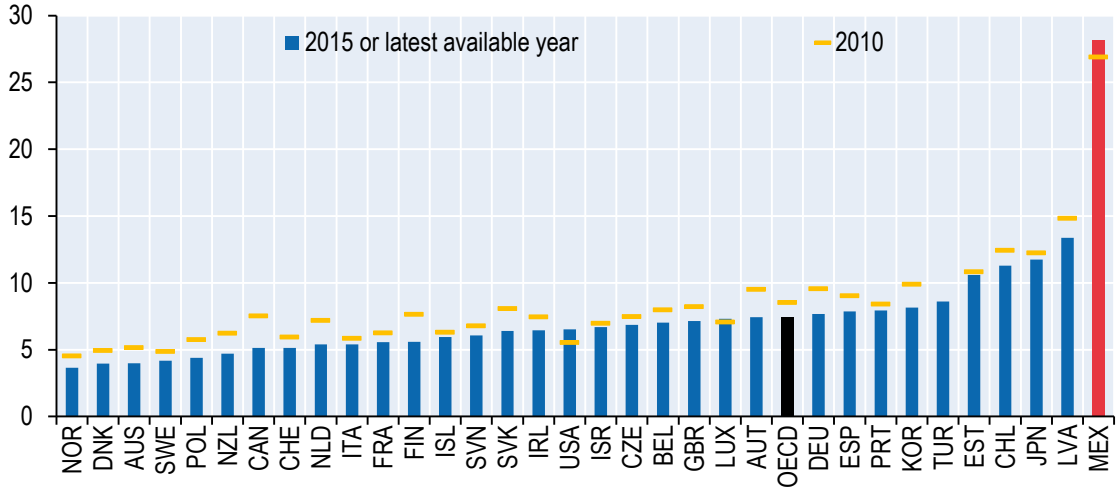
While rates of infant mortality fell by almost 40% between 2000 and 2015, they remain the highest among OECD countries, at 12.5 deaths per 1 000 live births, and three times higher than the OECD average of 3.9 deaths. In developed countries, infant mortality is most often caused by birth defects, premature births and conditions arising during pregnancy, suggesting a need for a greater focus on prenatal care in Mexico.

Mortality rates for patients with cardiovascular disease are particularly high in Mexico. Mexico reported the highest 30-day ischaemic stroke mortality rates of any OECD country at 19.2 deaths per 100 hospital admissions (the OECD average was 8.2 in 2015). Rates for 30-day acute myocardial infarction (AMI) mortality were also the highest among OECD countries and nearly four times the OECD average of 7.5 deaths per 100 hospital admissions (Figure 8.1). These high mortality rates may indicate that patients do not always receive timely or recommended care. A recent national study of AMI care in Mexico revealed that the majority of hospitals were not equipped to treat AMI cases and that delays in treatment were caused in part by patient knowledge gaps. A recent national programme seeks to address these issues and includes additional equipment for the treatment of AMI in hospitals and training for hospital staff to recognise and appropriately treat AMI patients.

Poor diet and the resulting health consequences are also major problems in Mexico. Along with low daily fruit consumption among adults (43.1% compared to 56.8% across the OECD), rates of diabetes are almost double the OECD average (15.8% compared to 7%) and Mexico has the highest number of diabetes hospital admissions (292 per 100 000 population) among OECD countries.

FIGURE 8.1. **MEXICO HAS A HIGH MORTALITY FROM CARDIOVASCULAR DISEASE**

30-day age-standardised mortality rate per 100 admissions of adults aged 45 years and over after admission to hospital for AMI based on unlinked data



Source: OECD (2017), OECD Health Statistics 2017.

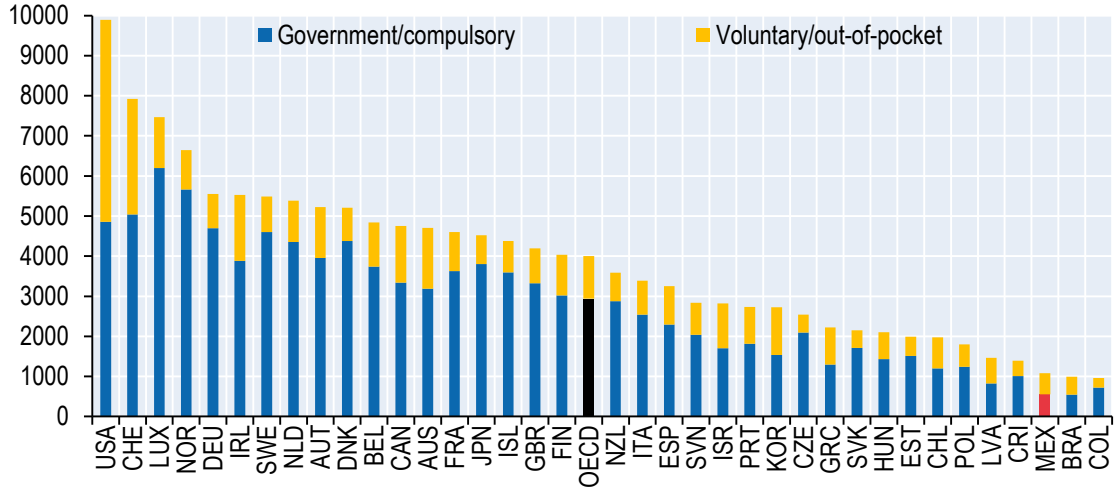
Raising health spending and making sure it reaches those most in need

Mexico continues to make major strides towards achieving its goal of providing a high-performing health system. The *Seguro Popular* programme remains an innovative and inspirational example of how to rapidly cover health care costs for the poor and people working in the informal sector. Thanks to this programme, over 50 million Mexicans previously at risk of unaffordable health care bills now have access to some form of health insurance (Parker et al., 2018). However, despite improvements, Mexico still trails other OECD countries in health care coverage (92.3% in Mexico compared to 97.9% across the OECD). Universal health coverage (UHC) is a necessary first step towards erasing current inequalities in health care access.

Effective access to quality health services for all is held back by low health spending. In 2016, Mexico spent only USD 1 080 per person (adjusted for local living standards), the lowest amount across the 35 OECD countries (Figure 8.2). Mexico also allocates a relatively low share of its national resources to health, as compared to other OECD countries: the 5.8% of gross domestic product (GDP) allocated to health is the third lowest share across OECD countries, and much lower than the OECD average of 9%. Still, the share of GDP spent on health in Mexico is not dissimilar to that of countries with comparable levels of GDP.

FIGURE 8.2. **THE FINANCIAL RESOURCES DEVOTED TO HEALTH ARE LOW BY OECD STANDARDS**

Health expenditure per capita, USD PPP, 2016 or nearest year



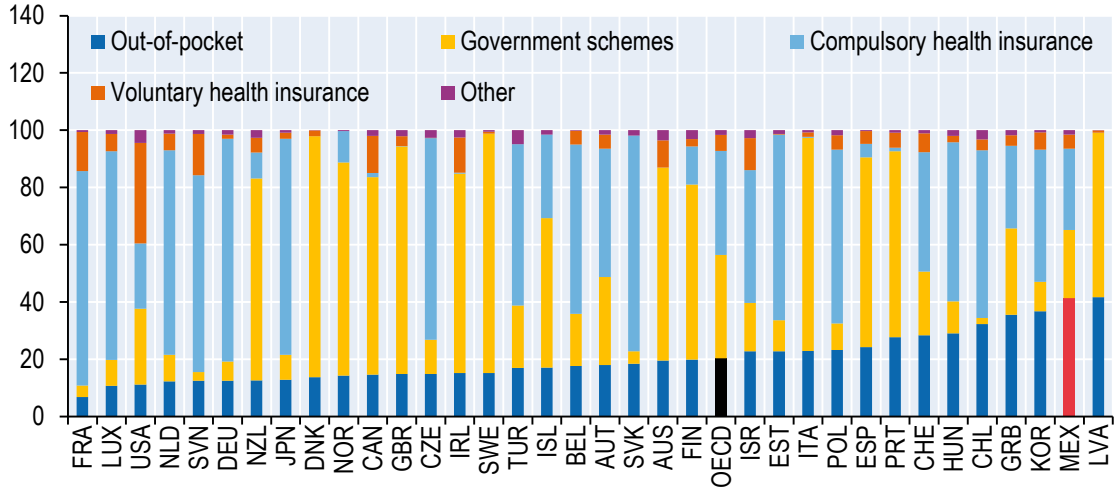
Source: OECD (2017), OECD Health Statistics 2017*, http://www.oecd.org/els/health-systems/health-data.htm.*

Total spending on health, besides being low, is concentrated in the richest states. As a result, wide disparities in spending remain across states and programmes, despite the *Seguro Popular*. These spending disparities translate into disparities in care quality and access. One consequence of this low health spending is an overstretched health workforce. Despite an increasing number of doctors and nurses over the past decade, Mexico still has relatively few health professionals, particularly nurses (2.8 nurses per 1 000 people, compared with an OECD average of 9). The geographical distribution of health professionals is also an issue. For example, while Mexico City has 3.9 physicians per 1 000 people (above the OECD average of 3.4), the number of physicians in other states ranges from only 1.3 to 2.2 per 1 000 people. The high concentration of physicians in larger cities leads to longer waiting times, fewer services, and longer distances to travel for those living in rural communities.

For Mexico to catch up with other OECD countries, investment in health and specifically in rural areas needs to be accelerated. Health spending has grown only modestly in recent years – by 1.4% per year on average since 2009, after adjusting for inflation – which is slightly less than the OECD average. A critical issue to raising more resources for health is to address broader fiscal reforms (see Chapter 2). A large share of resources spent on health comes from out-of-pocket (OOP) payments by households (Figure 8.3). Specifically, OOP payments constitute 41% of health expenditure – the second highest share in the OECD and double the OECD average of 20% – although reliance on OOP payments has decreased in recent years (down from 47% in 2009).

FIGURE 8.3. **OUT-OF-POCKET SPENDING IS VERY HIGH IN MEXICO BY OECD STANDARDS**

Health expenditure by type of financing, 2015 or nearest year



Note: This indicator relates to current health spending excluding long-term care (health) expenditure. Data for France include eye care products, hearing aids, wheelchairs, etc.. Data for the United States include home care and ancillary services.

Source: OECD (2017), OECD Health Statistics 2017, http://www.oecd.org/els/health-systems/health-data.htm.

This high out-of-pocket expenditure for health care is another source of inequality in Mexico. These high costs can become a burden among poorer populations, particularly in the case of people suffering from chronic diseases and illnesses requiring extensive medication. Indeed, 64% of OOP payments are incurred on pharmaceuticals (versus an OECD average of 36%). This high percentage is due both to high co-payments for pharmaceuticals and to high spending on over-the-counter medicines, possibly due to limited access. Costs borne by patients themselves influence access and adherence to treatment. Medicines should ideally be part of the core benefit package and accessible to all patients who need them, regardless of their ability to pay.

In order to continue progress towards a high performing health system, including reduced disparities, additional health spending is needed in Mexico. In addition, a shift towards a better funding mix, one with greater reliance on tax-based financing, seems desirable. This is because social insurance contributions can be less reliable sources of funding than general taxes, particularly with informality in the labour market and fluctuations in employment levels. Current and future spending may also be made more efficient through targeting areas of need such as primary care and chronic disease management. Finally, continued progress towards universal health coverage is needed to ensure access.

Stepping up efforts to reduce fragmentation in the health system

While higher spending on health will surely help, it alone will not be enough to significantly improve health outcomes in Mexico. In particular, continued efforts need to be made to reduce fragmentation in the health system and restructure the system around the needs of patients. Currently, a number of sub-systems for health care provision exist, each determined

by employment status and with various levels of coverage and quality, meaning that large inequalities can exist between professional categories regardless of need.

On the health financing side, greater harmonisation of the benefit packages offered by the various health insurers in Mexico remains critical. Over the long term, a move toward a single national insurance provider applicable to all will be crucial to reduce and eliminate coverage duplication, and to ensure the continuity and quality of careand reduce inequalities. In the short and medium term, service-exchange agreements (*convenios*) among public institutions – which allow patients from one insurer to use the clinics of another – have been an encouraging policy reform. Improving the portability of health insurance, by allowing Mexicans to maintain insurer affiliation after changes in employment, is another policy that could limit the impact of Mexico's fragmented health insurance arrangements and promote continuity of care. Investment in health information infrastructure compatible across sub-systems is another important reform needed to allow for communication and continuity of care.

In terms of health service delivery, efforts to establish universal standards of care are also encouraging. In particular, the 2016 National Agreement towards the Universalization of Health Care Services has the potential to develop shared standards, promote an exchange of services and encourage joint planning of major infrastructure projects for health among public institutions. A greater role for the recently established Quality Monitoring and Improvement Agency is also needed in order to set standards for safe and effective care across sub-systems and ensure equality.

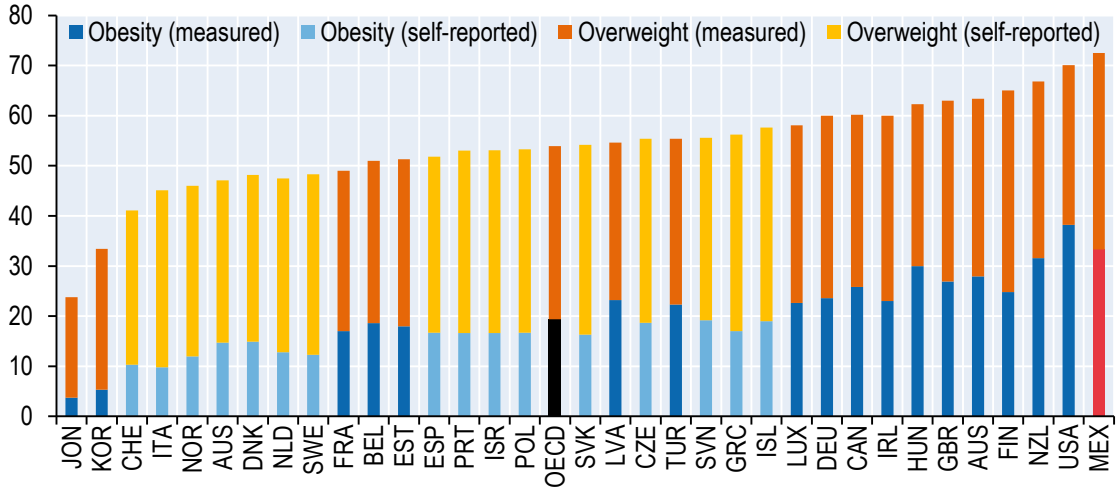
Further tackling Mexico's obesity epidemic

Over the past 30 years, Mexico has become one of the countries in the world most heavily affected by the global epidemic of obesity (OECD, 2016). The most recent data suggest that Mexico has the highest prevalence of overweight and obesity in the OECD, with more than seven persons in ten being overweight or obese (Figure 8.4). In addition, Mexico ranks fourth in adolescent obesity among OECD countries (OECD, 2017).

OECD studies show that one of the most effective policies for preventing obesity and diabetes-related diseases is to put in place a multi-pronged strategy. This may include health education and promotion, regulation and fiscal measures, and lifestyle counselling by family doctors for at-risk adults (OECD, 2010). During the last few years, Mexico has worked to implement such a multi-pronged strategy based on three pillars of policy action: public health, medical care and intersectorial regulation. In particular, Mexico introduced measures to increase public and individual awareness of obesity and associated non-communicable diseases, and the national programme "Healthy Eating & Physical Activity" focused on health promotion and communication. It updated nutritional criteria and guidelines for food and beverages in schools at national level, and enforced a strict norm in advertisement focused on children. It established specialised obesity and diabetes management units. Mexico has also addressed legal and fiscal aspects of overweight and obesity. Most famously, in January 2014, Mexico implemented a new tax levied at a rate of 8% on nonessential energy-dense food (often termed "junk food") with an energy density equal to or exceeding 275 Kcal per 100 grammes, and 1 peso per litre on sugar-sweetened beverages.

FIGURE 8.4. **MEXICO HAS THE HIGHEST PREVALENCE OF OVERWEIGHT AND OBESITY AMONG ADULTS IN THE OECD**

Overweight including obesity among adults as a percentage of population aged 15 years and over, 2015 or nearest year



Source: OECD (2017), OECD Health Statistics 2017, http://www.oecd.org/els/health-systems/health-data.htm.

Mexico should continue working to implement and further refine its National Strategy for Prevention and Control of Obesity and Diabetes (ENSOD). ENSOD does comprise school-based actions, including guidelines for the sale of food and beverages to children. However, as a result of the significant level of informal commerce, the implementation and operation of these guidelines are limited. As part of its strategy, Mexico has also adopted actions to promote regular physical activities in schools. This approach is consistent with current evidence suggesting that comprehensive actions, incorporating interventions on both diet and physical activity, have a positive effect on children's body weight. Nonetheless, school-based interventions should be considered as a long-term investment as any positive effect on chronic diseases starts materializing 30-40 years later.

In addition, Mexico should also focus on adopting a food labelling scheme reporting information in a format easy to understand for the population. Mexico has currently in place a labelling scheme requiring the listing of all major nutrients on food products. OECD analyses suggest that this type of labelling is more difficult to understand and less effective than interpretative nutrition labels like, for example, the traffic-light system (Cecchini and Warin, 2016). An early assessment of the implementation of an interpretative labelling scheme in Chile based on stop signs for products rich in sugar, fat and salt and high in calories shows encouraging results (OECD, 2017). In addition, Mexico should continue investing in interventions aimed at children. Finally, putting in place a strong monitoring system to assess the effects of its policies to tackle obesity seems crucial.

Key recommendations

- **Focus increased investments in the health sector where they are needed most, targeting rural and impoverished areas.**
- **Train more nurses and community workers.**
- **Create a more broad-based health system that is less fragmented, by further expanding the package of care offered by the *Seguro Popular* and, in the medium term, moving towards a single insurance package that applies to everyone and is more portable across different insurance schemes.**
- **Invest in health information infrastructure compatible across sub-systems.**
- **Adopt interpretative food labelling that is easier to understand for consumers.**
- **Upscale efforts to tackle unhealthy lifestyles in children, including by ensuring better implementation of the guidelines of ENSOD.**
- **Building on the excellent work that has been done to monitor the effectiveness of the new tax on non-essential food, upscale efforts to carefully monitor and report the effectiveness of other public policies for the control of obesity and non-communicable diseases such as those mentioned above.**

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Chapter 9

Fully reaping the benefits of recent competition-enhancing reforms

Sónia Araújo, Andres Blancas, Frédéric Bourassa, Anne Carblanc, Mario Cervantes, Sean Ennis Manuel Flores, Frederic Gonzales, Alexia Gonzalez-Fanfalone, Iratxe Gurpegu, Marianna Karttunnen, Gloriana Madrigal, Guillermo Morales, Sam Paltridge, Cristina Serra-Vallejo, Blandine Serve, Vincenzo Spiezia, Francesca Spinelli and Verena Weber

Competition is essential to the functioning of markets. It fosters innovation, productivity and growth, which, in turn, create wealth and help to reduce poverty. Over the past years, Mexico has implemented ambitious reforms to free up its economy. Competition was enhanced in many sectors, most notably in the energy sector – electricity, oil and gas – and in telecommunication services. The role of regulators has been strengthened and the competition authorities have been empowered to deter collusion and other anti-competitive practices. Building on these achievements, Mexico now needs to ensure that entrepreneurship thrives and opportunities are spread evenly across the country. Removing existing barriers in services trade would benefit manufacturing and further facilitate the country's integration into global value chains. In spite of remarkable achievements, there is room to strengthen competition law even more, particularly on what concerns public procurement and fighting bid rigging. Sector liberalisation should continue in the energy and telecommunication sectors and reversions in the institutional frameworks in these sectors should be avoided. To reap the benefits of the digital transformation and spur productivity, Mexico should ensure that *Red Compartida* is successfully implemented, as well as its Digital Inclusion Program, which aims at improving both foundation and digital skills among its population and businesses. Focusing on the early stages of financing of innovation and better linking public research institutes and innovative private businesses could also help enhance innovation.

Mexico has undertaken impressive steps towards improving its business environment and creating the opportunities for business to thrive. Anti-competitive regulations have been lifted, and there have been important efforts to reduce administrative burdens on businesses. Key sectors, such as energy and telecommunications have been opened-up to competition, benefiting domestic firms and also final consumers. Mexico's practices in conducting regulatory impact assessments (RIAs) are a world reference already. As a result of the 2013 constitutional reform, two competition authorities were established, as well as specialised courts with specialised judges to deal with competition cases. Keeping up the reform momentum is crucial.

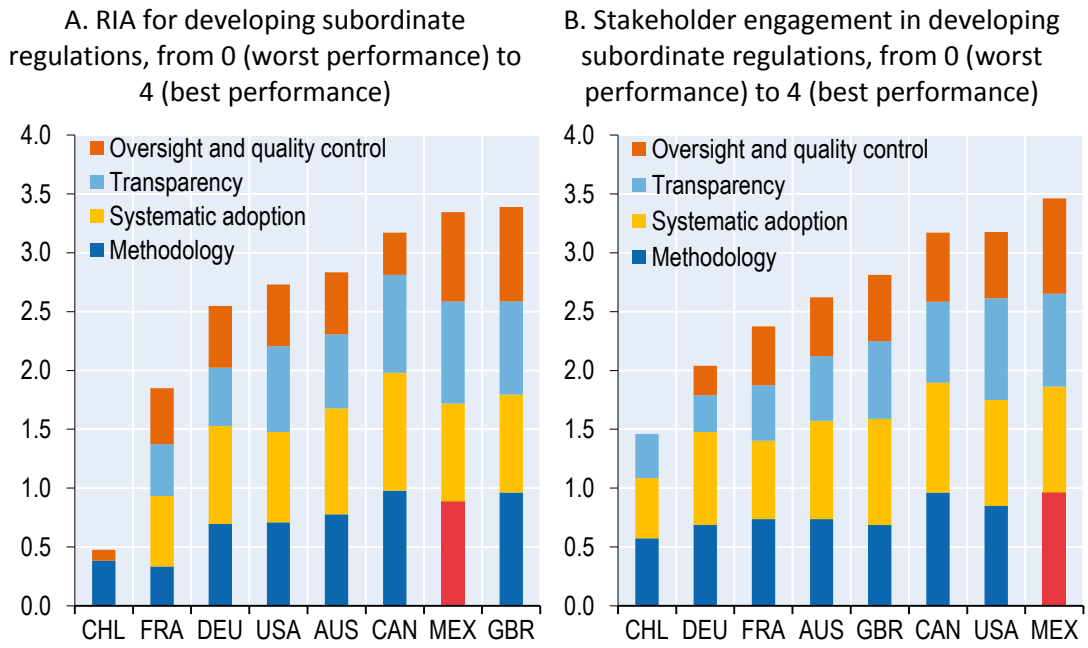
Enhancing the regulatory framework

A competitive product market environment is one that allows new firms to challenge incumbents, efficient firms to grow and inefficient ones to exit, contributing to boosting economic growth and living standards. Market regulation, while essential to reassure consumers and investors, safeguard health and protect the environment, should not be excessive. If too costly, it may end up having unintended consequences, as excessive compliance burdens business, ending up discouraging investment and new business entry, thus ultimately rewarding incumbents. Getting the balance right is therefore essential.

Mexico has recognised the very important role of regulatory policy in improving the business environment and has committed to work on the establishment of a high quality regulatory framework. One area in which Mexico excels is regulatory impact assessment (RIA). Mexico's practice of implementing RIA ranks among the most sophisticated systems across OECD countries (Figure 9.1, panel A). Currently, COFEMER, Mexico's Federal Commission on Regulatory Improvement, evaluates 12 different kinds of RIA whose focus of assessment includes competition effects, risk analysis and trade impact, among others. During the period spanning from December 2016 until October 2017, COFEMER reviewed a total of 292 RIAs at the national level (COFEMER, 2017).

Mexico also performs at the top of OECD countries in stakeholder engagement practices in regulatory policy (Figure 9.1, panel B). One of the practices to highlight is that of conducting systematic public consultations of draft regulations. Mexico has a centralised website in which all draft regulations from the executive and their corresponding RIAs are published, comments are collected from the public, and regulators address the comments, all in a transparent and accountable way. However, consultation takes place once a draft regulation is ready. Early consultation, which is the stage in which the policy options are prepared, is not yet a systematic practice.

FIGURE 9.1. **WHEN DEVELOPING SUBORDINATE REGULATIONS, MEXICO FOLLOWS INTERNATIONAL BEST PRACTICE**



Source: 2014 Regulatory Indicators Survey, www.oecd.org/gov/regulatory-policy/measuring-regulatory-performance.htm.

Mexico has also made important efforts in measuring and reducing the administrative burdens from regulations, i.e. the cost to citizens and business when complying with administrative formalities. By October 2017, Mexico reports to have reduced the cost of administrative burdens for all federal regulations by 37% through a national programme on administrative simplification. Mexico has also implemented the rule *one-in two-out*, whereby for every new regulation that line ministries and agencies of the executive branch wish to issue, two equivalent ones in terms of administrative burdens must be eliminated. Variations of this policy have been adopted by several OECD countries including the United Kingdom, Canada and the United States. Six months after the implementation of the policy, Mexico estimated a net reduction on administrative burdens for businesses and citizens of over MXN 29 589 million (COFEMER, 2017).

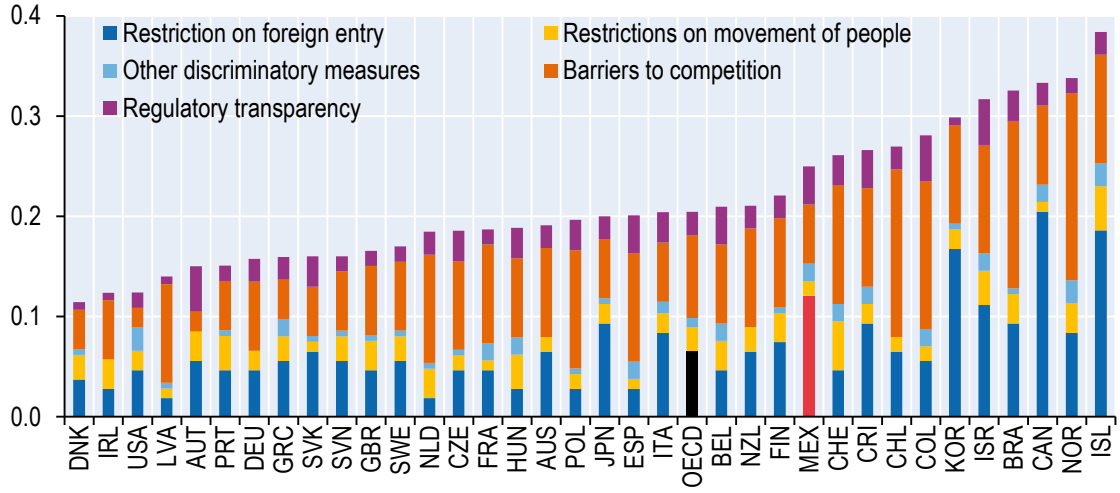
Additional efforts to facilitate business creation have also been carried out in Mexico. The Federal Law on Commercial Societies was reformed to allow entrepreneurs to create limited companies in fast track mode, including one-person companies. This eliminated all the cumbersome and costly regulations which required all businesses to be managed from a corporate perspective. Entrepreneurs can create a business under this new simplified form, *Sociedad por Acciones Simplificada* (SAS), through an on-line one stop-shop, free of charge, and in under 24 hours. However, entrepreneurs still have to comply with municipal business licences among other regional and local formalities, which have plenty of room to be simplified (see below).

Despite all these efforts, there is still room to reduce administrative burdens even further. COFECE, the Federal Economic Competition Commission, has proposed that the next government approves a decree to identify and eliminate regulatory restrictions to competition in the most relevant sectors. The OECD and the Mexican Ministry of the

Economy recently published the Manual for Market Studies which provides a methodology, based on international best practices, to analyse the functioning of markets. Based on the Manual and the OECD's Competition Assessment Toolkit, several market studies have been conducted from foods sectors (tortilla, meat, chicken) to pharmaceuticals and finance. Regarding the meat and pharmaceutical sectors, the OECD made 107 specific recommendations to amend or abolish specific regulations that restrict competition and estimated that their implementation would result in positive effects to the Mexican economy of between MXN 10 229 million to MXN 44 162 million.

FIGURE 9.2. **MEXICO HAS ROOM TO FURTHER LIFT RESTRICTIONS ON SERVICES TRADE**

OECD Services Trade Restrictiveness Index,
from 0 (best performance) to 1 (worst performance)



Note: The STRI indices take values between zero and one, one being the most restrictive. They are calculated on the basis of the STRI regulatory database that contains information on regulation for the 35 OECD members, Brazil, Colombia, Costa Rica, India, Indonesia, Lithuania, People's Republic of China, Russian Federation and South Africa. The STRI database records measures on a Most Favoured Nations basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people).

Source: OECD Services Trade Restrictiveness Database.

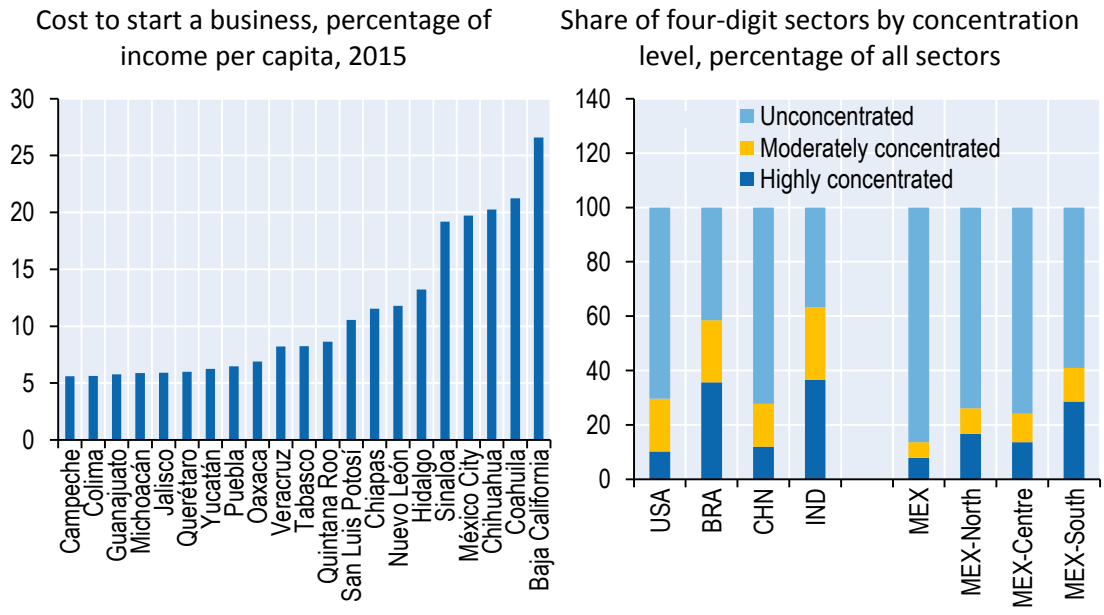
There is also clear room for improvement in other sectors. In the OECD's Service Trade Restrictiveness Index (STRI), Mexico scores better than the average OECD country in only 5 out of 22 sectors (Figure 9.2). For instance, in customs brokerage services, Mexico does not allow foreign equity participation. Furthermore, there is a nationality requirement to get a licence to operate as a customs broker. These two facts alone effectively close the market to foreign services providers and foreign investors. In road freight transport, Mexico reserves the provision of domestic road freight transport services exclusively to Mexican nationals or Mexican companies. And there are still substantial formalities required to open a gasoline station or build a new energy plant, which are new activities emerging from the last structural reforms in energy.

In addition, much more progress is needed at the local and state levels to achieve a level playing field and ensure that new entrants are not deterred. Entry barriers remain substantial

in many states and high sectoral concentration persists, especially in the South (Figure 9.3). To reduce the administrative burdens of regulations set by regional and local governments, Mexico implemented the SIMPLIFICA programme aimed at providing regional and local governments with a measurement of administrative burdens stemming from government formalities and at prioritising simplification efforts. By the third quarter of 2017, 11 509 formalities from 12 regional governments and 8 municipalities had been analysed under the SIMPLIFICA programme (COFEMER, 2017). Considering that Mexico has 32 regional governments and almost 2 500 municipalities, a prioritisation strategy to the SIMPLIFICA programme should be developed, in order to tackle the formalities with the highest impact in terms of both the importance of the economic sector and the population of businesses and citizens affected by the formalities.

Nevertheless, a report recently published by the National Observatory for Regulatory Improvement indicates that regional and municipal governments still have a long way to go to develop and fully apply a regulatory improvement policy. Based on the ONMR's composite indicator for regulatory improvement, progress at the state and municipal levels stands at 35% and 21% on average respectively, while at the federal level it stands at 77% (ONMR, 2017). There is room to improve capacity at the regional level, which is still uneven.

FIGURE 9.3. **ENTRY BARRIERS VARY WIDELY ACROSS LOCATIONS, IMPAIRING ENTREPRENEURSHIP**



Note: Share of four-digit sectors by US DOJ Department of Justice concentration threshold using the Herfindahl-Hirschman Index (HHI). Mexico overall: 279 sectors; North region: 275 sectors; Centre region: 278 sectors; South region: 266 sectors. Note that regional indexes show higher concentration than national ones, due to market size effects on the HHI index.

Source*: Panel A: Subnational Doing Business, World Bank (2016); Panel B: OECD calculations using Economic Census, OECD (2017c).*

If approved, the General Law for Regulatory Improvement that is being discussed in the Mexican Senate will establish the duties and responsibilities that state and municipal

governments must follow to improve their regulatory framework. Currently, sub-national governments have full autonomy to implement their own policies on regulatory improvement. The new duties would include reductions of red tape and the implementation of tools to ensure the quality of the new regulation. Once the new law is in place, Mexico must ensure the implementation at sub-national level of policies that are standard practices at federal level. These include a system of regulatory impact assessment, of stakeholder engagement, and of regulatory transparency, such as up-to-date online registries of formalities.

Given Mexico's strong integration into global value chains, international regulatory co-operation (IRC) should be an essential building block of domestic rule-making. Mexico has adopted a variety of IRC approaches. It has "unilaterally" embedded IRC considerations into its domestic rule-making procedures as part of its regulatory management disciplines. For example, it has established a specific regulatory impact assessment procedure to identify regulations that have a significant effect on trade and it requires that technical regulations be based on international standards. The country also undertakes active efforts to co-operate internationally, for instance through bilateral Memoranda of Understanding and mutual recognition arrangements, or by increasingly incorporating provisions concerning regulatory practices and co-operation in its trade agreements. And Mexico is dynamic in multilateral fora, both at national level in international organisations and at the level of regulators in trans-governmental networks of regulators. All these efforts are essential for the country's economic success and must therefore be maintained and further expanded.

Strengthening competition law enforcement

The OECD has supported Mexico in is policy agenda since its accession to the Organisation in 1994. In 1998, a first OECD study of Mexico's competition policy was conducted and in 2004, Mexico underwent a peer review of its competition law and policy by the OECD Competition Committee. In 2013, Mexico enacted a constitutional reform, which substantially reinforced the country's competition policy and institutional organisation. The reform has created two competition authorities – the Federal Economic Competition Commission (COFECE) and the Federal Telecommunications Institute (IFT) – and specialised courts dealing with competition on telecommunications and broadcasting cases. Moreover, a new Federal Economic Competition Law was enacted in May 2014. The investigation and decision-making powers have been separated inside COFECE and the IFT, which reinforces due process. The new law allows for unannounced inspections, thus increasing the likelihood of finding useful evidence. Competition authorities have, since the reform, the power to regulate access to essential facilities and remove barriers to competition. Criminal sanctions for cartels have been reinforced and new criminal sanctions for those interfering with an investigation have been introduced. Appeals regarding the legality of the proceedings of COFECE and IFT are introduced before constitutional courts and no longer have suspensive effects. Specialised judges received capacity building organised by the OECD and the Ministry of the Economy. As a result, in the few years that the new specialised courts have been operating, the average time for the resolution of proceedings dropped from 18 to 8.7 months. Going forward, one of the most important reforms consists in opening the possibility for victims of monopolistic practices to claim pecuniary compensation for damages suffered, to which end, the Mexican legal and judicial systems will need to be adapted.

Further advances could also be made to enhance competition in public procurement and fight bid rigging. The OECD has analysed the CFE's (Comisión Federal de Electricidad) procurement practices and regime before and after the energy reform as well as the special procurement regime of PEMEX. To increase competition and prevent collusion in procurement processes, these companies should make efforts to limit direct awards, to increase the use of e-procurement, to reinforce co-operation with the competition authorities and to open procurement markets to foreign bidders. In 2015, CFE's direct awards represented 62.6% of the total number of contracts and 33.5% of their total value.

To further fight bid rigging, the Mexican Procurement Act (*Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público, LAASSP*), currently under discussion in the Senate, should be amended to increase the number of public tenders and the number of foreign participants. Joint bids and subcontracting should only be allowed when they are justified by efficiency and competitive effects, and public entities should be allowed to award contracts or services below the minimum "convenient price" ("*precio conveniente*") if certain safeguards and guarantees are met. Also, the LAASSP should require bidders to sign a "Certificate of Independent Bid Determination". In addition, as suggested by COFECE, the LAASSP should also provide for the possibility, when market conditions allow, to exclude from tender procedures suppliers that have been convicted of participating in bid-rigging schemes. Federal institutions should be required to request a review by COFECE of the tender terms of high impact acquisitions or works, while bidders should be required to specify the advantages of subcontracting.

Reforming the energy sector

Mexico's energy sector is being revamped by a far-reaching reform package initiated in 2013. Strong progress has been made to open the energy sector (electricity, oil and gas) to more competition. New sector regulators have been created, with legal independence and budgetary autonomy. The governance of PEMEX has been strengthened with the appointment of independent directors responsible for establishing the company's strategic vision. Mexico now allows the entry of both domestic and foreign investors in the exploration, production and transportation of oil and gas, as well as the refining and marketing of hydrocarbons. Entry into the electricity market is now possible and the state-run power incumbent CFE has been legally unbundled to separate network activities from power generation and now has a number of individual subsidiaries, some of which compete with each other and with private players on the wholesale market. Ensuring that CFE's restructuring is consistent with the market-oriented principles requires that effective "Chinese walls" are put in place between the subsidiaries, a process that needs to be closely controlled by the regulator.

Fostering competition across the entire sector will require actively countering the incentives of incumbents to use their market power and ensuring sufficient independence, human and financial resources for the regulators. In the electricity sector, a better balance needs to be achieved between ensuring sufficient investment certainty for capital-intensive technologies and boosting energy efficiency by gradually exposing generators to market price signals. Retail electricity prices should be reformed. Specifically, electricity subsidies should be phased out, vulnerable groups should receive targeted support and the structure of tariffs should

better reflect the structure of distribution costs and the hourly variations of electricity prices. The latter would ensure the efficient development of distributed resources, such as rooftop solar PV, storage and demand response.

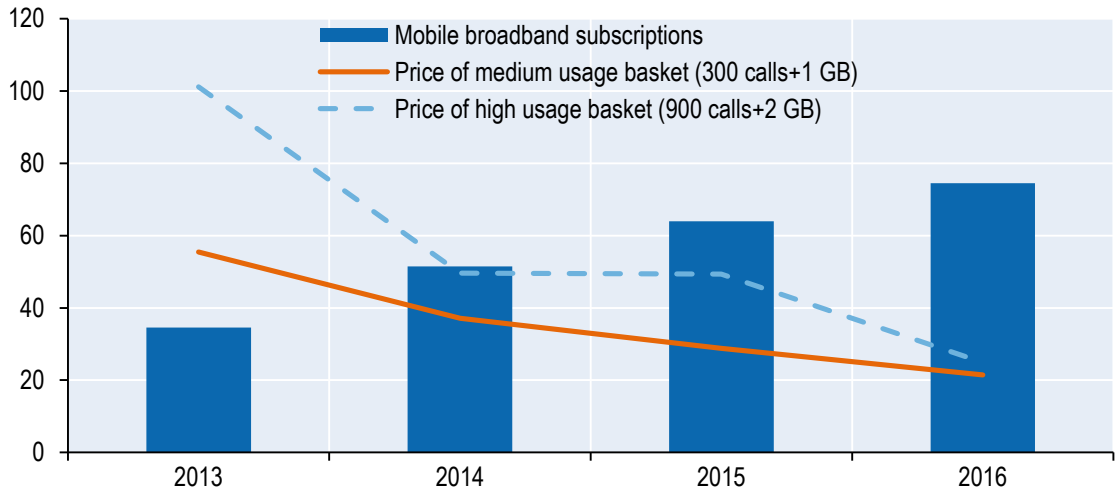
At the same time, CRE, the energy regulator, should monitor the effective vertical and horizontal unbundling of CFE, and ensure there are no cross-subsidies and distortion of competition between generators. Efforts to modernise and expand the distribution and transmission networks need to be intensified to reduce local congestion and to integrate clean energy, which has attracted investment worth USD 6.6 million. Clarifying the rules for transmission and distribution network auctioning would help accomplish this.

Reforming the telecommunication and broadcasting sectors

Mexico's 2013 telecommunication and broadcasting reform triggered an important modernisation of both sectors with remarkable results. The number of mobile broadband subscriptions rose from 24 million in 2012 to over 74 million in 2016. Prices for mobile telecommunication services declined by 61% for the OECD medium-usage basket and by 75% for the OECD high-usage basket, although market concentration remains high (Figure 9.4). Mexico completed the switchover from analogue to digital television, freeing up spectrum for mobile communication services, and licensed a third national free-to-air television network.

FIGURE 9.4. **THANKS TO THE 2013 REFORM, MOBILE BROADBAND PRICES HAVE DROPPED AND SUBSCRIPTIONS HAVE RISEN**

Mobile broadband prices (in USD) and subscriptions (in millions)



Source: Based on OECD (2017a), OECD Telecommunication and Broadcasting Review of Mexico 2017, http://dx.doi.org/10.1787/9789264278011-en.

Going forward, it is crucial to maintain reform momentum. The 2017 OECD Telecommunication and Broadcasting Review of Mexico put forward an extensive set of recommendations to this end and highlighted four key priority areas. First, Mexico needs to continue to promote competition in the Mexican market. Second, there is a need to further improve market conditions that set the right incentives for market players. Third, further

efforts are needed to develop a sound and strong legal and institutional framework. Fourth, Mexico needs to continue to use national digital policies to expand connectivity to underserved areas.

To enhance competition in the broadcasting sector, the legal fast track for mergers and acquisitions (i.e. transitory article 9 of the Federal Telecommunication and Broadcasting Law, LFTR), which allows non-preponderant players to merge without the prior approval of the Federal Telecommunications Institute (IFT), should be eliminated. IFT should also assess the entry of Telmex into pay-TV after its functional separation to promote competition in the broadcasting sector. Meanwhile, framework conditions should be improved in this sector through the elimination of foreign investment restrictions.

Mexico should furthermore avoid reversions in the institutional framework, particularly in audio-visual content regulation. The decree modifying the LFTR eliminating the IFT's role of monitoring and sanctioning audience rights, leaving this role to private companies, has weakened audience rights. In the absence of greater media plurality, the role of the IFT should be strengthened in this area.

Reducing barriers to infrastructure deployment at the local and municipal levels facilitates the expansion of communication infrastructure. With this aim, the Ministry of Communications and Transport (*Secretaría de Comunicaciones y Transportes*, SCT) should co-ordinate with the local and regional levels of government. Finally, Mexico should eliminate the special tax on telecommunication services (i.e. IEPS) to promote the digital economy of the country.

Strengthening innovation policies

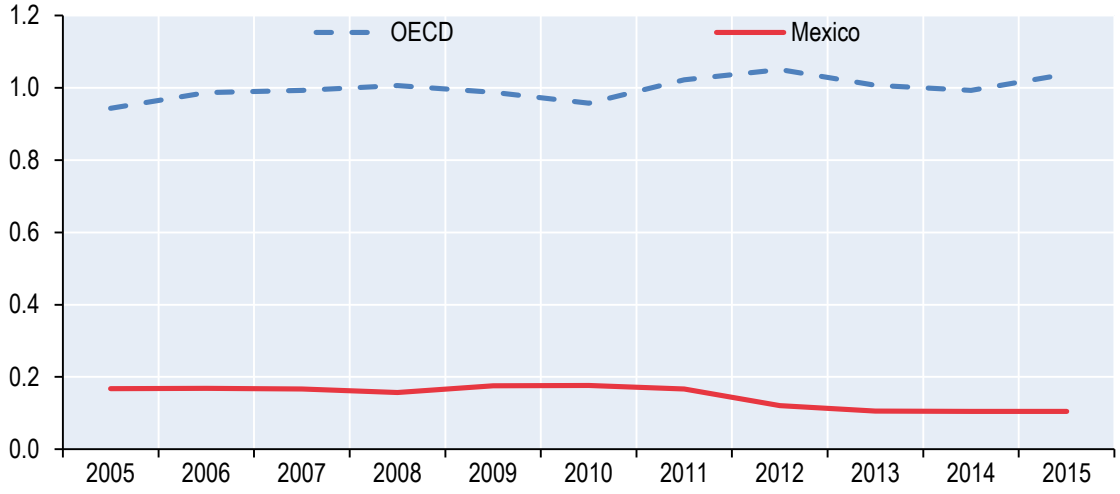
Mexico faces two interrelated challenges in fostering innovation. The first is the low innovativeness and weak productivity of firms. These weaknesses are in part a result of Mexico's industrial structure, as over one-third of manufacturing research and development (R&D) is carried out in low and medium-technology sectors. Private sector R&D expenditure in Mexico is well below that of nearly all OECD and BRICS countries (Brazil, Russia, India, China, South Africa). While large Mexican firms have productivity levels not far from the OECD average, Mexico has one of the lowest labour productivity levels across all small and medium-sized enterprise size classes in the OECD area (OECD, 2016). The second challenge is the low level of human capital. Mexico still has a comparatively low-skilled labour force and its firms invest little in workers' training (see Chapter 5).

Mexico is among the countries where government budgets in R&D have increased sharply in recent years, rising by 42% between 2008 and 2016 (OECD, 2017b). However, much of the investment has been targeted at the public R&D sector (government and higher education). The share of gross expenditure on R&D funded by the business sector as a share of GDP fell to 0.1% in 2015; the OECD average stood at 1.04% (Figure 9.5). The low level of business sector investment in R&D and innovation also means that Mexico has not yet reached its stated goal of increasing gross expenditure on R&D to 1% of GDP. This figure stood at 0.53% in 2015, the second lowest share among OECD countries after Chile. Although many public programmes to support R&D and innovation are in place, such as INNOVATEC and PROINNOVA, they have a limited reach as they address neither firms' financial constraints nor the structural fragilities of the business sector.

The 2017 budget re-introduced a tax credit on R&D (EFDIT). Firms are now able to offset 30% of their qualifying investments made in research, technology and development from their tax base against income tax (OECD, 2018a, 2017c). In order to further support the private sector the government and states need to foster co-operation between public and private research centres. With this aim, the national innovation agency, CONACYT, is providing support to public/private partnerships and clusters at the sector and regional levels. Enhancing the country's underdeveloped knowledge-based start-up environment would also boost Mexico's innovative potential. A priority going forward is to focus financing on the early stages of co-operation of public research institutes and innovative private businesses (OECD, 2017c).

FIGURE 9.5. **BUSINESS-FINANCED DOMESTIC R&D EXPENDITURE IS LOW**

Business-financed domestic expenditure on R&D, percentage of GDP



Source: OECD (2018b), "Main Science and Technology Indicators", OECD Science, Technology and R&D Statistics (database), http://dx.doi.org/10.1787/data-00182-en (accessed 26 January 2018).

The new high level political focus on productivity growth offers an opportunity to look at R&D and innovation as a source of economic growth and social progress, not only on the supply-side (i.e. human capital, R&D grants and subsidies), but also on the demand-side. One way to boost demand for innovation in firms while increasing the quality of human capital is to provide grants for training Master's and PhD students in firms. This has been successfully carried out in Portugal and Denmark, for example, and Mexico could draw lessons from their experience. Greater exposure of academic researchers to industry will also help universities to transfer knowledge to industry, which remains low in Mexico despite the existence of channels such as technology transfer offices. Indeed, without increasing the quality of human capital, firms will not be able to strengthen their innovation performance. Without changing the skills composition of labour in firms, the industrial structure will not evolve and demand for innovation will remain low. For this to happen, not only must the private sector invest more in R&D and worker training, but it must do so in close co-operation with schools, universities and local and regional governments to ensure workers receive training in the skills (whether technical, marketing or managerial) needed for various types of innovation.

Taking advantage of the digital revolution

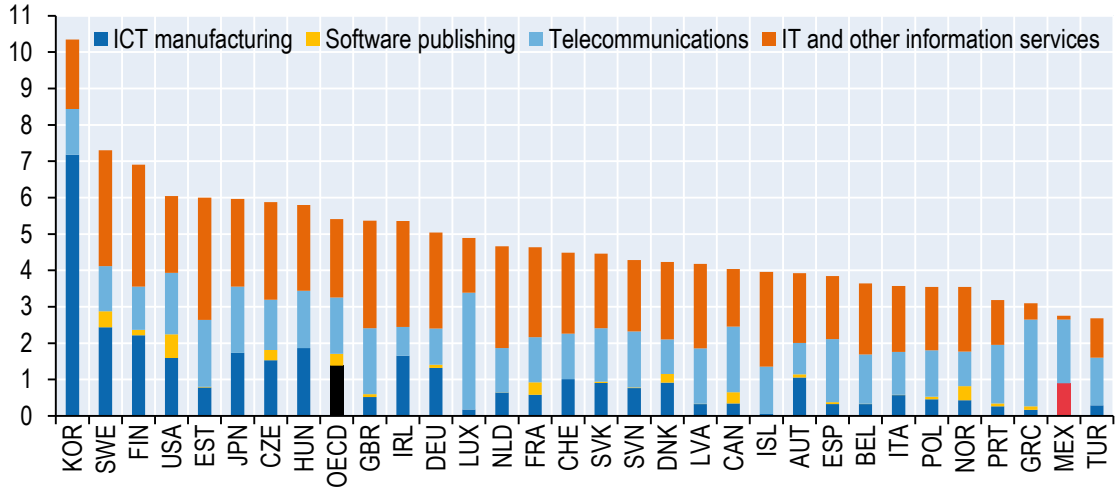
Increasingly advanced usage of digital technologies and digital innovation are enabling new business models, changing the organisation of life and work, affecting existing markets and creating new ones. It also has great potential for excellent potential for improving the design and implementation of public policies. Digital transformation brings a wealth of opportunities but also policy challenges. Governments need to step up in navigating this transformation to make it work for growth and well-being. Mexico, one of the few OECD countries with a high-level government official in charge of co-ordinating the national digital strategy, needs to strengthen its efforts to enable the digital transformation and leverage its potential.

In contrast with many OECD countries, where the employment in the ICT proved resilient and grew faster than total employment, ICT employment declined in Mexico and in 2015 it accounted for just above 1% of total employment (OECD, 2017d). The value-added share of the ICT sector is also one of the lowest in the OECD, and concentrated in the telecommunication industries, whereas other OECD countries have a more diversified structure (Figure 9.6). The small size of the ICT sector is also mirrored in the sector's low contribution to private sector research. In most OECD countries, ICT accounts for the largest share of Business Expenditures on Research and Development (BERD), representing 0.4% of the GDP in 2015. In Mexico, the ratio of ICT BERD to GDP was only 0.17%, the second lowest share among OECD countries after Chile. To fully reap the benefits of the digital revolution and accelerate convergence to higher living standards, Mexico needs to expand both Internet usage and connectivity. Moreover, to speed up the adoption and diffusion of digital technologies, it is important to couple access to infrastructure with complementary investment in R&D, skills, management, other knowledge based capital (e.g. data and software), as well as good framework conditions that support business dynamism.

Even though Internet usage in Mexico has grown more rapidly than the OECD average in recent years, it remains low. While the Internet usage rate among 16-24 year-olds is nearing 100% in most OECD countries, it is only 85% in Mexico. The proportion of 16-74 year-old individuals using the Internet (60%) was also among the lowest in the OECD. Only 7% of adult Mexicans ordered goods or services online in 2016 against the 52% OECD average in the same year. In Mexico, 16% of adult men looked for a job or submitted a job application on the Internet, but only 9% of women did so. Assessing Internet usage and adoption of digital technologies in firms is constrained by a lack of data, as Mexico ceased its ICT business survey, ENTIC (*Encuesta sobre Tecnologías de la Información y las Comunicaciones*) in 2013.

FIGURE 9.6. **MEXICO'S ICT SECTOR IS VERY SMALL**

Value added of the ICT sub-sectors, percentage of total value added at current prices, 2015



Note: The ICT sector is defined here as the sum of industries ISIC rev.4: 26 Computer, electronic and optical products ("ICT manufacturing" in the legend); 582 Software publishing; 61 Telecommunications; and 62-63 IT and other information services. See OECD (2017d), Figure 3.2, for country specific notes.

Source: OECD (2017d), OECD Digital Economy Outlook 2017, Chapter 3, Figure 3.2, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264276284-en.

Low use of digital technologies is largely due to low skills. Mexico's Digital Inclusion programme (*México Conectado*) is notable for its breadth, as well as the fact that it aims to prepare students for the 21st century by focusing more on creating information than consuming it. The programme provides connectivity and digital devices; training to promote teachers' ICT skills and their ability to apply them in pedagogic activities; digital educational resources that will be curated and evaluated to ensure their quality and impact; initiatives that promote creativity and research for solving today's social problems through ICT. Ongoing monitoring and evaluation will allow the programme managers to find ways to improve it.

The success of the Red Compartida has the potential to significantly spur the digital revolution in Mexico by expanding connectivity, including in rural and remote areas. While 63% of households had access to the Internet in the Federal District in 2015, this proportion was only 13% in Chiapas. A shared network, Red Compartida will facilitate entry to new mobile virtual network operators (MVNOs), which are in turn expected to expand innovation in areas such as use of the Internet of Things (IoT) or in sectors such as the financial industry, through the creation of new business models. One of the key factors for future success is the access conditions for entities that will want to use this network. The Red Compartida will need to be attractive to both mobile network operators (MNOs) and MNVOs. For this reason, it will be paramount that the customers of the Red Compartida have the maximum freedom possible to innovate, as this will likely be the main driver for using the network. This will be critical to ensuring that the Red Compartida responds to rapidly evolving demand and promotes innovation in areas such as the IoT. Another important factor will be the spectrum auction for the 2.5MHz band which will be crucial for providing next-generation mobile services. The Federal Telecommunications Institute should execute the public tender procedure for the 2.5 MHz band as soon as possible.

Key recommendations

- **Reduce barriers to trade in services, particularly in areas that provide critical links in global value chains such as transportation and logistics service.**
- **Make sure that barriers to competition and entrepreneurship are lifted evenly across the Mexican territory.**
- **Using the OECD Competition Assessment toolkit, identify regulatory restrictions to competition and remove them, giving priority to freight transport, construction, energy, agri-food and banking and payments sectors.**
- **To foster competition in the pharmaceutical sector, require doctors to prescribe medications only by their generic compound name, require pharmacists to inform patients about the cheapest available generic, allow prescribed medicines to be substituted with a cheaper generic when the patient agrees and rebuild the basket used to calculate maximum prices for patented drugs.**
- **Adapt the Mexican legal and judicial systems to allow pecuniary compensation for monopolistic practices.**
- **Ensure that the CFE and PEMEX adapt their special procurement regimes, limiting direct awards, increasing the use of e-procurement, reinforcing co-operation with the competition authorities, and opening procurement markets to foreign bidders.**
- **Amend the Mexican Procurement Act by increasing the number of public tenders as well as the number of foreign participants.**
- **In the Procurement Act, allow joint bids and subcontracting when justified by efficiency and pro-competitive effects and allow public entities to award contracts or services below the minimum "convenient price" ("*precio conveniente*") if certain safeguards and guarantees are met.**
- **In the Procurement Act, require bidders to sign a "Certificate of Independent Bid Determination" and provide for the possibility, when market conditions allow, to exclude from tender procedures suppliers that have been convicted of participating in bid-rigging schemes.**
- **Drawing on OECD expertise, continue efforts to tackle bid-rigging practices.**
- **Eliminate the special tax on communication services to increase access.**
- **Adopt the practice of early consultation when tackling public policy problems, in order to decide on the best alternative policies.**
- **Develop a strategy to implement the SIMPLIFICA programme at sub-national level to tackle red tape.**
- **Ensure implementation at sub-national level of regulatory improvement policies that are standard practices at federal level, such as regulatory impact assessments, stakeholder engagement and regulatory transparency, including up-to-date online registries of procedures.**
- **Grant energy regulators sufficient independence, and human and financial resources.**

- **Gradually phase-out subsidies in the electricity sector and reform the structure of retail prices.**
- **Modernise and expand energy distribution and transmission networks.**
- **Have the IFT assess the entry of Telmex into pay-TV as soon as possible, following the successful implementation of its functional separation.**
- **Eliminate the legal fast track for mergers and acquisitions, i.e. transitory article 9 of the Federal Telecommunication and Broadcasting Law so that competition assessments can be made for any future proposals for mergers or acquisitions.**
- **Strengthen the IFT's role in audio-visual content regulation.**
- **Eliminate the condition of reciprocity and modify the existing legal framework to allow for 100% of foreign direct investment in broadcasting.**
- **Reduce barriers to telecommunication infrastructure deployment at the regional and municipal levels.**
- **Have the Ministry of Communications and Transport accelerate the elaboration of guidelines and co-ordination agreements for all levels of government and work with them to implement the guidelines and agreements as soon as possible.**
- **Focus available public financing on the early stages of co-operation of public research institutes and innovative private businesses.**
- **Improve support for business R&D and firm-based training, for example by linking incentives for R&D spending with those to boost entrepreneurship, innovation skills and innovation management capacity.**
- **Strengthen the quality of and demand for highly skilled human capital and researchers in Mexican firms.**
- **Make the successful deployment of the Red Compartida a priority.**
- **Ensure that mobile network operators and mobile virtual network operators have an incentive to use the Red Compartida network via appealing access offers that give them maximum freedom to innovate and design their service offers to end users.**
- **Ensure effective oversight of the Red Compartida project by the Organisation for the Promotion of Investment in Telecommunications (*Organismo Promotor de Inversiones en Telecomunicaciones*, PROMTEL) to make sure that milestones are met.**
- **Improve foundational and digital skills in the population to foster use of digital technologies by businesses and individuals and develop people's digital skills through lifelong learning opportunities and training at the workplace.**
- **Firmly implement the Digital Inclusion Programme and work towards improving the number of tertiary graduates in ICT.**
- **Building on recent successes, further expand the use of e-government.**

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Chapter 10

Better protecting Mexico's environment

Johanna Arlinghaus, Jennifer Calder, Lisa Danielson,
Jane Ellis, Aleksandra Paciorek and Edward Perry

The Mexican government is faced with multiple environmental challenges, from tackling climate change to protecting its precious biodiversity and avoiding water stress. On fighting climate change, Mexico has made important progress. The government committed unconditionally to reducing greenhouse gas emissions (GHGs) and short-lived climate pollutants. This implies a 22% reduction of GHGs and a 51% reduction of black carbon, relative to business-as-usual levels, by 2030. In its endeavour to reduce emissions, Mexico has moved away from transport fuel subsidies, increased excise tax rates on transport fuels and introduced a new carbon tax. However, carbon tax rates are still very low and emissions from the energy and transport sectors continue to grow rapidly. The Mexican government has also made notable progress in better protecting biodiversity. It has significantly expanded its network of protected areas and also uses a range of other policy tools to conserve and sustainably use biodiversity, including subsidies and payment for ecosystem services. Going forward, it is important for Mexico to strengthen its institutional framework for biodiversity management and to reform environmentally-harmful government support in sectors such as agriculture and fisheries. Access to drinking water and sanitation has been greatly improved in the last two decades, with a noteworthy reduction of water-related diseases. However, due to population growth, Mexico will have to provide an additional 36 million people with drinking water over the next two decades. In addition, Mexico still has the lowest rate of connection to public wastewater treatment plants in the OECD. Promoting water-use efficiency across sectors, allocating water where it creates most value and encouraging investment in water infrastructure will be crucial to meeting these challenges.

Mexico has taken big strides in strengthening its environmental policy and developing a coherent approach to multiple environmental issues. For example, it has included an explicit mention of ecosystem protection in its General Climate Change Law. Mexico has also improved the governance of environmental issues, including through the establishment of an inter-ministerial commission on climate change in 2005, in which 13 different ministries participate, and the National Council for the 2030 Agenda for Sustainable Development in 2017.

Key questions in dealing with long-term environmental issues are "Where are we now?", "Where do we want to be?" and "How do we get there?". To answer these questions, countries need to have robust information over time. Mexico is a good example in terms of monitoring climate-relevant information such as greenhouse gas (GHG) emissions. Ensuring the establishment of regular GHG emissions inventories facilitates identifying trends and therefore helps to focus policy makers on key issues. However, an important challenge lies in ensuring that short-term trends are consistent with long-term goals. Moreover, it will be crucial for Mexico to ensure there is requisite institutional capacity to effectively implement environmental policy.

Mitigating and adapting to climate change

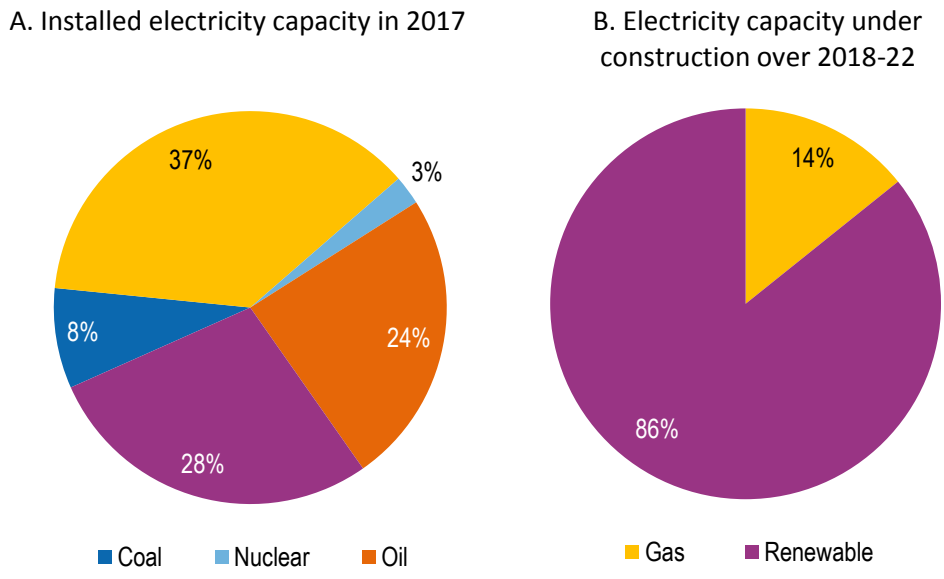
Mexico has begun to decarbonise its economy. Yet even the most well-designed climate policies may be ineffective if policies making up the broader investment environment are not aligned with climate objectives. At present, there is a clear opportunity for governments to initiate reforms that will support both economic growth and climate objectives. Mexico is taking action and is improving the extent to which the external costs of energy use, including climate damages, are reflected in prices. The reform of the energy sector, initiated in 2014, introduced competitive elements into energy markets likely to make them more flexible for new entrants, including for the provision of renewable energy. Mexico also moved away from subsidies to transport fuels, increased tax rates on gasoline and diesel. Further, it introduced a carbon tax, a policy which could drive deep decarbonisation if rates are increased from their current levels.

Despite increasing investment in renewable energy technologies in Mexico, there has been a drop in the share of renewables in total primary energy supply since 1990. There are however positive signs that this trend is reversing: renewable energy technologies account for 86% of new electric capacity additions planned over 2018-22, while no new oil or coal plants are planned to be built over the same period (Figure 10.1). However, electricity prices for the residential and agriculture sectors are still far below the average cost of energy supply, with net subsidies accounting for USD 3 800 million provided in 2015. For this reason, Mexico is encouraged to consider the effect of its support for electricity consumption over natural gas demand, both products derived from oil and coal.

New planned electricity generating capacity also focuses on natural gas, which (surprisingly) has a zero carbon tax rating. Natural gas accounted for 37% of total installed capacity in Mexico in 2017, and is expected to represent the remaining 14% of new electric capacity additions over the period 2018-22. Gas may be a suitable "bridge fuel" in the context of the low-carbon transition. However, despite being less emission-intensive than coal or oil,

unabated emissions from natural gas use are not consistent with a low-emissions development pathway in the long-term. One option that could provide a longer-term future for gas generation is carbon capture and storage (CCS), which has yet to be fully developed and deployed on a commercial scale. If Mexico's climate objectives are to be met, investing heavily in natural gas now runs the risk of stranding assets in the future, particularly if CCS technologies do not reach maturity or are not deployed quickly enough.

FIGURE 10.1. **MEXICO IS DECARBONISING ITS ENERGY SUPPLY**



Source: OECD calculations based on Platts WEPP (2017) for oil and gas; Global Coal Plant Tracker (2017) for coal; IAEA (2017) for nuclear; and IEA (2017) for renewable energy.

Beyond electricity, Mexico has significant scope to decarbonise other sectors, especially the transport sector, whose greenhouse gas emissions accounted for 25% of the total in Mexico. Deregulating gasoline and diesel prices, as well as abolishing subsidies on transport fuels, have already translated into substantial price increases. This means that the extent to which prices reflect the external cost of fuel use has much improved. However, the effectiveness of Mexico's current carbon tax could be significantly increased by broadening the scope of emissions that it applies to (e.g. charging positive rates on natural gas) and increasing the rates. Notably, coal is subject to the lowest carbon tax rate, after natural gas. Furthermore, in the recent moves towards carbon trading (an emission trading system is scheduled to be launched in 2018), it is important to ensure environmental stringency, as well as administrative ease and the potential to raise revenues, inherent in the current policy setup. The combination of such economic incentives to move away from fossil fuels, the plummeting costs of renewable technology and progress in the development of CCS technologies can work towards further accelerating Mexico's transition to a low-carbon economy.

At the same time, it is important for Mexico to take measures to adapt to climate change. Climate change is already affecting the country, with average summer temperatures having risen 0.17°C per decade between the 1960s and 2010. Projections show that temperatures in northern Mexico could increase by 3-4°C by the end of the century under a high emissions (RCP8.5) scenario, relative to the 1961-2000 baseline. Precipitation is projected to decline by 10% in most of the country, and by as much as 40% in Baja California. This decline will pose

challenges for agriculture, water supply for homes and businesses, and health. Lastly, Mexico's geography leaves it exposed to coastal storms, flooding and other extreme events.

Adaptation to climate change is a priority for the Mexican government, which can be seen through ambitious national policies and programmes put in place to strengthen resilience. These include the General Law of Climate Change 2012, the National Climate Change Strategy 2013 and the Special Climate Change Programme 2014-18. Mexico has also addressed adaptation alongside mitigation in its Nationally Determined Contribution. In addition to national policies, state governments are obliged to develop their own adaptation programmes that consider nationally proposed guidelines on ''Minimum Elements''.

Mexico's adaptation actions are targeted at reducing social vulnerability, conserving ecosystems to take advantage of environmental services, and reducing risks for strategic infrastructure. The focus on using biodiversity and ecosystem services to help communities become more resilient is considered to be a best practice. Mexico's commitments include strategic reforestation to ensure watershed function and biodiversity conservation, and ecosystem restoration to boost ecological connectivity and carbon sequestration. It will be important to continually assess the effectiveness of these approaches in strengthening resilience and using this information to inform subsequent revisions of Mexico's national approach to adaptation.

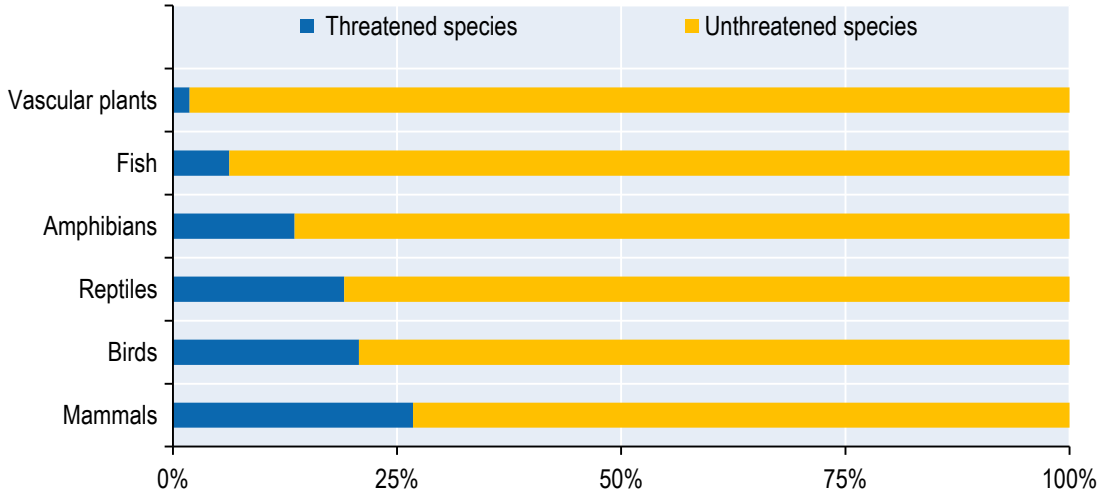
Combating the loss and degradation of biodiversity and ecosystem services

Mexico is one of the most biodiverse countries in the world. With over 200 000 different species, Mexico is home to more than 10% of the world's biodiversity. It ranks among the five most species-rich countries on Earth, and second in terms of variety of ecosystems. Mexico's terrestrial and aquatic ecosystems not only support a wealth of species; they provide provisioning services (e.g. food and traditional medicine), regulating services (e.g. climate control and pest management), supporting services (e.g. crop pollination and nutrient cycling) and cultural services (e.g. spiritual and recreational benefits) that underpin human livelihoods, health and well-being.

But Mexico's biodiversity and ecosystem services are under threat (Figure 10.2). All told, 27% of mammalian species, 21% of birds and 19% of reptiles are categorised as either "critically endangered", "endangered" or "vulnerable". The conversion of natural ecosystems to crop and livestock production is a major driver of terrestrial biodiversity loss. Other drivers include urban expansion, poor agriculture, livestock and forestry management practices (e.g. synthetic fertilisers and pesticides, overstocking and monocultures), and construction of infrastructure for transport, telecommunications, tourism and energy. Marine biodiversity faces overexploitation by fisheries, pollution from agricultural run-off and sewage, and habitat modification. These and other drivers of biodiversity loss interact synergistically with climate change, and are underpinned by broader socio-economic trends of rapid urbanisation, population growth and rising income levels.

FIGURE 10.2. **MEXICO IS HOME TO A LARGE NUMBER OF THREATENED SPECIES**

Percentage of all species in a given category, 2016 or latest available year



Note: Threatened species are defined as IUCN categories ''critically endangered'', ''endangered'' and ''vulnerable''.

Source: OECD Environmental Statistics Database, http://stats.oecd.org.

To combat biodiversity loss and degradation, Mexico is strengthening its protected area network. It has made considerable progress to increase the extent of its marine protected area (MPA) network, adding close to 80 million hectares (ha) of new MPAs between 2013 and 2017. This brings the total coastal and marine area under protection to 23%, more than double the coastal and marine component of Aichi Target 11 under the Convention on Biological Diversity, which is to conserve 10% of these areas by 2020. Particularly noteworthy is the establishment of the Revillagigedo National Marine Park in 2017, which extends over 14 million ha, making it the largest protected area in North America. However, there has been less progress in protecting terrestrial and inland water areas. With only 14.5% under protection, further effort will be needed to meet the terrestrial and inland water component of the Aichi Target 11, which aims to protect at least 17% by 2020. It is also important to ensure that the protected area network is managed effectively, through the development of management plans, adequate provision of resources, and effective monitoring and enforcement. Currently, only 111 of Mexico's 182 National Protected Areas (i.e. 60%) have a management plan.

In addition to protected areas and other regulatory instruments such as fishing and logging permits, Mexico has a number of economic instruments in place for the conservation and sustainable use of biodiversity. These include entrance fees to protected areas, payments for ecosystem services (PES), subsidies, pesticide taxes and biodiversity offsets. Mexico has a well-established national PES programme for forest conservation, which encompasses more than 3 million ha. The design of the programme is sophisticated, with financing targeted to forest areas with high biodiversity and watershed benefits, and high risk of deforestation. Also in place is the Forest Land-Use Change Compensation Mechanism, a form of biodiversity offset that requires developers of infrastructure projects to compensate for loss of forest area by paying into a compensation fund. Further opportunities exist to enhance the cost-effectiveness of the PES and forest compensation schemes.

Subsidies for environmental protection have formed a major part of Mexico's policy response to biodiversity loss and degradation, and many also aim to improve conditions for local and indigenous communities living in forests. Forest subsidies helped drive the reforestation of 873 012 ha between 2013 and 2016. Whereas subsidies are prolific, environmental taxation and charges are underutilised. Mexico would benefit from the introduction of environmental taxes and charges to encourage more sustainable use of natural resources and to generate revenue. Progress has been made in this regard with the introduction of an excise tax on pesticides in 2014, which was estimated to generate USD 30 million per year in revenues. Strengthening environmental conditionality of support measures in the primary sector, and reforming perverse support measures (e.g. agricultural subsidies that drive habitat conversion), would help improve Mexico's environmental performance and the efficiency of public expenditure, with potentially high social and economic benefits.

Mainstreaming biodiversity across sectors is also crucial to ensure that biodiversity and ecosystems are being used sustainably. This requires integrating biodiversity objectives into agriculture, energy, forestry, fishery, tourism and other economic sectors. In 2016, Mexico launched its National Biodiversity Strategy and 2016-2030 Action Plan (NBSAP), which integrates Mexico's commitments under the Convention on Biological Diversity's 2011-20 Strategic Plan, as well as the 2030 Agenda for Sustainable Development. Effective implementation of this strategy will take Mexico a long way to mainstreaming biodiversity. One of the actions outlined in the NBSAP is to create an inter-institutional mechanism for incorporating biodiversity into sectors. This could play an important role in ensuring a co-ordinated and coherent policy response to biodiversity loss, harnessing synergies with other Sustainable Development Goals and minimising trade-offs.

Mexico has made good progress since the OECD Environmental Performance Review of 2013 to strengthen the economic analysis of biodiversity, which could facilitate the mainstreaming process. This includes the launch of an Inter-Institutional Strategy in 2015 that established a working group to generate synergies among different economic valuation initiatives, the launch of Mexico's Ecosystem and Biodiversity Economy initiative in 2014 and engagement in the Environmental Economic Accounting – Experimental Ecosystem Accounting initiative under the United Nations Statistics Division. Mexico could continue to build on this work to promote the incorporation of the economic value of biodiversity and ecosystem services into decision making across multiple economic sectors.

There is considerable potential in Mexico to further engage the private sector in the fight against biodiversity loss, by increasing companies' awareness of the importance of biodiversity and ecosystem services for their value chains and mobilising private sector investment in the conservation, restoration and sustainable use of biodiversity. Mexico is starting to increase work in this regard, with the establishment of the Mexican Alliance of Biodiversity and Business in 2016, which comprises a number of institutions and private sector companies such as BASF, Cemex and Grupo México. A number of companies have also engaged in forest and soil restoration under the 20x20 Initiative (Bonn Challenge), helping Mexico to meet its commitment to restore 8.5 million ha by 2020. Voluntary agreements and information instruments, such as coffee and timber certification, could provide an opportunity to increase private sector engagement. Coffee and timber certification continue

to grow in scale, and efforts have been made to expand the scope of voluntary agreements and information instruments, with the introduction of the Mexican Ecotourism Standard.

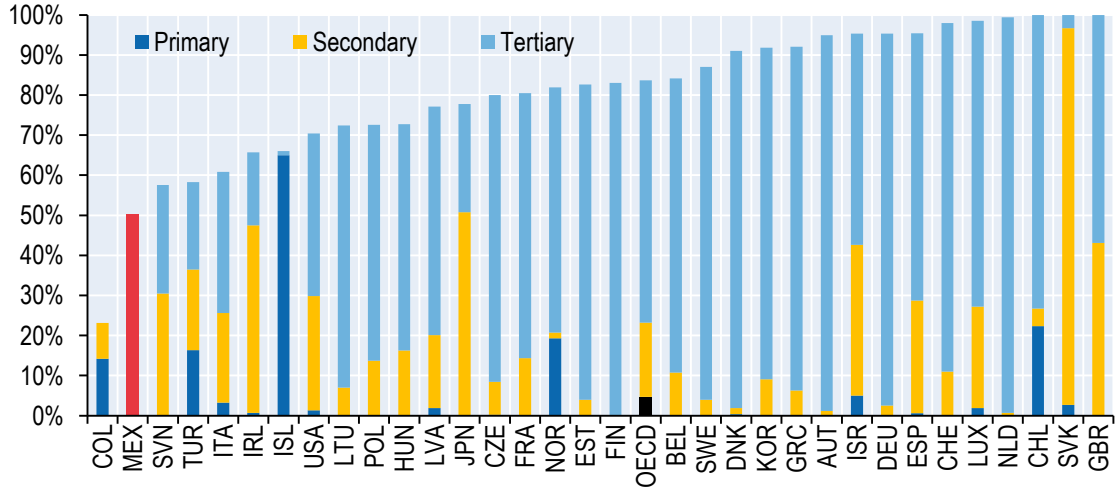
Sustainably managing water

Over the last two decades, Mexico has made considerable progress in improving access to drinking water and sanitation, while also reducing the proliferation of water-related diseases. A well-developed policy framework for water resource management is in place, and action has been taken to reduce institutional fragmentation, enhance policy coherence and engage stakeholders. Still, Mexico faces a complex set of water challenges, which are intensified by a growing population and climate change. These challenges relate in particular to securing water supplies and preventing and managing risk of too much, too little and too polluted water. Given that competencies on water are shared across different levels of government and a wide range of stakeholders, getting water governance right is key to ensuring sustainable use of water resources.

Over the next two decades, Mexico will have to provide an additional 36 million people with drinking water and 40 million people with sanitation services. Efforts will be required to increase water coverage, particularly in rural areas where coverage tends to be relatively low; to improve the connection to public wastewater treatment plants, which is the lowest among the OECD (Figure 10.3); and to decrease the high levels of water loss in some cities. Progress has been made to incentivise more sustainable use and better treatment of water. For instance, the government has significantly increased water use tariffs since 2014. Still, to achieve cost-effective water policies, investment plans should be complemented by strategic financial plans to clarify who pays for what and when. This could help diversify investments (public and private funds) and consider low-cost options (e.g. green infrastructures).

FIGURE 10.3. **MANY MEXICANS ARE NOT YET CONNECTED TO PUBLIC SEWAGE TREATMENT**

Percentage of population connected to public sewage treatment, 2015 or latest available year



Note: No breakdown between primary, secondary and tertiary is available for Mexico.

Source: OECD (2017), Green Growth Indicators 2017.

Mexico's agriculture sector is the main user of water, accounting for about 75% of total abstraction. Trends indicate that such use has been increasing since 2001. While generating value by supporting the production of a diverse set of crops, including corn and cotton, such intensive groundwater use is not sustainable. Irrigation-related groundwater stress is the fourth highest in OECD countries. In the Laguna region, intensive groundwater pumping is depleting the aquifer and generating negative externalities, including salinity, water pollution, aquifer compaction and vegetative stress. In Guanajuato State, pumping for irrigation has resulted in major land subsidence.

Intensive use of groundwater combined with climate change also generate a significant risk for the future of agriculture in Mexico. Work by the OECD shows that, in the absence of policy change, Mexico would rank fifth in terms of overall future water risks out of 142 countries and second among OECD countries. Accounting for agriculture production projections for major commodities, Mexico would rank 15th in terms of future water risks for agriculture production globally, and 6th in the OECD. Such risks would be particularly prevalent for coarse grain and livestock production.

Mexico has already taken actions to respond to this challenge. The government has employed multiple instruments to manage groundwater use, from regulatory to economic and collective-action based instruments. Technical groundwater committees (COTAS) were introduced in Mexico to protect and restore groundwater bodies under the assumption that top-down programmes had failed to address the challenges associated with groundwater depletion, especially in lower income farming communities. However, the COTAS initiative has not been fully successful in halting groundwater depletion, potentially because of the lack of autonomy in regulating groundwater. The government has also undertaken some initiatives to recharge groundwater or develop alternative water supplies.

Building on recent progress, the next Mexican government could further promote water-use efficiency across sectors, allocate water where it creates most value and encourage investment in water infrastructure. This requires addressing multi-level and river basin governance challenges to reduce inconsistencies between federal and basin priorities; strengthening the role, capacity, prerogatives and autonomy of river basin councils; and establishing platforms to share good practices. Removing overlaps and gaps in regulatory functions is also fundamental.

Mexico also should explore opportunities to improve coherence and consistency across water, agriculture and energy policies. This would include, for example, phasing out electricity subsidies for pumping irrigation water, which are regressive and incentivise unsustainable water use. The OECD has shown that eliminating electricity subsidies would lead to 15% less pumping in the short run, 19% in the long term. Adjusting water allocation regimes can also help promote water-use efficiency within and across sectors.

Key recommendations

- **Extend the coverage of the carbon tax (notably in the energy sector), gradually increasing and harmonising tax rates across different fossil fuels based on their carbon content.**

- **Ensure that the role of gas as a "bridge fuel" in Mexico's long-term low-emissions development pathway is consistent with the Paris Agreement goal of achieving a balance between human-linked greenhouse gas emissions and removals by sinks in the second half of the century.**
- **Implement a robust system for monitoring and evaluating climate change adaptation to measure progress and make adjustments where needed.**
- **Ensure the gradual reduction of electricity subsidies for farmers pumping groundwater, accompanied by direct transfers where needed.**
- **To reduce the impact associated with groundwater depletion, implement new and customised actions targeted to key regions where water risks are bound to be the greatest, using a combination of regulatory, economic and collective-action approaches.**
- **Identify hotspots for agriculture water risks and actively engage with state and local government and non-government actors to develop lasting locally-specific solutions to reduce groundwater intensive use.**
- **Foster policy coherence across water-related areas, especially agriculture, energy, environment and territorial development, through multi-stakeholder platforms (e.g. inter-agency working groups, high-level ministerial taskforces, inter-ministerial mechanisms) for consultations across federal entities and for the definition of whole-of-government objectives and strategies.**
- **Strengthen capacity at basin, municipal and state levels for effective decentralisation and place-based policies.**
- **Improve access, quality and disclosure of information for greater transparency, accountability and integrity in water policy making.**
- **Encourage public participation for more inclusive water policy, including in river basin management at the subnational level. This implies going beyond consultation and providing mechanisms to allow stakeholders to play an active role in decision making.**
- **Expand and strengthen Mexico's protected area network through the establishment of terrestrial protected areas, the development of management plans where these are lacking and the mobilisation of resources for management, monitoring and enforcement.**
- **Review the efficiency and effectiveness of economic instruments for biodiversity conservation, including payments for ecosystem services and the Forest Land-Use Change Compensation Mechanism.**
- **Assess the feasibility of increasing environmental taxation to encourage more sustainable use of natural resources and to generate revenue.**
- **Undertake a comprehensive screening of support measures to identify opportunities to strengthen environmental conditionality and to reform any perverse incentives.**
- **Pursue the objective under the National Biodiversity Strategy and Action Plan to establish an inter-institutional mechanism to support biodiversity mainstreaming efforts (i.e. similar to the one for climate change, the inter-ministerial climate change commission).**

- **Building on TEEB and other ongoing initiatives, improve information on the economic value of biodiversity and ecosystem services in order to inform decision making (e.g. through more comprehensive benefit-cost analyses for development projects) and the design of economic instruments.**

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STRATEGIC PRIORITIES FOR MEXICO

Mexico has been a reform champion, having launched ambitious reforms in a broad range of areas. While the reforms are showing first positive effects they are not delivering to the extent they could. On many dimensions of well-being, including education, health and security amongst others, Mexico still lags behind the OECD average and regional development remains very uneven. While Mexico has done a lot to build a competitive economy, progress has been too slow in two complementary areas, namely strengthening institutions and fostering inclusion. The capacity of the public sector is weak, corruption remains widespread and the rule of law is week, all hindering trust in government institutions and the effective implementation of policies. Similarly, persistent inequalities and widespread poverty do not only mean that higher growth does not translate into widespread gains in well-being; these inequalities are also holding back growth as Mexico is not using all available talent. Mexico has taken measures to tackle these issues, but important implementation gaps remain. It will be important for the next government to build on past reform efforts, ensuring the full and effective implementation of already legislated changes to allow for reform continuity and to launch additional reforms in several priority areas, including the rule of law, education and social protection. Only then will Mexico be able to deliver a higher quality of life for all its people.

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