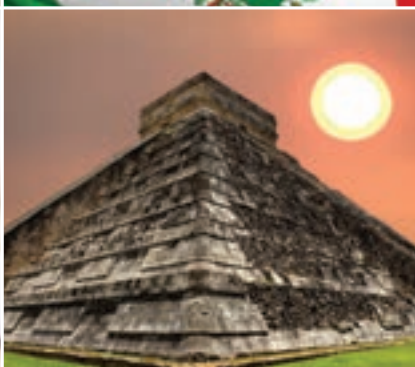




Getting It Right

STRATEGIC AGENDA FOR REFORMS IN MEXICO



Getting It Right

STRATEGIC AGENDA
FOR REFORMS IN MEXICO



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Foreword

*I*t gives me great pleasure to present this second edition of *Getting it Right* for Mexico. As never before, Mexico has a historic opportunity to build consensus in a number of areas that will make it possible to embark on far-reaching structural reforms, representing a qualitative leap in the country's development. The 13 Presidential decisions for Mexico, contained in President Enrique Peña Nieto's Message to the Nation on taking office on 1 December in the National Palace, laid the foundations for promoting those changes. These commitments have been supported and developed in greater depth by the 95 commitments of the Pact for Mexico (*Pacto por México*), which was signed by the leaders of the main political parties. The challenge now will be to turn those historical agreements into decisions and practical policies. This study aims to support Mexico tackling that challenge, contributing analysis, comparisons, and recommendations in the reform areas.

Getting it Right is one of the most complete toolkits that the OECD has designed to help a country at the start of a new government administration. In this publication, the focus of the Organisation's multidisciplinary knowledge is on Mexico; the discussion is enriched with international experience, and comparison based on best practices. In addition, the report identifies the Mexican economy's strengths and weaknesses so as to support the design, promotion and implementation of key public policies for better economic performance.

This document is intended to assist President Enrique Peña Nieto's government in implementing a new generation of structural and comprehensive reforms. The country urgently needs to build a responsive and robust fiscal system that provides a solid financial basis for serving expenditure needs, meeting economic and social challenges, and helping reduce inequalities. It also needs a state-of-the-art education system; a budgetary process targeted on long-term results; a more effective and fairer rule of law; a more dynamic and inclusive labour market; a set of incentives that promote competition; an open and effective national innovation system; an energy strategy with a long-term

vision; and a sustainable and high-quality health service. These are some of the key challenges on which the new government will need to focus.

That President Peña Nieto has decided to sign a memorandum of understanding for a strategic partnership between Mexico and the OECD, and took time to attend a seminar with OECD experts during his visit to Paris to consider some of these issues, are very positive signs of a serious commitment towards a strategic agenda of structural changes for Mexico. The OECD wants to continue supporting that agenda.

I have had the opportunity to promote major reforms in various member countries of our Organisation – *e.g.* on taxes in Japan, education in the United States, social policy in the Republic of Korea, and competition in Italy. It is an honour for me, not only as OECD Secretary-General but also as a Mexican, to serve Mexico and work with the administration that will be leading the country for the next six years. As I told President Peña Nieto, the new Mexican government should consider the OECD an extension of its own capacities.

A public policies forum, *Mexico: Public Policies for Inclusive Development* is to be held in January 2013 in Mexico City, co-ordinated by the OECD's Mexico centre with support from other international organisations. I hope that this study, in conjunction with the forum, will help enrich the debate and build the consensus needed to promote the reforms discussed here and enable Mexico to improve its economic performance, reduce inequalities, and progress to a higher development level, benefitting all its people.



Angel Gurría

OECD Secretary-General

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The report 2012, both in English and Spanish, was coordinated by Gabriela Ramos and an editorial team that includes Stéphanie Guichard, Mario López Roldán and José Antonio Ardavín.

Various officials of the OECD made valuable contributions in the various stages of the preparation of the document, starting with the authors of the individual chapters, listed in the index. We are grateful to the Executive Director of the International Energy Agency, Maria Van Der Hoven, for the involvement of the Agency in this project. The staff of publications of the Centre of the OECD in Mexico, and in particular, José Antonio García and Alejandro Camacho, as well as Bernardo Vázquez Perdomo, Gilda Moreno Manzur and Juan Carlos González provided valuable assistance in the editing of the Spanish version. In Paris, Randall Holden and Kostas Panagiotopoulos supported in the final stages of editing.

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Introduction

*Gabriela I. Ramos
and
Stéphanie Guichard*

The main challenges facing the Mexican economy

It is now five years since the onset of the worst economic and financial crisis in decades, and the main scenario continues to be one of high risk – including the so-called fiscal cliff in the United States and unresolved financial, fiscal and institutional agendas in Europe. The majority of OECD countries are still facing the consequences of the crisis: high public debt, sluggish or even negative growth, record high unemployment, and fragile banking systems. The deterioration of confidence only adds to the downside in this scenario.

Although Mexico was among the countries hardest hit by the recession in 2008-09 because of its links with the US economy, its economy is now in a much better state than that of most other OECD countries. This is the result of the economic reforms carried out previously as a result of Mexico's own crises. Following a sustained recovery in 2010-11, the Mexican economy is expected to grow by around 4% in 2012 (compared to 1.4% on average in the OECD area) and to remain around 3.5% in 2013-14. The fiscal situation is sound and inflation remains under control despite some pick-up following increases in food prices. Capital inflows have been sustained at an adequate level, stimulated by the improvement in the business environment and by a network of free trade agreements with forty-four countries. In addition to its long-standing macroeconomic stability and international openness, the financial system, which fared relatively well during the global financial crisis, is another key strength of the Mexican economy.

Nevertheless, this is no time for complacency. Given its stage of development, its impressive market-based reforms in recent decades, the youth of its population and the opportunities to catch up with more advanced economies, Mexico could grow at a faster rate and establish itself on a par with the more dynamic economies if constraints to output potential can be lifted more rapidly and effectively. Although Mexico's GDP grew faster than the OECD average over the past ten years (2% a year on average compared to 1.6% in the OECD area), this growth was significantly lower than other middle-income OECD countries, such as Chile, Turkey and the countries in eastern Europe, and well below the trend of the other major emerging economies. GDP growth was also insufficient to make any substantial improvements in the living standards of the population, measured in terms of GDP per capita, which in 2011 was the lowest among OECD countries. According to OECD estimates, a growth rate close to 4% sustained over the next two decades is necessary to reduce the per capita income gap with the best performers in the OECD area from about 70% today to 50% by 2030. Even higher rates of growth would be necessary for Mexico to join the group of high-income countries. Nevertheless, it is certain that Mexico can achieve such higher rates.

This requires removing current obstacles to achieving a prolonged period of rapid economic expansion, and in particular to productivity growth. Not only has there been no improvement in productivity, but also in recent years its growth has been negative. Improvements have been uneven in a business environment that remains unfavourable for higher investment and innovation in many areas. In spite of clear progress in the competition framework, monopolistic practices still affect several markets in Mexico and increase the cost of doing business. There also continue to be high levels of informality in the labour market, and a lack of the necessary skills among the labour force for Mexico to move more quickly up the value chains. These weaknesses constitute bottlenecks and need to be addressed. Mexico has all of the elements and attributes to grow at much higher rates, and the main measures that are necessary to achieve that growth are already well-known.

A core element in building a more dynamic economy and a more inclusive society in Mexico is the effective functioning of the legal framework. The judicial system presently provides neither the certainty nor the necessary legal efficacy for economic activity to prosper at a faster pace. A malfunctioning legal system has a large impact on all areas of economic activity, and it can also become an obstacle for building a society that is more inclusive and based on solidarity. The costs are immense, as it affects economic structures as well as human and social capital. Tackling the problem must therefore be one of the main priorities of the new government, and reforms and reviews of the legal and judicial system need to include the different levels of government to ensure overall improvement. The new government, with the support of the main parties represented in Congress,

has taken a very positive step forward by making the issue of security and justice central to the Pact for Mexico that was recently signed.

As is true of other OECD countries, Mexico can no longer just promote any type of growth: the challenge is to promote growth that is more inclusive and more respectful of the environment. As stated in the Pact for Mexico, policies to improve inclusion are particularly important in a country with the levels of inequality found of Mexico, where – despite having one of the most successful programmes for reducing poverty in the world, a model for other countries – around half of the population in 2010 was living in a situation of poverty (either moderate or extreme). In 2008 the average income of the 10% of the Mexican population with the most resources was twenty-seven times higher than that of the 10% with the least resources (in comparison with the OECD average, which is 9 to 1). The level of inequality in GDP per capita between states in Mexico is one of the highest among federal OECD countries, ranging from one and half times the national average in the *Distrito Federal* (Mexico City) to under 60% of the national average in Chiapas. Measures to achieve higher levels of growth will need to be combined with effective action to better distribute opportunity and income since, as in other Latin American countries, the effectiveness of the tax system in bringing about better redistribution is negligible. And Mexico must broaden its economic policy goals to achieve higher levels not just of income, but also of well-being. The country is not alone in this; there is a need in all OECD countries to redefine economic strategies. The end objective cannot simply be the unfettered accumulation of income and capital. It must target a real improvement in well-being that is inclusive and aware of the social sphere, environmental limits, and inter-generational commitments.

The aspect of social well-being is crucial, because such persistent widespread poverty and inequalities inhibit social cohesion as well as growth. For example, to the extent that inequality affects the results and outcomes of education and the provision of health services, it tends to limit the development of the human potential that all Mexicans deserve and that Mexico needs in order to achieve higher growth. The fact that pro-growth public policies do not succeed in reducing inequality could also lead to resistance to these policies.

With regard to the environment, the impact that economic activity has had on the country's natural resources is evident and decisive action is needed to limit the impact of growth policies on the environment. Economic and demographic growth has led to considerable environmental degradation, the depletion of natural resources and a rapid increase in greenhouse gas emissions. The level of particulate air pollution is among the highest in the OECD countries. There are also high levels of soil and surface water pollution. It is essential for the commitments undertaken in the Section 2.4 of the Pact for Mexico regarding

these matters to be decisively implemented so that sustainable development can be encouraged.

The interconnected nature of the challenges of economic growth, inclusiveness and environmental impact also underscores the need for a multidisciplinary solution. The agenda must progress simultaneously on various fronts in order to benefit from the effects of the different measures. For example, new labour legislation would have a greater impact on productivity and equity if improvements were made to the business environment, competition and educational achievement, and if a better transition to the labour market can be ensured. With a simpler and fairer tax system, the positive effects would be even greater. Environmental policies that are well designed can create new markets, investment opportunities and employment.

Achieving higher, more inclusive and greener growth therefore calls for a strategic agenda to convert Mexico's assets into actual strengths, and to overcome the obstacles that stand in the way of a more dynamic development.

The design of such a strategic agenda is essential, but not sufficient. Mexico also needs to improve the implementation of public policies. Excellent decision making by the Mexican government in many areas has failed to give the desired results due to poor implementation, poor monitoring and follow-up, and poor assessment and evaluation. Institutional capacity is uneven even at the federal level, and still below the level necessary in a competitive and rapidly changing world. Progress in building and investment in institutions, agencies and public officials who are capable, ethical and efficient is therefore an absolute priority. These elements are essential for improving not just the rule of law, the judicial system and a framework of integrity, but also the management capabilities of public administration at all levels. This would make the business environment more stable and conducive to higher growth, and facilitate the effective implementation of the most important reforms. It is also key to reducing disparities between states, which stem largely from the high divergence in management and governance capability in the different regions.

Special mention needs to be made of the fight against one of the main problems confronting Mexican society. Corruption causes not just a loss of confidence in institutions, but also a drain on resources due to distortions in decision making and misappropriation. It is also harmful to the social fabric. The establishment of an anti-corruption agency is a good proposal as it sends out a clear sign regarding the commitment to this fight, although it is not enough. In order for it to be effective, the agency will need to have its capabilities, powers and instruments appropriately defined; it will need to have the necessary financial and human resources in addition to resources for action (including the establishment of penalties); and its independence and necessary autonomy will need to be preserved. Mexico has everything it needs to embark on a path

of dynamic and sustained economic growth in the coming years, although there are bottlenecks that will need to be eliminated in different areas, which are identified in this report.

With the right decisions, Mexico can again be a real success story. The thirteen presidential decisions announced by President Enrique Peña Nieto on taking office, and the ninety-five commitments contained in the Pact for Mexico that was subsequently signed by the leaders of the main political parties, are essential steps in addressing these challenges. The OECD has signed a Strategic Alliance with President Peña Nieto's government to accompany it in defining a more competitive and inclusive agenda, and the Organisation will be supporting the current government in making progress in the implementation of the various commitments that have been announced. This report analyses the main aspects of this strategic agenda, on the basis of Mexico's strengths and the obstacles that need to be overcome. The analysis is further enhanced with information from international comparisons. The following section deals with the specific areas that are analysed in the different sections of this report.

A strategy to support growth and well-being

Going structural to accelerate convergence toward higher living standards

In order to tap Mexico's enormous potential for growth and to decisively raise the living standards of the Mexican population, sustained and comprehensive structural reforms are necessary.

In most other emerging countries that compete with Mexico, growth over the past ten years has been driven by constant gains in labour productivity. This has not been the case in Mexico, where the growth in labour productivity has been lower than the average for OECD countries over the same period. This has been due to an insufficient capital deepening and, more importantly, negative total factor productivity (Chapter 1). There are many interrelated causes for this negative productivity. Firstly, it is a reflection of the enormous size of the informal sector (Chapter 10). It also results from resource allocation to sectors with a relatively low productivity growth – such as the wholesale and retail trade and construction and building, which in the past twenty years have seen a rise in their share of total employment.

Productivity growth in Mexico is also limited by institutional rigidities in the labour market and insufficient innovation, education and physical infrastructure. All of these shortcomings point to bottlenecks that limit competition, the diffusion of technology, and investment in the sectors of highest productivity and

in human capital. These bottlenecks are numerous and they mutually reinforce each other.

In order to restart the convergence process and generate a sustained high level of growth, Mexico needs to eliminate these bottlenecks which have prevented the important reforms carried out to open up the economy to translate into higher productivity. Similarly, internal sources of growth need to be better harnessed and aimed at products and services that are internationally competitive and deliver more value-added. Mexico should also continue in its efforts to diversify its trade and investment relations and make use of the advantages offered by its proximity and access to the US market.

Firstly, in order to boost productivity, Mexico needs to modify the structure of economic incentives, with a view to promoting competition and openness (Chapter 1). This means that institutional weaknesses need to be corrected, the rule of law strengthened, monopolies undone, further investment made in physical and technological infrastructure and in the skills of the labour force, incentives set up for sufficient capital accumulation in both physical assets and human resources, and for innovation to spread across the country. In particular, there is still a great deal of scope to reduce the cost of business transactions. Companies face high costs due to the lack of investment in infrastructure, notably in transportation, as well as the lack of competition in network industries, especially the telecommunications sector. Important foreign direct investment (FDI) restrictions continue to exist in these sectors. As a result, even though Mexico is the second largest recipient of FDI in Latin America after Brazil, foreign investment is not on the level that it should be, and it is not always allocated to the most dynamic sectors or those where it would have the greatest impact.

According to Chapter 2 of the Pact for Mexico, in order to strengthen its competitiveness and integration into the world economy, it is essential for Mexico to ease the regulatory barriers to services, foreign investment and competition in network services (see Chapter 8). The telecommunications sector is a case in point, where recent progress needs to be consolidated (see Chapter 9). For example, the commitment to “Guarantee equitable access to world-class telecommunications”, included in the Pact for Mexico, is a highly important decision that calls for immediate and effective implementation. Improvements in the business environment need to be complemented by specific measures that support small enterprises, increase their productivity, stimulate innovation and encourage them to join the formal sector (see Chapter 10). Additional efforts to combat corruption and resolve security-related issues would reduce these costs and increase the attractiveness of the country for both foreign and Mexican investors (see Chapter 4).

Secondly, Mexico needs to upgrade its human capital and the availability of skills in the population, in order to reap the full benefits of its young and

growing labour force and to successfully integrate better into global supply chains (Chapter 8). The education system has undergone substantial reforms in recent years (Chapter 6). One major achievement has been to expand educational coverage, especially in early childhood education and education up to the age of 14. Allocating additional resources and the setting in place of efficient evaluation systems are positive steps. Nevertheless, the various measures all need to be adopted in a coherent way to improve management of the system and to ensure that decision making produces the expected results through efficient implementation – something that still does not always occur. Section 1.3 of the Pact for Mexico admits that, in spite of the important achievements that have been made in educational coverage on all levels, more efforts are indeed required to prevent children dropping out of school and to ensure universal education up to the level of higher education. Improvements also need to be made to quality in education: reforms to make education more relevant and to better prepare students for the labour market have yet to produce specific results. The decisions concerning education made by President Peña Nieto during the start of his term of office are truly encouraging. In order to deliver results, they will require effective implementation and close monitoring.

Education is a major issue, considering the demographic profile of Mexico and the fact that the largest population cohorts are currently in education. Their imminent entry into the labour market over the next twenty years represents a historic opportunity. Mexico therefore needs to upgrade the skills of the labour force by providing more and better education, thereby enabling enterprises and the economy to move up the value chains.

Thirdly, weaknesses in education are compounded by the malfunctioning of the labour market, as a large number of workers are in the informal sector with no access to on-the-job training or human capital development opportunities. The underrepresentation of certain sectors of the population in the labour market (for example, the participation rate of women is very low compared to the average for the OECD) is another obstacle preventing the full benefit of the assets and potential that exist in Mexico. In addition to implementing labour policies that facilitate the harmonising of family and work life, Mexico needs to adopt a skills strategy that addresses the needs and strengthen the provision of skills at all levels. In order to fully tap the potential of better skills, increase the capacity of enterprises to create products with higher value-added and adapt to technological change and international competition, it is important to reduce the formalities involved in starting and running a business, excessive protection for formal employment, and the high non-wage labour costs that prevail in the formal labour market. Substantial progress has been made in recent years in improving the regulatory framework through reductions in unnecessary burdens. This effort, launched at the national and regional level, needs to be continued in order to reap the rewards. The recent labour reform should help address the

problems of inclusion and informality by making formal employment more attractive to both employers and employees (Chapter 5).

Fourthly, a major effort must be put into promoting innovation. The country has one of the lowest levels of research, development and innovation (RD&I) among OECD countries. Innovation is essential for promoting productivity, creating new sources of growth, and optimising the benefits of Mexico's integration into the world economy. As the Section 2.3 of the Pact admits, in particular, Mexico needs to increase the capacity of the business sector, including small businesses, to assimilate and adapt foreign-developed technologies, and thereby increase its international competitiveness (Chapter 10). It also needs to promote investment in knowledge-based assets to foster innovation in Mexican enterprises, consolidate their participation in global networks, and above all to diversify into value chains in the services sector. There is evidence of failings in the governance of the innovation system that must be addressed, although confronting this difficulty reinforces the need for continued investment and improvements in education, and for a framework with appropriate general conditions (including competition, infrastructure and legal certainty).

Going social to reduce poverty and tackle inequalities between individuals and regions

Reducing poverty and inequalities is an urgent task. Mexico (together with Chile) continues to be the most unequal OECD country; with more than half of the population still living in poverty at the start of the 21st century, it needs to ensure greater equity in the distribution of the benefits of growth. Poverty and inequality are caused by ineffective public policies, and they are also factors that prevent higher levels of growth from being attained.

Poverty and inequality stem largely from the vast informal sector of low-paid, low-productivity jobs and a labour market that lacks access to training and has very limited social safety nets. They also reflect the wide geographical dispersion of the population in remote areas where it is difficult to provide services, together with a high concentration in urban areas where there is huge pressure in terms of infrastructure and public services.

Pro-growth policies need to be aimed at reducing poverty and inequality in Mexico. They can be particularly effective if higher growth is spurred by infrastructure investment, which also benefits the population in all regions, and all the more so by investment in human capital. A highly skilled workforce is an essential driver of productivity and long-term growth, but it is also key to preventing poverty from reproducing itself from one generation to the next. It is particularly necessary to strengthen the capacity of education systems

to engender social mobility (Chapter 6). Mexico is one of the countries in the OECD where socio-economic background affects outcomes in education, and the educational system has not managed to effectively break this vicious circle.

That, however, is not sufficient. Poverty reduction requires a continuous broadening and strengthening of social safety nets; this is one of the most important commitments of the Pact for Mexico. Despite major progress, social spending (excluding on education) still represents less than a third of the average level in OECD countries, and is also low in relation to per capita GDP. Mexico is also the only OECD country without a system of unemployment benefits, and this contributes to informality, inequality and insecurity. In addition, while progress has been made in health access and coverage, quality and efficiency still need to be addressed, particularly in certain parts of the country. In this regard, a reform of the system's structure is necessary to consolidate both the number and the operational framework of institutions that supply these services, which on certain occasions duplicate coverage and on others hinder expansion. The administrative expense stemming from this ineffective structure is three times the OECD average.

Poverty reduction programmes are very successful although they need to be strengthened and increased, and better-targeted social spending (Chapter 2) is necessary, including on health (Chapter 7). The commitment to ensure universal access to health services, also included in the Pact for Mexico, is an overarching challenge. This will necessitate increasingly stable fiscal revenues (Chapter 3). Mexico's public finances are sound, although they are highly dependent on oil revenues, they do not provide a sufficient buffer to output volatility and the resulting social impact, and they do not provide sufficient resources to finance growth-enhancing investments in physical and human capital, or in social policies.

A broad fiscal reform is therefore necessary to allow the accumulation of fiscal buffers, increase tax revenue, and increase the efficiency of public spending. Efforts to reduce informality would reduce poverty both directly and indirectly by broadening the tax base and thereby allowing for higher financing of poverty reduction and social programmes, as well as productivity-enhancing policies.

As more people overcome poverty, the development of the middle class with the capacity to consume and save will be an important basis for higher growth and contribute to the consolidation of tax revenues.

The disparities in the levels of development among the states that have continued to increase pose yet another challenge for social cohesion. There has been no evident sign over the past ten years that the poorer regions have caught up. This divergence reflects the varying ability of the states to benefit from trade liberalisation, and points to major differences in their capacity to carry out reforms and meet the needs of the population – which further accentuates

pre-existing geographical disparities. In order to address regional disparities and capacities, a more effective federal fiscal system is needed to ensure that resources go where they are most needed, that there is accountability, and that there is better infrastructure to incorporate regions lagging behind into business networks. It also calls for better institutions, improved administrative capacities, and the implementation of reforms to improve the business environment and human capital in states that lag behind. There is an enormous potential in all of these areas to learn from the success that has been achieved in the leading states.

Going green to reduce the pressure on the environment

Growth should not come at the expense of the environment. In order for growth to be sustainable, it must preserve the environment while simultaneously making best use of available natural resources. Increasing energy and resource efficiency is essential to prevent the current pressure on the environment from creating further strains on growth and the quality of life in Mexico in the medium term.

With its abundant natural resources, Mexico is a country with enormous energy and agricultural potential (Chapters 12 and 13). The full-scale development of this potential will require significant reforms to increase competitiveness and also to limit the impact of development on the environment. The challenge of combining social, economic and environmental goals and implementing them in a vast federal country like Mexico is particularly well illustrated by the case of water management (Chapter 14). These environmental priorities, which are clearly defined in the Section 2.4 of the Pact for Mexico, need to be incorporated into the strategies of the different government bodies involved in promoting the economic development of the country.

A better balance between Mexico's social and environmental goals could be achieved by reducing subsidies to energy and agriculture and by relying more on direct social transfers to help the poor (Chapters 12 and 13). Subsidies for fossil fuels totalled around MXN 169 billion in 2011. These subsidies are harmful for the environment, and they also represent a heavy burden on the government's budget. Moreover, they poorly target the vulnerable groups in society that they are supposed to protect. The new administration has shown its commitment to reviewing and reducing these subsidies, which is a very welcome measure.

The framework for environmental policy is another area in which Mexico has made important progress, especially the legal framework. This needs to be coupled with effective implementation and competent institutions.

Going institutional to support implementation of reforms

Mexico needs not only the financial means to reduce poverty and support growth-enhancing policies, but also the public institutions, skills and capability to design and implement these policies across a vast country of contrasts and in a complicated federal system (Chapter 4).

In all the areas where structural and social reforms are needed, the issues have been clearly identified. Progress in fundamental reform has often been hindered by power and interest groups, however, in for example the areas of competition, education and the network industries. Many opportunities have consequently been missed. Given the interconnection between the reforms, the fact that it has been impossible to achieve progress on several fronts simultaneously has limited the benefits of progress in some areas, for instance the opening up of the Mexican economy. The adoption of the long-awaited labour reform is a sign that things may be changing.

While the passing of laws is a major step, it is only a first step. The ultimate objective will only be achieved when these reforms are implemented effectively, with effective monitoring and follow-up, and evaluation of the outcomes. This is particularly the case with education, where quality improvement and enhancement still needs to be transformed into better learning outcomes for students. The implementation of reforms has also often been very uneven across states, which has fuelled regional disparities. This would suggest that institutional capacities are a core reason for the divergence of paths between states. In areas where reforms have been enacted (e.g. education, competition, labour), efforts should be made to achieve effective nationwide implementation.

While implementation of reforms is a major challenge in many OECD countries, it is even more difficult in Mexico, where the capabilities of public officials to implement, track and assess outcomes vary greatly in the federal administration and particularly across state governments. The implementation of reforms and the assurance that they will produce the anticipated results require better governance and institutional capacity across the country. This is a necessary condition for any growth strategy to succeed.

As many OECD countries, Mexico therefore needs to pay close attention to the political economy of reforms and to prevent power groups that benefit from the existing state of affairs from blocking progress in various spheres. Mexico needs to fight the powerful groups that have become established in strategic sectors; otherwise, it will be impossible to fully implement reforms and policies and they will not yield the anticipated results.

Mexico finds itself with an excellent opportunity – not just because of a relatively better situation than that of its main partners following the crisis, but also because of its young population and many assets, as well as the fact

that there is a new federal government administration in office that has sent out a clear message that it intends to promote the necessary changes. Now is the time for vigorous efforts to move forward a strategic agenda that improves productivity, competitiveness and well-being. The Pact for Mexico, signed by President Enrique Peña Nieto with the leaders of the main political parties, provides solid ground to promote structural reforms in this respect. Mexico needs to place trust in its assets and in its many strengths in order to advance the reforms on this agenda. The country has the support of the OECD, its Secretary-General and officials, and over fifty years of work and experience in the design and enhancement of better policies for better lives. That support will become further consolidated following the recent establishment of a strategic alliance to broaden and deepen the collaboration.

Chapter 1

Boosting Growth Potential

Sean Dougherty

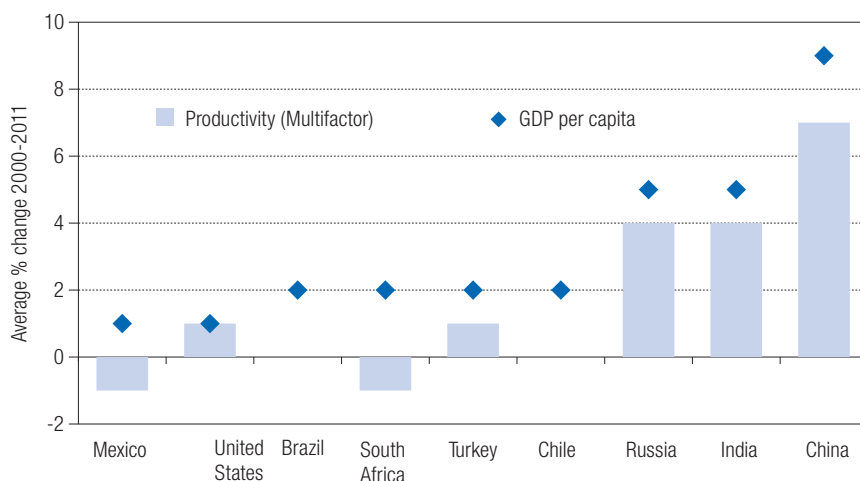
Slow income growth in Mexico has prevented its convergence to the average income levels of OECD countries. To strengthen growth potential, structural reforms are needed that will boost investment and reverse the trend of negative productivity growth that has undermined gains in well-being. Key reforms called for include boosting human capital, making labour markets more flexible and more formal, removing restrictive barriers to entry to different economic sectors, and improving the quality of the judiciary. Strengthening competition is an urgent objective that could likely yield the most front-loaded benefits. Also needed are institutions capable of ensuring that the reforms agreed are effectively implemented. This will require improvements in the legal framework and political commitment to reform. Many of the commitments contained in the Pact for Mexico pursue these purposes, but their full and coherent implementation is a requisite for greater growth.

Although its GDP per capita is one of the lowest among OECD countries, Mexico has many strengths that it can draw upon to generate growth: a stable macroeconomic environment; a high degree of trade openness; proximity to the largest economy in the world; a young population; and ample natural resources. It has also made considerable progress in education and health coverage and in enhancing competition, and has one of the most innovative poverty reduction programmes in the world. Still, important bottlenecks remain that prevent Mexico from reaping the full fruit of such assets. As a result, overall economic performance has been disappointing over the past decade, especially in terms of productivity (though some improvement has been recorded since 2010).

The gap between Mexico's living standards and those of middle-range OECD economies is almost entirely due to lower levels of labour productivity. To reduce that gap, Mexico needs a reform agenda to boost productivity and remove the obstacles that have hampered its dynamism over the past decades. This is made all the more urgent by growing competition from other economies.

Most worrying is that multifactor productivity growth has been negative over the past decade (Figure 1.1), leading to an income growth of only 1.2% per year. During this period Mexico's GDP per capita growth was insufficient to significantly narrow the income gap with the leading OECD countries. This low productivity growth contrasts with major emerging markets, where productivity growth was sufficient to significantly boost incomes. In fact, in Brazil, Chile, South Africa and Turkey, incomes increased at a speed two or three times faster than those in Mexico. In China, India and Russia, incomes rose even faster.

The OECD estimates that Mexico's potential GDP growth rate is presently just above 3% per annum, though actual growth has averaged 4.5% following the great recession in 2008-09, as the economy recovers its longer-term growth path (Figure 1.2). Two percentage points of growth are the contribution of favourable demographics – given Mexico's youthful population. However, this advantage is set to decline in the coming years, though it will remain positive. Another 1 percentage point of growth comes from gains in human capital, i.e. rising education levels, which can help to make up for the declining gains from the “demographic bonus”. The additional capital per worker adds another percentage

Figure 1.1. **Negative productivity growth has meant slow income growth**

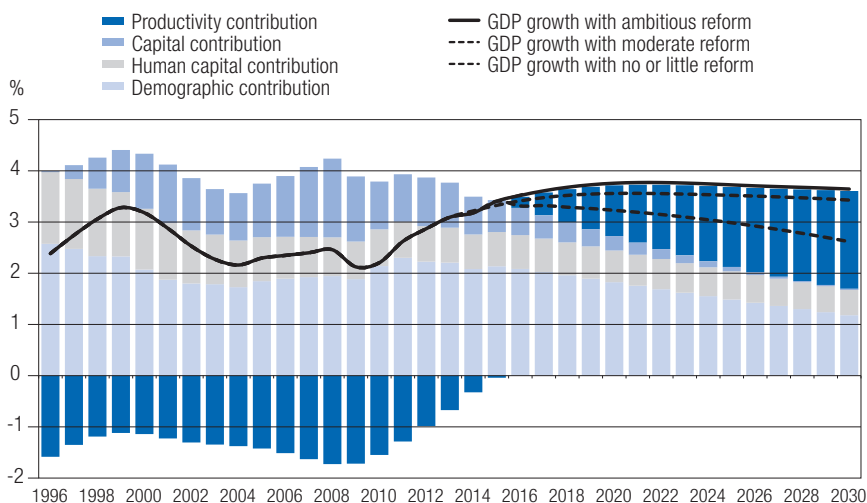
Source: OECD Economic Policy Papers No. 3, "Looking to 2060: Long-term Growth Prospects for the World", forthcoming b.

point, but this is offset by a similarly large negative contribution of multifactor productivity.

Productivity-enhancing structural reforms could substantially boost the pace of growth in the coming years and accelerate convergence with the OECD countries (see Figure 1.2). A moderate course of reform would raise Mexico's potential growth to around 3.5% annually in the medium term, though demographics will cause it to slow as the old age population increases. This could be partially offset if migration flows substantially reverse, or if education quality rises faster than the number of years of schooling.

With a more ambitious course of reform, growth rates could be lifted even further, to a rate approaching 4% per cent annually in the medium term – or even higher if sufficiently ambitious, as the new government hopes in its Pact for Mexico. This however requires Mexico to go well beyond the OECD averages, and implement reforms that mirror the best-performing OECD economies. Such an ambitious course of reform would help lift per capita incomes more than twice as quickly – from about 30% of the United States at present to close to half of the US level by the end of the projection horizon. A large proportion of this faster catch-up would likely come from competition reforms, though reforms in multiple areas would be needed to be carried out over a similar period to achieve an even higher growth path.

Figure 1.2. GDP growth potential under different reform scenarios



Source: OECD Economic Outlook database and OECD calculations.

Raising growth potential through structural reforms

The main opportunity for raising growth potential is to improve productivity. However, if necessary reforms are not undertaken, the rate of potential growth could actually fall, significantly. The reforms discussed below would help to raise potential growth – perhaps even yielding greater gains than would have resulted from ambitious reform through higher productivity and human and physical capital deepening. They would also increase employment and reduce informality – in most cases without increasing inequality – and thus improve the welfare of all Mexicans.

The OECD's *Going for Growth* report serves as a tool for identifying and prioritising structural reforms that can help make long-term gains in GDP per capita. These reform priorities are subject to the prerequisites of macroeconomic and fiscal sustainability. Such report includes the following five key priorities for boosting Mexico's long-term growth:

- *Raise educational achievement* – Weaknesses in educational enrolment and quality limit productivity gains and exacerbate inequality. Stronger standards have been implemented, but student and teacher evaluation systems need to be developed further (see Chapter 6).
- *Reduce job protection on formal contracts* – Institutional rigidities in the labour market hurt productivity growth and aggravate informality, also harming equity. A major reform in this area to reduce the cost of hiring and firing regular workers, ease shorter-term contracts and considerably

simplify labour court procedures was recently approved by Congress (see Chapter 5).

- *Remove barriers to entry and competition* – In general, the costly registration procedures that prevail at the sub-national and federal levels, as well as a lack of contestability in key network services – notably the telecommunications (see Chapter 9), electricity, oil and gas sectors (see Chapter 12) – limit productivity growth. Legal restraints on private investment in the national oil company (PEMEX) – a major potential source of capital – limit the company's production. At the same time, that company's efficiency and governance need to be improved.
- *Eliminate restrictions on foreign direct investment* – Barriers to foreign direct investment in services (including network services) and infrastructure are among the most restrictive in the OECD area, harming trade, investment and technological upgrading. Foreign investment restrictions in transport, media, fixed-line telecom and financial services need to be relaxed (see Chapter 8).
- *Improve the rule of law* – Sound legal institutions are important for any type of structural policy to be effective. Weaknesses in the legal system hurt the efficacy of contracts and the security of property rights, reducing firm size and investment. Legal reforms to improve efficiency and fairness of court proceedings have not yet been implemented in many states.

All of the above structural reform priorities were highlighted in the 13 decisions President Peña Nieto announced in his inaugural Message to the Nation and the recent Pact for Mexico. To establish the priority in which reforms are to be sequenced (see Box 1.1), both their long and short-term effects need to be considered. Education reforms can offer the greatest potential long-term benefits in terms of productivity, but those gains clearly can take years to be fully realised as a new generation of young people need to be educated (Barnes et al., 2011). Recent OECD work suggests that product market reforms – notably, removing barriers to entry in network industries and restrictions on foreign investment – are the reforms most likely to pay off in the short term. Labour market reforms are often thought to have negative short-term side effects; however, recent OECD evidence suggests that this is not necessarily the case, and that if designed well, the effects can be positive even in the short run (OECD, 2012a). Improvements in the rule of law and the contractual environment are likely to take time to be fully effective since they involve fundamental changes in the operation of the court system, though these can in turn help to re-enforce product and labour market reforms.

Weaknesses in the legal system hurt the efficacy of contracts and the security of property rights, reducing economies of scale and limiting investment and efficiency. Major reforms have been initiated to improve the accountability and professionalism of the judicial sector, including through the implementation of oral trials; however, these have yet to be implemented for criminal cases in

about one-third of the states, and only experimentally in a few states for civil cases. Legal reforms such as revision of the *amparo* system of injunctions are also needed at the federal level to strengthen competition; in some network sectors, these injunctions are used to obstruct regulators' actions. Specialised economic courts now being established through recent competition law should help to restrict the application of *amparos* and streamline other competition decisions. While the 13 Presidential decisions and the 95 commitments of the Pact are key steps to push these reforms forward, major efforts will be required, along with strong, continued political commitment of stakeholders.

Reforms to product markets and related institutions that could boost investment and the speed of convergence are discussed in depth in this chapter. Dedicated chapters will deal in more depth with education and labour market reform, which are no less important. Similarly, reforms to tax and spending policies would help to leverage domestic savings and capital inflows to boost investment – notably in infrastructure – and make higher growth rates more sustainable and balanced across various regions and over time (see Chapter 4).

Box 1.1. **Making reform happen**

The business of actually carrying out reform is complex and involves a wide range of political economy considerations, both country-specific and general. A recent OECD analysis has examined the political economy of 20 specific case studies of reform in 10 Member countries and assessed the conditions that can make actual reform possible (OECD, 2009 and 2010). Such review, which builds on earlier OECD work, suggests a number of basic principles that have proven successful:

Governments need to have an electoral mandate for reform. Reform “by stealth” has severe limits; major reforms for which governments have not previously sought public approval tend to succeed only when they generate visible benefits very rapidly, which major structural reforms generally do not. While crises can create opportunities for reform surprises, sustainability is essential for real impact.

Effective communication by governments is important. Major reforms are usually accompanied by coordinated efforts to persuade voters and stakeholders that reform is needed, with special emphasis placed on the costs of not reforming. Where the costs of the status quo are opportunity costs, they tend to be politically “invisible”, making the challenge to “sell” these reforms all the greater.

Policy design should be underpinned by solid research and analysis. An objective evidence-based proposal for reform with a sound technical analysis serves

both to improve the quality of policy and to increase the chances that the reform will be adopted. Research presented by an authoritative, non-partisan institution that commands trust across the political spectrum may have a final impact.

Structural reforms that ultimately prove successful often take considerable time to implement. The more successful reforms in the case studies generally took over two years to adopt, and that does not include the preparation work: in many reform episodes, problems and proposals are debated and studied for years before the authorities actually set to work framing specific reforms.

Cohesion of the government is important. If the government undertaking a reform initiative is not united around the policy, it will send out mixed messages, and opponents will exploit its divisions; defeat is usually the result. The case studies suggest that cohesion matters more than such factors as the strength or unity of opposition parties, or the government's parliamentary strength.

Government leadership is essential. Reform progress may be facilitated by frequent discussions involving the government and the social partners (i.e. unions and private groups). However, firmness on the part of the government also seems to be a critical element of success. A co-operative approach is unlikely to succeed unless the government is in a position to reward co-operation by the social partners, or can make a credible threat to proceed unilaterally if a concerted approach fails.

The previous condition of the policy intended to be reformed matters. The most successful reforms of firmly established policies often have been preceded by the "erosion" of the status quo through smaller piecemeal reforms or unsuccessful reform attempts. Where the existing arrangements are well institutionalised and popular, and there appears to be no danger of imminent breakdown, gaining acceptance of reform is far more difficult to propose, explain, "sell" and implement.

Successful reform requires persistence. Another significant conclusion is that previously blocked, reversed or very limited reforms need not be seen as failures: they may play a role in illustrating the unsustainability of the status quo and setting the stage for a more successful attempt later on.

The OECD case studies confirm the conclusions of earlier analytical work with respect to the facilitating effect of crises and sound public finances. Finally, the studies cast some doubt on the often repeated claim that voters tend to punish reforming governments: the likelihood of subsequent re-election was about the same for those involved in the more and less successful reform episodes.

Product market reforms to boost productivity growth and living standards

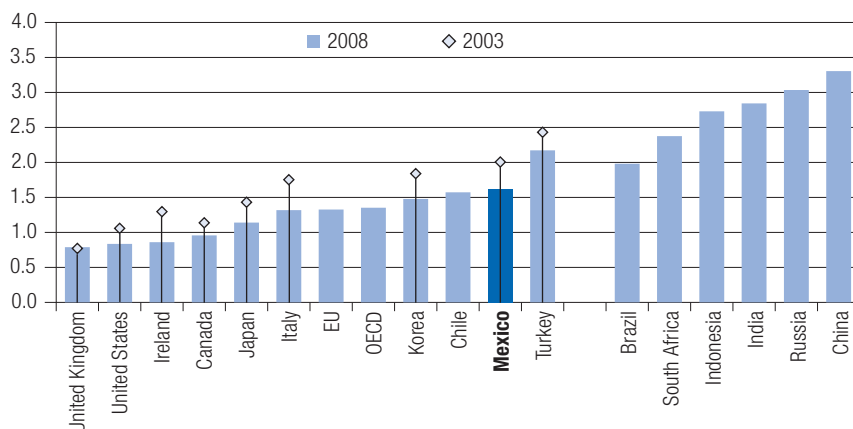
Product market competition is weak in many sectors in Mexico, and this often hurts efficiency, productivity and consumer welfare. State-owned monopolies provide and distribute electricity and produce oil, but concentration is high in many other sectors. Analysis conducted jointly by the Mexican competition authority (*Comisión Federal de Competencia*, CFC) and the OECD suggests that the average Mexican household spends close to a third of its budget on products that are produced in monopolistic or highly oligopolistic markets; the share is even higher for the lowest-income households. In a number of sectors, current regulations help market incumbents prevent the entry of new firms or effective competition from existing competitors. By drawing on the OECD's expertise as well as the CFC's and other domestic analyses, Mexico has undertaken a project supervised by the Ministry of Economy intended to identify any obstacles to competition, to improve regulatory quality, and to propose reforms based on the international best practices.

Better-quality regulation and easier entry to the market, through streamlining the processes for opening new firms through one-stop-shops, would increase the competition that incumbent firms face from new entrants. While major reforms in this area have been done at the federal level, many states still need to make greater efforts (OECD, 2012b). This would lead to lower prices, increased efficiency and innovation, and enhanced aggregate productivity growth – all of which promote consumer welfare.

The OECD's three recent Mexican bid rigging/procurement studies (involving IMSS, the State of Mexico and ISSSTE) provide solid research and analysis for changes in procurement regulation and practices. If the recommendations of the OECD reports on IMSS, State of Mexico and ISSSTE procurements (and subsequently the CFE report) are implemented, the substantial savings generated could help fund some of the projects/initiatives that will boost growth (education and infrastructure).

Improving regulation can have a significant impact on productivity growth by enhancing competition

OECD research suggests that promoting more competition, cutting red tape and streamlining regulations could help in reducing Mexico's regulatory burdens increasing the country's productivity significantly. The OECD product market regulation indicator (PMR) shows that major progress has occurred in recent years, though more reforms are still needed (Figure 1.3). This is mainly due to barriers to entry and foreign investment in services and network industries, including telecommunications, transport and electricity. OECD simulations

Figure 1.3. **Mexican product market regulation has declined**Index scale of **0-6**, from least to most restrictive

Source: OECD (forthcoming a), *Economic Policy Reforms: Going for Growth 2013*, OECD, Paris.

from the 2011 *Economic Survey* suggest that if Mexico brought its regulations in line with OECD best practice, productivity could be as much as 18% higher in 10 years. Productivity could be 9% higher in a more moderate reform scenario, whereby Mexico's regulatory reform reached a PMR indicator score close to the OECD average. A breakdown of the effect of different reform efforts suggests that reforms in network industries could bring particularly high productivity payoffs, even higher than those obtainable through a broad administrative simplification, already highly desirable. While these estimates must be interpreted with caution, they nevertheless convey an idea of the scale of productivity improvements possible if Mexico succeeds in implementing urgent administrative and competition regimen reforms.

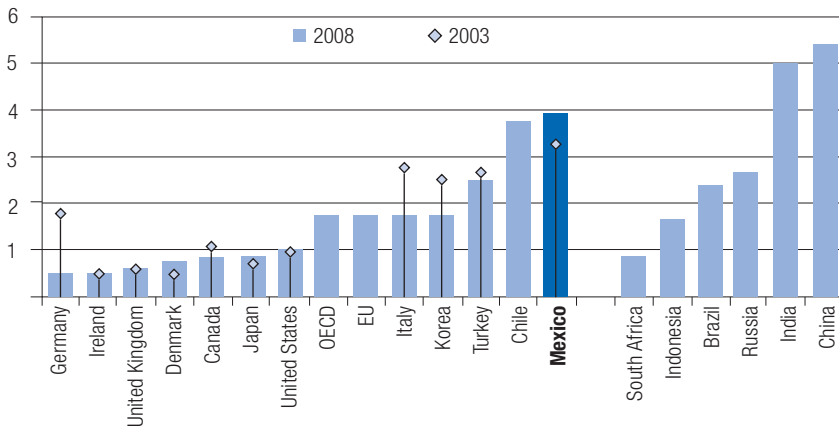
Competition in Mexico's network industries is limited either by restrictions on foreign and private investment – such as in the production and distribution of energy, two cases where the industry is dominated by a single state-owned firm – or by the overwhelming dominance of the private market incumbent in the telecommunications sector. The simulation exercise suggests that the impact on productivity would be especially sweeping if thorough reforms were undertaken across a number of sectors. At the same time, far-reaching reforms in these sectors face political difficulties because there are powerful vested interests in preserving the status quo, and in some cases these interests are represented in the different decision-making instances. Strong communication of the benefits of proposed structural reforms is therefore very important in order to gain public opinion's and political parties' support for their implementation.

Mexico has pursued various reforms in network industries for some time, and there have been both successes and failures. The privatisation of airports has enhanced competition in the sector and domestic air travel was liberalised, although there are still barriers to entry worth addressing. The merging of *Luz y Fuerza del Centro* – a highly inefficient state-owned company – back into the main electricity producer, CFE (Comisión Federal de Electricidad), was meant to enhance the efficiency of the electricity sector. Among other benefits, this has helped to reduce the time that customers in Mexico City have to wait for electricity service – from an average of 10 to 4 months. The concession of fibre optic networks with national coverage, together with new radio spectrum allocations, will allow for infrastructure competition in the telecommunications sector.

However, the most ambitious and far-reaching reforms in the electricity, gas and telecommunications sectors have been limited by the need to mobilise large political majorities to change the constitution or – in the telecommunications sector – by regulatory and judicial weaknesses regarding *de facto* powers. Reforms to ease administrative burdens on start-ups can help, even though their impact is not as sizeable. These include reforms implemented to foster one-stop-shops and address the issue of regulatory burdens at state and municipal levels. They could help improve Mexico's weak productivity performance. On the other hand, administrative reforms are relatively easier to implement than far-reaching reforms of network industries, as less legislative changes are required and *de facto* powers have somewhat lesser influence (Figure 1.4).

Figure 1.4. **Administrative burdens on start-ups**

Index scale of 0-6 from least to most restrictive



Source: OECD, *Going for Growth*, 2013.

Mexico needs to reduce entry barriers for new firms and facilitate the development of innovative firms

Mexico has made significant progress in easing procedures to start up a business, but should consider further easing the regulatory environment, especially at the state and municipal levels. One way the country is working to reduce the time, costs and administrative details that starting up a business entails is through the SARE (*Sistema de Apertura Rápida de Empresas*). Launched a decade ago, SARE has streamlined procedures at the municipal level, halving the time needed for low-risk businesses to register to 72 hours. Reform could be taken further by integrating that initiative with tuempresa.gob.mx, an internet one-stop-shop developed with the support of the OECD to ease compliance with federal business start-up regulations and procedures. OECD research suggests that tuempresa.gob.mx helps bring down the costs for entrepreneurs to comply with start-up formalities, from 16% of per capita GDP to 5.5%. Even though use of the website is growing, as yet it is not the most widely used mechanism to start a business; more effective publicity and interconnection with state and municipal portals for business start-ups would help build its user base. The federal Ministry of Economy and sub-national governments should co-operate in this effort, and engage a wide set of stakeholders to support the platform.

Mexico is engaged in a regulatory review process called *Base Cero*, supported by the OECD, which aims to identify and simplify regulations that are overly burdensome. A first set of five procedures for exporters and start-ups has already been simplified. The government has recently simplified tax declaration formalities, and plans further measures in the realm of taxes and foreign trade and technical regulations. This will facilitate technology absorption. Overall savings are projected to reach around MXN 20 billion. In addition, the OECD has helped Mexico strengthen its regulatory impact assessment (RIA) for new regulations, allowing regulators to concentrate their attention on those that are particularly costly. This allowed the development of a lighter RIA version for low-impact regulations, thus freeing resources and enhancing Mexico's capacity to improve regulations where they imply significant costs and risks. Mexico should continue working to facilitate implementation of the new RIA framework through enhanced training for its personnel.

There is a need to simplify and improve regulation at the state and municipal level as well; it is important, for instance, to reduce the overlap between different levels of government. The OECD worked with the federal Ministry of Economy and the Mexican Institute for Competitiveness (IMCO) to identify particularly burdensome regulations at the sub-national level, and proposed a reform agenda for nine Mexican states. It also developed a toolkit to simplify sub-national regulations, i.e. for business start-ups, construction permits, property registration, and procurement. The federal government should

encourage states and municipalities to apply the toolkit, to monitor results, and to co-ordinate regulation across different government levels. IMCO published a report in September 2011 that evaluated state procurement regulations and the promotion of competition.

Beyond the explicit barriers to setting up new firms, Mexico's innovation environment remains weak and not conducive to the development of high-tech companies. R&D expenditure in Mexico's business sector is the lowest of all OECD countries, and overall R&D intensity is less than 0.5% of GDP. The innovation policy mix has recently changed, and could be usefully strengthened. Though tax incentives were eliminated in 2009, the allocation of public funding to the business sector has been made direct and competitive. An R&D and innovation stimulus package was introduced with a strong emphasis on SMEs and linkages with research institutions, and complemented by innovation programmes financed by the Ministry of Economy. As part of the Pact for Mexico, the new government has committed to raising R&D intensity to 1% of GDP in the coming years (commitment 46). Indeed, boosting direct funding, further extending successful initiatives and considering possible tax relief for investors in start-ups would be helpful in strengthening venture capital funds and improving the environment for SMEs – especially those with linkages to research institutions, which could help boost business R&D (see Chapter 10).

Mexico needs to enhance competition

The recent competition law reform applies OECD best practice in helping the competition authority to detect firms abusing market power, and increases the cost of abuse. The law allows for unannounced office visits – thus increasing the likelihood of finding useful evidence – and expands the scope for criminal prosecution against individuals engaged in cartel activities. Maximum fines are changed from a fixed amount (currently around USD 7 million) to as high as 10% of company revenue, which will significantly deter abuse by large companies. As well, individuals now face jail terms of 3 to 10 years for engaging in cartel activity. This will strengthen Mexico's competition framework – and consequently, economic performance. Government procurement groups should take advantage of the damages provision in the Mexican competition laws after successful prosecutions by the CFC. This too would deter cartel activity as well as enable government agencies to recoup revenue to be used for worthwhile endeavours.

Regulation should be reviewed in several sectors to improve the functioning of competition. The following sectoral recommendations are by no means exclusive, and a number of important reforms in other sectors – notably oil & gas, media and data services – have are envisioned as part of the Pact for Mexico, and these are also important. Many of these sectors furnish important inputs

for the rest of the economy, and increasing efficiency could have very beneficial effects on aggregate productivity:

- In *air transport*, fair access to landing and takeoff slots at Mexico City's airport, which is operating at full capacity, will be key to ensuring open competition. Allocation is currently non-transparent, largely based on grandfathering, and is controlled by a committee in which only incumbents are represented. Grandfathering will have to be limited to allow for efficient auctioning of a large share of slots. Mexico should also consider abolishing the requirement of route-specific concessions, allowing airlines to operate on any route as long as they fulfil safety and notification requirements.
- In *intercity bus transport*, restrictions on obtaining a permit should be eased and non-discriminatory access to essential facilities better ensured. Currently, the regulator has to base the decision to grant permits to new firms on demand and investment studies. This requirement should be lifted, and restrictions to new firm entry limited to quality service and safety concerns. In cases where bus terminals are an essential utility, e.g. when construction of a new terminal is not economically feasible or permission is refused by a local government, the regulator should ensure competitive access.
- Market concentration in *retail banking* is high, in part because of the high costs for customers switching banks. Following CFC/OECD recommendations, Mexico has passed a new law that requires banks to provide transparent information on switching costs. Banks are now permitted to switch payment orders for new customers. Access to essential facilities for new banks – such as card network infrastructure, retail payment systems and credit bureaus – has been relaxed, facilitating entry into the market. The central bank is now required to adopt clear efficiency criteria in its determinations of appropriate interchange fees for debit and credit cards. These legal changes are now being implemented and the government should make sure that this implementation proceeds quickly, helping to improve access to finance. In addition, as envisioned in the Pact, the new administration plans to change the legal framework so that commercial banks and other financial institutions provide credit at lower cost, reduce the cost of financial services, and revise the execution of guarantees to ensure that they respect the rights of borrowers.
- Prices for *medications* are exceptionally high in Mexico, in part reflecting weak competition in the pharmaceutical sector. This is a problem for public health and for public and personal finances (see Chapters 3 and 7). More transparent procedures for public procurement will be key to strengthening competition. The social security institute (IMSS), the competition authority (CFC) and the OECD have agreed to co-operate in promoting transparency,

and a study of public procurement has been carried out (Chapter 4). As a result, IMSS is conducting some of its purchases, including those of pharmaceutical drugs, through reverse auctions, which will greatly limit the scope for corruption and make collusion among pharmaceutical firms much more difficult. A recent consolidated purchase for five drugs utilising reverse auctions was undertaken by IMSS, ISSSTE and two other health procurement groups that resulted in estimated savings of approximately 1.7 billion pesos. ISSSTE also started efforts in this direction.

- Competition in the pharmaceutical sector could also be strengthened by easing stringent restrictions for *generic pharmaceuticals* without neglecting the public's health. The government is engaged in a number of efforts in this field, such as the renovation of all medicine registration procedures that will conclude this year, leaving only generics complying with bioequivalence requirements; promotional and informational campaigns to raise people awareness of prescriptions and proper use of generics; and a current revision of intellectual property in order to assess areas for improvement. Mexico should quickly lift the requirement that foreign firms wishing to sell generics must operate a plant or a laboratory in Mexico. Mexico should also require doctors to prescribe medications only by their generic compound name, allowing patients to choose the cheapest option in the pharmacy. Obviously, pharmacists should be required to supply generics.
- *Telecommunications* prices are among the highest in the OECD area. Prices for mobile phone services exceed the OECD average by about a third, and prices for moderate-use fixed-line telephony and broadband exceed OECD averages by about two-thirds. A set of ten key reforms were announced in 2012 (see Box 9.1 in Chapter 9) that would help promote stronger competition, and should be implemented as soon as possible. Further ambitious reforms to telecommunications are planned in the Pact for Mexico. The Supreme Court's determinations confirming COFETEL's authority on interconnection rates have already had a clear influence on the market. Smaller operators now pay much lower interconnection rates to terminate calls on Telcel's network, and some operators have introduced more attractive calling packages. New measures have been announced that would allow COFETEL to sanction operators directly without having to rely on the Ministry of Transport and Communications to do so. Efforts to increase competencies and strengthen the enforcement capacity of the COFETEL need to continue. Other reforms that have taken place recently include concessions for the use of the fibre optic network by the state-owned electricity company (CFE) to new participants in the telecommunications sector together with the auctioning of new radio spectrum frequencies. This will allow for increased infrastructure

competition in the telecommunications sector. Chapter 9 elaborates on these challenges in more detail.

OECD Key Recommendations

Simplifying business regulation

- Co-operate with sub-national governments to connect the federal one-stop-shop with state and municipal Internet portals for business start-ups.
- Continue working to facilitate implementation of the new, lighter regulatory impact assessment framework (RIA).
- Encourage states and municipalities to apply the toolkit to simplify sub-national regulations. Co-ordinate regulation across government levels.

Strengthening competition

- Limit grandfathering of airport slots at congested airports to ensure efficient allocation, for example through auctioning. Review the requirement of route-specific concessions and allow airlines to operate as long as they fulfil safety notification requirements.
- Ease restrictions on obtaining a licence in intercity bus transport and ensure non-discriminatory access to essential facilities.
- Implement fully the legal changes to ease access to banking services and facilitate banks' access to essential facilities.
- Quickly lift the requirement that foreign firms wishing to sell generics must operate a plant or a laboratory in Mexico. Require doctors to prescribe medications only by their generic compound name, and pharmacies to supply generics.
- Implement proposed reforms to strengthen competition in the telecom sector.

Further reading

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Chapter 2

Combating Poverty and Inequality

María del Carmen Huerta and Alessandro Goglio

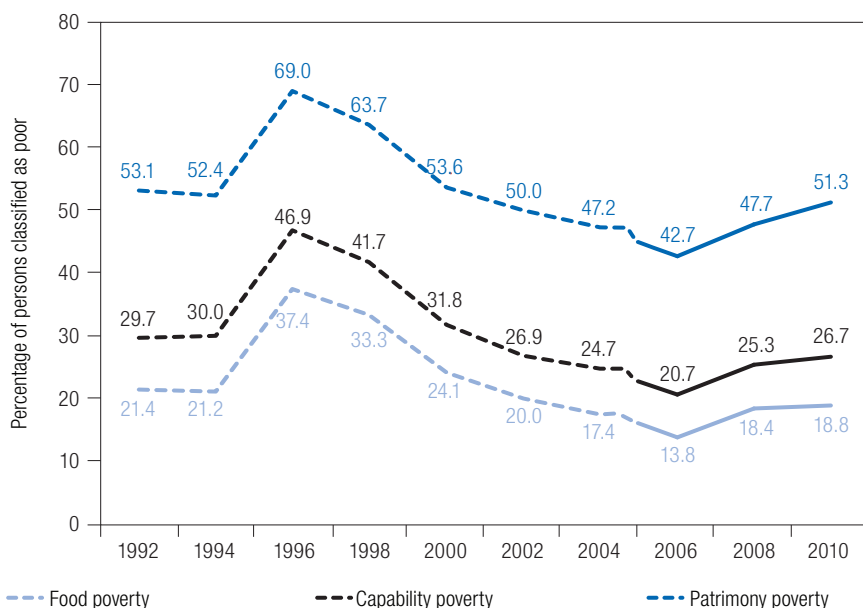
Major policy efforts have helped Mexico reduce extreme poverty and improve access of the poorest to basic services, including health and education. Poverty and inequality in Mexico remain high in international comparisons, not only with other OECD countries but also with emerging economies. They continue to be a challenge of utmost priority for Mexican policy makers. Meeting that challenge requires a comprehensive strategy that includes labour market reforms to facilitate the expansion of the formal sector, measures to improve productivity in the agricultural sector, and policies to improve the quality of education and health services. In addition, social spending needs to be expanded, but also be made more efficient and better targeted to the most vulnerable groups.

In recent decades, Mexico has implemented a number of major policies to tackle poverty. The capacity of social programmes to reach out to the poor has been extended, leading to significant progress in reducing poverty and inequality, especially over the period between the mid-1990s and the mid-2000s. In 2012 the coverage of *Oportunidades*, Mexico's main anti-poverty programme, reached 5.4 million families, more than 20% of all families (SEDESOL, 2012). The coverage of *Seguro Popular*, which provides basic medical health and preventive services and protection to people without health coverage (see chapter on addressing the health challenges), has also widened to provide universal coverage in 2012. These programmes have led to a reduction of extreme poverty, while at the same time supporting access of the poor to education and health services. Moreover, they have contributed to a reduction of longstanding wide regional disparities in access to basic services.

Despite these achievements, poverty and inequality in Mexico remain high in international comparisons, with both other OECD countries and several emerging economies. Estimates from the *Consejo Nacional de Evaluación de la Política de Desarrollo Social* (CONEVAL) indicate that in 2010, 51.3% of the total population (equivalent to 57.7 million individuals) were in patrimony poverty conditions, i.e. they did not have sufficient income to satisfy their food, health, education, housing, clothing and public transportation needs (Figure 2.1).¹ That count reached its highest point in 1996 after the 1994-95 tequila crisis, when 69% of the population was classified as poor. From this year until 2006, poverty decreased continuously, reaching 42.7% in 2006. However, with the global economic crisis,

¹ These estimates are drawn from the official methodology that Mexico has used to measure the evolution of poverty over the past two decades, based exclusively on household income. This measure is used to show poverty trends since the early 1990s. The current official multidimension methodology, though accounting for income and a number of other factors (access to food, education, health services, social security, housing quality and social cohesion), cannot be used to provide estimates before 2008. Estimates from the two methodologies are not comparable: they differ not only in the number of components used but also in the food baskets used to set a poverty line. While estimates of income poverty are drawn using the value of a food basket defined by INEGI and ECLAC in 1992 (see documents of the Technical Committee for the Measurement of Poverty 2002-04), estimates of the multidimensional approach use a basket developed by CONEVAL (http://web.coneval.gob.mx/Informes/Coordinacion/INFORMES_Y_PUBLICACIONES_PDF/Metodologia_Multidimensional_web.pdf). Using the multidimensional methodology, CONEVAL estimates that in 2010, 46.2% of Mexicans were poor (equivalent to 52 million persons).

Figure 2.1. **Income poverty trends, 1992-2010**
(Percentage of the total population)



Note: Figures here correspond to income poverty. The poverty line is set using the value of a food basket defined by INEGI and ECLAC in 1992. CONEVAL adjusted this poverty line to calculate three different levels of income poverty: food poverty, capability poverty and patrimony poverty. *Food poverty* is the lack of income needed to acquire a basic food basket, even if total household available income is only used to purchase the goods in such basket. *Capability poverty* is the lack of income needed to purchase a basic food basket and cover health and education expenses, even if total household income is only used for these purposes. *Patrimony poverty* is the lack of income needed to buy a basic food basket, as well as to cover expenses of health, education, housing, transportation and clothes, even if total household available income is exclusively used to purchase the goods in such basket.

Source: <http://www.coneval.gob.mx/>.

the downward trend was reversed. Poverty alleviation therefore continues to be a challenge of the highest priority for Mexican policy makers—especially in the current context of the weak global outlook that is exercising additional pressures on poverty reduction and the redistribution of income.

Tackling these high poverty levels and improving the distribution of income requires a comprehensive strategy based on a wide range of interdependent policies to promote the expansion of the formal labour market, infrastructure investment, regional policies, agricultural and rural policies, policies to improve the quality of education and give better opportunities to all Mexicans, and policies to improve the quality of and access to health services. As many of these challenges are covered in other parts of this publication, the present chapter

focuses on the key social policy programmes to strengthen the fight against poverty and achieve a more equitable income distribution; it also discusses options that could help strengthen the capacity of these programmes to support incentives to work and enable expansion of the formal economy.

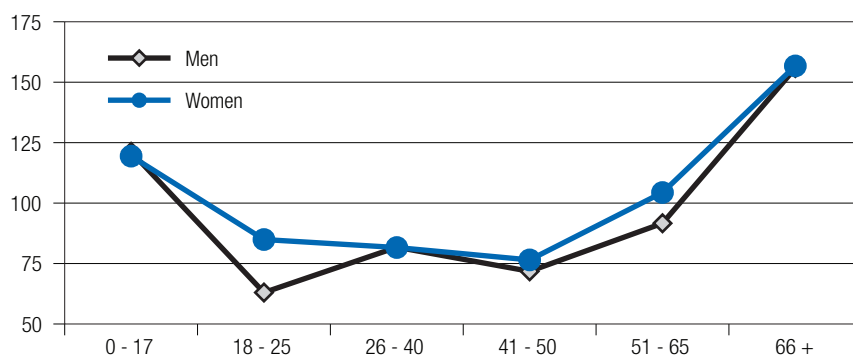
Poverty and inequality remain high

Poverty particularly affects children, women and the elderly

Children, women and the elderly are at high risk of falling into poverty in Mexico (Figure 2.2). Despite progress in the past decade, Mexico has one of the highest child poverty rates in the OECD area, the second highest after Israel. In 2008 more than 1 in 4 Mexican children (25.8%) grew up in households living in relative poverty, conventionally defined as the percentage of the population earning less than half the median income. With children accounting for almost half of all Mexican poor, prolonging their marginalisation is particularly damaging as it increases the risk of a permanent damage, on top of the direct social costs caused by the loss of self-esteem and motivation. The high level of child poverty is also reflected in other standard-of-living indicators, such as child mortality (three times higher than the OECD average), maternal mortality (five times higher), and teenage births (almost four times higher). Even though these indicators

Figure 2.2. **Risk of relative poverty of men and women by age, Mexico**

Poverty rate of the entire population = 100.



Note: Relative poverty risk is the age-specific poverty rate of men and women divided by the poverty rate for the entire population multiplied by 100. The poverty threshold is set at 50% of the median income of the entire population.

Source: OECD (2008), *Growing Unequal? Income Distribution and Poverty in OECD Countries*, OECD.

have shown real improvement during the past two decades, they continue to lag behind OECD standards. Maternal mortality rates have fallen between 2000 and 2010 from 72.6 deaths per 100 000 live births in 2000 to 51.5 in 2010, but at the current pace it will be difficult to achieve the Millennium Development Goal for 2015 (reduce the maternal mortality rate by three-quarters).

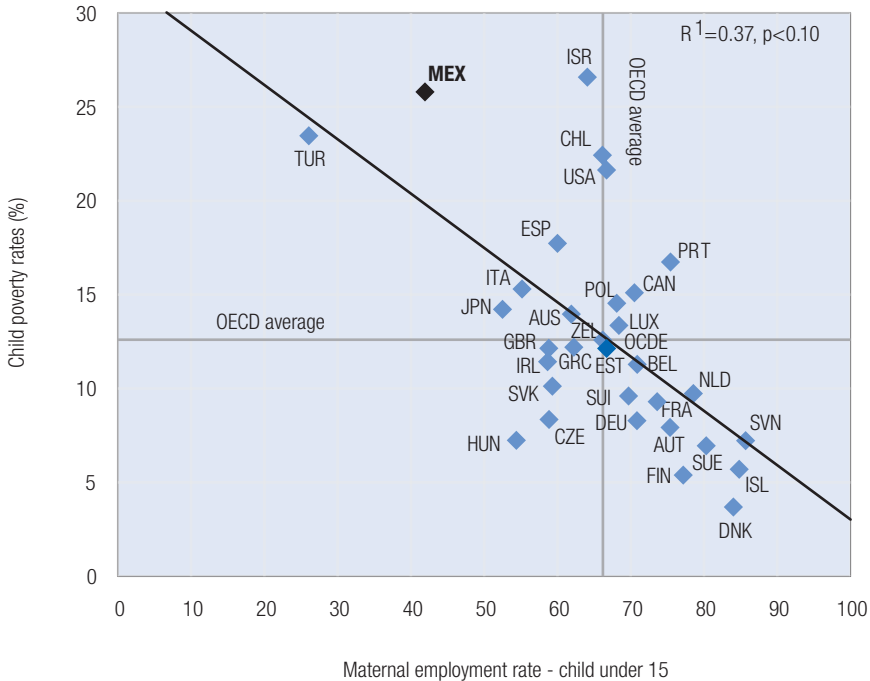
Women face higher poverty risks than men throughout the course of their lives, not only because their participation in the labour market is comparatively modest but also because when they work they earn significantly lower wages. Furthermore, women are more likely to be in the most vulnerable jobs, frequently in the informal sector. Indeed, young women are at particularly high risk of becoming disconnected from the labour market in Mexico. With 47% of women and 83% of men in paid work, Mexico had the second highest gender employment gap across the OECD area in 2010. Mexico's female employment rates, though having increased modestly more recently, are among the lowest in the OECD area (the OECD average is 60%) and below those of Chile (52%) for instance, as well as other Latin American countries such as Brazil (64%). New OECD analysis relating to the Gender Initiative (OECD, 2012a) underscores that greater female labour participation reduces poverty risks, not just for women directly but also for their children and the family as a whole (Figure 2.3). OECD estimates suggest that higher employment rates for women have acted as an important catalyst for diminishing household earnings inequality (OECD, 2011a).

In terms of education, women now do better than men in Mexico. At the secondary level, girls have higher enrolment rates than boys (90% compared to 84%) and higher graduation rates from tertiary education (university) than their male peers (21% compared to 18%). However, Mexican women continue to face obstacles to full participation in the labour market. Although some young women do not seek employment because they are engaged in child rearing, more than one-third of Mexican women aged 15-29 are classified as not in employment or education and training (NEET). This share compares with one in ten young men, a gender gap not observed elsewhere in other OECD countries. Facilitating women's labour force participation is needed to ensure that investments in education are not lost, and sustained economic growth is achieved.

Expanding job opportunities for young people and disadvantaged groups in Mexico requires not only measures to sustain the increase in the level of education and training but also to facilitate the transition from school to the labour market, as well as initiatives that strengthen local development in those areas where poverty is highest (see Chapter 4).

Poverty is also especially acute among the very old: about 30% of Mexicans above the age of 65 are exposed to poverty. Overall poverty among the older population is one-and-a-half times higher than among the population as a whole. The problem reflects the fact that the Mexican pension system provides

Figure 2.3. **Maternal employment rate is associated with lower child poverty rates**



Note: Proportion of children aged 0-17 years living in poor households, mid-late 2000s, and employment rate of mothers with a child aged less than 15, 2008.

Source: Secretariat's estimates using the OECD Family database (2012), www.oecd.org/els/social/family/database.

benefits to higher-income groups in the public and formal private sectors, while leaving vulnerable workers, generally from the informal sector, unprotected. The lack of old age income security means that many must work even at a very old age – a phenomenon particularly frequent in the countryside. Recent long-term projections by the Consejo Nacional de Población (CONAPO) indicate that the population aged 65 or over will more than double during the next 20 years, from 7 million in 2010 to around 16 million in 2030. With the population ageing so rapidly, there is a serious risk that the proportion of elderly poor will increase even further.

Lastly, populations speaking indigenous languages represent around 6% of the overall Mexican population (i.e. almost 7 million people). These groups lag behind their non-indigenous peers in all development indicators, including maternal mortality (3 times those prevailing in non-indigenous localities), child mortality (1.5 times the national average) and child malnutrition (twice the

national average). They also have the lowest educational attainment and highest illiteracy rates (UNDP, 2010; CONEVAL, 2012).

Poverty increased as a result of the crisis

There are clear signs that the problems of the most vulnerable groups in Mexico have been accentuated by the global economic crisis. OECD data show that in 2010, nearly half of all Mexicans declared that they were finding it difficult or very difficult to live on their income (Figure 2.4). This percentage was much higher (16 percentage points more) than the levels observed in 2007, just ahead of the crisis.

Although poverty fell between 1996 and 2006, it has increased again since 2006. That reflects a combination of soaring food prices and the effects of the global crisis, which entailed a contraction in formal employment, a reduction in real income and poor economic growth. Recent figures from CONEVAL show that between 2006 and 2010, the proportion of people in patrimony poverty increased from 42.7% to 51.3% of the total population (equivalent to 57.7 million poor individuals in 2010), reflecting the vulnerability of Mexican households to global economic crisis.

Mexico is the second most unequal country in the OECD area

Even though Mexico is one of the few OECD countries to have experienced a decline in income inequality over time, the absolute level of inequality remains very high (Figures 2.5). Indeed, Mexico is the second most unequal country in the OECD area after Chile. OECD data, published in *Divided We Stand: Why Inequality Keeps Rising* (December, 2011), show that the annual average income of the top 10% of Mexicans in 2010 was 27 times higher than that of the bottom 10% who had an average annual income of MXN 7 800.² This ratio compares with a ratio of 9 to 1 for the OECD average.

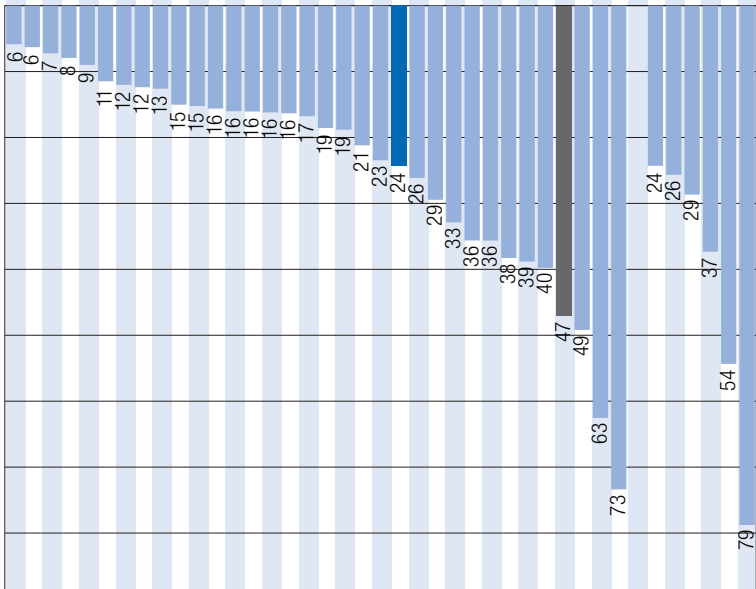
A social protection system limited and not generous

In Mexico, very much like in the BRICS, the coverage and generosity of social protection, excluding education, is very low. At 8.2% in 2009, Mexico's public social spending was the lowest in the OECD area, and corresponded to only about one-third of the OECD average (Figure 2.6). Mexico's spending on

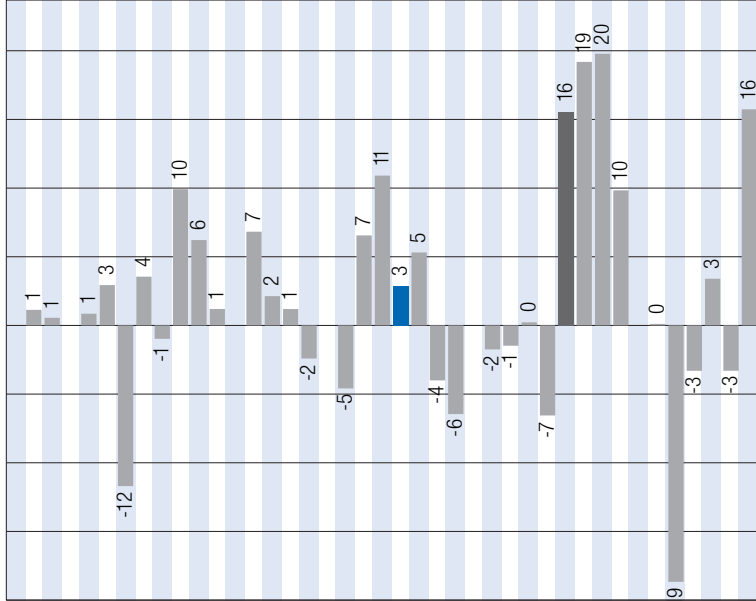
² The mean income is reported on an annual basis and in nominal prices. The income components include: wage and salary income of all household members, excluding employers' contributions to social security; capital income, including occupational pensions and all kinds of private transfers; self-employment incomes; and social security transfers from public sources.

Figure 2.4. **Nearly half of Mexicans have income difficulties and this is rising because of the crisis**

Panel A. Percentage of people finding it difficult or very difficult to live on their current income, 2010



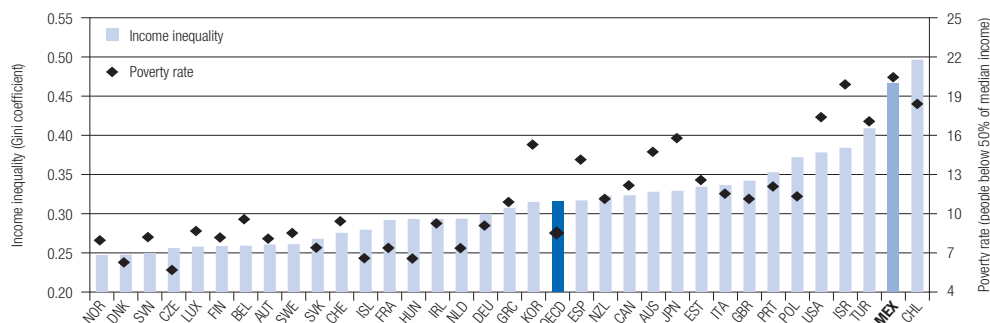
Panel B. Change in the percentage of people finding it difficult or very difficult to live on their current income between 2007 and 2010, percentage points



Note: Data for change are not available for Norway, Luxembourg, Slovenia or Slovak Republic. 2006/10 for France; 2007/09 for Estonia, Israel and South Africa; 2008/10 for Finland, Austria, Ireland, Iceland and Portugal.

Source: OECD (2011b), *Society at a Glance*, OECD.

Figure 2.5. **Income inequality (Gini coefficient) and relative poverty rates, late-2000s**



Note: Data refer to 2008 for all countries except Australia, Chile, Hungary, Korea and New Zealand, for which they refer to 2009; and Mexico, for which they refer to 2010.

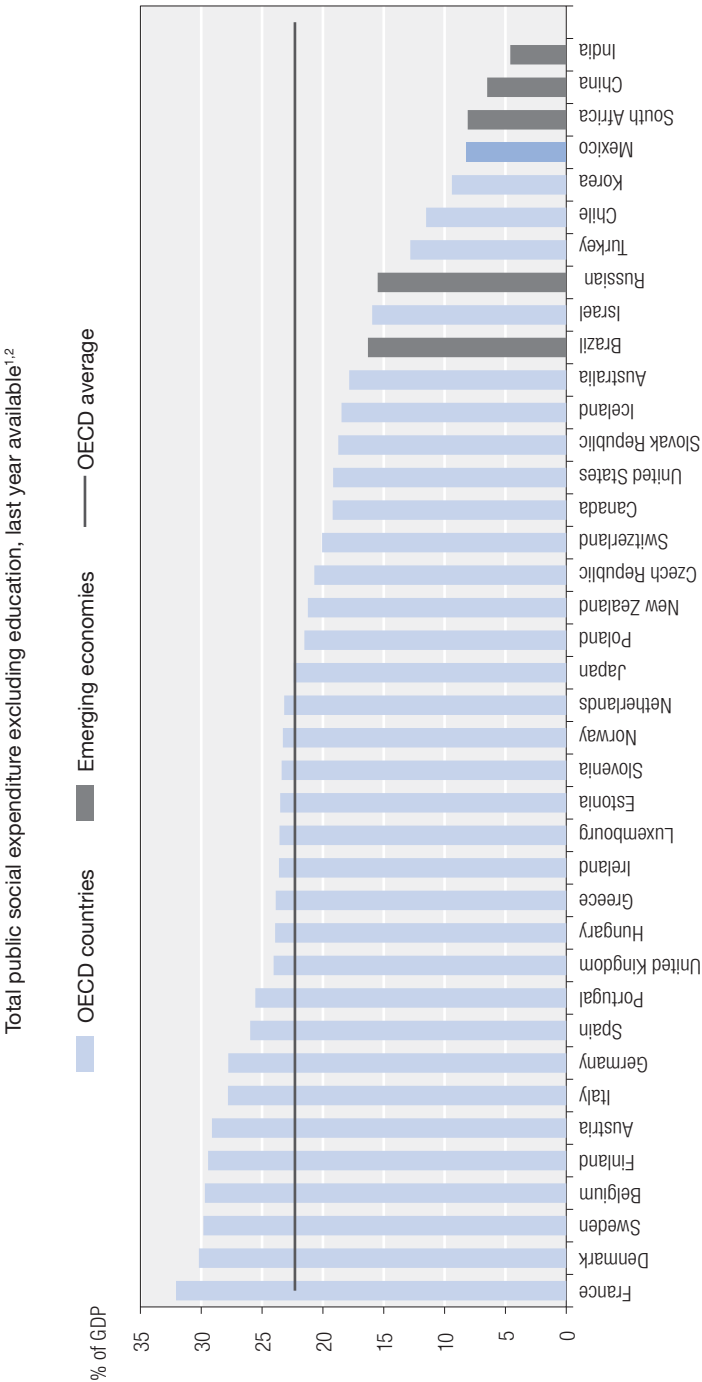
Source: OECD database on Household Income Distribution and Poverty (www.oecd.org/els/social/inequality).

social programmes (as a percentage of GDP) is also considerably lower than that of emerging countries such as Brazil and the Russian Federation. However, this static comparison paints only part of the picture. As already underscored, in recent years, Mexico devoted tremendous efforts to the fight against poverty over the past years: in the mid-1990s, social spending as a percentage of GDP was only 4.3%, against an average of 19.5% in the OECD area.

Compared with most OECD countries, coverage of contributory social insurance programmes in Mexico is relatively low, as in all emerging economies (OECD, 2011a, c). Only one-third of the workforce contributes to a pension plan and/or health insurance – approximately the same level as in China but less than South Africa and Brazil, where between half and two-thirds of the workforce contributes to such schemes. (This share is only one-tenth in India and Indonesia.) The low coverage in part reflects the high incidence of informality and self-employment (see chapter covering Labour market issues).

Mexico has a severance payment (SP) system in place for workers in the formal sector who lose their jobs, but no unemployment insurance (UI). Thus, in several international comparisons, the country stands out as a special case. Indeed in most OECD countries, the value of unemployment benefits available to workers during the first year of unemployment exceeds that of severance pay. Moreover, most have universal UI systems in place, while many do not have any mandatory SP programmes. In both Chile and Turkey, which compare more closely with Mexico, SP for workers unemployed for one year exceeds UI, but there are also examples of emerging economies where the balance between UI

Figure 2.6. **Public social expenditure (excluding education) in OECD and emerging economies**



Notes: 1. Data refer to 2009 for OECD member countries; 2008 for China; 2007 for Russia and South Africa; 2006-07 for India; and 2005 for Brazil.
 2. Policy areas covered include old age; survivors incapacity-related benefits; family, health and active labour market policies; unemployment; and housing.
 Source: Preliminary data, OECD (2012c), *Social Expenditure (SOCX)*, www.oecd.org/els/social/expenditure for OECD countries; OECD (2011a), OECD (2011c).

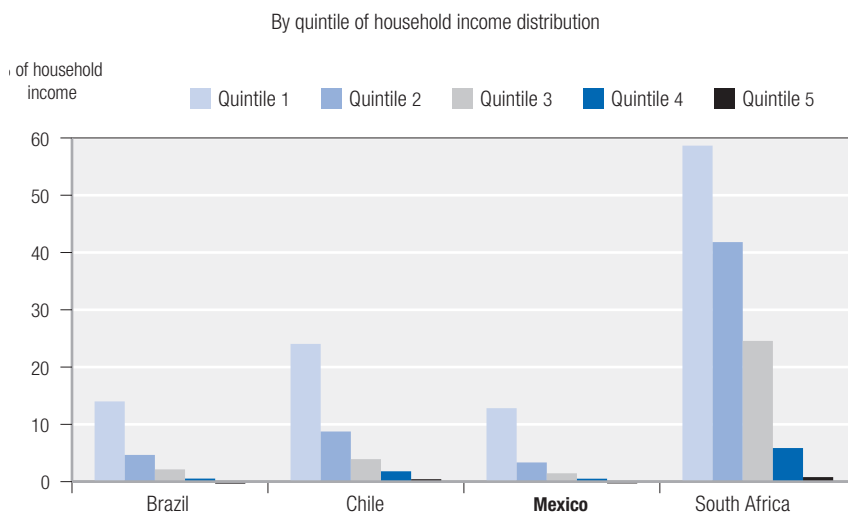
and SP is either even (Russian Federation), or has already tilted in favour of UI (South Africa).

The recently approved labour reform should be complemented with the creation of an effective unemployment insurance scheme. This could be implemented through an individual savings account system combined with a public component for job-losers who have insufficient savings, as in Chile. Clearly, fiscal and financial considerations have to be incorporated in any assessment about the establishment of UI in Mexico (see Chapter 3).

A key role for cash transfer programmes

The role played by non-contributory social assistance, aimed mainly at tackling poverty, has strengthened considerably over the past decade. Taken together, *Oportunidades* and *Programa Para Adultos Mayores*, amount to 13% of household incomes for the lowest quintile in Mexico (Figure 2.7). These transfers represent a modest support to families' budgets. The comparison with selected emerging economies suggests that Mexico's poorest households receive a share of their income from these programmes similar to their counterparts in Brazil

Figure 2.7. **Share of cash transfers in household incomes**



Note: The following cash transfer programmes are included in the calculations – Brazil: Bolsa Familia, Beneficio Assistencial de Prestação Continuada, PETI, Bolsa Escola, Bolsa Alimentação; Chile: Chile solidario, Pension Basica Solidaria, Aporte Solidario; Mexico: Progres/Oportunidades and Programa Para Adultos Mayores; South Africa: Child Support Grant, Care Dependency Grant, Disability Grants, Old Age Pension. The years considered are 2010 for Mexico; 2009 for Brazil and Chile; and 2008 for South Africa.

Source: OECD (2011c), *OECD Employment Outlook*, OECD.

but lower than in Chile (where it accounts for 24% of households income) or South Africa (58% of household income) (based on OECD, 2011c with updates for Mexico).

This reflects the expansion of conditional cash transfer (CCT) programmes and health assistance programmes. The conditionality attached to them implies that in addition to directly tackling poverty, they are also intended to improve school attendance and the health status of mothers and children.

Unlike in most other OECD countries, access to cash transfer (CT) programmes in Mexico does not depend on labour market status. This particular feature, common in all emerging economies, is justified by the high incidence of in-work poverty (largely in the informal sector). CTs are mainly provided to the population in need, usually defined on the basis of geographic location, income and other household or family characteristics such as the presence of young children and older household members. Targeting is generally carried out through, first, selection of location (rural *versus* urban, poorest regions *versus* less poor ones) and subsequently, recourse to a means test in order to identify the neediest individuals and households. Usually, means tests are performed once to determine eligibility and are only repeated in rare cases. In most programmes, proxy means tests are used; these are based on a formula to estimate household income that considers a number of household characteristics and composition. Currently, CT programmes deliver cash benefits through electronic transfers to bank accounts. This has led to an increase in such accounts, especially among women.

Poor families

Oportunidades is one of the most innovative and advanced CCT programmes in the world. It is designed to target those living in extreme poverty or just above this threshold. The programme conditions reciprocity on actions from beneficiaries in terms of investment in education and medical check-ups for children and pregnant women. It was launched in 1997 with coverage limited to rural areas before extending to urban areas since 2001. Today, *Oportunidades* covers 5.4 million Mexican families, overall reaching more than 26 million individuals (SEDESOL, 2012). Over time, it has helped to increase enrolment rates for secondary school, with particularly beneficial impact for girls. In addition, by leading to an increase in health visits, *Oportunidades* has entailed a decline in both child morbidity and maternal mortality. Nonetheless, the programme still excludes many vulnerable and moderately poor households. This is particularly the case with residents in remote regions with little access to educational and health services, and with those families whose socio-economic conditions set them just above the poverty threshold of the means-testing classification system.

In 2003, the government implemented *Programa de Apoyo Alimentario* (Nutrition Support Programme) to support poor families not receiving aid from other federal programmes such as *Oportunidades*. The aim of this programme is to improve families' nutrition, particularly focusing on children as well as on pregnant or breastfeeding women. The programme provides cash or in-kind benefits, which are paid conditionally upon regular visits to the local health centres. By mid-2012, the programme provided cash benefits to around 650 000 families living in localities of less than 100 000 inhabitants (SEDESOL, 2012). The budget of this programme increased substantially between 2008 and 2011, as part of the federal government's strategies to support household consumption during the global crisis (CONEVAL, 2012).

In 2007, Mexico implemented a national child day-care programme – *Programa de Estancias Infantiles para Apoyar a Madres Trabajadoras* (PEIMT) – with the objective of subsidising community and home-based day care to encourage low-income mothers to work. The programme offers both supply- and demand-side incentives, by providing financial aid to individuals and civil society organisations interested in running nurseries, as well as a subsidy to low-income mothers wishing to enrol their children in a centre. Day-care service comes at a lower cost to users, although it is not entirely free. Parents are eligible to receive programme benefits if they have young children aged between 1 and 4, and provided their household income is below the official well-being line.³ Achievements have been considerable so far, with PEIMT supporting the expansion of female employment and the increase in the number of female-hours worked (CONEVAL, 2012). However, more could be done to expand coverage, while at the same time ensuring that quality and security requirements are met. Indeed, there were 9 500 registered day-care centres by 2012 (SEDESOL, 2012). These centres were able to serve 284 000 children, corresponding to roughly one-third of the total number of Mexican children between 1 and 4 years old who live in poverty.

Housing improvements

Public spending intended for housing improvements amounted to about 1% of GDP in 2009 (OECD, 2012c). The objective of these housing programmes is to allow poor families to ameliorate their living conditions by improving the quality of their houses. This includes, for example, by means of replacing dirt floors with cement floors (*Piso firme*), improving sanitary services (bathrooms, latrines, septic tanks or similar equipment), equipping cooking sites, and reinforcing walls and ceilings. These interventions are reported to have had positive impacts on the health and welfare of the population, especially on children (CONEVAL, 2012).

³ The well-being line is the minimum level of income (in rural areas, about MXN 1 500 and in urban areas MXN 2 300) needed to purchase the goods and services required to meet food and non-food needs.

However, they need to be better targeted, in terms of both final users and the types of needs that the interventions are intended to address.

Older people

Old age poverty has become an urgent policy concern. In 2007, the Mexican government introduced *70 y más*, a CT programme that aims to provide income support to those over 70 years old who are not eligible to receive an old age or retirement pension. Benefits were initially restricted to residents of rural areas and localities with fewer than 2 500 inhabitants. Since early 2012, however, coverage has been extended to urban areas. By mid-2012, 2.8 million elderly people (around 60% of all eligible individuals) were receiving a monthly flat-rate benefit (non-taxed MXN 500) payable every two months (SEDESOL, 2012). However, *70 y más* overlaps with other transfer programmes also intended to tackle old age poverty, including *Apoyo Para Adultos Mayores* (itself a component of *Oportunidades*), *Programa de Apoyo Alimentario*, *Liconsa*, *Procampo* and *Acuerdo Nacional para el Campo*.

Indigenous population

More needs to be done to alleviate the poverty risks of the indigenous population; support efforts include numerous federal and local initiatives. The most important among these are schemes to improve education and employability, often targeting women more specifically: *Programa de Infraestructura Básica para la Atención de los Pueblos Indígenas*; *Programa de Educación Inicial y Básica para la Población Rural e Indígena*; *Programas Albergues Escolares Indígenas* and *Programa Organización Productiva para Mujeres Indígenas*.

However, access to these programmes remains extremely limited, particularly in remote areas where their effectiveness is hindered by the low quality and scarcity of basic infrastructure and services, including transport.

Around one-quarter of Mexico's population lives in sparsely populated communities lacking access to a wide range of basic public services. The Strategy for micro regions, introduced in 2001, has improved ministerial co-ordination efforts to assist a selected number of rural regions characterised by high levels of marginalisation. The strategy involves a mix of measures that combine social emergency relief; improvement of the infrastructure of public and basic services such as health, education, electricity and water; housing improvements; and support to the competitiveness of local activities. Particular emphasis has been placed on the 125 poorest municipalities of the country, many of which have a high share of the indigenous population. The Programme for the Development of Priority Zones (*Programa para el Desarrollo de Zonas Prioritarias*) has been the main initiative of the micro region strategy. Estimates of the overall impact of

the Programme are not, however, very positive. Further investments are needed to improve the infrastructure of isolated populations.

Migrants to the United States

Scarce job opportunities in Mexico, together with social, economic and political factors, are responsible for the large flows of migrants to the United States. The recession and increased border controls have led, however, to a decline in migration. According to estimates based on the Mexican labour force survey, annual outflows from Mexico fell 44% in 2010, after falling 16% in 2009 and 22% in 2008 (OECD, 2012d). Decline continued in 2011. Remittance flows to Mexico are particularly important for alleviating poverty in marginal rural areas; they picked up in 2010 after a sharp decline in 2008 and 2009.

In 2001 the Mexican government launched the 3x1 Programme for Migrants, with the aim of encouraging remittance senders to invest in social projects in their home communities. For every peso that migrants send, federal, state and municipal authorities contribute 3 pesos – thus the name 3x1. External reviews highlight some weaknesses of this programme, including insufficient government budget, lack of transparency, conflict during project selection, insufficient involvement of beneficiaries, and public works concentrated in less marginal localities (González, 2011). Clearer operational rules and increased public investments are needed for the projects of the 3x1 Programme to contribute to regional development.

Measures to counter the adverse effects of the global economic crisis

Several measures have been introduced in response to the cyclical downturn induced by the recent global economic crisis. Such measures were primarily intended to prevent moderately poor families from falling into extreme poverty. This risk is pronounced in Mexico, where the average wage is skewed towards the bottom of the income distribution. The policy responses included programmes to provide temporary employment and prevent job losses (*Programa de Empleo Temporal*), as well as schemes providing a temporary extension of health coverage entitlements for the unemployed.

Policy challenges and the management of difficult trade-offs

Comprehensive anti-poverty initiatives have been instrumental in supporting the decline of poverty rates and income inequality. Yet, as illustrated above, with the widening of inequality and the rise in poverty since the crisis, there is no room for complacency. For poverty to be reduced significantly, social transfers to

the poorest must increase. Although in recent years there has been a reallocation of expenditure in favour of the most progressive policies, and a reduction in expenditure to the most regressive instruments (for example, subsidies for gasoline and diesel, which mainly benefit middle- and high-income groups), Many programmes are not targeted to the poor (CONEVAL, 2012). Total social expenditure on cash transfers (pensions, health, family, active labour market programmes) benefits people at the higher end of the distribution, so that only about 10% of the total funds are received by the poorest 20% (OECD, 2011a). In particular, the social assistance system could be further enhanced in order to better protect Mexican households and the economy against shocks (see Chapter 3 on fiscal issues). Inefficient subsidies for energy, agriculture and fisheries could be replaced by higher direct social spending with much greater benefits targeted for the poor (see Chapters 11 and 13 on green growth and Agricultural policy, respectively).

Policy options to increase the effectiveness of cash transfers

As *Oportunidades* expanded, more resources have been invested in means testing. In principle, means tests can be a useful tool insofar as it could lead to reinforcing the capacity of the administrators to assess the real welfare situation of households. In Mexico however, close targeting is also likely to entail several costs (OECD, 2010). First, there are the administrative constraints (both budgetary and in terms of capacity): gathering the information required for the means test is expensive. Second, accessing the programme is also costly for the applicants, in terms of time, information gathering, and commuting to reach the registration site. Third, social costs may arise if programme participation carries some sort of stigma. These considerations suggest that in practice, effectively targeting CCT programmes can be both complex and expensive. The trade-offs between the effort to reinforce means testing and the related possible economic and social costs merit scrutiny. Means testing involves a balancing act between efficiency and affordability in order to ensure that *Oportunidades* continues to stay focused on transferring income to the poor to enhance their human capital.

Certain requirements need to be satisfied for conditionality to work

International experience suggests that CCTs have strong potential to generate high payoffs in terms of the health and education gains of beneficiary children. However, for CCTs to work fully and be translated into longer-term improvements in human capital and labour market outcomes, certain conditions need to be met.

The effectiveness of conditionality depends on monitoring and enforcing sanctions in cases of non-compliance; the extent to which either takes place varies greatly across programmes and countries. International experience reveals

that the frequency of monitoring ranges from monthly (as was the case in the old *Social Risk Mitigation Project* in Turkey, which ended in 2007) to once a year (*Subsidio Familiar [SUF]* in Chile). The type of sanctions and their enforcement depend on the conditionality imposed, along with the extent of administrative and enforcement capacity at the local and/or central government levels. Under *Oportunidades* benefits can be withdrawn, either temporarily or definitely, in case of non-compliance, while in Chile *Solidario* imposes only light penalties and *SUF* no penalties. For example, in the case of *Oportunidades*, after four months of non-compliance with health co-responsibilities the benefit is withdrawn temporarily, and the withdrawal becomes permanent if the beneficiary sells or exchanges the in-kind benefits (nutritional supplements). However, this works in principle because sanctions are rarely enforced. Monitoring and enforcement of sanctions increase the cost of the programme and can have adverse effects on participation in the programmes for the poorest individuals – in particular, or those in poor remote areas, for whom transport costs can be high. Interestingly, there is evidence that mild verification and less-than-perfect enforcement could still work, since the announcement of conditionality in CCT programmes may be enough to induce participants to comply (Grosh *et al.*, 2008).

Effective supply of health and education services of adequate quality is a key factor determining the effectiveness of conditionality (Grosh *et al.*, 2008; Ribe, Robalino and Walker, 2010 on Latin America). Teacher absenteeism and poor infrastructure for schools and clinics are common in emerging economies, and in particular in remote rural areas. The experience of Mexico shows that distance to the nearest school matters for participation in *Oportunidades* (Grosh *et al.*, 2008; de Janvry and Sadoulet, 2005). This implies that transfer eligibility is not enough to ensure that the household can actually afford the transport cost to reach the nearest school and health centre. Some countries have taken important steps to improve the supply and quality of such services. Chile's *Solidario* offers an interesting example of interventions on the supply side in allowing for co-ordination among health providers, social workers and the municipalities. In the case of *Oportunidades*, the Mexican government took important initiatives to increase the supply of schools in specific areas of the country by rehabilitating old rural schools and constructing new secondary schools (Levy and Rodriguez, 2004). Further progress towards ensuring an appropriate supply of services could require strengthening collaborations with non-governmental organisations and community groups (see also Chapters 6 and 7 on education and health challenges, respectively).

Moving towards more integrated and complete programmes

A wide range of cash transfers programmes are available in Mexico, tailored to shaping the behaviours of particular groups. According to CONEVAL figures, Mexico currently has 273 fully operational federal social programmes, not

counting the social initiatives run by the local authorities (CONEVAL, 2012). One particular source of concern in this complex environment is that many public assistance programmes overlap in terms of objectives, benefits accrued and beneficiaries. There have been efforts to co-ordinate programmes through the creation of special oversight commissions (*Comisión Intersecretarial* and the *Comisión Nacional de Desarrollo Social*) and the introduction of a unified register of beneficiaries. While these measures are welcome, reducing duplications and redundancy could require a more ambitious effort to achieve coordination. Carefully reviewing existing federal and local programmes would represent a necessary preliminary step in this direction.

More generally, international experience suggests that countries have difficulty assessing whether a unique CT programme covering the vulnerable population is sufficient, or if separate programmes targeting specific groups such as children, the elderly, the sick and the disabled, and ethnic minorities are needed. Evidence shows that there is no single strategy that will suit all cases, and the decision depends on the incidence and severity of poverty, the types of vulnerable groups, the family and household structure in the country and – very importantly – the political economy of potential reforms in the country. Integrated programmes may effectively cover all the needy individuals while keeping administrative costs down. But there are other ways of exploring synergies across the different programmes, such as by means of common means tests and common administrative offices. Special attention should be paid to ensuring equity if the option of unified targeting across programmes is preferred. This could require making the level of the benefit paid a function of household characteristics and structure. Criteria could include, for instance, the actual number of children, the school grade or the gender of the children, with a higher benefit being envisaged for children in secondary school and for girls. A similar approach based on household composition could be followed when considering the integration of programmes targeting the elderly.

Dealing with specific groups

There are special cases in which targeting of a specific group may be needed. This is likely to be the case when the CT aims to empower certain particularly vulnerable members within the household or a certain community group, provided that the stigma associated with receipt of the transfer is lower than in the case of targeted interventions

Country experiences suggest that public support for targeted interventions in favour of vulnerable groups is usually stronger, as the need to focus on these groups is easier to explain and justify. Priority could accordingly be given to expanding coverage of the national child day-care programme (PEIMT) because of its multiple dividends: stimulating the participation of women in the labour

market; promoting continuation and completion of female studies; reducing poverty risks; and improving gender equity.

Poverty reduction commitments under the Pact for Mexico

President Peña Nieto inaugural Message to the Nation included decisions to alleviate poverty and improve the living conditions of the Mexican population. These decisions have been supported and further developed in the Pact for Mexico, a national agreement signed by the three main political parties. These new commitments are in line with OECD recommendations; if actually implemented, they may contribute to improving the living standards of Mexicans, especially those of the most vulnerable groups such as the elderly, children and the indigenous population.

The first set of actions concern the development of a Universal Social Security System, which will guarantee universal right to health and other social benefits irrespective of the employment status of the population. In this area, three commitments aim at reducing poverty risks:

- Extending the programme “70 y mas” to senior citizens aged 65 and over without a retirement pension. Furthermore, the federal government will make contributions to individual pension accounts for all Mexicans from the age of 18 to the age of 65 (commitment 3).
- Implementing an unemployment insurance system to protect workers in the formal sector in case of job loss (commitment 4).
- Introducing a life insurance system for single female-headed households to provide financial protection to dependent children in case of death. This insurance will also be granted to single male-headed households (commitment 5).

The commitments have agreed to combat hunger and eradicate extreme poverty through a National Programme to Combat Poverty (commitment 6). Public resources will be transferred directly and without conditionality to the extreme poor, ensuring that they have enough resources to meet their basic food requirements.

The indigenous population will receive budgetary priority in the fields of health, education, infrastructure and credit. Three commitments address the opportunities and living standards of the indigenous population, with the aim of ensuring that their rights in these respects are equal to those of the rest of the population (commitments 34, 35 and 6).

In addition, several commitments foresee actions to improve the quality of health and educational services, especially in areas with high marginalisation (commitments 1, 7-9, 11-14, 35). All these commitments will require additional spending, making the tax reform all the more essential.

A comprehensive strategy

In addition to stronger social and poverty reduction programmes, combating poverty and income inequality requires a comprehensive strategy, including in particular: i) labour market policies to facilitate expansion of job creation in the formal sector (see Chapter 5 on improving access to formal employment); ii) policies to broaden access to and strengthen the quality of education services (See Chapter 6 on education); iii) policies to improve the quality of and access to health services (See Chapter 7 on health policy); iv) policies to support the productivity of SMEs and improve incentives to incorporate to formality (see Chapter 10 on SMEs and entrepreneurship); and v) policies to support rural development (see Chapter 13 on agriculture and rural development).

OECD Key Recommendations

- Promote a fiscal reform to be able to *increase social spending*, giving priority to transfers targeted to the poorest population. It would be desirable to strengthen the impact of such transfers by making them more progressive, so as to ensure that they are more focused on support to the lowest-income families.
- *Increase efforts to evaluate the impact of social programmes*. To this end, review CT programmes with a view to identifying gaps that could give rise to loopholes, leakages, inefficient transfers and badly targeted spending.
- *Reduce existing duplications and redundancy* between CT programmes.
- *Consider the option of moving towards a more integrated system of CT programmes*. Special attention must be paid to ensuring equity if the option of unified targeting across programmes is preferred.
- *Evaluate the trade-offs* between the effort to reinforce means-testing and the related possible economic and social costs.
- *Increase efforts to ensure that CCT programmes are backed by an appropriate supply of supporting health and education services* of adequate quality, which is key to ensuring the effectiveness of CCTs.
- *Consider measures to better direct the focus of CT programmes towards the needs of the most vulnerable groups*: women, the elderly, children and indigenous groups. Priority could be given, in this context, to expanding coverage of the national child day-care programme (PEIMT).
- *Increase infrastructure investments* to connect and improve the living conditions of isolated populations.

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Chapter 3

Fiscal Policy to Support Inclusiveness

Sean Dougherty and Bert Brys

Mexico's public finances are sound, but do not permit a smooth financing of social or growth-enhancing policies. For fiscal policy to support better, more sustainable and inclusive growth, serious reforms are needed – starting with reforms to strengthen the delivery of quality public services. Though innovative programmes have been developed to address poverty, social expenditure remains low and less well directed than needed to substantially reduce inequality. Spending efficiency could also be improved. Large subsidies on energy consumption and many substantial tax expenditures still need to be withdrawn. Although tax policies have been reformed, the tax base needs to be broadened and distortions removed. Increasing states' revenues and fiscal responsibilities, combined with sufficient fiscal equalisation, is another key challenge that would make the fiscal system sounder and help reduce regional disparities.

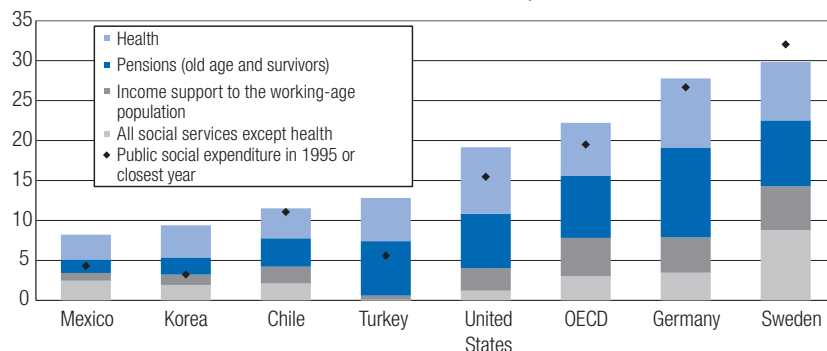
Fiscal policy has a major role to play in supporting the rise in living standards in Mexico. Higher spending on infrastructure, education, public health, social programmes, innovation and support to SMEs could enhance productivity growth, make growth more inclusive, and further reduce widespread poverty. This, however, will require major fiscal reforms in order to improve the efficiency and inclusiveness of public spending and make the revenue base broader and more stable. President Peña Nieto inaugural Message to the Nation included decisions related to fiscal accountability, as well as austerity measures in the public expenditures. Such plans have been supported and further developed in the Pact for Mexico, a national agreement signed by the three main political parties that envisions an efficient and fair fiscal reform which can operate as a lever for development.

Public finances are sound but do not permit a smooth financing of social and pro-growth policies

To further dent poverty, Mexico needs to continue increasing social spending, which remains low as a share of GDP relative to most OECD countries (Figure 3.1). More transfers targeted to the poorest population are especially needed (see Chapter 2 on combating poverty and inequality). While *Oportunidades* has been very successful, the social assistance system could be further enhanced to complement *Oportunidades* and better protect Mexican households and the economy against shocks. Mexico already has been rapidly extending health insurance coverage to workers not covered by social security through a largely tax-financed scheme, *Seguro Popular*. More needs to be done, however. For instance, Mexico is the only OECD country without a system of unemployment benefits, a situation that contributes to informality and inequality (see Chapter 5 on improving access to formal employment). The Pact for Mexico mentioned above (hereafter the Pact) envisions the creation of a public unemployment insurance scheme (commitment 4).

Moreover, population ageing will put additional pressure on social expenditure going forward, and notably on the states' defined benefit pension systems and health care programmes of the federal social security institutes (IMSS and ISSSTE). IMSS is currently drawing down its financial reserves to

Figure 3.1. **Mexico's social spending (excluding education) is low as a share of GDP, 2009**



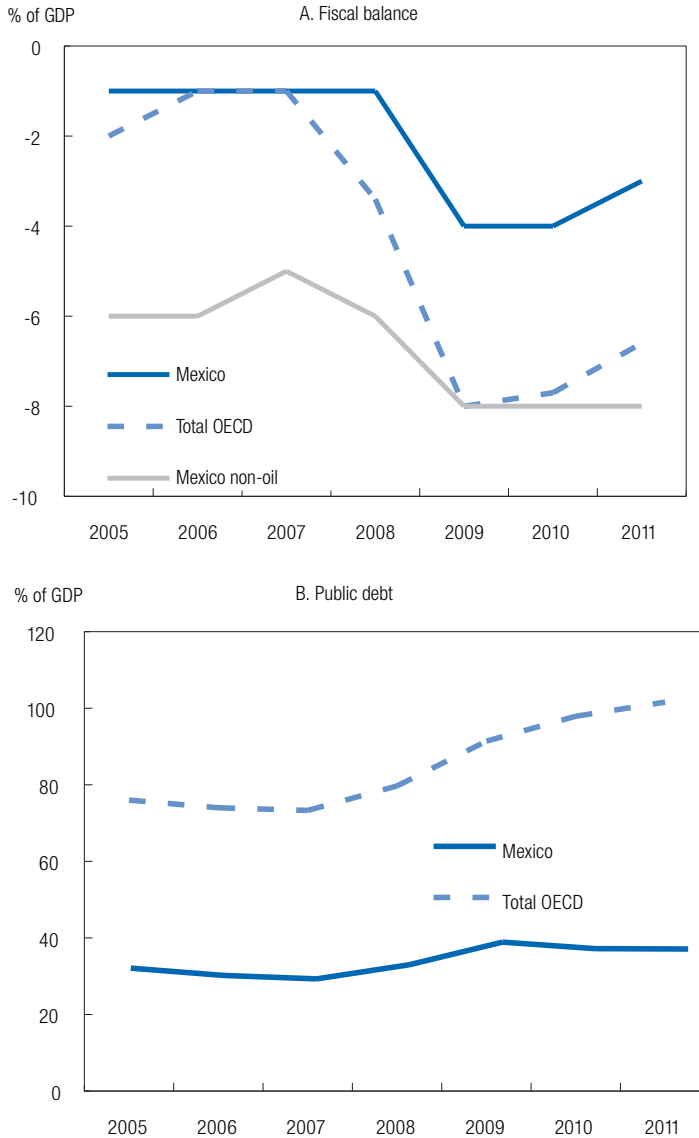
Source: OECD Social Expenditure database, 2012.

cover operational deficits of its health accounts – endangering sustainability of a number of its schemes– even though some of its other schemes are running surpluses (see Chapter 7 on health challenges). The Pact commits to reforms to integrate disparate health care schemes at the federal level, but the sustainability issues of IMSS and state-level pension systems will also need to be dealt with directly.

Supporting stronger and more inclusive growth will also require further investment in human capital (see Chapter 6 on education) and support to SMEs (see Chapter 10 on SMEs and entrepreneurship). Such investments, also included in the Pact for Mexico, are essential to complement ongoing reform of the business environment and the functioning of the labour market in reducing informality. Beyond these reforms, considerable scope for growth-enhancing infrastructure investment exists as well (OECD, 2009b).

However, as the Pact for Mexico recognises, the fiscal situation does not allow for the higher spending needed to make growth both stronger and more inclusive. Mexico has pursued a prudent fiscal policy that has kept a lid on the public debt deficit; this policy course should continue. After the global economic crisis in 2009, the government tightened its policy stance, raising taxes and containing expenditure growth. The broad measure of the deficit was brought down to 3% of GDP in 2012 (Figure 3.2). Limiting spending growth would further reduce the deficit to 2.4% of GDP in 2013. The deficit is set to close by 2014 based on the government's nonstandard definition that excludes PEMEX investment but includes a number of financial operations. If the recovery unfolds as projected, the government should implement its consolidation plans in full to avoid eroding market confidence in Mexico's fiscal policy. In this context, the room for higher expenditure is limited without a full-fledged tax reform.

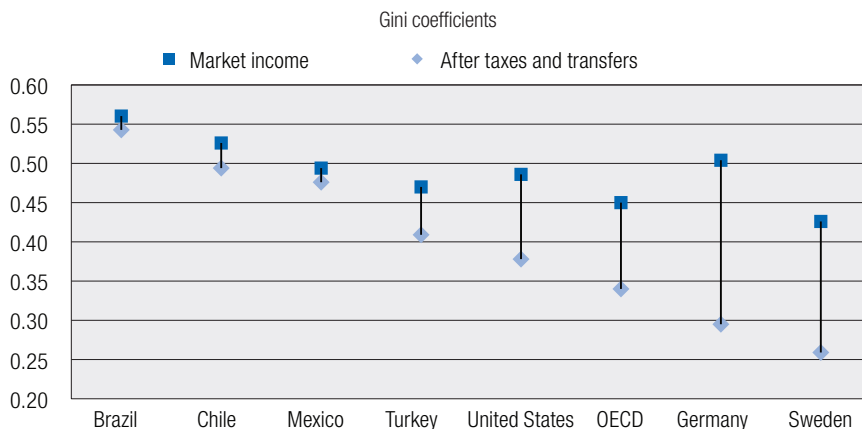
Figure 3.2. **Mexico's fiscal balance and gross debt**



Notes: The fiscal balance is the public sector net borrowing requirement, including the borrowing requirements of the central government and of public enterprises as a percentage of nominal GDP. Gross debt is the historical balance of the public sector net borrowing requirement, including the borrowing requirements of the central government and of public enterprises, as a percentage of nominal GDP.

Source: OECD Economic Outlook 92 database and OECD (2012c), Restoring Public Finances: 2012 Update, OECD Paris.

Figure 3.3. **Income inequality could be reduced further with taxes and transfers**



Source: OECD Income Distribution and Poverty database.

Moreover, the budget has become increasingly dependent on oil revenues rather than on more sustainable sources, making it vulnerable to changes in market conditions. More than one-third of fiscal revenues depend on oil, covering a large part of budget expenditure – as evidenced by the non-oil budget balance that has improved at a slower pace than the headline balance. Even though oil production has stabilised since mid-2009, maintaining current production levels beyond a 10-year period will require continued substantial investments in high-cost exploration and new discoveries. Mexico launched a reform in 2008 to improve the governance of the state-owned oil company, PEMEX, which has stepped up its exploration of new oil fields (see Chapter 11 on energy policy). The government has taken initial steps to provide more flexibility in PEMEX's contracting mechanisms in order to enable it to operate more like its peers, and the Pact commits to more flexibility still (commitments 55-57). But the outlook remains uncertain, and a strategy to strengthen non-oil tax revenues is urgently needed.

Output volatility has also been higher in Mexico than in most other OECD countries – including during the recent crisis, though the economy recovered quickly from the global recession. Such large fluctuations of activity and employment, against which Mexico has not been able to create effective buffers, can inflict large costs on individuals and companies.

Lastly, compared to other OECD countries, Mexico's tax and transfer systems have a very limited impact in reducing income inequality, which remains very high (Figure 3.3). While education and labour market reforms to ensure better opportunities for all play a major role in tackling these inequalities, the tax and transfer systems could contribute to that goal to a much greater extent.

Addressing these challenges requires fiscal reforms in several directions, to: improve the fiscal framework; improve budgeting and strengthen the efficiency of public administration; improve the efficiency and targeting of public expenditure; broaden the tax base; and strengthen fiscal federalism.

Improving the fiscal framework

To offer a fiscal buffer against volatile oil prices and output, the Mexican government could adopt a structural fiscal rule that takes account of the cyclical nature of tax and oil revenues, such as Chile's. Such a rule would be more effective if government accounts were presented according to international standards for national accounts. It is currently difficult to identify strictly transitory income (such as oil price hedging) since some financing operations are reported as income. The revenue surpluses accruing during economic upswings or periods of high oil prices should be accumulated in a stabilisation fund. Simple and transparent rules on savings and withdrawals would in turn enhance the transparency of oil revenue management. A system of revenue stabilisation funds already exists in Mexico, but the rules on savings and withdrawals are complex and the ceilings imposed on these funds are moderate. That has resulted in the accumulation of reserves worth less than 2% of GDP, even with periods of high oil prices. In Chile, the structural budget surplus rule of 1% of GDP permitted the accumulation of reserves, between 2001 and 2007, amounting to 20% of GDP. Thus at the start of the crisis in 2008, they could be used to provide a major fiscal stimulus. As a first step towards the establishment of a full-fledged economic stabilisation fund, temporary lifting of the limits on accumulated assets in the oil stabilisation funds (in 2010-11) should be made permanent.

Such improvements to the fiscal framework will nonetheless need to be completed by further reforms in the tax and oil sectors. This would make the budget less dependent on oil revenues, thus strengthening budgetary sustainability.

Improving the efficiency and targeting of public spending

Over the past few years, Mexico has introduced a wide range of reforms aimed at making the public administration more efficient and increasing the impact of spending policies. These reforms have included increased fiscal responsibility and transparency in budgeting; better public procurement mechanisms; improved human resource management; and measures to avoid corruption. Although many of these reforms are in place, strong and consistent political support is needed for the new legislation to gain traction and generate real savings and productivity gains (see Chapter 4 on strengthening governance at all levels of government).

Further improving budget processes

Further progress is needed to better link budgeting decisions to performance. This could be achieved by moving towards a more interactive budget process informed by performance evaluations and related tools such as efficiency or strategic spending reviews. These tools can be mainstreamed into the regular budget process as a mechanism to generate fiscal space. While the initiative should come from the executive branch, Congress – and more particularly, the Budget and Public Accounts Committee – should be encouraged to make more use of evaluations during the budget approval stage and oversight of budget implementation. Indeed, Congress provided the initial push for performance evaluations when it wrote a requirement that social spending be evaluated annually into the 1998 social development law; however, these evaluations were not widely used. Subsequently, the 2006 Budget and Fiscal Responsibility Law (BFRL) and the 2007 Integral Fiscal Reform (IFR) elaborated a framework for evaluations and enlarged the volume of performance information that the executive must present to Congress – for example, through its quarterly reports.

Congress has access to robust analytical capacity through both the Centre for Public Finance Studies (*Centro de Estudios de las Finanzas Públicas*, CEFP) and the Supreme Audit Department of the Federation (*Auditoría Superior de la Federación*, ASF). The former, created by Congress in 1988 ahead of many OECD countries that have since followed suit, is mandated to provide objective, non-partisan and timely analysis of public finances. More specifically, CEFP is charged with analysing i) the executive's quarterly reports; ii) the annual report on implementation of the National Development Plan; and iii) the fiscal implications of new legislation. Its analysis is facilitated by its formal agreement to exchange information and methodologies with the National Council for the Evaluation of Social Policy (CONEVAL). The ASF has been empowered since 2008 to carry out performance audits and include them in its report on the final accounts, which is presented to Congress (and also available for public scrutiny on the Internet).

Another useful measure would be to limit or discontinue congressionally earmarked spending (especially earmarks directed at a particular organisation or project in individual constituencies), focusing the attention of legislators on ensuring the key objectives of sustainability, fairness and efficiency.

In addition, Mexico needs to develop a longer-term, multi-year budget approach that aligns spending and funding with the government's plans and goals for different sectors, and prepares better for eventual challenges such as declining oil revenues and changing demographics.

Improving the efficiency of public expenditure

Mexico's total public spending is only about half of the OECD area average. There is room to improve the quality and targeting of spending in many areas, including social policies and education (see Chapters 2, 6 and 7). Important efficiency gains could notably come from improvement in public procurement, which forms a key part of public spending (see Chapter 4).

Improving the efficiency of social services would free up financing for higher spending, but could also contribute to reducing informality (see Chapter 5). A better quality of social security services and their value for workers could indeed create more incentives to join the formal sector. In particular, efforts to further restructure the social security package and integrate key benefits with other schemes would increase the incentives of low-income and rural workers to move to the formal sector.

Addressing the challenges posed by population ageing will require in-depth reforms of the pension and health care system, such as converting the remaining defined benefit pension systems to defined contribution systems; adopting a stronger focus on prevention in health care; and taking measures to make the social security agencies more efficient.

Removing energy subsidies

Mexico spends significant sums on subsidies for electricity, gasoline, diesel and liquefied petroleum gas, which together on average accounted for more than 1.5% of GDP each year over 2005-09. While intended to help the poor, energy subsidies are inefficient as a poverty alleviation tool: much of their value is captured by higher-income groups, to the extent that they do not reduce inequality (see Chapter 11 on green growth). Moreover, energy subsidies create incentives to consume more energy and invest less in energy efficiency, thereby reducing energy security and raising greenhouse gas emissions. This is inconsistent with Mexico's ambitious target to cut national greenhouse gas emissions by 50% by 2050, compared to 2000 (see chapter on green growth). Since these subsidies cost more than twice what is spent on anti-poverty programmes, they should be replaced by direct social spending with a much greater benefit targeted more directly to the poor, through either an expansion of *Oportunidades* or introduction of an income-based social assistance benefit. This would also help further improve the progressivity of the Mexican tax-and-transfer system. While a reduction of such subsidies for the wealthy is envisioned in the Pact (commitment 73), it would be far preferable to withdraw all distortive subsidies and make unconditional cash transfers for the poor.

An administrative price-smoothing mechanism for gasoline and diesel can yield additional revenues in times of declining oil prices, but result in large

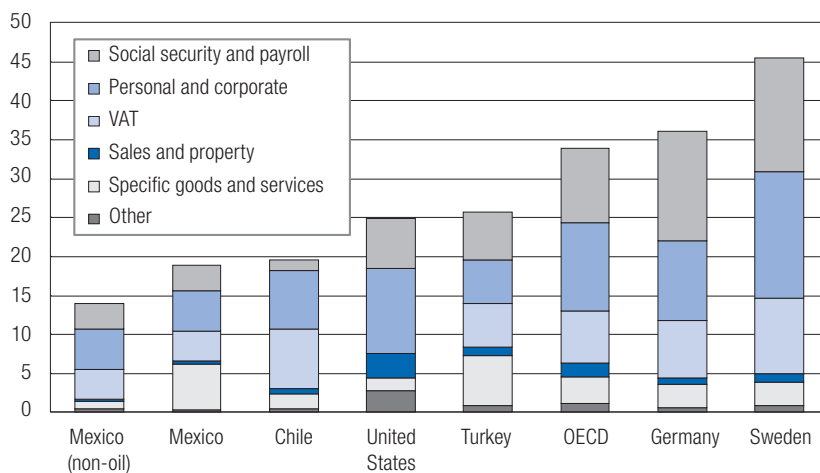
implicit subsidies in times of rising oil prices. Since 2005, gasoline prices in Mexico have been below those observed in major trading partners' countries. Mexico should enable gasoline prices to follow their international reference by abolishing the price-smoothing mechanism, and it should consider levying an excise tax.

Better targeting of energy subsidies to bring prices more in line with costs is one of Mexico's declared goals in its energy strategy. The government has begun to implement a new cash transfer scheme connected to *Oportunidades* to help poor households cover their energy needs with fewer distortions than under the current system. Mexico has also started an interesting pilot programme to replace electricity subsidies for pumping irrigation water with direct cash transfers in some states, thus removing the price distortion (see chapter on making water reform happen). However, more needs to be done to bring energy prices more in line with costs. Despite welcome efforts to gradually increase gasoline, diesel and LP gas prices, the subsidies remain in place and are likely to increase further when international prices rise. Little has been done to remove electricity subsidies.

Working towards better productive efficiency – and thus lower prices and higher quality – in the electricity sector would attenuate the effect of lower electricity subsidies on consumer (see Chapter 11). The government recently closed *Luz y Fuerza del Centro* (LyFC), a highly inefficient state-owned electricity company; this is a step in the right direction. The right strategy to lower prices for consumers would be to improve the efficiency of the remaining state-run company and allow more competition in the sector in the long run, all the while ensuring high-quality regulation.

Reforming the tax system to make it broader and simpler

While there is potential to improve expenditure efficiency, given current and emerging spending pressure, Mexico should further pursue its significant efforts to increase tax revenues. Mexico's tax revenue is low relative to many other countries (Figure 3.4), even though some of its statutory tax rates are not. The main reason for low revenues is the narrow tax base, which reflects high tax expenditures (accounting for almost 4% of GDP, or around 20% of actual government revenues). Low revenues also result from weaknesses in tax enforcement that must be addressed to increase the fairness and transparency of the tax system. Therefore, a combination of a broader tax base and improved tax administration could help increase revenues and reduce the deadweight burdens of the tax system. Mexico should also take advantage of the move towards a more transparent international tax environment, to launch an effective campaign against tax evasion and erosion.

Figure 3.4. **Mexico's tax revenue is low as a share of GDP, 2010**

Source: OECD Revenue Statistics database 2012.

Informality also undermines the tax base but its root causes go beyond taxation, as overall labour taxes in Mexico are moderate. While regressive social charges – reflecting a fixed base contribution to the health care system – make for a high burden on the lowest wages, this effect is partly compensated by the *subsidio para el empleo*. A careful evaluation of this programme is needed, however (see below). The new *Programa de Primer Empleo* will provide cost reductions for firms that hire workers who are registered with the federal social security agencies for the first time. Tackling informality will therefore require major structural reforms, including education and training to help low-productivity workers and enterprises succeed in the formal economy, and to reduce the costs of being in the formal sector. These policies, described in the other chapters of this report, will play a major role not only in boosting productivity and reducing income inequality, but also in broadening the tax base and bringing in higher tax revenues, as the capacity of low-productivity firms and workers to generate income is strengthened.

Reassessing tax expenditures and various special regimes

In addition to revenue losses, tax expenditures complicate the tax system, leaving ample room for aggressive tax planning and evasion, *e.g.* through false declaration of income under categories that receive favourable treatment. Eliminating inefficient tax expenditures would broaden the tax base and make the system simpler to administer and more transparent. In the Pact, the government has in fact committed to broadening the tax base and reducing tax expenditures (commitments 69 and 72).

The costs of tax expenditures in the VAT system are particularly high. There are zero rates for food and medicines; exemptions, such as for education and medical services; and reduced rates at the border. Altogether this lowers tax revenues by around 2% of GDP. The magnitude of tax expenditures is also evidenced by the VAT revenue ratio; this measure indicates actual VAT revenues as a percentage of potential revenues that could be obtained if the standard VAT rate applied to all final consumption. At around 30% this ratio, which is a measure of the combined effects of tax expenditures, weak administration and evasion, is lower in Mexico than in any other OECD country. As in the case of energy subsidies, VAT tax expenditures are inefficient as a poverty alleviation mechanism, because higher-income households capture the largest part of the benefits in absolute terms.

It would be desirable to gradually withdraw zero rates and exemptions within the VAT system and address social concerns with targeted cash transfers, as lower-income households spend a larger proportion of their income on food. This would result in higher net revenues, as the costs of (in effect) subsidising higher-income households would be avoided. However, attempts to broaden the tax base by taxing zero-rated and VAT-exempted goods have proved politically difficult. Past government proposals to tax all consumption goods while at the same time increasing the benefits of *Oportunidades* were rejected by Congress. Nonetheless, given the advantages of such a reform package, further efforts to broaden benefits are warranted. An expanded cash transfer system to compensate lower-income households, through *Oportunidades* or complementary schemes, would be a more efficient poverty alleviation instrument than VAT exemptions or other consumption subsidies, such as for energy.

Mexico should also reassess the costs and benefits of its numerous special business tax regimes. There are regimes for export assembly firms (*Maquiladoras*), transport and agricultural firms, co-operatives, small firms and intermediate firms. These benefit from reduced rates, simplified accounting regimes, tax deferral provisions, accelerated depreciation and other forms of tax relief. In addition to the direct loss in revenue, special regimes complicate the tax code and make it easier for firms to engage in aggressive tax planning or in tax evasion, by underreporting or misreporting their revenues. Special regimes may also distort the allocation of resources away from sectors or areas that do not benefit from them. The costs and benefits of all special business tax regimes should be carefully evaluated, and only regimes of proved efficiency should be retained.

In particular, the *Maquiladoras*' (IMMEX) regime should be ring-fenced and evaluated, as some of the tax concessions may have become overly generous. Besides fixing various loopholes in the regime, one option would be to set a sunset time horizon and reconsider the size of tax concessions. However, this should be done soon so that businesses can have greater certainty about potential

taxes due. In addition, enlargement of the regime may have opened up some opportunities for abuse, such as VAT carousel fraud; to fix this, VAT should be levied on all imports and prompt refunds given when re-exported. While there may still be justification for keeping such a regime, the original double-taxation problem that existed in the United States is no longer an issue, and Mexico's international cost-competitiveness position has improved. Moreover, import tariff rates have fallen for all types of enterprises.

There is also reason to reassess and to rethink the design of the special regime for small enterprises, *régimen para pequeños contribuyentes* (REPECO), now administered by states. REPECO would also benefit from a forceful graduation mechanism, for example requalification after a couple of years or a sunset clause. While tax relief within REPECO is very generous, firms evade 86% of their tax liability according to a 2010 study by ITESM), indicating that the states need to step up their enforcement efforts. States' incentives to draw on local sources of revenues also need to be strengthened more broadly, an issue discussed below.

The in-work tax credit (*subsidio para el empleo*) was instituted, as in other OECD countries, to help low-wage workers while avoiding major work disincentives. It subsidises around 60% of the formal wage distribution with a tax credit that declines with individual labour income. The government has recently frozen the *subsidio para el empleo* in nominal terms. Although the benefit is progressive relative to formal labour income, the share of the benefit that goes to the poor is relatively small. This is because the in-work tax credit is not targeted to the poorest workers, but subsidises a relatively wide range of formal labour income. By design, the tax credit is not available to informal workers whose income is concentrated at the very lowest wages. Moreover, the tax credit is based on individual income, but some workers with relatively low wages may live in high-income households. A careful evaluation of the tax credit warranted to assess whether it has a positive impact on formal employment and how far it helps increase low-income workers' take-home pay. Such an evaluation could be the basis for reforms. For example, Mexico could consider targeting it more closely to the lowest-income workers who are most likely to move frequently into and out of the formal sector. That might help to promote formal employment.

Many wage elements and fringe benefits are fully or partially tax-exempt for workers, and at the same time can be deducted from companies' tax base. Examples are wages for supplementary hours and bonuses. These elements can in total reach up to 30% of an average worker's wage. This creates incentives for tax planning. At the same time, it contributes to horizontal and vertical inequities: smaller companies are often not able to offer sophisticated salary packages with a substantial contribution of tax-exempt fringe benefits, and higher-income individuals benefit more from tax relief than poorer ones. Mexico should therefore move towards taxing all wage elements at the same rate.

In cases where subsidies are deemed to be warranted, perhaps for childcare facilities, the government could consider direct subsidies instead, as this would be more transparent.

To some extent the issue of tax exemptions and fringe benefits is addressed through the alternative minimum tax on business income (*Impuesto Empresarial a Tasa Unica*, IETU). This flat 17.5% tax on cash flow was introduced in 2008 to limit revenue losses resulting from tax planning within the business tax system. It has to be paid if it is larger than the tax liability of the regular business income tax scheme. IETU has helped limit revenue losses from tax loopholes, and serves as an important backstop to the standard corporate tax. In the long run, it would be ideal to have a uniform and effective business tax system. Therefore, the base of the regular business tax system should be broadened (including through reducing accelerated depreciation provisions which tend to favour established firms compared with new entrants), and enforcement strengthened. Until such reforms are put in practice, however, the IETU should remain in place. Retaining only the IETU is another option Mexico could consider, though this would involve a very different corporate tax system compared to most OECD countries. The advantage is that the tax is broad-based, neutral and relatively easily enforced.

Some of the weaknesses in the corporate income tax system involve complex tax planning issues; certain rule changes may help prevent abuse. One example of such a change – and indeed a reform envisioned in the Pact for Mexico – concerns limitations on consolidation of losses of corporations that are newly purchased; these can be used to offset taxation of profits within company groups. Another example is the deductibility of interest, which could be made dependent on EBITDA (gross earnings before interest, taxes, depreciation and amortization). Deductibility could be limited to debts between affiliated companies when the loan is used by one company to finance an acquisition of shares from another intra-group company. One particularly abusive practice that has become commonplace in Mexico is for large businesses to set up affiliated private airline companies, which only charge business class fares for private jet flights, and run up heavy losses that can then be deducted by the consolidated company.

Improving tax enforcement

Mexico has made important progress in combating tax evasion by enhancing the capacity of the federal tax administration. According to studies commissioned by that body, VAT evasion declined from 23% of potential revenues to 18% between 2000 and 2008. Registration campaigns, the use of risk models to identify taxpayers with a high probability of evasion, and efforts to reduce compliance costs and combat corruption within the administration have contributed to this success. Mexico should refine and extend the use of risk models, step up

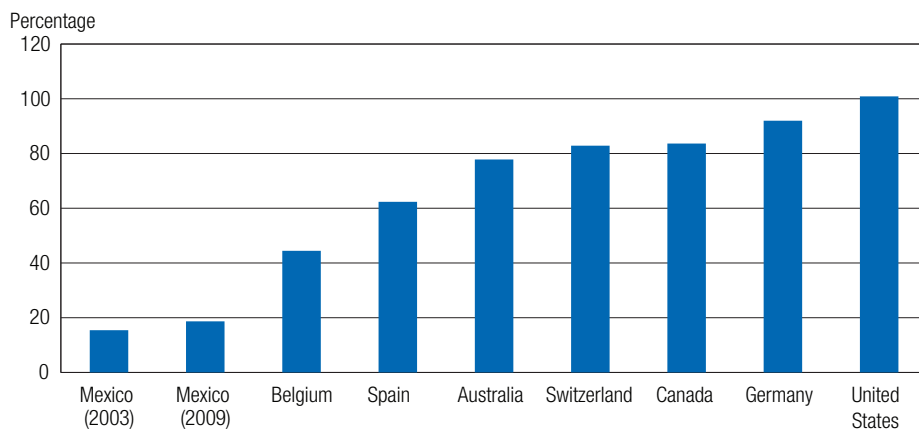
training of tax administration staff, in particular regarding auditing techniques, and continue to develop attractive pay and career paths. There is also scope to improve the efficiency of the tax collection process – an intention that has been repeated in the commitments of the Pact (commitment 69) and to build on examples of successful efforts to reduce the size of the underground economy. States where progress in enhancing the capacity of tax administrations is very uneven will have to engage in similar efforts.

Some reforms would give the federal tax administration greater capacity to address issues that arise with larger taxpayers. Rules that require corporate tax strategies to be disclosed transparently would help the administration to keep up with these complex strategies. Additional reporting obligations would also be warranted, for instance with respect to the intention to claim deductions for certain interest expenses owed to related and non-related foreign parties. Moreover, greater scope should be given to the tax administration to settle with taxpayers in the context of audits. Presently, the Administration is prevented from settling with taxpayers, which encourages litigation. Mechanisms would have to be put in place to prevent tax administrators and taxpayers from colluding. While estimates of evasion of corporate taxes suggest that only about 13% of potential revenue is lost, it is difficult to estimate the full ramifications of many tax planning strategies, especially when there is a lack of transparency.

Mexico is close to many tax havens that offer opportunities for Mexican taxpayers to evade taxes. The recent OECD and G20 initiatives offer the government an opportunity to counter such offshore non-compliance. Mexico has already started to exploit these opportunities by negotiating Tax Information Exchange Agreements (TIEAs) and tax treaties. The country has also signed the Multilateral Convention on Mutual Administrative Assistance in Tax Matters, which provides for full exchange of information. The next steps should be to launch an offshore compliance initiative along the lines of those established by the UK, US and other OECD countries; increase the resources of the competent authorities in the SAT (the national tax authority); develop programmes to train auditors on how to take advantage of this more co-operative environment; and explore the possibility of establishing automatic exchange of information with other countries.

Strengthening fiscal federalism

Fiscal federalism reforms could provide better incentives for states and municipalities, and also enhance policy co-ordination across levels of government. Two decades ago, Mexico began to decentralise core expenditure responsibilities to local governments, and this decentralisation process is half completed. States have formal responsibilities over major categories of spending, including such key areas as health and education, and account for almost half

Figure 3.5. **Sub-national revenue as a percentage of spending, 2010**

Source: OECD Fiscal Decentralisation database 2012.

of all public expenditure. However, the devolution of spending responsibilities has not been mirrored on the revenue side: states and municipalities are highly dependent on federal transfers (Figure 3.5). This reduces incentives for efficient spending and prudent fiscal management at the sub-national level. Spending assignments across levels of government are poorly defined and often overlap, reducing the efficiency of public spending. Information on the use of sub-national governments' financial resources is scant and there is no homogeneous and standard reporting of sub-national budgets, despite the law mandating that all levels of government adopt a results-based budgeting framework. This reduces transparency and hampers the evaluation of fiscal performance, which is critical for enhancing local government accountability (see Chapter 4).

On the revenue side, sub-national governments' own revenue shares are extremely low by international standards. Payroll taxes account for the largest part of states' own revenues. Although easy to collect, they have the disadvantage of increasing the cost of formal labour. For municipalities, the most important potential source of revenue is property taxes – a comparatively efficient form of taxation – which are underused. This is due to outdated land registers, which lead to undervaluation of property as well as weak incentives to collect higher property taxes. Mayors can only run for a single three-year term, which is insufficient to provide the positive incentives that would permit taking the unpopular step of raising property taxes so as to provide better-quality public goods. The federal government should launch a programme to help municipalities update land registries, as some states already do, because municipalities would then find it easier to attract and train more qualified personnel and establish the required

infrastructure, and this could help diffuse the political liability of facilitating such taxes.

The central government has made efforts to increase states' and municipalities' incentives and capacity to collect their own taxes. Incentives were improved by tightening sub-national borrowing rules, discontinuing extraordinary transfers to states, and providing information on federal investment projects. The formulas for various non-earmarked federal transfers now include both the level and increase in sub-national government tax collection to reward states' efforts to collect taxes, though these formulas are not yet fully deployed. States were also offered a chance to levy a sales tax or a surcharge on income taxes, but these new tax powers were not used. This is likely due to incentives remaining weak despite past efforts, as it is easier for states to lobby for higher federal transfers than to step up their tax-raising efforts. Further increases in federal transfers should be limited so that states have more incentives to raise more of their own revenue. Conferring taxing powers for broader tax bases to the states, such as surcharges on personal income taxes, would then meet with more success. This should be combined with a well-functioning and transparent fiscal equalisation mechanism, to ensure that poor states have the necessary resources to strengthen their growth potential and catch-up. The Pact for Mexico already envisions substantial reforms giving stronger taxing powers to the states, supporting the collection of property taxes, and revising the Fiscal Coordination Law to re-equilibrate the relationship between the federal government and the states (commitments 68 and 70). If these reforms are carried out, substantial improvements will have been made to Mexico's system of fiscal federalism.

OECD Key Recommendations

Fiscal framework

- Address revenue volatility by further improving the fiscal policy framework through accumulating fiscal buffers; this could be accomplished using a structural balance rule.
- Improve the governance and operating efficiency of PEMEX, by lifting investment constraints and strengthening accountability.
- Government accounts should be reported using official national accounts standards, to enhance comparability and improve transparency.

Spending

- Design a multi-year budgeting process, with a focus on expenditure performance and effectiveness, and on outcomes in the public sector.

- Increase cash transfers to the poor, for example through *Oportunidades* or by introducing a social assistance scheme.
- Improve government efficiency by professionalising the civil service, taking steps to enhance expenditure quality, and expanding transparency and open government initiatives (see Chapter 4 on strengthening governance).
- Gradually withdraw energy subsidies, and consider an excise tax on oil.

Tax policy

- Increase tax revenues by concentrating on broadening the VAT, personal income and corporate income tax bases. Remove tax expenditures and further strengthen the tax administration. Enhance tax enforcement through extended use of risk models, training, and attractive pay and career paths.
- Move toward greater reliance on the new alternative minimum business flat tax (IETU), possibly with a higher rate, and toward closing gaps in the corporate income tax that allow for aggressive tax planning. Strengthen international tax co-operation and fight the use of tax havens by Mexican taxpayers.
- Review and ring-fence the special tax regimes for *Maquiladoras* and small business, and consider phasing them out.
- Evaluate the in-work tax credit to assess its impact on formal employment, and consider targeting it more at the lowest-income workers.
- Increase fiscal responsibilities of states by limiting federal government transfers and allowing higher marginal revenue retention. Greater use of property taxes should be encouraged with federal support.

Further reading

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Chapter 4

Strengthening Governance at All Levels

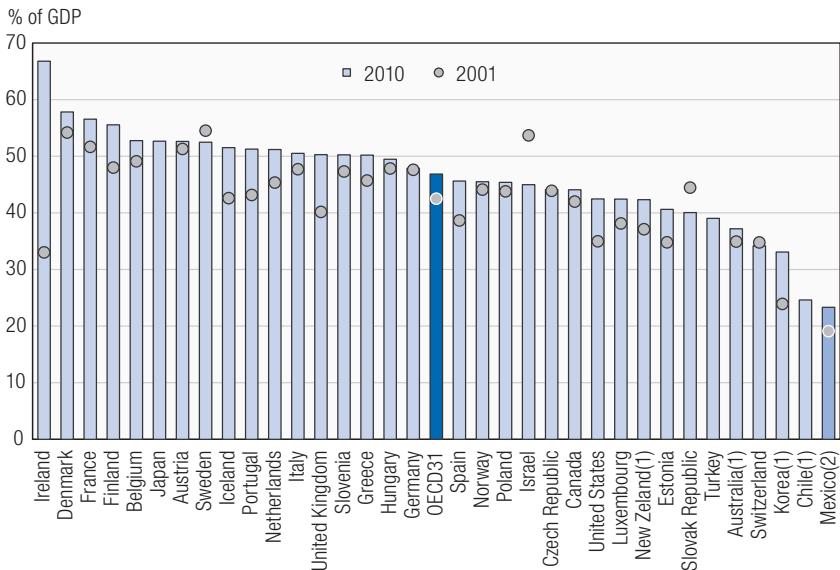
*Andrew Davies, Óscar Huerta Melchor, Stéphane Jacobzone,
Jack Radisch, Javier Sánchez-Reaza and Jacobo García Villarreal*

The economic transformation of Mexico during the 1980s and 1990s led to a deep transformation of the role of the state in the economy. While Mexico has now become a highly globalised economy, its public management and governance system has had to adapt and modernise in a context of limited fiscal revenues. Significant progress has undoubtedly been made, but improvements have been uneven and advances at the federal level have not always translated into better capacity to design and implement policy across all levels of government. The Pact for Mexico announces a wide range of commitments that will further test the capacity of the public sector to deliver.

Good policy design is not sufficient to achieve all desired outcomes: implementation capacity plays a critical role in making a reform successful. Closing governance gaps at all levels, facilitating change, building capacity, and providing the right incentives (e.g. economic, visibility, recognition) are all crucial elements of strategies to achieve the new government's key objectives.

Public expenditure in Mexico is among the lowest in the OECD area (Figure 4.1). This strains public sector management capacity to mobilise people and resources effectively to face key challenges, such as poverty reduction, access to education, infrastructure improvements and adapting to change. In Mexico as in other OECD countries, the economic crisis provides an added incentive to find new ways of delivering quality public services at lower cost. This has led to more intensive

Figure 4.1. **Government expenditures as a % of GDP (2001 and 2010)**



Notes: 1. 2009 instead of 2010; 2. 2003 instead of 2001.

Source: OECD National Accounts.

efforts to professionalise the civil service, make better use of e-government and other ICT tools, streamline regulation, and improve management of key domains such as security and the rule of law, risk management and urban development, in order to better manage available resources.

In addition, in these and other fields, specific attention needs to be paid to improving the capacity of states and municipalities to implement policy effectively and in close co-operation with federal-level policy making. Managing relations among different levels of government is crucial, as governments must achieve more with less. Thus, Mexico should look for ways to facilitate co-ordination and solve capacity-building issues to bridge the information, fiscal, administrative, and policy gaps.

Strengthening public sector capacity

A fundamental building block for the Mexican government in improving the effectiveness of public policy is to ensure that the civil service has the skills, competences and incentives necessary for high-quality public service delivery. The recent OECD Public Procurement Reviews of Mexico's health and energy sectors (OECD a and b), for example, demonstrated the need to improve workforce management to better align human capital (numbers and skills) with strategic objectives. The most notable advance in recent years has been the creation of the Professional Career Service (*Servicio Profesional de Carrera*, SPC), which has embedded concepts such as meritocracy, professionalism, planning and career development into the vocabulary of the public administration. This is an important but challenging initiative, as was highlighted by the OECD (2011a) *Public Governance Review of Mexico*. A key challenge for the Mexican authorities is to consolidate the Professional Career Service as a core instrument of the government; doing so would ensure having a talented, diverse, high-performing, knowledge-based and professional workforce to meet the government's strategic objectives. To that end, it is essential to use strategic workforce planning to align the structure and function of the civil service with the goals of government.

Similarly, ensuring that recruitment is based on merit, as proposed in the Pact for Mexico for the "Professional Teaching Corps", and ensuring that permanence is determined through satisfactory performance, are means to enhance dynamism and fairness in the management of public organisations and public employees. A critical step for Mexico is to create a performance culture with strengthened management accountability. Finally, there is a need to further clarify the political-administrative interface, in order to enhance the credibility of the SPC while maintaining clear political accountability.

The Ministry of Public Management (*Secretaría de la Función Pública*, SFP) has been in charge of managing the federal public workforce and SPC. Current

plans to dismantle this ministry would imply giving the Ministry of Finance (Secretaría de Hacienda y Crédito Público, SHCP) responsibility for human resource management. This move may provide an opportunity to create synergies between the budget and HRM teams improving strategic workforce planning.

Mexico has made strong efforts to ensure that the public service is staffed by professional public servants who are recruited on merit. Implementation of the SPC is a major achievement given the situation a number of years ago. Efforts should continue to consolidate measures already taken to ensure having a transparent system that leaves little room for patronage.

Strategic workforce planning as a dynamic process designed to ensure effective performance in organisations is a key piece of the human resource management (HRM) modernisation agenda in many OECD member countries. Good workforce planning is indispensable for maintaining a structured and representative workforce of appropriate size. It is also important in meeting the changing needs of government organisations in a cost-efficient manner, and addressing specific issues such as turnover; workforce stability; the structure and quantity of training programmes; the need to manage downsizing programmes; and cost budgeting. All these elements play a key role in strengthening the capacities and capabilities of the Mexican civil service.

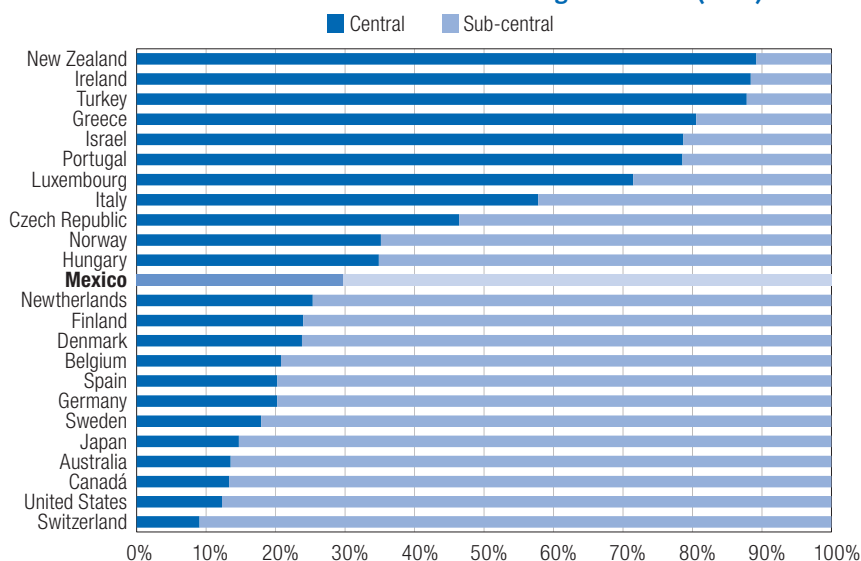
One of the most difficult issues is how to create a performance culture within specific organisations and throughout government. Creating such a culture requires new managerial competences at the operational level as well as adequate supporting arrangements and structures designed to assist employees in their quest for better performance. Similar to other OECD countries, the Mexican SPC includes a sub-system for performance evaluation, which measures those qualitative and quantitative aspects of organisations and individuals that allow them to meet their goals. Performance management thus requires a sophisticated approach, as many factors contribute to satisfactory or poor performance.

Mexico faces three main challenges here. First, assessing performance represents a cultural change for which neither the public service nor public servants are fully prepared. This change will require altering the attitudes, focus and incentives of managers and employees, and aligning administrative systems, organisations and resources towards multi-dimensional performance targets. Second, the government needs to build a framework for a performance management system. As a precondition for engaging in performance assessment, Mexico should strengthen its ability to describe the desired results of public organisations in a sufficiently operational way; this would improve the government's ability to assess performance at the organisational, team and individual levels. Third, operational managers should be more accountable for performance, and empowered to exercise this responsibility.

The experience of Canada's Management Accountability Framework could provide useful lessons for Mexico. Canadian authorities have put strong emphasis on results and performance, and increased delegation of management functions to departments. Thus, the Framework is intended to ensure departmental accountability for management results, including human resources.

Any effort to improve the human resource framework and bring a performance culture to the Mexican civil service must also address capacity at the sub-national level, which accounts for a large share of all public employment (Figure 4.2). Expanding the principles of professionalisation to local and municipal governments is a long-term challenge for Mexico. It is important to support and provide the conditions for development of merit-based HR policies in sub-national levels of government, as Mexico's public servants are largely

Figure 4.2. **Distribution of general government employment between the central and the sub-central levels of government (2008)**



Notes: Finland, Israel, Mexico and Sweden: 2007. Japan, New Zealand and Portugal: 2006. Japan: General government employment data are not classified according to system of national accounts definitions and are substituted by direct employment figures provided by central or sub-central governments. Data for Australia and the United States refer to the public sector (general government and public corporations). Data for the Czech Republic, Italy, the Netherlands, New Zealand and Poland are expressed in full-time equivalents (FTEs). In New Zealand FTEs are included for education, health and community services and personal and other services. Data for Hungary do not include other non-profit institutions at the central/sub-central level.

Source: International Labour Organisation (ILO), LABORSTA database. Data for Turkey are from the Ministry of Finance and Turkish Statistical Institute. Data for Japan are from the Establishment and Enterprise Census.

located in sub-central governments. This becomes even more important as local governments have been given responsibilities for the promotion of citizens' well-being, such as education and key public services. They require, therefore, sufficient capacities and abilities to meet those responsibilities.

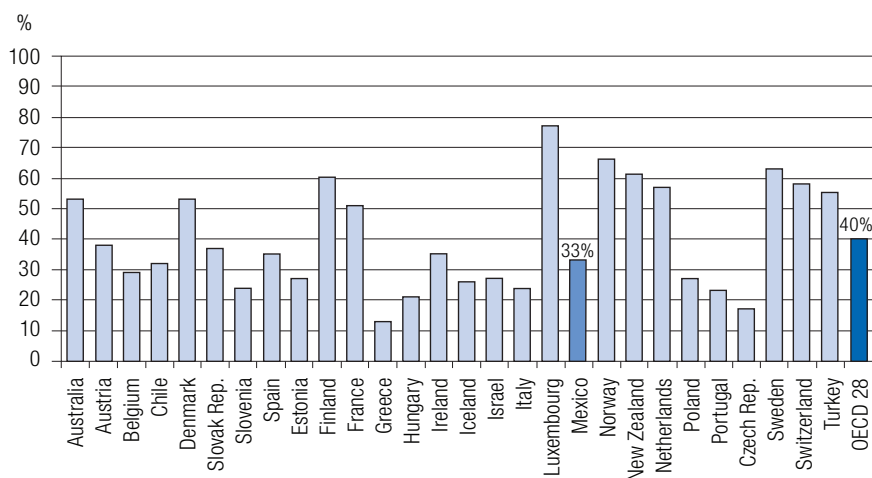
Recommendations

- Develop a clear strategic vision on how the public administration can contribute to meeting the government's priorities. This requires managing the whole public workforce in a more sophisticated and structured fashion to enhance efficiency. It also requires building a workforce of the appropriate size, composition, competences and skills required for service delivery.
- Consolidate the Professional Career Service System through strategic workforce planning, to effectively ensure capacity for service delivery while generating efficiency gains; developing a culture for performance management; providing real career opportunities for public employees; increasing the number of positions covered by the system; and facilitating collaboration between the budget authority and the human resource management body, to align workforce planning with budget planning.
- Expand the principles of professionalisation to all federal public servants – unionised (*de base*) and non-unionised (*de confianza*) – and to local governments. This implies fostering mechanisms for sharing experience and know-how across the federal public administration and levels of government, and developing evaluation frameworks and methodologies for constant oversight and a systematic assessment of the government's initiatives on workforce management.

Investing in integrity to restore trust in government, promote economic competitiveness and improve public services

In the Section 4 of the Pact for Mexico, major political parties agreed that transparency and accountability are tools to raise the level of citizens' trust in their government. Indeed, OECD member country experiences have shown that trust is a vital determinant for sustainable economic growth, in that it encourages investments and innovation. In turn, trust in government is largely dependent on the integrity of the public sector. Mexico, however, has experienced a low level of trust compared to OECD countries, mostly due to the high perception of corruption and impunity. For example, Mexico ranked the lowest among OECD countries according to Transparency International's 2012 Corruption Perception Index.

Corruption leads to waste of public resources, lowers the quality of public services, and has damaging impacts on government decision making. As a key

Figure 4.3. **Level of trust in national government, 2012 or latest available year**

Source: <http://www.gallup.com/poll/world.aspx>.

element for strengthening integrity in the public sector, transparency is strongly supported by the Pact for Mexico – for example, through proposals to broaden the powers of the Federal Institute for Access to Information (IFAI) in the commitment 83. Mexico has been at the forefront of transparency initiatives, including at the international level by founding the Open Government Partnership in 2011, but it could further advance by consolidating its accomplishment at a sub-national level.

The Pact for Mexico also outlines the creation of a national anti-corruption system, which by means of a constitutional reform will establish a national commission and state commissions with powers of prevention, investigation, administrative sanction and referral to the competent authorities for acts of corruption (commitment 85). Many countries that faced corruption challenges similar to Mexico's have successfully addressed them through the modernisation of institutional arrangements. At the same time, their experience shows that a new institution is only a first step. To secure success, Mexico should pay particular attention to ensure independence of the new institution from political interference, and provide it with a clear mandate and sufficient resources to accomplish that mandate. Structural and operational autonomy from the Executive are the principal means to ensure independence of anti-corruption commissions. This autonomy could for example come through the appointment and removal of the governing body of the institution, where the executive shares nomination and approval powers with the legislative branch, and in some countries also with civil society.

Effective institutional reform must also encompass two additional aspects. First, many corrupt acts such as bribery are crimes and thus call for criminal

penalties. Institutions responsible for criminal investigation, prosecution and adjudication must have sufficient resources and expertise to accomplish this task. Second, corruption often involves not only corrupt officials, but also individuals and companies that corrupt them such as by paying bribes. Both the corruptor and the corrupted must be held accountable.

In addition to the anti-corruption institutional arrangement, Mexico should take into account the overall integrity framework, and pay particular attention to certain elements. One is to encourage and facilitate the reporting of corruption, for example through protection to whistleblowers and reducing impunity, and build a culture of integrity in public sector organisations. The Pact for Mexico places special emphasis on preventing and combating corruption in two institutions: PEMEX and the Federal Electricity Commission (CFE). This responds to the OECD Public Procurement Reviews of PEMEX and CFE that *inter alia* highlighted the need to strengthen the transparency and integrity of their procurement process. Mexico should go further and ensure that these institutions – like other Mexican enterprises – may be held liable under the Penal Code for corruption. As amply demonstrated in OECD countries, the threat of liability can spur corporate compliance measures to prevent corruption.

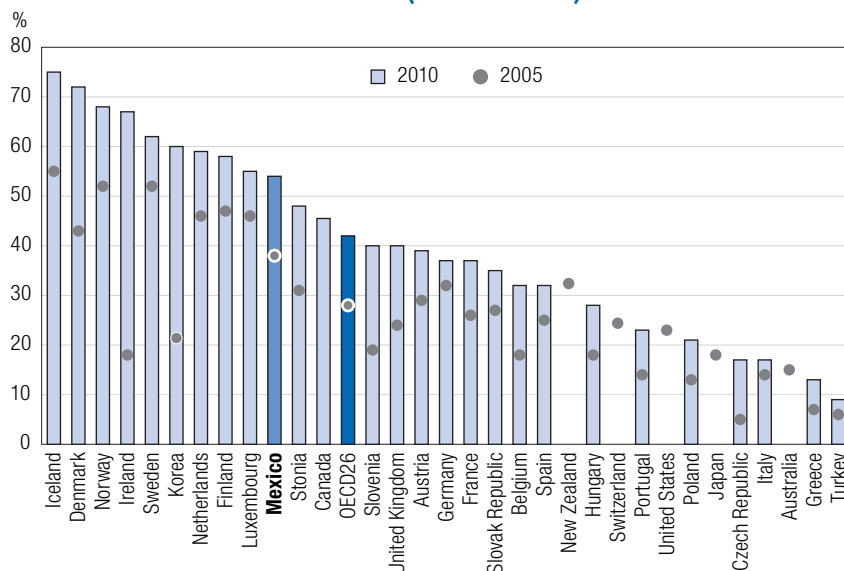
Recommendations

- Advance transparency initiatives at sub-national levels.
- Restructure institutional arrangements to prevent and sanction corruption by providing to the new anti-corruption commission – with real independence from political interference – a clear and specific mandate and sufficient resources.
- Substantially strengthen the criminal justice system so that it can and does investigate, prosecute, and sanction corrupt officials, as well as individuals and companies that corrupt them.
- Strengthen the overall integrity framework in the public sector to embed a culture of integrity in the public service, for example by facilitating the reporting of corruption and reducing levels of impunity.

Making the most of information and communication technologies (ICTs) to improve transparency, quality and efficiency of government

Mexico has a longstanding commitment to using ICTs to support public sector reforms and foster good governance by improving the transparency, quality and efficiency of government. The government has used ICTs to better integrate, simplify and implement processes in order to rationalise the use of

Figure 4.4. **Percentage of citizens using the Internet to interact with public authorities (2005 and 2010)**



Notes: For the United States, Japan and Australia, 2005 data refer to 2003. For Switzerland, 2005 data refer to 2004. For Denmark, Germany, France, Spain and New Zealand, 2005 data refer to 2006. For Canada and Mexico, 2010 data refer to 2007. For Iceland, 2010 data refer to 2009. 2010 data are missing for Australia, Canada, Japan, New Zealand, Switzerland and the United States, and these countries are not included in the average (OECD26).

Source: Eurostat Information Society database; OECD ICT database; and Korean Survey on ICT usage by the ministry of public administration and security.

resources in times of economic constraints; deliver services more coherently across the federal public administration; and strategically maximise the benefits of previous e-government investments and plan for new ones. The use of mobile government, and particularly the adoption of a cloud-building approach are excellent examples of the Mexican government's pioneering intention to use opportunities brought about by new technologies (e.g. Web 2.0) and technological phenomena (e.g. social networks). These have allowed the government to create social value through ICT investments, to multiply the value generated by newly developed ICT systems, applications and platforms, and to use these new opportunities to improve policy making. Another example is the newly developed citizens' portal www.gob.mx, which is built on an advanced search model that makes the interface of the portal simpler and more intuitive for the users.

Indeed, recent data put Mexico on a par with the OECD's leading countries in terms of ICT use to interact with public authorities by citizens (Figure 4.4), as

well as by businesses albeit to a lesser extent. This is remarkable given the gaps in access to the Internet faced in Mexico, particularly by some of its poorest citizens.

However, consolidating results in the future will require improvement in the institutional and governance framework for e-government. Strong and consistent leadership will be needed to support an overall national strategy and push forward further e-government development. Moreover, e-government is a horizontal policy area that cuts across the entire public administration; in order to maximise its impact, it is necessary to establish a governance framework that facilitates in-depth consultation on e-government policies among major stakeholders, to enable synergies, avoid wasting resources, and ensure that the various initiatives respond to different needs and common objectives, and are successful in the long run. Stronger co-ordination within the federal level, as well as co-operation across levels of government, should be ensured.

**Box 4.1. Using ICT to improve efficiency:
The case of health sector procurement**

Mexico has considerably strengthened its public procurement processes in recent years. Procurement reforms, such as providing more flexibility and sources of efficiency in the legal framework (including through reduction in the number of regulations) and revamping its e-procurement platform provide the health sector with much-needed tools to improve its procurement outcomes. The remaining challenge is implementation of these reforms.

Public procurement is vulnerable to waste, fraud and corruption due to its complexity, the size of the financial flows it generates, and the close interaction between the public and private sectors. Mexico's health sector was exposed in recent years to waste and corruption scandals related to procurement. Procurement reform that is consistent with the OECD Principles for Enhancing Integrity in Public Procurement is therefore needed, to enhance trust and credibility in these essential Mexican government institutions. Improved governance in procurement will provide cost savings, strengthen administrative efficiency, and improve service delivery.

IMSS and ISSSTE could further improve their procurement processes by relying more on e-procurement. Yet the level of take-up by suppliers is low, and not all procurement information systems are integrated within the organisations and with *Compranet*, the central government procurement website. This makes it difficult to reap the benefits of investments made to develop ICT systems that make it easier, more transparent and less time-consuming to manage and access information. To achieve the expected results, the system must be used by a high number of suppliers. This entails ensuring that system users (both civil servants and suppliers) have the right

ICT skills; raising their awareness of the existence of – and trust in – the system; and providing them with the right incentives to use it. Moreover, enhancing integration among the electronic systems is crucial to ensuring greater efficiency.

Source: OECD (2012c), *Public Procurement review of the Mexican Institute for Social Security*, OECD.

Recommendations

- Ensure that the progress made in e-government is continued, with strong leadership and institutionalised co-ordination within the federal government and support for good practice at sub-national level.
- Ensure that the benefits from e-government are reaped in areas such as procurement where they can impact on reducing public expenditures and improving transparency.

Regulatory policy: Towards a whole-of-government perspective

In recent years, Mexico has striven to improve its regulatory policy in order to support business activities, discourage informality, and promote the rule of law. Recent achievements include reform of the Regulatory Impact Assessment (RIA) system to concentrate resources on high-impact regulations; adoption of the Standard Cost Model (SCM) to measure administrative burdens; and the launch of a one-stop-shop for business start-ups, *Tuempresa.gob.mx*. The oversight body, the Federal Commission for Regulatory Improvement (COFEMER), is now well established, and Mexico scores well relative to other OECD countries in terms of institutional capacity for managing regulatory reform.

Despite these achievements, a culture of effective regulatory improvement still needs to be embedded across the federal government and across levels of government. Mexico has a formal policy on better regulation established in the Federal Law of Administrative Procedure (LFPA). The main elements of this policy include establishing COFEMER as the oversight body; outlining the responsibilities of line ministries and regulators as part of the better regulation policy; and establishing tools for the regulatory improvement policy (i.e. RIAs, administrative simplification, and consultation). Ministries and agencies of the federal public administration have specific obligations with regard to the better regulation policy. They must submit to COFEMER all their legislative and regulatory drafts, along with their RIAs. Furthermore, at least every two years, they must submit a programme of regulatory improvement on the regulations and formalities they apply, as well as periodic progress reports. They must also

submit to COFEMER and keep updated the information recorded in the Federal Registry of Formalities and Services (RFTS).

Nonetheless, further work should be fostered to step up to a new phase of regulatory quality that embeds an effective and profound regulatory improvement culture across the federal government.

COFEMER performs the functions of i) co-ordination and supervision, ii) challenge and scrutiny, and iii) training, advice, and technical support for better regulation. That said, the Commission needs an institutional design that grants it sufficient legal and financial autonomy to discharge its mandate as a central oversight body for regulatory quality. Such autonomy would reinforce its technical independence, protect its professionalism, and distance it from cyclical influences within the Mexican public administration. The measures to achieve this can include an autonomous budget, and more independence regarding its capacity to exercise its power. The actions to strengthen COFEMER should be accompanied by the setting of transparency and accountability rules. A more robust institutional setting would locate COFEMER close to core executive functions.

The policy to streamline Regulation inside Government (RIG) has been successful and deserves continuity. RIG refers to the regulations imposed by the state on its own administrators and public service providers. The “Guillotine of Administrative Regulations” had as one of its main goals to eliminate internal administrative regulations, in order to simplify and standardise the operation of federal government institutions and implement mechanisms to eliminate rules that hinder efficient service delivery. To date, this exercise has resulted in the elimination of 70% of the internal regulatory instruments. The policy to streamline RIG anticipates periodic reviews of the stock of regulations. Hence, it will be important that the new administration follows up this path-breaking exercise, upon which countries like Australia and Canada have also embarked. During the previous administration, the Ministry of Public Management (SFP) led the review of RIG. If this ministry were to be eliminated, the new administration might want to select another one with the capacity for whole-of-government influence to facilitate the continuity of this policy.

The governance framework of regulatory authorities needs to be strengthened to ensure independence from direct political intervention and particular interests. Establishing a regulatory agency with a degree of independence (both from those it regulates and from the government) can provide greater confidence that regulatory decisions are made with the aim of maximising public value. Careful consideration should therefore be given to joint powers shared among agencies and ministries. It is therefore timely that in its inaugural Message to the Nation the President has committed to increase competition in the telecommunication sector and that building on this commitment the Pact for Mexico recognises the need to reinforce the autonomy and the decision-making powers of COFETEL.

(commitment 40), as well as the need to strengthen the Comisión Nacional de Hidrocarburos (National Commission for Hydrocarbons, CNH) and expand its powers (commitment 51). In fact, the forthcoming *OECD Regulatory Reform Review* will advise the Mexican government to review the powers, attributions and governance arrangements of regulatory authorities. It is advisable to develop a whole-of-government model for the governance of regulators. This model should set the basic cornerstones of good governance for regulatory authorities in Mexico; it should also be used to revise the existing governance arrangements of regulatory authorities, as well as for guiding the development of new regulators.

Improving regulatory coherence across levels of government

Although attention to regulatory policies at sub-national level has been increasing, states and municipalities should strengthen the institutions and capacities for better regulation. Twenty out of the thirty-one federal states and the Federal District have a law on better regulation, mandating state authorities and sometimes municipalities to pursue regulatory improvement. In addition, eight states have laws on economic development that contain a section on regulatory improvement. Ten out of these thirty-two sub-national units have a commission in charge of advocating and implementing better regulation; twenty have a unit within a ministry; and two have additional units fulfilling this role. Likewise, 21 states make use of a citizen council to promote the active participation of citizens in their regulatory policies.

Despite progress, there is still room to develop and strengthen the institutions and capacities that support regulatory reform in states and municipalities. Monitoring the actual implementation of institutions and tools is important, to ensure that they are not only confined in the letter of the law. Three basic building blocks are suggested: laws for regulatory reform, units in charge of operating regulatory reform, and citizen councils to follow up regulatory policies. While it must be recognised that COFEMER has increased training and implementation assistance for states and municipalities, it is clear that its resources are limited. The key to advance capacity building even further is to secure the commitment of state governments to contribute to the work of COFEMER, as well as to engage municipalities.

Mexico should aspire to reaching convergence of regulatory policies at sub-national levels, and upgrade multilevel co-ordination. The lack of a structure facilitating political commitment and multilevel dialogue to address regulatory concerns might have slowed down progress towards convergence of regulatory institutions and practices, particularly in those states that are lagging behind in this area or those that do not possess the necessary knowledge to initiate reforms. Mexico could replicate some of the features of “co-operative federalism” to improve multilevel co-ordination, such as a solid political agreement to

pursue regulatory reform at national and local levels, funding schemes based on performance, and institutionalised monitoring of progress for strong accountability.

Only a few states and municipalities have made use of more sophisticated tools that may get them closer to a regulatory governance cycle approach. In the case of RIAs, for example, only five states are actually implementing this tool, with wide variation in terms of the stage of sophistication. Likewise, there is an incipient application of reviews of the stock of regulation by states and municipalities. On the other hand, e-government tools are widely employed to enhance regulatory transparency and simplify formalities.

It is time to move beyond pure simplification initiatives and to a regulatory governance cycle approach, so that regulatory policies in states and municipalities are comprehensive (address the different stages of the regulatory governance cycle), participative (motivate citizen participation in the management of regulatory policy), and permanent (stay beyond political transitions). The three levels of government, as well as other stakeholders of regulatory reform, have a role to play to accomplish these objectives.

Recommendations

- Mexico should embrace a “whole-of-government” culture for regulatory improvement policy. This includes creating a small committee or council of ministers to review and approve high-impact regulations, and establishing a network of units placed inside ministries that provide expert support in regulatory policy and governance matters.
- In order to achieve the “whole-of-government” culture for regulatory improvement policy, the institutional design of COFEMER must be revised to grant it sufficient legal and financial autonomy to reinforce its technical independence, protect its professionalism, and distance it from cyclical influences within the Mexican public administration.
- The institutional regulatory framework should be modernised through a review of powers, attributions, and governance arrangements of regulatory authorities. The governance framework needs to be strengthened to ensure independence from direct political intervention and particular interests.
- Institutions and capacities that support regulatory reform in states and municipalities should be strengthened while increasing the degree of political commitment to regulatory quality.
- Mexico should aspire to reach convergence of regulatory policies at sub-national levels and upgrade multilevel co-ordination by, for example, adopting some of the features of “co-operative federalism”.

- Regulatory policies at sub-national level should address all the stages of the regulatory governance cycle and be participative and permanent, while incorporating an approach consisting of policies, institutions, and tools.

Governance and public order

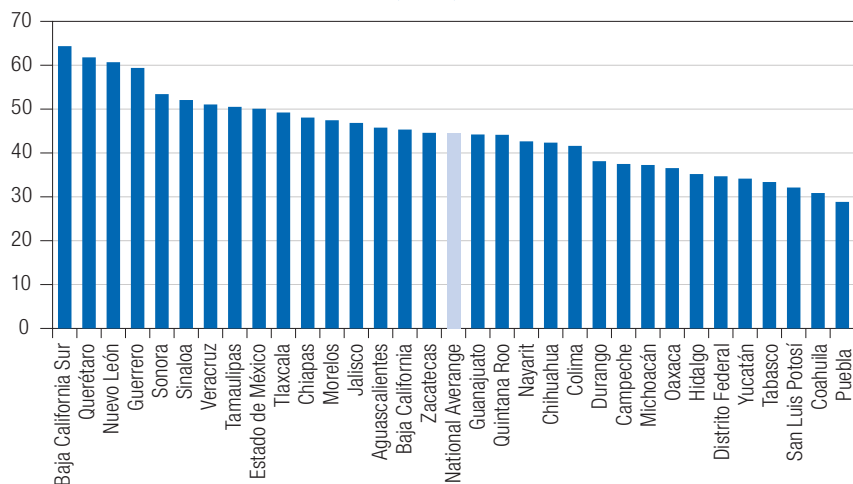
Security and justice are the foundations of healthy and prosperous economies. Opinion polls rank crime as the top concern of citizens, above even other pressing socio-economic issues such as poverty and unemployment. Threats to the integrity of property and the security of employees may either entirely drive investors and projects away or reduce the competitiveness of businesses through higher overhead costs. Crime in Mexico has distinct geographical dynamics. National averages mask strong differences in crime rates across the country. Murder rates are highest in the northwestern states such as Chihuahua, Sinaloa and Guerrero, where the rates have been elevated for over a decade. Tlaxcala, in the centre, and Yucatan, in the peninsula, have murder rates consistently well below the national average. Property crimes, on the other hand, tend to be concentrated in the cities, and tend to increase with regional per capita GDP, which explains the mixed picture of the distribution of crime across the country.

Significant reforms began in 2008 to improve the effectiveness and efficiency of the justice systems and strengthen institutional capacities to respond to crime. As is the case with other member countries that have undergone similar initiatives, however, it will take time to fully implement the reforms. For instance, data on pre-trial populations (Figure 4.5) demonstrate the marked variation in the speed at which people awaiting trial are processed through the legal system across Mexico.

The strong measures of the past few years have underlined that fighting crime effectively requires coherent policies across government bodies and levels of government. This includes the relationship on the one hand between crime prevention, law enforcement and justice administration, and on the other hand between creating opportunities and social development across local, state and national levels. More effective public policies against crime in Mexico require: (a) seeing security and justice as a concern of public policies, not just of the police; (b) developing evidence-based policy making in this area, and (c) being able to give security and justice a strong local footing.

The problem for the authorities in dealing with all types of crime is the difficulty of gathering data that are robust and interpretable. For example, the propensity to report crimes varies within countries. Research demonstrates that a large number of crimes are never reported: according to the US Bureau of Justice Statistics (2010), only 40% of property crimes and 49% of violent crimes were reported to the police. Similar estimates of unreported crimes for Mexico are as high as 90% (ENVIPE survey of 2010). Addressing criminal activity depends

Figure 4.5. **Pre-trial population as a percentage of total prison population (2011)**



Note: Indicator values are compiled from data published by the federal Secretariat of Public Safety (SSP).

Source: OECD (forthcoming), *Strengthening evidence-based policy making on Security and Justice in Mexico*.

on active reporting by citizens and business, yet a Gallup survey in 2007 showed that only 37% of the Mexican public expressed confidence in the country's judicial system and courts. Finally, in Mexico the economic cost associated with starting a criminal process is, or is perceived to be, high, and this further discourages reporting. Public policies to prevent crime are thus closely linked to issues of public trust and integrity in the public sector. The Pact makes several important commitments in the field of police and justice reform. These need to be guided by good data and an evidence-based approach to policy making.

The absence of robust data on crime and its economic impact risks distorting the debate on how to tackle insecurity. Some elements are highly mediated, such as the military operations against drug cartels, cross-border trafficking and big money corruption scandals. Yet, much of the lower-profile criminality that affects people's daily lives, often more directly, is never reported. In this context, allocation of resources can easily become skewed. The crucial issue remains, however, how to strengthen and reform institutions related to criminal justice so as to encourage more reporting of crime and more effective prosecution. This in turn will help rebuild trust between citizens and the public authorities. Nonetheless, it will take some time for these programmes to bear fruit and for their impact to be visible in the data.

Recommendations

- Mobilise Mexico's statistical and analytical capacity at national and state levels to improve evidence on and quality of security indicators, and find better ways to integrate objective and perception measures of the effectiveness of the judicial system and law enforcement by states.
- Develop an evaluation of the performance of criminal justice systems in Mexico, designing a framework that takes into account results from previous reforms of the justice service.
- Incorporate an assessment of the conditions and incentives for states/localities that could help in reforming the justice systems and in strengthening institutions.

Governance of risk

Emergency preparedness and response is a basic function of government that depends on good governance practices, in particular co-operation across departments and across levels of government. The National Civil Protection System (SINAPROC) has clear mechanisms to mobilise Federal resources in support of emergency response needs when state and municipal capacities to manage emergencies are overloaded. At the same time, given the very high level of environmental risks in Mexico (especially due to hurricanes, floods and earthquakes), local emergency response capacity is a crucial factor.

Mexico has made much progress in its national risk management, with the establishment and strengthening of the SINAPROC in 1986. For example, a 7.4 earthquake in March 2012 caused no human casualties in Mexico City, and had only negligible physical impact. As a result, economic growth was preserved and the accumulated assets of economic development were not lost. These impressive results reflect improvements in the mix of structural measures (*e.g.* more stringent building codes) and non-structural measures, such as advanced early warning systems, a much more developed safety culture with increased public awareness and preparation, and the benefits of regular drills and massive exercises. The reception of a precise earthquake warning 40 seconds in advance was particularly helpful.

While significant progress has been made at federal level, there are varying levels of capacity across some states and many municipalities to manage risks on their own. The "Safe Cities are Resistant to Disasters" is designed to bridge co-ordination and institutional participation between the three levels of government, by establishing a certification process for key civil protection capacities that municipalities should possess. Only 89 municipalities in 19 states have engaged in this programme, however: many states and municipal governments see insufficient incentives to participate.

Mexico has established itself as one of the leading countries in the financial management of disasters, through the National Disaster Fund (FONDEN) and the National Fund for the Prevention of Disasters (FOPREDEN). These strategic components of SINAPROC help alleviate the overall economic impacts of disasters and should help lower expenditures over the long term. Allocations have been highly concentrated however, going to relatively few states and not necessarily those with the highest exposure to risk. FONDEN has allocated 77% of its funds to just 6 of the 31 states (26% of its funds went to Veracruz and only 1% to Tamaulipas). This concentration reveals a high degree of recurrent losses in a few states that should be further pushed to insure their own assets, for example by earmarking federal contributions to pay for premiums. FOPREDEN has allocated 61% of its funds to 6 of the states (25% of its funds to Tamaulipas and only 1% of its funds to Veracruz). A recognised lack of capacity in some states to submit acceptable project proposals explains this concentration, and could undermine optimal distribution of allocations from a risk management perspective.

Improper land use and territorial/urban planning (discussed later in this chapter) contribute heavily to the vulnerability of Mexico's population to environmental risks, and are considered the most pressing policy challenge for disaster risk reduction. Rapid and continuous urbanisation in metropolitan areas has increased informal settlements in hazard-prone areas such as riverbanks and unstable hills. On this key issue, Mexico faces a governance deficit in risk prevention that ultimately places significant pressure on SINAPROC. Authority for land use policy is within the remit of local councils for more than 60% of Mexico's territory, and local land use plans are designed with very little link to information about risks. Further, informal settlements often spread beyond the limits of municipalities into federal land, but coordination to strictly enforce building prescriptions in these zones is a recurrent challenge. The key to addressing this governance gap is to ensure that risk assessment initiatives at state and municipal levels are reflected in territorial land use policies and in urban planning, and are supported by an appropriate institutional framework with enforcement powers. Development of state and municipal risk atlases that reflect the probable occurrence of hazards, vulnerability of populations and exposure of assets are at the beginning stages and not broadly used to inform urban planning. Different federal programmes to provide technical assistance for municipal risk atlases and support their development costs need to be reinforced and produce results useful for the National Risk Atlas. Adoption of the 2012 General Law for Civil Protection is the ideal opportunity to strengthen risk management policy in Mexico by implementing and monitoring a multilevel approach to disaster risk prevention. Effective implementation would monitor whether land use planning and urban development at municipal and state levels are sustainable given the impacts of climate change on disaster risk.

Recommendations

- Expand outreach efforts to increase local involvement in the programme “Safe Cities are Resistant to Disasters”, and augment incentives to participate.
- Harmonise and reinforce federal support for development of risk atlases at sub-national levels.
- Strengthen institutional arrangements and incentives, combined with control and sanction mechanisms, for municipalities to develop their territorial land use policies based on risk assessment.
- Prepare disaster risk prevention plans at state and municipal levels based on a risk atlas and indicating structural and non-structural measures to reduce disaster risks.

Strengthening policy coherence in urban development

Mexico has grown rapidly into an urban country. Seventy-two percent of the population live in cities, 51% in metropolitan areas. Some 80% of GDP is generated in these metropolitan areas. Nonetheless, significant problems exist in urban areas with respect to public infrastructure, public services and housing, stemming from a combination of limited investment, insufficient and ill-allocated public budgets, and legislation that is becoming obsolete and does not promote efficient collaboration among different levels of government. Public policy has recently started to acknowledge this new urban reality and has generated encouraging results. However, measures will have to keep pace with a rapid and large-scale urbanisation challenge.

The problems of urban governance are exemplified by the issues of urban sprawl and housing and transportation which illustrate the risks inherent in poor co-ordination of public policies between the national and city levels.

Mexico has urbanised, but has done so through costly and poorly managed urban sprawl. Urban population in Mexico has doubled in the past 30 years, but cities’ built-up areas have experienced an average sevenfold increase. Population in the metropolitan area of Villahermosa in the southern state of Tabasco for instance has grown three times while its built-up area has grown by 30 times. Similarly, population growth in the Puebla-Tlaxcala metropolitan area is 2.4 times larger than the 1980 levels, but the built-up area has grown more than 12 times. The number of housing units sold in Mexico quadrupled in the past decade thanks to the successful introduction of mortgage finance enterprises (SOFOL, SOFOMES), the significant reduction of interest rates, and government policy to achieve a fivefold increase in mortgage loans by public or government-sponsored enterprises.

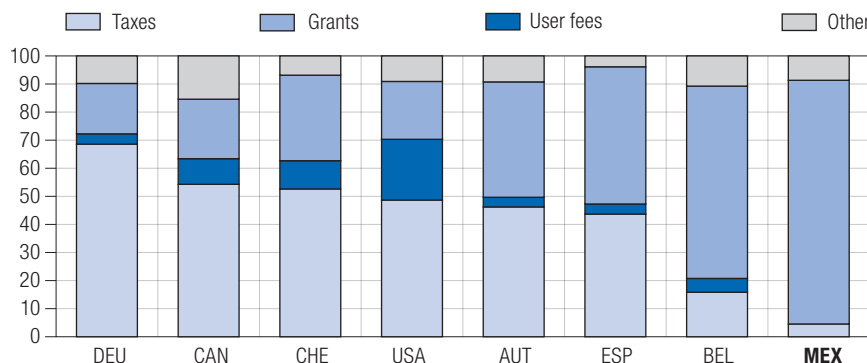
At the same time, housing development has been carried out disconnected from urban planning, and has been based on land prices that are usually cheaper well outside the built-up area. Such urban sprawl has deep financial, social and environmental consequences for cities and countries. These include the increased cost of public service delivery, lack of public-good provision in newly developed areas, rising carbon emissions and related health problems. Recently, the federal government has been trying to address these issues through their *Desarrollos Urbanos Integrales Sustentables* (DUIS), an inter-ministerial programme focusing on integral community development and partly aiming at densification. Such co-ordinated action includes efforts by *Sociedad Hipotecaria Federal*, as well as the ministries of social development (SEDESOL), environment and natural resources (SEMARNAT), energy (SENER) and economy (SE). While the programme is a positive step in the right direction, further actions are needed as DUIS are only applied to 26 cities and almost every case includes new developments that lie already at the edge of urban agglomerations' built-up areas.

Given the need for more reliable, modern and safer transportation systems for cities in Mexico, there is an area of opportunity to clarify the roles and responsibilities among the different actors and levels of government, with more modern local transportation laws where necessary, and a focus on supporting the creation and reinforcement of transport planning and management bodies at the municipal and state levels. However, such bodies have so far tended to lack a metropolitan or functional perspective, are often politicised and lack expertise, and risk being “captured” by private developers. At the same time, private sector involvement is needed to encourage the creation of integrated transport companies to strengthen high-capacity modes of transport.

Underlying many issues of local economic development is the issue of local finance. Mexico's sub-national governments rely on transfers as a source of revenue. In other federal countries, taxes are usually the main source of revenue for the state/regional governments (see Chapter 3). In Mexico, they represent below 5% of states' revenues (see Figure 4.6). Municipalities also have a lower-than-average reliance on taxes (only about 12%). Even though decentralisation of public budgets from the Federal level to states and municipal governments has progressed over the past decade, there is still room for considerable further improvement in the organisation of local public finance. This finding figures prominently in the Pact for Mexico (commitment 70).

Federal transfers should not substitute for local and efficient taxing efforts, but rather could complement them and provide incentives. Moreover, better evaluation of federal transfers is called for, since resources are often decentralised without the necessary accountability or minimal guidelines for resource

Figure 4.6. **Sources of revenue at the sub-national level in different OECD federal states (2010)**



Note: Data for Mexico, Switzerland and the United States refer to 2009 instead of 2010.

Source: OECD (2011b), *Institutional and Financial Relations across Levels of Government*, OECD, 2010 data.

application. There is a need to revise methods for achieving better co-ordination of public credit to local governments through adequate mechanisms to facilitate all types of loans (multilateral international loans, public domestic loans [e.g. BANOBRAS] and private loans), and to improve cities' functioning and competitiveness. Overall, regulation for local governments' indebtedness needs to be revised—as pointed out in the Pact for Mexico in its commitment 68—so that the Ministry of Finance (SHCP) can assure adequate information disclosure on local public income and debt capacity, and thereby allow public debt markets to function efficiently and prevent eventual disequilibria. In particular, it is important that analysis pays more attention to designing effective financing funds for metropolitan areas; that would provide incentives for collaborative efforts among neighbouring municipalities and/or states to provide the necessary infrastructure and public services in these multi-jurisdictional areas. For Mexican cities to become more competitive and sustainable, it is also important to concentrate on better regulation of urban land markets and improved urban planning. The Pact for Mexico promises to address many of these issues. It proposes to review the fiscal system, including allocating greater taxing power to sub-national bodies and undertaking a comprehensive review of the fiscal co-ordination mechanism, combined with an effort to improve the transparency and efficiency of public spending.

A proper balance between greater competences for state and municipal governments needs to be struck; it must take into account the need for i) a

national urban policy approach that ensures efficiency, and ii) a regional and local one that enhances complementarities and addresses inequality. The federal government already has a large impact on urban areas through a variety of sectoral programmes, policies and projects that are being implemented by a wide range of national ministries. The effectiveness of those urban policies might be enhanced if they are co-ordinated through a spatial vision for urban development, i.e. a national urban policy agenda that is flexible and tailored to the specific needs of different cities and urban areas, taking into account differences in city size and region. In other terms, policy trade-offs need not include pitting one urban region against another.

Such an agenda will require significant investment in capacity building at the municipal level. Many municipal authorities lack the financial, planning and administrative capacities needed to act as effective institutions promoting growth. Indeed, many struggle to fulfil basic service delivery obligations. This stems not only from their limited financial resources but also in large part from extremely high levels of turnover in municipal administrations – a side effect of the prohibition on the re-election of mayors. Many of the challenges with respect to career structure, workforce development and professionalization are particularly acute at municipal level, precisely because of this turnover. Recent OECD work underscores the extent to which capacity development for sub-national public authorities goes beyond a narrow focus on workforce improvement. It is also highly context-specific, since there is no such thing as generic “capacity” but only *capacities to do specific things*. A systemic perspective is therefore needed, one that embraces the nature and quality of institutions at all levels of government. For this reason, the assessment and strengthening of local policy making and financial and administrative capacities must be based on a serious assessment of capacity needs. These will vary across municipalities depending on their size, structure and levels of development. Here, too, national and state policies will need to take a differentiated approach to capacity challenges at municipal level.

Strategies for capacity development should therefore also include mechanisms for strengthening relations among levels of government; for identifying, sharing, and applying good practices across sub-national governments; and for strengthening the partnership role that state and federal governments play with respect to local governance. For sub-national authorities with limited authority or resources to help promote development or improve service quality, capacity development may focus more on working constructively, both horizontally and vertically, with other actors in government. Any such assessment and steps toward capacity development should bring together both top-down and bottom-up perspectives.

Recommendations

- Undertake a systemic review of the nature and quality of institutions at all levels of government. Strengthening of local policy making, financial and administrative capacities must be based on a serious assessment of capacity needs.
- Review the system of federal transfers (and local public financial health in general) to ensure that accountability and guidelines for resource application are clear and transparent, and provide scope and incentives for local and regional economic development action.
- Clarify the roles and responsibilities among the different actors and levels of government in key areas of urban development, such as transport and housing/land use, focusing on supporting the creation and reinforcement of planning and management bodies. Care should be placed on striking a balance between private sector involvement and the arms'-length independence of these bodies.
- Ensure that efforts to develop public sector capacity extend to municipalities, in particular by fostering greater professionalisation of municipal administrations and by helping municipalities develop their ability to collaborate effectively with one another and with higher levels of government.
- Explore options for increasing local capacity by reducing the turnover in sub-national administrations, including extending the term of mayors.

Further Reading

OECD (2011a), *Public Governance Review of Mexico*, OECD, Paris.

OECD (2011b), *Institutional and Financial Relations across Levels of Government*, OECD, Paris.

OECD (2012a), *Public Procurement Review of the Electric Utility of Mexico: Towards Procurement Excellence in the Federal Electricity Commission*

OECD (2012b), *Public Procurement Review of PEMEX: Optimising the Supply Process to Maximise Value Creation*

OECD (2012c), *Public Procurement review of the Mexican Institute for Social Security*, OECD, Paris.

OECD (forthcoming), *Strengthening evidence-based policy making on Security and Justice in Mexico*, OECD, Paris.

Chapter 5

Improving Access to Formal Employment

María del Carmen Huerta and Pascal Marianna

The Mexican labour market has recently performed relatively better than those of most other OECD countries. A number of policy initiatives have been taken that should further improve its performance. Nevertheless, there is still much scope for raising Mexico's overall employment rate, in particular that of women and youth, while promoting greater formal employment and providing better social protection. Major reforms are needed for the labour market to contribute more effectively to higher living standards and inclusive growth. It will be important that the provisions of the new labour reform law governing the hiring and firing of permanent workers and the use of temporary contracts are enforced effectively. Further action could also be taken to strengthen training measures and, as envisaged in the Pact for Mexico, adjust and rationalise Mexico's social security schemes to encourage formal employment.

A properly functioning labour market is crucial for achieving better economic and social outcomes, and especially for tackling poverty and social exclusion. The Mexican labour market has weathered the global economic and financial crisis better than most other OECD countries. A number of policy initiatives have also been taken recently that should further improve the functioning of Mexico's labour market and stimulate greater job creation in the formal sector. Nevertheless, there is still much scope for raising Mexico's overall employment rate, in particular that of women and youth, while reducing informal employment and providing better social protection.

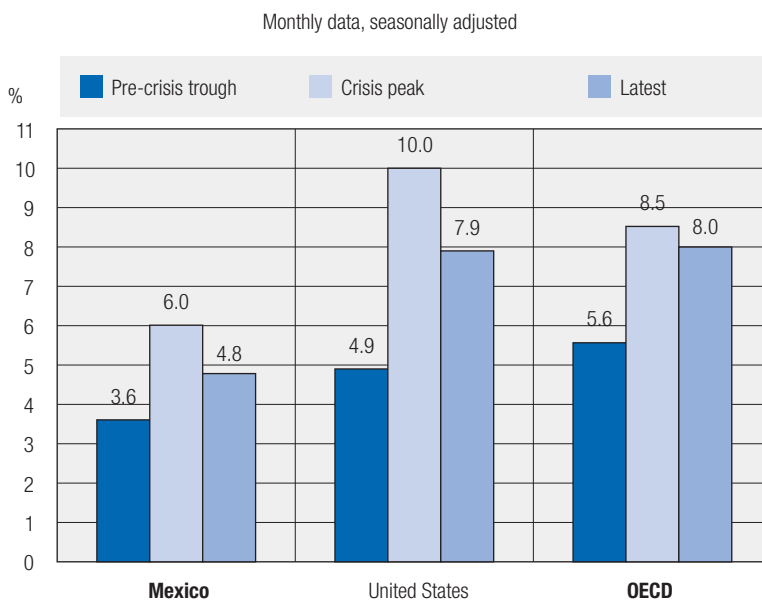
This chapter begins with an overview of the current labour market situation and underscores the main structural challenges facing Mexico. This is followed by an overview of recent policy initiatives to stimulate job creation, promote formal employment, and provide greater social protection for labour force participants. (See also Chapter 2 on combating poverty and inequality.) The recent labour reform law, for example, contains several major measures which, along with several of the decisions announced by President Peña Nieto in his Message to the Nation, and envisaged in the Pact for Mexico, are in line with policy recommendations advocated by the OECD for some time. A final section lists a set of recommendations to further strengthen and complement those measures.

Recent labour market developments and key challenges

A strengthening labour market but much scope for further improvement

The Mexican labour market has, by comparison with the experiences of most OECD countries, performed well in the aftermath of the economic and financial crisis. Total employment grew by 4.6% in the year to the third quarter of 2012 – the third largest increase in the OECD after Luxembourg and Israel. And Mexico's unemployment rate, at 4.8% in October 2012, remains well below the OECD average of 8.0% (Figure 5.1). However, there is much scope for improving Mexico's labour market performance in a number of respects.

Figure 5.1. **Recent changes in the harmonised unemployment rate in Mexico and the OECD area**

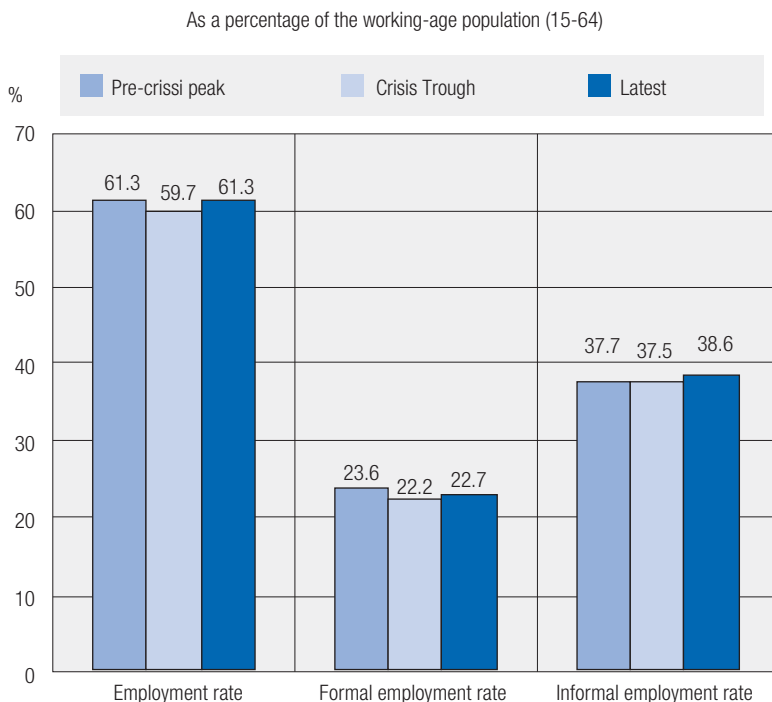


Source: OECD Short-Term Labour Market Statistics database.

First, while there have been some recent declines recorded in the unemployment rate, it still remains above its pre-crisis level. Moreover, according to the latest available OECD projections (November 2012), this gap may persist for some time to come, especially in light of the recent weakening of the economic recovery in the OECD area. In addition, the difficulties that Mexico's workers face in the labour market are greater than what is suggested by Mexico's relatively low unemployment rate in comparison with other countries. In particular, the absence of a public system of unemployment benefits in Mexico means that many job losers cannot afford a lengthy search for a suitable new job and must take up the first option available.

Tackling informal employment

A second key employment challenge for Mexico is to tackle a highly segmented labour market, with many Mexican workers employed in informal jobs with little social protection. While there has been a resumption of robust employment growth after the recession triggered in 2008-09 by the global economic and financial crisis, much of this growth has been in informal jobs. Consequently, the share of the working-age population in informal employment

Figure 5.2. **Employment rate of formal and informal workers since the crisis**

Note: Formal and informal employment are not seasonally adjusted but smoothed using three-quarter moving averages and adjusted to total employment (seasonally adjusted) and then divided by the working-age population (aged 15-64). Formal employment refers to workers enrolled in Social Security (IMSS/ISSSTE) through their job.

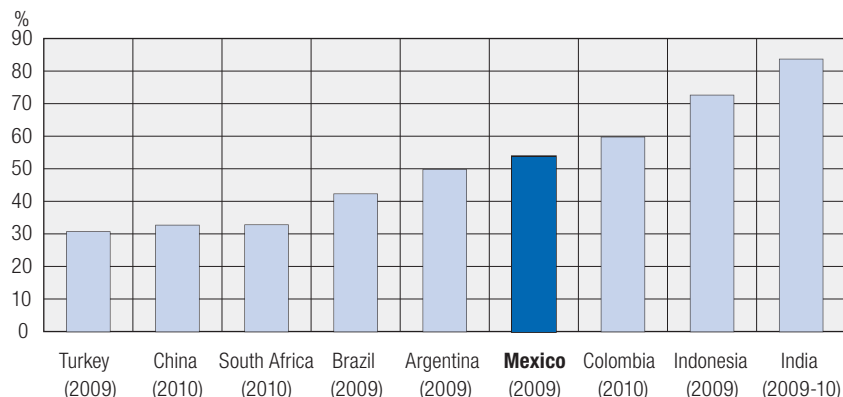
Source: Author's calculations based on the National Employment and Occupation Survey (Encuesta Nacional de Empleo y Ocupación, ENOE) and the OECD Short-Term Labour Market Statistics database

has risen, exceeding its pre-recession level by almost one percentage point in the third quarter of 2012 (Figure 5.2). In the initial phase of the crisis, this was caused by a reduction in formal employment due to faltering export demand. Subsequently, the increase in informal employment largely reflected the employment in informal jobs of workers who had lost their jobs in the formal sector, along with the entry into work of the unemployed looking to make up for the loss of household incomes. In the second half of 2011, formal employment recovered somewhat, but not strongly enough to return to pre-crisis levels as a share of the working-age population.

Informal employment is a challenge in many other emerging economies as well. Available estimates of informal employment are not fully comparable

Figure 5.3. **Informal work in selected G-20 economies**

As a percentage of non-agricultural employment



Note: Countries shown in ascending order of the proportion of workers in informal employment.

Source: ILO/WIEGO *Informal Employment* database.

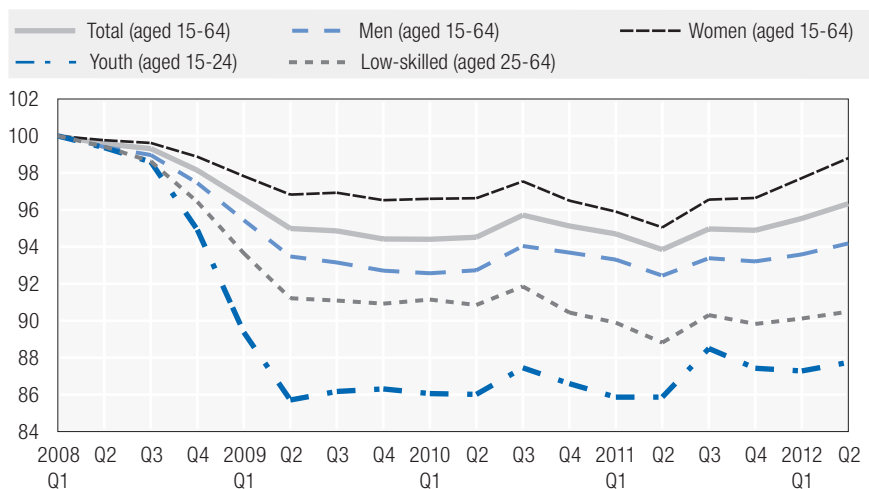
across countries. Nevertheless, among major emerging economies, the incidence of informal employment is relatively high in Mexico, with more than half of its non-farm workers working in informal jobs (Figure 5.3).

Informality is one of the main causes of low productivity, which holds back Mexico's economic growth potential (Chapter 1). Informality also contributes to income and gender inequalities. In 2009, informal employment accounted for around 58% of total non-agricultural employment for women and around 51% for men. It also implies that many workers remain outside the scope of labour market regulations and social protection. Only workers in the formal sector enjoy any protection in the event of dismissal. Even for them, however, the absence of a public system of unemployment benefits means that job loss is likely to result in a move to a new job with worse working conditions, often in the informal sector. Labour reallocation then imposes on workers high welfare costs and inefficient job matching that negatively affects earnings and labour productivity (OECD, 2011a).

Mexico is characterised by higher unemployment rates for individuals with higher educational attainment, reflecting some skills mismatching (see Chapter 6). However, low-skilled workers (mostly men) together with youth were hit especially hard by the 2008-09 recession and the decline in formal employment following the crisis (Figure 5.4). On the other hand, the formal employment rates of women held up over the same period. Although formal employment shrank by about 5% overall, the rate of job loss was two or even three times steeper for unskilled workers and youth. This pattern, which is common to many OECD

Figure 5.4. **Formal employment of selected groups, 2008-2012**

As a share of the working-age population in each group (Index: Q1 2008 = 100)



Note: Quarterly data smoothed using 3-quarter moving averages with base 100 at the peak date (Q1 2008). Formal employment refers to workers enrolled in Social Security (IMSS/ISSSTE) through their job.

Source: Author's calculations based on the National Employment and Occupation Survey (Encuesta Nacional de Empleo y Ocupación, ENOE).

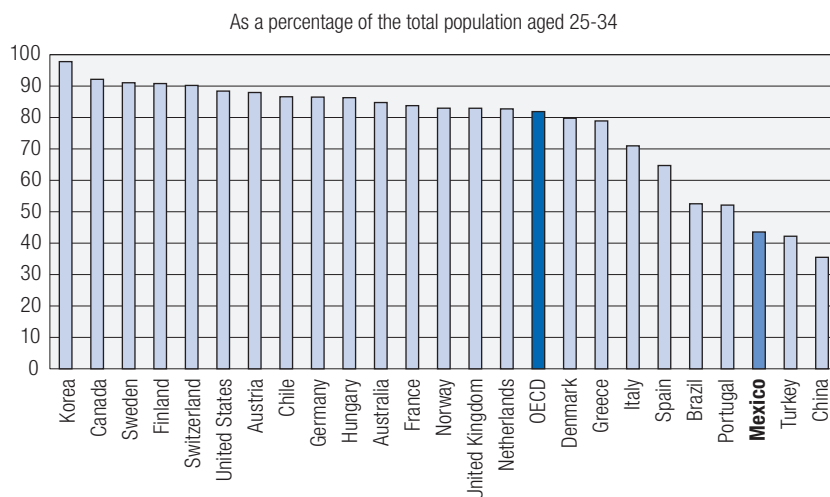
countries, reflects the relative vulnerability to business cycle fluctuations of formal sector workers who have little work experience, low skill levels, and fixed-term or more precarious contracts.

Improving employment and learning opportunities for youth

The third key area where there is scope for further improvement concerns the labour market situation of youth. Many Mexican youth, especially young women, remain outside both the labour market and the education and training system. The share of youth not in employment or education and training (NEET) is the second highest among OECD countries after Turkey. At more than one-third, this share is particularly high for young women, whereas only around one-in-ten young men fall into this category.¹ Although some young women do not seek employment in order to engage in child rearing, this high share for women reflects the difficulties young people face in entering and staying in the

¹ The data reported here refer to youth aged 15-29. The OECD definition of NEET differs from the definition proposed in Mexico, which does not include young mothers who choose to stay detached from the labour market.

Figure 5.5. **Share of young people (aged 25-34) who have completed high school, 2010¹**



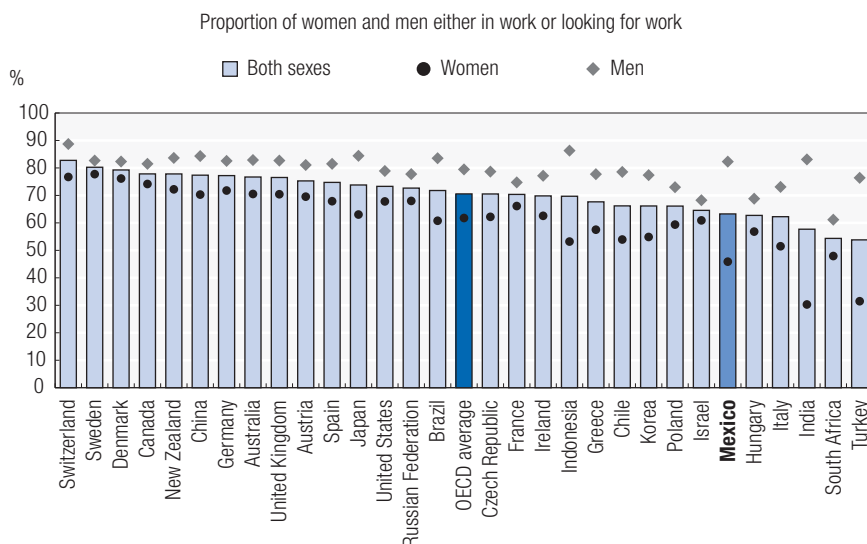
Note: 1. The data refer to 2009 for Brazil.

Source: OECD (2012b), *Education at a Glance*, OECD; and for China census data from National Bureau of Statistics of China.

labour market. These difficulties are closely linked to the low level of educational attainment, with less than half of young adults (aged 25-34) having completed upper secondary education in 2010 (Figure 5.5). A lack of education and skills can limit access to formal sector employment. The figures also underscore the challenge that Mexico faces in terms of raising educational attainment among youth and, as stressed in the OECD Skills Strategy (OECD, 2012a), in terms of ensuring that they acquire the skills needed in the labour market (see Chapter 6).

Encouraging greater labour market participation of women

Finally, there is ample scope for raising Mexico's overall labour force participation rate, which remains low relative to the rate recorded in most other OECD countries and major emerging economies (Figure 5.6). This would help to promote even more rapid economic development in Mexico and reduce the risk of poverty. The low participation rate in Mexico largely reflects the low share of women involved in the labour market. In 2011, the participation rate for women was 46% in Mexico, the lowest rate in the OECD area after Turkey. It was also significantly lower than in other key emerging economies, with the exception of India. While the participation rate of women in Mexico has risen moderately during the past two decades, many women still face major obstacles to participating more fully. One

Figure 5.6. **Labour force participation rate of the population aged 15-64, 2011**

Source: For China, based on census estimates; for India and Indonesia, ILO (2012), “Key Indicators of the Labour Market (KILM)”, 7th Edition, ILO Department of Economic and Labour Market Analysis, Geneva, available at kilm.ilo.org; and, for all other countries, OECD *Employment* database 2012. In the case of China and India, the data refer to 2010.

is the high amount of unpaid work at home: Mexican women spend four hours per day more on unpaid work than men (OECD, 2012c). Another is the traditional gender roles when it comes to work and care. A third is the lack of policies to facilitate women’s employment, especially in terms of child care and family-friendly workplace practices. Some measures have already been taken to tackle these barriers to women’s employment, such as increasing the coverage of child care (*Programa de Estancias Infantiles para Apoyar a Madres Trabajadoras*) and preschool services (enforcing the compulsory nature of preschool education). Nevertheless, further efforts are required that would improve women’s employment opportunities – and Mexico’s economic growth potential more generally.

Promoting formal employment with better social protection policies

For the labour market to contribute more effectively to higher living standards and inclusive growth, major reforms are needed in Mexico to promote formal employment, especially for youth and women. A number of measures have already been taken recently (see Box 5.1) and more comprehensive measures are envisaged under the new labour reform law (see Box 5.2).

Informality is multidimensional and a range of measures is required to tackle it. While high payroll taxes contribute to informality (see Chapter 2), especially for low-wage workers, more general improvements in the business environment are required, such as creating stronger incentives for firms, especially SMEs, to register their activities in the first place (See Chapter 10). Better social policies and labour reforms can also play a major role.

Box 5.1. **Recent labour market measures**

In 2007, a new labour market programme, *Programa Primer Empleo* (PPE), was implemented to foster the creation of permanent jobs in the formal sector. The government subsidised employers' contributions to the social security system during a period of 12 months. However, during its first four years of operation, its impact was low. It did not stimulate formal employment, because of its limited capacity to provide incentives for employers to hire new workers. In late 2011 the programme was reformed to make it more flexible and attractive for employers. However, the number of workers registered in the PPE has not increased substantially as a result. During the first four years of the programme's implementation, 83 000 new workers were registered in the social security system, but in 2011 only 11 000 employees were enrolled (IMSS, 2012).

Another policy adopted by the Mexican government to promote employment among vulnerable groups is the *Programa de Empleo Temporal* (PET). Formerly this intervention had been implemented during natural disasters to provide economic opportunities to those who lost their jobs. However, as a response to the global economic downturn, the federal government increased the budget and coverage of the programme. Although PET has not been subject to any rigorous impact evaluation, it is considered a successful intervention in supporting the unemployed (CONEVAL, 2012). Moreover, its beneficiaries hold a positive perception of the programme, as it improves their living conditions when facing difficult circumstances.

The ministry of labour has also put in place the *Programa de Apoyo al Empleo* (Employment Support Programme), which seeks to increase the participation of the unemployed and underemployed in the formal labour market. This programme, which include grants for vocational training and support in advertising job openings, helps address the difficulties in matching workers with potential employers. According to official evaluations, the programme has had a positive impact and has facilitated beneficiaries' access to paid jobs (CONEVAL, 2010).

Although in theory formal sector job losers with individual pension accounts can draw on their savings in these accounts to provide them with income support, in practice the conditions for doing so are very restrictive. The creation of

a cost-effective unemployment insurance scheme should therefore be a priority of labour market policy. This would improve job matching and reduce the risk of informality after a job loss. Given the pressures on tax revenues to support social protection in Mexico, any such reform would need careful design (See Chapter 3 on fiscal issues). One possibility would be to introduce an individual savings account system, combined with a public insurance component, for job losers who have insufficient savings, as in Chile. The existing system of individual pension accounts could provide a useful starting point for such a reform. However, the introduction of unemployment insurance has fiscal costs, which makes fiscal reform both essential and urgent.

A number of other measures could be taken to encourage formal employment. For example, health service coverage has grown sharply during the past decade as a result of the establishment of *Seguro Popular*, a new non-contributory public health system (see Chapter 7). The analysis presented in the OECD's 2011 *Employment Outlook* shows that the introduction of non-contributory programmes in Mexico alongside contributory ones has not necessarily increased incentives for informal work (by reducing the relative benefits of the current contributory system). Nevertheless, better integration of the various health systems, as well as making eligibility for the *Seguro Popular* dependent on each individual's income, would be a useful measure to improve incentives to enter into formal employment.

The labour reform law and the Pact for Mexico

Comprehensive reform of labour legislation is required to promote formal employment and boost productivity growth. An important step in this direction is the new labour reform law. It aims to improve the functioning of the labour market and in particular the employment situation of women, youth and vulnerable groups, such as unskilled and disabled workers (Box 5.2). The reform promotes formal employment through changes in contractual arrangements, extending probationary periods and facilitating hiring in temporary and part-time jobs. Moreover, it will reduce dismissal costs and uncertainty by capping severance payments; link promotion more closely to skills and competences rather than seniority; increase penalties for breaches of labour laws; establish mechanisms to expedite justice in labour disputes; and streamline and modernise the labour court system.

Box 5.2. Main initiatives of the new labour reform law

The comprehensive labour reform law contains several initiatives aimed at providing incentives for creating formal employment. These include adding new types of contracts, such as fixed-term contracts for seasonal workers, initial training and probationary periods, all of which will provide access to

social security and other benefits. The new contracts will be regulated in terms of duration and compensation. For example, probationary periods will last up to six months and employees will not be entitled to compensation when the period is over. There are also provisions to reduce dismissal costs – limiting back pay due to workers in the event of unjustified dismissal to 12 months – and dismissal procedures have been simplified. These changes should reduce the costs associated with workforce adjustment in formal sector firms and encourage job creation in the formal sector. At the same time, these measures will reduce workers' uncertainty, increase access to social security, and create incentives for employees to be more productive.

The reform also aims to encourage more women to take up and stay in work. These measures include reducing discriminatory hiring and firing practices; outlawing workplace harassment; allowing more flexible use of maternity leave; reducing working time after childbirth for breastfeeding purposes; and introducing the right to request family-friendly arrangements such as part-time work and other forms of work more compatible with family responsibilities, such as teleworking. Moreover, the introduction of paid paternity leave is a step towards a more gender-equal distribution of work and care. Recent OECD work shows that fathers' leave-taking facilitates childcare involvement when leave-taking is of two or more weeks' duration (Huerta *et al.*, forthcoming).

The introduction of initial training contracts and probationary periods should improve the hiring prospects of young, inexperienced and low-skilled workers. It will also contribute to reducing the high number of young people that are neither in employment nor in education or training. Similarly, the possibility of part-time jobs will facilitate young people's access to the labour market.

Linking promotions to skills and competence rather than seniority is an important step to increase firm-level productivity. This initiative should improve incentives for workers to take part in training that in turn may contribute to higher productivity and economic growth. This is in line with past OECD recommendations to Mexico regarding the need for a stronger education and training system to allow individuals to reach their full potential and improve overall productivity performance.

The labour reform should improve the protection of vulnerable and disadvantaged groups, including children, domestic workers, farm workers, mine workers, disabled workers and those working for subcontractors. More specifically, recruitment of children under 14 years of age outside the family circle will become illegal, and employment of children aged between 14 and 16 will be regulated and restricted to certain occupations. The working conditions of domestic workers will also be regulated: the length of their

working day will have a limit, and they will be granted periods of daily and weekly rest. Farm workers will be granted free transportation and adequate water and sanitation services by their employers; they will be registered with the social security system; and, the use of interpreters should be facilitated for them if needed. There are also provisions for easier access to specific services for workers with disabilities in firms with more than 50 employees. Subcontracting and outsourcing practices will be better regulated in favour of workers to tackle abuse and protect their rights, such as having access to social security benefits.

A number of provisions seek to improve the transparency, democracy and accountability of trade union practices. These include the use of secret ballots for elections by union delegates and transparency audits of union records and finances every six months.

The reform will create more legal certainty for hiring and dismissing workers, and considerably ease the stringency of current employment protection legislation for regular workers (EPL). The reform will raise firms' incentives to hire and invest in workers under formal arrangements, which could in turn lead to higher aggregate productivity and living standards (OECD, 2011c).

The OECD has long recommended that Mexico undertake a comprehensive reform of its labour markets so as to promote the creation of more and better jobs for all. The new labour reform law is an important step in this direction: it should help reduce labour market informality, better protect vulnerable workers, increase the adaptability of the labour market, and improve employment prospects for women and young people. The provisions in the reform for greater transparency and accountability in trade union practices are also an important step towards moving Mexico closer to the same standards that apply in most OECD countries.

The new reform should ensure that provisions governing the hiring and firing of permanent workers and the use of temporary contracts are enforced effectively. Enforcement of these provisions, along with the strengthening of safety nets for formal workers, would provide incentives to formalise jobs and thus help to overcome labour market segmentation. It will be important to bolster this reform with further measures to tackle the root causes of informality, which include not only hiring costs but also the tax wedge on labour and the lack of incentives to formalise business activities. More generally, Mexico should increase the resources devoted to labour inspection, which lag behind international best practices given the country's level of development, and are disproportionately focused on larger businesses. Finally, consideration should be given to introducing an unemployment insurance system.

A number of commitments included in the Pact for Mexico are complementary to the labour reform. In particular, three of the 95 broad proposals for reforming Mexico aim at strengthening formal employment and represent steps in the right direction (Box 5.3). Careful attention should be paid to their implementation and the evaluation of their impact.

Box 5.3. The Pact for Mexico: Proposals for strengthening formal employment

On his first day in office, President Enrique Peña Nieto presented a Pact for Mexico containing 95 broad proposals for reforming the country; the document was signed by the leaders of the three main political parties: the ruling PRI, the PAN and the PRD.

The Pact lays an agenda of legislative reforms and administrative action in several areas. Three of the first commitments it contains are aimed at consolidating formal employment by creating a universal social security system that will guarantee the right to health care and other social benefits for all Mexicans (commitments 1, 3 and 4).

Commitment 1 aims at improving the quality and the effective scope of health services, especially for the population without formal jobs living in remote, highly marginalised areas. Insured persons should be able to access any of the public health systems. In addition, the coverage and quality of services should be gradually equalised across regions.

Commitment 3 proposes lowering the pensionable age to 65 years from the current 70 years for seniors without retirement savings or pensions from social security. A major step will consist of payments by the federal government of additional social contributions to the individual accounts of each Mexican. These contributions will be made throughout an individual working life, from age 18 to 65, and each individual account will ensure the portability of pension benefits.

Commitment 4 proposes establishing an unemployment insurance system to protect job losers in the formal sector against income loss, and to provide economic security during the search for jobs.

OECD Key Recommendations

- As envisaged under the Pact for Mexico, *incentives for formal employment should be strengthened by better integrating the various health schemes and other social transfers*. In the first instance, the fees paid by individuals in the

non-contributory scheme (*Seguro Popular*) should be more closely linked with their capacity to pay, in order to smooth the transition towards the contributory scheme.

- *Strengthen measures to ensure tax and social security compliance*, as part of a comprehensive strategy to encourage both informal workers and their employers to register their activity.
- *Introduce a system of unemployment insurance*, as envisaged under the Pact for Mexico. This could take the form of an individual savings account system for workers who lose their jobs, with (as in Chile) a public insurance component for job losers who have insufficient savings. While this would serve an equity objective, it would also increase the incentives for entering into formal employment. Clearly, there are fiscal implications that would have to be considered.
- *Improve enforcement capacity*, especially the resources devoted to labour inspection, so that labour laws can operate effectively.
- *Introduce new types of training arrangements such as apprenticeship contracts*, and make more use of probation periods in order to facilitate the creation of permanent job contracts. Both of these mechanisms should be properly regulated to prevent abuse.
- *Promote training by improving information and guidance on employment opportunities*. The creation of short-term training modules would make it easier for workers to acquire training without leaving their jobs.

Further Reading

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Chapter 6

The Challenges for the Education System

Diana Toledo Figueroa and Gabriela I. Ramos

Despite a challenging environment, Mexico has scored important achievements in expanding and strengthening its education system over the Past decade. Nevertheless, the system is still faced with major challenges regarding students' enrolment, performance and transition to the labour market. This calls for further significant reforms, in particular: improving support to schools and teachers so they can accomplish their tasks; developing vocational education and training; and making tertiary education more relevant and accessible to more students. Past measures have not always achieved the expected results because of structural weaknesses. These include a lack of consensus and capacity, and an unclear distribution of responsibilities in a decentralised system. Capacities need to be improved and expanded, not only at the federal level but also in the states and schools themselves. The decisions announced by President Peña Nieto during his inaugural Message to the Nation, the education commitments of the Pact for Mexico, as well as the initiative of constitutional reform and the administrative changes announced regarding the management of the education system and the organization and supervision of teachers are encouraging signs that change may be coming to this important sector. Key focus on effective implementation should follow through.

A highly skilled workforce is one of the main drivers of productivity and long-term growth. Education also helps reduce social inequalities and poverty, and promotes inclusiveness. Over the past decade, Mexico has achieved significant progress in improving the coverage and quality of its education system despite a challenging and difficult economic environment. Today, nearly all children between the ages of 4 and 14 are in school, and the country is working to raise secondary and tertiary education completion. However, much remains to be done to further improve the performance of the education system and reap the full benefits of Mexico's young and dynamic population.

The system is still faced with major challenges regarding student enrolment (especially after the age of 14) and transition to the labour market. It has to provide further stages of education to all 15- to 19-year-olds that are relevant to their needs, interests and future professional lives, and useful for the labour market. In addition, quality improvements have not kept pace with the expansion of coverage. Under the Programme for International Student Assessment (PISA) the performance in mathematics of Mexican students showed some improvement between 2006 and 2009 but remained low in comparison to other OECD countries. Particular efforts are needed: to strengthen support to schools and teachers so they can accomplish their tasks to develop vocational education and training; and to make tertiary education more relevant and accessible to more students.

Changing demographics have led to fewer children and more 15- to 19-year-olds than ever in the education system. This creates an historical opportunity to improve the quality of the education provided to 4- to 14-year-olds, since this sector is now less in demand; however, it also makes the expansion of enrolment after 14 even more challenging.

Mexico is working to address these challenges through several ongoing and newly proposed reforms that touch upon different aspects of the system. These have to do *inter alia* with teaching and school leadership, ICT, curricula, social participation, evaluation and assessment strategies, and coverage at upper secondary and tertiary education levels. In its inaugural Message to the Nation the President has committed to education reform. Building on this commitment the Pact for Mexico, signed in December 2012 between the Mexican government and the three main political parties and which includes detailed

reform objectives in education, shows that Mexico continues to see education as a priority for its economic development. For the reforms to be successful, it is necessary to achieve greater coherence among individual initiatives and ensure effective implementation and follow-up. Furthermore, how resources are invested will be key to the reforms' effectiveness.

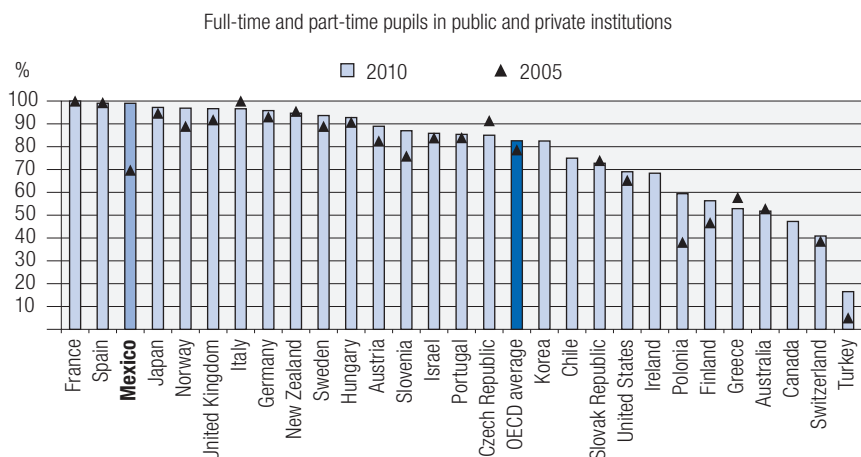
Enhancing education coverage for all Mexicans

Mexico's education system is one of the largest and most complex in the OECD area. In pre-primary, primary and lower secondary education alone, Mexico has nearly 27 million students, about 1.1 million teachers, and 220 000 schools. This means that there are more students in Mexico in compulsory education than the total population of many OECD countries. Moreover, education is often delivered under challenging conditions for students, families, schools and communities.

Wide education coverage at the compulsory level has been a great national achievement. Today, Mexico has succeeded in providing education to almost all of its 4- to 14-year-olds. Since preschool education was made compulsory in 2009, Mexico has achieved one of the highest rates of school enrolment among 4-year-olds in the OECD area, ranking 4th among 38 countries (Figure 6.1). This represents an increase of 29 percentage points since 2005, when Mexico ranked 21st out of 30 countries. Empirical evidence shows that Early Childhood Education and Care (ECEC) can help improve student performance later in life, and also reduce gaps in learning achievement generated by different social backgrounds (OECD, 2011a). PISA 2009 results, after accounting for socio-economic background, showed that Mexican students who had attended more than one year of pre-primary school scored about 36 points higher (almost equivalent to a school year) than those who did not (OECD, 2011b). Coverage has also expanded at other levels. Secondary school education participation has increased by 14% since 2000 (compared to an OECD average of 8%), although the dropout rate remains high.

Only 54% of Mexico's 15- to 19-year-olds are enrolled in the education system. Mexico is therefore working to expand the access of students to upper secondary education. Although the proportion of young people that has attained this level has nearly doubled to 44%, this is still about half the OECD average of 82% (Figure 6.2). Interviewed in 2007, students who had dropped out said that the main reason was lack of interest in school, as it was of little use or inadequate for their interests and needs. The second reason was the lack of financial resources. Students who drop out are more likely to experience difficulties in entering the labour market (Székely Pardo, 2009).

Figure 6.1. **Enrolment rates at age 4 in early childhood and primary education (2005, 2010)**



Note: Countries are ranked in descending order of the enrolment rates of 4-year-olds in 2010.

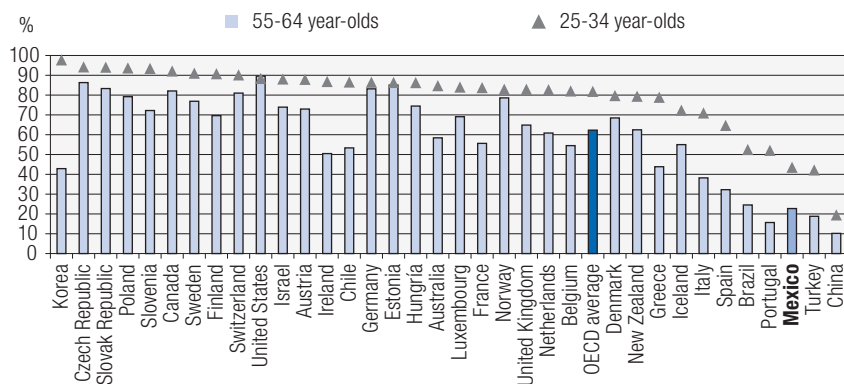
Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD.

Mexico will thus need to address the challenges of making upper secondary education more appealing to students, besides providing greater equality of opportunity. Toward that end, Mexico implemented from 2009 to 2010 a national upper secondary system (*sistema nacional de bachillerato*), which aims to provide a coherent framework of upper secondary education through better academic guidance; more education options on offer; improved mechanisms to deliver education (e.g. teacher training, school leadership professionalisation, infrastructure, scholarships); and a monitoring system for institutions. Also, in 2012 Mexico made upper secondary education compulsory, setting 2022 as the deadline for attaining universal coverage.

The transition from school to work has been another priority area for Mexico. Vocational education and training is one way in which countries prepare students for the labour market, through school and work-based programmes (OECD, 2010). In Mexico, the initial vocation and training (VET) system provides learning opportunities in remote regions, support measures for students at risk, and (there is also evidence of) collaboration between employers and training institutions at local levels. To help improve the system, Mexico reformed the technological baccalaureate and created trainee grants. However, the VET sector in Mexico is among the smallest in the OECD area.

Tertiary education coverage in Mexico has also progressed significantly, but it is still much less developed than in most OECD countries. Compared with

Figure 6.2. **Population that has attained at least upper secondary education (2010)**



Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD.

the 12% of 55- to 64-year-olds that have a tertiary education, the percentage of 25- to 34-year-olds who have achieved this level of education is almost double at 22%. Graduation rates at this level (38%) nevertheless remain some of the lowest among OECD countries in this age range, particularly among young people from poor families. Participation rates of disadvantaged students could be raised through better career guidance and counselling services as well as financial aid schemes. Improving the quality of tertiary education through internal and external quality assurance requires a well-developed framework. Most of the costs of tertiary education are covered by the government, which limits a greater expansion of enrolment. An approach geared towards sharing the costs of higher education between students and taxpayers, in line with their respective benefits, could represent a better use of limited public resources. OECD data show that tertiary education creates large social benefits in the form of economic growth, social cohesion and citizenship values that justify public investment. However, in light of the very significant private benefits of tertiary qualifications, individual graduates, when they are in a position to do so, can bear some of the cost, too. The case for cost-sharing is strongest when tight public budgets lead to cuts in the number of tertiary students, a decline in the quality of instruction, and/or a decrease in the resources available to support disadvantaged students. Cost-sharing would allow Mexico to continue to expand with no apparent sacrifice of instructional quality, and make institutions more responsive to student needs. However, with such an approach, effective student support systems would be a crucial ingredient for success. They should be based on a universal, income-contingent loan system complemented with a means-tested grants scheme. The loans help students pay for their education during the years they are studying

and, if the loans are income-contingent, reflect students' ability to repay the loan after graduating. Because they are progressive, the loans offer lower public subsidies to graduates with higher private returns on their investment in education. Means-tested grants promote access to higher education among more vulnerable groups, including youth who simply do not have good information about the benefits of a tertiary education.

In Mexico, one-quarter of 15- to 29-year-olds are not in employment, education or training (NEET)¹. Enhanced labour market perspectives can play an important role in the decision to stay in education or enter the labour market. In most OECD countries, education attainment can act as “insurance” against unemployment, as unemployment rates tend to diminish on average when education levels increase. However, this is not necessarily the case in Mexico. In 2010 Mexico was the only country with a higher unemployment rate among individuals with a tertiary education (5%, compared to the OECD average of 4.7%) than among those who had attained an upper secondary education (4.6%, OECD average of 7.6%) and those who had not attained an upper secondary education (4%, OECD average of 12.5%) (OECD, 2012a). This pattern of unemployment rates in Mexico has remained stable over the past decade, suggesting a potential structural mismatch between labour market demands and graduate supply, and a higher demand for low-wage jobs. It also reflects the problems of a labour market characterised by informality. The absence of unemployment insurance also implies that when they lose their jobs, low-skilled workers are likely to move to a new job with worse working conditions – often in the informal sector (see Chapter 5 on labour market reforms).

Ensuring quality of education in schools to all

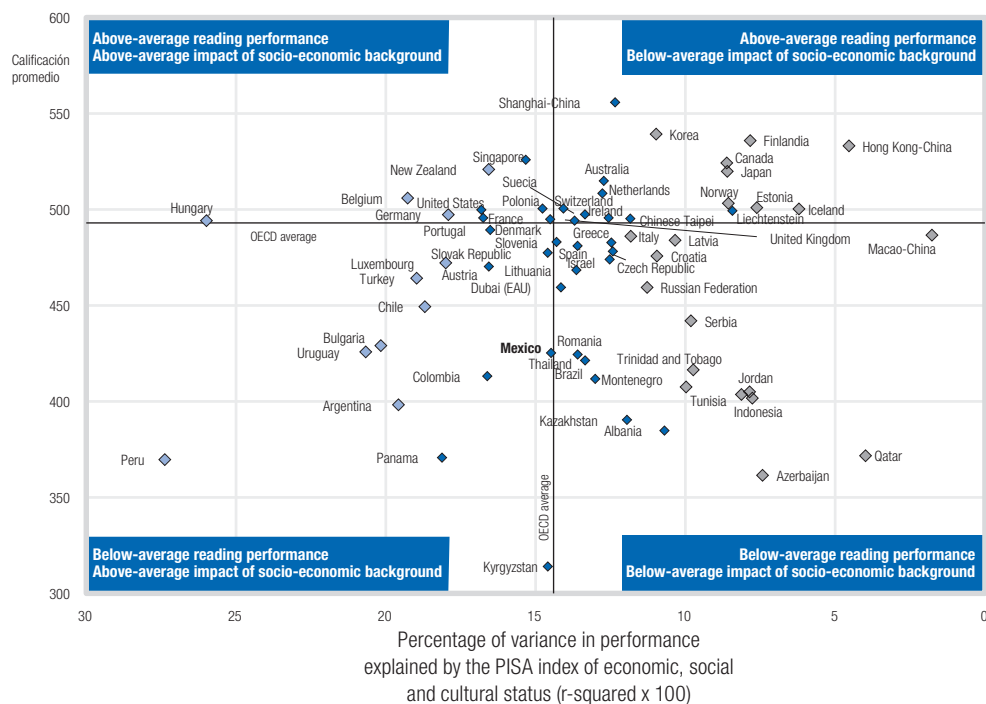
A key objective for Mexico should be to ensure that compulsory education effectively provides strong foundations for all students. In PISA 2009, about 40% of Mexican 15-year-old students performed below Level 2 in reading,² which is the largest share among OECD countries. Student performance is also strongly related to socio-economic background, meaning that personal or social

¹ Mexico has made progress in reducing the gender gap of the NEET population. In 2000 the proportion of women who were neither in education nor employed at ages 15-29 was 7 to 1; in 2010 this proportion has dropped to 3 to 1. According to evidence provided by Mexican studies (*Encuesta Nacional de la Juventud*, 2010 in OECD, 2012a), the main reasons for the gender gap in Mexico seem cultural (marriage and pregnancies).

² PISA 2009 describes students' performance in terms of seven levels of reading proficiency. Level 2 is considered the baseline level, at which students begin to demonstrate the reading literacy competences that will enable them to participate effectively and productively in life. On average across OECD countries, 18.8% of students performed below Level 2 (lowest performers), 52.9% of students performed at Levels 2 or 3 (moderate performers), 20.7% of students performed at Level 4 (strong performers), and 7.6% of students performed at Levels 5 or 6 (top performers) (OECD, 2011c).

Figure 6.3. **Relationship between student performance in reading and the index of economic, social and cultural status (ESCS)**

- ◆ Strength of the relationship between performance and socio-economic background above the OECD average impact
- ◆ Strength of the relationship between performance and socio economic background not statistically significantly different from the OECD average impact
- ◆ Strength of the relationship between performance and socio economic background below the OECD average impact

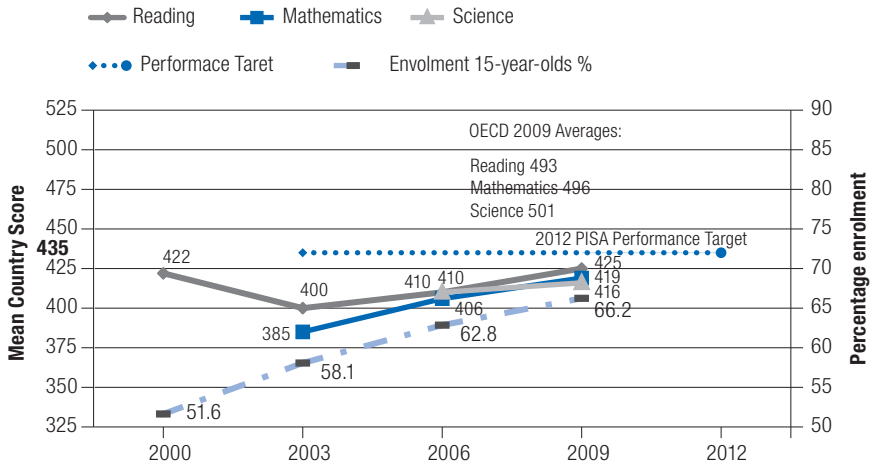


Source: OECD (2011b), *PISA 2009 Results: Overcoming Social Background – Equity in Learning Opportunities and Outcomes*, OECD.

circumstances are obstacles to achieving full educational potential. International evidence shows that high-performing education systems combine quality with equity. Mexico can and should aim to improve its performance on both fronts over the long term and place student learning at the centre of education policy, so that all students can reach their full potential (Figure 6.3).

To foster educational progress, the government established performance targets for 2012 of a combined average of 435 score points (Figure 6.4), although this goal is perhaps not sufficiently ambitious and well below the OECD average of 500 points. Some improvements have been achieved in mathematics, where Mexico had the largest absolute improvement (a 33-point score increase) between 2003 and 2009, and the greatest decrease in students performing below Level 2 basic skills. In reading there is no statistically significant improvement compared with 2000, while in science there was a small improvement (OECD, 2011d).

Figure 6.4. **PISA results for Mexico (2000, 2009)**



Source: OECD (2011d), *Strong Performers and Successful Reformers in Education: Lessons from PISA 2009 for Mexico*, OECD.

The impact of a student's socio-economic background on their performance has decreased significantly, showing that there have been improvements in the equity of the distribution of learning opportunities. A comparison of student performance among different schools shows examples where students from similar backgrounds are performing better, and that it is possible to obtain reasonably high levels of achievement in Mexican schools with students from relatively disadvantaged backgrounds (OECD, 2011d). There is therefore an opportunity for Mexican schools to learn from the success of other schools in their own country. This is a positive development, as they all face the same restrictions and challenges.

It is also essential, as efforts to raise achievement in Mexico take place in a context of major socio-economic challenges. Mexico, along with Turkey, has the highest percentage (58%) of 15-year-old students among OECD countries classified with a PISA index of economic, social and cultural status³ below -1, followed by Chile with 37% (OECD, 2011d; 2011e). The country also has great cultural diversity, with about 62 ethno-linguistic groups that speak one of the

³ The PISA index of economic, social and cultural status was created on the basis of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student's parents, converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to "classical" culture in the family home. This index has a mean of zero and a standard deviation of 1 for OECD countries. Negative values in this index refer to a more disadvantaged status than the OECD average, and positive values refer to a less disadvantaged status than the OECD average.

68 different indigenous languages and 364 linguistic variations (INALI, 2008; Santiago *et al.*, 2012). According to Mexico's 2010 national census statistics, about 6.7 million people who are at least five years old speak an indigenous language (6.8% of the total population in Mexico at this age range). From this group, according to INEGI almost a million do not speak Spanish. Despite improvements, a large performance gap has remained for students whose language spoken at home is different from the language of assessment in PISA (71 score points in 2000 and 95 in 2009). In fact, in 2009 Mexico had the third-largest score point difference among the 32 countries with comparable performance data. It must be emphasised, however, that Mexico has made significant efforts to develop bilingual education programmes in the most disadvantaged areas.

Grade repetition at the primary school level is high, with 17% of students reporting that they have repeated a grade in primary education (10 percentage points above the OECD average). Furthermore, 44% of students at primary, lower and upper secondary reported being at least one grade below their expected grade, compared to the OECD average of 18% (OECD, 2012a). In high-performing countries, repetition tends not to occur or to be very limited, while the best teachers are deployed to the most difficult schools to assist the most disadvantaged students. Successful school performance becomes the focus of policy, with vulnerable students receiving targeted support. Mexico should review the policy of grade repetition.

Improving conditions for teaching and learning

The conditions in which education is provided are particularly challenging in Mexico and need to be improved. In basic education, children attend school either in the morning or in the afternoon (except in those schools that have introduced full-time education or in certain private schools). A single school building may have one director for the morning and another for the afternoon, and different groups of students and teachers in the two shifts. Some teachers are obliged to teach at one school in the morning and another in the afternoon, while others have second jobs in other sectors. This can limit both their time and their capacity to become involved in the planning of their lessons, as well as in opportunities for teamwork and mutual learning with other teachers. There is also some evidence that the quality of the schools varies significantly between the morning and the afternoon shifts (OECD, 2010).

The issue of school autonomy also needs to be addressed. School results are better in educational systems with a high level of school autonomy, as long as autonomy is combined with strong support and accountability. Mexican schools have one of the lowest levels of school autonomy among countries participating

in PISA and the Teaching and Learning International Survey (TALIS).⁴ Schools have little decision-making capacity over matters key to their functioning, such as hiring or dismissing teachers and school principals, determining teachers' salaries, and granting salary increases. In the long run, school autonomy is a desirable goal for Mexico. A necessary step in that direction is ensuring that enough capacity and support at the school and mid-levels is in place to carry out these decisions. There should also be a robust and reliable framework for improvement, accountability and transparency that takes account of the context in which the school operates.

Mexico has invested resources in the use of technology in education, through initiatives such as *Enciclomedia* and recent IT investments, and there is also a strong emphasis on making technology available to students in the new administration proposals. While the use of technology in education can be positive, it is essential for Mexico to understand technology as a support opportunity for the improvement of learning, rather than an end in itself. Providing access to hardware does not suffice. For example, initiatives that offer one computer per child may be expensive and less effective if they are not implemented appropriately, and if they are not accompanied by relevant training to teachers. Conversely, greater benefits can accrue in a class with more restricted access to technology but where teachers receive guidance on how to use the available resources for learning. Therefore, along with improving access to ICT tools, Mexico needs to work towards having relevant digital content available and upgrading teachers' skills and pedagogy to make the most effective use of it. Across OECD countries, the most successful models take full advantage of the available tools and connect them with the learning process, the pedagogy, and the organisation of schools and teachers' practices (Box 6.1).

Box 6.1. Innovating through ICT: Interactive whiteboards integration in England

With about 80% of interactive whiteboards (IWB) in its classrooms in 2011, England is probably the OECD country with the most experience in rolling out large programmes of IWB integration. Most programmes started in the 2000s and received thorough evaluation. Some of the main findings are that successful implementation depends on a strong pedagogic (rather than technical) training on the use of IWB and on the creation (or availability) of enough relevant digital content. Informal networks of peer-to-peer knowledge

⁴ The first cycle of the *Teaching and Learning International Survey* was carried out in 2007-08 in 23 OECD and partner countries. Each country had a sampling of 200 schools at the lower secondary level. In each school, 20 teachers were randomly selected. The total sample therefore comprised about 90 000 teachers a representative sample of some 2 million teachers in the participating countries (OECD, 2009a).

sharing within schools and as part of communities of practice across schools have proven particularly effective. They tend to be based on teachers acting as ICT champions in their school and beyond. It is noteworthy that such large-scale programmes should concern schools as a whole (rather than classes) to trigger the right learning environment for teachers. Even with the availability of professional development opportunities, it took about 2 years for teachers to become proficient enough to use the whiteboard interactively in their teaching. One common lesson of all programmes of IT integration in education is that technology in itself has no impact on student outcomes: the impact comes from its combination with appropriate pedagogies. Given the cost of technology, countries should carefully review their options and their mid-term and long-term objectives. For example, other technology options such as a combination of projector and visualiser can be a cost-efficient substitute for white boards.

Italy is currently running a large-scale programme: a digital plan for education. The OECD is currently reviewing this plan, the initial lessons of which will be shared with Mexico when available.

Source: OECD.

Mexico has taken measures to improve the conditions of the education provided at schools:

- To provide for longer school days, Mexico is promoting implementation of full-time schools at the national level.
- To increase the participation of communities in their schools with the aim of achieving better-quality education, social participation in school councils is being promoted across the country.
- Through the Better Schools Programme, Mexico refurbished 16 000 schools from pre-primary to lower secondary education most in need of repair across the country. This programme is implemented with the participation of school communities (OECD, 2012b).
- To provide coherence in the content taught and raise competence levels in compulsory education, a comprehensive curricular reform (National Reform of Basic Education) has also been put forward"?(except at the upper secondary level) .

These are positive steps for school improvement; the challenge now is to implement the reforms to bring about the intended results. Without this, the reforms will remain false hopes.

Teacher quality is key

Ensuring that teachers are able to prepare properly and well is crucial to improving the quality of education and seeing that reforms have the intended impact on student achievement. In the TALIS survey, the school principal of around 70% of Mexican lower secondary teachers reported that the teacher's late arrival, absenteeism or lack of pedagogical preparation hindered the quality of education provided at the school. On average in other countries participating in the TALIS survey, school principals reported these factors as an obstacle stemming from around one-quarter of the teachers at most.

Mexico needs to attract talented people into teaching. This requires strengthening the selection of teachers (which is still not sufficiently competitive); the process of assigning them to schools (which is not transparent); the formative and summative or impact appraisals teachers are subjected to (which are largely non-existent); the quality of teacher training programmes; and the incentives to improve performance and the quality of teaching. It also requires professionalising school leadership. The commitments announced in early December by the President of Mexico, and included in the Pact for Mexico regarding the career civil service and a single teachers database (commitments 12 and 18 respectively) as well as the announcements that followed regarding the proposed constitutional reform and administrative acts to eliminate the Union interference in the appointment and allocation of teachers are very welcome steps that, if well implemented, will change the logic of the education system in Mexico in favour of students.

To address these challenges, Mexico has been implementing several reforms to help improve the quality of the teaching profession. For example:

- To improve the quality of teachers entering the profession, Mexico recently introduced New Protocols for Entering Public Initial Training Programmes. To support this process, teacher portfolios are being developed that include evidence of the teachers' work during their studies at teacher training schools.
- The National Teacher Post contest is a national effort to bring transparency to the process of selecting new teachers for a post. A further important step to take is opening all teaching posts to competition, including those of school principals. Today, even with the entrance examination, about half of the teachers are hired without this requirement.
- A new Incentives Programme for Teacher Quality was put in place, and the teacher career guidelines (a horizontal promotion system) have recently been modified.

Again, implementation of these measures should be monitored, to ensure that they produce the desired results.

Evaluating to help improve

Mexico has been working to implement a culture of improvement and accountability through policies at the student, teacher, school and system levels. While essential to ensure better implementation of reforms, this system is still in development; at present there is no integrated evaluation and assessment framework with aligned components.

Important policy initiatives that the country has undertaken are the following:

- The country has recently implemented a Universal Teacher Evaluation System to help detect the areas teachers need to improve. *Inter alia*, the programmes are designed to provide a reference for improving policies and programmes, based on evaluation results (Santiago *et al.*, 2012).
- Mexico has also made progress in establishing assessment mechanisms that allow measurement of students' progress in primary and secondary education; examples are ENLACE and EXCALE.
- Mexico recently accorded autonomy to its National Institute of Education Evaluation (INEE); it is now an independent body responsible for setting technical and educational standards and technical standard-setting body to progress in a strategic and unified vision of education evaluation. As the creation of INEE is one of the most important institutional developments, this agency should be in charge of all educational assessments and establish cohesion mechanisms.
- A National Registry of Students, Teachers and Schools has been created to help provide better planning and improvement (commitment 8).

Ensuring the conditions for success in implementing reforms

In November 2012, the newly elected Mexican government (2012-18) signed the Pact for Mexico for legislative reforms with the three main political parties. Of the 95 commitments it contains, those focusing on improving the quality and equity of Education have three main objectives: first, improving the quality of basic education, as reflected in better education outcomes; second, increasing enrolment and improving the quality of upper secondary and tertiary education; and third, restoring the leadership of the Mexican State in the national education system, while maintaining the system's character. These education-related agreements are summarised in Box 6.2:

Box 6.2. Quality and equity in education – Agreements contained in the Pact for Mexico

Education coverage:

1. Increasing the quality and coverage of upper secondary education (to at least 80%) and tertiary education (to at least 40%) (commitment 14).
2. Establishing a national scholarship programme for students in upper secondary and tertiary education from the most disadvantaged backgrounds, as well as piloting a “scholarship-wage” scheme with selected states (commitment 15).

Teaching and learning conditions:

3. Enhancing autonomous management in schools, mainly to help them improve their physical surroundings, solve basic management issues, and increase community participation (commitment 9).
4. Establishing full-time schools (6- to 8-hour days), with a mandate to make better use of available time for academic development, and to improve students’ diet (commitment 10).
5. Providing portable computers to all public school students in grades 5 and 6 (commitment 11).

Teacher quality:

6. Creating a professional teaching service (and eventually, for directors and supervisors), with a national competition for teaching posts and rules for granting tenure; ensuring that salary increases correspond to the teacher’s appraisal and performance (commitment 12).
7. Strengthening initial teacher training, by supporting *normales* (Initial teacher training institutions), and mobilising the knowledge and human capital available in the country (commitment 13).

System improvement:

8. Creating an education information and management system, through a nationwide census of schools, teachers and students (commitment 7).
9. Consolidating the national education evaluation system (INEE) and making it fully autonomous (commitment 8).

Source: Government of Mexico (2012), *Pacto por México*, www.presidencia.gob.mx.

To continue and succeed in these efforts, Mexico needs to consider that the implementation and follow-up of policies are as important as their initial design. In order to ensure the expected results, it is important to further align incentives, introduce consistency and interconnections in decision making, strengthen implementation capacity, and reduce levels of opacity. At the same time it is important to invest in increasing government capacity, to ensure effective management of national education at all levels. For example:

- As mentioned previously, increasing *education coverage* at the upper secondary and tertiary levels relates to the capacity of the system to provide relevant education opportunities for students and labour market needs, as well as equitable conditions to help students remain in education. Expanding the system will only be successful to the extent that it can be supported by quality teaching staff and curricula. Also, piloting a “scholarship-wage” scheme is a good opportunity to engage states in the process, to develop ownership, and to start building capacity through more information exchanges among states as well. This will help to better assess how to adapt the system to different contexts before launching it at the national level.
- In the same way, Mexico’s efforts to improve the *teaching and learning conditions* at schools through greater autonomy, more instruction time and greater access to ICT can be beneficial if capacity and support are provided at the school level to make the best use of these resources. Otherwise, such reforms can be more costly to the system without necessarily generating the expected learning benefits for students.
- *Teacher quality* (including school principals, supervisors and other key actors in the system) therefore is a key component of these agreements. Professionalisation of the teaching body can be the best investment to increase the likelihood that other reforms will succeed. Teachers are the most important actors for student learning; nurturing their quality should be among the first reform priorities.
- For the system’s *improvement*, the creation and implementation of a national education information system could benefit from the learning experiences of previous similar efforts (e.g. the National Registry of Students, Teachers and Schools and available state-level experiences). Mexico needs to consider that making this new database easily accessible to actors across the different education levels and encouraging its use in constructive ways to promote learning are as important as a robust design. Also, consolidating the autonomy of INEE should entail providing this institute with the necessary resources to perform its new responsibilities. In addition to avoid several bodies executing evaluation activities, INEE should concentrate all the evaluation tools that remain dispersed in many areas currently.

The existing governance structure of the Mexican education system entrusts the 32 federal entities with an important degree of responsibility for delivery of educational services, but with only limited accountability for education outcomes. Many of the states have low management capacities. A complex, decentralised education system requires focusing on a small number of clear, high-priority, measurable goals to improve student outcomes (OECD, 2011e).

Moreover, there is a lack of transparency in some governance processes, including the influence and participation in management of the largest teacher union: SNTE is active beyond the more conventional industrial labour relations role played by teacher unions in other countries. The union has representatives in various education decision-making bodies and takes decisions regarding teachers and their job prospects. This co-management of education in Mexico limits transparency and accountability, and introduces incentive schemes that do not match the quality of teaching and do not put the student at the centre of the system's efforts. The recent measures taken by the new Administration are very encouraging signs that this may be changing. Particularly important is the decision of not allowing the Union to get involved in assigning or appointing teachers. It is also important that the Government is developing its own information system on who are the teachers in Mexico, and where they are. As pointed out in previous OECD work, education reform is inherently a political exercise, especially if it involves fundamental institutional change.

Mexico needs sustained political leadership to promote the necessary structural changes in the way teachers and school leaders are recruited, trained, developed and evaluated. In addition to signing the Pact for Mexico, Mexico's decision makers should promote consensus and transparency by establishing a broader "guiding coalition" of political, corporate, university and civil society leaders. That coalition can step forward and take responsibility for championing education reforms in the public arena; for advocating adequate and equitable funding; and for holding the authorities accountable for results (OECD, 2010).

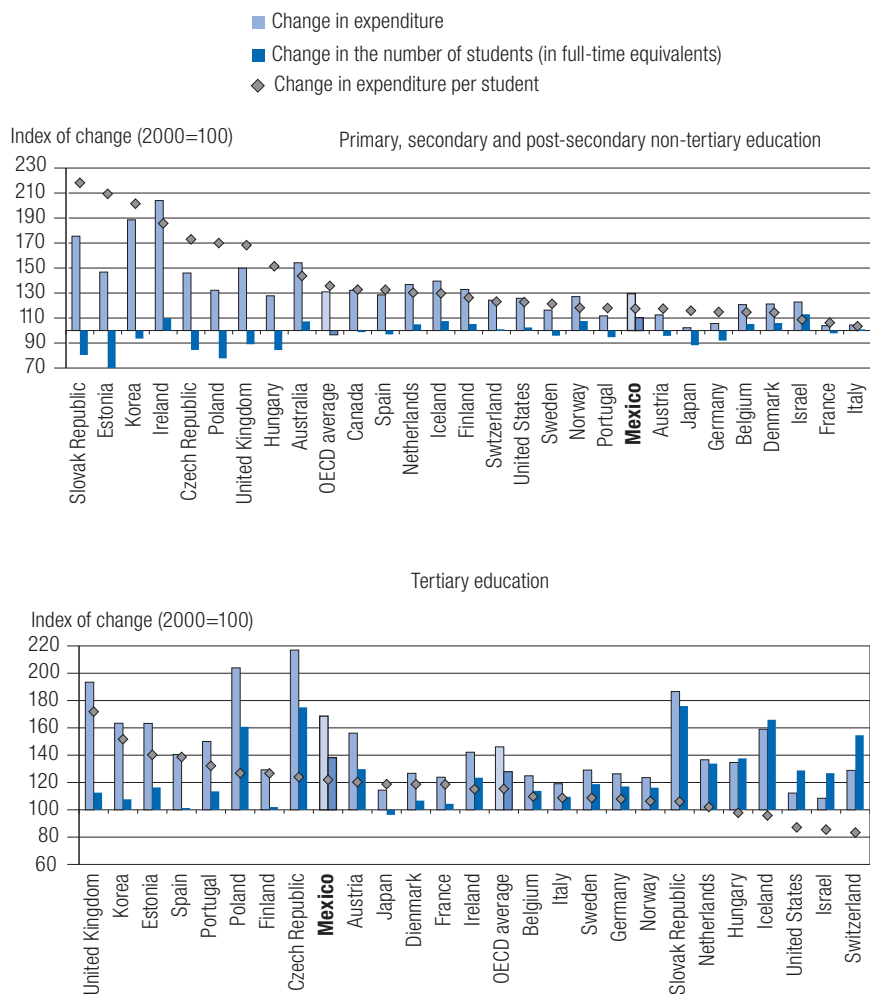
Investing better in education

As in other OECD countries, expenditure in education has continued to increase as a proportion of GDP, from 5% in 2000 (compared to an OECD average of 5.3%) to 6.2% in 2009. Due to its low level of tax revenues, Mexico's total public expenditure is slightly more than half (26.2% of GDP) of the OECD average (45.2% of GDP). It is also the second-lowest share among OECD countries after Chile (20.6%) (see Chapter 2). However, 20.3% of public expenditure goes to education, which is the second-highest percentage after New Zealand (21.2%).

Between 2000 and 2009, Mexico increased its expenditure at the primary, secondary and post-secondary non-tertiary level by 30%, close to the OECD average

Figure 6.5. **Changes in the number of students and changes in educational institutions' expenditure per student by level of education (2000, 2009)**

Index of change between 2000 and 2009 (2000=100, 2009 constant prices)



Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD, Paris.

(31%). Because the number of students increased at the same time, the increase in expenditure per student at these levels was only 18% (the OECD average was 36%). At the tertiary level, Mexico increased expenditure during the same period by 69% (the OECD average increase was 46%). As the number of students at this level also increased by 40%, the increase in the expenditure per student was only 22%, but still above the OECD average increase of 15% (OECD, 2012c) (Figure 6.5).

Mexico allocates the second-largest share of current expenditure among OECD countries (92%) to compensate staff below tertiary education. As in other countries, these resources are mostly devoted to teachers' salaries; but in Mexico, compensation of teachers accounts for about 80% of these resources (62% on average in the OECD area), while compensation for the remaining staff accounts for only about 12% (15.5% on average in the OECD area). This difference between the share of teachers' and other staff's compensation in total expenditure is the widest among OECD countries (OECD, 2012a). PISA data show that the amount of resources invested in education does not necessarily translate into better student outcomes, but how resources are allocated is important. In addition, Mexico was one of the countries in PISA 2009 to show the closest relationship between the availability of resources at schools and the schools' socio-economic intake. This suggests the need for more consideration on how to distribute resources for schools more equitably, and to balance the influence of socio-economic backgrounds at schools.

OECD Key Recommendations

- Place *Mexican schools and students' success at the centre* of education policy making, and establish incentive schemes that match this goal. The OECD recommends an action-oriented policy agenda for schools, directors and teachers, offering them better support so they can accomplish their tasks. In particular, this implies:
 - Enhancing the role of teachers by setting clear standards of practice; ensuring high-quality initial teacher preparation (ITP) programmes; attracting better candidates; professionalising the recruitment, selection and evaluation of teachers; and linking teachers and their professional development in learning more directly to schools' needs and results. Eliminating union influence on the management of resources allocated to teaching.
 - Strengthening leadership and management by setting clear school director standards; providing training; professionalising recruitment; supporting school autonomy; and ensuring social participation. Schools also need to be better supported with stable sources of funding that respond to their specific needs.

- Strengthening the evaluation and assessment system, by providing coherence across its components, building capacity to help it operate, and balancing the accountability and improvement functions for students, teachers, schools and the system as a whole. Transparency of information, reliance on high-quality data, and the accountability of education system agents are essential for a successful evaluation and assessment system. At the same time however, it is important to guarantee both that the existing data and evaluation results are actually used for improvement, and that relevant stakeholders are able to use the data and feedback made available to them in order to improve their practices. Evaluation is critical for accountability and improvement.
- Some possible pathways to improve the initial vocation and training system (VET) include:
 - establishing a formal consultation framework between employers, unions and the VET system
 - adopting quality standards and apprenticeships to support and expand workplace training as an integral part of vocational programmes
 - providing pedagogical training to VET teachers before or immediately after they start teaching
 - exploring the creation of a national certification scheme for skills
 - developing the capacity to analyse and use data on labour market needs to guide the design of policies and improve decision making
 - A reform of tertiary education funding should include:
 - assessment of the sustainability of the current cost distribution, and of whether it adequately reflects the relative importance of societal benefits of tertiary education
 - improvement of the transparency with which funds are allocated to institutions
 - a significant expansion of the existing support system for students in need
 - To ensure the conditions for success in implementing reforms, Mexico needs to work towards strengthening capacity across different levels: learning from previous reform efforts to building on them; clarifying the distribution of responsibilities across the decentralised system; and institutionalising transparent ways to facilitate discussions and build consensus and ownership with all the relevant stakeholders.

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Chapter 7

Health Policy

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Mexico has made significant progress in the health sector over the past few years. Through its innovative programme *Seguro Popular*, Mexico has virtually attained universal coverage for the population, bringing it in line with most other OECD countries. However, despite dramatic improvements in life expectancy and infant mortality, it remains below the OECD average on basic indicators of health status. While health expenditure has grown fast in the past decade, it remains much below other OECD countries. More importantly the level of public spending is particularly low and out-of-pocket payments are very high. The health system is also fragmented, leading to wasteful spending, and access to health care still varies considerably across states. Improving the country's health services will require addressing the problems of the poorer states, targeting services where they can deliver the highest value for money, and improving the efficiency of health delivery. These changes will help Mexico deliver on the commitment contained in the 2012 Pact for Mexico to equalise quality and coverage across different health coverage schemes. This aspiration should guide further reforms to expand access to care services, with policy guided by the development of targets including the services covered and the actual utilization of services by different socio-economic groups and across regions.

Mexico has seen dramatic improvements in life expectancy and a steady reduction in infant mortality rates over the past decades. Life expectancy has increased by 19 years since 1960, reaching 75 years in 2010, while infant mortality has been reduced to a fifth of the 1970 rate thanks notably to *Oportunidades* (see Chapter 2). However, life expectancy remains the fifth lowest in the OECD and premature mortality is the highest in the OECD. Mexico has a comparatively low supply of inputs to the health care sector – beds and doctors – by OECD standards.

Mexico has already implemented an ambitious reform. Over a spectacularly short period of eight years, the *Seguro Popular* has succeeded in bringing universal coverage to half of the population which remained uninsured. Mexico's path to achieving universal coverage of its population is remarkable in many respects including low fiscal costs and the financing mechanism that contributes to narrow inequality in the allocations of federal finance across the States.

Despite this success, several challenges remain. Mexico still spends considerably less on health than other OECD countries. While total per capita spending on health is near what might be expected given the level of income, the Mexican health sector is characterised by a relatively low level of public expenditure and significant out-of-pocket spending. This suggests that the system falls short of providing adequate insurance coverage. Improved efficiency in service delivery and better administrative capacity, particularly at state level, will be important to ensure the continued success of reforms over the longer term. In addition, emerging health threats such as obesity and the more generally the increasing burden associated with chronic diseases need to be addressed. The organisation of the system is characterised by different vertically integrated silos, each serving different segments of the population and with little interconnection between them. This has led to significant inequalities in the provision of health services across regions and fragmentation which has to be addressed.

Using innovation to provide affordable coverage

The *Seguro Popular* has been one of the most innovative policy examples of how to enrol the poorest households and those working in the informal sector. Over a period of eight years since 2004, Mexico has reached over 50 million people

that were previously lacking access to social security, with users reporting 97% satisfaction rates.¹

This has been a tremendous success. The *Seguro Popular* is regarded worldwide as an example of innovation in health coverage (Knaul et al., 2012; OECD, 2005), from two main perspectives. First, it is built on incentives for state and individuals to enrol into the programme, without formally establishing a mandate to coverage. By directing the additional funding of the scheme to the States on the basis of the number of new enrollees, it introduced a mechanism that allocates more resources to poorer states, which possessed the greatest number of uninsured individuals. Second, *Seguro Popular* was carefully designed to achieve universal coverage at relatively low fiscal cost. It covers treatments for a limited range of diseases, without undermining the system's fiscal sustainability. By specifying explicit entitlements, the government has hence been able to channel expansion in the most cost-effective areas: the essential primary and hospital care services.

In addition, *Seguro Popular* does not seem to have increased incentives for informal work by reducing the relative benefits of the current contributory system (see Chapter 5 and OECD [2011b]).

The challenges of improving financial protection and addressing funding gaps

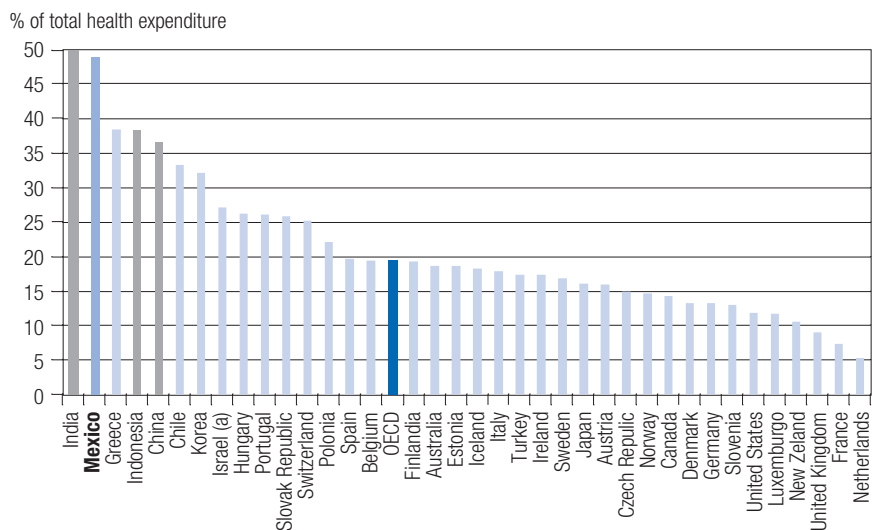
Despite Mexico's widely heralded success at extending health insurance to previously uninsured populations, a number of challenges persist. The main one is to improve access to care by expanding the range of services covered by the *Seguro Popular*, making it easier to access services across all States and in rural areas, improving the quality of health care services, and addressing the rising burden of chronic diseases. To do this, Mexico needs to make incremental reforms in three main areas: financial protection, the range of benefits offered by *Seguro Popular* and availability of financing.

Improving financial protection

Mexicans are still exposed to disproportionately high out-of-pocket costs for their health care. Out-of-pocket payments remain the highest among OECD countries, and second only to India when emerging economies are included, as shown in Figure 7.1. The share of health care expenditure financed out-of-pocket has dropped only marginally, from 51% in 2000 to 49% in 2010. In per capita terms, out of pocket spending grew by 24% in real terms between 2000 and 2010. This level of out-of-pocket payments is higher than in countries with similar level of

¹ <http://www.seguro-popular.salud.gob.mx>.

Figure 7.1. **Out of pocket payments as a percentage of total health expenditure, 2010**



a. Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Note: non OECD emerging economies in this Figure are: Indonesia, China and India.

Source: WHO Global Health Expenditure database; OECD Health Data 2012

income per capita², such as Chile, Turkey, Estonia and Hungary, and well above the OECD average of around 20% in 2010. It reflects inequalities in coverage across population groups.

The reduction of out-of-pocket payments has not been as rapid as in other countries that have been expanding health coverage, such as Turkey and Korea. The persistence of such high out-of-pocket expenditure at a time of rapid expansion of health coverage suggests that families are still faced with difficulties to access the services they need, or continue to spend more to access perceived higher-quality services in the private sector, where there is markedly less insurance cover. This also leads to persistent differences in access between those covered by the *Seguro Popular* and those affiliated to Social Security. For example, while outpatient consultations and use of hospital services have improved over time for those previously uninsured, rates of utilisation are still higher amongst social security beneficiaries, with consultations of general physician at 17.8 in 2010, compared to 11.1 for those not enrolled in social security (Knaul et al., 2012). Therefore, the government ought to continue efforts to reduce out-of-pocket

² Adjusted for differences in price levels across countries.

spending by encouraging States to locate health care facilities and staff closer to the poor and by expanding the range of benefits covered.

Expanding the range of benefits covered under the Seguro Popular

The *Seguro Popular*'s positive inclusion list has successfully contained health expenditure while health coverage expanded. The entitlement to a package of essential services helped to direct funding to the most cost-effective services. The benefit services covered in the package has continued to expand over the years, from 91 interventions in 2004 to 284 in 2012. This covers more than 95% of cases in ambulatory units and general hospitals (Knaul et al., 2012).

The forthcoming challenge will be to ensure that the services offered under the *Seguro Popular* meet the health needs of the population. The *Seguro Popular*'s list of coverage for catastrophic health expenditures (the *Fondo de Protección contra Gastos Catastróficos*) is more limited than that offered under the package of essential services.³ The coverage for catastrophic health expenditures includes cancers (mainly childhood cancers, with few adult cancers covered apart from breast, cervical, uterine, lymphoma and testicular tumours), transplants, some complex surgical procedures, neonatal care and HIV/AIDS. It also includes care after a heart attack, but only if the patient is under 60 years old. There is no coverage for older patients, or for the catastrophic expenses that may arise from non-communicable diseases such as stroke or the need for renal transplant or dialysis. This is likely to become more of a concern as chronic diseases such as diabetes continue to rise amongst the Mexican population. Additionally, while the benefits offered by the *Seguro Popular* in public outpatient clinics and general hospitals are very similar to those provided by comparable services in social security agencies, those belonging to the social security sector have access to a significantly broader number of acute care procedures.

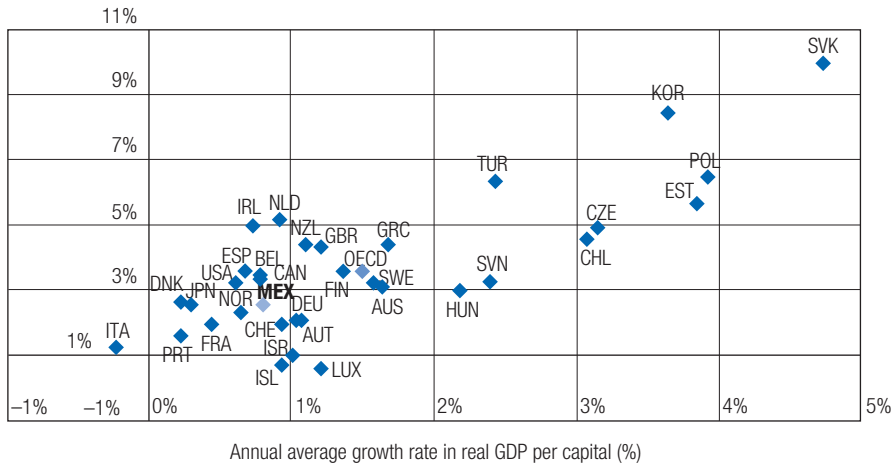
Addressing funding gaps

To permit these expansions and ensure real improvement in health services, extra financing needs to be found. Health expenditure is not out of range from what could be expected given Mexico's income per capita. Nonetheless, despite the substantial fiscal commitment accompanying recent reforms, at 6.2% of GDP, Mexico's health expenditure remains modest compared to OECD countries (the OECD average being 9.5%) – the second lowest in the OECD after Turkey (6.1%). Relative to economic growth, health spending has risen faster than in France,

³ The insurance scheme includes a package of essential services and a package covering catastrophic health expenditure (e.g. expenditure for health care that threatens the household's capacity to finance basic needs), financed through the Fund for Protection against Catastrophic Health Expenditures (the *Fondo de Protección contra Gastos Catastróficos*).

Figure 7.2. **Average growth rate in real health expenditure per capita 2000-2010 (or nearest year)**

Annual average growth rate in real health expenditure per capital (%)



Source: OECD Health at A Glance, 2012.

Germany or Portugal. However, it has also not been growing as fast as in Korea, Estonia and Turkey, countries that have similarly pursued major expansions in coverage (or in their benefit package) (Figure 7.2).

Slower growth in health spending may reflect lower utilisation of more expensive health services or the lesser needs of a younger population. But to ensure good access to care, an adequate supply of drugs is needed (see below). In addition, like in almost all other OECD countries, Mexicans will be living longer with a chronic condition. This transition of the health burden from communicable to chronic diseases will require some increases in health spending levels. It will place greater demands on physician and medical resources than communicable diseases, because chronic diseases will require relatively more expensive treatments for people living over an extended period of time. The magnitude of this challenge is illustrated by the fact that Mexico has the second highest obesity rate in OECD countries and the highest diabetes prevalence in the OECD.

Tackling emerging health challenges

Obesity and diabetes which affect an increasingly large proportion of the population are becoming major challenges for the Mexican health care system. Over the past 30 years, Mexico has become one of the countries in the world most heavily affected by the global epidemic of obesity. It ranks behind the

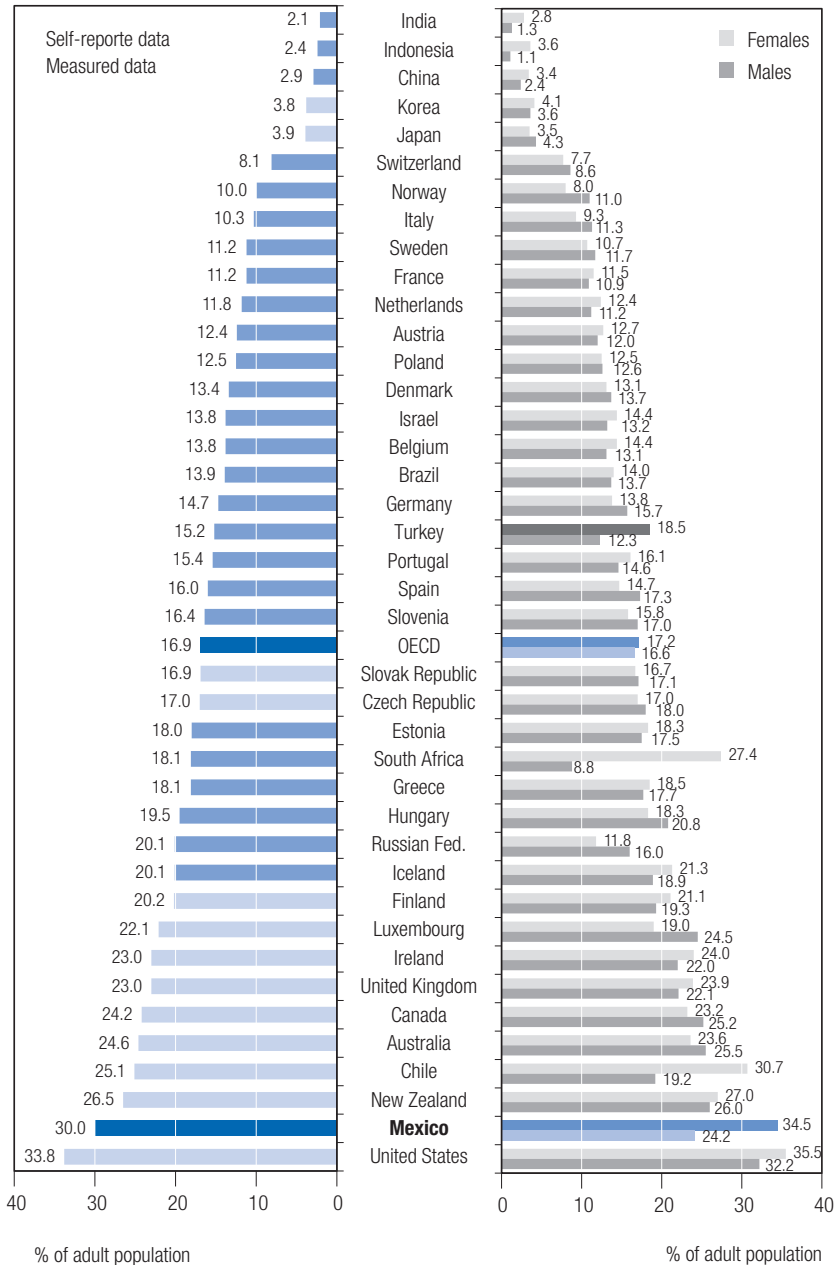
United States as the second fattest nation in the OECD (Figure 7.3). Between 2000 and 2006, overweight prevalence increased from 62.3% to 69.5% of the adult population, while the rate of obesity rose from 24.2% to 30%. In addition, Mexico is among the countries with the highest child obesity rates in the world with one in three children overweight or obese.

Diabetes, the chronic disease most directly linked with obesity, is also spreading rapidly. An estimated 10.8% of Mexicans aged between 20 and 79 has diabetes, one of the highest rates in the OECD. Type 1 diabetes – the predominant form of the disease in younger age groups – accounts for 10-15% of all cases.

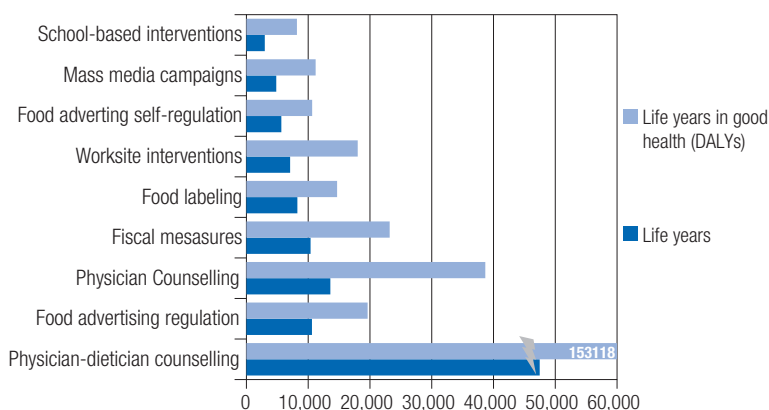
OECD studies show that one of the most effective policies for preventing obesity and diabetes-related diseases is to provide counselling in primary care for at-risk adults. The OECD has developed a microsimulation model which allows countries to assess the best policies to tackle obesity and the diseases to which it contributes. This has been run on Mexican data and shows that up to 61 000 years of life could be gained every year in Mexico through a comprehensive strategy involving multiple prevention programmes. The potential health effects of individual programmes are illustrated in Figure 7.4. Combining several interventions to tackle unhealthy diet and physical inactivity is an efficient way of improving population health. The cost-effectiveness of a prevention strategy including a mass media campaign, food taxes and subsidies, nutritional labelling and marketing restrictions would be \$ 3 460 per life year gained in good health (DALY saved). Such a comprehensive strategy can contribute to a package designed to tackle the main risk factors for chronic diseases, including also tobacco, alcohol, high blood pressure and high cholesterol. In Mexico, the package could be implemented for an annual cost of \$ 4.5 per head based on standard resource requirements for the above interventions, valued at prevailing wage and resource price levels in Mexico (Cecchini *et al.*, 2010). Interventions to tackle unhealthy diets and physical inactivity would cost less than \$ 0.8 per person. This low cost (comparable with those of other major emerging economies) provides a significant opportunity for acting promptly to tackle the problem.

As in many other OECD countries, Mexico has given priority in the fight against obesity to initiatives aimed at school-age children, such as changes in school meals and vending machines, better facilities for physical activity, and health education. The 2012 Pact for Mexico gives also a special emphasis on children with a commitment to ban “junk-food” in schools (commitment 2). Overweight children have disproportionately high chances of remaining overweight as adults. Early dietary improvements may have significant effects on nutrition habits and tastes extending into adult life. However, policies targeting children may take a long time to produce a tangible impact at the population level, as reflected in Figure 7.4, and need to be coupled with interventions on adults who face a more immediate risk of chronic diseases. Many countries

Figure 7.3. **Obesity rates among adults, 2009 (or nearest year)**



Source: OECD Health Data 2011; national sources for non-OECD countries.

Figure 7.4. **Health outcomes at the population level (average effect per year)**

Source: *Obesity and the Economics of Prevention: Fit not Fat*. OECD, 2010.

also disseminate nutrition guidelines and health promotion messages such as encouraging “active transport” – cycling and walking – and active leisure. In the past three years, some, but not all, governments stepped-up their actions to improve diets and increase physical activity. Health promotion efforts were intensified, co-ordinated national programmes were launched in United States (*Let’s Move*), United Kingdom (*Change4Life*), Switzerland (*Actionsanté*), and others. There has been an increasing reliance on partnership with the food and beverage industry (e.g. United Kingdom and Switzerland) in the design and implementation of actions to fight obesity, particularly in product reformulation to avoid unhealthy ingredients (e.g. saturated fats and too much salt), in reducing excessive portion sizes and providing healthy menu alternatives; in limiting advertising, particularly to vulnerable groups like children; and informing consumers about food contents. Efforts in middle-income countries tend to be less comprehensive, are often carried out as public-private partnerships and mainly focus on increasing physical activity. Examples of such actions include the *Movimiento Benestar* or the *Agita Mundo* action, both of which are carried out in many Latin American countries. Voluntary reduction of trans-fatty acids by the industry as well as regulation of commercial promotion of food to children are very limited but some countries (e.g. Chile, Colombia, Argentina and Brazil) initiated regulatory processes. The real novelty of the last three years has been a strong and increasing interest in the use of fiscal measures to limit the consumption of foods high in fat, sugar and salt. Legislation was passed by several OECD countries (e.g. Denmark, Hungary, France, Finland) and further countries are expected to follow through in the near future.

Mexico fares better on other major risk factors for health, such as tobacco and alcohol, whose consumption is lower than in most other OECD countries.

However, higher-risk individual patterns of alcohol use (e.g. binge drinking) appear to be relatively common in Mexico, which is a potential cause for concern.

Improving quality and efficiency of health care

While fiscal reform should help ensure adequate funding of the health system (see Chapter 2 on Fiscal policy) another important way of tackling emerging health needs, addressing funding gaps and providing for better financial protection, is by improving health spending efficiency and quality.

One of the greatest challenges is to improve the structure and organization of the system. Health service supply in Mexico remains patchy, with a large and mostly unregulated private sector and a public sector fragmented into several vertically-integrated bodies that both finance and provide health care, each covering different segments of the population different populations, with different regimes. As Mexico continues expanding the benefit package of the *Seguro Popular*, it will be important to seek administrative savings and better coordination of care by addressing the duplication of administration across ‘silos’ and by reducing high administrative cost. Currently, the co-existence of numerous vertically integrated insurers and the absence of separation between insurers and health care providers often means that health care facilities are duplicated in some areas. Mexico has taken steps towards integrating different health care bodies. For example, the Ministry of Health established an integrated health database and developed a common tariff system for all health-coverage bodies, while there is a degree of joint purchasing of patented medicines across different bodies (see below). Breaking down the current barriers between institutions, and creating a broad-based health system with a single insurance package that applies to everyone would greatly improve efficiency in health service delivery. In addition, the first commitment of the Pact for Mexico aims at making health coverage portable across institutions and address variation in quality and coverage across institutions. Addressing these major challenges will require reforming payment mechanisms to reward high performance; for example linking remuneration to performance goals and linking financing to services provided. Another important measure would be to strengthen common information systems, as well as reporting and accountability frameworks for all institutions. Further reform could relate to contracting arrangements between providers and financing institutions, in order to enable patients to access health care from the most appropriate service provider given their condition and location, rather than on the basis of their institutional affiliation. However, currently the quality and extent of care provided varies markedly across institutions. To bring the main institutions together will require more than giving power to patients; it will also require investment in the health workforce and a move towards a common package of health services, based on economic evaluation of their cost-effectiveness.

Lastly, to realise the commitment contained in the Pact for Mexico, it will be important to reduce differences in the quality of health care across the country by allocating limited resources where they are needed most. Public financing per capita continues to be inversely correlated with indicators of need, such as infant mortality, as well as with the neediest geographical areas. Poor-quality health care stems partly from an insufficient number of doctors and hospital beds. Despite a large increase in the supply since 1990, Mexico had just two doctors per 1000 people in 2010 compared to an OECD average of 3.1, only 2.5 nurses compared to an OECD average of 8.7, and the ratio of hospital beds was less than half the OECD average. There are also large regional disparities in the density of physicians and hospital beds per population, which is higher the main cities (OECD, 2011a).

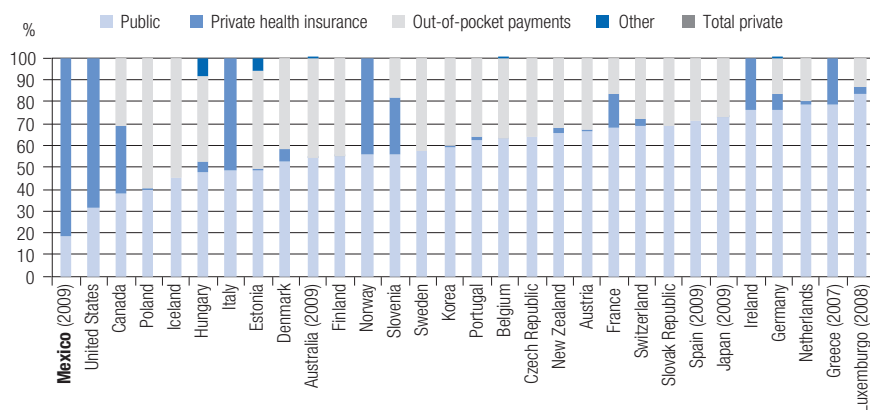
The example of pharmaceuticals

In most OECD countries, medicines are part of the benefit basket covered by basic health insurance, and Mexico has implemented policies to provide access to essential medicines – as defined by WHO – to the population. The Ministry of Health establishes reimbursements lists for primary care (*Cuadro Basico*) and for secondary and tertiary care (*Catalogo de medicamentos*), from which social security institutions and *Seguro Popular* draw their own “formularies”. People insured through social security schemes or the *Seguro Popular* are entitled to free medicines, provided the medicine is included in the formulary of the affiliation institution, it is prescribed by a physician working in the public sector, and it is dispensed in a public pharmacy or outlet (Wirtz, 2011 and 2012).

Pharmaceutical expenditure accounts for 27.7% of total health spending and 1.7% of GDP, above OECD averages (16.7% and 1.5% respectively in 2010). However, 81% of pharmaceutical spending are financed privately, mainly out-of-pocket (see Figure 7.5). This results from a combination of high self-consumption (including self-consumption of prescription-only medicines which are too often dispensed without prescription) and low availability of medicines in public institutions.

The medicine market is also characterised by high prices and wide price variations, notably across states. To address inefficiencies in the market, the government imposed some regulations to improve procurement methods (see Knaul et al., 2012). Each institution has its own purchasing process for generic purchasing that takes place at the 32 States level (Moise and Docteur, 2007), a system that led to high, largely unjustifiable, price variations. A Commission created in 2008 has been negotiating nation-wide prices for patented medicine for all public institutions, leading to significant price reductions and savings (Gomez-Dantes et al., 2012). This is an important step since patented drugs still account for more than half of public purchasing in value -- though only 5.5% in volume (Wirtz, 2011). However, in the private market, price regulation only

Figure 7.5. **Pharmaceutical expenditures by financing agent in 2010**
(or nearest available year)



Source: OECD Health Data 2012.

consists of a maximum consumer price for patented medicines, resulting from voluntary agreements with manufacturers. This regulation leads to relatively high prices for Mexico because negotiating parties use as a reference the prices paid by countries with the highest volumes of sales (Moise and Docteur, 2007).

Since 2011, the OECD has supported two major public entities of the Mexican health sector, namely the Mexican Institute of Social Security (IMSS) and the State's Employees' Social Security and Social Services Institute (ISSSTE), in the improvement of their procurement activities (see Chapter 4). This includes a comprehensive review of their respective procurement function and provision of detailed recommendations to increase their effectiveness, efficiency and integrity (including on fighting corruption and bid rigging) (OECD 2011c , 2012b and forthcoming). Various initiatives were subsequently implemented, including joint competition in 2012 of almost 700 medical products (including non-patented medicines) and 600 medical equipments by numerous actors of the public health sector. The Mexican Institute for Competitiveness assesses that new projects initiated by IMSS in 2011 to address recommendations of the OECD have already resulted in important savings in procurement spending for selected medicines and in a 34% increase in bidders' participation (IMCO, 2012).

Lastly, while the availability of medicines in public institutions has improved (Knaul *et al.*, 2012), medicines still represent two-thirds of out-of-pocket payments for households covered by social security and 72% for households affiliated to Seguro popular.

Overall, further reforms are needed to improve efficiency in the purchasing and consumption of pharmaceuticals, and thereby also improve access to publicly reimbursed drugs for poor households.

OECD Key Recommendations

- Promote quality and cost-effectiveness of care by furthering illness prevention and health promotion initiatives, especially to address the growth in obesity and diabetes.
- Ensure adequate funding of the health system by introducing the necessary fiscal reforms.
- Reduce remaining barriers to access to services by improving service availability and quality and by progressively expanding the package of health care covered by the Seguro Popular.
- Over the longer term, create a broad-based health system with a single insurance package that applies to everyone and is portable across insurers.
- Further improve pharmaceutical purchasing and distribution processes, and the regulation of the private market. This will contribute towards further reducing price variations across states and purchasers, and increasing the availability of drugs at public providers.
- Increase efficiencies in purchasing practices and reduce the occurrence of bid-rigging practices through a more effective tender design limiting opportunities for collusive practices, and by training the procurement force at all levels of government on early detection techniques.
- Encourage greater efficiency of public providers of health services by introducing a clearer purchaser-provider split and output-based payment mechanisms.
- Improve governance of the system by strengthening information mechanisms and accountability frameworks for all institutions and by investing in managerial capacity at all levels of the system.

Further reading

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Chapter 8

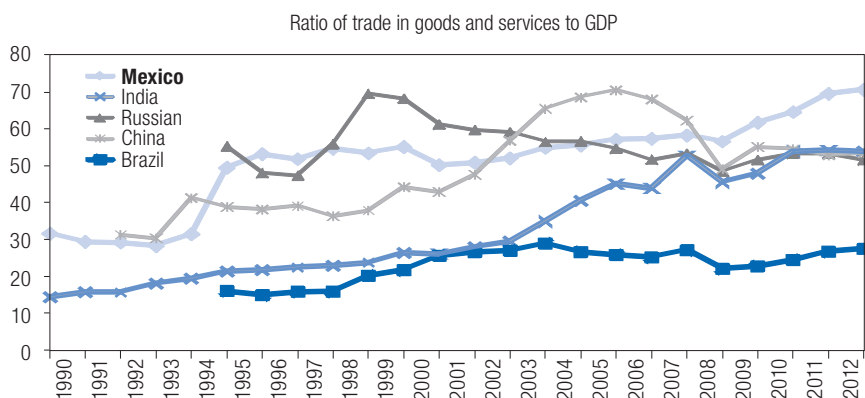
Integrating Mexico into the World Economy through Trade and FDI

Iza Lejarraga

Over the past two and a half decades, Mexico has progressively integrated into the world economy and become a regional economic powerhouse. Yet, the country has the potential to realise even larger dynamic, growth-enhancing gains from trade. It would benefit from developing trade flows to new destinations, especially those that can allow a greater integration with fast-growing economies. Likewise, the sophistication of export activities towards higher-valued tasks would foster productivity. In this context, the development of its services sector would offer new opportunities for trade and for the development of a knowledge-intensive economy. This requires developing strong, innovative and flexible supply chains that can feed into global specialisation and distribution systems. Here, improving competitiveness and easing regulatory barriers – notably restrictions on foreign investment and on competition in “backbone services” of the economy – is essential. This would both help promote exports of goods and services, and support the overall competitiveness of the Mexican economy.

Mexico's economy has changed remarkably over the past two decades, with the abandonment of import substitution policies in favour of outward orientation and integration into global markets for goods and services. The country's sustained trade liberalisation led Mexico to become the world's 14th largest exporter of goods, and the 35th largest exporter of services. The degree of trade openness (ratio of total value of exports and imports to GDP) doubled over the same time frame, and now represents 60% of GDP – above the levels of all four of the “BRICS” economies (Figure 8.1). Mexico is thus one of the most integrated economies into world markets. This opening has helped support growth in jobs and living standards. Trade liberalisation has also made the economy more resilient to external shocks. In the aftermath of the global economic crisis of 2008-09, for instance, Mexico experienced a severe recession but also succeeded in making a rapid rebound, during which its trade openness increased further.

Figure 8.1. Trade openness



Source: OECD Economic Outlook No 92 database.

Recent trade liberalisation efforts have been largely underpinned by unilateral trade reforms. The Mexican government was one of only a few member country governments to include trade liberalisation measures in its crisis response policy package. At the end of 2008, the government announced a unilateral import

tariff reduction over the period 2009-13, a move expected to reduce the average industrial tariff from 10.4% in 2008 to 4.3% in 2013. Consequently, consumers will benefit from lower prices in a wide array of final goods, as well as from a greater variety of products. Equally important, tariff reductions will lower the domestic costs of production, particularly since Mexico is a heavy importer of intermediate and capital goods. In effect, over three-fourths of Mexican imports are destined to international value chains.

Mexico's participation in bilateral and regional free trade agreements has also been important for promoting trade integration. Mexico currently has trade, investment and economic co-operation treaties with more than 40 countries, which jointly represent 75% of world GDP. Mexico recently enacted a free trade agreement (FTA) with Central American countries, reflecting its strategy to create new trade opportunities and export markets in the Latin America region, and complementing its consolidated position with the North American market within NAFTA. Last year, Mexico was invited to join negotiations for the Trans-Pacific Partnership (TPP); when concluded, these negotiations will further help the country expand its trade opportunities with the Pacific countries, which have a more diversified production structure.

Although the sharp export growth has yielded numerous benefits, Mexico can reap even greater rewards from opening its trade regime further. In particular, Mexico is well placed to capture greater dynamic gains from further trade, which has yet to deliver its full potential in terms of higher levels of economic growth. The rate of output growth since the mid-1990s has been slower than in previous decades (including the “lost decade” of the 1980s) (Table 8.1), reflecting a decline in the rate of physical capital accumulation and a downward trend in total factor productivity (See Chapter 1). Mexico can capitalise on its integration in world markets to increase its exposure to technological exchanges and attract higher physical investment levels.

Table 8.1. **Growth of GDP and exports**

(annual percentage change)

	GDP		Exports	
	1961-1093	1994-2011	1961-1990	1994-2011
Mexico	4.9%	2.6%	8.4%	9.7%
Brazil	5.1%	3.3%	8.5%	6.0%
India	4.2%	7.0%	6.4%	14.5%
China	7.3%	10.1%	6.3%	17.9%
Chile	4.2%	4.6%	7.3%	6.3%

Note: Data for China available 1979-2011.

Source: Data from World Development Indicators.

Key Challenges

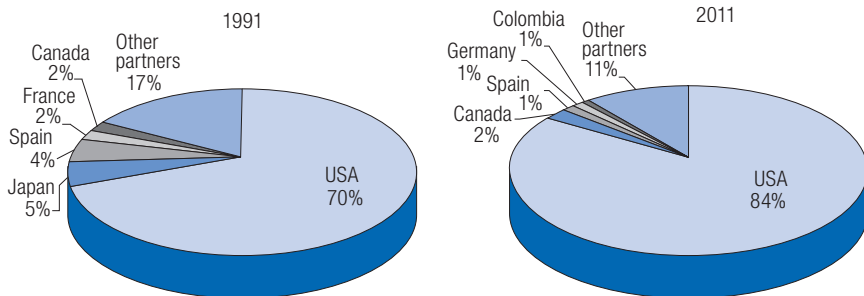
Consolidating trade ties with new partners to diversify markets

Product and market diversification constitute important elements of a growth-oriented trade agenda. There is mounting evidence that countries grow faster when they export a wider variety of goods, and when those goods have a higher degree of sophistication (see for example Hausmann et al., 2007). Moreover, when countries diversify market destinations, they create opportunities to export a wider variety of products, catering to different profiles of preferences and demands. Market diversification also shields countries from export collapses due to changes in demand or competition in one particular market. Hence, the expansion of market destinations is important to develop a more diversified export supply.

While Mexico has made efforts to diversify its trading partners, the size and importance of the North American market dominates its trade relations. This reliance on the United States market contributes to output volatility, as shocks to US output are magnified in Mexico (OECD, 2011). This was evident during the 2008-09 economic crisis, when Mexican GDP fell by 8.5% at the time US GDP fell by 4%.

Currently, 84% of merchandise exports are going to the United States (Figure 8.2). This dependence on the US market has increased since NAFTA, although it is less than in previous years, when it reached 90%. The pattern is not as pronounced in the case of Canada, where the share of exports to the US market remained constant (about 75%) during the pre- and post-NAFTA periods. Canada has been more successful in diversifying its export markets beyond its traditional trading partners in North America and Europe. In particular, China has emerged as an important trading partner for Canada, receiving 4% of its exports.

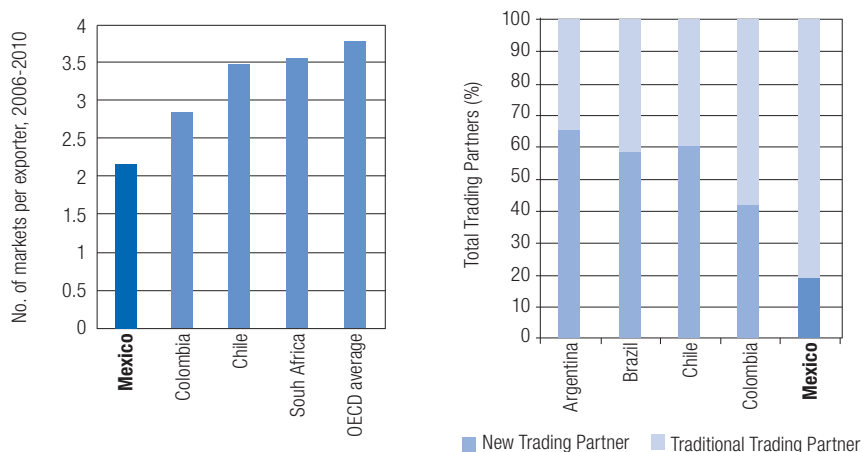
Figure 8.2. **Destination of Mexican exports, 1991 and 2011**



Source: Based on data from UN COMTRADE.

Mexico stands to gain from new trade ties with fast-growing economies other than the United States. On average, each Mexican exporting firm sends products to two countries, which is less than the OECD average (Figure 8.3). Mexico's exporting concentration is also pronounced by Latin American standards; most of the major exporters have diversified their trading partners over the past decades. At the beginning of the decade, over 60% of Brazil's and Chile's exports were to non-traditional trading partners (i.e. countries to which they were not exporting in the early 1970s). In contrast, new trading partners only account for 19.1% of Mexico's total export destinations. This suggests that Mexico has not yet fully exploited many of the market access gains that have been forged through FTAs with other countries. Clearly, it is important to promote better utilisation of those opportunities.

Figure 8.3. **Number of markets per exporter¹ and share of new trading partners**



Note: a traditional partner is defined by whether it was an export destination in the early 1970s.

Source: Based on data from World Development Indicators (left) and from Balza *et al.*, 2008 (right).

¹ The number of markets per exporter is drawn from the World Bank's *Exporter Dynamics* database. This new database is built from firm-level customs data and includes measures of exporter size, concentration, entry and exit, and diversification. The data cover 45 countries from 1997 to 2011, including 10 OECD countries (Belgium, Chile, Estonia, Mexico, New Zealand, Norway, Portugal, Spain, Sweden, Turkey). Data for Portugal are not complete, and so the OECD average is calculated on the basis of other member countries included in the dataset.

Exploiting the extensive margin of trade to spur growth

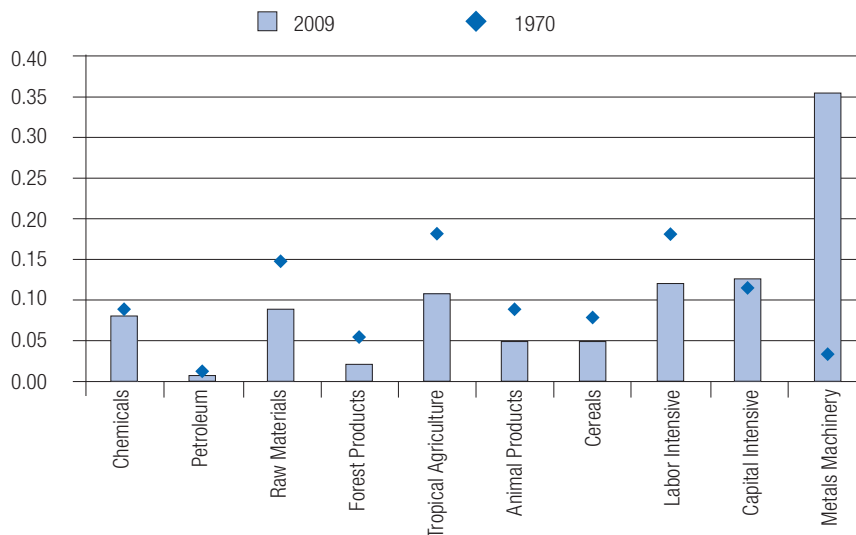
Mexico has the potential to realise more dynamic, growth-enhancing gains from trade. One possible avenue of trade creation can be pursued through further exploiting dynamic comparative advantages. While Mexico's export growth over the past two decades has been largely based on an intensive margin (i.e. exporting existing products to its usual trading partners), further trade creation can be generated through an extensive trade margin (i.e. creating new trade flows). Many emerging countries, including India and China, have based their trade growth on the extensive margin, transitioning to higher value-added exports. Mexico is well placed to pursue this trajectory, given the wide array of productive capabilities that it has developed in manufacturing, which can be redeployed in the discovery of new sources of value-added.

Remarkably, most of the products that Mexico currently exports were developed in the 1970s. Balza *et al.* (2008) find that 80% of product lines exported by Mexico in 2000-04 were already exported in 1970-74, when Mexico underwent radical structural transformation. By the early 1980s, even before NAFTA, Mexico had one of the most diversified export baskets of Latin America, with a degree of diversification and sophistication in products that made it an outlier considering its level of income. The country gained comparative advantages in a wide array of products, ranging from chemicals and raw materials to labour- and capital-intensive products.

Over time, and in particular since the mid-1990s, Mexico narrowed its export basket across a range of products where it had previously revealed a comparative advantage. The country strengthened its specialisation in machinery products, particularly machinery related to vehicles and electronic products, and significantly increased the range of products where it had comparative advantages (Figure 8.4). It also maintained or slightly expanded its comparative advantage in capital-intensive products. Meanwhile, it ceased exporting products in areas with lower technological requirements, such as raw materials, tropical agriculture and labour-intensive products.

This evolution largely resonates with the experience of the Asian emerging economies, with a first stage characterised by diversification followed by specialisation in high-technology products (OECD, 2012b). Mexico enjoys a relatively favourable pattern of comparative advantage, providing opportunities for future growth if a series of structural reforms are adopted. Approximately 72% of Mexico's manufacturing exports are classified as medium- and high-technology products, a share similar to that of Korea (OECD, 2009, 2012b). Mexico should therefore exploit the installed technological capabilities that already exist in its export profile to increase its productivity and "migrate" towards exports of high-productivity goods.

Figure 8.4. **Mexico's comparative advantages, according to Leamer product categories**



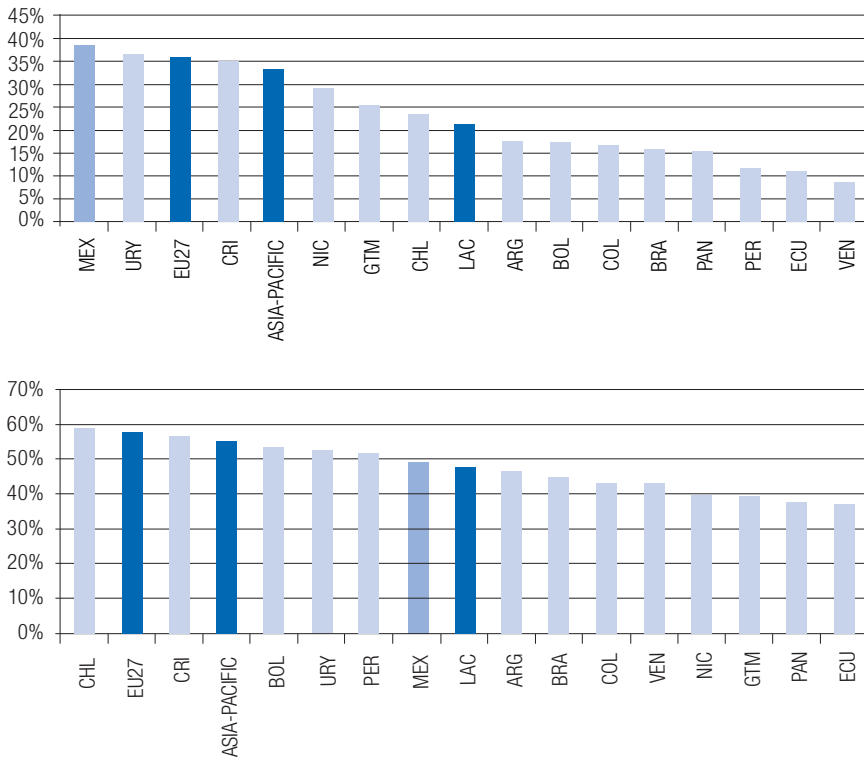
Source: Author's calculation, based on OECD (2012), *The Product Space and the Middle-income Trap: Comparing Asian and Latin American Experiences*, OECD Development Centre, Working Paper No. 311, April.

To realise this potential, however, Mexico needs to increase domestic value-added share in manufacturing activities. Whereas the value-added of the manufacturing sector in Mexico was higher than that of Korea in the early 1970s, it has since decreased – from a level of 21% to 17.6% by 2009. This decline results from the growing influence of *maquilas* and other final-assembly activities, which tend to generate less value-creating activity upstream and downstream in the production process. Conversely, Korean value added in the manufacturing sector has steadily increased over this time, from 18.5% in 1970 to a level of 28% by 2009 (OECD, 2012b).

Higher value-adding in regional and global value chains

The geographical fragmentation of production, and with it, the emergence of regional and global value chains (GVCs), offers new opportunities to expand trade and generate new export activities. For goods and services alike, the production process has been unbundled into multiple stages that take place in different parts of the world. In this context, comparative advantages can be created in certain

Figure 8.5. **Mexico's participation in global value chains**

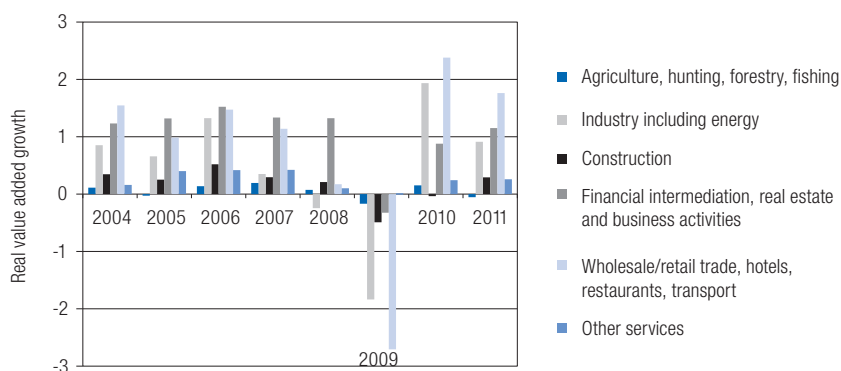


Source: Based on data from the Inter-American Development Bank.

“tasks” or intermediate parts of these value chain processes, rather than in final goods. The challenge remains, however, to move up the value chain to capture higher-productivity tasks, as well as to expand capabilities along a wider range of interconnected tasks in the value chain.

In fact, Mexico is already becoming an active participant in global value chains; a comparatively high proportion of foreign value-added is embodied in Mexico's exports (Figure 8.5). The country's participation in global value chains is also higher than the Latin American average, but lags behind that of Europe and Asia. Mexico has become one of the emerging locations for the supply of offshore services, and has been successful in capturing opportunities from its proximity to the US demand pole.

A challenge facing Mexico is how to create greater value-added in its export activities. A paradoxical trend in Mexico's trade structure is that as it has upgraded its specialisation patterns into more sophisticated, high-technology

Figure 8.6. **Contribution to real value-added growth**

Source: based on data from Instituto Nacional de Estadística y Geografía (INEGI).

products, factor productivity has been declining. While manufacturing plays an important role in Mexico's trade, its contribution to value-added growth is not as high as it was in previous decades. By contrast, most of the growth in value-added over past years is attributable to service activities, such as wholesale and retail trade, travel and transport, as well as financial intermediation and business services (Figure 8.6). Services activities thus seem to provide Mexico with more opportunities to generate internal value-added in global value chains.

Global value chains in services have immense untapped potential. Clearly, businesses are increasingly outsourcing not only the assembly of goods, but also many services related to their operations. The range of “non-core-business” services that are being performed offshore has increased in value-added and complexity, from data processing and call centres to financial and accounting services. In this context, Mexico can increase its participation in GVCs of services (e.g. the networks of services around tourism, the health industry, culture and the audiovisual sector), as opposed to specialising solely in services that are components of the manufacturing global chains (e.g. maintenance and repairs, marketing, logistics, after-sale services). Reducing the strong dependence on manufacturing can also be important for reducing macroeconomic volatility. Activity is normally more stable in the services sector than in manufacturing, particularly in services that are not directly linked to manufacturing – such as information technology and communications, passenger transport and retail banking.

Developing competitive, flexible and innovative supply chains

Mexico's success in attracting large multinational companies in highly globalised sectors – such as automobiles, aerospace, pharmaceuticals and a host of other manufacturing industries – heralds the opening of many avenues to

advance Mexico's integration into global value chains. Emerging opportunities in services value chains will also unfold new possibilities for diversifying Mexico's participation in world markets.

In order to fully exploit and expand these opportunities, Mexico needs to strengthen its supply chains feeding into the global production and distribution systems. It is important to develop networks of flexible, innovative and interconnected firms that can supply an array of goods and services to GVCs. Large multinationals increasingly need competitive local suppliers that can meet international quality standards. At the same time, the technological and knowledge spillovers can be maximised by enhancing local suppliers' capacity to absorb and integrate technological and managerial knowledge. Investments in human skills, research and development, and innovation are therefore called for to increase the capture of value. This includes enhancing the capabilities of small and medium-sized enterprises (SMEs), which are well placed to capture one or more concrete "tasks" along the value chain (see Chapter 10 on SMEs).

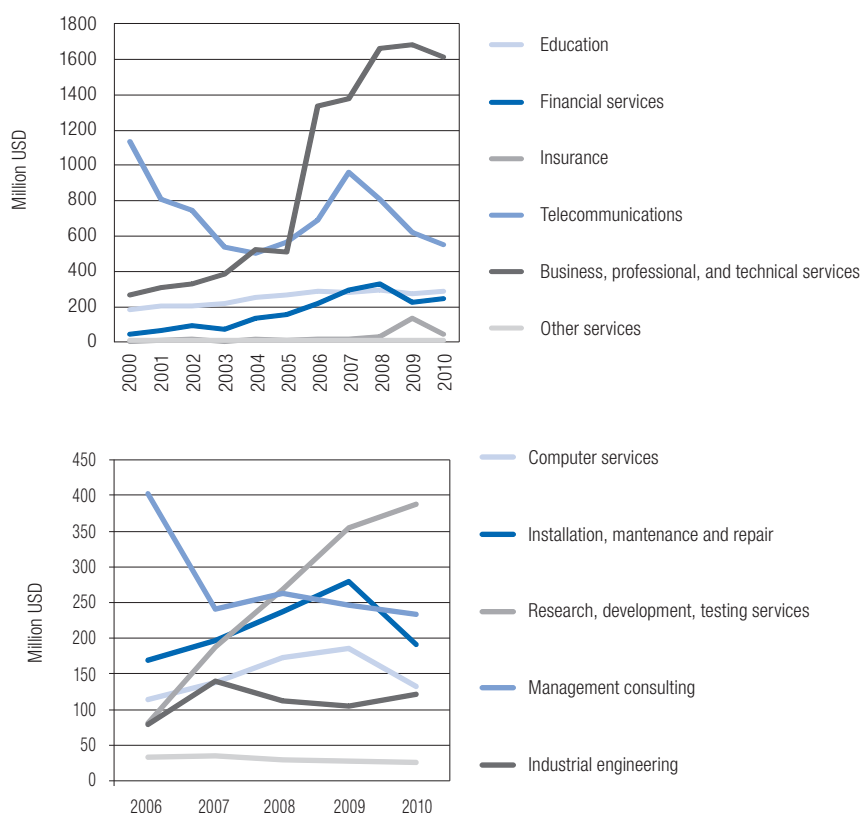
The emergence of stronger supply chains also hinges on the local business environment and institutional framework. One critical aspect in this regard is again the development of human skills; these are particularly important if Mexico is to diversify into services value chains, which rely heavily on knowledge and human capital. Another crucial element for supply chains to operate efficiently is the development of digital infrastructure. In particular, access to reliable communications at lower costs enhances suppliers' ability to compete on a global scale (see Chapter 9). Finally, an enabling institutional and regulatory framework provides greater transparency and predictability for all agents in the supply chain, thereby facilitating the co-ordination and integration of their economic activities.

Expanding the services sector and attracting higher levels of investment

Despite the fact that greater specialisation in services could be advantageous to the Mexican economy, the country's share of OECD trade in services remains below potential in contrast to its dynamic participation in merchandise trade. The share of services in Mexican GDP has remained fairly constant over the past decade, at just over 60% and below the OECD average of 73%. Similarly, 60% of Mexico's labour force is engaged in services activities, as compared to 70% in the OECD area. In most OECD countries, labour productivity in services outweighs labour productivity in goods. Furthermore, non-traditional services tend to offer greater wages and more transmission channels for technological change.

Mexico has the endowments to promote a more dynamic services sector, and should continue to invest efforts in generating a competent and bilingual labour force, an enabling digital economy, and good air connections among other critical factors for services competitiveness. In the A.T. Kearney Global Services Location

Figure 8.7. Mexican service exports to the United States



Source: Based on data from the US Bureau of Economic Analysis.

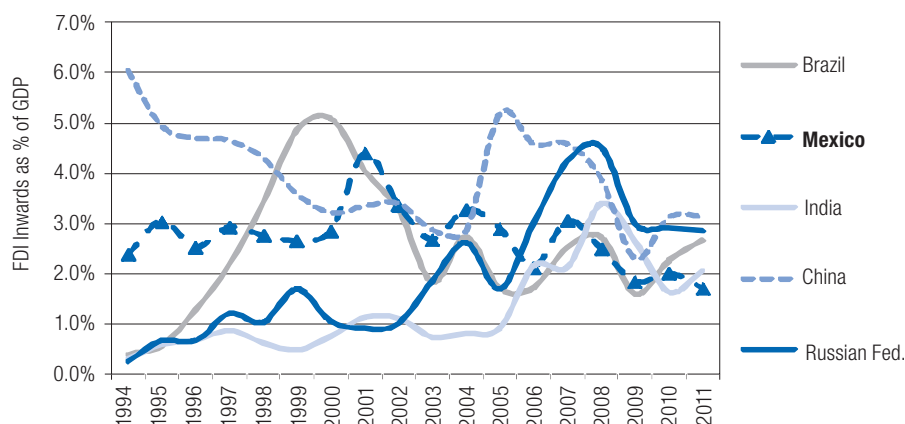
Index of 2011, Mexico is ranked 6th in the top 50 countries for service activities, based on financial attractiveness, personnel skills and availability, and the overall business environment. While Mexico shares with the top locations of India and China cost advantages and large talent pools, it has a further clear advantage relating to its geographical proximity to, cultural affinity with, and same time zone as the United States, the country that is likely to remain its largest demand pole for outsourcing services in the foreseeable future. Mexico also caters for the growing Spanish-speaking population in the United States and has strong links with its Diaspora.

As a promising offshore location for service activities, Mexico has already begun to show its potential in exporting key services. Business, professional and technical services exports to the United States have increased very rapidly over this decade, with an annual average export growth of 47% (Figure 8.7). This has been led mostly by high value-added research development services, which have grown by 70% on average each year between 2006 and 2010.

Regarding professional services, Mexico is also exporting management consulting services and industrial engineering services; in contrast, very few exports of legal services are reported, reflecting the high trade barriers in this sector. Mexican exports of financial services experienced important growth of over 30% annually in 2001-10, which has abated since the financial crisis. Finally, telecommunications exports contracted during the first half of the decade, and have remained highly volatile in recent years.

Mexico also needs to attract greater levels of investment for job creation and physical accumulation. In 2011, the country garnered close to USD 20 billion FDI and was the second largest recipient of FDI in Latin America after Brazil. Although still sizeable, inward FDI has fallen from the highs achieved of around USD 31.5 billion prior to the financial crisis (2007) and USD 30 billion at the beginning of the previous decade. At less than 2% of its GDP, Mexico's inward FDI is also lower than in the BRIC (Figure 8.8). The main investor is the United States (55% of FDI inflows) followed by Spain (15%), revealing a high concentration of investment partners (ECLAC, 2012). Services captured 52% of inward FDI, with financial services attracting the highest share of FDI (18% of the total) (ECLAC, 2012).

Figure 8.8. **Ratio of foreign direct investment inflows to GDP, 1994-2011**



Source: Based on the OECD International Direct Investment database, Eurostat, IMF.

Easing Regulatory Barriers and Increasing Competitiveness

While Mexico has broadened its international integration, its rigid regulatory framework and its overall competitiveness continue to pose challenges for deepening economic integration into world markets (Table 8.2). Bottlenecks

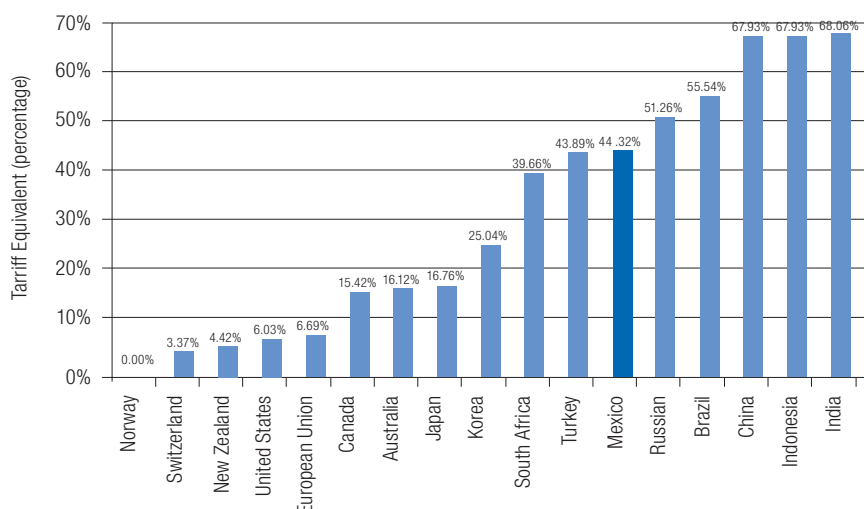
persist that limit the country's potential to compete globally. In light of rising competition from Asia and other locations in Latin America, Mexico needs to be able to generate higher levels of skills in its workforce as well as innovation, while ensuring that key inputs into modern production are competitive.

Table 8.2. **Mexico's international competitiveness in services**

Strengths	Opportunities
• Geographic proximity to the United States • Air transport: frequency, costs, duration • Cultural compatibility • Language: bilingualism • Availability of skilled labour force • Enabling digital infrastructure	• Strong diaspora in United States • Mature Business Process Outsourcing (BPO) market (finance, accounting) • Diversification of products and exports • Large internal market • New trade ties (Trans-Pacific Partnership, Central America, International Services Agreement) • Rising costs in China & inflation in India
Weaknesses	Threats
• Concentration exports & markets • Government support & incentives • Perception of lack of security • Trade facilitation and logistics • Efficiency of domestic regulation • Services and investment statistics	• Costs (telecoms, real estate) of inputs • Competition (China, Philippines, Eastern Europe, Latin America and the Caribbean) • Brain drain of human qualified labour to the United States • Low rates of innovation • Political instability and insecurity • Regulatory barriers in "backbone services"

Given that Mexico has already made great strides in liberalising tariffs and reducing other barriers to trade in manufacturing, further liberalisation is likely to yield relatively modest marginal returns. In contrast, substantial welfare gains can be reaped through liberalisation of services, where barriers remain high. According to recent estimates (Figure 8.9), the tariff equivalent of regulatory trade barriers in services is about 44.32%, a reflection of Mexico's high regulatory entry barriers relative to most OECD countries. A 50% reduction of these barriers within the prospective International Services Agreement will yield important trade gains, with an increase of USD 5 billion in Mexican services exports (Hufbauer, Radford and Stephenson, 2012). Moreover, enhancing the competitiveness of a broad range of services (such as professional services, research and development, ICT) would help promote a more knowledge-intensive economy.

Many of Mexico's existing barriers to trade in services relate to the vested interest as in the case of restrictions on foreign direct investment in a number of sectors reserved for the State or for Mexican citizens, or where foreign participation is limited to ceilings. These barriers are prevalent in "backbone services", such as telecommunications (Chapter 9), energy (Chapter 12) and transport. As these services are also key inputs into the production of manufactures and

Figure 8.9. **Tariff equivalents of regulatory barriers to services**

Source: Based on Hufbauer, Radford and Stephenson (2012).

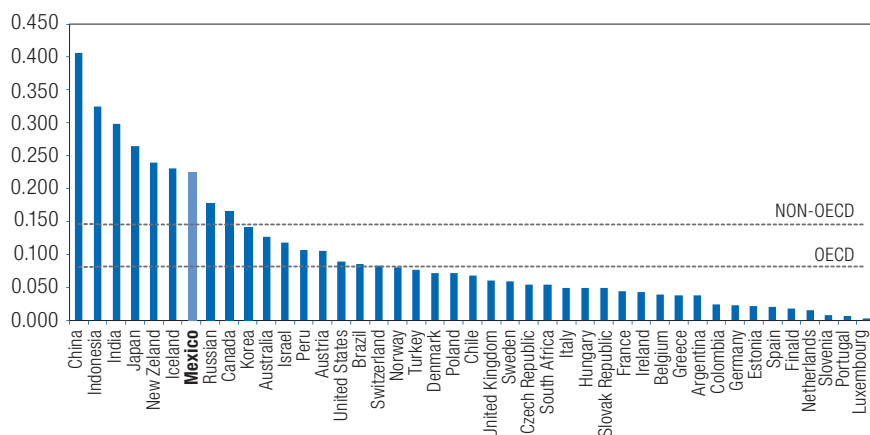
the extractive industry, reforms would translate into lower costs and higher competitiveness across the productive process. Therefore, envisaged measures in the Pact for Mexico aimed at lowering barriers to entry in strategic sectors (commitments 43, 44, and 57 on radio and TV, telephony and data services, and oil refinery, petrochemical industry and transportation of hydrocarbons, respectively) should enhance the competitiveness of the economy.

In the 56 countries that are reviewed in the OECD FDI Regulatory Restrictions (FDI RR) Index, Mexico is the country with the ninth-highest level of restrictions on foreign investment (Figure 8.10). As of April 2012, the country's FDI RR Index was well above the OECD average (0.225 compared to 0.083), but also above the average of non-OECD Members (0.146). The most stringent measures pertain to foreign ownership restrictions: up to a maximum of 49%, for instance in the case of fixed-line telephony. In energy gas is closed, and there are state-owned monopolies in the distribution of electricity and production of oil. In transportation, restrictions are particularly stringent in road and rail freight logistics services (notably storage services), which hinder the quality of trade facilitation. At a more horizontal level, one of the key deterrents for FDI in Mexico is the 10% cap on foreign employees, although this does not apply to managerial staff.

Finally, product market competition is weak in many sectors in Mexico, and this often hurts firms' competitiveness, productivity and consumer welfare (Chapter 1). Analysis conducted jointly by the Mexican Federal Competition Commission (CFC) and the OECD suggests that the average Mexican household

Figure 8.10. **FDI Regulatory Restrictions Index, 2012**

(1 = the highest level of restrictions, 0 = the most open environment)



Notes: Preliminary scores, subject to modifications. The non-OECD average also includes the following countries, not represented in the graph: Egypt Jordan, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Mongolia, Morocco, Romania, Saudi Arabia, Tunisia and Ukraine.

Source: OECD, 2012 – updated as of April 2012.

spends close to a third of its budget on products that are produced in monopolistic or highly oligopolistic markets, and this share is even higher for the lowest-income households. In a number of sectors, regulations help market incumbents prevent new firm entry or effective competition from existing competitors. Further efforts to promote competition would lead incumbent firms to lower prices and become more efficient and innovate, thereby enhancing productivity growth and improvements in living standards.

Conclusions: a road map for further reforms

Over the past two and a half decades, Mexico has progressively integrated into international markets, becoming an important regional economic powerhouse. This success in using trade to foster development provides a vivid example for other countries in the OECD area and beyond of what market-friendly policies can achieve. Yet, with the global economy slowing, it would appear important for the country to continue its reform efforts, broaden and deepen past trade reforms, and make its growth truly inclusive.

In this context, several issues warrant the attention of decision makers:

- Mexico has successfully taken advantage of the opportunities provided by NAFTA, and has significantly increased its trade with Canada and the

United States. Indeed, the United States is by far the country's largest partner for exports and imports, and largest source of FDI. Yet, with the slowing of the North American market in recent years, Mexico has concluded a number of free trade agreements to broaden its commercial relationships. *Deepening integration with fast-growing economies, particularly those whose business cycle is independent of the United States, will ease volatility in export earnings and output.* Mexico's active efforts to participate in the Trans-Pacific Partnership (TPP) and similar initiatives are promising steps in that direction. It is also important to *consider how enterprises, including SMEs, can better take advantage of free trade agreements.*

- Mexico's export growth over the past two decades has been largely based on the intensive margin of trade (i.e. exporting existing goods to its usual trading partners). Considering the diversified and relatively sophisticated nature of its manufacturing profile, Mexico has the potential to *realise more dynamic gains from trade through developing the extensive margin* (i.e. exporting new products to new partners). In this context, it is necessary to take advantage of *technological spillovers* from its existing export basket to spur innovation and increase productivity in other high value-added activities.
- Mexico is already emerging as an active participant in global value chains (GVCs), and has been striving to attract activities that require higher productivity. The highest growth in value-added in Mexico over the past decade is attributable to service activities, such as financial intermediation and business services. Mexico could therefore usefully *deepen and expand its services capabilities as a means of generating higher value-added in GVCs*. This will require strengthening supply chains, so that firms can capture higher value in these chains.
- Mexico has the right set of endowments to promote a more dynamic services economy, and it should continue and reinforce its efforts in the area of pro-competitive regulatory reforms. The current share of services in Mexico's GDP and total employment is below the OECD average, suggesting that there is potential to increase services output. *Easing regulatory barriers to services – which have, by one estimate, a tariff equivalent of 44% – promises substantial welfare gains.* Just as Mexico has made great strides in the liberalisation of merchandise trade, it could boost the benefits of trade by addressing distortions in service sectors. A strong services sector will also provide a good foundation for the development of a more knowledge-intensive economy.
- In particular, Mexico should consider addressing restrictions to foreign investment and competition in some of the “backbone services” of the economy, such as transport and logistics, telecommunications and energy. Since these sectors provide key inputs for agriculture, manufacturing and other

services, competition-enhancing regulatory reforms would translate into lower costs and higher levels of competitiveness across the entire productive portfolio, and benefit consumers as well.

OECD Key Recommendations

- Diversify trading partners and export markets, exploiting more fully the opportunities from new and existing free trade agreements.
- Focus on the extensive margin of trade (i.e. export new products to new destinations); above all, specialise in “tasks” and other activities of the global value chain that entail higher productivity levels.
- As part of a strategy to become a more diversified and knowledge-based economy, deepen and expand services capabilities to take advantage of new export opportunities in services markets.
- Promote the development of flexible, competitive and innovative chains of domestic suppliers that can feed into worldwide specialisation and distribution systems.
- Reduce barriers to foreign participation and competition in “backbone services”, such as transport and logistics, telecommunications and energy.

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Chapter 9

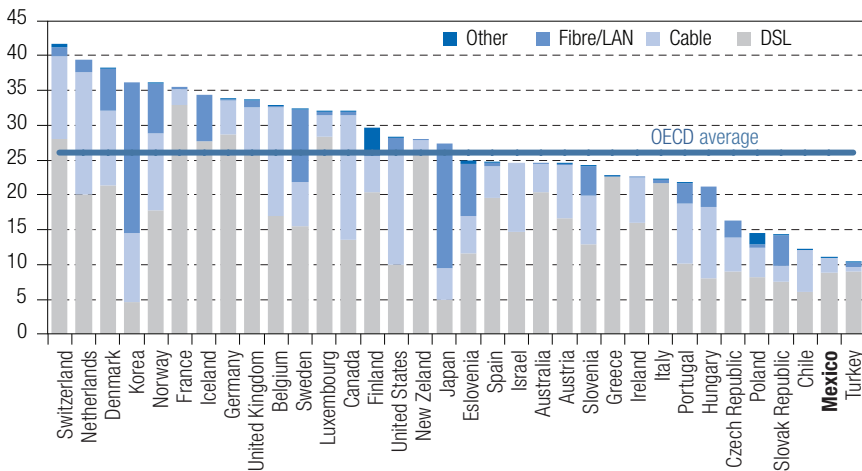
Improving the Efficiency of the Telecommunication Sector

Agustín Díaz-Pines

Telecommunication is an important driver of productivity and growth. Reforms in this area are critical for Mexico's growth potential to be realised, and to improve competitiveness and living standards. Inefficient telecommunication markets impose a significant cost on the Mexican economy and on the welfare of the population. Although some progress has been made in recent years through regulatory reform, that progress has been insufficient; a number of measures are still needed to ensure that effective competition develops in telecommunication markets. The *OECD Review of Telecommunication Policy and Regulation in Mexico* (January 2012) put forward a number of recommendations for reform and, partly as a response to the review, Mexican authorities have indeed embarked on some of these reforms. In its inaugural Message to Nation, President Enrique Peña Nieto announced the decision to promote greater competition in the sector, which was formally included in the Pact for Mexico in a number of commitments to improve efficiency in the telecommunications sector that are fully compatible with the recommendations put forward in the *OECD Review*.

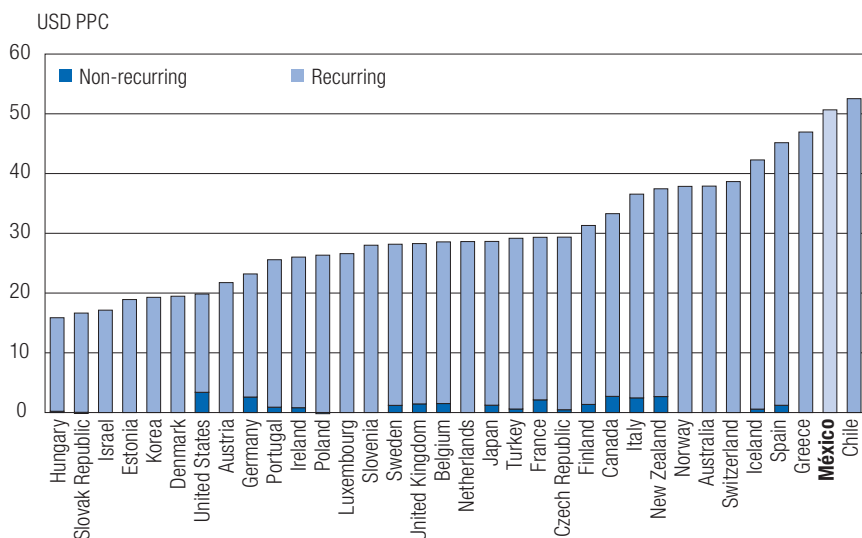
Lack of competition in the Mexican telecommunication sector has slowed the take-up of new services, led to extremely high prices for consumers and businesses, and imposed a cost on the economy (see the *OECD Review of Telecommunication Policy and Regulation in Mexico* published in January 2012). Inefficient policy and regulatory frameworks have been unable to effectively tackle the quasi-monopoly market conditions. As a result, per capita investment has been low relative to other OECD countries, as has take-up of communication services in all market segments (Figure 9.1). Mexican broadband users paid among the highest prices in the OECD area for an average fixed broadband subscription in 2011 (Figure 9.2). Preliminary data for September 2012 show no improvement. Similarly, prices for fixed and mobile services are among the highest in the OECD area, which impacts far more on lower-income groups. Addressing these market weaknesses is essential to transform Mexico's communication sector into a platform for innovation and competitiveness for the entire economy.

Figure 9.1. **Fixed (wired) broadband subscriptions per 100 inhabitants, by technology, December 2011**



Source: OECD.

Figure 9.2. **Price of Broadband Subscriptions OECD basket Low 2 - 6 GB, 2.5 Mbit/s and above, September 2011**



Source: OECD and Strategy Analytics (T-Connect).

Fresh momentum for reform

Existing policy and regulatory frameworks in Mexico fall far short of OECD best practice and have created uncertainty in the market. Even if a number of proposals have been put forward for reform over the past decade, change has been slow and initiatives have often not succeeded. In many cases, efforts to reform the policy and regulatory frameworks have been frustrated by legal processes. The use of injunctions (*amparos*) by market participants – in particular by the fixed and mobile incumbents – has often frustrated reform, with the courts at times replacing the legitimate role of government in implementing economic policy and regulation.

The OECD Review puts forward a range of proposals – institutional, policy and regulatory – which are needed to help develop a more efficient and competitive market. Change is required on all fronts in order to tackle deeply ingrained market dominance. Many of the recommendations are aimed at strengthening the sector-specific regulator, Cofetel, since market competition must come from constraining abuse of dominant position while creating opportunities for new entrants to obtain effective and equivalent market access. These areas are the responsibility of a regulator, but would need in many cases the support of the policy-making body to ensure that new laws are in place, and to confirm the powers of the regulator.

The following highlights some of the main OECD recommendations from the Review:

- A number of regulatory initiatives need to be taken to increase competition in the market and reduce the abuse of dominant market power. In that sense Cofetel should be empowered to undertake market analysis to determine whether a player or players have significant market power and put forward appropriate remedies, including asymmetric regulation. This process would also allow Cofetel to designate the bottlenecks and essential facilities in the market and to establish non-discriminatory conditions for access to these facilities. That access should include full unbundling of the incumbent's local loops, including collocation at cost-based pricing. In addition, Cofetel should be authorised to regulate interconnection tariffs *ex ante* to foster competition among operators and facilitate sector development and growth. The issue of local calling areas (ASLs) has been of particular concern to new entrants who do not have national coverage. Several attempts in the past to consolidate local calling areas, mainly in rural parts of Mexico, have failed as a result of injunctions. Telmex has refused to provide points of interconnection in so-called non-competitive areas, requiring new entrants to pay significantly higher wholesale long-distance charges ("long-distance resale rates"). As a result, calls between two areas are considered long-distance calls and not local calls. Cofetel should move forward urgently, and as a matter of public interest, review the arguments for consolidation and decide on the basis of objective criteria which areas should be subject to consolidation.
- Cofetel should be provided with the authority to declare that a market participant has significant market power and subject that company to appropriate remedies. Effective regulation would also confer on Cofetel the right to impose sufficient sanctions to ensure that companies adhere to its decisions and act as a real deterrent to unfair competition. The existing level of fines it can impose is extremely low. Similarly, Cofetel should be able to request information from companies necessary for it to monitor performance, and to determine if a company is meeting its obligations or engaging in unfair market practices. The obligation to provide information to the authorities should not be prevented by the courts as it has been in the past, and non-compliance to requests for information should be subject to fines.
- The development of competition can be enhanced by allowing for a streamlined procedure for market entry, reducing barriers to entry, and eliminating the concession system in the fixed-line and broadband markets as well as eliminating the foreign investment restrictions on fixed-line telecommunication operators. Cable operators should be able to obtain a

national licence rather than being required to obtain individual licences for various regions. In the mobile sector, entry of resellers – including mobile virtual network operators – should be further facilitated. Introducing a national roaming obligation among mobile network operators would also help increase competition in that market segment. In a streamlined market entry framework, companies with significant market power would be subject to specific asymmetric provisions that could be withdrawn over time once effective competition has developed.

- Convergence is developing rapidly in communication markets and helping develop new forms of competition; with an inadequate regulatory framework however, convergence can strengthen dominant positions in the market. For this reason the *OECD Review of Telecommunication Policy and Regulation in Mexico* recommended that Telmex should be authorised to provide television services only when it is subject to, and complies with, adequate asymmetric regulations, and new entrants have effective access to designated essential facilities. In the broadcasting market the current situation of only two free-to-air national broadcasters does not meet media plurality standards, especially considering the high penetration of this technology in Mexico and existing cross-ownership links with the pay-TV industry. In order to ensure media plurality, the government should award a third and fourth free-to-air national television licence, in a fair, non-discriminatory and neutral process. Renewed efforts by Cofetel to move forward with the transition to digital terrestrial television are welcome; these should continue, to ensure that the process is swift and the transition complete by 2015. In this context, the licensing of new DTT broadcasters should move forward as well.
- Consumer protection and empowerment are essentials in developing effective competition. In this regard it is necessary to have a clear division of responsibility between Cofetel and Profeco in regard to consumer protection and empowerment, including a transparent dispute resolution procedure that specifies timelines for resolution of customer complaints concerning service quality and delivery. Switching from one telecommunication operator to another should be made easier, cheaper, and faster; the time for number portability should be reduced, and a requirement introduced for mobile operators to unlock handsets after a set period (e.g. six months).
- The current legal system, which allows the courts to suspend and overturn policy and regulatory decisions, is harming the public interest and needs to be reformed. This abuse of *amparos* by telecommunication operators, and in particular the incumbent fixed and mobile operators, has frustrated and delayed regulation designed to promote competition as courts often

suspend and overturn policy and regulatory decisions. The Supreme Court issued a decision in 2011 on interconnection that allows the regulator's decision to remain in force until the appeal process has run its course. This is a very positive step that needs to be extended to include other regulatory and policy decisions. A number of proposals have already been put forward for reform to ensure that the government's role in public policy is safeguarded. One involves setting up special judicial panels to hear court appeals on telecommunication issues, where the judges have knowledge of the telecommunication sector; another would create a specialised Federal Court that could deal with appeals in this sector.

- Institutional reform should also be given priority. The relationship between policy and regulatory bodies needs to be clarified and formalised to ensure that the responsibility for regulation is fully the domain of Cofetel and the secretariat for transport and communications (SCT) remains responsible for policy. The present lack of clarity results in an inordinately long and uncertain decision-making process; complicating things further is the so-called “double window” whereby, as an example, following receipt of Cofetel's opinion, the SCT starts its own investigation and draws its own conclusion. The different institutions should maintain close co-operation, underpinned by clearly established procedures that ensure good co-ordination.
- Cofetel does not have sufficient independence, autonomy or power to effectively carry out its mandate to supervise, review and promote competition and efficiency in the development of the telecommunication sector. Cofetel should have similar powers to Cofeco (Comisión Federal de Competencia México) in carrying out its mandate in the telecommunication sector, including budgetary autonomy.
- Cofetel needs to develop an open and transparent process for reaching decisions and determining regulations. Market participants, as well as consumers and users, should have the opportunity to comment on proposals, and these comments should be made public while respecting commercial confidentiality issues. Cofetel, in reaching decisions, should provide the underlying rationale for these decisions. Transparency also requires that Cofetel establish and adhere to clear rules of procedure, and establish appropriate timeliness, reporting processes. Improved transparency in decision-making processes would reduce the risk of litigation and improve the overall quality of Cofetel's decisions.
- The SCT should be given responsibility for periodic performance assessments of the telecommunication sector, and set the main policy objectives. But, as a ministerial body, it should not have direct responsibility for making decisions about prices, interconnection arrangements, *ex ante*

regulation, fining, or issues dealing with market competition. Enforcing and revoking licences is a regulatory and not a policy function, so it is appropriate that Cofetel should have these powers.

Ongoing initiatives

At the launch of the OECD Review in Mexico in January 2012, the Mexican minister of transport and communications announced ten measures, partly as a response to the Review's recommendations (see Box 9.1). Some of these initiatives have already been launched. It is essential, however, that the fundamental reforms mentioned above that are aimed at creating a competitive market are implemented, and that the momentum for reform is maintained.

On 28 March 2012, the SCT published a list of 6 400 government facilities that will be made available to telecommunication operators for the installation of telecommunication equipment, to improve coverage and quality of service. More recently, the SCT indicated that this number would increase to some 30 000 buildings. In March 2012 the SCT adopted the Digital Agenda of Mexico, which sets down a number of objectives and strategies for the use and development of information and communication technologies; these aim to enhance social inclusion, reduce transaction costs, and create new economic and employment opportunities (www.agendadigital.mx).

Moreover, in September 2012, SCT sent to Cofemer (Comisión Federal de Mejora Regulatoria) a proposal for administrative simplification regarding concessions. Once approved, it should alleviate the administrative paperwork necessary to obtain a telecommunications license.

SCT also has announced new measures to remove the so-called double-window mentioned above (*doble ventanilla*), whereby a regulatory process is conducted twice by two different authorities in some areas. This would allow Cofetel to sanction operators directly without having to rely on the SCT to do so. Meaningful fines will act as a deterrent to ongoing anti-competitive behaviour, ensuring that regulation is adhered to and that policy objectives to improve services are met.

This is in line with OECD recommendations and the need to make the Cofetel more powerful and independent. Nevertheless, no significant changes have been made so far, largely due to lack of parliamentary consensus and the ongoing transition to the new administration. SCT has, however, initiated the procedure for approving Cofetel's internal rules. Cofetel is also strengthening its transparency and accountability standards by issuing new consultation procedures on draft regulatory proposals. On 25 April 2012, it announced that it will launch a public consultation on costing methodologies and models for interconnection. It has also begun a consultation on spectrum policy (see below)

and approved a proposal for a price cap framework (on a basket of basic services) for the coming four years. But that proposal still needs to be adopted, amended or rejected by the SCT – an example of the double window.

The Supreme Court determinations confirming Cofetel's authority on interconnection rates have had a clear influence on the market. Smaller operators now pay much lower interconnection rates to terminate calls on Telcel's network, and some operators have introduced more attractive calling packages.

Some proposals have been put forward to eliminate the special tax on telecommunications (IEPS – 3%), as it places an undue burden on both industry and consumers. Elimination or allocation of a fraction of this tax to fund the regulator would be a welcome step.

Some of the more complex measures, such as spectrum tenders, require lengthy administrative procedures and are subject to legal uncertainty and *amparos*, which makes measuring actual progress indeed challenging. Other initiatives require substantial legal changes, for which the participation of Congress is crucial. Given the period of inactivity of Congress during the transition phase, these initiatives have been postponed.

Box 9.1. Ten measures proposed by the minister of communications and transport (31 January 2012)

1. Availability of Federal government facilities for the installation of telecommunications equipment (masts, towers, antennas, etc.). An initial list would include some 6 000 buildings, which could be leased by telecommunications operators.
2. Deployment of fibre ducts across selected roads all over the country.
3. Tender of an additional pair of fibre strands of the CFE (Federal Electricity Commission).
4. A National Spectrum Plan. More spectra should be auctioned, for example in the 1.7 GHz and 3.5 GHz bands. Spectrum use should be restructured to improve its efficiency. The 71-76 GHz and 81-86 GHz bands should also be declared unlicensed (free use) spectra.
5. Amendments to the legal framework to increase competition, legal certainty and investment incentives, for example in the area of foreign direct investment (there is a 49% limit for fixed communications).
6. Harmonisation of internal regulations of the ministry of transport and communications (SCT) and Cofetel.

7. Extension of broadband access to 70 000 facilities, including schools, hospitals and government buildings. Increase in the number of telecentres, from 6 788 to 24 000 by the end of 2012.
8. Promotion of unprofitable urban fibre networks that serve social needs.
9. Establishment of an Internet Exchange Point (IXP).
10. Consolidation of the Mexican Digital Agenda.

One of the most important announcements of President Enrique Peña Nieto in his inaugural speech was the decision to promote greater competition in the sectors of telephony, data transmission, TV and radio, including the tender of two free-to-air TV broadcasters and the constitutional right to broadband. The Pact for Mexico signed on 2 December 2012 by the new Administration and the main political parties details several commitments for the telecommunications sector (Box 9.2) When implemented these commitments should play an important role in reforming this sector and developing competition.

Box 9.2. **Commitments for reform included in the Pact for Mexico**

The proposal to create specialised tribunals in the area of economic competition and telecommunications (commitment 38) is important to ensure that consistent legal decisions are taken in the context of the *amparos* and that the public interest is adequately taken into account.

Commitment 39 – aimed at recognising the right of access to broadband and at preventing companies from evading the decisions of the regulatory body through *amparos* – complements commitment 38 and will play an important role in ensuring that competition can develop effectively within a policy framework put forward by the government.

As regards institutional reform, the *OECD Review* stressed the importance of increasing Cofetel's powers as well as ensuring that it operates in an open manner. Commitment 40 is consistent with this recommendation and proposes reinforcement of the autonomy and decision-making powers of the regulator, so that it operates under rules of transparency and independence with respect to the interests that it regulates.

The importance of using the CFE network to help generate further competition was highlighted in the *OECD Review* and is consistent with commitment 41, aimed at developing a robust trunk network; guaranteeing the growth of the CFE network; and improving broadband access in public locations.

Commitment 42 aimed at guaranteeing broadband Internet access in public buildings, promotes public and private investment in telehealth and telemedicine applications, and the implementation of the digital government strategy, open government, and open data. These are likely to play an important role in ensuring open access to and developing universal service.

The *OECD Review* stressed the importance of convergence in developing competition in communication markets, and highlighted the need to further plurality and competition in broadcasting markets. Commitment 43 calls for further tenders for more national free-to-air television channels, as well as “must carry” and “must offer” obligations, to ensure that radio and television broadcasting markets become more open and dynamic.

Asymmetric treatment in network use and tariff setting, regulation of (two or more) bundled services, and concentration rules for competition in telephone and data services – as outlined in commitment 44 – are crucial in developing competition and limiting abuse of dominant market power. This initiative coupled with the construction of a shared wholesale network using the “digital dividend” obtained from a shift to digital terrestrial television will also play a significant role in developing more open markets.

Spectrum as the key foundation for mobile communications

Management of spectrum is a crucial component of Mexico’s telecommunication policy. Ensuring that sufficient spectrum resources are made available for communication services, while promoting competitive conditions in wireless markets, poses challenges for every OECD country. Sufficient spectrum resources and backbone fibre, such as that of the Federal Electricity Commission, should be made available to meet the growing demand for mobile broadband data services and backbone connectivity. The Mexican authorities (in particular SCT and Cofetel) have recently undertaken a number of initiatives that should address these issues.

The SCT has announced that it will recover the 2.5 GHz band from MVS (the microwave pay-TV licensee), and re-auction it for wireless communications services. The band, underutilised for some time, has significant potential for use by mobile broadband services. MVS had been requesting a change in its licence as opposed to recovery by the government followed by a tender. In light of the OECD preliminary principles for spectrum management (Box 9.3), this initiative should be welcomed.

Cofetel has launched a consultation on spectrum policy – a positive milestone towards a comprehensive and balanced approach on the issue. In

addition, Cofetel has adopted the Asia/Pacific band plan for the 700 MHz band (digital dividend), rather than the United States/Canada standard. The Asia/Pacific standard is believed to be more efficient in the use of spectrum, and larger economies of scale are expected in terms of device availability. Therefore, pending a deeper analysis, the Asia/Pacific band plan seems to be a good choice and despite the likely legal challenges, Mexico could be in a favourable position to exploit the benefits of the digital dividend, given that the 700 MHz band is not as heavily used as in other countries. Nevertheless, the whole process is likely to take several years.

This comprehensive spectrum policy assessment that Cofetel is undertaking is also welcome and in line with the principles described in Box 9.3, and especially targeted at making available more spectrum for wireless broadband services (e.g. 700 MHz band).

Mexico is now starting the transition toward digital terrestrial television (completion expected for 2015), for which some financial resources are needed for funding decoders for consumers and extending coverage.

Box 9.3. **Preliminary principles for spectrum management**

Based on previous work on Mexico and on spectrum, the OECD can draw some preliminary principles for spectrum management:

- *Availability of spectrum* – Sufficient spectrum should be released to meet the growing demand for mobile broadband data services.
- *Transparency/auctions* – The market-based model includes auctions and trading with liberalisation in the secondary market. This approach is now the preferred method to assign spectrum in the majority of OECD countries. For instance, the European Commission encourages member states to introduce market-based approaches to spectrum management. Characteristics are the transparent process, explainable outcome, and economic efficiency as this approach allows applicants who value the spectrum most to use it.
- *Efficiency* – Underutilisation of spectrum clearly goes against the principles of economic efficiency and efficient use of spectrum, and should therefore be avoided.
- *Competition* – Care should be taken in the auction design to ensure that a single firm does not emerge as dominant in the mobile broadband data market.

Tender of a third and fourth national television broadcaster

Cofetel has conducted a consultation for tendering a third and fourth national television broadcaster (results published in December 2011). In June 2012, Cofetel approved the tender roadmap. This initiative follows up on the recommendation of the *OECD Review of Telecommunication Policy and Regulation in Mexico*, but may be subject to *amparos*.

It is essential that Cofetel pursue actions to continue the tendering process for third and fourth free-to-air broadcasters, which should benefit media plurality and increase competition in the advertising market. It is very encouraging that President Peña Nieto mentioned this as one of its 13 decisions announced in its inaugural speech and reflected in the Pact for Mexico.

A new structure for the secretariat for communications and transport (SCT)

The present Administration is considering splitting the secretariat for communications and transport.

This would go against the trend in most OECD countries, which have used the creation of an independent sector-specific regulator to significantly reduce the size of the ministry responsible for telecommunications (in many cases merging it within other ministries). Having a stand-alone ministry for communications would likely complicate the development of an independent and autonomous regulatory body that would increase the powers of Cofetel, as recommended in the *OECD Review*.

Setting up an Internet Exchange Point (IXP) in Mexico

The OECD review recommended the establishment of at least one Internet exchange point (IXP) in the country. The announcement, in November 2012, of the establishment of Mexico's first IXP is very welcome. The implementation of this IXP will be a significant step forward since Mexico was the only country in the OECD area without an (IXP). Around one hundred countries across the world have IXPs that enable the efficient exchange of local Internet traffic. There is perhaps no other single indicator that reflects more the lack of a functioning market for the development of the Internet economy. The fact that the exchange of traffic between Internet service providers in Mexico had to occur unnecessarily across borders was the cause for considerable concern.

Future steps

Broadband, which provides the support for Internet services, has a significant and positive impact on economies. At the firm level the Internet has restructured business models and improved efficiency. Its impact can also be seen in the rapid growth of new services. In rural areas the Internet has widened market opportunities and helped to better integrate these areas into the economy. For governments, Internet development enables better communication with citizens, industry and other organisations. The Internet has also helped improve the efficiency of governments and lowered costs through improved information sharing, increased transparency, and the automation of various resource-intensive services. It has also enhanced the capability of governments to provide essential services to its citizens – particularly in remote areas – in education, health, security and other public services. The Internet has also delivered widespread benefits to individuals by providing new social and economic opportunities as well as access to information.

However, for Mexico to fully benefit from the potential offered by efficient broadband infrastructures, considerable effort needs to be made to create efficient market structures with competitive prices to encourage investment in these infrastructures, and in their use. For this to occur requires policy and regulatory reform. While such reform is sector-specific, the benefits will be economy-wide.

Further reading

OECD (2012), *OECD Review of Telecommunication Policy and Regulation in Mexico*, OECD, Paris.

OECD (2012), *Internet Economy Outlook*, OECD, Paris.

OECD (2013) *Communications Outlook*, OECD, Paris.

Chapter 10

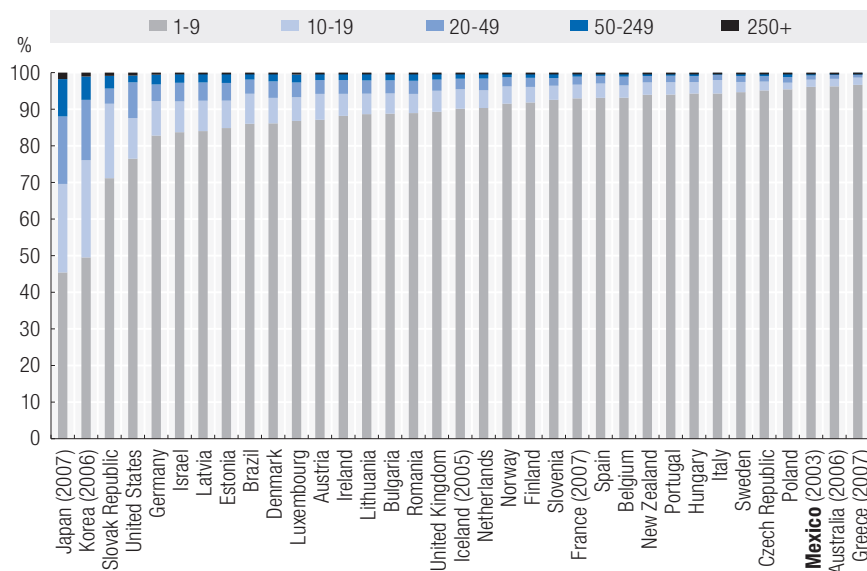
SMEs and Entrepreneurship in Mexico

Jonathan Potter and Marco Marchese

Small and medium-sized enterprises (SMEs) account for a large share of employment in Mexico, but their contribution to value-added remains limited. The framework conditions for SMEs and entrepreneurship have improved in recent years, thanks to reforms such as regulatory simplification, expansion of the national loan guarantee programme, and the integration of the micro enterprise sector into the public business support system. Nonetheless, administrative burdens on start-ups remain high, and SMEs still face restricted access to credit and limited new opportunities in innovative sectors. More needs to be done to reduce informality, improve access of SMEs to financing, and generate greater numbers of medium-sized companies able to innovate and become international businesses. Despite recent increases in budgets, the reach of many public programmes remains small compared to the target population of SMEs, particularly with respect to micro enterprises and innovative SMEs and start-ups. It is encouraging that the new administration has put strong priority in supporting the entrepreneur sector as reflected by the announcement in its first week of the forthcoming creation of the Institute of the Entrepreneur and significant reforms to the SME fund. These reforms should be oriented, besides increasing the size of the Fund, to strengthening the capacities of intermediary organisations; providing business support services on behalf of the government; and simplifying its operating rules and procedures.

Small and medium-sized enterprises (SMEs) are a vital part of the Mexican economy;¹ collectively, they represent 99.8% of all enterprises (Figure 10.1). SMEs also account for 72.3% of employment in Mexico, more than in most other OECD economies. In France and Germany for example, SME employment is around 60% of the total, while the share in Brazil, the largest Latin American economy, is 62.7% (Figure 10.3). However, the SME sector as a whole makes a considerably lower contribution to value-added in Mexico than it does in almost any other member country of the OECD, accounting for only 53.6% of the Mexican value-added.

Figure 10.1. **Enterprise by size class, 2008 or latest available year**



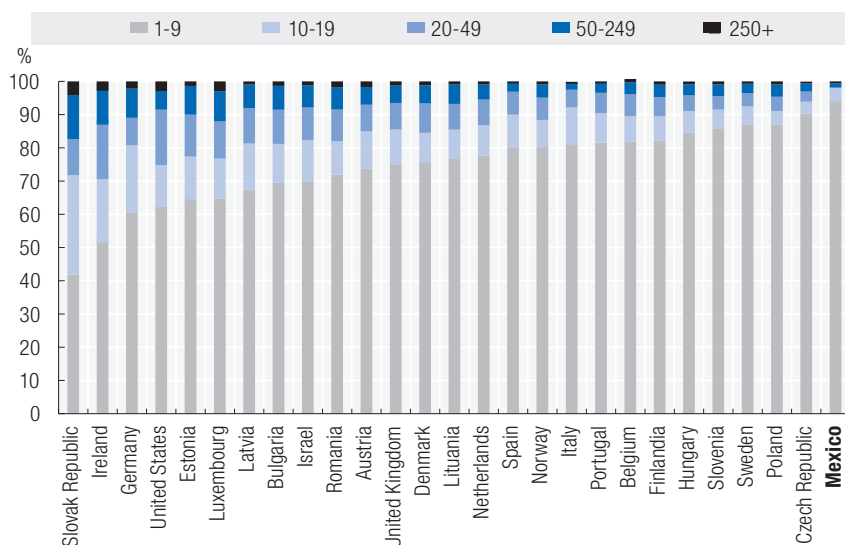
Note: The size class definitions used by the Mexican government are as follows: micro: 0-10 employees; small: 11-50 employees; medium: 51-250 employees.

Source: OECD (2012), *Entrepreneurship at a Glance*, OECD.

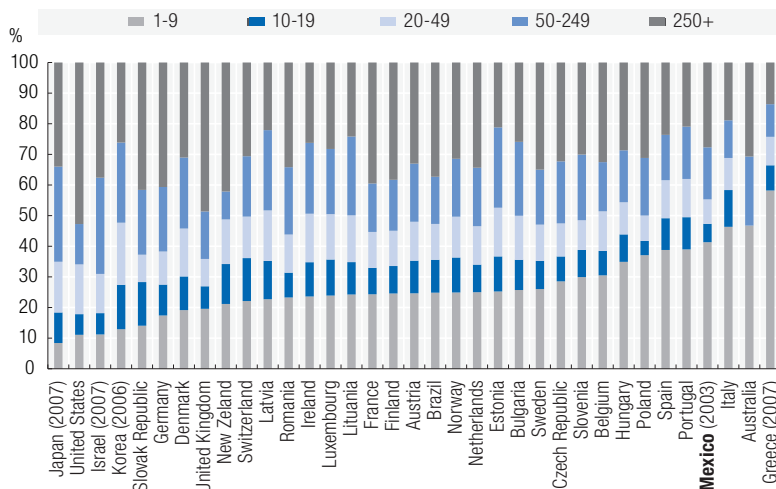
This relatively modest contribution reflects the high share of very small and less productive micro enterprises in Mexico. Micro enterprises represent 96.1% of all businesses – one of the highest rates in the OECD and higher than several emerging countries – and 41.3% of employment. The predominance of micro enterprises in Mexico relative to other countries is even more marked within manufacturing, where Mexico has the highest proportion among a group of 27 comparator countries (Figure 10.2). Micro enterprises tend to have lower productivity than their larger counterparts; in Mexico this is mainly because of informality, which is particularly prevalent among the country's micro firms. Indeed, informal sector firms have relatively poor access to credit, training and legal protection; tend to lack innovation; and often seek to remain small in order to hide their activities. Therefore, despite the large number of Mexican micro enterprises and their contribution to employment, they contribute only 18% of output. This is far less than in Italy (32.5%), for example (Figure 10.4). The faster growth in output and productivity over the period 2003-08 was mainly driven by medium and large enterprises, while the value-added produced by micro enterprises declined over the same period (Figure 10.5).

Supporting the productivity of the SME sector is therefore essential to accelerate growth and support living standards in Mexico (see also Chapter 1). While investment in education and infrastructure – as well as generally improving the business environment and reforming the labour market – are

Figure 10.2. **Enterprise by size class in manufacturing, 2008**

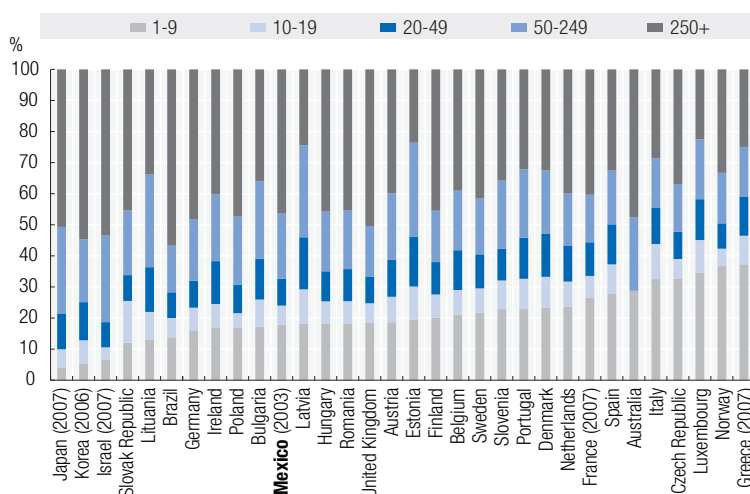


Source: OECD Structural and Business Demographic Statistics database.

Figure 10.3. **Employment by enterprise size class, 2008 or latest available year**

Note: The unit of measure is enterprises for all countries, except Japan and Korea where “establishments” is the unit. For Ireland, only enterprises with three or more persons employed are covered, while the data for Japan and Korea do not include establishments with fewer than four and five persons employed, respectively. For the United States, employment in enterprises refers to the number of employees and not the number of persons employed. Data cover the market economy, excluding financial intermediation; for Brazil, Ireland, Israel, Japan, Korea, Luxembourg and the Slovak Republic they cover manufacturing sectors only. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

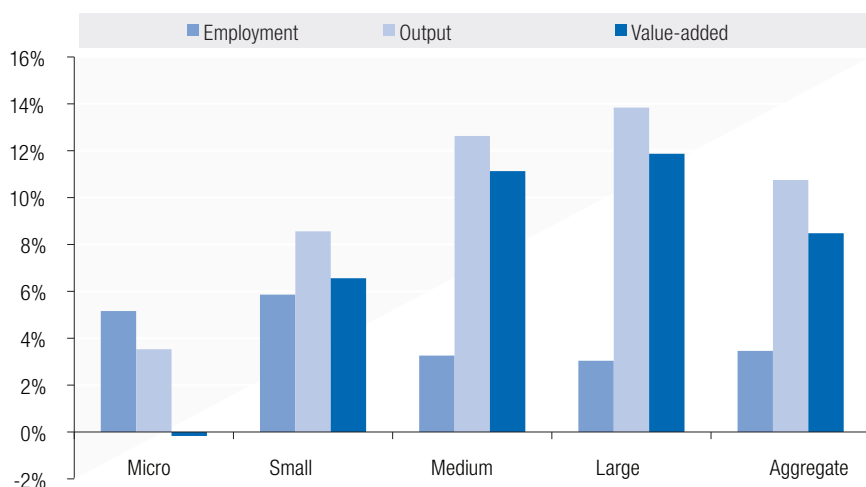
Source: OECD (2012), *Entrepreneurship at a Glance*, OECD.

Figure 10.4. **Value-added by enterprise size class, 2008 or latest available year**

Source: OECD (2012), *Entrepreneurship at a Glance*, OECD.

Figure 10.5. **Annual growth rate for employment, output and value-added in Mexico, 2003-2008**

As a percentage, by size of firm



Source: OECD calculation based on the INEGI Economic Census, 2000 and 2003.

essential (see Chapter 5 on Labour market issues and Chapter 6 on Education), policies specifically directed to SMEs also have a major role to play. These policies have led to substantial improvement of framework conditions for SMEs and entrepreneurship in the past decade, but much remains to be done to reduce informality, upscale the support to SMEs, widen access of SMEs to financing, and stimulate their innovation capacity.

Mexico's SME and entrepreneurship policy framework

Acknowledging the key role of new and small firms for the future economic prosperity of the country, Mexico has improved its SME and entrepreneurship policy framework over the past twelve years. This started with the formulation of the Entrepreneurial Development Plan (EDP) between 2001 and 2006, and the creation of an undersecretary for SMEs within the ministry of economy, in charge of overseeing the planning, design and implementation of SME policies and programmes. The EDP primarily focused on removing general impediments to entrepreneurial activity (e.g. burdensome business regulations); it represented a step forward from the previous sector-based subsidies, the cost-effectiveness of which was questionable. Through the EDP, the national government also started

involving state-level authorities in SME policy actions. This paved the way for the current central involvement of state governments and local intermediary organisations in the implementation of SME and entrepreneurship policies in Mexico alongside national government.

In 2007, a new strategy identified five key target segments of the SME population: nascent entrepreneurs (i.e. people in the process of setting up a business); micro enterprises; SMEs; “gazelles” (i.e. fast-growing SMEs); and tractor firms (i.e. larger companies with the potential to lead a production chain), as well as five key services offered by public policies – financing, training and consultancy, management, commercialisation and innovation. Funding for certain pre-existing programmes was either discontinued (e.g. the Centres for Productive Articulation or the Innovation Labs) or scaled back (e.g. the PYMExporta Centres), to make room for the creation of new programmes such as *Capital Semilla* and the SME Productive Project. At the same time, the network of business development centres was replaced with a new system of standardised Mexico *Emprende* Centres, enabling the quality and visibility of services to be increased.

Today, many of the public support programmes are financed through the ministry of economy’s SME Fund, created in 2004 to integrate the previous four distinct enterprise support funds. This fund works in tandem with complementary actions for innovative entrepreneurship, such as programmes operating within the Innovation Fund. The resources of the SME Fund are channelled through intermediary organisations – e.g. business associations, training providers and private incubators, but also state governments. These bodies operate in the five strategic service categories to the five segments of beneficiary firms. (See Table 10.1 for a snapshot of the current policy framework to support entrepreneurship and SME development.) The budget of the Fund allocated to SME productive projects programmes was MXN 3 944 million in 2011, with an additional MXN 2 774 million allocated to the national loan guarantee fund. However, the total shares of public resources allocated to enterprises with the largest potential for growth and job creation over the period 2009-11 – 10% to new enterprises, 9% to micro enterprises and 11% to gazelles – was relatively small compared to the share going to mainstream SMEs (46%). As discussed below, these issues should be taken into consideration in the framework of the major shift in SME policies for the new administration, which has already announced a focus on high impact entrepreneurial activities and the creation of the Institute of the Entrepreneur.

Table 10.1. **Categorisation of entrepreneurship and SME support framework**

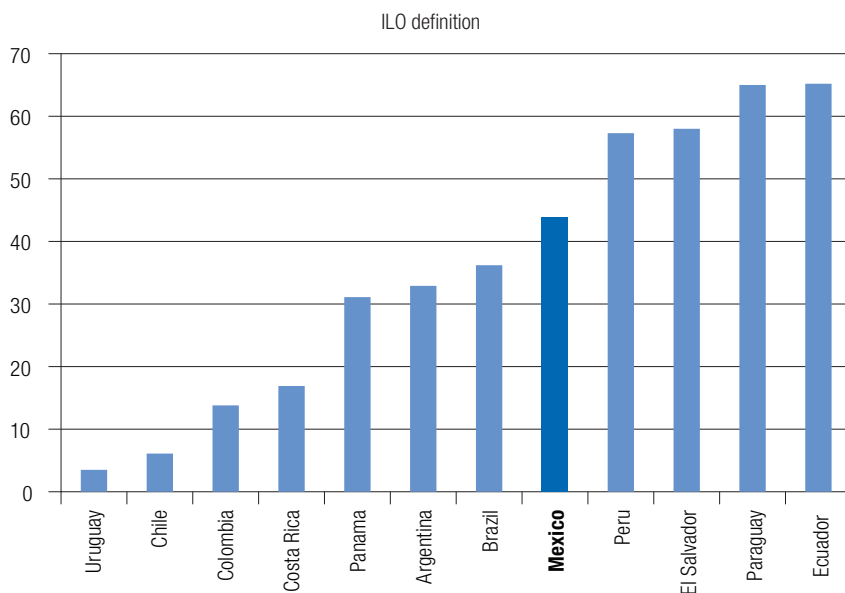
Support category / Target group	Financing	Training and consulting	Marketing	Business management	Innovation and technological development
New entrepreneurs	Seed Capital Programme Guarantee Programme for New Entrepreneurs	Entrepreneurs training (Young Entrepreneur Model) National System of Incubation		National System of Incubation	Technology incubators
Micro enterprises	Equipment financing SME Productive Projects National Guarantees Programme	Modernisation and Integration (Mi) Programme Mexico Emprise Centres	Mi Programme PYMExporta Centres SME Procurement Initiative	Mi Programme	
SMEs	National Guarantees Programme SME Productive Projects	Mexico Emprise Centres National System of SME Consultants	PYMExporta Centres SME Procurement Initiative Mexico Emprise Centres network	National System of SME Consultants	Technological Innovation Fund
Gazelle enterprises	Technological Innovation Fund Entrepreneurial Capital Fund of Funds (Mexico Ventures) Investment clubs National Franchises Programme	National Franchises Programme	National Franchises Programme Business Acceleration International Business Acceleration: TechBA	Business Acceleration International Business Acceleration: TechBA	Technological Innovation Fund International Business Acceleration: TechBA Technology parks
Tractor enterprises	Suppliers Development Programme		Suppliers Development Programme	Suppliers Development Programme	

Source: OECD (forthcoming), *OECD Studies on SMEs and Entrepreneurship-Mexico: Key Issues and Policies*, OECD Publishing.

Strengthening SME and entrepreneurship policy

Developing micro firms and reducing informality

The informal sector is still of considerable size compared to other OECD economies (although it is not the largest in Latin America – see Figure 10.6), and represents a drag on productivity growth. In a survey of small enterprises undertaken in 2008, the National Institute of Statistics and Geography (INEGI) found a total of 6.44 million businesses that were unable to provide any proof of purchase for commercial transactions, which was taken to indicate their involvement in informal activity. They accounted for 80.1% of all businesses surveyed.

Figure 10.6. **Informality across Latin American countries**

Note: 1. ILO definition: Urban population without coverage for health and/or pension in 2008. For Mexico this measure is corrected by subtracting those self-employed workers who are registered with tax or local authorities or with a business association, as in Alcaraz, Chiquiar and Ramos-Francia, 2008, “Diferenciales Salariales Intersectoriales y el Cambio en la Composición del Empleo Urbano de la Economía Mexicana en 2001-2004”, Banco de México Working Papers, No. 6, Banco de México, Mexico City.

Source: OECD (2011), *OECD Economic Surveys: Mexico 2011*, based on ILO (2009), *Labour Overview: Latin America and the Caribbean*, International Labour Organization.

In recent years, traditional micro enterprises have successfully been brought into the public support system thanks to the Modernisation and Integration (MI) programmes (*e.g.* *Mi Tienda*, *Mi Tortilla*, etc.), which foster market integration through business modernisation. These programmes reach out to micro enterprises with offers of training and consultancy services to upgrade their skills, production processes, product quality and marketing. They also provide access to financing for new, more efficient and higher-technology equipment.

An evaluation of the *Mi Tortilla* initiative has revealed very positive impacts: participating enterprises have experienced a 31% increase in sales and a 21% reduction in service time, and all of them have diversified their products. The increased business acumen that results from training and consultancy services could have additional positive outcomes, including raising the relatively low survival rates of new enterprises. Higher growth rates could be generated in the future, contributing to shifting some enterprises up into the next size bands which are underrepresented in the Mexican business population. These

government's programmes for micro enterprises also play a significant role in encouraging entrepreneurs to embrace the formal sector, by helping them to increase their market size, productivity and profitability, and by requiring formal business registration to benefit from public support.

However, the number of beneficiaries of micro enterprise support programmes remains small relative to the total number of firms. The ministry of economy's target for 2011 was to reach 10 000 micro enterprises with training and consultancy support, which represents only a tiny proportion of the more than 4.9 million units in the total business population.

Government programmes directed at the micro enterprise sector have a key potential role to play in reducing informality. They do however need to be complemented by easing of the regulatory burden, including simplification of taxes, permits and other forms of administration. There have been important improvements at the national level in this respect in recent years, but attention must now turn to supporting state and municipal governments to implement similar reforms. For example, the new electronic business registration process should be introduced in as many localities as possible, as should state commissions for regulatory improvement, currently found only in roughly half of Mexican states. The case of regulatory simplification reform in France shows the degree to which strong political impetus can help simplify business regulations (Box 10.1). The rates of profit taxes, labour taxes and social security payments should be reviewed, considering their impact on informality and on overall tax revenues. At 30%, Mexico's corporate tax rate is one of the highest in the OECD area.

Recommendations

- Maintain funding for training and consultancy support to micro enterprises through the "Modernisation and Integration" (MI) programme, as a mechanism to help them become profitable ventures with high growth potential.
- Use *Centros Mexico Emprende* (see below) as a tool to attract informal businesses into the public support system and thereby regularise their position.
- Simplify business regulations to make the informal economy less appealing to micro businesses.
- Reduce the cost of employment in the formal sector by lowering nonwage labour costs, including labour taxation.

Box 10.1. **Deregulation in France**

In December 2010, the French government introduced a programme of administrative simplification for SMEs. The programme was informed by local research: 100 “SME correspondents”, were each given a fact-finding mission with local enterprises. The aim was to understand the difficulties these SMEs experience with administrative and regulatory compliance, and identifying measures the government could take to alleviate the burden. Each of the correspondents interviewed more than 500 enterprises and immersed themselves for periods of time in five to ten firms.

The research revealed that the three principal difficulties for entrepreneurs were the complexity of vocabulary and forms; lack of information on government requirements; and instability of regulations. The top five measures sought by firms were: an administrative reference service or government contact point; more tools to facilitate business-relevant processes; simplification of obligations facing SMEs and a reduction in their frequency; an end to repeated requests for the same information; and the availability of procedures online.

The research led to the development of an action plan comprising 80 measures, including:

- Creation of a “secure digital vault” that allows firm managers to provide all the necessary information to the administration only once.
- Simplification of payslips, involving a reduction by half in the number of lines, thereby increasing clarity to employees and saving close to EUR 100 million in management costs for enterprises.
- The use of a single social declaration by the enterprise, replacing close to 30 social declarations.

Source: OECD (2011) OECD Studies on SMEs and Entrepreneurship in Thailand Key Issues and Policies.

Developing access to financing for SMEs

Domestic credit to the private sector as a percentage of GDP remains low in Mexico compared to the OECD average, but also to averages in Latin American and Caribbean (LAC) countries. In 2010 it stood at 44% of GDP in LAC countries, but only 25% in Mexico, reflecting notably the limited access SMEs have to financing. The Mexican government has taken a number of initiatives to improve this situation, for example through the Innovation Fund, the NAFIN development bank and the SME Fund, whose functioning is discussed in the last section of

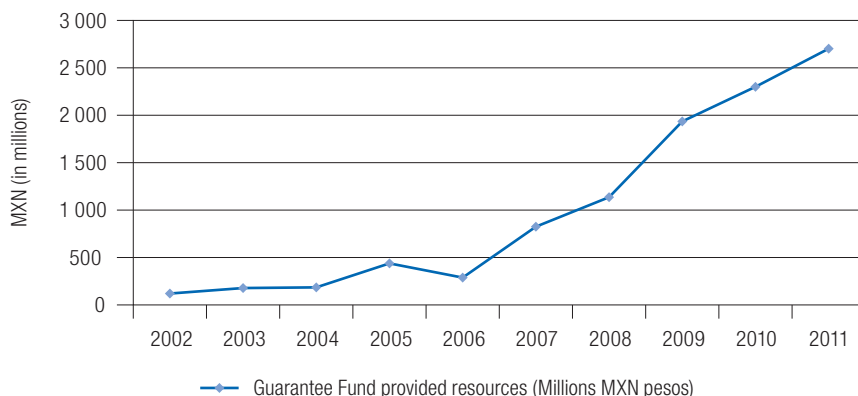
this chapter. The nature of this support has shifted during the Past ten years, from a system based on direct government provision of grants and loans to beneficiary enterprises to one that favours the development of private finance markets. This is implemented through creation of loan guarantees, microcredit institutions, a network of private sector credit/financing advisors, and equity markets strengthened by (e.g.) a fund of funds and stimulation of business angels. Such actions widen access to funding for SMEs: they help reduce the level of information asymmetries between firms and banks; provide commercial banks with incentives to be more responsive to the SME market; and build the financial literacy of SMEs and their capacity to present bankable projects.

The Mexican government has also taken action to address the issue of collateral, one of the main challenges for SMEs seeking financing. First, it has amended the Commercial Code to provide for a Unified Registry of Movable Property Collateral, allowing SMEs to use movable assets as collateral. Second, it is supporting the substitution of government guarantees for collateral through the National Guarantee System, one of the most important initiatives for the support of finance capital markets. This is an innovative system of public auctions for loan guarantees, which helps reduce public cost and mobilise banks. Thirty-seven intermediaries are charged with the delivery of the programme, an indication of the success of these public auctions. Elsewhere in Latin America, credit guarantee funds have often failed due to burdensome regulations and delays in the provision of public guarantees that dissuade banks from joining this type of programme. Such has not been the experience of Mexico, where auctions have regularly been filled and where intermediaries appear satisfied with management of the scheme at the federal level.

The allocation of funding to the guarantee programme has increased more than sevenfold between 2002–06 and 2007–11: from a total of MXN 1 209 million over the first period to MXN 8 898 million over the second (Figure 10.7). In the past five years, the programme has leveraged MXN 263 billion in bank financing – over 30 times the guarantee amount. The number of supported businesses more than doubled, from 157 877 in 2002–06 to 330 570 in 2007–11. Public auctions have therefore proved an effective way of scaling up the amount of credit channelled to enterprises and the number of beneficiary firms.

Furthermore, the guarantee programme has resulted in improved credit conditions for SMEs. Bank credit requirements have been softened (e.g. banks will now accept simple bank statements instead of audited statements), and the interest rate for the broad range of loans between MXN 250 000 and MXN 4 million has decreased (10% in 2010, 2% lower than the rate applied by most public programmes in the same range of loan size). Although these rates are still too high, they go some way toward increasing the proportion of firms able to access debt.

Figure 10.7. **Ministry of economy resourcing of the National Guarantees Programme, 2002-2011**



Source: Mexican ministry of economy.

Despite its recent growth, the reach of the guarantee programme is relatively limited. It services only 70 000 to 80 000 enterprises per year, compared with the more than 4 million enterprises in Mexico. Complementary state-level programmes and support for local mutual guarantee schemes can help increase the reach of the guarantees.

Another concern is that because of widespread informality, credit bureaus face greater difficulties in tracking the credit history of companies. Furthermore, most of the beneficiary firms are micro enterprises (57.6%) rather than larger SMEs (42.4%). While this may reflect a useful short-term response to help micro firms weather the crisis (their profitability declined by 10.2% from 2008 to 2010), there is also a need to channel funds to medium-sized SMEs with greater growth and export potential. This could be facilitated through the creation of small local co-operative banks with the support of intermediary organisations, or the introduction of fiscal incentives for investment in innovative SMEs by private savers that reinforce equity markets. (Government investment loans such as those in the SME Productive Project are seen by many SMEs as overly restrictive due to their short payback schedules.)

The Pact for Mexico, signed by President Peña Nieto and the leaders of the main national parties, considers making banking and credit a lever for the development of households and businesses. This central priority will further improve SME access to financing and will be critical to supporting the growth and diversification of the Mexican economy. Actions in this area should be designed with the aim of crowding in the private sector to the area of SME lending. Strengthening of the development banking system to expand the

supply of credit (Commitment 62) and review of loan guarantee operations (Commitment 63) should concentrate on building the capacities of the private sector to lend to SMEs, and should not seek to act as a substitute for it. Monitoring and evaluation of the results of state support will be an important tool to guide the channelling of state-backed direct loans and loan guarantees to those areas where they generate additional lending. At the same time, the revision of the legal framework for commercial banks and credit institutions should emphasise promotion of competition in the banking sector, in order to stimulate private banks to seek profitable opportunities for SME lending.

Recommendations

- Increase the outreach of guarantee instruments to the SME sector by developing additional decentralised guarantee mechanisms in co-operation with local intermediaries (*e.g.* business associations, chambers of commerce, local authorities) as long as market failures persist in the provision of credit by private financial institutions.
- Improve the quality and coverage of credit bureau data in order to reduce information asymmetries in the credit market, which severely affect SMEs and new firms. Increase financial education for SME managers in order to improve financial reporting and the sophistication of finance demand.
- Promote competition and business entry in the banking sector to tackle finance market failures at their root, favouring in particular the development of community-based banks such as co-operative banks and savings banks that use decentralised and relationship-lending approaches.
- Enable longer-term repayment periods to be offered on investment loan programmes aimed at SMEs.
- Back the budding equity markets of Mexico through a range of actions that include tax breaks for local equity investments, expanded support to business angel clubs, and creation of public venture capital funds and second-tier stock markets.

Stimulating innovative and high impact SMEs

Several programmes are devoted to stimulating innovative SMEs. A solid business incubation system has been developed as a central component of the New Entrepreneur Programme; it serves to help motivated individuals develop their business ideas, create jobs, and accelerate local industry growth. Through this programme the number of business incubators has been steadily increasing,

doubling over the past five years. Moreover, the incubators are appropriately specialised, and there is recognition that innovation is not limited to high technology. Of the current 500 incubators, 217 are traditional, 262 are oriented towards intermediate technologies, and only 21 are high-tech. Monitoring of the programme shows that incubators have lengthened the average life of newly created firms, with 70% of these firms surviving an initial period of two years compared to a national average of around 50%. However, there is a significant gap in support for stimulating knowledge-intensive start-ups, and further funding is needed for high-tech incubators.

The Business Acceleration Programme is also stimulating innovation and technological development among SMEs. It identifies niche opportunities based on global trends and existing capacities in Mexico, such as the existence of small clusters and supply chains in the niche area. It then applies business linkage support to help state governments and localities build new industries. Acceleration services are provided by a combination of private sector, non-profit and higher education entities. They help selected enterprises with high growth potential strengthen their innovation efforts, expand their domestic and international markets, attract investment capital, and become part of international value chains. There are seven accelerator models operating in Mexico, with the costs of the services they offer covered partly by the SME Fund and partly by the client enterprise. The programme is very selective, with an acceptance rate into the acceleration process of 10-15%.

A further new focus in the past five years has been the promotion and development of technology parks. Since 2007, 31 technology parks have been established with SME Fund support exceeding MXN 850 million, supplemented by matching funds from state governments, universities and the private sector. In fact, the technology parks are linked to universities and research institutions and often shelter business incubators, accelerators, foreign companies, spinoffs, laboratories and other facilities that contribute to generating an ecosystem suitable for innovation and conducive to knowledge spillovers in high-tech economic sectors. This infrastructure should allow enterprises to move from business incubators to accelerators to technology parks.

However, several challenges remain. These should be considered carefully in the design of the new policies towards promoting high impact entrepreneurial activity and the creation of the Institute of the Entrepreneur. First, given the well-documented market failures, mechanisms are needed to facilitate provision of necessary financial support to innovative SMEs. The share of the SME Fund's budget allocated to innovation and technological development projects has decreased in recent years, representing only 2.2% of the total in 2011. In addition, the Technological Innovation Fund, a second source of funding for business innovation, is oversubscribed, with many viable innovation projects going unfunded because of the lack of resources.

Second, alongside funding, another obstacle to the ability of SMEs to innovate is the low skills of their labour force. The ministry of economy has been working to encourage and develop stronger linkages between universities, research institutes and SMEs, so as to support knowledge transfer, such as in the case of technology parks. That said, support for skills development in local labour markets needs to be reinforced. There is also a need for greater professional capacities among the managers and staff of business incubators, including for greater opportunities for training and certification.

The Business Accelerators are making an important contribution to SME innovation, but appear to be too small in scale to have any significant impact on the economy. This may be due to a lack of organisations that possess the capacity and motivation to come forward for funding as new accelerators. A potential response is therefore to scale up existing high-performing accelerator models and generate new branches, and to seek new delivery partners to expand the programme more widely across Mexico.

The Pact for Mexico intends to further promote the country's development through science, technology and innovation. Efforts to increase investment in science and technology (Commitment 46) and to develop a long-term programme in science and technology with concrete national and regional objectives (Commitment 47) offer an important platform for technology-led economic development. It will be critical that they include measures to support commercialisation of R&D through new technology-based enterprises and innovative SMEs.

Recommendations

- Increase funding to the Technological Innovation Fund, to enable it to back more SME innovation and research-based enterprise spinoff projects and meet the oversubscribed demand. In the same fashion, examine the reasons for the low proportion of SME Fund allocation to innovation and technological development projects, and take remedial action. Consider the development of additional channels to support the commercialisation of research in science and technology.
- Strengthen the absorptive capacity of SMEs, to enable them to collaborate with research institutes and universities as well as with larger knowledge-intensive companies. Skills development or innovation-purchasing initiatives can fit this purpose, as can staff exchanges and secondments. The voucher scheme implemented in the Netherlands is an example of an innovation-purchasing initiative that has enabled SMEs to take a first step toward collaboration with public research organisations and undertake simple technology upgrading projects (Box 10.2).

- Support the development of common skills and competencies among managers and staff of the National Business Incubator Programme to ensure the consistency and quality of the services offered across the country and to help raise standards. A standard list of qualifications and experience for incubator managers should be developed and enforced as part of the contractual relationship between the organisation hosting the incubator and the SME Fund that finances it. The case of the US-based National Business Incubators Association provides some interesting lessons on this subject (Box 10.3).
- Develop a national high-growth programme for firms with the potential to grow and go international. The programme should include advice, leadership training and access to financial packages appropriate to the needs of high-growth companies, and should be sensitive to regional differences. Alternatively, scale up the existing accelerator programmes by seeking new intermediary organisations able to deliver this kind of intensive and specialised scheme.

Box 10.2. **Innovation vouchers in the Netherlands**

Through this scheme, SMEs are provided with a voucher that they can “cash in” with a technology or innovation provider of their choice. This is intended to reduce the cultural barriers that SMEs and researchers/engineers in public research centres experience when undertaking a project. Through a very simple procedure, SMEs (manufacturing and services) can apply for a voucher at the Innovation Agency any day of the year. As of 2009, two types of voucher were available, small and large. Small vouchers are worth EUR 2 500 each and can be used by SMEs to buy services from public technology and innovation centres, for example for a feasibility study or for answering a specific technological problem. This stimulates SMEs to take the first step towards interaction with public research and technology institutes. Large vouchers are worth EUR 7 500. For these vouchers, a mandatory self-contribution is required which must be, at a minimum, one-third of the total project costs. The government contributes a maximum of EUR 5 000. Entrepreneurs can receive a large voucher once a year (in addition to a small voucher). Large vouchers can be used for more complicated projects.

Over the first two years following the programme’s launch (2004-05) as a pilot, all available vouchers were taken up in only a few days. The main achievement was that the scheme reached a whole new target population of SMEs that had never used any innovation support before. In addition, the companies that had used the voucher continued working with the public research or technology centre after the initial contact.

Source: OECD (2010), *SMEs, Entrepreneurship and Innovation*, OECD.

Box 10.3. **Skills development by the US National Business Incubators Association**

The US National Business Incubators Association (NBIA) is a membership organisation representing incubator managers and economic development professionals; its mission is to advance business incubation and entrepreneurship. It has 1 900 members in over 60 countries, three-quarters of whom are in the United States. To accomplish its mission, the NBIA serves as a clearinghouse of information on incubator management and development issues, and engages in many activities that support members' professional development. Each year, it provides thousands of professionals with information, education, advocacy and networking resources with the aim of bringing excellence to the process of assisting early-stage companies. It does this by organising conferences and specialised training, conducting research and compiling statistics, on the incubation industry, producing publications that describe practical approaches to business incubation, and consulting with governments and corporations on incubator development.

One of the important activities of the NBIA is its training programme that leads to a NBIA Certificate in Incubator Management. This training consists of a comprehensive and practical overview of the tasks and responsibilities of incubator management, including incubator and client funding, mission and strategic planning, facilities management, selecting and serving clients, and sharing best management practices in each of these areas. The programme requires three full-day workshops, plus five 75-minute conference sessions that are normally offered in conjunction with the Association's annual International Conference on Business Incubation.

The NBIA website also includes a simple (10-minute) benchmarking survey that allows an incubator to compare its programme management with NBIA-accepted best practices. It evaluates programme performance in ten best-practice areas, such as governance and staffing, selecting and serving clients, financing, marketing, support for post-incubation enterprises, facilities management, and measuring impact. Comparing results with best practices enables the incubator staff to identify their areas of comparative excellence and areas for improvement.

Source: OECD (forthcoming), OECD Studies on SMEs and Entrepreneurship-Mexico: Key Issues and Policies, OECD Publishing.

SME support: Building the capacity of intermediary organisations and simplifying delivery

A network of Mexico *Emprende Centres* has emerged as a crucial co-ordination mechanism between the federal government, which designs and helps fund small business support policies, and the local intermediary organisations, which deliver them. Replacing the former network of Business Development Centres (BDCs), the *Centres* have been designed to provide a clearly visible and accessible single entry point of service and information for entrepreneurs and SMEs, similar to existing structures in other countries with a longer history in delivering SME support and assistance.

The programme has several objectives. First, the Mexico *Emprende Centres* are a tool for policy outreach and programme tailoring; they enable the government to reach SMEs and nascent entrepreneurs in relatively peripheral areas and to tailor public programmes to their specific needs. Second, they are an instrument for achieving a minimum degree of standardisation and certification in the supply of business development services, as proved by the standard training in business consulting that the staff of the *centres* receives. Third, the approach has been designed not only to avoid the crowding-out of private providers of business support, but also actually to enhance their role by charging them with public programme delivery. Finally, they can be seen as a tool of business formalisation, to the extent that business owners will need to have their business registered to benefit from the services of the *Centres*.

The first *Centre* became operational in May 2010, and by November 2011 200 *Centres* had been rolled out to various regions. Three-quarters of the funding is provided by the SME Fund, amounting to MXN 100 million; the remaining quarter comes from the intermediary organisations participating in the scheme. The goal of the previous administration was to have 300 *Centres* by the end of 2012. In total, the *Centres* have so far served over 46 000 existing SMEs and almost 28 000 potential and new entrepreneurs, although this remains a small proportion of the business population as a whole.

In the framework of the design of the Institute of the Entrepreneur that the new administration seeks to create in the first months of 2013, and which presumably will coordinate the actions of the Mexico *Emprende Centres* already distributed throughout the country, it is important to consider building up the capacity and skills of the staff and business development consultants working in and with the Mexico *Emprende Centres*, and to increase the consistency in service quality provided. The *Centres* should also be supported in developing mechanisms of referral of SMEs to other public initiatives and private providers that offer complementary services. There is an opportunity to support such upgrading by organising the Mexico *Emprende Centres* into a network where managers and employees can share experiences and good (and bad) practices. Such a learning

network is important for the ultimate success of the *Centres* and for achieving consistency and quality of service.

The financing of public SME support mainly comes through the SME Fund, which works in synergy with other funds and agencies across government to support a comprehensive range of programmes and projects. While the Fund offers models of good practice internationally, there is scope to strengthen and develop it further. First, the operational, compliance and reporting requirements of the SME Fund could be simplified to increase the participation of intermediary organisations and enable them to develop more relevant and longer-term programmes. For example, the current paperwork requirements and the single-year funding formula appear burdensome for the intermediary organisations interested in applying, as well as for the central government managing authorities. Secondly, the disbursement of project money should be processed more quickly than is currently the case. This would help increase the reach of public programmes among the wider population of SMEs and entrepreneurs. It would also increase the leverage provided by federal funds to funds from partners in sub-national governments, universities and the private sector. In 2012, the leverage ratio was 1.6 (i.e. 1.6 pesos of total funding for every peso of federal funding), compared to a government target of 3.0.

Lastly, the evaluation of the SME Fund's programmes and the use of its results to feed the policy-making process should be reinforced. This requires systematic and reliable measurement of results – including robust estimates of impacts on firm growth and employment – using methods in line with the OECD's Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes. There are some good data in Mexico on enterprise interactions with government, and further information can be collected. These may be combined and used for the purposes of evaluation.

Recommendations

- Ensure that staff members of the main intermediary organisations, especially those running the *Mexico Empeñde Centres*, receive opportunities for training, skills development and good practice exchange, to guarantee that client SMEs receive services of a defined standard of quality. Lessons from skills development at the US National Business Incubators Association (Box 10.3) also apply to the case of *Mexico Empeñde Centres*.
- Streamline the management of the SME Fund. Shift to a multi-year funding formula for intermediary organisations and their programmes, so that the SME Fund can make multi-year funding commitments. Performance milestones and indicators should be built into the project funding contracts, to monitor annual progress on these awards.

- Work with intermediary organisations to improve data collection and sharing on client firms, and implement systems of follow-up to monitor and evaluate the impact of support. Programmes that take up a significant share of the SME Fund's resources (*e.g.* the national loan guarantee programme, Mexico *Emprende* Centres and the national business incubators programme) should be given priority among the schemes that are evaluated.

Further reading

- Alcaraz, C., D. Chiquiar and M. Ramos-Francia (2008), “*Diferenciales Salariales Intersectoriales y el Cambio en la Composición del Empleo Urbano de la Economía Mexicana en 2001-2004*”, Banco de México Working Papers No. 6, Banco de México, Mexico City.
- ILO (International Labour Organization) (2009), *Labour Overview: Latin America and the Caribbean*, ILO.
- OECD (2007a), *OECD Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes*, OECD, Paris.
- OECD (2007b), *SMEs in Mexico: Issues and Policies*, OECD, Paris.
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Chapter 11

Green Growth¹

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Reo Kawamura and Frédérique Zegel*

Mexico has to confront difficult trade-offs in pursuing its economic, social and environmental goals. In recent years, environmental issues have been placed higher on the political agenda. Significant progress, for example, has been made in adopting voluntary targets for reducing emissions of greenhouse gases. However, there is still considerable scope to rebalance the policy mix and to promote the transition to a socially inclusive form of green growth in a more effective, efficient and equitable manner. A key challenge is to reform the subsidies to energy and agriculture, which represent a heavy burden on the government budget and are highly regressive. The new administration has shown commitment to reviewing and reducing these distortive subsidies which could make resources available to support the poor much more effectively. Moreover, Mexico is one of the most important countries globally in terms of biological diversity; successful management of the country's natural assets is important not only for the sustainability of its economy and the well-being of its people, but also for the planet.

¹ This chapter is based on OECD (2013), *OECD Environmental Performance Reviews: Mexico 2013*, OECD, Paris.

Green growth policies can help to address some of the major economic challenges many countries face today – low growth, high unemployment, budget deficits – while also reducing environmental pressures that could undermine the sustainability of economic development in the future. Recognising the need to take action, Mexico has assigned high priority to green growth. It has significantly strengthened its national environment policies and demonstrated impressive international leadership in areas such as climate change and water management.²

Mexico's commitment to green growth is a response to the complex nexus of economic, social and environmental challenges it faces: strengthening long-term growth, reducing poverty and inequality which remain among the highest in the OECD, and reducing environmental degradation that imposes significant costs on the economy. The cost of environmental degradation and natural resource depletion in Mexico is estimated to represent 7% of GDP in 2010. Addressing these challenges requires Mexico to develop a growth strategy that includes investments in environment-related infrastructure; establishment of pricing mechanisms that provide incentives to use natural resources and materials more efficiently; and a policy framework that supports deployment of clean technology. Wider dissemination of efficient technology is particularly needed to help boost Mexico's productivity, which lags behind that of other OECD countries.

In striking a balance between Mexico's economic, social and environmental goals, there has been a tendency to use indirect subsidies to help the poor – for example, setting lower prices for energy and water – rather than direct social transfers. This approach has not always proved an effective way of achieving its main policy goals. Thus there is considerable scope to rebalance the policy mix and to promote the transition to a socially inclusive form of green growth in a more effective and efficient manner.

² In particular, Mexico made green growth a priority during its presidency of the G20 in 2011-12. The country hosted the inaugural conference of the Green Growth Knowledge Platform, which is intended to strengthen analysis of economy-environment links, and established a Centre for Research on Sustainable Development and Climate Change. Mexico was also one of the first countries to apply the OECD set of green growth indicators to its domestic situation. The OECD supported this work by helping mainstream green growth in structural policy measures in the context of the G20 framework, and by contributing to a toolkit to help developing countries advance green growth policies.

Climate change

Mexico is particularly vulnerable to climate change: 15% of the country, 68% of the population and 71% of GDP are highly exposed to climate change risk as indicated by the Ministry of Environment. In addition to increased temperatures, potential impacts include reduced rainfall in the north, storms and heavy seasonal rainfall in the south, increased hurricane activity and intensity, and a sea level rise of 20 cm by 2050. This vulnerability provides a strong incentive to participate in the global effort to mitigate greenhouse gas (GHG) emissions – especially given that in 2008 Mexico had the world's 13th highest greenhouse gas (GHG) emissions, excluding land use, land-use change and forestry (LULUCF). Measures taken in Mexico could furthermore provide significant support to the broader international effort.

In recent years, Mexico has assigned a high political priority to tackling climate change. It has substantially strengthened the institutional framework for addressing climate change, increased resource allocation, and promoted greater public awareness. Here, the Inter-Ministerial Commission on Climate Change has been a key driver. It developed the 2007 National Strategy on Climate Change and the Special Programme on Climate Change (PECC) 2009-12. By June 2012, nearly 95% of the PECC mitigation target and three-quarters of its general adaptation goals had been achieved. These efforts were consolidated by adoption in June 2012 of the General Law on Climate Change; the law confirmed Mexico's aspirational targets of reducing GHGs to 30% below a business-as-usual scenario by 2020, and to 50% below 2000 levels by 2050, conditional on international financial support. In its Pact for Mexico, the new administration recognised the need to tackle climate change by reducing dependence on fossil fuels and promoting renewable energy (commitment 49). The Pact also highlights the need to pursue an energy reform, in which the introduction of energy efficiency measures will be key.

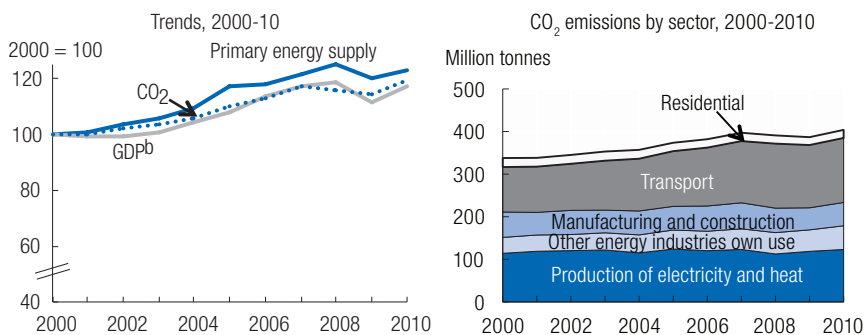
Mexico has also shown great leadership in, and a strong commitment to, supporting international efforts to address climate change. In 2010 it hosted the 16th Conference of the Parties to the UN climate change convention and was instrumental in brokering adoption of the Cancun Agreements. As a non-Annex I country, Mexico does not have binding GHG reduction targets under the Kyoto Protocol. But in adopting voluntary emission reduction targets for 2012, 2020 and 2050, it has provided an important example for both developed and developing countries. Notably also, Mexico submitted four National Communications under the Convention, the only non-Annex I country to do so.

Despite these important initiatives, reducing GHG emissions remains a major challenge. Between 2000 and 2008, GHG emissions increased by 13% while energy-related (for the most part CO₂) emissions increased by 17%, mainly due to urban population growth, economic growth and the associated increased demand for transport. While in 2009 Mexico had the second-lowest CO₂ emissions

per capita in the OECD – reflecting its relatively low income level – the energy and carbon intensities of its economy have been increasing over the past decade (Figure 11.1). Without additional policy measures, total GHG emissions could increase by 70% by 2050, compared to the 2000 level. It will be important to have a mechanism in place to review and adapt policies based on regular and independent assessment of progress.

The transport sector is the largest energy consumer and the fastest-growing source of related CO₂ emissions. Transport energy use rose by 43% over 2000-10, largely because of growth in road traffic. In the past decade, the motorisation rate almost doubled, rising faster than in any other OECD country over that same period. Factors are increasing income levels; a large supply of inexpensive vehicles (many of them imported, and not fuel-efficient by international standards); the lack of fuel pricing incentives; urban sprawl; and the lack of alternative transport modes. Programmes to promote sustainable urban transport have been successfully implemented in several big cities, as further discussed below. However, they would need to be significantly scaled up to have an impact on car use, and it will take many years to overcome the lock-in effect of the way cities are currently organised.

Figure 11.1. CO₂ emissions¹



Notes: 1. CO₂ emissions from energy use only. Excludes international marine and aviation bunkers. Sectoral approach.

2. GDP at 2005 prices and purchasing power parities.

Source: OECD (2011), *OECD Economic Outlook*, No. 90; OECD-IEA (2012a), *CO₂ Emissions from Fuel Combustion*; OECD-IEA (2012b), *Energy Balances of OECD Countries*.

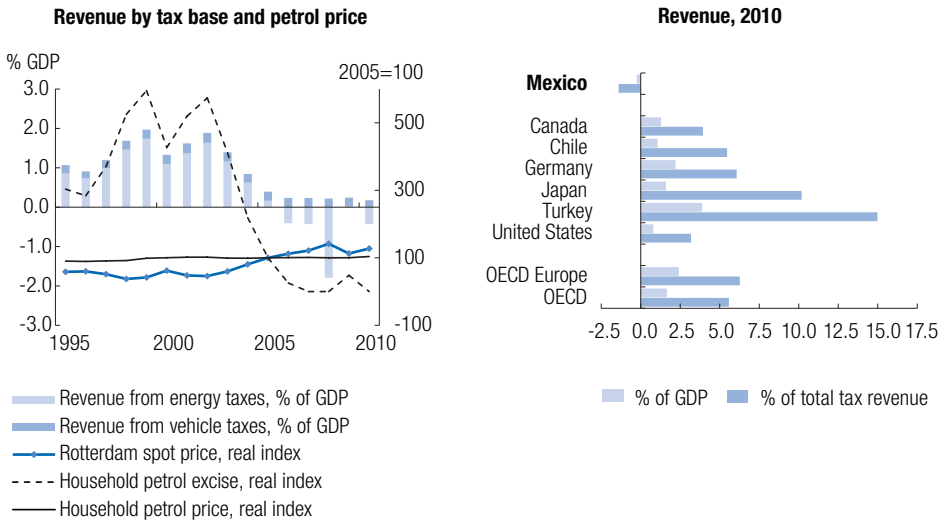
Achieving the 2020 and 2050 targets will require a substantially strengthened policy mix. The recently adopted Law on Climate Change provides an opportunity to develop a comprehensive package of measures that target the main sources of GHG emissions. In particular, the price signals needed to provide adequate incentives to reduce GHG emissions should be significantly strengthened.

Getting the prices right

Internalising environmental costs in the price system is essential for tackling climate change and other environmental problems. Extending the use of environmentally related taxes and reforming environmentally harmful subsidies could contribute to achieving this objective. These actions would also help rebalance Mexico's tax structure, by raising taxes other than those related to oil production and broadening the tax base. There are important opportunities in the transport sector, where prices of transport fuels are regulated via a price-smoothing mechanism; this results in an implicit subsidy at times of high world oil prices (Figure 11.2). This subsidy represented net expenditure of 1.2% of GDP in 2011, despite the fact that the government progressively raised fuel prices in the late 2000s. Energy subsidies overall, including those for electricity consumption in the agricultural and residential sectors, averaged about 1.7% of GDP per year over 2005-09. This policy is costly and stimulates energy use. Applying positive and higher excise duties on fossil fuels would send a price signal about the environmental costs of fuel use; help dampen the rapid rise in vehicle use; and generate significant revenues that could be used to support Mexico's wider policy agenda.

A major obstacle to removing environmentally harmful subsidies and broadening the use of environmentally related taxes is concern about the impacts on poor and vulnerable groups. Given the high levels of poverty and inequality in Mexico (see Chapter 2 on combating poverty and inequality), there are understandable concerns about adopting measures that generally have a relatively higher impact on the poor. However, there is evidence that subsidies in the energy and agricultural sectors that have a negative impact on the environment benefit the rich more than the poor (Figure 11.3). The poorest 20% of the population captures only 11% of residential electricity subsidies and less than 8% of transport fuel subsidies; similarly, 90% of agricultural price support and 80% of electricity subsidies for water pumping benefit the richest 10% of farmers. In 2008, energy subsidies cost more than twice the amount spent on anti-poverty programmes. These inefficient subsidies could be replaced by direct social spending with a much greater benefit targeted to the poor. In a welcome move, the new administration has committed to comprehensively review Mexico's subsidy policy, in particular in the energy and agricultural sectors, to make the tax system more effective, transparent and progressive. Experience from other countries indicates that subsidy reforms are not easy (compromiso 73), but progress can be made, and the benefits realised, with the right approach (Box 11.1). Successful reforms have often been accompanied by increases in direct social transfers and other measures to better target support to the poor. A proactive and clear communication campaign is also essential, to build public support and raise awareness about the benefits of reforms for the poor. While the Ministry of Finance often leads such reforms, close co-operation

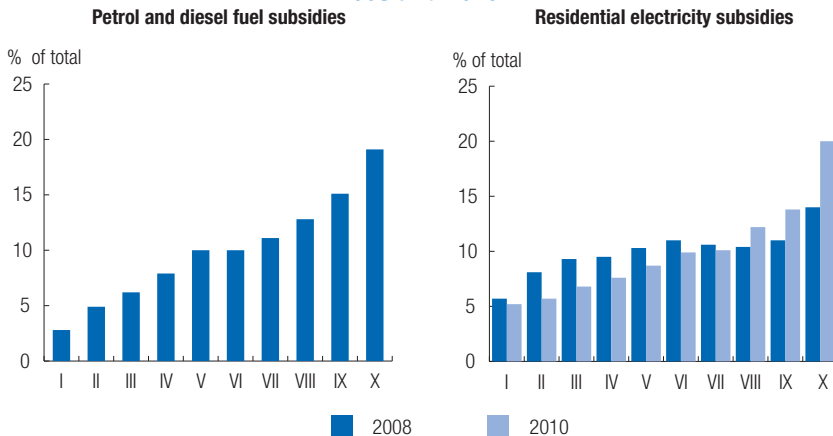
Figure 11.2. **Environmentally related taxes**



Source: OECD-EEA (2012), OECD/EEA database on Instruments Used for Environmental Policy and Natural Resources Management; OECD-IEA (2012c), Energy prices and taxes.

with the ministries of energy, the environment and social development can also be critical for ensuring the identification and implementation of a successful reform package. Programmes in Mexico, such as the one to replace electricity subsidies for pumping irrigation water with direct cash transfers in selected water basins, illustrate the way forward and should be scaled up.

Figure 11.3. **Distribution of energy subsidies across income deciles, 2008 and 2010**



Source: Ministry of Finance and Public Credit (2010, 2012), *Distribución del pago de impuestos y recepción del gasto público por deciles de hogares y personas*.

**Box 11.1. Reforming fossil fuel subsidies in Indonesia
to better target support to the poor**

Indonesia, India, Colombia, Ghana, Malaysia and Turkey are among the countries that have taken important measures in recent years to reform fossil fuel consumer subsidies, even if a number of them still have a way to go to achieve their objectives. These countries have made progress, though at times with difficulty given rising world oil prices and proximity to elections. Their experiences underline the importance of paying close attention to the implementation process and the package of accompanying measures.

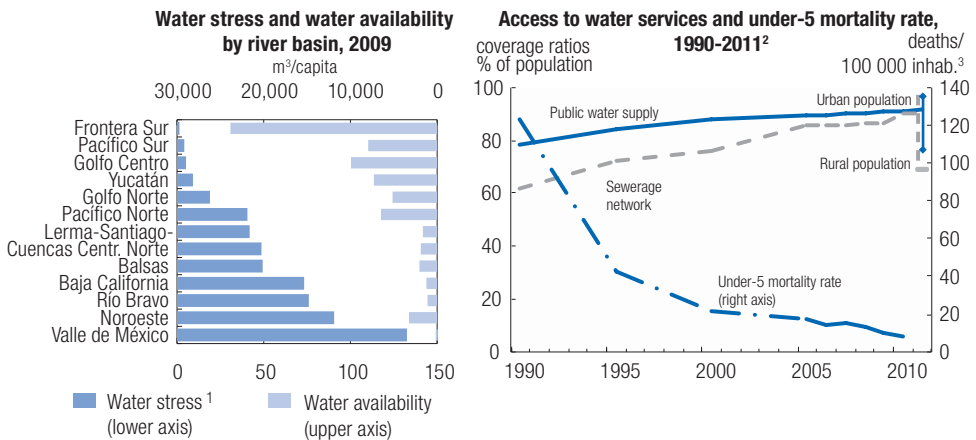
In 2005 the Indonesian government, concerned about the increasing pressure that fuel subsidies were placing on the state budget, undertook two large fuel price hikes. The price of diesel fuel doubled and that of kerosene nearly tripled. To mitigate the impact of the reform on the poor, the price increases were accompanied by a number of welfare programmes such as cash transfers and improved health services, as well as a public information campaign to raise awareness about the compensatory measures. A new unconditional cash transfer (UCT) was established to distribute monthly payments of USD 10 during a period of six months to 19 million low-income individuals – about 31% of the population. Indonesia's poverty rate was 12.5% in 2011. Quantitative and qualitative assessments indicate that the UCT performed well, though the targeting was suboptimal. The reduction in fossil fuel subsidies saved the government USD 4.5 billion in 2005 and a further USD 10 billion in 2006. The associated cash transfer programme cost about USD 2.3 billion in addition to administrative costs. In 2008, the government also stopped providing subsidies to large industrial electricity consumers and announced the gradual phasing out of subsidised fuel to private cars. However, subsidies were provided to public transport and motorcycles. Diesel and LPG prices were increased by more than 20% during the same year, with cash transfers and other social programmes mitigating the impact on low-income households. Later in the year, the government reduced retail prices of gasoline and diesel following the decline in world oil prices.

While these reforms have been steps in the right direction, fuel subsidies remain high in Indonesia. An attempt by the government to lower fuel and electricity subsidies failed to secure parliamentary approval in May 2012. However, the government was authorised to raise the price of subsidised fuel if the world oil price exceeded a certain threshold. The lesson from these experiences is that subsidy reform can be successful when accompanied by social protection measures targeted at the poor and by effective communication campaigns.

Source: OECD (2012a), OECD Economic Surveys: Indonesia 2012, OECD; OECD (2011a), OECD Economic Surveys: India 2011, OECD; Beaton, C. and L. Lontoh (2010), "Lessons Learned from Indonesia's Attempts to Reform Fossil-Fuel Subsidies" International Institute for Sustainable Development; Laan T. et al. (2010), "Lessons Learned from Brazil's Experience with Fossil-Fuel Subsidies and their Reform", Global Subsidies Initiative, International Institute for Sustainable Development, Winnipeg; Olken B. et al. (2008), "Indonesia Community conditional Cash Transfer Pilot Program", concept note, World Bank May.

Wider use of market-based instruments, in addition to promoting more efficient use of energy and other resources, would help finance much-needed environmental infrastructure. Investment in water infrastructure nearly tripled between 2000 and 2010, enabling Mexico to exceed the water and sanitation Millennium Development Goals. However, substantial additional investment will be needed to bring the provision of environmental services up to the levels in other OECD countries (see also Chapter 14 on water reform). Mexico has made some progress in implementing water charging systems; these could provide important incentives for efficient water use, particularly in those areas subject to high levels of water stress (Figure 11.4). Abstraction charges now vary according to water availability, and pollution charges are based on the status of water bodies and type of pollutants, thereby reflecting the polluter-pays principle. However, these charges have provided only limited incentive to reduce water losses and improve efficiency of water use. Water abstraction for agriculture is still virtually free of charge. Mexico spends more on subsidies to partly cover the cost of electricity for water pumping than it does to improve irrigation infrastructure (see also Chapter 13 on the agriculture sector and rural areas). Tariffs for public water services remain relatively low and do not allow service providers to

Figure 11.4. **Progress and challenges in the water sector**



Notes: 1. Volumes of water granted in concession as percentage of renewable water resources.

2. 2011: preliminary data.

3. Number of deaths of children under age 5 due to diarrhoeal disease per 100 000 children under 5.

Source: Comisión Nacional del Agua (CONAGUA) (2012), *Statistics on Water in Mexico*; Ministry of the Environment and Natural Resources (SEMARNAT) (2012), *Sexto Informe de Labores*, Mexico.

cover their costs. The private sector has played a limited role in the water sector, not always improving the efficiency, or reducing the cost, of service provision. The new administration has pledged to “rethink” Mexico’s water management, including investment in water-related infrastructure.

Limited municipal institutional capacity and the large role of informal workers (*pepenadores*) in the waste sector constitute a barrier to wider implementation of waste charges. In some cities, including the capital, household waste charges are prohibited by law. While there is wide social resistance to paying for formal waste collection, a large part of the population pays informal waste pickers to remove waste – and in some cases, these payments are higher than municipal waste charges would be. Formally involving the *pepenadores* is necessary to assure implementation of effective municipal waste management systems, as well as to improve the social, health, and living standards of these workers. Governance in the water and waste management sectors needs to be strengthened in parallel with increased financing. The recent Pact for Mexico considers improving waste management (commitment 53) and investing in waste-related infrastructure.

Biodiversity and forests

Mexico is one of the most important countries globally in terms of biological diversity. It is home to 10-12% of the world’s biodiversity, and is one of 17 “mega-diverse” countries. Mexico has been ranked in the top five on a number of biodiversity indicators, including reptiles, mammals, amphibians and flora. Forests cover one-third of the land area and provide a home for 11 million people living in extreme poverty. How Mexico manages these natural assets is important not only for the sustainability of its economy and the well-being of its people, but also for the planet.

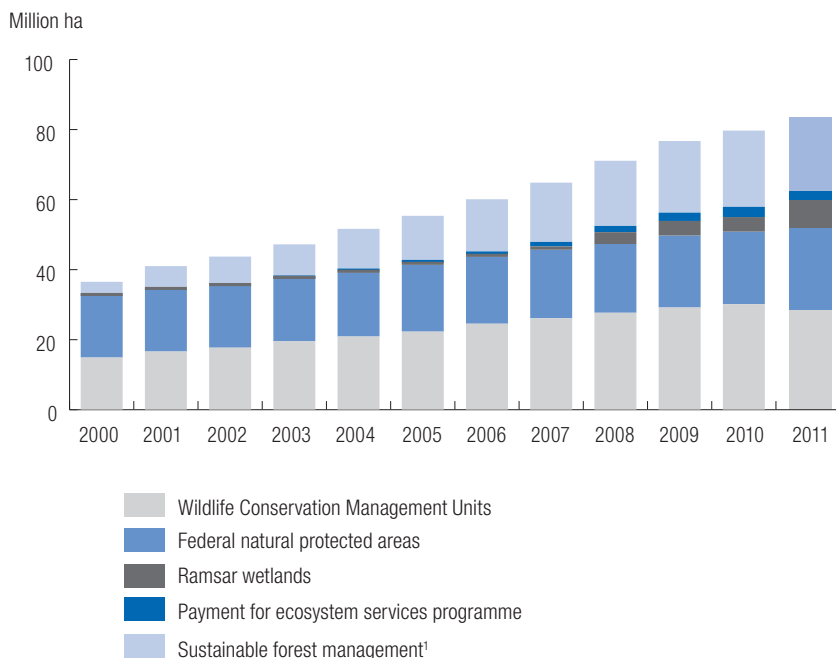
Between 1976 and 2007, the area covered by tropical forests declined by 10%, though the rate of deforestation has been significantly reduced over the past decade, particularly for primary forest. Around two-thirds of forests are fragmented, which results in reduced quality and quantity of wildlife habitats. More than 2 600 species are listed under different categories of threat, and the share of known mammal and bird species threatened is high compared to levels in other OECD countries. The conversion of natural ecosystems to crop and livestock production, either directly or indirectly, continues to be the main driver of deforestation and land use change. Secondary drivers include urban expansion and construction of infrastructure for roads, telecommunications, ports, tourism, energy supply lines, and pipes and ducts. The main driver of forest degradation is forest fire, with illegal logging, fuel wood collection and natural disasters exerting further pressure.

Over the past decade, Mexico has developed a number of strategies and programmes to promote conservation and sustainable use of biodiversity and forests. The environmental axis of the 2007-12 National Development Plan included several objectives related to biodiversity and forests. The budget of the National Forestry Commission has nearly tripled in real terms since 2002. Significant progress has been made in developing more comprehensive monitoring and reporting frameworks to support policy development and implementation. These policy and institutional reforms provide a good basis for better management of forests and biodiversity, though further efforts are needed to support effective policy implementation.

Mexico has a wide set of policy instruments to promote the conservation and sustainable use of biodiversity and forests. It is largely dominated by subsidies, many of which also aim to improve the conditions of local indigenous communities living in forests. Federal protected areas and their associated resources have increased significantly over the past decade, and now cover 12.9% of the national territory (see Figure 11.5). The National Ecological Land Use Plan (ELUP), adopted in 2012, is an important step forward in the conservation and sustainable use of ecosystems. This instrument establishes land use planning and zoning principles to promote development that simultaneously protects and conserves the environment. The number of ecological land use plans adopted at various geographical scales increased from 12 in 2000 to 85 in July 2012. However, further measures should be taken to better co-ordinate ecological land use plans with the development plans of states and municipalities.

Mexico has pioneered several economic instruments for the conservation and sustainable use of biodiversity (Figure 11.5). The national programme of payment for ecosystem services (PES) under ProÁrbol (the federal umbrella programme that promotes sustainable forestry) covers 3.25 million ha of forests and represents one of the largest PES programmes in the world. It is expected to be strengthened under the new administration. Other examples of economic instruments include forms of biodiversity offsets for projects involving deforestation – the Forest Land Use Change mechanism; reforestation programmes; controls on illegal hunting of wildlife; and fishery buybacks for more sustainable fisheries management. Some of these have produced positive results (*e.g.* reforestation), but there is insufficient evidence to fully evaluate the effectiveness of others (*e.g.* controls on illegal hunting of wildlife). Some can be refined to more cost-effectively attain their environmental goals (*e.g.* PES and the Forest Land Use Change mechanism).

A few voluntary agreements have also been established in relation to biodiversity. About 10% of all coffee producers participate in a green certification agreement. However, there is considerable scope to develop such approaches further. For example, while progress has been made in timber certification – which can also help combat illegal logging – procedures should be strengthened

Figure 11.5. **Total area under conservation and sustainable use, 2000-2011**

Note: 1. Including the PROCYMAF (improvement of forest ecosystem productivity) and PRODEFOR (forest development) programmes.

Source: SEMARNAT (2012), *Sistema Nacional de Indicadores Ambientales*.

to consolidate the national market for certified products. Efforts to promote sustainable tourism, including eco-tourism certification, should be enhanced to help reduce the environmental footprint of this large and growing sector. More generally, opportunities exist to further engage the private sector in conservation and sustainable use of forests and biodiversity.

Conservation and sustainable use of biodiversity will not be achieved solely by policy action in the environment sector. It will also be necessary to reform policies in other sectors, such as agriculture, tourism, fisheries and energy, that exert significant pressures on ecosystems and biological resources. For example, a variety of support programmes for farmers contribute to deforestation and the intensification of agricultural production. While agricultural subsidies have been reduced, a large share of agricultural support programmes continues to comprise production-related measures, which are the most environmentally damaging. These are also inefficient in reaching poorer farmers, with the vast majority of production-linked agricultural support in Mexico accruing to the richest 10% of farmers (see also Chapter 13 on the agriculture sector and rural areas). There has

been only limited uptake of agri-environment payments that could support more environment-friendly farming practices. Given the environmental and economic significance of biodiversity, establishing an inter-secretariat commission for biodiversity along the lines of the one for climate change could support a more focused and coherent approach for promoting biodiversity conservation and sustainable use.

Economic opportunities of green growth

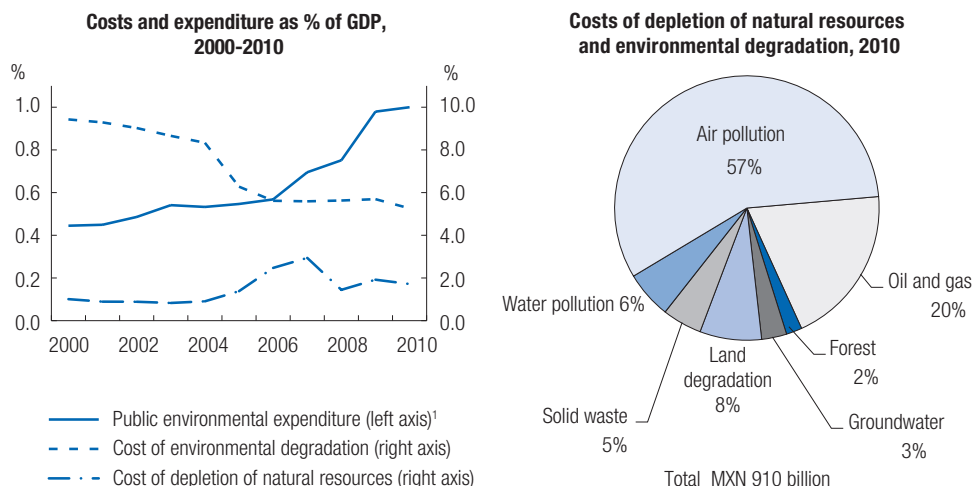
Well-designed environmental policies can create new markets, investment opportunities and jobs. Between 2000 and 2010, public environmental expenditure³ more than doubled in real terms, growing from 0.4% to 1.0% of GDP (Figure 11.6). The growth was driven by increased investment related to wastewater, soil and groundwater, and spending on biodiversity and forests. However, these investments remained small by comparison with the cost of environmental degradation and depletion of natural resources, which was estimated at 7% of GDP in 2010, down from 10% in 2000. Investment in waste management fell by one-third, even with the pressing need to develop a sound waste management system.

Shifting to a greener growth path will require significant investment in transport infrastructure and better integration of transport and urban planning policies. Investment in transport infrastructure increased significantly, from 0.3% of GDP in 2000 to 0.7% in 2010, but it remained just below the OECD average. In 2008, Mexico created the Federal Support for Mass Transit Programme (PROTRAM) to improve the efficiency of urban transport systems. PROTRAM, complemented with loan programmes, has fostered the growth in rail passenger traffic in metropolitan areas in recent years. However, investment in rail accounted for only 8% of total investment in transport infrastructure in 2010, a proportion well below that in other OECD countries, and road transport remains the predominant mode of freight and passenger transport.

Programmes to promote energy efficiency and renewables have the potential to create new market opportunities (see Chapter 12 on energy). In addition to energy performance standards and labels, Mexico has adopted a range of programmes to improve energy efficiency in the residential sector, including the Sustainable Light Programme to replace around 47 million incandescent bulbs with compact fluorescent bulbs; the Home Appliance Substitution Programme

3. Investment and current expenditure of federal (including public enterprises), state and local governments. Includes expenditure on: i) pollution abatement and control, covering air protection, waste and wastewater management, protection and remediation of soil and groundwater, and other environmental protection activities (R&D, administration, education); and ii) biodiversity and landscape protection. Excludes expenditure on water supply.

Figure 11.6. **Environmental expenditure and costs of depletion of natural resources and environmental degradation**



Note: 1. Investment and current expenditure of federal (including public enterprises), state and local governments (municipalities since 2003). Includes expenditure on: i) pollution abatement and control, covering: air protection, waste and wastewater management, protection and remediation of soil and groundwater, and other environmental protection activities (R&D, administration, education); and ii) biodiversity and landscape protection. Excludes expenditure on water supply.

Source: National Institute of Statistics and Geography (INEGI) (2012), *Sistema de Cuentas Nacionales de México: Cuentas económicas y ecológicas de México, 2006-2010*, INEGI, Aguascalientes.

to replace existing refrigerators and air conditioners with new, more energy-efficient models; the promotion of solar water heaters and efficient stoves; and the Green Mortgage Programme, which provides financial assistance to low-income buyers of energy-efficient homes. However, such subsidy-based instruments would be more effective, and less necessary, if the current subsidies to energy use were reduced or removed.

In 2010, Mexico achieved the largest absolute increase in renewable energy investment in Latin America. Investment in renewables, mainly wind but also geothermal, more than quadrupled to reach USD 2.3 billion in 2010. This growth followed adoption of the Law on Use of Renewables and Financing for Energy Transition and its implementing programme, which set a target of raising renewables-based power capacity (excluding large hydro) to 7.6% by 2012. Measures associated with high electricity prices for industry and technological developments have resulted in a significant expansion of wind power capacity for private self-generation. Despite a fall in investment in 2011 (to USD 0.2 billion), the renewables market is expected to strengthen from 2012 onwards.

However, much potential remains to be tapped, and the share of renewables in electricity production actually declined over the past decade (from 20% of electricity production in 2000 to 18% in 2010). The new administration wants to move toward a low-carbon economy by promoting investment in research and development on renewable energy. Fostering deployment of renewables will require better integration of environmental and social externalities in the cost of electricity, further grid development, and steps to address land compensation issues.

The need to boost the productivity and competitiveness of the economy through innovation has been recognised in Mexico for some time. It has been reiterated by the new government. However, the frameworks for innovation in general, and for environmentally related innovation in particular, have not been effective, and Mexico has fallen short of its objectives in this area. It has the least R&D-intensive economy in the OECD and one of the lowest private sector shares in gross expenditure on R&D. Innovation outcomes have been weak, though there have been somewhat higher levels of patenting activity for some environmental technologies and renewables. A widespread preference for imported technology has hindered technology diffusion and transfer to Mexican firms, particularly small and medium-sized enterprises.

OECD Key Recommendations

- Gradually replace the diesel and petrol price-smoothing mechanism with an excise tax on transport fuels; introduce excise duties on other energy products; differentiate the excise tax rates to reflect the environmental externalities associated with use of these products, including their contributions to greenhouse gas (GHG) emissions and local air pollution; where needed, provide social transfers for those adversely affected by increased energy prices.
- Regularly assess the environmental, social and economic impacts of existing and proposed direct and indirect subsidies in an integrated way, with a view to improving transparency and identifying trade-offs and subsidies that could be removed, reduced or redesigned; replace perverse subsidies to energy use, agriculture and fisheries with targeted cash transfers to low-income households and small farmers (*e.g.* building on the *Oportunidades* programme).
- Further develop sustainable urban transport systems, by scaling up and rolling out investment in low-carbon mass transit and strengthening regional and local capacity for development of integrated transport and urban planning policies.
- Take all necessary measures to implement the General Law on Climate

Change; clarify the domestic emission reduction target and define an indicative allocation among sectors; identify least-cost ways to achieve the target within sectors and in general; ensure that targets and measures are adjusted on the basis of systematic, regular and independent assessments of progress; publish annual progress reports, and a GHG emission inventory at least every two years.

- Strengthen economic and social analysis of biodiversity to support implementation of more efficient and effective policies; review the efficiency and effectiveness of economic instruments for the conservation and sustainable use of biodiversity and forests.
- Strengthen innovation capacity, including by greater support for higher education, international co-operation in science and technology, and public-private partnerships; strengthen the capacity to absorb and adapt cleaner technology, particularly in small and medium-sized enterprises.

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Chapter 12

Energy Policy

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The energy sector in Mexico has great potential to foster economic growth and job creation. The extent to which this will be realised depends on the reforms that the new Mexican government decides to implement in the years to come. In this sense, the commitments included in the Pact for Mexico of pursuing an energy reform, oriented to increase the exploration and production capacity of PEMEX and facilitating competition in refinery, petrochemical sector and transportation of hydrocarbons, as well as supporting development of renewable energy and energy efficiency, are welcome. Emphasis should be placed on increasing investment in the energy sector, in order to enable development of new resources and the deployment of cutting-edge technologies. It is equally important to reform the system of energy subsidies, which the new administration has also shown commitment to revise and reduce. Without such reform efforts, Mexico will find it difficult to reap the huge benefits that energy efficiency can provide.

In the years to come, Mexico's energy sector can play a crucial role in fostering economic growth, creating jobs, and putting the economy on a more sustainable development path.¹ Mexico indeed has tremendous potential to tap into and develop new energy resources: not only deepwater oil or unconventional gas, but also renewables – especially wind and solar. On the demand side, Mexico also has huge potential to enhance energy efficiency. However, to achieve this potential, massive investments are required to modernise the energy sector and introduce cutting-edge technologies. Meeting the investment challenge is critical to the success of Mexico's energy policy in the medium term. PEMEX is already facing this challenge today, as it struggles to increase investments just to maintain current levels of oil production. Meanwhile, billions of dollars are spent each year on fossil fuel subsidies that largely benefit the better off. Sound reform of the subsidy regime in Mexico could free up the resources Mexico needs to further fight poverty, support long-term growth, and put the country on the road to a prosperous and sustainable energy future. This chapter looks into a few of the key energy policy reforms required and provides a number of key recommendations.

Unleashing the potential of energy efficiency

Energy efficiency is often the most cost-effective way to reduce emissions and increase energy security. It is a strategic choice not just for energy-importing countries but for energy exporters as well, as domestic oil production can be freed up for export. Often, energy efficiency investments create jobs while offering a profitable business strategy for equipment manufacturers and energy service companies. Despite having taken some important first steps, Mexico has only just begun to tap its efficiency potential across the transport, industry, buildings and household sectors. The main ongoing programme is the National Program for Sustainable Use of Energy (PRONASE). The goal of PRONASE is a reduction in electricity demand of up to 18% by 2030.

¹ The authors gratefully acknowledge valuable input from Janos Bertok (OECD Private Sector Integrity Division), Adam Brown (IEA Renewable Energy Division), Hans Christiansen (OECD Corporate Affairs Division), Michael Cohen (IEA Oil Industry and Markets Division), Tim Gould (IEA Resources and Investment Unit) and Grayson Heffner (IEA Energy Efficiency Unit).

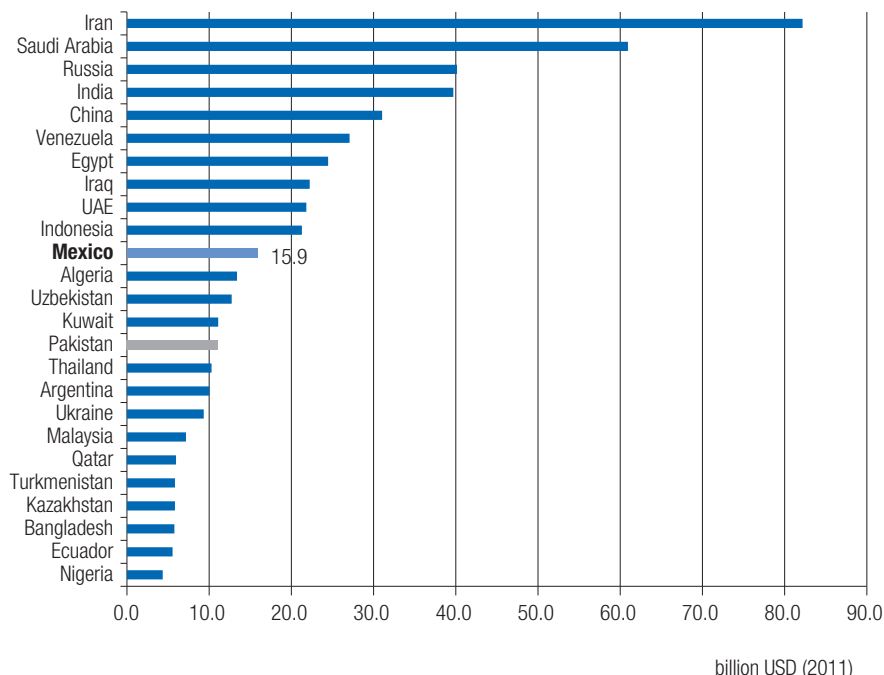
To achieve energy efficiency, well-defined policies are needed in various sectors. In the *transport* sector, implementation of fuel efficiency standards will be crucial to avoid a ballooning of emissions as car ownership rapidly increases. The availability of low-cost imports of used cars from the US may delay the achievement of the goals. In *industry*, a large potential for cogeneration remains untapped due to complicated permit procedures that discourage investment. The cogeneration potential in PEMEX alone has been estimated at three times the company's own electricity consumption. Tapping this potential will depend crucially on private investments. In this area, PEMEX should make greater efforts – in accordance with the commitment in the Pact for Mexico, to turn the company into one of the pillars in the fight against climate change by saving energy (commitment 60). In the *building* sector, Mexico has already put in place a number of regulations on insulating materials used in construction. However, these are mainly applicable in regions with extreme weather conditions, leaving a large share of the country's building stock unregulated. In the *residential* sector, progress has been made through programmes to replace inefficient light bulbs and refrigerators, appliance labelling and minimum energy performance standards (*Normas Oficiales Mexicanas* – NOM). However, large challenges remain:

- energy price subsidies that encourage inefficient use of energy
- limited access to finance for energy efficiency projects
- lack of private sector capacity to identify energy efficiency investment opportunities

In 2011, Mexico spent almost USD 16 billion on fossil fuel subsidies. Such subsidies are not unique to Mexico (Figure 12.1); however, their trade and fiscal impacts increase as domestic demand and oil prices rise. Importantly, energy subsidies reduce the potential savings from energy efficiency, distort markets and raise investment barriers to energy efficiency projects. Furthermore, the distribution of the fuels subsidy in Mexico is regressive, benefitting mainly the higher-income segments of the population (see Chapters 2 and 3 on poverty and fiscal issues). Instead, public support should be targeted to the poorest, while energy prices are gradually brought to market levels. This would not only remedy the adverse distributive effect of the current system, but also free up resources to reinforce social expenditure as well as greater and more productive investments elsewhere, notably in the energy sector. The ongoing policy of raising gasoline prices by 9 centavos per month (0.7 US cent, for the *Magna* type) is a step in the right direction, but much more determined action is needed to actually phase out the subsidy and avoid its negative consequences in terms of fiscal, environmental and social sustainability (see also Chapter 11 on green growth).

As regards access to financing, commercial banks have limited experience with energy efficiency investments; bankers often perceive these investments as risky. This leads to their underestimation of potential profitability of such projects, overestimation of transaction costs, and a general tendency to avoid

Figure 12.1. **Economic value of fossil-fuel consumption subsidies by fuel for top 25 countries, 2011**



Source: IEA (2012), *World Energy Outlook 2012*, OECD/IEA, Paris, p. 71.

engagement in this type of project. Box 12.1 offers a best practice example on how to overcome financial barriers to energy efficiency projects. The lack of knowledge and capacity in the private sector also calls for more efforts to promote capacity building, standardised measurement and verification protocols, and to foster efficiency technology, research, development and demonstration (RD&D).

**Box 12.1. Mobilizing investment in energy efficiency:
The approach of KfW in Germany**

Energy consumption in Germany has been stable since the 1990s, with energy intensity steadily decreasing. The 2007 National Energy Efficiency Action Plan aims at a 9% improvement in energy efficiency between 2007 and 2016 in all sectors. However, most of the savings are likely to come from the residential sector as it provides a still vast and cost-effective improvement potential (Pasquier and Saussay, 2012). The *Kreditanstalt für Wiederaufbau* (KfW), a non-profit public bank, has set up a number of incentive schemes with the aim of increasing energy efficiency in the housing sector, in small and medium

enterprises and in communes and social institutions. The programmes are funded by the German government, partly through federal budget allocations and partly through the Energy and Climate Fund, which is resourced through the auctioning of CO₂ certificates in the framework of the CO₂ cap and trading system.

Programmes: “CO₂ refurbishment of buildings” and “Energy efficient refurbishment”

Characteristics	CO ₂ refurbishment of buildings	Energy efficient refurbishment
Duration	August 2001 – March 2009	April 2009 - ongoing
Tipo	Créditos preferentes, desde 2007 también subvenciones; no se pueden solicitar ambos: crédito y subvención	Créditos preferentes y subvenciones. No es posible solicitar ambos. Los créditos para medidas de acondicionamiento muy ambiciosas incluyen un subsidio para el pago del crédito.
Type	Preferential loans, since 2007 also grants; no possibility to apply for both loan and grant.	Preferential loans and grants. No possibility to apply for both. Loans for very ambitious retrofitting measures include a loan repayment allowance.
Target	Refurbishment of existing residential buildings	Refurbishment of existing residential buildings
Eligible measures	Thermal insulation, HVAC, renewable energy (for warm water and heating)	Thermal insulation, HVAC, renewable energy (for warm water and heating)
Efficiency requirements	Choice of predefined packages of measures; since 10/2008 added measures leading to compliance with EnEV (Energy Saving Regulation) standards for new houses	Introduction of the KfW Efficiency House as a benchmark using the EnEV standard for new houses. Size of grants and loans depends on the efficiency level reached with regard to this benchmark. Also, single measures become eligible

Source: IEA, based on Clausnitzer *et al.*, 2010.

Volume: The volume of loans disbursed between 2001 and 2010 amounts to over EUR 23.3 billion (USD 29.8 billion). The average size of loans between 2005 and 2010 has been about EUR 80 000 (USD 102 800) for the refurbishment of on average 4 housing units. The proportion of overall investments to loan size has been rising, from 1.1 in 2008 to 1.39 in 2010. Much higher proportions can be found for the promotion of new low-energy buildings, *e.g.* 3.91 in 2010 (Kuckshinrichs *et al.*, 2011). From 2007 onwards, part of the modernization cost could be financed by a grant of up to 5000 EUR per apartment. The percentage of the grant depended on the efficiency gains achieved by the modernization measure. Between 2007 and 2010, grants approved amounted to about EUR 228 million (USD 292 million).

Results: Overall emission reduction during the years 2005 to 2010 cumulates to around 3.7 million tons of CO₂e (carbon dioxide equivalent). About EUR 0.02 of public money was needed to save 1 kWh final energy use

through the programmes, with a slightly decreasing tendency. Public funds needed to save a tonne of CO₂e emission have been decreasing, from EUR 57 in 2008 to EUR 41 in 2010. The programme thus helped to reduce the public budget expenditure. With their strict efficiency requirements, based on overall energy performance, the programmes promote the uptake of the most efficient technologies available.

Sources: Ryan, L. (2012), *Mobilising investment in energy efficiency: Economic instruments for buildings*, OECD/IEA; Pasquier, S. and A. Saussay (2012), *Progress implementing the IEA 25 energy efficiency policy recommendations: 2011 evaluation*, Insights Series, OECD/IEA; Clausnitzer, K.-D. et al. (2010), *Effekte der Förderfälle des Jahres 2009 des CO₂-Gebäudesanierungsprogramms und des Programms "Energieeffizient Sanieren"*, Bremen/Darmstadt; Kuckshinrichs, W. et al. (2011), *Wirkungen der Förderprogramme im Bereich "Energieeffizientes Bauen und Sanieren" der KfW auf die öffentlichen Haushalte*, Jülich.

Improving oil sector performance

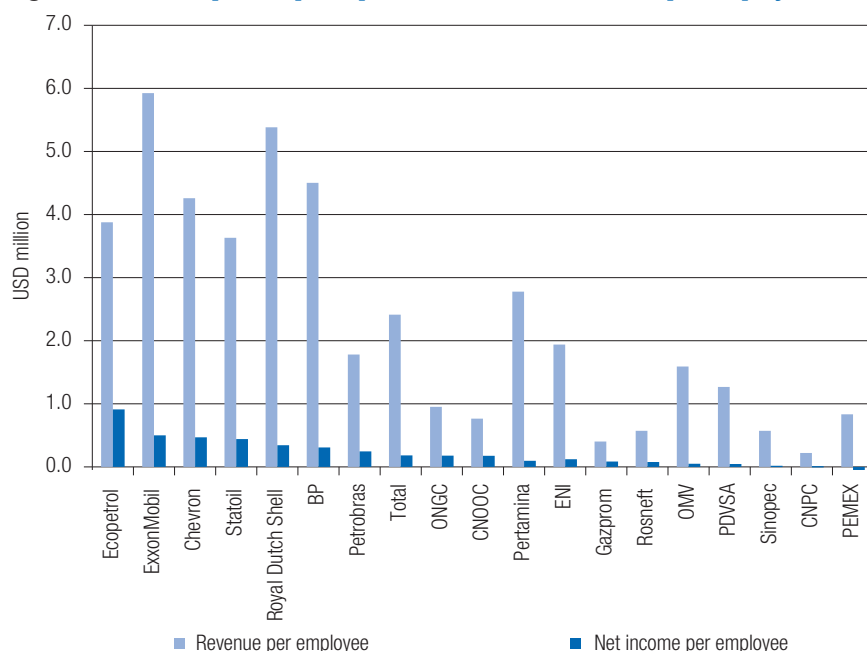
There are three main criticisms of the performance of Mexico's oil sector:

- declining production, placing government budgets at serious risk
- historical underinvestment in exploration
- paucity of domestic technical capability.

Mexico today produces 2.5 million barrels of crude oil per day – almost 1 million barrels less than in 2005. Further decline in production could turn Mexico into a net importer in the coming decade. Given that almost one-third of public budget revenues comes from oil production and export, such a decline would have a serious impact on the public deficit and trade balance (see Chapter 3 on fiscal issues). Mexico can increase oil output either by producing more oil from mature fields, or by developing new deepwater and onshore resources; both alternatives entail significant investment and new technologies. This basically provides two main options for reform: improving PEMEX's own ability to invest, and/or attracting more private domestic and foreign investment. On the assumption, that sufficient investment is made, total oil production is projected to bottom-out at around 2.5 mb/d by the mid-2020s and the recover slowly. Production could respond faster, indeed the Energy Strategy 2012-2026 calls for crude oil production alone to growth to 3.3 mb/d by 2026 (SENER, 2012).

As a national oil company, PEMEX has a social role in terms of job creation and public revenue provision. However, its investment capability is severely impaired by the high tax burden. Under current conditions, PEMEX would not be able to raise the capital necessary to develop Mexico's deepwater energy resources. Figure 12.2 shows the per capita revenue and net income for a range of private and national oil companies. PEMEX is the only major oil company

Figure 12.2. Oil companies' per capita revenue and net income per employee, 2011



Source: IEA compilation from annual reports and company websites.

worldwide to report a negative net income, again mainly due to its large tax burden. Broadening the Mexican tax base and reducing the tax burden on PEMEX would allow PEMEX to invest more in its essential business, that of developing Mexico's resource potential.

In terms of the framework for foreign investment, a balance must be struck between maintaining the state's fiscal balance and creating the necessary incentives to attract investment to Mexico. The 2008 energy reform was a first step, but it remains uncertain whether private investors will be willing to risk capital to enter the agreements in their current "cost-plus" form once they are applied to deepwater or shale exploration. There is no one-size-fits-all approach to oil sector governance or taxation. Any framework needs to take into account country-specific constraints such as constitutional rules on ownership of natural resources, the legislative process, geological conditions and the maturity and development stage of the country's resources. Figure 12.3 illustrates the frameworks in place worldwide:

- *Concessions* allow companies to produce in a given geographic area in exchange for royalties and taxes;
- *Production sharing contracts (PSCs)* define how the produced oil from a given area is shared between the operator and the state/national oil company;

Figure 12.3. **Upstream oil frameworks worldwide**

Source: Baker & McKenzie.

- *Service contracts* define the payment (in kind or not) for services that private oil companies agree to perform for the state/national oil company;
- *Mixed system* refers to concessions, PSCs and/or service contracts applied in parallel.

The Mexican constitution reserves for the state the exclusive right of oil production. As a result, Mexico is one of a few countries that relies exclusively on service contracts to develop its oil and gas resources. Article 60 of the PEMEX Law explicitly rules out production-sharing agreements or any agreement that involves percentage sharing in the production or the sales of hydrocarbons or its by-products, or sharing in the profits of the contracting entity. The Pact for Mexico reiterated the principle of exclusive state ownership and state production of oil (commitment 54). Any reform, therefore has to find ways to adapt the service contracts to the risk profile of deepwater and unconventional gas projects.

Box 12.2. PEMEX procurement strategy: Optimising the supply process to maximise value creation

In 2011-2012, the OECD carried out a review of the procurement function of PEMEX to enhance its efficiency and integrity. The OECD review provided a set of recommendations to transform procurement into a strategic function in line with the commitments of the Pact for Mexico to enhance transparency, efficiency and corporate governance in PEMEX. Some of the specific recommendations of the review included the following:

- In line with commitment 55 of the Pact for Mexico to reform its corporate governance structure, nominating a single unit with formal authority to improve the procurement function of the various entities of PEMEX and to implement a single and common procurement model applicable to every entity.
- Enhancing the monitoring and management of the procurement function, including the efficiency and savings achieved through contractual instruments and strategies put in place by PEMEX. This will require improving the data availability and accuracy, potentially through the development and integration of common IT tools and databases.
- Increasing the level of competition and efficiency in its procurement activities, through the consolidation of procurement and use of contractual instruments such as framework agreements, open contracts, and contracts with options.
- Improving the internal capacity and time available for effective market research – to better identify available or potential solutions to PEMEX’s requirements and the prevailing market conditions – as well for drafting clear requirement specifications and evaluation criteria.
- Enhancing PEMEX’s interaction with suppliers, for example through verbal debriefings to bidders following a tender process, higher management and monitoring of the performance of suppliers under their contracts, effectively implementing the Centre of Excellence for Technology Supply (*Centro de Excelencia para el Suministro de Tecnología*) to facilitate open, structured and transparent dialogue with the industry, as well as pursuing PEMEX’s suppliers’ development activities (for example, by assessing the impact of the strategy put in place in 2009 and revising it).
- Focusing PEMEX workforce management on strategic planning, competencies and performance management in order to better align its current and future human capital (number and skills) with its strategic needs.
- Taking actions to promote integrity in procurement functions. Examples include developing a long-term strategy for preventing corruption; reforming and promoting the company’s Code of Conduct; putting in place mechanisms to facilitate reporting of wrongdoing and protection of whistleblowers; and fighting suppliers’ collusion in collaboration with the Mexican Competition Authority (*Comisión Federal de Competencia*).
- Intensifying internal communication and training on the PEMEX Law to reduce remaining confusion and concerns, and maximising the use of the flexibilities provided by the Law.

Source: OECD (2013) Public Procurement Review of PEMEX: Optimising the Supply Process to Maximise Value Creation.

In order to turn PEMEX into a competitive, world-class company, commitment 55 of the Pact for Mexico pledges to adopt international best-practices of corporate governance and transparency. In this regard, the 2008 energy reform package has already taken important first steps, such as the separation of the responsibility for upstream regulation from PEMEX, and transferring this responsibility to the *Comisión Nacional de Hidrocarburos* (CNH). However, there is still considerable room for improvement in terms of the process of setting and monitoring goals for the company. Important points for further reform are, for example, the replacement of direct ministerial representatives on the company's board with directors that have proven commercial expertise; clearer communication – on an annual basis – of financial and non-financial goals by the state; and the establishment of an independent internal audit at the service of the board of directors. In addition, there is clear potential for improving the way in which PEMEX sources its supplies and services (see box 12.2). Prudent design of procurement rules can contribute to raising efficiency: other energy companies estimate that their contract cost could be 10% to 35% higher without competitive tendering.

Overall, the coming years it will be crucial to ensure the viability of the Mexican oil sector by:

- introducing reforms to attract more investment and new technology,
- broadening the general tax base while reducing the tax burden on PEMEX,
- improving PEMEX's corporate governance and procurement process.

Unconventional gas: Regulation as the key to success

Over the past years, there have been two fundamental drivers of change in the Mexican energy mix. One is the decline in production of Mexico's largest oil field (Cantarell); the other is the surge in unconventional gas production in the United States, which has led to a drop in regional gas prices. As a consequence, the share of fuel oil in Mexico's power mix has fallen sharply, from 48% to 16%, between 2000 and 2011, whereas the share of natural gas has risen from 17% to 50%. In terms of carbon emissions and fuel cost savings, the shift from fuel oil to natural gas should continue and use of fuel oil should be completely phased. Discussions are underway on how to use the country's abundant domestic shale gas resources to underpin the future expansion of the natural gas market in Mexico, including PEMEX' greater involvement in fertilizer production (commitment 59).

Mexico's large shale gas resources make it one of the most promising countries for shale gas development globally. Estimates of recoverable resources vary between 4.24 trillion cubic metres (PEMEX low estimate) and 19 trillion cubic metres (US Energy Information Agency – EIA). Shale gas could make a significant

contribution to meeting Mexico's gas needs in the longer term. In an optimistic scenario, Mexico's natural gas production would rise from 50 billion cubic meters today to close to 90 billion cubic meters in 2035, with most of the increase coming from unconventional gas (IEA, 2012b p. 114). In view of the highly competitive unconventional gas industry in the United States, the challenge for Mexico will be to keep development costs down and to attract the necessary investments. US natural gas prices are expected to rise moderately, but will continue to be very competitive. It is equally important to prevent the environmental impact associated with unconventional gas production – notably related to the use and recycling of water for hydraulic fracturing.

Hydraulic fracturing, or fracking, is a production process involving the use of water, sand and chemicals to fracture the shale formation and liberate the gas stored in its pores. Due to the composition of the fracking fluid and the uptake of potential contaminants in the process, the “flowback” water needs treatment and disposal after use. The drilling of a single shale gas well requires on average about 230 to 3000 cubic metres of water, depending on the geological conditions. The process of hydraulic fracturing consumes another 8700 to 14400 cubic metres of water for each well. By comparison: per capita availability of renewable water in Mexico stood at 4,263 cubic metres/year in 2009, with about two thirds of it occurring in the South-East of Mexico. However, much of Mexico's unconventional gas resource is located in the more arid north; in addition, precipitation is largely concentrated during four months of the year (June-September) so that water use is particularly sensitive. In practical terms, the regulation of water use poses challenges of multi-level governance, involving not only national, state, municipal and water basin-level institutions, but also informal water management mechanisms at the local level (see Chapter 14 on general water management issues).

To address environmental sensitivities and ensure public confidence in unconventional gas development, Mexico could draw from Canada's experience with “Multi-Stakeholder Advisory Committees” (MACs). Between 2003 and 2009, a MAC brought together environmental organisations, resource right holders, farmers and the energy industry as well as local and Alberta provincial government representatives, to provide and monitor application of recommendations on the regulation of Coal Bed Methane development. The process resulted in 44 recommendations related to protection of water resources; royalties and taxes; enhancement of public information and knowledge; minimisation of surface impacts; and communication and consultation (see e.g. CBM/NGC Multi-Stakeholder Advisory Committee, 2006). On the issue of water resource management, the concept of “cumulative management areas” introduced in Australia provides a way of monitoring and managing the impact of water extraction in a given geographical area by multiple oil and gas developments (see e.g. Queensland Water Commission, 2012).

Mexico's shale gas potential will not be utilised unless the investment framework is attractive enough and environmental and public concerns are addressed. Key recommendations² are:

- To put in place contract models sufficiently attractive for investors – otherwise, unconventional gas and the associated jobs will be developed elsewhere in the world
- To define regulatory responsibilities clearly and ensure high levels of environmental performance
- To be as transparent as possible, by
 - Engaging with local communities, residents and other stakeholders, prior to exploration and throughout project development,
 - Establishing baselines of environmental indicators, and measuring and disclosing operational data.

Renewables: Towards a low-carbon power sector

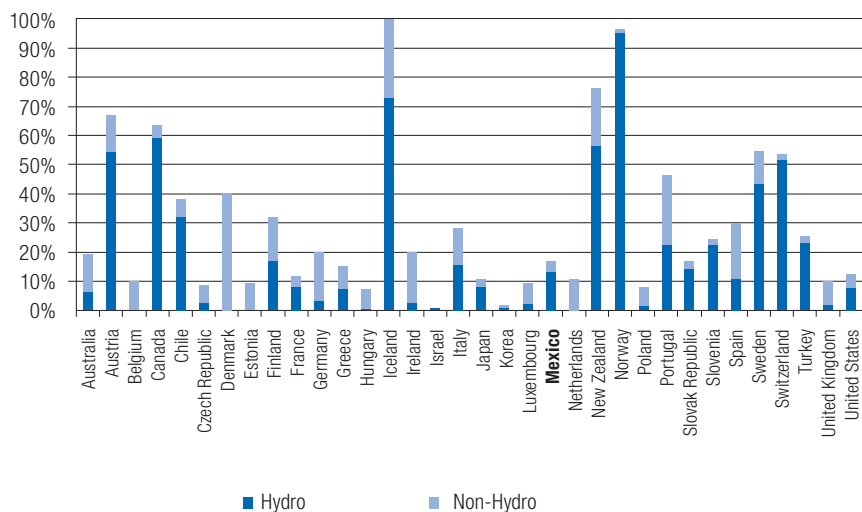
The transition to a low-carbon power sector in Mexico requires extensive deployment of clean energy technologies. Renewable energy resources can provide much needed diversification, and there once again Mexico has excellent potential. However, out of 34 OECD countries, Mexico ranks 19th in terms of renewable energy utilisation and only 26th in terms of non-hydro renewable (Figure 12.4). For a country with very high sunshine levels – and some of the strongest winds in the world – Mexico could belong to the leaders in this ranking. First steps were taken to foster renewables with the 2008 energy reform: The Law for the Use of Renewable Energy and Finance of the Energy Transition (LAERFTE) called for a revision of CFE's (Comisión Federal de Electricidad) cost-based planning process to include externalities associated with both conventional and renewable energy sources.³ In addition, Mexico has launched a “Special Programme for the Use of Renewable Energy”. Among other things, this programme seeks to promote renewables by disseminating information and building a national renewable energy inventory.⁴ Wind and solar are expected to be the fastest-growing technologies in the medium term (Figure 12.5).

² For more recommendations on unconventional gas regulation, see IEA, 2012a, p. 13-14.

³ The new methodology is currently being developed by the energy ministry in co-operation with the finance, environment and health ministries and should allow the utility to tap renewables more forcefully in the future.

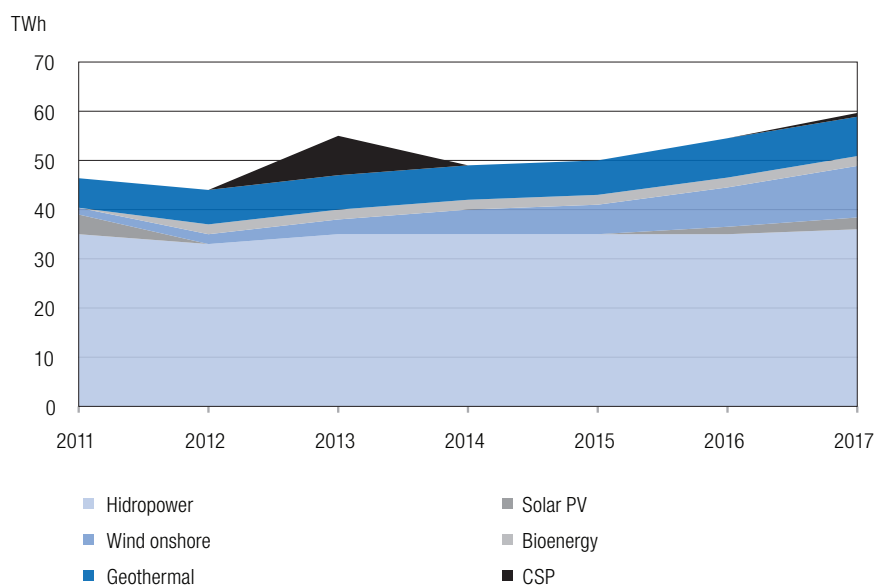
⁴ Furthermore, the programme acknowledges the need to further reform regulatory and financing mechanisms to better tap the nation's renewable energy sources, adapting infrastructure to the inclusion of renewables and fostering research and development in that area. To support this programme, two funds were created: the Energy Transition Fund (*Fondo para la Transición Energética y el Aprovechamiento Sustentable de la Energía*) and the Energy Sustainability Fund (*Fondo de Sustentabilidad Energética*).

Figure 12.4. **Renewable electricity share in the electricity mix in the OECD area, 2011**



Source: IEA data.

Figure 12.5. **Forecast of Mexico's renewable generation, 2011-17**



Source: IEA projections.

However, large-scale deployment of renewables is still mainly restricted to demonstration, off-grid or export-only projects. Further measures are needed to remove persistent barriers and stimulate the deployment of renewables in Mexico, as pledged in the Pact for Mexico (commitment 49). In this regard, the IEA recommends a “policy portfolio” (IEA, 2011a):

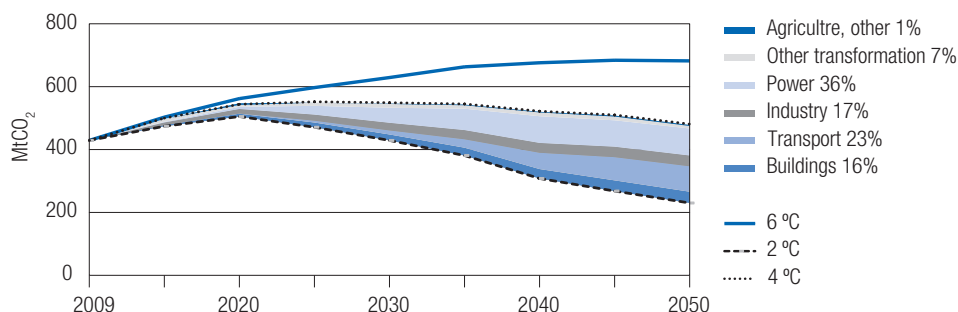
- Firstly, *long-term stable policy and targets* – to create a reliable environment for investments in renewables. In this regard, Mexico has set a goal of generating 35% of its electricity from non-fossil sources by 2024. However, there are important gaps when it comes to effective public policies. For example, Mexico is lacking a law on geothermal energy, which creates uncertainties for investors and leads to the underutilisation of this energy source.
- Secondly, *transitional incentives* to introduce renewable energy into the market and allow for gradual cost reductions, which in turn enable the phase-out of public support over time.
- Thirdly, measures to enable the *integration of variable renewables* into the grid. In this regard, smarter electricity grids, a switch from conventional direct current (DC) to alternating current (AC) lines, and co-ordination with adjacent areas – the western United States, Texas and Belize – would help tackle the balancing challenge (IEA, 2011b).
- And lastly, *tackling non-economic barriers* to the deployment of renewables, including fossil fuel subsidies and complicated permit procedures.

Low-carbon scenarios for Mexico

Mexico has passed one of the world’s most stringent national climate change laws. Among its provisions is a mandate to reduce emissions of carbon dioxide by 30% below business-as-usual levels by 2020, and by 50% below 2000 levels by 2050 (see Chapter 11). Alternative ways of achieving these goals should be evaluated based on each option’s profitability. Figures 12.6 and 12.7 show the results of cost-effective CO₂ reductions in Mexico seen through three scenarios: The 6°C Scenario (6DS) is largely a projection of the alarming current trends whereby the average global temperature increases by 6 degrees Celsius; the 4°C Scenario (4DS) takes into account recent pledges made to limit emissions; and the 2°C (2DS) scenario incorporates an energy system offering an 80% chance of limiting the average global temperature increase to 2 degrees. Figure 12.6 shows the 6 degree scenario for Mexico as well as the sectoral contributions required for the reductions to reach 2DS from 4DS.

Under 6DS, or the business as usual scenario, Mexico is on track for a 47% increase of emissions; however, 2DS requires to practically a halving of emissions by 2050 compared with 2009 levels. The power sector provides the largest share

Figure 12.6. **Scenarios for sectoral contributions to achieve CO₂ emission reductions in Mexico**



Source: International Energy Agency (2012), *Energy Technology Perspectives 2012*, OECD/IEA, Paris, p. 590.

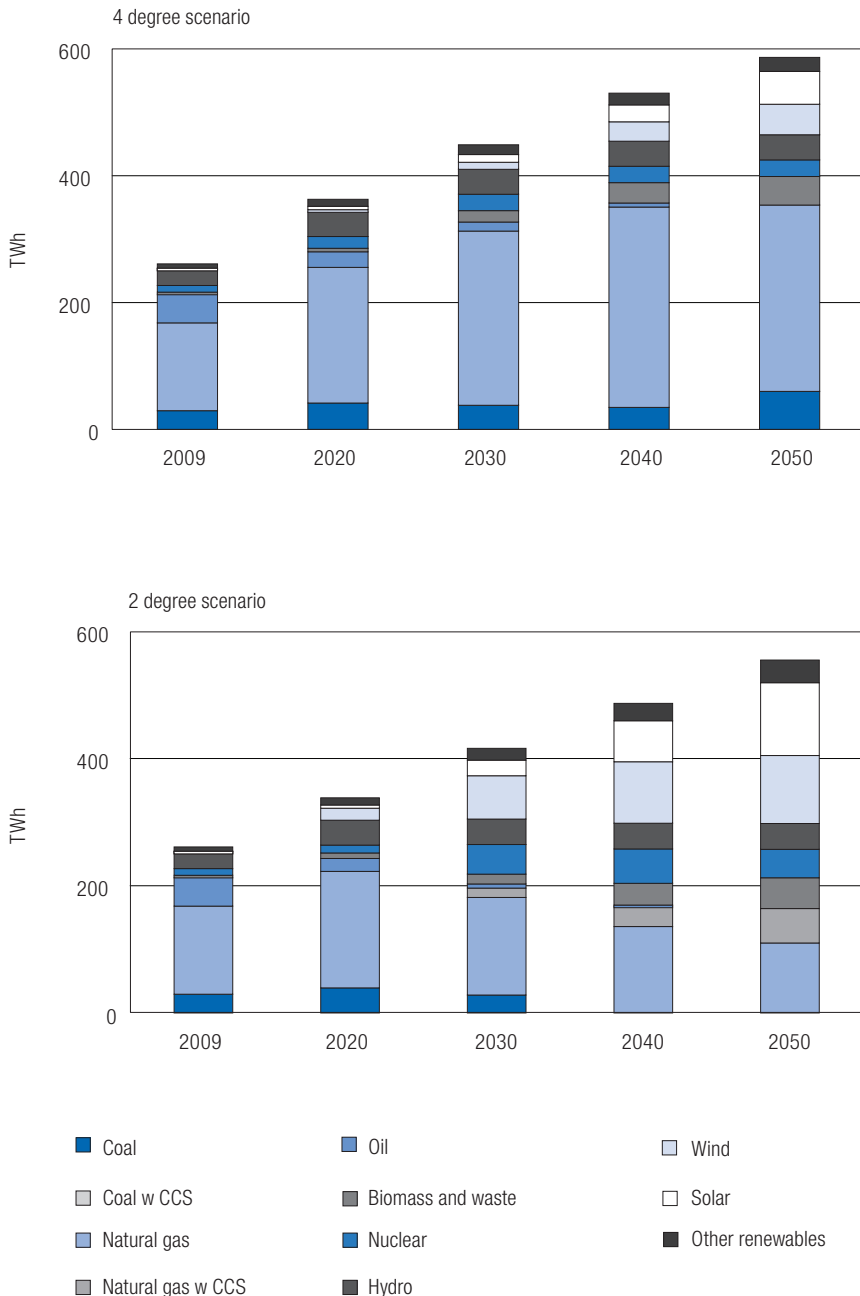
of reductions (36%). Electricity savings for end-users and increased use of solar and wind power are the key mitigation options through 2050. The second-largest contribution comes from the transport sector, with 23% of total reductions. In 2DS, the implementation of Mexican fuel economy standards for passenger light-duty vehicles (PLDVs) – along with new bus rapid transit (BRT) systems in Mexico City and elsewhere – is helping the move towards a cleaner and more efficient transport system.

Under 4DS, the electricity mix continues to be dominated by fossil fuels, especially natural gas. Electricity generation more than doubles between 2009 and 2050; however, more efficient use of gas in power generation – in combination with the increased use of renewables – limits the growth in CO₂ emissions to 56%. In 2DS, annual CO₂ emissions in the power sector are more than halved compared to 2009. Natural gas is replaced by strong growth in solar and wind energy, but CO₂ capture from natural gas plants is also an effective option. Increased use of cogeneration plants in industry, fired by gas or biomass, contributes to the emission reductions as well. Installed cogeneration capacity grows to 15 GW by 2050.

Removing subsidies and introducing carbon pricing should form an important part of a low-carbon energy strategy. To some extent, participating in emission trading systems would be more attractive to Mexico than raising carbon taxes, as it opens opportunities to obtain funds from abroad to finance investments in energy efficiency. It would also be more efficient in the sense that it would ensure that households exploit the cheapest mitigation strategies first – and these may not always coincide with the measures that the government has chosen to subsidise.

In any case, under discussion here is a full strategy change by passing from subsidy to attacking the known enemy: CO₂ emissions.

Figure 12.7. **Mexico's electricity mix in the 4° and 2° scenarios**



Note: CCS is Carbon capture and storage.

Source: International Energy Agency (2012), *Energy Technology Perspectives 2012*, OECD/IEA, p. 595.

Key Recommendations

- In order to free up resources for investment in renewable energy (commitment 49 of the Pact for Mexico): reform the system of energy subsidies and ensure more targeted support for the poor.
- In order to increase hydrocarbon exploration and production (commitment 56): reform the oil & gas sector investment framework to enable higher inflows of capital investment and technology.
- In order to transform PEMEX into a world class, competitive company (commitment 55): improve the corporate governance and the procurement policy of PEMEX.
- Put in place a regulatory regime for shale gas development that meets the requirements of both attracting foreign investment and ensuring environmental sustainability. A stronger *Comisión Nacional de Hidrocarburos* (CNH), as foreseen by commitment 58, may form the foundation for such a regime.
- Tackle remaining regulatory barriers to the deployment of renewables and cogeneration.
- To underpin the transition to a low-carbon economy (commitment 49) put a price on carbon emissions in parallel with other mitigation strategies.

Further reading

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Chapter 13

The Agriculture Sector and Rural Development

Jesús Antón

Over the past decades, Mexico has implemented major reforms in the agriculture sector that have resulted in economic and social gains of considerable significance. These changes, however, have also reduced the relative importance of the sector in the economy. Despite the progress, further efforts are needed to tackle numerous challenges involving sector competitiveness and rural poverty. Competitiveness and efficiency could be enhanced by shifting from a subsidies approach to one that favours targeted investments in innovation and infrastructure, improving the focus and the transparency of PROCAMPO, developing a broad risk management strategy that differentiates catastrophic from normal risks, and integrating policy-making institutions. As social policies focusing on the poor in rural areas are developed, agricultural policies and land tenure systems should be further reformed to facilitate innovation, structural adjustment, and social development. During the first weeks of his government, President Enrique Peña Nieto has signaled the priorities for this sector with a focus on increasing productivity and production to ensure food security and reduce poverty in the sector, in line with the issues discussed in this chapter.

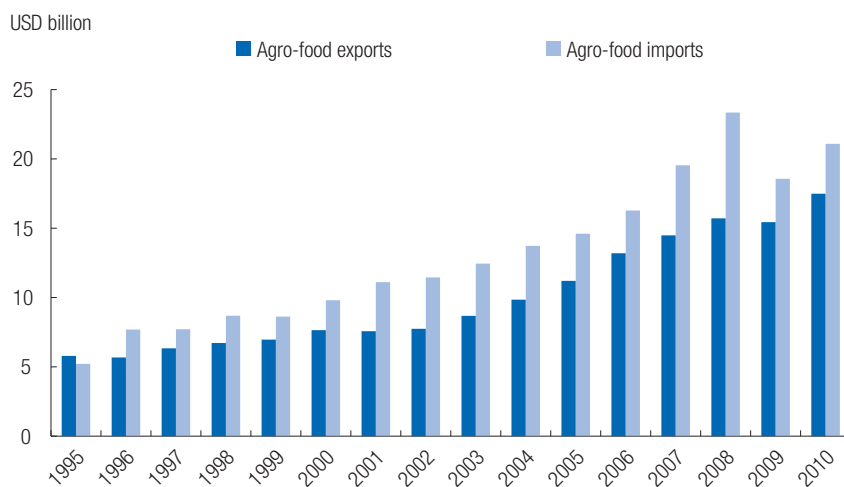
In 2010, Mexico's agriculture sector accounted for just 3.6% of GDP (Table 13.1) but still employed 12.7% of the labour force. During the past two decades, Mexico has been implementing a number of agricultural and related trade policy reforms to improve the competitiveness of the sector while reducing rural poverty. In particular, Mexico has significantly reduced border protection through WTO, NAFTA and other trade agreements. It also reduced overall producers' support while increasing direct payments to farmers, which are the least distortive form of support.

This sector remains less productive than other sectors. Furthermore, it is characterised by a marked duality between a large number of small farms (of 2 hectares or less) producing food mostly for their own consumption, and a small number of large-scale, commercial farm holdings (of more than 50 hectares) accounting for a large proportion of agricultural output. This duality requires an integrated policy approach to respond to two core objectives: further develop commercial agriculture and, at the same time, reduce rural poverty.

The sector is also characterised by a persisting agro-food trade deficit (Figure 13.1), even though Mexico is a significant and competitive exporter of several fruits and vegetables and relies on a large net trade surplus in these products.

Rural areas have vast human resources, particularly young people. In addition, their natural, cultural and physical assets could provide, in a more diversified economy, a significant contribution to national development. Improvements in the productivity and competitiveness of the agriculture sector would help promote long-term growth and reduce poverty decisively.

The Pact for Mexico signed by different political parties at the outset of the present administration establishes three objectives to transform the agricultural sector into a more productive activity. They include improvements in commercialization (commitment 64), measures to improve productivity through financing and reorientation of producer support and greater use of technology (commitment 65) as well as strengthening of environmental payment schemes (commitment 66). The objectives set by the administration are to increase production to ensure food security and reduce poverty in the sector. In the following sections options to improve the system of producer support and institutional reforms to attain these objectives in an efficient manner are presented.

Figure 13.1. **Mexico's agro-food trade, 1995-2010**

Source: International Trade by Commodity Statistics (ITCS) database.

Table 13.1. **Agricultural indicators, 1995, 2010¹**

	1995	2010 ¹
Agriculture in the economy		
Agriculture in GDP (%)	5.4	3.6
Agriculture share in employment (%)	22.2	12.7
Agro-food exports (% of total exports)	7.3	5.9
Agro-food imports (% of total imports)	7.2	7.0
Characteristics of the agricultural sector		
Agro-food trade balance (USD million)	574	-3,598
Crop in total agricultural production (%)	56	51
Livestock in total agricultural production (%)	44	49
Agricultural area (AA) (thousand ha)	107 200	102 833
Share of arable land in AA (%)	23	24
Share of irrigated land in AA	6	6
Share of agriculture in water consumption (%)	85	77
Nitrogen balance, Kg/ha	24	21

Note: 1. Or latest available year.

Source: OECD Statistical databases, World Development Indicators and national data.

Improving competitiveness by reforming producers' support

Overall support has declined

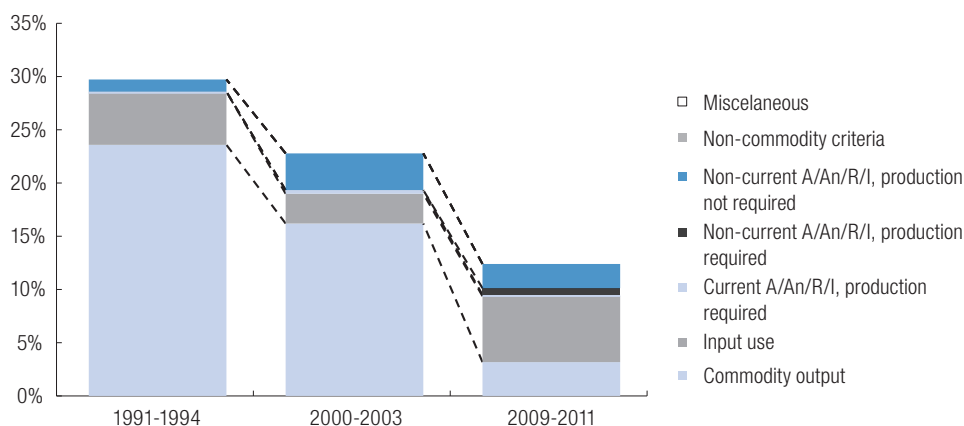
Mexico has undertaken significant agricultural policy reform in the past two decades, reducing the amount of support to producers by more than half since 1991-94, and reallocating remaining support to less distorting and more effective forms of support (Figures 13.2 and 13.3). Today, this support stands at 12% of gross farm receipts, which is below the OECD average of 20%. Mexico has notably reduced market price support (one of the most distorting forms of interventions), which now accounts for only one-quarter of producer support, in favour of direct payments based on historical parameters. In particular, Mexico has two large direct payment programmes based on historical parameters: PROCAMPO (established in 1994, see below) is based on historical planted area and PROGAN (launched in 2003) is based on historical livestock numbers and imposes environment protection conditions for production.

Increased subsidies to energy consumption and price hedging are unwelcome developments

Since 2000, Mexico has significantly increased expenditure on inputs, both fixed capital and variable (Figure 13.3). In particular, support for energy consumption (electricity and fuel) and to subsidise price-hedging contracts

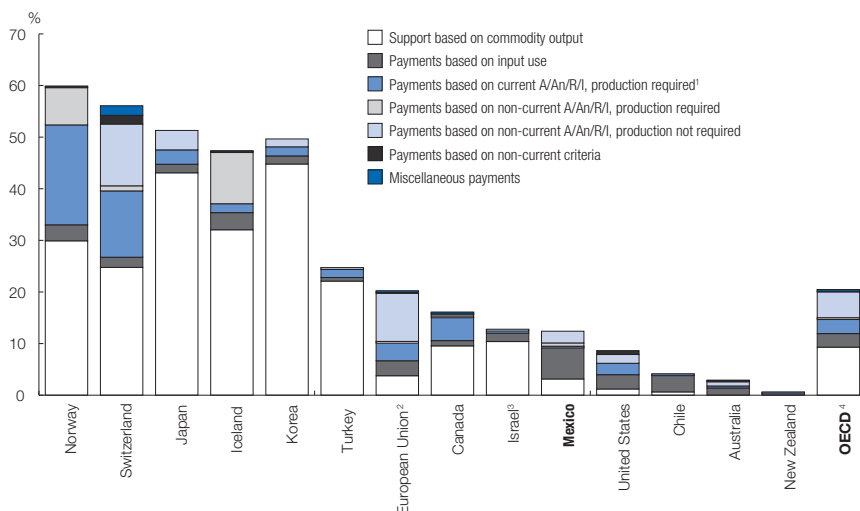
Figure 13.2. **Level and composition of producer support estimate, 1991-2011**

A = Area planted, An = Animal numbers, R = Receipts, I = Income



Source: OECD Producer and Consumer Support Estimates (PSE/CSE) database, 2012.

Figure 13.3. **Composition of producer support estimate by country, 2009-2011 (Percentage of gross farm receipts)**



Note: 1. EU27 in 2009-2011.

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

3. The OECD total does not include the non-OECD EU member states.

Source: OECD Producer and Consumer Support Estimates (PSE/CSE) database, 2012.

has recently increased, taking the form of a number of important agricultural programmes. These measures do not contribute in a sustainable manner to the competitiveness of the sector.

Electricity subsidies are mainly used to pay for pumping water for irrigation, and are many times higher than payments recently introduced to support infrastructure for better water management. This is inconsistent with Mexico's ambitious objectives for better water management, in the context of combating climate change. Agriculture represents 77% of water consumption in Mexico (see Chapter 14 on water policy). The challenge is to develop policies that simultaneously enhance sustainability, efficient water management and agricultural production. Water should be priced to reflect its associated costs rather than to support its pumping for irrigation. Specific initiatives could be developed to strengthen the link between renewable energy and agriculture by promoting use of biomass as a feedstock to produce energy in rural communities.

The sizeable increase in subsidies to price-hedging contracts since 2005 requires a rigorous evaluation in terms of its cost-effectiveness in managing risk at the farm level. The costs of subsidising international put and call options

on contract prices are becoming very high: total expenditure in 2011 was only slightly smaller than the cost of the whole PROCAMPO programme.

Support to investment and innovation needs to be enhanced

It is very important to strengthen innovation systems to and implementation of innovations. Recent efforts to bring into a single programme investment, extension, and conservation components as in the MASAGRO programme are promising, but their effectiveness needs to be tested in the years to come, in terms of both programme implementation and the strength of the budgetary commitments in question.

Likewise, the objectives of PROCAMPO, the largest agricultural programme in budgetary terms, need to be clarified. This programme provides direct payments to farmers based on historical area. Initially, the payment was provided to landowners (including *ejido* land) who grew any of nine selected crops – most notably cereals, oilseeds and beans – during the three agricultural seasons prior to 1993. Since then, the payment has been based on the historical use of land, allowing farmers to freely decide the most competitive mix of products. By increasing farmers' production freedom, PROCAMPO has improved the market orientation and competitiveness of Mexican farms. For several years farmers could capitalise the stream of payments up to the deadline of the programme, which was foreseen for 2008 and then prolonged until 2012. This capitalised payment was aimed at financing investment opportunities that could improve productivity on the farm. But use of the payments for productive investments has become more difficult in recent years, because of the policy uncertainty over whether the programme would continue.

It is also essential to encourage activities that promote innovation in the countryside. Public spending on research and development (R&D), training and education in agriculture, and food inspection services – which would facilitate investment and innovation, and would improve overall performance of agriculture – is relatively low compared to the OECD average. General support to infrastructure and services that benefit the agricultural sector as a whole represents only 11% of total support to agriculture, well below the OECD average of 26%. Moreover, this percentage has remained constant over the past two decades relative to a growing trend in the OECD area.

Strengthening risk management policies

Recent droughts highlight the importance of managing catastrophic risks for production and the need to efficiently use scarce budgetary resources beyond the price-hedging programme. Risk management policies support farmers' management of their own risks. It is necessary to strengthen policy frameworks

through the provision of information and training to help farmers manage their risks, and through the development of market tools such as insurance. Public policies should be defined in advance and target unavoidable catastrophic risks, while enhancing incentives to develop individual risk management strategies.

Addressing institutional challenges

Reviewing the restrictions on land ownership and trading

Over half of Mexican territory operates under some type of social ownership – *ejidos* or agrarian communities – in which special management regimes govern both collective land and land plots granted to individuals. This communal land system was intended to serve certain societal needs given the absence of the broader social safety nets that exist in most OECD countries. Reforms of the community land system in 1990 had limited practical impact. Although considered socially important, some of the provisions of the community land undermine investment in the agriculture sector, as well as its efficiency and adjustment capacity. In particular, provisions that require the agreement of the *ejido* for converting land into private ownership hinder structural adjustment and investment. As social policies are developed to address these needs, Mexico could phase out current restrictions on land ownership and trading.

Developing an integrated approach

Lack of clarity regarding institutional roles among the many government agencies involved in agriculture, fisheries and rural development led to duplication of activities. It also sometimes gave rise to inconsistent approaches across the full range of government programmes that have diminished the impact of Mexico's significant public expenditures in the sector.

The idea of an integrated approach to agricultural and rural policies was developed in the 2001 Law on Sustainable Development. The commission in charge (CIDRS, Inter-Ministerial Commission on Sustainable Rural Development) has developed a combined budget from several ministries and government bodies, the Special Concurrent Programme (PEC). This programme has not worked within an integrated policy programming process. It operates more as an inventory of programmes rather than a tool to exploit synergies among programmes impacting on rural areas, and includes programmes and institutions not necessarily oriented to rural development. This produces a less-than-accurate picture of the federal rural policy strategy, and data on rural spending that do not fully correspond to the reality on the ground. In order to take full advantage of the PEC, efforts should be devoted to developing a fully integrated framework based on a joint national strategy with common goals and priorities on rural

development. First steps in this direction would include improving transparency regarding the criteria for programme inclusion into the PEC and engaging in a dialogue that could result in the merging, transferring and elimination of certain programmes.

Addressing poverty issues

More than 60% of the Mexican poor are rural. Agriculture policies are not the most appropriate policies to alleviate poverty (see Chapter 2 on poverty issues), although they can have an impact on income and investment opportunities for the poor. Agricultural policies have traditionally had a regressive impact on rural income. Even though the situation has improved following the introduction of PROCAMPO in 1994, large producers continue to benefit disproportionately from agriculture support. These direct payments are also provided to farmers who do not sell their crops but merely consume them, that is to say subsistence farmers who could not benefit from supported prices. Despite recent efforts to set special payment rates for producers with less than five hectares, larger farmers continue to benefit more from PROCAMPO than small (and poor) ones because the payment is proportional to the land surface.

Promoting a multi-sectoral rural policy, which assesses and capitalises on local comparative advantages, is a way to integrate agricultural policy with an improvement of the effectiveness of poverty reduction interventions. Mexico has put in place such a multi-sectoral policy to support rural development over the past decade. The new approach integrates the actions of the different sectoral ministries (for instance SAGARPA and SEDESOL) and the different tiers of government (federal, state and municipal) in rural areas. The aim is to promote non-farm rural activities (NFRA) that can have a positive impact on the income of rural dwellers. Regardless of the agricultural policy in question, it is very important that government interventions in rural areas take into account the assets of the regions, to maximize their usefulness.

OECD Key Recommendations

- Agricultural support should shift towards targeted investments in innovation and infrastructure, moving away from distorting subsidies on variable inputs and price-related measures, in order to improve sector performance and competitiveness.
- Reorient policies towards the provision of general services facilitating the diffusion of innovation in the agri-food sector. These include agricultural information systems; public R&D focused on specific local demands; agricultural education and training; technical and economic advice to help farmers improve productivity; sustainability and competitiveness

measures; and infrastructure investment, notably for transport, irrigation, and marketing. While the provision of income or investment support is likely to positively affect farmers' capacity to invest and innovate, policies should be targeted to remedy specific market failures.

- Agricultural policies should be made more consistent with environmental sustainability, in particular by reducing or eliminating electricity subsidies for water pumping and fuel subsidies. Specific support could be provided to the production of renewable energy through agricultural residues.
- Carry out a rigorous evaluation of the large increase in subsidies to price-hedging contracts.
- Promote broader risk management by providing information and training to farmers and helping farmers cope with unavoidable catastrophic risks.
- As social policies are developed to address these needs, Mexico could phase out current restrictions on land ownership and trading.
- Increase the clarity of the objectives of PROCAMPO with a view to targeting the available funds toward explicit goals and intended beneficiaries.
- Strengthen the Special Concurrent Programme (*Programa Especial Concurrente*, PEC) by developing a coherent, horizontal strategy covering infrastructure, health, education, social and environment policy areas, to foster development in rural zones.
- Adopt a multi-sectoral approach for rural development and focus on promoting innovative ways to deliver key services to rural dwellers and non-farm businesses.

Further reading

OECD (2006), *Agricultural and Fisheries Policies in Mexico*, OECD, Paris.

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OECD (2012a), *Territorial Reviews: Chihuahua, Mexico*, OECD, Paris.

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OECD (2012c), *Water Governance in Latin America and the Caribbean: A Multi-level Approach*, OECD Studies on Water, OECD, Paris.

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Chapter 14

Making Water Reform Happen

Aziza Akhmouch, Céline Kauffmann and Xavier Leflaive

In 2011, Mexico launched an ambitious 2030 Water Agenda to achieve, within the next 20 years, clean water bodies, balanced supply and demand for water, universal coverage, and settlements safe from catastrophic floods. This strategic planning exercise is an example of clear political leadership to design a long-term vision for the sector. But making water reform happen is always challenging, especially in Mexico where past experience has shown the difficulty of translating policy objectives into action. Mexico does have a well-developed policy framework for water resource management, with a number of institutions and policy instruments in place. However, policy implementation is still uneven; river basin councils are not fully operational twenty years after their creation; the regulatory framework for drinking water and sanitation is scattered across multiple actors; and harmful subsidies in other sectors (energy, agriculture) clearly work against water policy objectives. Efforts are particularly needed to increase water productivity and the cost-efficiency of water policies; to address multi-level and river basin governance challenges (in particular bridging inconsistencies between federal and basin priorities); to sequence and prioritise reform needs; and to support greater policy coherence with agriculture and energy.

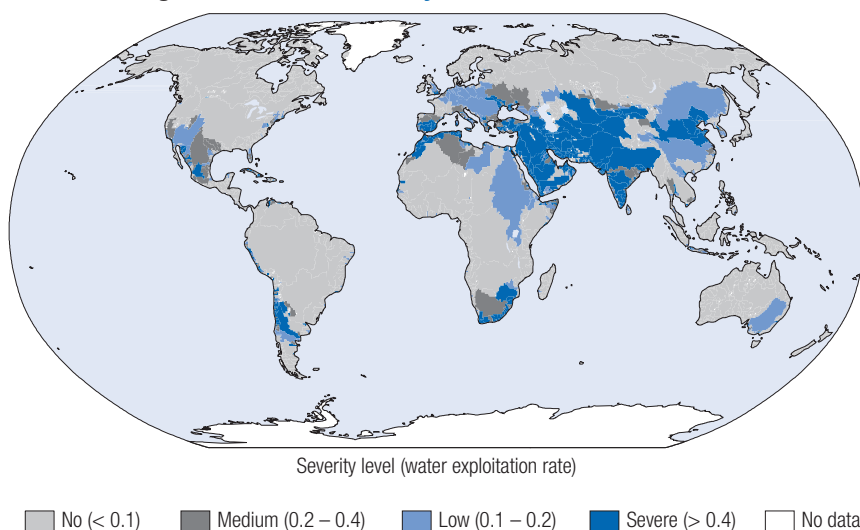
There is momentum in Mexico towards more inclusive, integrated and coherent water policy that goes beyond business as usual. The 2030 Water Agenda proposes a strategic vision for the water sector in Mexico with challenging reforms that require a thorough analysis and diagnosis of both the factors that will foster or hinder implementation, and the measures likely to overcome them.

Mexico's water reform challenge

Several parts of Mexico are under severe water stress

Water users in Mexico are vulnerable and will be even more so in the coming decades, especially in the Lerma and Grande river basins. Water availability per capita declined by 75% since 1950, due to population growth. Uneven distribution of water around the country is also a challenge, and several basins are and will remain under severe water stress (see Figure 14.1). Mexico has 653 aquifers, of

Figure 14.1. **Water stress by river basin: Baseline, 2050**



Source: Baseline from OECD (2012a), Water Chapter in OECD *Environmental Outlook to 2050*, OECD.

which 101 are overdrawn, especially in Lerma, Valle de Mexico and Balsas. At present, 77% of the population are located in regions where there is little water, hence the efforts needed to both enhance water supply and focus more closely on demand management.

The quality of water bodies is at stake

Improving the quality of rivers, lakes and aquifers is a major challenge in Mexico. Surface and groundwater quality is threatened by pollution loads from point and diffuse sources, and insufficient attention to wastewater discharges (see Chapter 11 on green growth and OECD, 2013b). The current state of water bodies has adverse effects on the environment (poor water quality, reduced stream flows, drying up of wetlands); adds costs to the provision of water services (as water has to be treated before it can be used); and threatens the economic viability of farming.

Providing safe drinking water and adequate sanitation to all requires further action

Mexico has arguably met the water and sanitation Millennium Development Goals, but further progress is needed to make sure that the water supplied is safe to drink. Currently, 91.3% of the population has access to drinking water services and 89.9% has sanitation coverage. Considering the current coverage and future population growth projections, in the next 20 years Mexico will need to provide an additional 36 million inhabitants with drinking water services and 40 million with sanitation services. States facing the greatest challenges in this regard are Baja California, Chiapas, Mexico, Jalisco, Puebla and Veracruz. Beyond access, the efficiency and reliability of service provision and the financial sustainability of service providers are also major concerns.

Exposure to floods and droughts is increasing

Between 1980 and 2007, hurricanes and droughts affected more than 8 million people and caused MXN 130 billion worth of damage. Historically, floods and investments in flood protection were mainly concentrated in the Valley of Mexico and Southern Border but the Central Gulf and Yucatan Peninsula are now also at risk. The hurricanes that occurred in 2010 affected 118 municipalities in Coahuila, Nuevo León, and Tamaulipas; 138 municipalities in the states of Campeche, Puebla, Veracruz; and 56 municipalities in the states of Chiapas and Oaxaca. Projections concentrate future flood trends in 17 states, where 62% of the population lives.

The policy framework for water management has evolved, but institutional reforms are needed

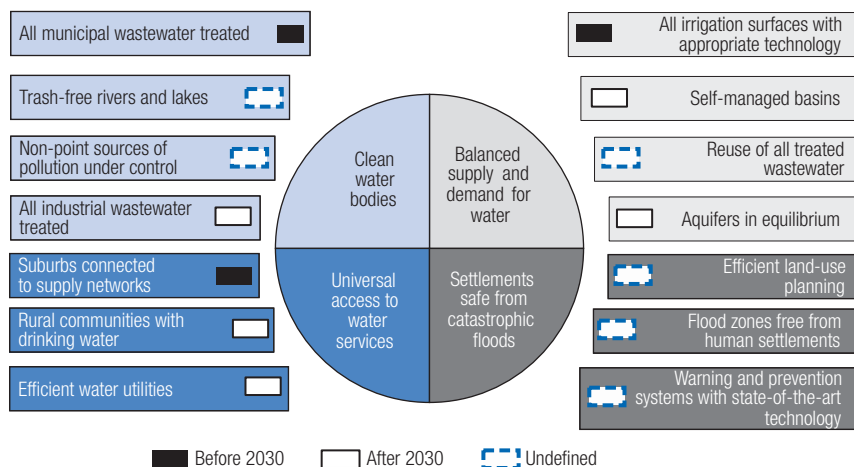
Mexico has a well-developed policy framework for water resource management; a number of institutions are in place at federal and state level, and Mexico has developed an array of policy instruments (from abstraction charges to water markets). However, policy implementation is uneven, river basin councils are not yet fully operational, and the regulatory framework for drinking water and sanitation is fragmented. Efforts are particularly needed to increase water productivity and the cost-efficiency of water policies. This will require addressing multi-level governance challenges (in particular bridging inconsistencies between federal and basin priorities), sequencing and prioritising reform needs, and supporting greater policy coherence with agriculture and energy.

The 2030 Water Agenda

In 2011, to address these concerns, Mexico developed an ambitious 2030 Water Agenda. It was conceived as a forward-looking exercise linked to the national planning system. The Agenda:

- seeks to achieve 4 policy goals within the next 20 years (see Figure 14.2): balanced supply and demand for water, clean water bodies, universal access to water services, and settlements secured from catastrophic floods
- lays out five principles (sustainability, integral long-term vision, catchment vision, local control, subsidiarity) and two strategic lines related to governance structures and capacity of water managers, as well as the distribution of competences at the three tiers of government
- sets up 38 initiatives covering a wide range of issues, including river basin institutions, polluting behaviours, soil conservation, land use, the role of state governments, capacity building, tariff setting, legal frameworks, and information and monitoring systems
- benefitted from a one-year consultation process of key stakeholders at local, state and national level through thematic discussions, a web forum and 13 regional roundtables
- requires an overall annual investment of EUR 3 billion over the next two decades
- is grounded in a technical prospective analysis.

Still, making water reforms happen is always very challenging, especially in Mexico where past experience has shown the difficulty of translating policy objectives into action. An OECD-Mexico water policy dialogue was carried out

Figure 14.2. **The 2030 Water Agenda: Goal and timeline**

Source: CONAGUA (The National Water Commission) (2011), *2030 Water Agenda*.

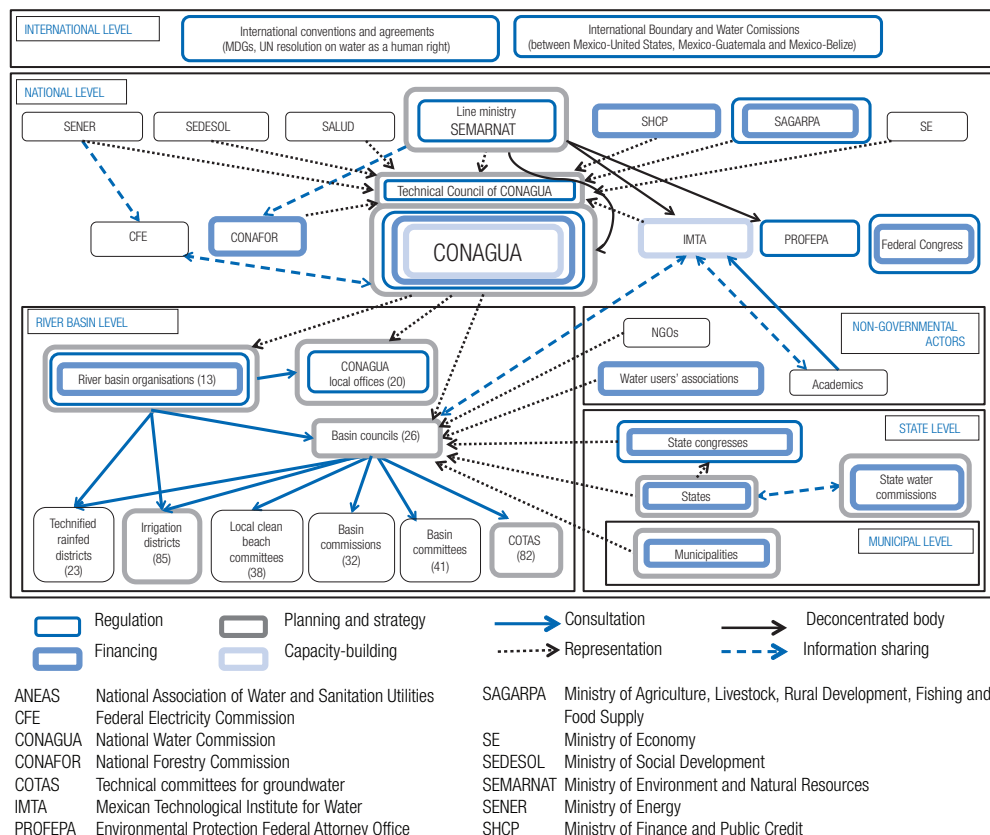
in 2012 to provide analytical guidance in support of the Water Reform Agenda. It resulted in tailored policy recommendations, which built on OECD tools and concepts and the involved high-level peer reviewers from Australia, Brazil, Italy and the United Kingdom. The dialogue focused on four key areas considered to be critical to make water reform happen in Mexico: multi-level governance, river basin governance, the economic efficiency and financial sustainability of water policies, and regulatory frameworks for service provision. Key findings will be published in the OECD 2013 Report *Making Water Reform Happen in Mexico*, and are hereinafter summarised.

Improve multi-level governance to address territorial and institutional fragmentation

Manage interdependencies across multiple actors and stakeholders

Mexico's fragmented institutional setting raises important capacity and co-ordination challenges to integrated, coherent and inclusive implementation of water reform. Several institutions, agencies and bodies are involved in water management at federal, state, municipal and basin levels (see Figure 14.3).

Figure 14.3. Key actors in Mexico's water resources management



Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD..

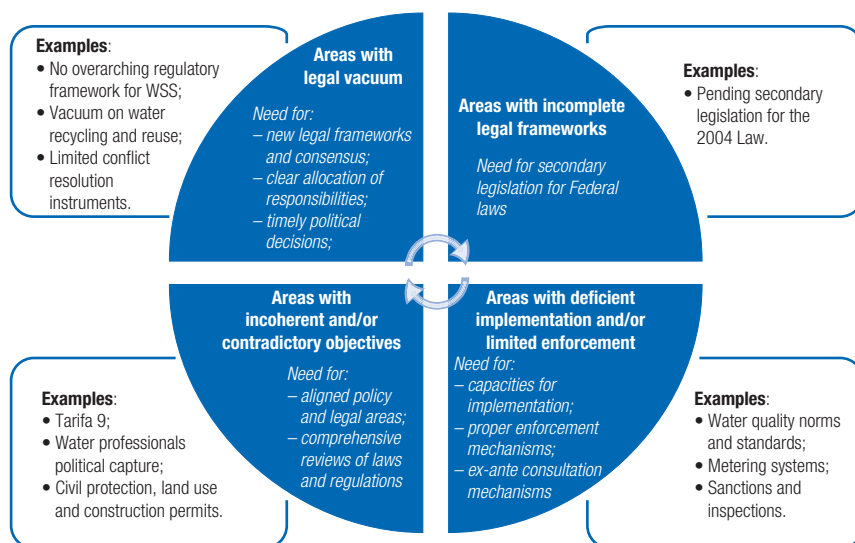
To address multi-level governance challenges, a first step is to understand who does what at which level. At federal level, the National Water Commission (CONAGUA) is the main body in charge of water planning, financing and strategic setting; there is no overarching framework for the provision of water services which, according to the Constitution, is the responsibility of municipalities with varying levels of capacity and resources. The 1992 National Water Law has gradually transferred water resource responsibilities to 13 river basin organisations, which operate as CONAGUA implementing agencies. While some progress has been achieved in better managing interdependencies across stakeholders and creating an overarching framework for water resources management, much remains to be done to overcome the scattered regulatory framework for water services.

Address grey areas in the legal framework, including the informal sector

A wide range of informal actors play an important role in Mexico's water setting and significant grey areas remain in the legal framework (see Figure 14.4). Irrigation units typically operate without a legal identity and are not organised to voice their concerns. In small communities, where resources and capacities are limited, community-based organisations have often been successful in terms of improving coverage and generating health benefits (*e.g.* in the state of Oaxaca). However, uncertainty about their status complicates oversight and monitoring.

Initiatives in other sectors (particularly agriculture and energy) can work against water policy objectives, increasing costs and putting water security at risk in several basins. For instance, energy subsidies to farmers have detrimental impacts on water demand and groundwater management demand (see Chapter 13 on agriculture and rural development). Policy coherence is essential, but flexibility needs to be improved through multi-stakeholder platforms and effective multi-level governance to manage risks and trade-offs, create incentives for behaviour change, and prioritise. Initiatives at local and state levels (*e.g.* voluntary schemes with accompanying measures to remove harmful subsidies) can be shared and replicated. International best practices provide valuable references.

Figure 14.4. **Grey areas in Mexico's water legal frameworks**



Bridge co-ordination and capacity gaps, building on good practices at local, state and federal levels

Many water governance gaps faced by Mexico (see Table 14.1) are not specific to the sector but relate to the country's broader governance challenges. They concern issues of enforcement and compliance, accountability, the uneven nature of decentralisation, informality, quality and capacity of public administration, and limited transparency. Further effort is needed to bridge accountability, information and capacity gaps across levels of government. In this respect, the high-level commitment of the Mexican government to reform the water sector is a good signal and, should positive results be forthcoming, that commitment is likely to spill over to other sectors and benefit wider institutional and economic reforms.

Table 14.1. **Multi-level governance gaps in Mexico's water sector**

Type	Description and examples
Administrative gap	Mismatch between administrative and functional units (water bodies, municipalities, metropolitan areas, regions, states) on the one hand and hydrological boundaries and imperatives on the other
Information gap	Significant progress has been achieved to develop databases and water information systems in Mexico, but these are fragmented across institutions and not always standardised, coherent, consistent, or shared with/disclosed to the public
Policy gap	Fragmentation of water-related tasks across ministries remains a significant bottleneck to water reform. There is a need to align water, energy, agriculture and territorial development policies
Capacity gap	Service providers and river basin organisations lack the necessary staff, expertise, skill, know-how and infrastructure to carry out their duties
Funding gap	Limited bill collection and insufficient charges undermine the financial sustainability of the sector, which largely relies on federal subsidies
Objective gap	Different rationales from different stakeholders hinder convergent objectives (e.g. three-year mandate of Mayors, contradictory water, zoning and construction policies, etc.)
Accountability gap	The 2030 Water Agenda showed the potential for public participation, but improvements are still needed to establish appropriate channels between users and government bodies

Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD.

There has been some progress in addressing the institutional fragmentation of water policy at federal level. Some of these efforts were undertaken via the technical council of CONAGUA and the development of cross-sectoral planning. However, co-ordination efforts are often led in a bilateral way between CONAGUA, ministries and public agencies such as the Federal Commission of Electricity and the Federal Commission of Forestry. A solution could be to translate the 2030 Water Agenda policy goals in the multi-level planning apparatus, including

among others the National Development Plan, the National Water Programme, the National Water Information System, regional and state water programmes, and the multi-annual investment plan. In addition, the potential for policy coherence at watershed level is not fully exploited. There are many good practices on the ground that could be further replicated, while letting the governance system adjust to local features.

Encouraging co-ordination and building capacity are critical steps towards bridging multi-level governance gaps in water policy. In the case of Mexico, four main areas need to be considered to achieve horizontal and vertical co-ordination in support of the Water Reform: i) foster policy coherence across water-related areas, especially agriculture, energy, environment and territorial development; ii) strengthen capacity at basin, municipal and state levels for effective decentralisation and place-based policies; iii) improve access, quality and disclosure of information at all levels to guide decision-making processes; and iv) encourage public participation for more open, responsive, sustainable and inclusive water policy.

Strengthen river basin governance for effective integrated water resources management

A comprehensive system of river basin organisations, councils and auxiliary bodies has been in operation since 1992. While Mexico was a river basin management pioneer among Latin American countries (OECD, 2012b), 20 years later the system is not as yet fully operational. In addition to the 13 river basin organisations implementing CONAGUA's policies in each hydrographic region, 26 river basin councils have been created as consultative bodies, working closely with tens of river basin committees (local discussion forums), technical groundwater committees (dealing with over-exploitation of aquifers), local clean beach committees (overseeing the environmental quality of national beaches), irrigation districts, and technified rainfed districts (providing technical advice and infrastructure in irrigation). These multiple river basin institutions raise significant co-ordination challenges and there is room for improvement for effective integrated water resources management on the ground.

Strengthen river basin councils' prerogatives and capacities

Decision making related to river basin management is still highly centralised. River basin councils lack the necessary planning, regulatory and financing powers to carry out their functions. They should also be better co-ordinated with state and municipal governments. Giving river basin councils real planning powers and a degree of autonomy to raise and allocate funds for priority investments could be considered if policy objectives are well defined, regularly reviewed, and subject to

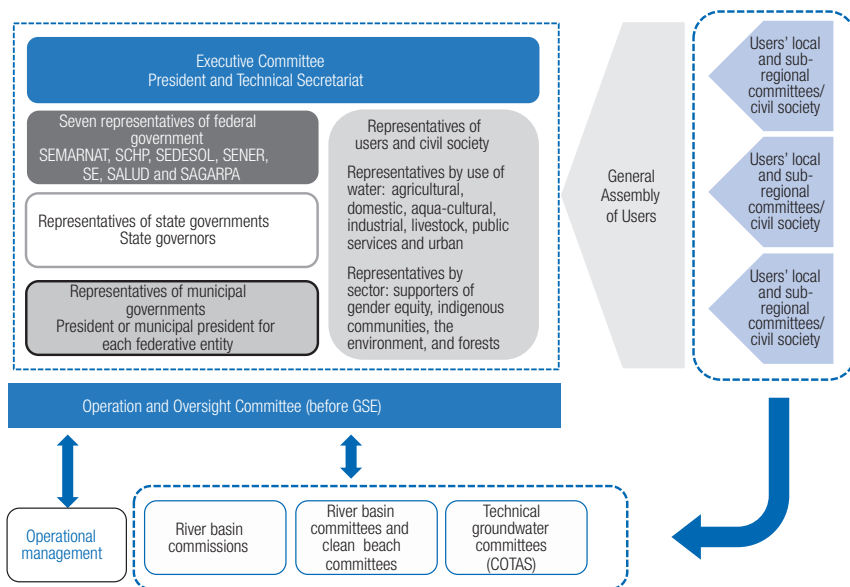
appropriate oversight. Strengthened river basin councils could therefore be better equipped to co-ordinate and articulate river basin plans within state and national priorities and programmes. They could also foster more coherent and effective decision making and information sharing, and could minimise transaction costs and overlaps.

Ensure that all relevant stakeholders are represented

Some progress has been achieved towards decentralisation of water resources management, but further efforts are needed to ensure that all stakeholders are engaged. Originally, government representatives constituted the majority of river basin council membership. Today, most council members are citizens and civil society has a seat at the table (see Figure 14.5). But some groups are still underrepresented, such as small farmers and indigenous communities. There is also scope to increase the participation of irrigation districts and units; doing so would significantly contribute to the sustainability of catchments and the balance of aquifers.

Actions need to be taken to strengthen public participation in river basin councils. These councils served as intermediaries between local stakeholders (irrigation associations, environmental organisations, academics and citizens)

Figure 14.5. **Structure and constituency of Mexico's river basin councils**



Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD.

and government agencies during the design of the 2030 Water Agenda. However, incentives to attend their meetings are weak since these are mainly consultative bodies whose decisions are not binding. Social participation should not be limited to generic consultation but extended to an active role in the decision-making process. It is also important that the work accomplished by river basin councils is consolidated and refined – for example through the establishment of operative management offices within the river basin councils and in groundwater committees widely disseminated, for example through the launch of viable websites in each river basin council. In parallel, it is necessary to revitalise users' associations within the framework of joint responsibility, transparency and accountability.

Share lessons and align objectives and strategies across river basin institutions

Even though river basin institutions face common challenges, there are limited opportunities for them to share lessons and experience. River basin organisations and councils report to different constituencies and co-ordination is currently undertaken on an *ad hoc* basis. More systematic communication and sharing of experience would contribute to building the technical and managerial capacities of river basin institutions, in particular as they formulate policies and the design of instruments such as water pricing to manage water demand. Good governance practices in various river basin councils could be further replicated in Mexico. Initiatives in Jalisco, Guanajuato, Colima and Hidalgo have helped overcome key water challenges such as aquifer over-exploitation. These states explored innovative approaches to set water tariffs and put a price on ecosystem services. But replication has been slow, because there has been no robust assessment of the prevailing river basin governance scheme or of local experiments.

An objective and independent assessment of river basin organisations, councils and auxiliary bodies' performance would help them learn from good experiences and improve the overall setting. Regular communication, design of action plans and information sharing should also be fostered. Several actions may be considered, including the following:

- organise periodic meetings for real inter-fitting between executive boards of river basin councils and their respective auxiliary bodies, to exchange on local issues and specific matters.
- develop exchanges of practices among river basin authorities at the national level, or by groups of authorities sharing similar concerns. This would allow enhancement of capacities through peer-learning mechanisms.

- increase the participation of irrigation districts and units, to save water and contribute to aquifer sustainability.
- carry out evaluation of the outcomes of projects, programmes and experimentation at the basin level. Share the results build on better assessments and monitoring.

Enhance the economic efficiency and financial sustainability of water policy

Three main issues hamper the economic efficiency and financial sustainability of the water sector in Mexico. First, initiatives taken in other areas such as agriculture and energy, which have consequences on water use and availability, clearly work against water policies and increase the cost of water resources management. Second, financial capabilities are not aligned with responsibilities, a misalignment that can generate high costs and reduce the cost-effectiveness of public expenditures. Third, the sector has many public expenditure plans, but lacks strategic financial plans at both federal and basin level. In addition, the contribution of users to total water sector expenditures remains relatively low.

Improve the institutional organisation of water policies

To overcome this situation, several institutional measures could be considered, including the following:

- clarify the respective roles of federal, state and basin councils regarding water financing;
- complement plans for water-related infrastructures or services with financial plans in order to clarify *who* pays for *what* and *when*;
- use economic instruments to enhance intergovernmental co-ordination; and
- better align national expenditures and basin priorities by strengthening the role of basin authorities in spending decisions and/or by making a more systematic use of rules of operation, to improve the performance of sub-sectors.

Enhance the cost-effectiveness of water policies

CONAGUA is the single biggest spender in the water sector. Its budget was MXN 38.8 billion in 2012, i.e. close to 55% of the estimated total sector expenditures. This budget has almost tripled in real terms in the last two

presidential administrations, and has resulted in a high rate of water infrastructure development.

Although most of these investments were essential to improve access to water and water-related services, there are some concerns about their cost-efficiency. For instance, it is less costly to operate and maintain water infrastructures properly than to let them decay and rebuild them once the community cannot access the service. Closing unlicensed wells is usually more effective than mitigating the consequences of illegal water use. Technification is costly but fails to contribute to water policy objectives if the water saved is used to irrigate additional surfaces. And buy-back programmes are more cost-effective when based on the volume of water saved, not the cost of the action taken; moreover, they leave farmers the choice of the appropriate technique.

Overall, while levels of investment in water infrastructures have been high, water services (above all sanitation) remain poor in large parts of the country, in particular in rural areas. The Pact for Mexico, signed on 1 December 2012, includes a series of infrastructure-oriented commitments (to harvest rainwater, complete flood control works, rehabilitate dams, promote seawater desalination, in commitments 50-52). Such investments should align with basin and state priorities, and be backed by strategic financial plans. Accompanying measures to reduce vulnerability to floods and droughts and to tap alternative sources of water (*e.g.* reclaimed water) can enhance their cost-efficiency.

Make better use of economic instruments for water management

Mexico has a number of economic instruments supporting water policy objectives in place, but they do not always succeed or prove effective. For instance, low rates and lax enforcement (*e.g.* illegal abstractions, underreporting of consumption) prevent abstraction charges from being effective instruments for water policies, while low pollution charges do not significantly change the behaviour of polluters. Water markets are a step in the right direction, but they tend to be poorly designed and can lead to over-abstraction. Payment for ecosystem services (PES) schemes are in place and the Pact recently adopted by the new Mexican administration explicitly requests that they be strengthened (commitment 66). This is an opportunity to ensure that i) existing schemes contribute to conservation, and ii) new schemes are designed so as to contribute to policy objectives in a cost-effective way. There is room to improve the design of the instruments in place in Mexico, so that they better contribute to cost-effective water policies and make the best use of public funds. Reforming subsidies is also a major area of potential reform (OECD, 2013b). The subsidies to electricity for irrigation pumping amounted to MXN 6.8 billion in 2010 – which is over 9 times more than the financing provided for efficient water infrastructure (MXN 773 million). Around 80% of electricity subsidies to irrigation water pumping

accrue to only the richest 10% of farmers, making this a particularly regressive subsidy. The effects on the environment are catastrophic – over 100 major water aquifers in Mexico are now over-exploited. And this impacts on the farmers and local communities: they are the ones primarily affected when the water runs out. Since July 2011 there has been a trial replacement of these subsidies with the equivalent in cash transfers in 13 aquifers; such trials should be scaled up.

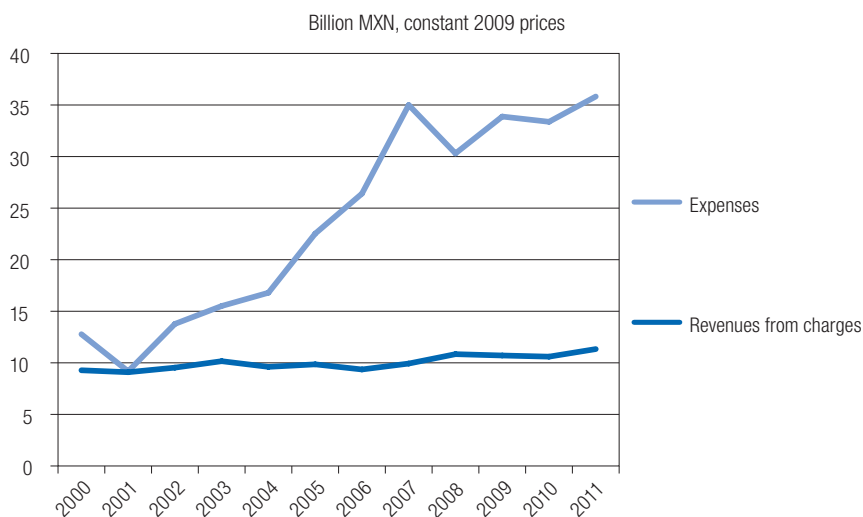
Action needs to be taken in several directions for better use of economic instruments:

- First, improve the collection rates of water-related taxes and charges. Good practices in the country can be used as benchmarks.
- Second, adjust the rates and the structure of charges and tariffs so that they reflect water policy objectives. Other objectives, such as social or economic ones, are better addressed by other means, such as targeted social support to address affordability issues (see Chapters 2 and 10 on combating poverty and inequality and on Green growth, respectively).
- Third, identify and assess water harmful subsidies, with a view to phasing them out.
- Fourth, strengthen the knowledge and database on which economic instruments rely. For instance, tariffs operate best where water is metered, which is seldom the case with irrigation in Mexico.
- Fifth, allocate more resources to monitoring of water uses; at present, they account for less than 1% of CONAGUA's budget.

The international experience of countries faced with similar challenges indicates that the right accompanying measures can overcome the political barriers to reform. For instance, the Australian case confirms that irrigators are ready to pay a price to secure their water entitlements, in particular when there is high uncertainty about future water availability. Other countries have recycled parts of the revenues from water levies to support investment in water-efficient farming practices for a transition period.

Raise revenues from water users

In Mexico, tariffs are in place for bulk water, irrigation water, water services and sanitation services. However, users' contribution to total water sector expenditures remains low (about 45%). This puts the financial sustainability of water policies in Mexico at risk, as it increasingly relies on public finance (see Figure 14.6) and as competition to access scarce budgetary resources is getting fiercer. Prices for water services need to reflect at least the operation and maintenance costs of providing those services, and be aligned with policy

Figure 14.6. **CONAGUA's budget: Increasing reliance on public funding**

Source: based on data provided in CONAGUA (2011), *2030 Water Agenda*; additional data for 2010 and 2011 provided by CONAGUA.

priorities (regarding, for instance, investment, reliance on commercial finance, and demand management). Although politically difficult, such reforms are facilitated by a robust analysis of the social impacts of water tariffs: international experience suggests that cheap water hurts the poor, as it prevents the proper extension and operation of reliable public supply. Targeted social measures are more effective and less costly than using cheap water to address affordability issues. Putting Mexican water policies on a sustainable financial basis can effectively contribute to several commitments of the Pact for Mexico, in particular the one related to the National System of Programmes to Combat Poverty (commitment 6) and the one related to making farming a more productive activity (commitment 65).

The 1992 Mexican National Water Law includes the concept of the Water Financing System; the creation of such a system has been pending since 2004. Should this initiative be revived, it would be an opportunity to ensure that the framework conditions are set to enhance the cost-effectiveness of water policies in Mexico, and to make sure that initiatives in other sectors do not work against and add costs to water policies. It would aim to make the best of public budgets and to enhance the financial contribution of water users. Well-designed and targeted accompanying measures would be needed to facilitate transition.

Improve the regulatory frameworks for service provision

The regulatory framework for water supply and sanitation is scattered

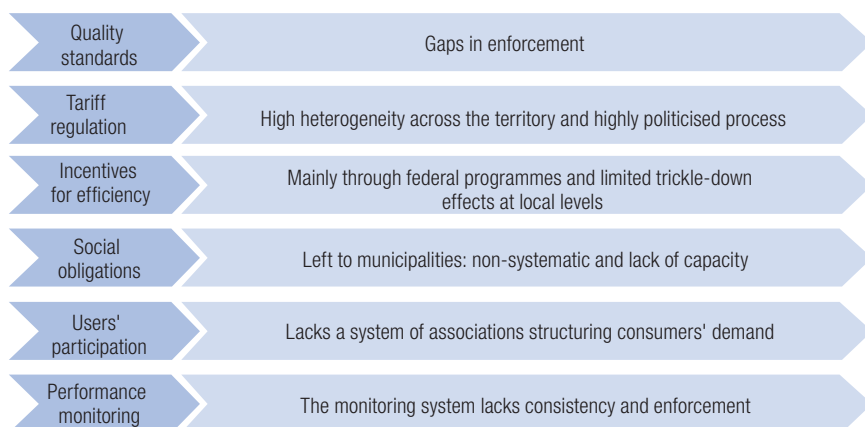
In the absence of an overarching regulatory framework for water and sanitation services at federal level, regulatory responsibilities for water supply and sanitation are scattered across different levels of government and various legal instruments. Under the Constitution, water supply and sanitation management is primarily the responsibility of municipalities, and these have varying levels of capacity and resources. Municipalities change government every three years, and water service providers change general directors every 18 months on average. This high turnover of local officials and managers has significant consequences, including discouraging long-term planning and impeding the building of capacity. Major local political interferences affect the performance of service providers. Water tariffs are for instance rarely set according to technical criteria or with a view to contributing to covering costs.

There is an opportunity to clarify and improve regulatory responsibilities

The recent adoption of the Human Right to Water and Sanitation in Mexico creates a momentum for change. The constitutional amendment to article 4 provides an opportunity to revise the legal framework and revive the debate around a federal law that would provide an overarching framework for service provision. Such a law, which is contemplated in the Pact for Mexico (commitment 66) would help clarify regulatory responsibilities. Crucially, regulation of services needs to be separated from service provision and policy making, through the clear allocation of regulatory functions to specialised entities and strengthened autonomy of service providers. Regulation of water supply and sanitation is not only about tariff setting. It involves other functions, such as the setting and monitoring of standards for access to and quality of services; efficiency incentives; social regulation; collection of information and monitoring of performance; and the organisation of users' participation. These functions remain underdeveloped in Mexico (Figure 14.7), and would benefit from greater clarity about their allocation.

Accompanying measures are needed to support autonomous, efficient and financially sustainable water providers

The trend towards the corporatisation of providers needs to be strengthened and supported by capacity building and the professionalisation of staff. This involves notably a recruitment process based on competences and terms

Figure 14.7. **Synthesis of regulatory functions and gaps**

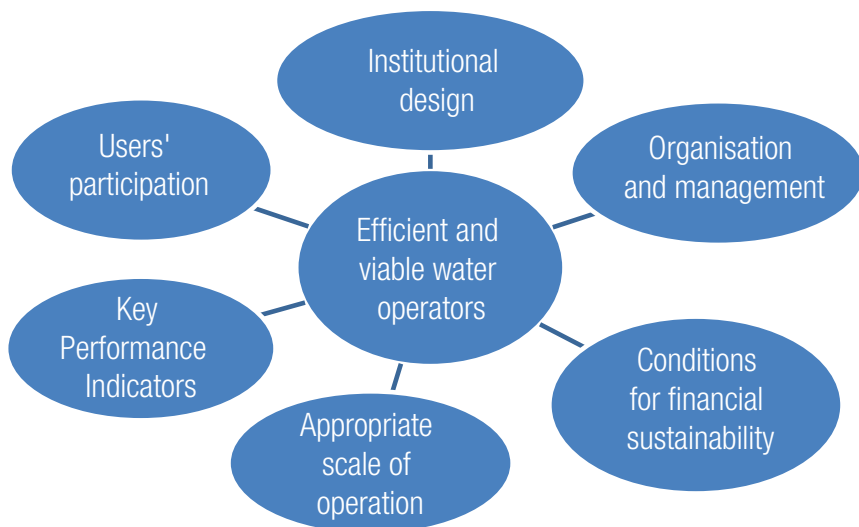
Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD.

of appointment that do not coincide with political cycles. The necessary accompaniment to increased autonomy of water operators is the establishment of appropriate accountability mechanisms, such as a consolidated monitoring framework for water supply and sanitation (involving performance indicators agreed by all) and strengthened users' participation in the consultative bodies of water utilities and in water decision making.

The financial capacity of providers to carry out their activities also needs strengthening. Tariff regulation, while not the only determinant of the financial sustainability of water operators (Figure 14.8), is an important one. Consensus building and awareness raising on its role – in supporting the financial sustainability of providers while providing incentives for efficient service delivery – remain much needed. This can effectively contribute to the National System of Programmes to Combat Poverty mentioned in the Pact (commitment 6).

OECD Key Recommendations

- Meeting the water reform challenge in Mexico requires action on several fronts. The OECD (2013a) highlights a number of actions that a new administration may wish to consider, and that can contribute to a cohesive and cost-effective water policy framework in Mexico.
- *Develop a whole-of-government implementation action plan, building on the 2030 Water Agenda.* This plan should foster policy coherence with agriculture, energy and territorial development; bridge identified governance gaps;

Figure 14.8. **The critical dimensions of efficient and viable water operators**

Source: OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD.

sequence priorities; and align policy objectives across federal, regional and state water plans and programmes. It will help “Rethink the country’s water management”, as proposed by the Pact.

- *Set up mechanisms and incentives for enhancing water policy outcomes in the current decentralisation framework.* Flexibility is needed to adjust to the features of each state’s and basin’s institutional structure, and bring consistency in water governance. Tools such as multi-annual budgeting, a professional career system for water professionals, and co-ordination of local, state, regional and national water-related plans can help. Capacity building will also be required at all levels.
- *Fully exploit the benefits of existing economic instruments in line with the polluter-pays, beneficiary-pays, equity and policy coherence principles.* Abstraction and pollution charges, water tariffs, PES schemes, buyback programmes, and water markets should be designed and implemented in line with water policy objectives. In some states, there is scope to increase tariff levels and change tariff structures to enhance efficient uses of water, allocate water where it creates most value, and at least cover the operation and maintenance costs. Setting Mexican water policies on a sustainable financial path will contribute to commitments 6 and 65 of the Pact, and will facilitate the implementation of commitments 50, 51 and 52.

- *Clarify the regulatory framework for water services to address the overlaps and gaps in regulatory functions.* There is a need to identify and clearly allocate the responsibilities at each level of government; strengthen enforcement and compliance; and sharpen focus on the capacity and financial sustainability of utilities, the efficiency and quality of service provision, and the responsiveness to users. Commitment 52 of the Pact, to approve a new law on drinking water and sanitation, provides the opportunity and the political momentum to define responsibilities.
- *Strengthen the role, prerogatives and autonomy of river basin councils and their auxiliary bodies* so that they can design context-tailored policies, develop real basin plans, identify and prioritise projects, and generate the resources needed to carry out their duties. A tailored approach may be required as basins are faced with specific challenges and are endowed with distinctive capacities.
- *Establish a platform to share the good practices that are developing at basin, state and municipal levels.* Building on institutions such as CONAGO, IMTA and ANEAS, there is ample room to collect, review and benchmark success stories, innovative mechanisms or institutional organisations in support of effective decision making, and better water policies at all levels.
- *Foster transparency, information sharing and public participation* for more inclusive decision-making processes, better evaluation, monitoring, integrity and accountability in the water sector. This is concrete implementation of the commitments related to human rights, anti-corruption and democratic governance mentioned in the Pact.
- *Evaluate the contribution of federal programmes to policy objectives and their cost-effectiveness.* These constitute an important lever to incentivise better performance in the water sector; systematic assessment of the programmes would provide feedback on their contribution to water policy objectives, help reform rules of operation, and create synergies among them.

Further Reading

CONAGUA (National Water Commission) (2011), *2030 Water Agenda*, Mexico City.

OECD (2011a), *Meeting the Water Reform Challenge*, OECD Studies on Water, OECD, Paris.

OECD (2011b), *Water Governance in OECD Countries: A Multi-Level Approach*, OECD Studies on Water, OECD, Paris.

OECD (2012a), Water Chapter in *OECD Environmental Outlook to 2050*, OECD, Paris.

OECD (2012b), *Water Governance in Latin America and the Caribbean: A Multi-Level Approach*, OECD Studies on Water, OECD, Paris.

OECD (2012c), *Framework Conditions for Private Sector Participation in Water Infrastructure in Mexico*, OECD, Paris.

OECD (2012d), *A Framework for Financing Water Resources Management*, OECD Studies on Water, OECD, Paris.

OECD (2013a), *Making Water Reform Happen in Mexico*, OECD Studies on Water, OECD, Paris.

OECD (2013b), *OECD Environmental Performance Reviews: Mexico 2013*, OECD, Paris.

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