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

The economic situation and policies of Mexico were reviewed by the Committee on 17 November 2014. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 17 December 2014.

The Secretariat's draft report was prepared for the Committee by Sean Dougherty, Eduardo Olaberría and Valery Dugain, under the supervision of Patrick Lenain. Editorial support was provided by Brigitte Beyeler and Nadia Kameleddine. The Survey also benefitted from contributions by Sean Ennis, Octavio Escobar, Natalia Fernández-Vázquez, Ian Forde, Hildegun Nordås, Marissa Plouin and Diana Toledo Figueroa.

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BASIC STATISTICS OF MEXICO, 2013

(Numbers in parentheses refer to the OECD average)*

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million)	118.4		Population density per km²	60.3	(34.7)
Under 15 (%)	28.4	(18.2)	Life expectancy	74.6	(80.2)
Over 65 (%)	6.5	(15.6)	Men	71.4	(77.3)
Foreign-born (%, 2010)	0.8		Women	77.3	(82.8)
Latest 5-year average growth (%)	1.0	(0.5)	Latest general election	July	2012

ECONOMY

Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	1 261		Primary sector	3.5	(2.6)
In current prices (billion MXN)	16 101		Industry including construction	34.8	(27.8)
Latest 5-year average real growth (%)	2.0	(0.8)	Services	61.7	(69.4)
Per capita (thousand USD PPP)	17	(37.0)			

GENERAL GOVERNMENT

Per cent of GDP

Expenditure	27.2	(42.7)	General government gross debt	46.5	(108.4)
Revenue	23.3	(39.0)	General government net debt	40.4	(68.3)

EXTERNAL ACCOUNTS

Exchange rate (MXN per USD)	12.8		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	8.00		Machinery and transport equipment	55.9	
In per cent of GDP			Mineral fuels, lubricants and related materials	12.8	
Exports of goods and services	31.8	-53	Miscellaneous manufactured articles	9.0	
Imports of goods and services	32.8	(49.3)	Main imports (% of total merchandise imports)		
Current account balance	-2.1	(-0.1)	Machinery and transport equipment	47.4	
Net international investment position	-37.6		Manufactured goods	13.5	
			Chemicals and related products, n.e.s.	11.3	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate for 15-64 year-olds (%)	60.8	(65.2)	Unemployment rate, Labour Force Survey (age 15 and over) (%)	4.9	(7.8)
Men	78.3	(73.1)	Youth (age 15-24, %)	9.5	(16.1)
Women	45.0	(57.4)	Long-term unemployed (1 year and over, %, 2012)	0.1	(2.7)
Participation rate for 15-64 year-olds (%, 2012)	64.5	(70.9)	Tertiary educational attainment 25-64 year-olds (%, 2011)	27.7	(31.5)
Average hours worked per year	2 237	(1 770)	Gross domestic expenditure on R&D (% of GDP, 2011)	0.4	(2.4)

ENVIRONMENT

Total primary energy supply per capita (toe, 2012)	1.6	-4.0	CO_2 emissions from fuel combustion per capita (tonnes, 2012)	3.7	(10.0)
Renewables (%, 2012)	8.7	(8.5)	Water abstractions per capita (1 000 m^3, 2011)	0.7	
Fine particulate matter concentration (urban, PM_{10}, µg/m^3, 2011)	45.6	(28.0)	Municipal waste per capita (tonnes,2012)	0.4	(0.5)

SOCIETY

Income inequality (Gini coefficient, 2012)	0.482	(0.308)	Education outcomes (PISA score, 2012)		
Relative poverty rate (%, 2012)	21.4	(10.9)	Reading	424	(496)
			Mathematics	413	(494)
Public and private spending (% of GDP)			Science	415	(501)
Health care (2012)	6.2	(9.2)	Share of women in parliament (%, September 2014)	36.8	(26.7)
Pensions (2011)	1.8	(8.7)	Net official development assistance (% of GNI)	N/A	(0.37)
Education (primary, secondary, post sec. non tertiary, 2011)	4.0	(3.9)			

Better life index: *www.oecdbetterlifeindex.org*

* Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, INEGI, International Monetary Fund and Inter-Parliamentary Union.

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Executive summary

- *Main findings*
- *Key recommendations*

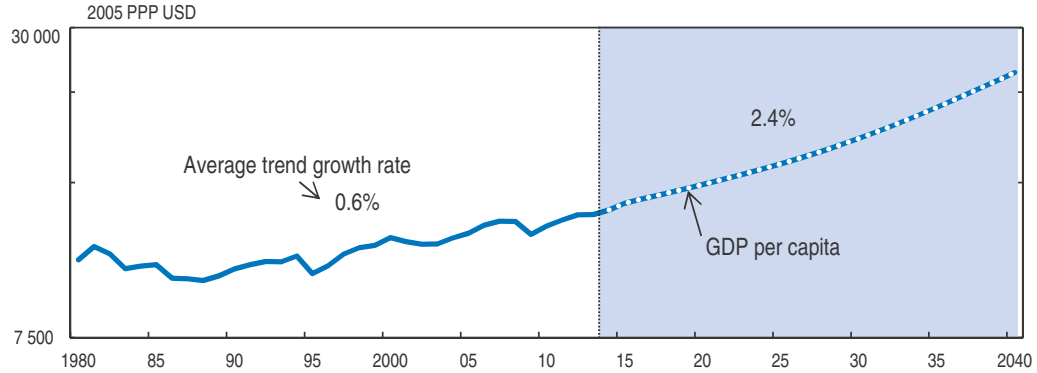
Main findings

Mexico has embarked on a bold package of structural reform to break free from three decades of slow growth, low productivity, pervasive labour market informality and high income inequality. The package of reforms has already helped to improve confidence and bodes well for 2015 and beyond. To make the most of this impressive package, Mexico will need to improve its governance and institutional capacity to ensure effective implementation.

Reforms from the Pacto will boost growth if fully implemented

The government elected in 2012 quickly reached a historic agreement among previously divergent political parties on an ambitious consensus-based package of reforms known as the "*Pacto por México*", aimed at putting the country back on a path of prosperity. Major structural measures have been legislated to improve competition, education, energy, the financial sector, labour, infrastructure, telecommunications and the tax system, among many, and implementation has started in earnest. If fully implemented, these reforms could increase annual trend per capita GDP growth by as much as one percentage point over the next ten years, with the energy reforms having the most front-loaded effects, and the education reforms more lasting effects in the years to come.

Reforms will boost growth



Source: OECD Long-term Growth Scenarios database.

StatLink http://dx.doi.org/10.1787/888933175056

The reform package is being rolled out at a time when Mexico faces external headwinds, notably declining oil prices and the announced tightening of US monetary policy. Therefore, full implementation of the reforms in the near term will be crucial to reap the benefits of a strong and sustainable recovery. This will require maintaining a strong political commitment and further strengthening of administrative capacity. Going forward, complementary reforms could go further to tackle remaining structural bottlenecks: moving even closer towards OECD best practices could increase potential growth by another percentage point annually. Widespread perception of corruption, weak administrative governance and poor enforcement of legal rules are serious problems, deterring investment and promoting informality. The justice system is inefficient and slow, and it does not contribute to adequately address the security problems that the country is still facing. In the agricultural sector, strict land use restrictions and the structure of subsidies promote inefficiency.

Not all Mexicans have enjoyed the fruits of growth

The government has introduced major reforms to make growth more inclusive, reduce income inequality, improve the quality of education, encourage operating in the formal sector and reduce poverty. These policies build on past measures such as the conditional cash transfer programme *Oportunidades*. If these reforms reach their full potential, they will help Mexicans to live better lives. It will be particularly important that the programmes put forward by the government to provide universal pensions and unemployment insurance be approved by lawmakers. If adopted, they will enhance protection against income losses. Universal health coverage has been achieved with *Seguro Popular*; nevertheless, not all families have access to quality care, making it a challenge for both parents and children to live healthy lives. While giving access to high-quality care to all families will increase health spending, much could be done to improve the efficiency of the current system.

Key recommendations

Reforms to boost growth and reduce informality

The Pacto por México *is a bold package of reforms to improve economic conditions, boost growth and reduce informality. These legislated reforms should be fully implemented, carefully monitored, regularly assessed and, if necessary, adjusted appropriately. In some areas, further reforms should be pursued.*

- **Focus on fully implementing the reform package** with close monitoring at a high political level, and strengthen administrative capacity and governance quality at all levels of government.
- **Reform justice institutions, strengthen the rule of law, address security issues and reduce widespread corruption** with reforms centred on the efficiency of judicial resolution of civil, commercial and criminal matters, and a strengthening of the transparency of public procurement.
- **Improve and simplify the existing stock and quality of regulation** at the local, state and national levels.
- **Phase out restrictions on agricultural land ownership and transfer**, while strengthening rural income support and access to finance.

Sharing the fruits of growth

High inequality has left many families in poverty, with little access to quality education and health care, affecting long-run growth prospects. Recent reforms will help, but further efforts will be required.

- **Improve the equity and efficiency of education spending** by refocusing such spending on pre-primary, primary and secondary education. Concentrate on improving the quality of teaching.
- **Promote access to quality health care** through improved co-ordination across health institutions to reduce redundancies; in particular, promote exchange of services between health care networks.
- **Encourage more women to join the formal labour force** by improving access to quality child-care for children under three years of age and extending active labour market policies.
- **Approve draft legislation for unemployment insurance and universal pensions** to protect job seekers and elderly people against the risk of income losses, and reduce inequality.
- **Fully roll-out the new *Prospera* cash transfer programme** to help beneficiaries expand their capabilities, complete their education, join the formal sector and obtain well-paid jobs.

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Assessment and recommendations

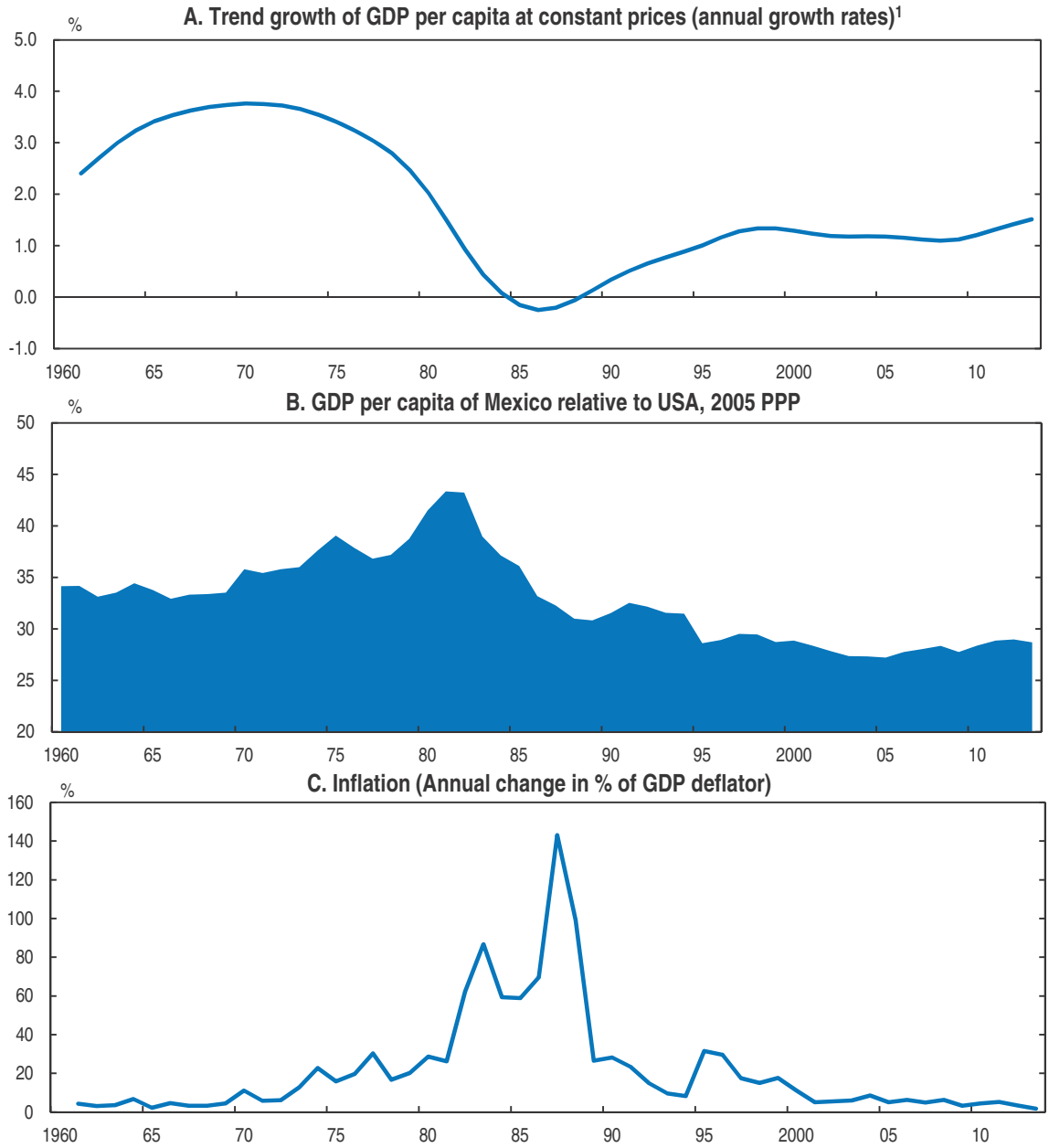
- *Stimulating macroeconomic recovery*
- *Structural reforms to boost growth and reduce informality*
- *Sharing the fruits of growth*

During the past three decades, the Mexican economy has experienced a prolonged growth slowdown, leaving it behind other OECD countries, and hurting the population's relative living standards as well as weakening their confidence in public institutions. After rapid, yet unsustainable convergence during the 1960s and 1970s, growth of income per capita slowed sharply in the wake of several macroeconomic crises (Figure 1), to an annual rate of 0.6% from 1980 to present, well behind performance in other emerging markets. While oil wealth and migrants' remittances brought in large revenues, the economy has been too hampered by multifaceted policy rigidities and weak institutions to yield sustained convergence and inclusive growth.

There have been, however, important changes that improved macroeconomic settings. Following its entry into NAFTA, Mexico tamed inflation, built a solid macroeconomic framework, and became very open to world markets. Many modern firms employ highly skilled and well-educated workers, notably in aerospace, automobiles, food and beverages. Yet, parts of the economy are still characterised by high informality, low-skilled work, weak productivity and out-of-date technologies. About 57% of workers have an informal employment relationship, and unregistered firms employ millions of workers who lack access to stable incomes, a good education, comprehensive health care and affordable financial services – hampering their accumulation of human capital. A third segment of the Mexican economy consists of companies that, for decades, have been protected from competition – notably dominant firms in energy and telecommunications. These firms have been able to extract large rents from consumers and faced weak incentives to invest and improve productivity. Previous governments from the 1980s onwards have sought to tackle these problems through a range of reform measures, but many of the earlier reforms were not completed, or were partially reversed during implementation – and thus did not produce the hoped-for results.

It is thus welcome that Mexico embarked on a bold package of structural reforms initially organised around the "*Pacto por México*". Not all of the reforms were new: many had been sought previously, and have been the focus of previous OECD Economic Surveys and reports (see OECD, 2011c, 2012b, 2013a). However, the *Pacto* was unique in that it broke the political gridlock by bringing the three largest parties together to agree on a single multifaceted package of specific reforms that they could all commit to. This was historic and helped to diffuse much of the opposition to individual reforms, allowing the government to advance legislation in key segments of the economy (Table 1). Each of these reforms is wide-ranging in scope, and addresses the main challenges in their respective sectors. They include: a labour reform that substantially increased the flexibility of hiring; a reform of "*amparos*" that made the legal system more efficient and fair; the introduction of a national code of criminal procedure; a wide-ranging educational reform that introduced clearer standards for teachers and schools; a fiscal reform that improved the efficiency of the tax system, raised the revenue ratio and strengthened the fiscal responsibility framework; an economy-wide competition reform; reforms to the financial,

Figure 1. **Growth has been weak**



1. Smoothed by a Hodrick-Prescott filter with a lambda of 100.

Source: OECD Long-term Growth Scenarios and OECD Analytical database.

StatLink http://dx.doi.org/10.1787/888933174776

telecom and energy sectors that have opened long-closed sectors to competition and strengthened the powers of regulators; and a reform of the political system to allow politicians to be re-elected, giving them a longer-term perspective on policy.

This impressive policy effort, which makes Mexico the top reformer in the OECD over the past two years, deserves acclaim (Figure 2). From now on, the main challenge is to ensure full implementation of these reforms and progress further in areas that have not

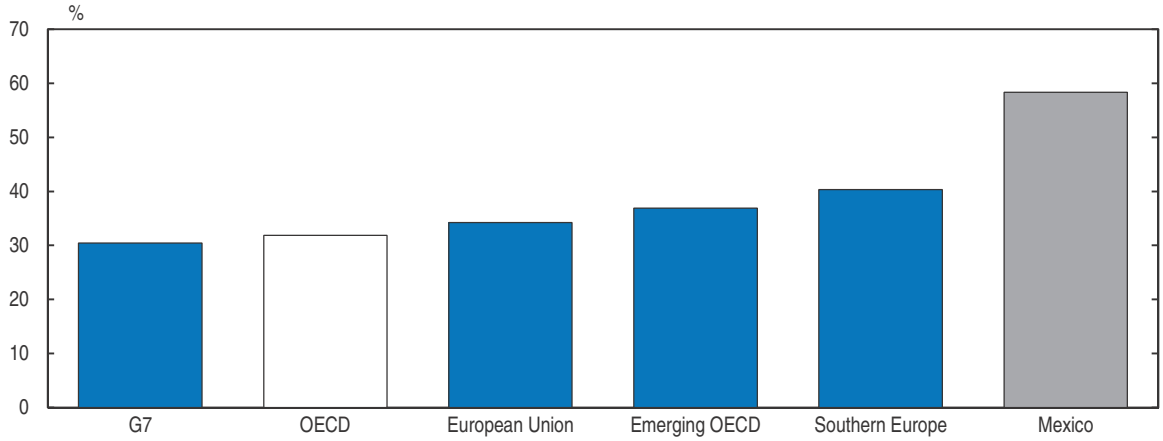
Table 1. **Progress on structural reforms**

Reform	Secondary legislation approved	Main provisions enacted?	Constitutional amendment (if required)	New or empowered regulator	Legislative approval	Remaining steps to be taken?
Reforms approved and being implemented						
Labour	Dec 2012	Yes	-	-	Federal	-
Amparos	April 2013	Yes	Yes	-	Federal/ States	-
Education	Sep 2013	Yes	Yes	Yes	Federal/States	Multiple stages
Tax/Fiscal	Oct 2013	Yes	-	-	Federal	-
Financial	Jan 2014	Yes	-	Yes	Federal	-
Transparency (access to public information)	Feb 2014	Yes	Yes	Yes	Federal/ some states	-
National Criminal Procedural Code	Mar 2014	Partial	-	-	*Federal/ some states*	States to use new code by 2016
Economic competition	May 2014	Yes	Yes	Yes	*Federal*	-
Political/Elections	May 2014	Partial	Yes	Yes	Federal/ *some states*	States to adopt by 2018
Telecoms	July 2014	Yes	Yes	Yes	Federal/ States	-
Energy	Aug 2014	Yes	Yes	Yes	*Federal/ States*	Issue new bidding rules
Reform of criminal justice	-	Partial	Yes	-	Federal/ some states	States should adopt by 2016
Reforms yet to be approved						
Anti-corruption and civil justice	-	No	Yes	Yes-	Pass bill	
Expenditure (Pensions and UI)	-	No	-	-		Pass bill
Health	-	No	-	-	-	Introduce bill
Agriculture	-	No	-	-	-	Draft bill

Source: OECD compilation.

Figure 2. **Mexico's reform activity is the highest in the OECD**

Share of OECD reform recommendations with significant action taken in 2013-14



Note: Emerging OECD countries include Chile, Estonia, Hungary, Mexico, Poland and Turkey. Southern Europe countries are Greece, Italy, Portugal and Spain.

Source: OECD (2015d), *Going for Growth* with interim estimates of 2014 reform implementation.

How to read this figure: Every two years, the OECD makes recommendations about the five most important reforms that should be undertaken. The figure shows that Mexico took significant policy actions in 2013 and 2014 on 58% of the reform recommendations on average in each year, more than any other OECD economy at the time of the interim estimates.

StatLink http://dx.doi.org/10.1787/888933174784

yet been tackled, and that are key to ensure success of the current package. Against this background, the key messages of this *Economic Survey* are:

- The reforms will boost Mexico's living standards substantially over the next decade, if legislated reforms are fully implemented and followed through upon. Implementation includes improving administrative capacity at all levels of government, and reforming justice institutions.
- The implementation of the reforms should also focus on their impact on lower income groups. An inclusive growth approach will be necessary to address the very high inequality of incomes and opportunities among Mexicans, with the broadening of the main cash transfer programme and extended health care coverage to allow for investment in human capital.
- Further reforms, including of the judiciary, health sector and agriculture, will raise growth even more. For example, these reforms could increase GDP growth by an additional one percentage point (Table 2).
- While the tax reform created a new regime for small firms with positive preliminary results, incentives for businesses and workers to join the formal sector could be further strengthened by simplifying regulations, reducing corruption, improving justice and better enforcing laws.
- To reduce gender inequalities and promote female participation in the labour market, it is essential to extend early childhood education and build on the bold education reforms.

Table 2. **Impact of reform on the level of GDP in the medium term**

OECD estimates of legislated and envisioned reforms[1]
Impact after 5 years, assuming immediate implementation

	via productivity growth (%)	via capital deepening (%)	via employment growth (%)	GDP growth (%)
A. Pacto por Mexico Reforms:	**0.41**	**0.51**	**0.03**	**1.0**
1. Product market regulation				
a) Telecoms	0.06			0.06
b) Electricity & gas	0.32			0.32
c) Petroleum		0.45		0.45
2. Labour market reform				
Employment protection			0.03	0.03
3. Tax structure		0.07		0.07
4. Legal reform	0.03			0.03
B. Additional Reforms:	**0.91**	**0.00**	**0.10**	**1.0**
5. Judicial reform	0.50			0.50
6. Labour market reform				
a) Pro-formality reforms	0.42			0.42
b) Female participation			0.10	0.10
Total	**1.82**	**0.51**	**0.13**	**2.0**

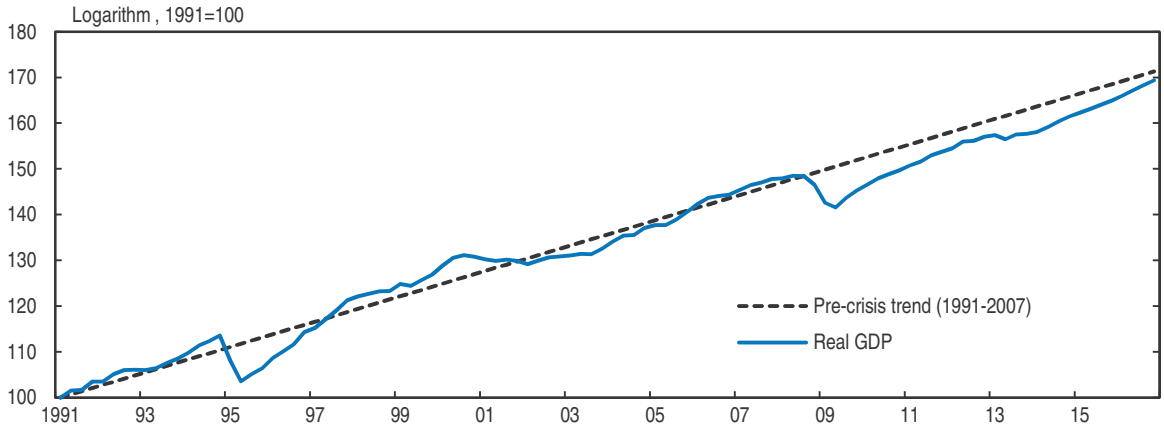
1. The financial reform and the educational reform are also likely to have a significant impact in growth (the later mainly in the long term), but have not been included in the table because of difficulties quantifying the impact.

Source: Bourlès et al. (2010); USEIA (2014); Bassanini et al. (2009); Dougherty and Escobar (2014); Thévenon et al. (2012); Johansson et al. (2011); IMF-OECD-World Bank (2014); Dougherty (2014).

Stimulating macroeconomic recovery

In the past decade, Mexico made little progress in catching up towards the upper-income OECD countries, in contrast with a number of other OECD middle-income member countries. In addition, over the past five years, strong headwinds have hindered the economic recovery, leaving output below its pre-crisis trend (Figure 3). This downturn was magnified by financial problems in the construction sector in 2013 and a bout of weather-related shocks.

Figure 3. **Output is returning to trend**



Source: OECD, Economic Outlook database.

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Fortunately, the cycle has started to turn around and a rebound is now underway, fuelled primarily by stronger import demand from the United States, as well as a gradual recovery in domestic demand, and supported by expansionary fiscal policy and an accommodative monetary stance (Table 3). The policy interest rate remains at an all-time low of 3%, and the exchange rate has been stable. A marked rebound in GDP growth is projected, with growth to reach nearly 4% in 2015. As external demand strengthens with the US recovery and the fiscal stimulus (0.5% of GDP in 2014), investor confidence should return. The ongoing boost to government spending is welcome, in particular the national infrastructure investment plan over 2014-18. As conditions begin to normalise, monetary accommodation and stimulus spending can be scaled back. The tax reform has resulted in a significant increase of tax revenues, which have grown by 6.1% in the first three quarters of 2014 and are expected to increase by 7.5% in 2015. On the other hand, the significant decline in oil prices, while helping to lower business costs and improve consumers' real incomes, could reduce fiscal revenues significantly, thus calling for vigilance regarding the state of public finances. Indeed, Mexico has a comprehensive framework to insulate the budget from temporary falls in oil-related revenues. First, when the price of oil falls, usually it is accompanied by exchange rate depreciation, thus cushioning the impact on oil revenues. Second, with a lower oil price, there is an increase in gasoline tax revenues – given the administered price. Third, Mexico has a financial hedge on oil prices (i.e. a put option) which places a floor in the oil price at which Mexico sells. For 2015, the Government has fully covered the oil price at the budgeted level of USD 79 per barrel. Finally, these hedges are complemented with an oil stabilization fund that alone could compensate for up to a USD 13 drop in oil prices. Thanks to these various mechanisms, a significant drop in oil prices in 2015 would not increase the deficit (in terms of PSBR) by more than 0.05% of GDP (Figure 4, Panels A and B).

Table 3. **Macroeconomic projections**

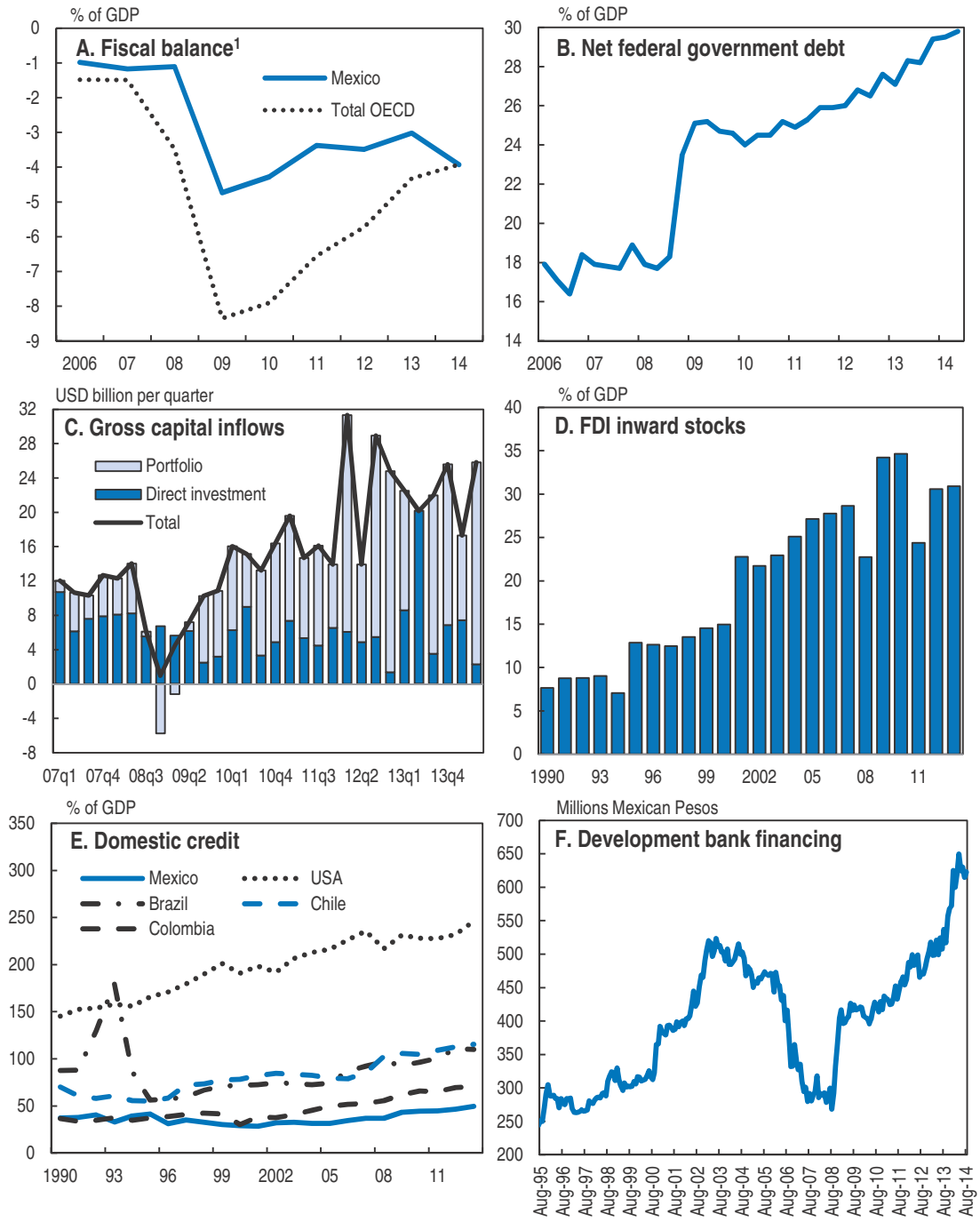
	2011	2013	2014	2015	2016
	Current prices MXN billion				
GDP	14 544.1	1.3	2.6	3.9	4.2
Private consumption	9 658.2	2.9	2.2	3.5	3.6
Government consumption	1 683.2	1.4	2.1	3.7	2.4
Gross fixed capital formation	3 156.7	-1.7	1.8	4.1	4.8
Final domestic demand	14 498.2	1.7	2.1	3.6	3.7
Stockbuilding[1, 2]	224.4	-0.1	0.3	-0.1	0.0
Total domestic demand	14722.5	1.6	2.4	3.6	3.7
Exports of goods and services	4 543.8	1.1	7.0	6.2	7.0
Imports of goods and services	4 722.2	1.8	5.0	4.2	5.5
Net exports[1]	-178.5	-0.3	0.6	0.6	0.5
Memorandum items					
GDP deflator	_	1.8	4.0	3.5	3.0
Output gap	_	-0.9	-1.3	-0.5	0.4
Potential GDP	_	2.8	2.9	3.1	3.3
Core inflation	_	2.7	3.2	3.1	3.0
Consumer price index	_	3.8	4.0	3.5	3.1
Private consumption deflator	_	2.7	3.9	3.1	3.0
Unemployment rate[2]	_	4.9	4.9	4.7	4.7
Public sector borrowing requirement[3, 4]	_	-3.8	-4.2	-4.1	-3.6
Narrow budget balance[5]		-1.3	-1.7	-1.6	-1.1
Gross debt[6]	_	36.9	40.5	..	..
Current account balance[4]	_	-2.1	-1.9	-1.7	-1.8

1. Contributions to changes in real GDP, actual amount in the first column.
2. Based on National Employment Survey.
3. Central government and public enterprises. The PSBR differs from the government's definition of the deficit in that it excludes non-recurrent revenues and pure financing operations, such as withdrawals from the oil revenue stabilisation fund.
4. As a percentage of GDP.
5. Based on the PSBR not including investment in public enterprises (PEMEX and CFE).
6. Official gross debt figures as of Dec 2013 and Sep 2014.

Source: OECD Economic Outlook 96 database.

One main risk for this outlook comes from the pace of withdrawal of US monetary policy accommodation, which could trigger market instability that would affect Mexico. In view of high levels of portfolio capital inflows in recent years, along with other emerging market economies – increasing long-term interest rates and asset price volatility as happened in May 2013 after the Fed initiated discussion of "tapering" (Olaberria, 2014a). However, Mexico's financial markets showed more resilience in 2013 than did many other emerging markets (Figure 4, Panels C and D), suggesting that its sound macroeconomic framework can absorb external shocks. Moreover, it is backed by a high level of international reserves and a recently renewed Flexible Credit Line with the IMF, which altogether provide financial buffers of about USD 265 billion in funding, if needed. Another risk comes from a possible further decline in oil prices. As mentioned, Mexico's federal budget is well protected in the short term from such decline through various hedging mechanisms. While there are also upside risks, notably a stronger US recovery, the balance of risks remains slightly tilted to the downside. This underlines the need to further strengthen macroeconomic fundamentals and maintain financial buffers to better face possible periods of financial volatility. In the medium term, however, persistently low oil prices would reduce the payoff from energy return given the budget's high reliance in oil-related revenues.

Figure 4. **Macroeconomic indicators**



1. For Mexico, the fiscal balance is based on the borrowing requirements of the central government and public enterprises.
Source: OECD Analytical database and IMF Direct Investment database; Banco of Mexico; The World Bank; Datastream.

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Macroeconomic policies

Although fiscal stimulus and the economic slowdown widened the budget deficit in 2014, Mexico remains committed to sustainable budgetary trends, and last year's wide-ranging tax reform boosted revenues substantially. The reform will raise the revenue ratio

by 2.5% of GDP by 2018 through a broadening and extension of the tax base. Major reforms were made to most types of taxes, including personal, corporate, consumption and energy taxes. In personal taxation, the top marginal rate was raised to 35%, and limits were imposed on deductions. A capital gains and dividend tax of 10% was also introduced. In terms of corporate taxation, limits on depreciation allowances were imposed and an alternative tax regime (*IETU*) was eliminated. A number of loopholes and exemptions that allowed for accelerated deduction of investment expenses have been removed or reformed. The preferential tax treatment of *maquiladoras* has been revised to make it more neutral. Consumption taxation was broadened by abolishing the reduced rates on the border regions, and special exemptions for *maquiladoras* were removed. New excise taxes have been imposed on fossil fuels (except natural gas). Finally, a carbon tax and taxes on high-caloric foods and sweetened beverages were introduced.

The approved changes to the Fiscal Responsibility Law are a key element of Mexico´s medium term fiscal strategy. This framework: i) seeks to reduce the budget deficit in the medium term and put the debt-GDP ratio on a downward path; ii) allows fiscal policy to play a more counter-cyclical role; iii) limits annual increases of current public expenditure; iv) enhances transparency by establishing the public sector borrowing requirement (PSBR) as the main target for the conduct of fiscal policy; and v) requires to set aside excess fiscal revenue in a financial buffer so as to deal with macroeconomic shocks that could affect Mexican public finances. The government has defined a path to cut the PSBR in the next three years and contain the growth of public debt over the medium term. The government plans to return to a neutral fiscal stance in 2015, begin fiscal consolidation in 2016, and eliminate the deficit – as defined by the narrow ("traditional") balance – by 2018, in accordance with the fiscal rule. This will stop the growth of the public debt in relation to GDP and start to bring it down (Figure 4, Panel B).

The reform of the Fiscal Responsibility Law establishes a mechanism to save the additional receipts expected to stem from the energy-sector reform, the Mexican Oil Fund for Stabilization and Development, which will receive, administer and distribute income derived from oil assignments and contracts. The Fund can invest domestically and internationally, and its contribution to the budget is limited to 4.7% of GDP. The fund is located in the Central Bank and four of the seven board members are independent. As the fund accumulates assets, it will be important to ensure separation of its activities from other institutions' mandates (Della Croce et al., 2011).

Given that inflation expectations have been well anchored, monetary policy has been able to provide support to the economic recovery. The central bank's policy rate is currently at a record low of 3%, and the structure of the yield curve and measures of inflation expectations suggest that markets anticipate it will stay there until the second quarter of 2015. The exchange rate has remained roughly stable despite bouts of turmoil in other emerging market economies. Mexico has sufficient policy credibility to maintain a supportive monetary stance until the economy recovers, without compromising the 3% inflation target.

The financial sector

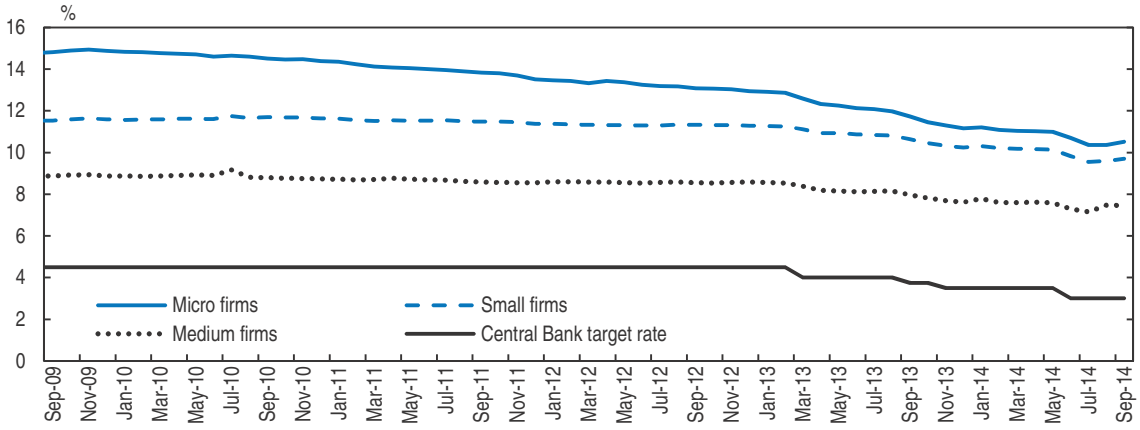
Mexico is underbanked compared to other OECD economies (Figure 4, Panel E). Large segments of the population do not use formal banking services, and much progress needs to be made to promote financial inclusion and to increase the use of banking services. Concerns about the high cost of credit and lack of competition in the banking sector have

motivated a major financial reform. Legislation passed in January 2014 strengthens regulation, increases competition and lowers the cost of borrowing. These changes should allow for more robust and sustainable private credit deepening.

Three sets of measures stand out in the financial reform: more effective property-rights protection for creditors; more formal legal authority for the regulator to manage the resolution of banks; and the promotion of competition among financial intermediaries. The reform reduces obstacles in the judicial process to recover collateral, following longstanding difficulties in enforcing creditors' property rights. More immediately, government development banks have been given more scope for lending to small and medium-size businesses (SMEs), which often lack access to credit (Figure 4, Panel F). This measure already appears to have borne fruit in driving down interest rates for SMEs (Figure 5).

Figure 5. **The cost of credit for small firms has been reduced**

Lending interest rates



Note: For micro, small and medium firms, market interest rates for various types of borrowers without support.
Source: Comisión Nacional Bancaria y de Valores (CNBV).

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Structural reforms to boost growth and reduce informality

Competition law

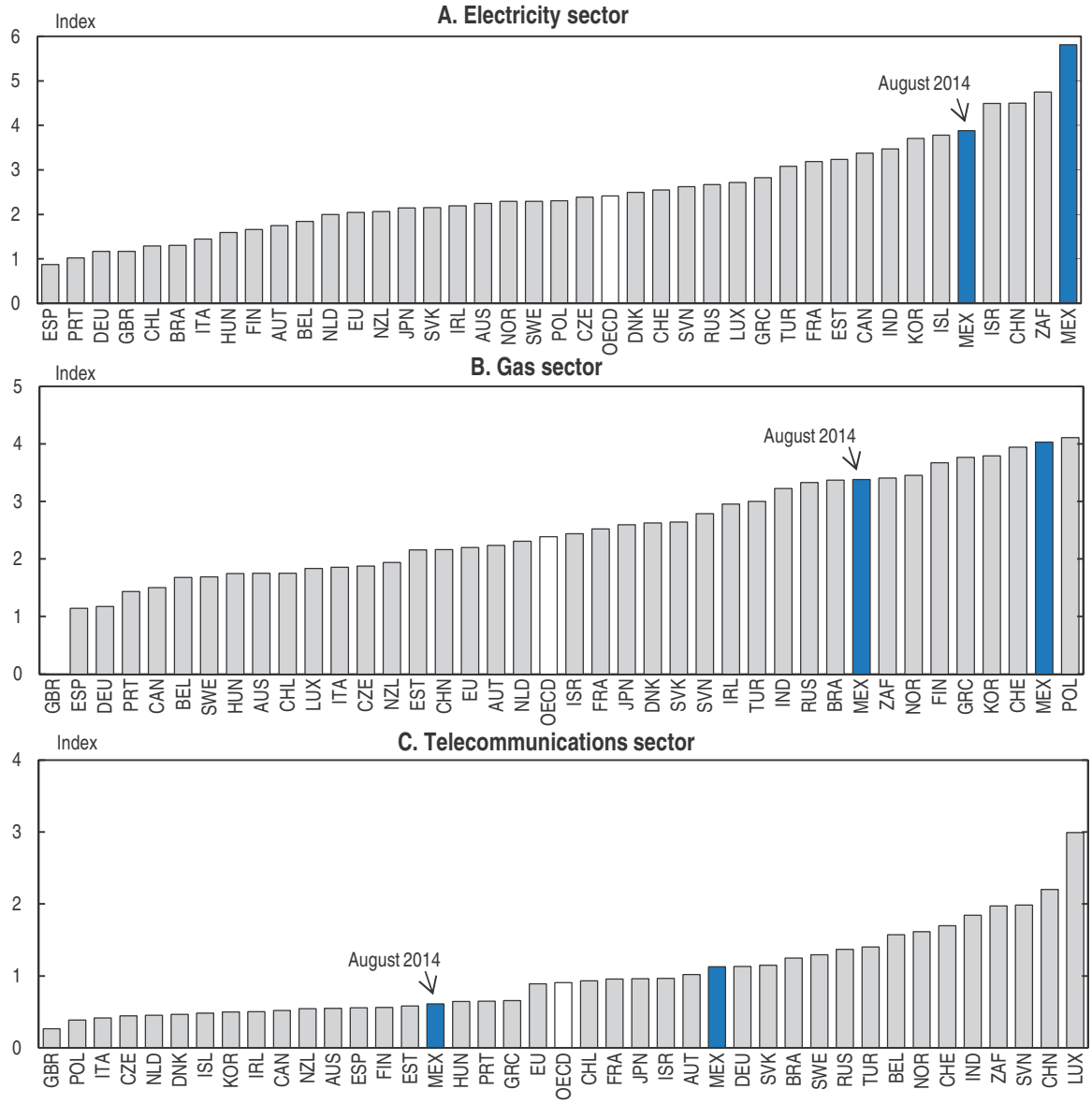
For decades, Mexico's economy has been hindered by weak competition, and large firms have become dominant players in several markets and thus have earned monopoly rents. To restore dynamism in these markets, the general competition agency COFECE has been strengthened and transformed into a constitutionally-autonomous body, with the power to regulate access to "essential facilities" and remove "barriers to competition", through broad market investigation powers similar to the UK competition authority. Criminal penalties for extreme bid-rigging have also been increased. In addition, the new competition law gives Congress one year from July 2014 to harmonise Mexico's legal framework with free competition principles. These changes should help to intensify competition in the substantial number of markets that have high concentration of incumbent operators. However, the agency has only a small budget, which could limit its impact.

The energy and telecom sectors have already been opened to greater competition, with sufficient progress having been made to have economy-wide effects. These reforms can be observed through changes in the stringency of product-market regulation in these

key sectors (Figure 6). An interim update of indicators for these sectors through August 2014 shows that Mexico has eased its regulatory stance from one of the most stringent levels. In a key sector where reform has focused, telecommunications, regulatory stringency will move from worse to better than the OECD average. Two-thirds of these indicators' value reflects legislative changes in regulation, but *de facto* contestability of the market is also measured through the market share of either the incumbent or new entrants, and by this measure, it will take some time for the reforms to have their full impact on competition.

Figure 6. **The stringency of sectoral product market regulation has been reduced**

Index scale of 0-6 from least to most restrictive (January 2013)



Source: OECD, Product Market Regulation database, 2014 and interim estimates prepared in co-operation with Mexican authorities.

How to read this figure: Mexico's regulation in the three network sectors mentioned above became substantially less restrictive from January 2013 to August 2014, moving towards the OECD average, or below it in the case of telecoms.

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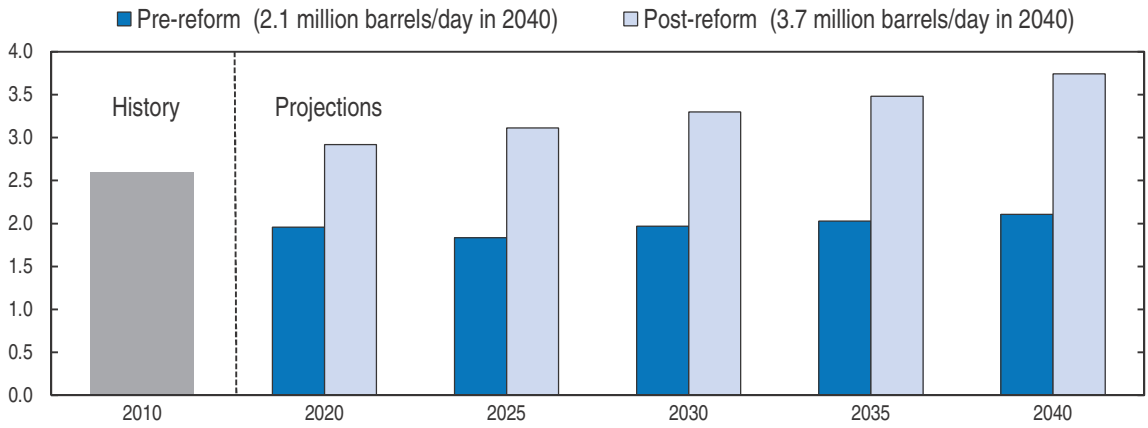
Energy

Mexico has launched a major reform of the oil and gas sectors, following years of declining oil production by the state-owned company PEMEX, high energy costs for the business sector, and a lack of funding and technology to exploit new energy resources. Congress passed secondary legislation in August 2014 to implement a constitutional reform approved in late 2013. These laws established largely autonomous, independently-funded regulators for licensing, safety and environmental protection in the sector. These new regulators will help supervise the opening of the sector to greater competition and more efficient use of national resource wealth. The governance of PEMEX is also being reformed, with a Board that, for the first time, will comprise independent directors responsible for establishing the company´s strategic vision of the company supported by committees and it will no longer play the role of "gate-keeper" to the energy sector. Mexico now allows the entry of both domestic and foreign investors in the exploration, production and transportation of oil and gas, as well as the refining and marketing of hydrocarbons, potentially attracting considerable new investment. These changes are estimated by market observers to boost long-term petroleum output by 75% annually relative to the baseline (Figure 7).

Figure 7. **Petroleum production is set to expand substantially**

Million barrels per day



Source: US Energy Information Administration, International Energy Outlook 2014.

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The energy reform follows recommendations made in previous OECD *Economic Surveys* (OECD, 2013a), and allow for several types of private sector involvement, including profit-sharing, production-sharing and licensing arrangements. Contracts will be awarded through public tenders to the bidder who offers the largest payment to the government, under contractual terms determined by the Ministry of Finance and the Ministry of Energy, while the upstream regulator (CNH) will award and administer the contracts. Revenues from oil and gas production will be managed by a new autonomous entity, the Mexican Oil Fund for Stabilization and Development. A national content requirement will begin at 25% in 2015 and rise to a share of 35% by 2025, which is comparable to a number of other emerging markets. It will be important to ensure that the new contracting rules, including on local content for oil and gas investment, are carefully designed in order to ensure they are sufficiently attractive, and also create a competitive market for large-scale private sector participation. Downstream

activities – including midstream, refining and distribution activities – will be open to full private sector competition, including for imports of oil and natural gas, supervised by a dedicated and strengthened regulator (CRE) and the Ministry of Energy.

The electricity sector has also been liberalised by ending the monopoly of the state-run power utility CFE and by promoting competition from new entrants. A transition to a different energy mix will contribute to improving the sector's environmental performance. Improved access to US shale gas resources thanks to new pipelines and Mexico's own resources are expected to narrow the substantial gap with the United States and thus making industry more competitive. Establishing a robust system for monitoring would help to identify any drawbacks or limitations of specific regulations.

Mexico has strengthened its political commitment to reduce greenhouse gas emissions by 30% in 2020 (with respect to the business as usual scenario) provided adequate financial and technological support from developed countries is sufficient. For this purpose Mexico aims at more intensive use of renewables (currently subject to a target of 35% by 2014), a carbon tax on fossil fuels has been introduced in 2014. In addition, the retail price of gasoline and diesel will be raised, until 2017, in line with overall inflation. Based on current oil prices, this is expected to eliminate the fossil fuel subsidy that has prevailed at a high level in recent years, and resulted in gasoline and diesel products being effectively taxed; further action would be needed if oil prices were to rise significantly from current levels. Beginning in 2018, gasoline prices will be liberalised and determined by market conditions. Despite these initiatives and targets, reducing greenhouse gas emissions remains a major challenge for Mexico. Although carbon emissions per capita are low, the energy and carbon-intensity of the economy is high compared to other OECD countries. Therefore, establishing adequate prices, removing inefficient subsidies (and providing better targeted support to the poor), and improving energy efficiency will all be needed if Mexico is to meet its greenhouse gas emissions target. The new effective carbon tax should be evaluated, and raised if deemed inadequate.

Telecoms

A new regulatory and competition agency (IFT) focused on telecommunications and broadcasting was formed in 2013 and following the passage of the secondary legislation in May 2014 it is now fully operational. The IFT has exclusive authority for regulation and competition enforcement in the telecommunications and media industries, and has a range of new regulatory capabilities to promote competition, such as imposing obligations on dominant operators. The dominant operator in the fixed-line market, Telmex, has an 80% market share, while the mobile company Telcel has a 70% market share. OECD studies have suggested that data prices are relatively high (OECD, 2012a). An initial decision requiring these companies' owner, América Móvil, to provide free interconnection to other operators, triggered its announcement of a plan to sell assets to reduce its market share below the 50% regulatory threshold to avoid the application of asymmetric regulations. The response suggests that the new framework is having an impact, though attention will need to be paid to whether a smaller market share still ensures adequate market competition. A full-fledged competition assessment may still be required to ensure that individual market segments do not face market dominance. In addition, given the rapid technological developments in the telecommunications sector, close monitoring of the technological evolution and boundaries of the sector will also be required. There is also an outstanding international compliance

issue regarding the conditionality of market access rules to FDI in the telecoms – which appears to be contrary to OECD instruments and other international conventions that prohibit reciprocity. These will need to be addressed to avoid legal complications.

Other regulatory reform

Dynamism is still hampered by stringent regulations in many markets. The government aims to lighten the regulatory burden with constitutional reforms and secondary legislation. There is still a large stock of administrative regulations in many domains, notably in business entry and operation at the state and local levels. New federal regulations are already subject to a regulatory impact analysis by the regulatory assessment agency (COFEMER) prior to promulgation that assesses the costs of regulations against their potential benefits, including consultation with the competition agency when required.

However, efforts to roll back regulation at the state and local levels have encountered substantial difficulties and setbacks (see OECD, 2014a). A draft Presidential Decree would require a full review of the entire existing stock of regulation and require removal or revision of regulations that cannot be justified. This effort, and an analogous one at the sub-national level that includes incentives for local governments, should be followed through with urgency.

Beyond making reforms to regulations, the administrative capacity of many agencies and local governments is still wanting. Extensive improvements in the capacity of the laggard governments to carry out policy in a neutral manner are essential (see OECD, 2014c). This will require an intensive focus on training and boosting the quality of officials in these localities through clear incentives that reward good governance and punish corruption and mis-governance, with certainty. Greater transparency will also help.

Strengthening innovation

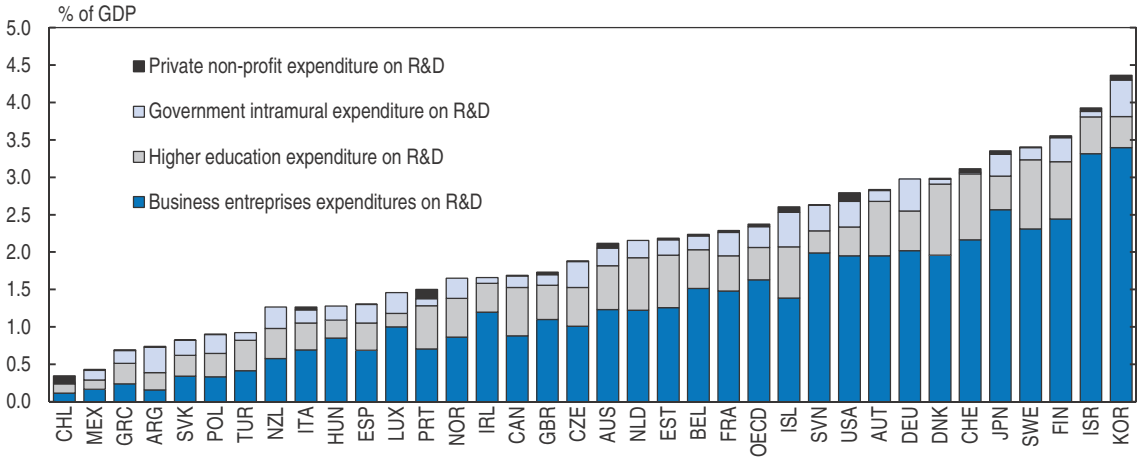
Innovation is essential to raise productivity, and here Mexico's performance has been weak. Both private and public sector R&D investment (under 0.5% of GDP in 2012) is well below that of nearly all OECD and BRICS countries (Figure 8). This is partly a result of Mexico's industrial structure, as over one-third of manufacturing R&D is carried out in low and medium-technology sectors. However, obstacles to boosting the country's innovative potential include a weak domestic research and skills base, an underdeveloped knowledge-based start-up environment and institutional challenges.

Regional high-technology clusters, such as the aerospace cluster of Queretaro, have grown considerably and case studies suggest that they have been able to find strong regional synergies between companies and research and training institutions. One important question is how the government can facilitate networks among businesses and between business and academic institutions.

Reviews of experiences with clusters in other OECD countries emphasise the potential importance of the government encouraging new firm creation, stimulating innovation, co-ordinating policies, strengthening human capital, facilitating access to finance and addressing congestion (OECD, 2009a). Recent empirical evidence suggests that, after controlling for convergence in start-up activity at the region-industry level, industries located in regions with strong clusters can experience higher new business formation and start-up employment (see Delgado et al., 2014). Industries participating in strong regional clusters also have higher patenting rates, and can even enhance growth and trade opportunities in related industries and neighbouring clusters. Overall, these findings

Figure 8. **R&D intensity is especially low**

Expenditure on R&D by sector of performance, 2012



Source: OECD, Main Science and Technology Indicators Database.

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highlight the potential positive role of cluster-based agglomeration in regional economic performance. However, policies to promote clusters should avoid "picking winners" and focus instead on building on existing industry networks, enhancing infrastructure and promoting linkages with universities (Warwick, 2013).

Access to credit, especially in the seed and start-up phases, is a major barrier to start-ups in Mexico (OECD, 2013b, 2013c). Private equity and venture capital are only 0.02% of GDP, one of the lowest figures in the region. A National Institute of the Entrepreneur was created in 2013 to refine and implement schemes to address entrepreneurs' needs, including forming a seed capital "fund of funds". Further strengthening of the start-up environment through enhancement and expansion of these programmes to support angel and venture capital financing would be especially helpful. Pacific Alliance members have been working jointly to boost SME financing, and one promising step was Mexico's joining of the Latin American Integrated Market (MILA) in 2014, making it the largest stock market in the region.

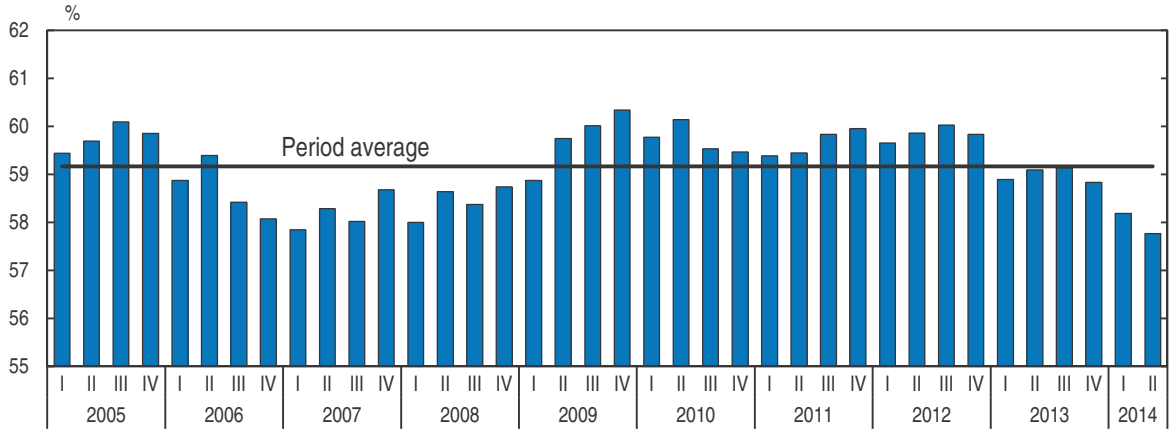
As a central part of the Programme to Democratise Productivity, the new National Productivity Commission (NPC) has been established to improve co-ordination and identify policy reforms. Early signs suggest that the NPC is working well, helping to analyse problems and building consensus for reform, notably in the area of public sector management. In order to increase its impact, it would benefit from a more robust legal framework and more systematic processes related to the legislative process. Legislation was proposed to Congress in September 2014 that provides such a framework, including a clarification of the Commission's mandate and the establishment of a requirement that the federal government respond to its policy recommendations; the new law should be passed.

Reducing informality

Although many parts of the economy are quite advanced, informality is pervasive in many sectors. Fifty-seven percent of workers have an informal employment relationship and a majority of small businesses still operate in the informal sector (Figure 9). The government has started to address the problem through the creation of a new tax regime for micro and small enterprises, which seeks to promote formalisation of the workforce,

Figure 9. **The share of workers in the informal sector has been reduced**

Percentage of informal labour force



Source: INEGI, *Encuesta Nacional de Ocupación y Empleo* and *Instituto Mexicano del Seguro Social*.

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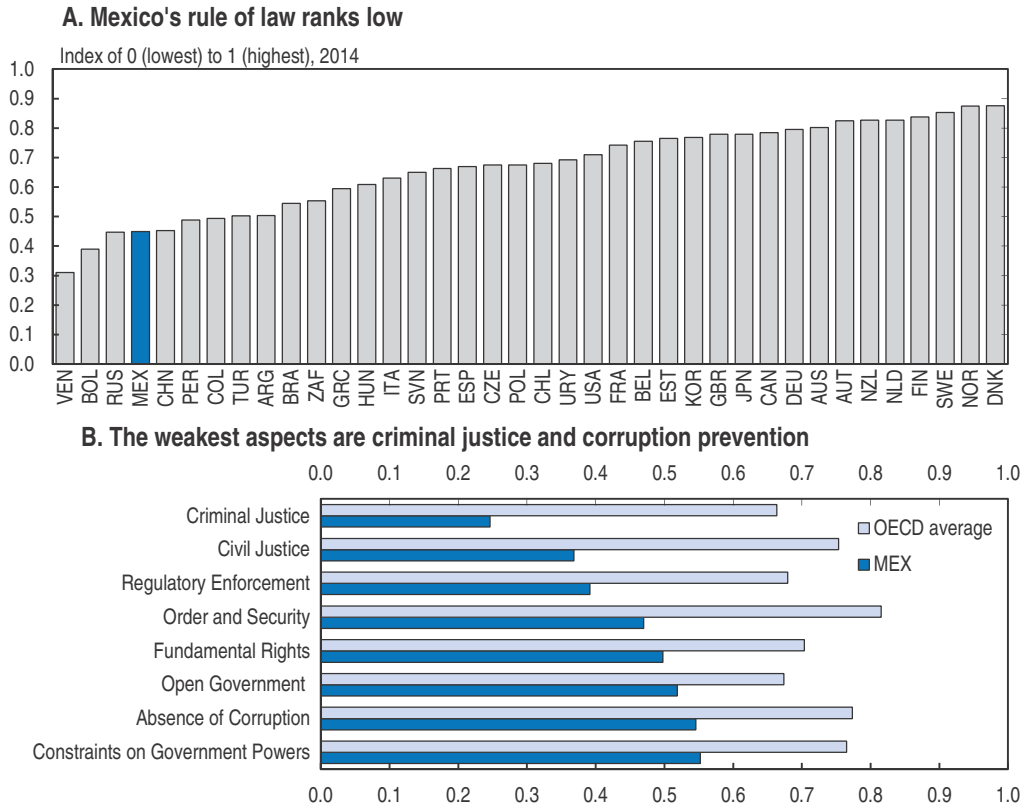
and through a comprehensive strategy launched in 2014 to "Go Formal", which pools the benefits and resources of different programs. These measures resemble those Brazil followed to reduce its informality rates (OECD, 2013f). Mexico's new fiscal regime for small firms (*RIF*), which started to operate in January 2014 and replaced an earlier small-taxpayer regime (*REPECOS*), includes substantially reduced personal, social security and value added and excise tax obligations in the initial decade of operation, to induce informal firms to regularise their status and start paying taxes (see Annex). Tax reductions will decrease gradually over time, until the firms are incorporated in the general regime after ten years. Importantly, the scheme includes special incentives to help new firms expand, including through access to special government-backed financing and training, as well as a series of electronic tools that simplify tax compliance. Already, 4.3 million firms have registered under the new scheme, as compared to 3.5 million under its predecessor.

The reluctance of workers and firms to operate formally reflects a variety of factors, notably stringent regulation, but also perceptions of corruption and weak enforcement of legal rights (Dougherty and Escobar, 2013). Promoting formal employment is essential both to improve inclusion and increase productivity: formality enables workers to have access to social rights – such as unemployment insurance, health care and pensions – and allows businesses to expand, modernise, innovate and become more productive. If formality increases, the vulnerability of social institutions will recede, fiscal revenues will increase and long-term sustainability of social entitlements will be strengthened (OECD, 2009b). The comprehensive labour reform law of 2012 contained initiatives to stimulate formal employment by adding new types of contracts that give access to social benefits. Since its adoption, formal employment has been more rapid than both overall employment and GDP growth, but further efforts are needed to improve formal employment prospects, especially for women and young people.

The judicial system

Boosting productivity and achieving the range of the structural reforms done by the government will require stronger judicial institutions to enforce laws and regulations as well as to adjudicate disputes (Figure 10). Essential in this effort is the efficiency and quality of the court system, including the training of its personnel, their performance

Figure 10. **Adherence to the rule of law is relatively weak**



Note: The WJP Rule of Law index is a quantitative assessment tool designed to offer a picture of the extent to which countries adhere to the rule of law in practice.
Source: The World Justice Project (2014), *www.worldjusticeproject.org*.

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management system and the soundness of administrative procedures. Empirical estimates carried out in the context of the last *Economic Survey* (OECD, 2013a) suggested that there was considerable scope to boost the quality of the judiciary, since a low-quality judiciary makes contract enforcement and insolvency procedures problematic in Mexico, lowering the average size of firms and their capital intensity, thus reducing aggregate productivity substantially (see Palumbo et al., 2013; Dougherty, 2014).

Improving criminal justice is not only important for the economy, but is also crucial to improve personal safety, which is a major challenge for well-being in Mexico. Some progress has been made in reforming the criminal judicial system, which is shifting from a written system that was slow and lacked credibility to an oral "adversarial" one that allows for cross-examination. Data from SETEC suggests that trial times have been cut from 343 days using the old system to 132 days using the new one. The new system is fully operational for state-level offenses (for all cases) in only four states, while it is partially operational (in some districts) in 24 more as of the end of 2014. More rapid progress will be needed in order to meet the target of June 2016 in the 2008 Constitutional Amendment for full implementation. A new monitoring and evaluation body for the reform was set up in July 2014 and a unified national code of criminal procedure was published in March 2014, which represents important steps to support the transition to the new system. For federal offenses, the operation of the new criminal justice system began with two states in 2014 (Durango and Puebla).

Extension of the judicial reforms to the civil and commercial domains, which only started recently, has gathered speed. Now 26 states use oral trials in commercial trials, while four states use them in civil cases. These new procedures need to be fully rolled out and followed in practice. Reforms of judicial procedures have also helped considerably. Most notable is the 2013 reform to Mexico's *amparo* or "habeas corpus" petitions, which now prevents firms from readily blocking regulators' legitimate actions while decisions are under appeal. Judges will now have to give more consideration to the legitimacy of a complaint and the negative effects of a suspension of government decisions. These are important breakthroughs; however, their effectiveness will be determined by jurisprudence in practice. Helpfully, in the competition policy domain, specialised judges with relevant training and knowledge are now adjudicating cases in dedicated courts that have national (Federal) jurisdiction.

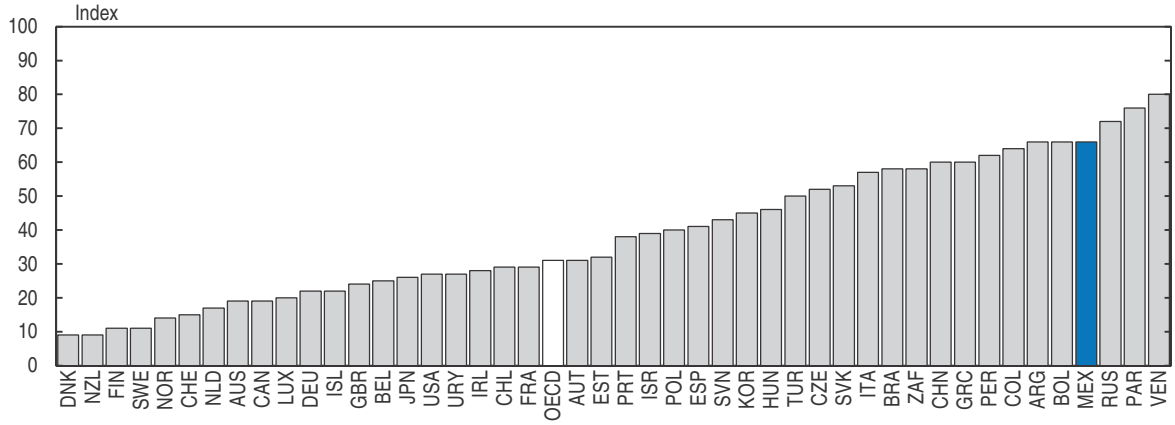
Corruption

The traditionally weak criminal justice system has helped to promote a public sector that is perceived as being highly corrupt (Figure 11). While this is partly because of the inefficiency of a legal system that prosecutes few crimes, it also results from other institutional weaknesses such as the structure of the police force and corruption within the system (see Figure 10, Panel B). Corruption fosters a variety of illegal activities, including non-compliance with tax laws and regulatory obligations. Recent OECD evidence shows that the degree of public sector corruption in Mexican states is causally linked to the size of the informal sector, which in turn has a strongly negative effect on productivity, particularly in more productive sectors (Dougherty and Escobar, 2014). Making it easier for informal firms to join the formal sector is an important way to deter corrupt behaviour, such as what is done in the new programmes in the recent fiscal reform (see the Annex for more details).

Given high crime rates in many states, which directly reduce well-being and deter investment, an important priority of the government has been to improve security. Further professionalisation of police forces at all levels has been needed for some time, along with better co-ordination amongst them (OECD-IMCO, 2013; OECD, 2013a). The administration initially focused on augmenting these forces by recruiting and training a rapid-reaction

Figure 11. **Mexico's public sector is perceived as corrupt**

Index, 0 (very clean) to 100 (very corrupt)



Note: The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be.
Source: Transparency International (2014).

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"Gendarmerie" force of highly trained Federal police, similar to those in France, Spain, Chile and elsewhere. It will start with 5 000 members, expanding to 16 000 by 2018. This compares to the existing 36 000 member federal police force. Security co-ordination and training is now being improved amongst federal, state and local governments, though the scale and pervasiveness of organised crime is a major challenge. The military still plays an important backup role in addressing security challenges in problem areas.

To promote clean government, a new anti-corruption authority is being set up that will be responsible for preventing, investigating and handing down administrative sanctions for graft-related offenses. However, the Senate still needs to pass the enabling legislation. Branches of the watchdog will be set up in all of Mexico's states. The administrative sanctions that can be handed down against corrupt officials include removal and disqualification from office and fines. The authority will also work closely with prosecutors in the event of criminal offenses and can recommend precautionary measures such as pre-trial detention and the freezing of assets.

More broadly, a new Federal law – which States are required to implement by 2018 – will allow senators, deputies, mayors and local lawmakers to serve consecutive terms (the President is not included). These new rules should strengthen the incentives of local governments to provide higher quality services, and are complemented by laws requiring greater transparency of government finances. These rules should be adopted by states in order to promote stronger incentives for good governance.

Land reform

Agriculture remains an area in need of fundamental reform. Although it employs over 13% of the workforce, it accounts for only 3% of GDP. An important part of boosting productivity is for Mexico to further promote labour reallocation from low to high productivity sectors. Barriers to reallocation have meant that labour resources are misallocated, reducing productivity growth (Padilla-Pérez and Villarreal, 2014). Complexities in transferring land titles for communal land plots, called *ejidos*, which cover half of Mexican territory, have been a major obstacle. The property rights arrangements for this land promote small scale farming, limiting economies of scale. Evidence suggests that the transfer of land to private hands can alter the incentives for investment and thus boost agricultural productivity substantially (Castañeda Dower and Pfutze, 2013). While a constitutional amendment in 1992 allowed these plots to be transferred, only 2.5% of the land entered into the private domain over two decades (Dell, 2012). Political factors and administrative complexity have tended to limit administrations from pursuing such land transfers more aggressively. A significant simplification of the land certification and transfer process is now needed to ensure more productive use.

More broadly, agricultural subsidies need to be reconsidered. While the overall level of producer support is low in Mexico, it is heavily skewed towards input and production-linked support, and tends to benefit the richest farmers, thus being regressive. The announcement in late 2013 to move from subsidies to "productive" incentives is welcome, as is the intention to differentiate subsistence and commercial agriculture. Programmes to offer collective financing for smaller famers could also be further strengthened. At the same time, it will be important to phase out subsidies for water pumping and fuel and consider direct rural income support, if needed, as an alternative.

Recommendations to boost growth and reduce informality

Main recommendations

- Focus on fully implementing the reform package with close monitoring at a high political level, and strengthen administrative capacity and governance quality at all levels of government.
- Reform justice institutions, strengthen the rule of law, address security issues and reduce widespread corruption with reforms centred on the efficiency of judicial resolution of civil, commercial and criminal matters, and a strengthening of the transparency of public procurement.
- Improve and simplify the existing stock and quality of regulation at the local, state and national levels.
- Phase out restrictions on agricultural land ownership and transfer, while strengthening rural income support and access to finance.

Additional recommendations

- Promote high-tech industrial clusters with linkages to universities and early-stage investment vehicles.
- Address conditionality rules in the telecom reform that makes market access conditional on reciprocity.

Environment

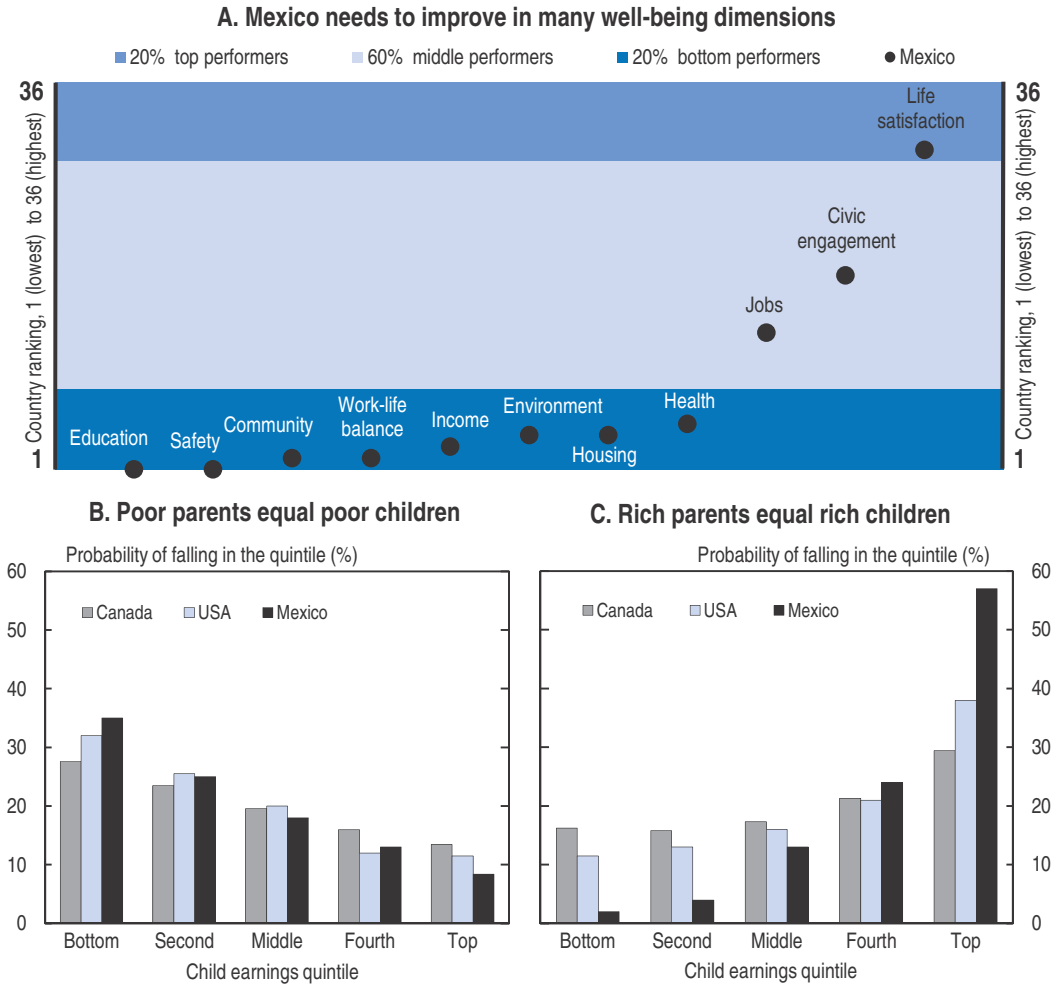
- The new carbon tax should be evaluated given to determine the effective tax rate, and raised if deemed insufficient.
- Pass the pending renewables energy bill, and take further steps to fully implement the renewables target of 35% by 2024.
- Stay on track in the phase-out of the gasoline subsidy, such that gasoline prices are fully liberalised by 2018.

Sharing the fruits of growth

The administration introduced major structural reforms that go beyond macroeconomic variables and seek to improve the quality of life of the Mexican people. This is a key step forward, as during recent years, and despite increasing efforts on poverty alleviation through social programs such as *Oportunidades*, weak growth, pervasive informality and high income inequality have held back well-being in Mexico (Figure 12, Panel A). In particular, Mexico needs to enhance efforts to improve in areas such as education, safety, housing, work-life balance and health, as well as reduce gender gaps. Poor quality education and health have a negative impact on people's productivity, affecting their employability. In turn, this induces informality, which means poor job quality – affecting work-life balance and the time parents can spend nurturing their children, with a negative effect on their future prospects – and lower fiscal revenues, which affects the state's capacity to provide high-quality public goods like health and education. These factors help explain why intergenerational mobility is relatively low in Mexico, causing large inequalities to persist in time (Figure 12, Panels B and C).

The tax reform passed in 2013 is expected by the administration to increase general government revenues from 21.6% in 2013 to 24% of GDP in 2018. This should make headway in reducing inequality, as more than half of the revenue increase will come from

Figure 12. **Well-being and social mobility are low in Mexico**



Note: Data for panel A include Brazil, Russia and the 34 OECD countries. Panel B shows the distribution of earnings of children whose parents' earnings are in the bottom income distribution. Panel C shows the distribution of earnings of children whose parents' earnings are in the top income distribution.

Source: OECD, *How's Life? Measuring Well-being* (2014); and Olaberria (2014b).

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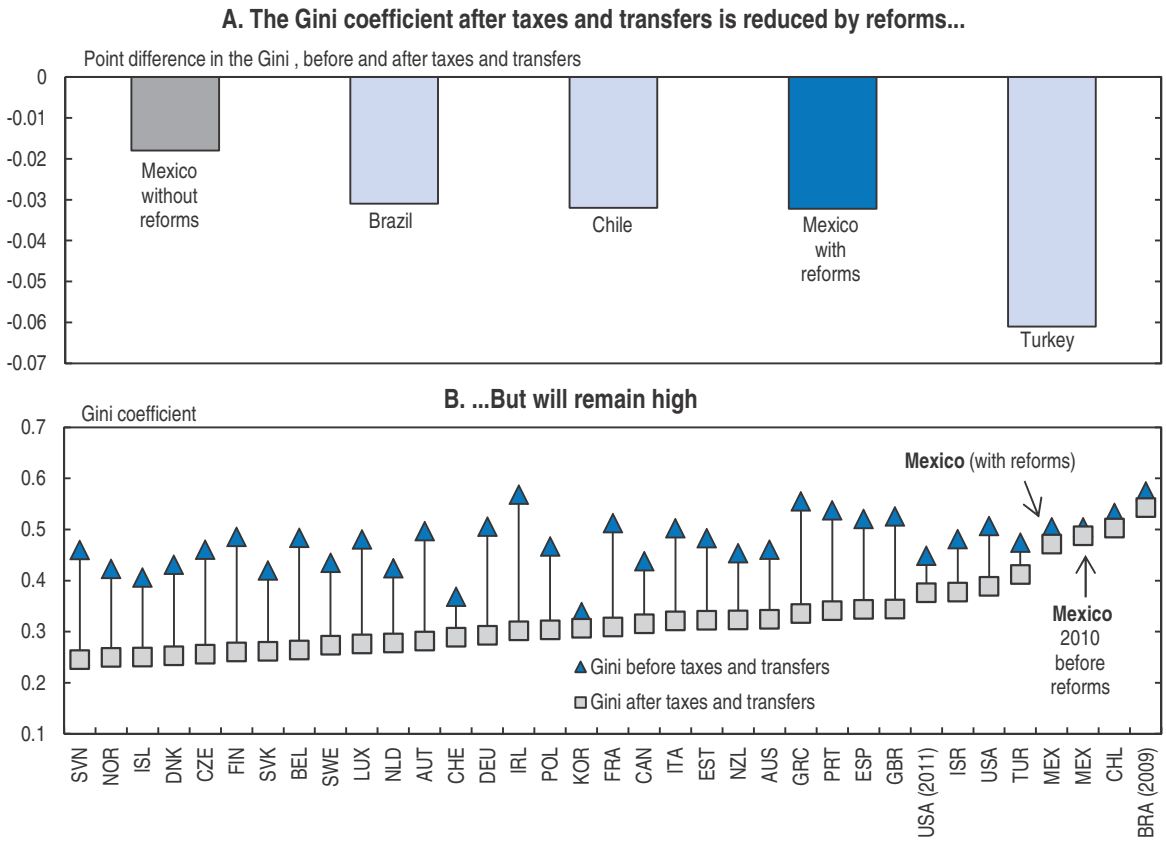
higher taxes on the richest 10% of the population. Before this reform, Mexico was the OECD country where the tax and transfer system was doing the least to reduce income inequality: the Gini coefficient before and after taxes and transfers was almost identical. With this reform, the Gini coefficient after taxes and transfers is moving in the right direction (Figure 13, Panel A); however, income inequality will remain above OECD averages (Panel B), and further reforms will be needed in the future. Part of the issue is continuing to strengthen tax rules to avoid evasion and non-compliance, combined with stricter enforcement measures.

The large inequalities in terms of income, as well as in terms of access to education, hinder growth (Causa et al., 2014) and translate into differences in life satisfaction across socioeconomic groups. In Mexico, the perception of life satisfaction is associated with the level of income and level of education (Figure 14).

Figure 13. **Tax policy should do more to reduce inequality and poverty**



Note: Data refer to 2011. For panel B, 2012 for Australia, Finland, Hungary, Korea, Mexico, the Netherlands and the United States. 2010 for Belgium.

Source: OECD, Income and Poverty Database; Mexico Ministry of Finance (SHPC); *Commitment to Equity* (for Mexico and Brazil).

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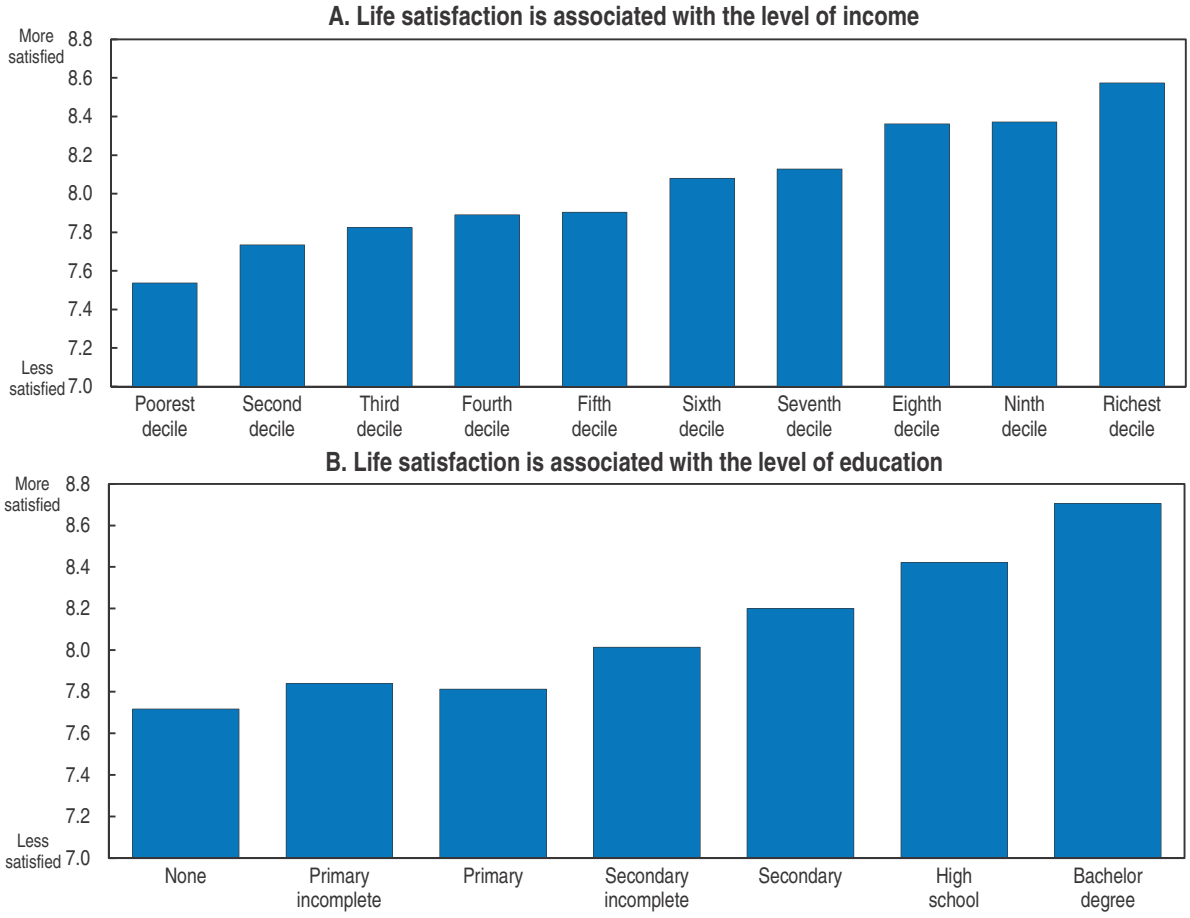
Income protection

Mexican households, in particular families living in poverty, have only limited protection from economic adversity. Hence, income and consumption at the lowest levels of the income distribution are more volatile and follow closely overall macroeconomic trends, increasing in good times and decreasing in bad ones (Figure 15). For example, in the four years 2007-10, real household disposable income fell by more than 5%, one of the largest declines among OECD countries. Although mean and median household disposable income have risen since 2010, average household disposable income per capita, including in-kind transfers (USD 12 850 a year at PPP) remains the lowest among OECD countries, and there are wide disparities across the population.

Increasing income protection is therefore an important priority. For this purpose, the government has started to overhaul several social programmes. Among these is the "National Crusade Against Hunger" (*Cruzada Nacional Contra el Hambre*), which seeks to help 7 million people in hunger by pooling human and financial resources from various programs at the federal, state and municipal levels. Although severe undernourishment is not a major problem in Mexico, this programme could lift people out of poverty, reduce infant mortality and improve inclusion.

Figure 14. **Inequality affects life satisfaction**

Life satisfaction level ranges from 0 (No satisfaction) to 10 (Totally satisfied)



Source: INEGI, *Módulo de Bienestar Autorreportado* (BIARE), 2012.

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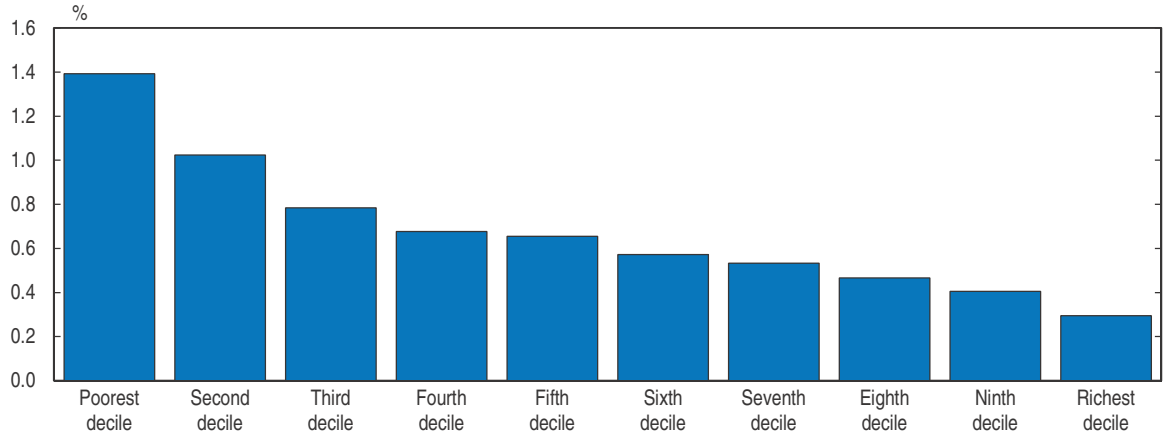
Figure 15. **The poor have very volatile income**

Variance of real per capita income, 2004-12 (annual)



Note: Real per capita income is per capita income in current prices deflated by CPI.

Source: OECD, Income Distribution Database; CEDLAS and the World Bank.

How to read this figure: The figure shows that the variance of real per capita income is higher for households with low average real per capita incomes than for households with high average real per capita incomes.

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Mexico has one of the highest old-age poverty rates in the OECD. Approximately 66% of those more than 65 years old (8.6 million Mexicans) do not have access to a pension and 4 million live in poverty. To provide income protection to the elderly, the administration has recently proposed the Universal Pension Act. This programme will ensure that all Mexicans over 65 years old not entitled to receive a pension benefit will be eligible for a minimum pension from the federal government.

To help workers who lose their job in the formal sector to smooth consumption and support their job search, the administration has proposed unemployment insurance. This will guarantee a 6 months benefit to all workers who lose their job in the formal sector, and who have contributed in at least 24 out of the last 36 months. The worker will have an account that can be used for housing, pension or unemployment insurance. To complement this, there will be a Solidarity Fund, funded with a federal government contribution of 0.5% of the workers basic wage that will guarantee a minimum wage for 6 months.

With the introduction of the Unemployment Insurance and the Universal Pension System, Mexico will move towards a universal social security system, independent of employment status. These reforms are key priorities to reduce poverty and inequalities; they should be approved by Congress and implemented with urgency.

Oportunidades – the conditional cash transfer programme that began in 2002 – has decreased poverty, encouraged educational attainment and helped to cushion income during economic downturns (CONEVAL, 2012). Despite a budget increase of 126% in real terms between 2006 and 2012, the poverty rate rose from 42.9% to 52.3% over the same period, reflecting mainly the social effects of the recession. The administration has announced that it will be replaced by a new programme, *Prospera*. Under this new programme, all beneficiaries will continue to receive the support they have had so far, but this will be complemented by new tools to help them improve their productive potential. Specifically, children can now receive scholarships for college or technical college; and those looking for a job have priority in the National Employment Service. Furthermore, *Prospera* will facilitate access to financial education, savings, insurance and credit; it will also allow families to strengthen their own income by having priority access to 15 productive programmes. The fact that *Prospera* will complement the conditional transfers of *Oportunidades* with active labour market-policies is also a positive step forward.

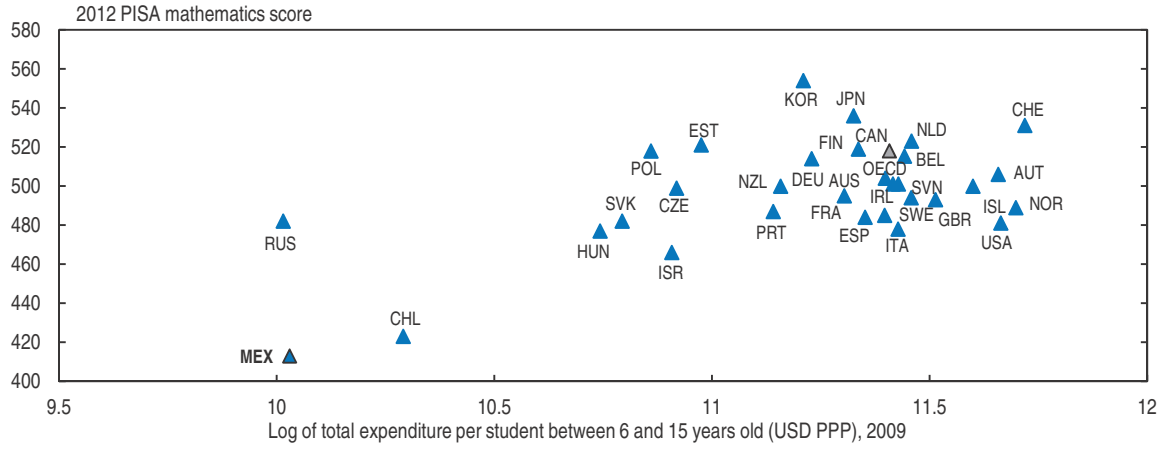
Mexico's social reforms are estimated to increase public spending by a limited amount, which will be funded. The pension reform will increase annual federal expenditure by 0.3% of GDP during the period 2014-18 and remain below 1% of GDP over the longer term, while the unemployment insurance scheme will have a more limited impact of 0.05% of GDP. Other steps such as the redesign of the conditional cash transfer, anti-hunger measures, and enhanced education efficiency do not imply significant costs under current plans. Additional spending is expected to be met by the proceeds of the tax reform.

Education

Improving educational outcomes of all Mexicans would be the most powerful tool to promote inclusive growth. Despite important improvements during the last decade, educational spending efficiency and academic achievement in Mexico are the lowest among OECD countries (Figure 16). Furthermore, access to a good education is linked to socio-economic status of the family. To address this challenge the administration has

Figure 16. **PISA mathematics score and spending per student**

In equivalent USD converted using PPPs for GDP, by level of education



Source: OECD, *Education at a Glance* (2013); *PISA 2012 Results: What Students Know and Can Do, Volume I* (2013).

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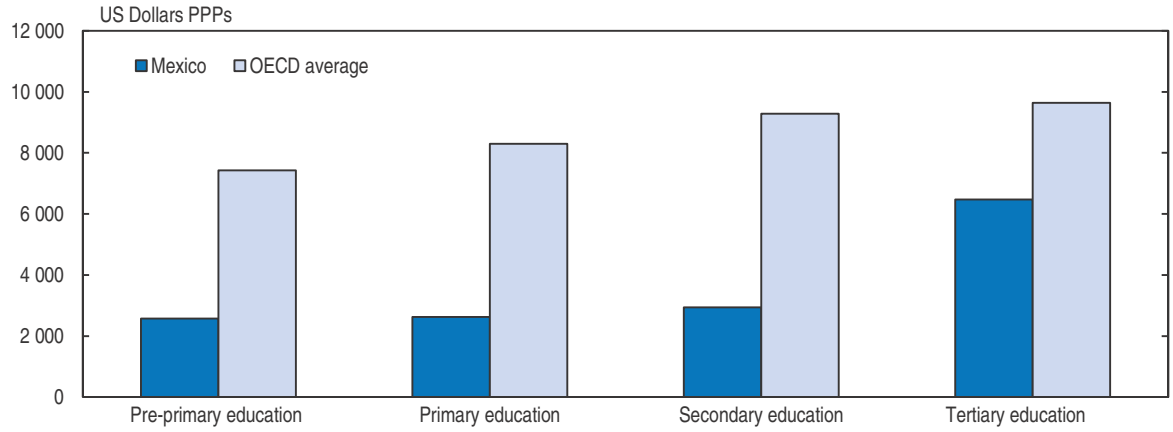
introduced important reforms. The amendments to the Mexican Constitution in 2013 established commitments that materialised in a series of legislative reforms: the General Education Act, a new professional teaching service law, and the Law of the National Institute for Educational Evaluation that will improve the quality of the teaching profession. For instance, these reforms tackle one of the most challenging factors to help improve educational outcomes: that Mexico's teaching profession needed to be stronger and better managed, and the best teachers should teach in the most difficult environments. In the short term, the education reform will allow the central government to better control the teachers' payroll which until now had been opaquely handled by state governments. The objective is that the central government verifies the identity and occupation of each individual that is included in the payroll, to reduce the amount of expenditure devoted to union or other administrative personnel that do not directly contribute to the education of the next generation. Moreover, this exercise will serve to reduce possible risks of corruption. These reforms are only the beginning of a broader and deeper transformation of the educational system, which will require expanded support for pre-primary, primary and secondary education and improving the returns of investing education, motivating kids to remain in school.

As a share of GDP, public spending on education is around the OECD average, but spending per student is only onethird of OECD average at all levels; most of the spending goes to the salaries of teachers, without a performance element, and not enough to infrastructure. Moreover, Mexico spends four times as much on university students (Scott, 2009), than on pre-primary, primary and secondary students (Figure 17). This is not only regressive, but also inefficient since returns to education are significantly higher at early pre-primary and primary levels, which therefore deserved increased focus (Heckman, 2006).

Mexico has one of the highest secondary school dropout rates (almost 50%) in Latin America. Secondary school graduation rates are relatively low, especially for low-income groups (Figure 18). If students are not motivated to stay in school, it is unlikely that they will benefit from the better standards achieved by the educational reform. The reasons behind high drop-out rates are numerous and complex, but it is striking that the majority of students who drop out express a lack of interest in schooling. Participation

Figure 17. **Spending per student in pre-primary, primary and secondary education is low relative to the OECD average**



Note: Spending in tertiary education excludes spending on R&D.
Source: OECD, Education at a Glance (2014).

How to read this figure: The graph shows that expenditure on education per student is low in Mexico relative to the OECD average at every level of education, but particularly in pre-primary, primary and secondary levels.

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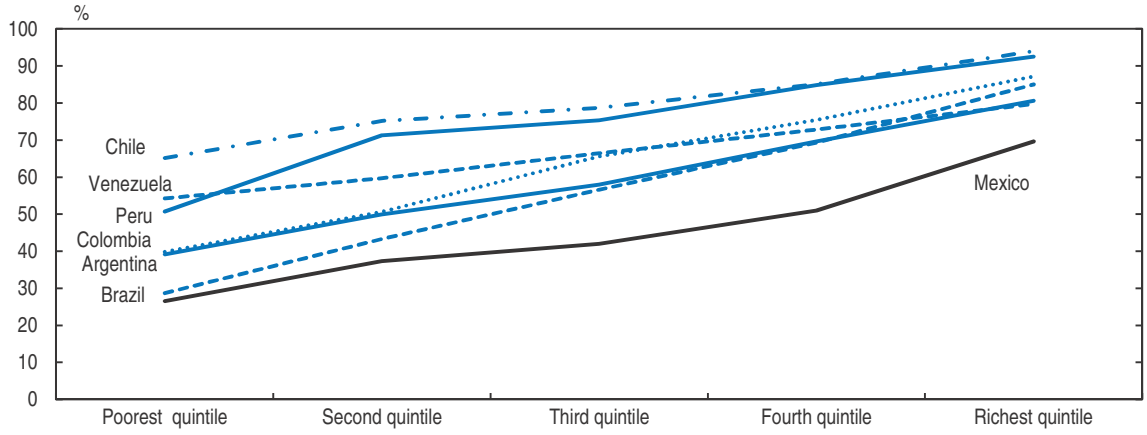
Figure 18. **High-school graduation rates in Latin America by quintile of income distribution**



Source: Inter-American Development Bank.

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rates of disadvantaged students could be raised through better career guidance and counselling services and by the provision of education opportunities that are more relevant to the labour market.

For instance, to make upper secondary education more appealing to students, the transition from school to work should be a priority. One way to prepare students for the labour market is through vocational education and training (VET) and work-based programmes (OECD, 2010). In Mexico, the VET system provides learning opportunities in remote regions and support for students at risk. To improve the system, Mexico reformed the technological baccalaureate and created trainee grants. Vocational education and training (VET) has a key economic function in up-skilling and integrating young people into the labour market and in providing high-quality technical skills. But Mexico should

enhance efforts to expand the VET sector as it remains among the smallest in the OECD area. There are different possible pathways for Mexico to improve the VET sector. For example, the government could establish 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. It could also provide pedagogical training to VET teachers before they start teaching and develop the capacity to analyse and use data on labour market needs to guide the design of policies and improve decision making.

Empirical evidence shows that early childhood care support can also help reduce secondary school dropout rates, improve student performance and reduce gaps in learning achievement generated by different social backgrounds (Heckman, 2013; OECD, 2011a). Students in Mexico who had attended pre-primary school scored about 40 points higher in PISA 2012 (almost equivalent to a school year) than those who did not. Yet, although Mexico has one of the highest rates of school enrolment among four-year-olds, only 25% of children under the age of three receive care outside the home, which places the country in the bottom of OECD countries in care coverage and services for this population group. More should be done to improve access to quality early childhood education and care. This will not only provide a stronger head start to children from disadvantage families, but also help their mothers in joining the labour force.

Health care

Mexico needs to improve its health outcomes, which affect well-being, educational outcomes, and productivity (Mayer-Foulkes, 2008). The introduction of *Seguro Popular,* a publically-funded universal health insurance programme ten years ago helped improve some measures of health performance, but most health indicators remain worryingly poor, and the system is highly fragmented and inefficient. For instance, life expectancy at 74 years is still six years below the OECD average; infant mortality rates are among the highest in Latin America; mortality from coronary heart disease is increasing even as it is falling in almost every other OECD country; the obesity rate is the second highest in the OECD; and almost one in six adults are diabetic (OECD, 2015b).

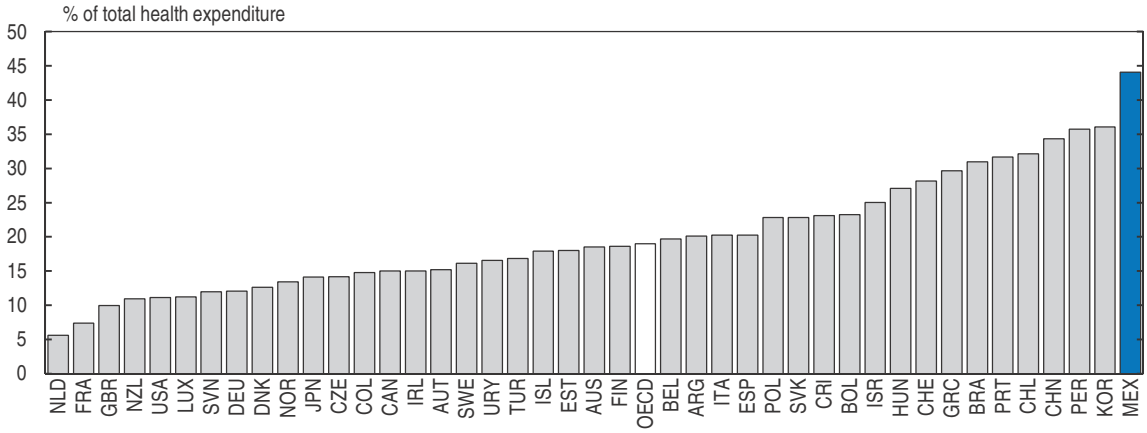
Improving health care calls for more efficiency in health spending. Currently, Mexico's public spending on health is 6.2% of GDP, significantly less than the OECD average of 9.3%. Administrative costs, at 9.2% of total health spending, are the highest in the OECD and have not declined over the past decade. Likewise, out-of-pocket spending is nearly 50% of total health spending – the highest in the OECD (Figure 19). High out-of-pocket spending drives families into poverty, offsetting the beneficial effects of social programs like *Oportunidades* (Lustig, 2007).

Health care is currently provided by segmented networks, each employing its own staff, with no synergies and high duplication and entitlements are determined by employment status. The largest providers are *Instituto Mexicano de Seguridad Social* (IMSS), for people in formal employment, and *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (ISSSTE), for civil service employees. *Seguro Popular* covers remaining families, thus helping to achieve complete coverage of the population.

However, full coverage does not translate into equality of access. For instance, the number of specialist out-patient consultations per 1 000 enrolees is 47 for *Seguro Popular*, compared to 101 for IMSS; and the number of prescriptions that cannot be dispensed by a

Figure 19. **Out-of-pocket payments are the highest in the OECD**

As a percentage of total health expenditure, 2012



Note: The figure shows data that is comparable across countries. However, according to IMSS, these figures underestimate Mexico's health expenditure as a share of GDP (which should be 8.6% according to IMSS), and over-estimates the out-of-pocket payments as a share of total health expenditure (which should be 37% according to IMSS). This is because public institutions, such as IMSS, can buy medicines at lower prices. Once the prices paid by the private sector are considered, public health expenditure increases and therefore, out-of-pocket spending, as a share of total health expenditure, is lower.

Source: WHO Global Health Expenditure database.

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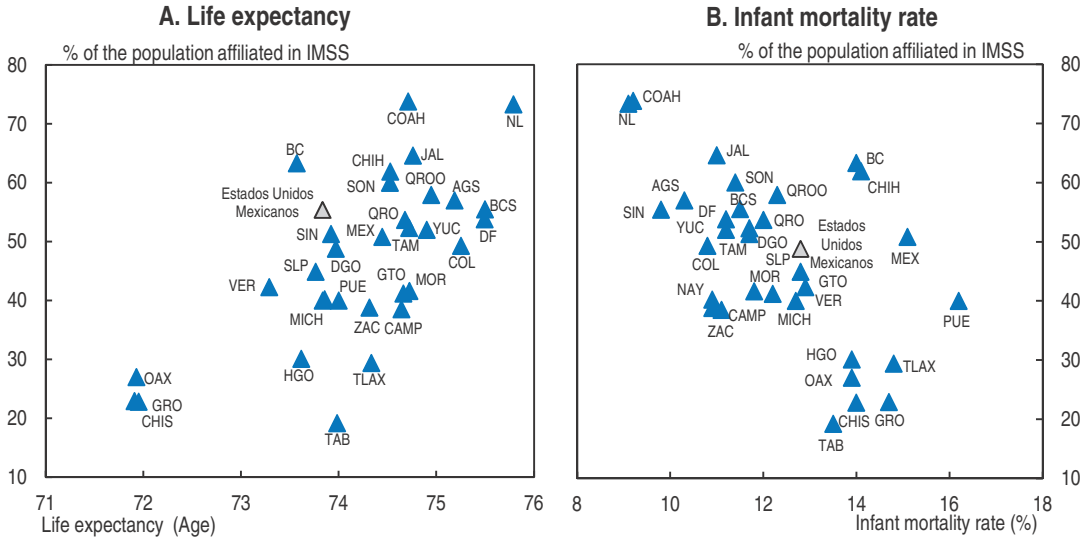
pharmacist due to lack of stock is 33% for *Seguro Popular*, compared to only 3.6% for IMSS. As a result, there are large differences in health outcomes between IMSS affiliates and the rest (Figure 20). Furthermore, since treatment for some common and devastating illnesses are excluded from *Seguro Popular,* its affiliates' out-of-pocket spending on medications and diagnostics is 456 Mexican pesos per consultation, compared to 114 pesos within IMSS. That the poor spend a much higher proportion of their income on health care than the rich highlights the urgent need for reform.

Figure 20. **Health outcomes and affiliation to IMSS**



Source: IMSS and INEGI, Censos de Población y Vivienda, 2010.

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Building a "National Universal Health System" to ensure effective access to high quality health care to all people regardless of employment status should be a top priority. The *Pacto por México* recognised this and committed to a system where quality and access are equal across all providers and where individuals can choose freely between them. However, effective action has been delayed by differences of opinions on how to effectively increase access to health. While a comprehensive reform of the Mexican health system should involve the full co-ordination of the existing sub-systems, such a reform would likely face resistance due to concerns about the perverse effects that it could create between institutions. Therefore, it is important first to identify reforms that, without involving the elimination or merger of the institutions in place, have desirable features such as encouraging all people to have health insurance, providing equity of access to quality health care, and facilitating portability.

A good place to start given the current configuration of the system is through standardisation of procedures, improved quality and reduced costs of services across all institutions and having institutions interchange these services to increase effective access. Moreover, Mexico should move away from the current configuration of disconnected insurer/provider conglomerates, which cover distinct groups and offer different levels of care for different costs and different outcomes, towards a system where access is determined by need, not by employment status, and individuals have some degree of choice over insurer and provider, driving efficiency and continuously improving quality.

Such reforms should help to reduce administrative costs, making the system more financially sustainable. However, other measures could also contribute to improved revenues:

- Make enrolment in social security mandatory for all self-employed workers, which may require a change in the legal framework. So far, enrolment in IMSS is voluntary for these workers, and as a result many self-employed workers choose to affiliate only once they need insurance, imposing high costs in the system.
- Strengthen enforcement mechanisms, notably through better coordination with the tax collection agency. Registered firms under-report wages to the social security administration to evade payroll taxes (Kumler et al., 2013), and over-report wages to the tax authorities to obtain deductions. Current legislation allows firms to do this as the Social Security Act (the law that defines payroll taxes) and the income tax law allows the basis for wage compensations to be different. A bill that has been approved by the House of Deputies and is currently waiting to be voted on in the Senate amalgamates the basis for wage compensations in both of these laws, which would solve this problem and pave the way for the social security and the tax collection agencies to share information and enforce compliance.
- Redesign *Seguro Popular* to improve efficiency and fiscal sustainability. Allocation of funds to health care services should be determined according to price, quality or optimal distribution of service provision, not by rigid institutional relations as it is today. Financial allocations to State Health Service (*Servicios Estatales de Salud*) from federal revenues should be determined according to need, and not on historical precedents, and give more flexibility to the states to determine their own mechanisms to ensure that funds are spent to best meet local health care needs, promoting productivity and quality. Furthermore, for the high cost diseases, resources should go directly to providers avoiding state intermediation as is currently the case.

- To boost health service delivery and reduce administrative costs, Mexico should consider converting government hospitals into corporate entities, while meeting certain standards determined by the central administration. The majority of public hospitals, owned and operated by the states, have little autonomy, usually limited to the purchase of supplies. Evidence for Latin American countries (including Mexico) suggests that hospitals with corporate status tend to have better facility and equipment maintenance, more availability of medicines and auxiliary services, greater administrative and labour efficiency, and superior clinical quality, including at the level of nursing training (Bogue et al., 2007).

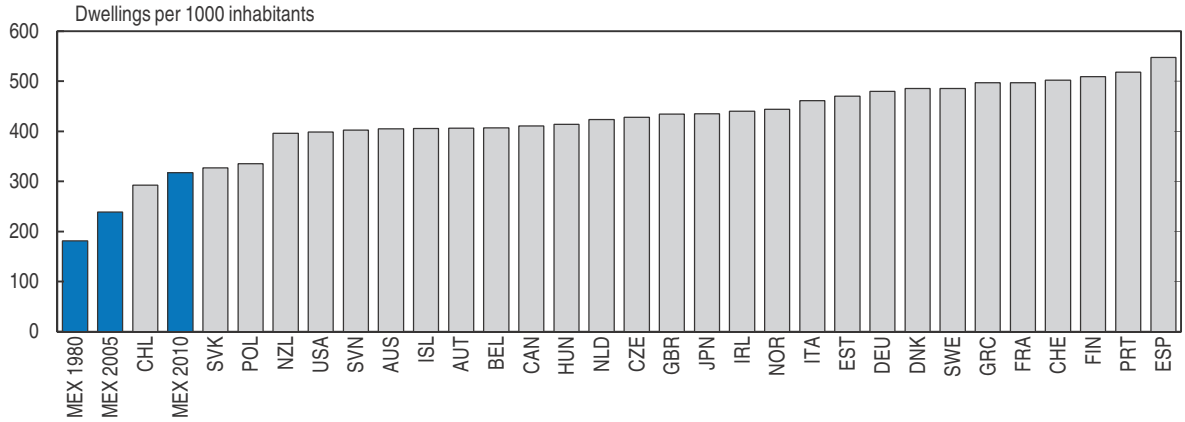
Housing and urban policies

Given that neighbourhoods have a major impact on the socio-economic outcomes of their residents, housing and urban policies should be thought jointly and as an integral part of the national plan to boost productivity and improve inclusiveness. Despite the country's rapid urbanisation – one of the fastest in the OECD (OECD, 2015c) – Mexico has until very recently lacked public policies to guide urban development, focusing instead on housing policy and, specifically, the expansion of housing finance. This approach has been relatively successful in facilitating housing access to an increasing share of the population (Figure 21).

However, this has come with high qualitative costs for urban development, contributing to rapidly sprawling cities, with housing located far from jobs and urban centres, and lacking basic infrastructure (e.g. water) and transport connections. The quantitative focus of housing development is one of several factors that has contributed to Mexico having one of the highest vacancy rates across the OECD (14%), a problem that persists in both inner-city and peripheral neighbourhoods. At the same time, these housing policies have contributed to increasing geographical segregation by socioeconomic status (Sánchez Peña, 2012), which can have negative effects on the well-being of the disadvantaged by affecting their health, educational achievements, work-life balance and personal security (Leigh and Wolfers, 2001).

Figure 21. **Mexico has been effective in facilitating access to housing**

Number of dwellings per 1 000 inhabitants (1980, 2005, 2010)



1. 1981 for Australia and Greece; 1982 for France; 1986 for Germany; 1988 for Finland; 1989 for Portugal and 1990 for Italy; 1982 for Chile.
2. 2001 for Belgium, Czech Republic and Greece; 2002 for the Russian Federation; 2003 for Australia and Italy; 2004 for France and Switzerland; 2002 for Chile; 2005 and 2010 for Mexico.

Source: INEGI (1980), Censo General de Población y Vivienda; INEGI (2005) Conteo de Poblacion y Vivienda.

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In 2013, the federal government proposed a new vision for housing and urban policy, seeking to reduce the needs for adequate housing that still affects many Mexican households and to address the inefficient development patterns of recent decades. This new approach to housing and urban policy differs from those of the recent past in shifting from quantitative objectives for housing to a more explicit qualitative focus on housing and the urban environment. The creation, in 2013, of a single ministry tasked with housing and urban policy (the Ministry of Agrarian, Territorial and Urban Development, SEDATU) was an important step toward more a co-ordinated response to the country's urban challenges. These proposed reforms are a step in the right direction, but the consistency of housing policies needs to be reviewed.

Housing policies have mainly relied on the provision of subsidies and mortgages at below-market-rates to meet the needs of low-income households. In fact, Mexico has been one of the few OECD countries, along Italy and Spain, where social housing policy has relied exclusively on offering assistance for home ownership, rather than renting. Heavy reliance on home ownership is inefficient because, in many states, it is financially more advantageous to rent than purchase a home (OECD, 2015a). Moreover, rental housing may be the most efficient and cost-effective way to reduce the curb urban sprawl, because rental residences are often more densely developed and located in city centres (Blanco et al., 2014).

Priorities for housing and urban policy should include reforms to housing finance, co-ordination of housing and infrastructure investments, diversification of the housing stock (tenure and type) and tools to address the large share of vacant and abandoned homes. Moreover, there is a need to create new tools – beyond subsidies and subsidised mortgages – in order to generate different urban outcomes. Fiscal, legislative and institutional reforms to bolster the capacity of municipalities to manage urban development are needed.

Recommendations to share the fruits of growth

Main recommendations

- Improve the equity and efficiency of education spending by refocusing such spending on pre-primary, primary and secondary education. Concentrate on improving the quality of teaching.
- Encourage more women to join the formal labour force by improving access to quality child-care for children under three years of age and extending active labour market policies.
- Promote access to quality health care through improved coordination across health institutions to reduce redundancies; in particular, promote exchange of services between health care networks.
- Approve draft legislation for unemployment insurance and universal pensions to protect job seekers and elderly people against the risk of income losses, and reduce inequality.
- Fully roll-out the new *Prospera* cash transfer programme to help beneficiaries expand their capabilities, complete their education, join the formal sector and obtain well-paid jobs.

Recommendations to share the fruits of growth *(cont.)*

Additional recommendations

- Enhance investment in dual education and vocational education and training programmes.
- To improve quality and reduce costs of services across all health care providers, standardise procedures and make health insurance mandatory.
- Allocate financial resources to state health services according to need and give more flexibility to the states to determine how to spend them.
- Consider converting government hospitals into corporate entities.
- Develop a coherent national urban policy that takes into account the broader impacts of housing development on the urban environment and people's well-being.

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ANNEX

Follow-up to previous OECD policy recommendations

This annex reviews recent actions taken on recommendations made in previous Surveys. Recommendations made in the May 2011 and May 2013 Surveys are referenced with the relevant year. Recommendations that are new in this Survey are listed in the main text.

Macroeconomic and financial stability

Recommendations in previous Surveys	Actions taken
Further strengthen **competition** in the **banking sector** to support healthy development of capital markets, but with special consideration of financial stability issues (2013).	As part of the broad agenda of structural reforms in Mexico, a financial reform was enacted in January 2014. The reform gave new powers to the Mexican financial authorities in order to improve access and reduce the cost of credit, especially for SMEs, by encouraging competition in the banking sector and strengthening the macro prudential framework.
Strengthen autonomy on budget and staffing matters of the key financial sector **agencies,** give legal status to the Financial Stability Council and widen the toolkit for **macroprudential intervention** to ensure effective and efficient achievement of macroprudential objectives (2013).	In January 2014, various articles from the Credit Institutions Law were amended, vesting the Banking and Securities Commission (CNBV) with new powers to increase its supervision and regulation including the authority to impose capital surcharges for systemic risk. Moreover, as part of the financial reform, the existing body committed to financial system-wide monitoring (Mexican Financial System Stability Council) was instituted in Law; it previously existed by means of a Presidential Decree.
Introduce **counter-cyclical capital ratios** as planned (2011).	The financial reform allowed the strengthening of counter-cyclical capital buffers, as well as capital surcharges for systemic risk management. These actions complement the existing minimum capital requirement which complies and exceeds the minimum requirement established in Basel III.
Make the temporary **lifting of the limits** on accumulated assets in the oil stabilization funds permanent (2011).	The Energy Reform modified the rules that govern the oil stabilization funds, and created a new stabilization Fund, the Mexican Oil Fund for Stabilization and Development (MOFSD). This new fund will not be caped, will receive all oil and gas revenues and will save excess revenues (i.e. oil revenues above 4.7% of GDP) in a long term savings account. The MOFSD will also allocate resources to the current stabilisation funds (FEIP and FEIEF) until they reach a new limit that is expected to substantially increase and strengthen Mexico´s position against short term variations in public revenues. So, while the limits for the current stabilisation funds remain in line with their short-term, cash-management function, there will be a new unlimited mechanism that will channel excess revenues to long-term savings.
Continue to **increase international** reserves through rules-based mechanism as planned (2011).	Mexico has been recognised for its macroeconomic risks management strategy. As part of this strategy, Mexico has robust indicators of liquidity and has continued increasing its international reserves which are now at historic maximums. International reserves increased from 164 billion USD in December 2012 to 191 billion USD in mid-August 2014. Also, in order to strengthen macroeconomic stability, Mexico has in place a Flexible Credit Line with the International Monetary Fund in an amount of approximately 73 billion USD.
Continue retreating from exceptional state-directed lending through **development banks** (2011).	The Financial Reform's main objective is to reduce costs and promote efficiencies in credit origination mainly for SMEs, as well as to provide a new mandate for Development Banks, in order to foster financial market development and financial inclusion. The major National Development Banks' medium term plans (2014-18) define their objectives and strategies to complement commercial banks' lending, with adequate risk sharing. This will allow an increase in credit growth, in particular in areas that are not fully covered by commercial banks like infrastructure and SMEs, by expanding direct and indirect credit by almost 45 billion dollars by 2018.

Simplifying business regulation and strengthening business competition

Recommendations in previous Surveys	Actions taken
Promote **regulatory reform** and **remove** entry **barriers** at all levels, particularly at the subnational level, building on progress at the federal level. Create a high-level interagency body focused on **productivity** that can study and advocate for structural reform (2013).	The Federal Commission for Regulatory Improvement (COFEMER) signed, and undertakes continues monitoring of, an Agreement with all of Mexico's Federal States in order to promote regulatory reform and remove entry barriers especially at the subnational level. The agreement includes a Common Agenda of Regulatory Improvement (containing policies and tools such as State Law improvements, specialized units, Regulatory Impact Assessments, as well as actions to improve the climate for doing business). In this regard, a special government program provides funding to local governments that implement projects associated with these elements. A high-level consultative body – The National Productivity Commission (CNP) – was established in May 2013, and a law was introduced to Congress in October 2014 that would clarify its mandate. The CNP includes Federal Ministries, and the National Science and Technology Council, as well as representatives from the private sector, labour unions, and universities. The CNP contributed to the Administration's Productivity Program, which includes the Government's strategy for raising productivity in an inclusive fashion. More recently, the CNP has identified cross-cutting policy areas (such as labour training and innovation in specific sectors) in which co-ordinated action*s* are deemed crucial for boosting productivity.
Encourage states and municipalities to apply the toolkit to **simplify** subnational regulations. **Co-ordinate regulation** across government levels (2011).	Efforts have been made regarding the simplification of regulations at the state level. The Federal Commission for Regulatory Improvement (COFEMER) and the World Bank signed an Agreement with several subnational governments (e.g. Mexico State and Tabasco) in order to provide technical assistance to identify and eliminate entry barriers to markets and promote free competition in key sectors. The aim is to carry out these Agreements with other subnational governments in the near future. The Agreement will help States perform a diagnostic report containing the main competition barriers identified in priority sectors, as well as reform recommendations. Furthermore, efforts will be made to ensure a competitive environment through the introduction of monitoring indicators which will measure the reforms' impact on competition and regulation simplification.
The institutional design of **COFEMER** should be revised to enhance its legal status and reinforce its impact (2013).	In 2013, Mexico enacted a series of reforms that address, both, directly or indirectly, the lack of competition in strategic markets. In this respect, Congress has approved a constitutional Anti-trust Reform, which among other objectives, gives the Federal Antitrust Commission (COFECE) more autonomy and legal authority to regulate the access to essential inputs. To implement the constitutional reform, in April 2014, Congress approved the new Economic Competition Law. The main elements of the Law include new faculties for the Commission, such as declaring and regulating essential inputs, determining and establishing measures to remove barriers to entry, and compelling the divestiture of assets. The law adds new categories of absolute monopolistic practices and new regulatory measures to prevent and investigate market concentration. Finally, it includes various new special procedures, like initiating investigations and is accompanied by a modification of the Federal Criminal Code to include penalties for monopolistic practices.
Remove barriers to foreign investment in remaining sectors, building on progress with unilateral tariff liberalisation (2013).	The enacted reforms provide greater legal certainty to private investment in the energy, telecommunications and financial sectors. Under the Telecom Reform, greater foreign investment in the sector is allowed (foreign investment limits grew from 49% to up to 100% of total investment), increasing the penetration of fixed telephone lines, mobile telephony, internet and broadband. Additionally, the Energy Reform opens up investment in the nation's energy sector to private sector participation, including foreign investment.

Recommendations in previous Surveys	Actions taken
Promote additional export diversification, including through multilateral and regional trade **agreements** (2011).	Mexico has taken important steps to strengthen and promote the free flow of goods, services and financial resources over the past 25 years. The country has free-trade agreements with 45 countries, and continues to pursue the strengthening of its trade links. Mexico has expanded its foreign trade platform by negotiating access to markets such as Colombia, Chile and Peru through the Pacific Alliance, and Panama with a FTA. Moreover, Mexico is participating in FTA negotiations with the Trans-Pacific Partnership (TPP), Turkey, and Jordan. These actions promote export diversification and strengthen Mexico's integration and competitiveness in global value chains. At the multilateral level, Mexico has kept its pledge to promote the strengthening of the multilateral trading system by contributing to the signing of the WTO Bali Agreement, made on December 2013, aimed at furthering the Doha round negotiations.
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 (2011).	In the current administration, the Mexican aviation authority has been working to maximize the use of airport slots by switching to an allocation system based on the real performance of each airline's operations during the previous season (similar to the 'use it or leave it' rule). Moreover, there is work in progress aimed at changing the slot allocation rules in congested airports, particularly in Mexico City. This project is based on the Worldwide Slot Guidelines of the International Air Transport Association, which are applied in several congested airports in Europe and North America. More broadly, all Air Services Agreements are under review in order to ease administrative requirements and to provide more flexibility and opportunities to airlines' operations.
Co-operate with subnational governments to interconnect the federal one-stop shop with state and municipal internet portals for **business start-ups** (2011).	A National Digital Strategy is currently underway in order to promote the digitalisation of procedures and public services nationwide through a one-stop website "one-stop shop". The main priority is the digitization of paperwork involved with starting a business through the provision of Government Digital Services, from any device, time and place. This digital platform will consolidate procedures and will have access to databases from all three levels of government (Federal, State and Municipalities) and have both a 24 hour service and support.
Merge local calling areas. Authorise **COFETEL** to regulate **interconnection** ex-ante, declare bottlenecks and essential facilities for all telecommunication sectors and establish non-discriminatory access conditions to these facilities (2011). Allow **unbundled access to essential infrastructure** when it promotes competition provided that this does not undermine investment incentives. Base interconnection tariffs on long-run incremental costs (2011).	A major constitutional reform for telecommunications was introduced in 2013. The reform will increase competition and facilitate access to information and communication technologies at a lower cost, fostering economic efficiency and social welfare. This reform allows for greater foreign investment in the sector, the bidding on two new national television chains and envisions that the transition to digital will be achieved by 2015. New laws on competition, telecommunications and broadcasting were enacted in 2014, which included the creation of a new regulator in telecommunications and broadcasting (IFT), and a new competition authority (COFECE). Both regulators were vested with Constitutional autonomy. In addition, the IFT has authority to sanction anticompetitive conducts and mergers, to impose measures aimed at the elimination of entry barriers, and to regulate access to "essential inputs", among others. A key measure, introduced in the secondary legislation during 2014, is the definition of dominant player, which corresponds to an entity that has more than 50% of the market share in a specific segment of the telecom or broadcasting sector. The law also establishes tighter regulation for any dominant players, including outlawing interconnection fees, and forcing firms to share infrastructure.
Ease restrictions to obtain a license in **intercity bus transport** and ensure non-discriminatory access to essential facilities (2011).	The IFT is currently reviewing and evaluating measures intended to ease such restrictions, and to provide more flexibility to the intercity transport service.

Recommendations in previous Surveys	Actions taken
Implement fully the legal changes to ease access to **banking services** and facilitate banks' access to essential facilities (2011).	The financial reform, published in January 2014, removed unnecessary restrictions which will make credit granting easier while maintaining financial stability. Rules were issued regarding competition and transparency in payment system networks eliminating entry barriers for new participant in the market. As part of the changes, brought about by the financial reform, the Federal Economic Competition Commission was instructed to report competition conditions in the financial sector. The findings were made public in July, 2014 and represent the main issues in which current efforts are being focused. Recommendations include access to ATMs on a non-discriminatory basis, and with charges based on long term incremental costs, as well as to regulate exchange fees for credit and debit cards, in order to foster the use of these payment systems.
Extend the scope of the regulatory review initiative to other regulations with a large impact on **business** productivity. Implement the suggested changes in the regulatory impact assessment (2011).	Mexico has applied Regulatory Impact Assessment (RIA) for over a decade and recently reformed the RIA system in order to extend the scope of the regulatory review, and to align it with OECD's best practices. The Mexican Regulatory Commission (COFEMER) issues opinions based on quality controls on new and existing regulations from Government Ministries and other market regulators. In order to promote a healthy business environment and productivity, a RIA is required for all (Federal-level) regulations that involve compliance costs. The scope of the RIA has been extended, and now reaches regulations ranging from technical norms or guidelines, to legislative decrees and Presidential agreements. COFEMER has been actively seeking to complement regulation with tools and new assessments designed, jointly, with the OECD and 13 APEC countries.
Complete the **judicial reforms** at the **state level** that move towards oral adversarial trials in criminal cases. Empower an executive agency to promote the analogous transition for civil cases (2013).	Progress has been made at the states level in order to carry out reforms to adapt the existing legal systems and create new Laws aligned to the Accusatory Criminal Justice System (or oral-based trial system). Since 2008, a Government Council (SETEC) has been coordinating the implementation of such criminal system at all government levels. At a National level, the implementation of criminal oral trials has positively impacted other legal fields – such as civil, labour and mercantile cases – and has provided a timely and flexible response to public justice demand. Overall this offers greater transparency, trust and legal certainty o the population and the system.
Harmonize the **criminal code** and procedure across **states**. Strengthen the coordination, integration and training of police forces (2013).	Since 2008, States have worked to adapt their Criminal Procedure Codes to the new Accusatory Criminal Justice System. However, in order to speed up the process, on March 2014, a single new National Code of Criminal Procedure was published and will be mandatory to adopt by both the Federation and all States and over two-thirds of all Mexican States have already adopted the Code. Regarding police forces, both the Federal Government and the states continue performing the necessary efforts to establish the co-ordination, integration and training of the police force. This will enable the correct application of legal rules according to the accusatory criminal justice system and they have an emphasis on unconditional respect for human rights. The co-ordination between the prosecutors and the police regarding crime investigation is also being improved.
Set up specialised **economic courts** with qualified judges to address economic regulation issues and support the effectiveness of the Competition Commission (2013).	Progress has been made in the set-up of specialised economic courts. In 2013, two new courts specialised on competition and telecommunications cases, as well as two tribunals in such matters, were established. These are based in Mexico City but have nation-wide jurisdiction. The current judges were elected by the Federal Judiciary Council (FJC) based on their expertise on such matters. Further efforts are currently underway, in a joint work with the Competition Regulator (COFECE), to train specialised judges in telecommunication and competition analysis. Two District Courts and two Collegiate Circuit Courts have been created to handle Broadcasting and Telecommunications issues. In the first half of 2014, these District Courts have handled more than 30 trials directly related to anti-competitive conduct.

Recommendations in previous Surveys	Actions taken
Continue **to reform the amparo appeal** system to reduce the scope for abuse, especially in the tax domain (2013).	The Constitutional reform on competition matters has also provided a new framework for the judicial process in such matters. These changes established that actions from the competition regulator (COFECE) can only be appealed through the "indirect amparo" procedure and that the effects of COFECE's resolution cannot be suspended in-between the final resolution by a specialized court in order to reduce abuse. Unconstitutionality complaints regarding COFECE's resolutions in competition matters are set to be reviewed by Collegiate Circuit Courts and sent to the Supreme Court. Furthermore, in April 2013, the Amparo Law was also reformed in order to include international criteria on human rights and to establish as the main objective and fundamental guideline to enhance human dignity within the adversarial criminal justice system.

Reducing informality and improving labour market dynamism

Recommendations in previous Surveys	Actions taken
To promote **formality**, enhance **efficiency** and **reduce** the overall cost of social security, remove subsidized mortgages, childcare and recreational activities from the mandatory social security package and merge them with equivalent tax-financed programmes (2011). Seek to **reduce informality** through a broad-based package of policies: strengthen education and skills, reduce anti-competitive business regulation, improve the legal environment and tackle corruption (2013).	Several actions have been taken in order to reduce informality, notably through the 2014 "Go Formal" programme. The labour reform will facilitate access to the labour market and will strengthen labour justice enforcement. In addition, improvements have been made in measuring informality and a new Formal Promotion Program was enacted which trains and places workers in formal jobs. Furthermore, as part of the fiscal reform approved in 2013, several fiscal measures were included to increase formality. A new Incorporation Regime, which substitutes the Intermediate Regime and the Small Taxpayer Regime, was approved. The new regime provides an entry point to formality for small and medium enterprises, allowing them to be completely incorporated to the general regime after ten years. The new regime will allow small businesses to gradually comply with their fiscal obligations but will allow them immediate access to the social safety net through a reduction in their social security costs, as well as access to credits. Regarding the efficiency of resources spent in social security, IMSS and other health institutions are currently in the process of simplifying their procedures in order to reduce unnecessary costs.
Further integrate the different **healthcare systems**. Move towards integrated financing of a basic universal healthcare insurance, either through taxes or fees (2011).	The Social Security Institute (IMSS) has promoted and signed several agreements with other healthcare institutions like *Seguro Popular*, State Health Ministries and the public servants social security institute (ISSSTE), allowing for the exchange of services, thus moving towards a more functional and effective integration of the different institutions in the National Healthcare System.
Adopt and implement the proposed labour market reform in full (2011).	The labour reform is being implemented as of December 2012. Its aim is to facilitate access to the labour market and promote formal job creation through new – more flexible – labour contracts which favour women and youth inclusion while promoting training and productivity by allowing employers to find staff with the required skills more easily after a probation period. In line with the International Labour Office (ILO), the concept of "Decent Work" was established, which considers the minimum conditions that every employment relationship must meet. Outsourcing is now regulated in order to ensure compliance with safety, health and social protection standards. An institutional indicator to promote employment of people with disabilities and elders was established in 2013. Furthermore, the use of information technology tools is being used to promote work from home and harsher sanctions of sexual harassment in the workplace are in place. In addition, a paternity leave of five days was established for both birth and adoption cases.
Consider easing procedures to dismiss workers based on poor performance or redundancy (2011).	In order to promote high productivity job creation and to allow a more efficient performance of employer firms, the labour reform introduced new modalities of contracts for workers. Under these, once the probation or training period for a worker finishes (of up to one month for probation and up to three months for initial training), the decision to retain or to dismiss the worker must be taken by the employer; however, the decision must be made considering the advice of a training and productivity commission within that workplace formed by an equal number of worker and employers' representatives.

Recommendations in previous Surveys	Actions taken
Create a cost-effective unemployment insurance scheme and strengthen training programmes to help the unemployed find work (2013).	As part of the fiscal reform, the government proposed the introduction of an Unemployment Insurance for formal workers. However, this measure still requires approval by Congress. This program creates adequate conditions for a successful reintegration of the worker into the labour force, promoting labour market efficiency and productivity. Benefits allow for an appropriate job search that matches worker´s abilities and aspirations with those of firms in case of unemployment, while ensuring the stability of public finances. The policy is currently under discussion by Congress.
Raise labour force participation and employment rates, notably for women (2013).	The Labour Reform introduced changes in order to strengthen female participation in the labour force. Among others, the requirement of marital status or pregnancy tests as criteria for hiring or dismissing workers is now forbidden. Maternity leave was made more flexible by allowing the transfer of up to four of the six prenatal weeks to afterbirth care (and was extended to eight weeks in case the child requires medical attention or was born with a disability). In addition, a six week maternity leave was approved for women adopting a child. These changes are augmented by other social programs within the Federal Government such as *Prospera* and an extension of the network of day care services for working parents.

Education

Recommendations in previous Surveys	Actions taken
Define nation-wide standards for teacher performance as well as accreditation standards for teacher-training institutions to improve initial teacher education. Improve the new teacher licensing examination and open all teacher posts to competition. Professionalise the appointment of directors (2011). Gradually introduce a teacher evaluation system (2011). Professionalize the training and selection of principals to assume greater responsibility for teacher employment and pay (2011). Improve education performance by continuing with the systemic reforms to teacher incentives and school leadership, system funding and curricula, as well as evaluation and assessment strategies (2013).	As part of the structural reform agenda, an education reform was enacted. This reform included a Constitutional amendment and the design of two new regulatory laws. These modifications included the legal framework for the processes of professional development of teachers, principals and supervisors. In this regard, during July 2014, the first teacher evaluations took place in schools in all 32 States of Mexico. The evaluations were developed based on profiles, parameters and indicators proposed by the Federal Education Authority and authorised by the National Institute for Educational Evaluation. As part of the evaluation system, the evaluations included assessments for teachers looking towards a promotion. The profiles and parameters, accepted as benchmarks for performance and good professional practice, are also useful as a reference for initial teacher training. During the first half of 2014, national consultation forums were conducted in order to review the educational model. Derived from these forums, the authorities are redefining the educational model of Mexico's Teacher's Colleges. The new system contemplates the creation of a new Inducement Program for teachers by May 2015, which includes incentives for teachers to improve their performance.
Reallocate resources to provide schools with reliable financing (2011).	The changes in the General Law on Education made with the educational reform include that education authorities must take actions aimed to strengthening the autonomy of management in schools. In this context, during the school year 2014-15, the Federal Government will support the improvement of infrastructure and school management of about 20 000 elementary and secondary schools, through an investment of 7 500 million MXN for the Educational Reform Programme.

Energy policy and environmental protection

Recommendations in previous Surveys	Actions taken
Promote the use of private sector expertise in oil and gas ideally by passing a constitutional amendment allowing risk sharing, or by at a minimum by changing bidding rules and altering contract incentives to attract the participation of qualified partners with the proven capability to exploit opportunities (2013).	On December 2013, the Constitutional Energy Reform was approved by Congress, and the enabling legislation package was approved in August 2014. Among other objectives, the reform opens investment opportunities in the nation's oil sector to private companies, complementing the national oil company, PEMEX. With this reform the Mexican Government will be able to perform exploration and extraction activities of oil and other hydrocarbons through contracts with PEMEX and/or the private sector, through production sharing, profit sharing and license contracts for exploration and production activities

Recommendations in previous Surveys	Actions taken
Improve PEMEX's operational and environmental efficiency, and governance allowing much more reliance on private firms in the oil sector. Similarly, promote energy efficiency in CFE electricity operations, so as to reduce government subsidies and carbon emissions (2013). Further improve the corporate governance, transparency and autonomy of PEMEX. Strengthen the technical oversight role of the National Hydrocarbons Commission (2013).	As a result of the Energy Reform, PEMEX and CFE are now free to use private firms in the oil sector. Furthermore, they have gained efficiency and will have more technical, managerial and budgetary autonomy through a complete transformation of their corporate governance frameworks, which will contribute to a more competitive provision of services.
To ensure that the right price signals are provided, continue to remove fossil/fuel subsidies (2011) and thereafter move towards carbon pricing (2013). Restructure vehicle taxes to take into account environmental performance. Enforce environmental standards to encourage the use of more energy efficient vehicles. Effectively direct public and private investment into infrastructure that fosters mass transportation (2013).	Fossil fuel subsidies are expected to disappear by the end of 2014 and a positive collection of excise tax is planned on fuel from 2015 onwards. Regarding carbon-pricing, in 2013, Congress approved a fiscal reform which included the introduction of two green taxes in order to improve the environment and reduce global warming. An Excise Tax (IEPS) on carbon emissions was approved. The tax is determined depending on the carbon content of fossil fuels. Consistent with the extra-fiscal purpose of this tax, its payment through carbon credits is also allowed. Similarly, the tax on pesticides was approved starting in 2014 and its rate will depend on the level of toxicity of each pesticide.
Shift towards a market-determined gasoline price with a positive excise tax, while using a transitory automatic smoothing mechanism (2013).	The subsidy on gasoline is expected to disappear by the end of 2014 and to have a positive collection of excise tax on fuel from 2015 onwards. A transitory automatic smoothing mechanism for gasoline pricing has been established as follows: From 2015 through 2017, the Ministry of Finance will determine gasoline prices based on inflation and international prices. Beginning in 2018, gasoline prices will be liberalised and determined by market conditions.
Further strengthen energy efficiency and promote development of renewable energy by including social and environmental externalities into CFE's methodology for purchasing electricity at the least-cost price (2013).	Following the approval of the energy reform and its secondary legislation during December 2013 and August 2014, a comprehensive renewables energy bill will be discussed by Congress. These further modifications, alongside the implementation of the energy reform, will contribute to further achieve energy efficient processes and will promote the development and use of renewable energy sources.
Gradually remove electricity subsidies for pumping water for irrigation in agriculture and facilitate investment in water-efficient practices, including through cash transfers independent of water use (2013).	The energy reform has introduced and unprecedented modification to the legal framework in order to increase investment in electricity generation, including that regarding with water-efficient practices.
Raise water service tariffs to reflect operation and maintenance costs of providing services (2013).	A reform to water use tariffs was part of the approved tax reform for 2014. Tariffs were significantly increased and incentives to better use and treat water were introduced.

The fiscal framework

Recommendations in previous Surveys	Actions taken
Move towards a structural fiscal rule to reduce the partial pro-cyclicality of the current framework (2011 2013).	Mexico passed the 2013 reform to the Fiscal Responsibility Law (FRL), which establishes a structural fiscal rule in Mexico. The reform built a stronger, more counter-cyclical rule by adding a current expenditure cap to the previous fiscal rules. The new expenditure cap ensures a return to a balanced budget in the medium term and encourages an improvement in spending quality. These amendments to the FRL represent a significant change in fiscal finances, since they eliminate the deficit bias to which fiscal policy was subject in the past. In addition, the reform to the FRL establishes a new fiscal anchor based on the broadest measure of fiscal balance, namely the Public Sector Borrowing Requirement (PSBR). This will provide greater transparency to fiscal accounts in Mexico and should ensure that public debt will follow a sustainable path in the long term.
National accounts standards should be fully implemented in the budget (2011, 2013).	The Ministry of Finance is currently reviewing and adjusting procedures in order to fully implement national accounts standards in the budget. However, the Mexican public finance accounts already comply with internationally accepted standards and are under ongoing improvement, incorporating comments from international organisations.

Recommendations in previous Surveys	Actions taken
The fiscal stability law should be reformed to increase the build-up of financial buffers in liquid assets available in case of contingency or adverse market sentiment (2013).	The recently approved reform to the Fiscal Responsibility Law contemplates the creation of the Mexican Oil Fund for Stabilisation and Development in 2015. The Fund will establish a mechanism to save all oil revenue windfalls to build long term savings to be used to face more structural (i.e. long term) shocks to the country´s fiscal accounts. For 2015, the limits to the stabilisation funds (FEIP and FEIEF) were doubled so that the Federal Government and local governments have greater margin to respond to adverse shocks. For instance, the limit of FEIEF for 2014 is now 100 billion MXN, while for FEIP it is of 200 billion. This level of buffers enables a sufficient response to a drop in GDP of 4% for two consecutive years. Moreover, the establishment of structural fiscal rule in Mexico in late 2013 guarantees that excess revenues will be saved during the expansionary part of the economic cycle so that the country is able to build larger buffers to respond to short term variations in revenues.

Fiscal federalism

Recommendations in previous Surveys	Actions taken
Improve subnational governments' spending efficiency and effectiveness by clarifying spending responsibilities for lower levels of government in health and education (2013).	Improvements have been made regarding the efficiency and effectiveness of expenditure at the subnational level. Regarding education expenditure, starting in 2015, a new fund for educational expenditure (FONE) will substitute the current fund that covers the wages of the basic education payroll in Mexico (FAEB). This modification will allow resources to be distributed wirelessly to schools in a more transparent way. The fund will pay the basic sub-national education payroll directly from the Federation, but will maintain States' autonomy for basic education policies, allowing them to remain as the employer of all decentralised basic education teachers. Regarding health expenditure, a new Health General Law was published in June 2014. This new law establishes mechanisms that ensure a more efficient and transparent health sector spending for *Seguro Popular*, conserving local governments' autonomy for health public policymaking. Among others, new transfers from the Federation to States were established to cover medicines and health supplies subject to validation from the Federation – these transfers may also be given in-kind.
Subnational governments should increase their own tax revenues. One way to achieve this would be to encourage states to launch programmes for municipalities to update land registers (2011).	In order to encourage tax revenue collection from subnational governments, the 2013 fiscal reform modified the Transfer Fund for Municipalities' guidelines (*FFM*). The modification encourages municipalities to increase collection of property taxes in a more efficient way in collaboration with States' by using economies of scale and the existing State's tax collection capabilities. These changes also give an economic incentive to municipalities since the new FFM guidelines reward municipal tax collection increases – scaled by population. Other incentives for subnational governments were strengthened in the last year. A new transfer fund (FOFIR) was created which substitutes and improves an existing fund (FOFIE) by rewarding tax collection increases. In this regard, the fiscal reform modified the parameters used to distribute funds resources in order to consider the cash flow from the income tax collection, scaled by population.
Adopt stronger prudential banking regulations for lending to states and municipalities based on bank capitalisation (2013).	The current regulation includes a special set of rules for lending to sub-nationals. This regulation includes guidance for risk diversification and specific portfolio rating principles. Nevertheless, further modifications to such regulations are being considered in order to foster more prudent banking rules.

Recommendations in previous Surveys	Actions taken
Establish a harder budget constraint on subnational governments to improve their tax collection by limiting further increases in transfers, avoiding extraordinary transfers and promoting the implementation of limits on deficits and debt ceilings (2013).	Several modifications are being considered in order to address subnational deficits, debt limits and expenditure control. These reforms include measurement indicators that will allow the early identification of financial difficulties that states and municipalities face. To accomplish these goals, the Federation will grant a guarantee over the sub-national debt to those States willing to sign an agreement in which they commit to specific balance and debt limits, as well as other key financial ratios. These modifications, alongside a Constitutional amendment addressing debt limits, are currently being analysed by Congress and are expected to be approved and published by the end of 2014. Secondary legislation regarding these modifications is expected to be discussed at the beginning of 2015.
Grant more tax powers to states by allowing states to charge income and consumption taxes over and above the federal ones, but collected by the federal tax administration. Strengthen property tax revenues by updating property registries, increasing rates, removing exemptions and improving collection, by allowing the federal or state tax administrations to collect the tax (2013).	States are able to charge income tax on payrolls (ISN), and from 2015 on States and municipalities will fully participate in the income tax of their administrative staff. In the case of consumption taxes, the fiscal reform unified consumption (VAT) rates across States.
Continue efforts to gradually reform states' defined pension systems toward defined contribution systems (2013).	The Ministry of Finance is currently in the process of studying pension systems across States. The study will be a guide in the upcoming pending reforms regarding sub-nationals. These reforms include budget control and responsibility features that will provide a legal framework, helping sub-nationals to attend specific pension system issues.
Fully implement the new general government accounting law to ensure greater transparency and accountability, and ensure that it is effectively followed in all states and municipalities (2013).	Mexico has implemented several actions regarding fiscal transparency and accountability. One of these is the implementation of a budget transparency website, which includes information both of income and expenditure. Fiscal transparency was included in the National Development Program for the current administration and its performance will be measured through the Open Budget Survey, measured by the International Budget Partnership. In December 2013, the accounting harmonization authority, CONAC, issued an agreement by which public accounts were harmonized throughout all government levels. The 2013 Federal Government public account was presented in such terms and for 2014 sub-nationals are required to present their financial results in the same way. Furthermore, modifications were made to the reports that sub-nationals are required to submit to the Ministry of Finance. These include better identification of investment projects, which allows increasing transparency and encourages monitoring through technological platforms.

Tax policy

Recommendations in previous Surveys	Actions taken
Tax expenditures need to be reduced or eliminated, in the corporate income, personal income and consumption tax systems (2013).	The Fiscal Reform approved in 2013 and implemented in 2014 led to a significant reduction of tax expenditures in all taxes, as a result of measures that broadened the tax bases and eliminated or limited several preferential tax treatments. According to the 2014 Tax Expenditures Budget, total tax expenditures in 2014 are equal to 2.9% of GDP, 0.7 points lower than the 2013 figure (3.6% of GDP), a 20% reduction. For 2015, the total amount of tax expenditures is expected to further decrease to 2.73% of GDP, for an accumulated reduction of 0.9% of GDP. In the Corporate Income Tax (CIT), a significant reduction in tax expenditures was achieved mainly due to a simplification of the system, the elimination of immediate deduction of investments and several provisions that facilitated the deduction of expenditures without meeting the formal requirements. In the Personal Income Tax (PIT) a global annual limit for personal deductions was established. Regarding the VAT, the reduced rate in the border region was eliminated as well as the exemption for ground public transportation.
Gradually withdraw zero rates and **exemptions** within the VAT system (2011).	The tax reform eliminated some of the main preferential regimes in the VAT. The reduced VAT rate in the border region, which was 5 percentage points lower than the standard rate, and the exemption for ground public transportation were eliminated.

Recommendations in previous Surveys	Actions taken
Re-evaluate and phase out special **tax regimes**, such as the one for the maquiladoras (2011, 2013).	The Tax Reform eliminated or limited all the special treatments received by the maquiladoras. A definition of *maquila* was included in the new Income Tax Law, establishing that the benefits of the maquiladora regime only apply for income derived from maquiladora activities. The partial exemption of the income tax that resulted from allowing *maquiladoras* to reduce their tax base by estimating their taxable income as 3% of the total assets value or the total costs and expenses was eliminated. Furthermore, the VAT exemption for temporary imports was eliminated, and substituted for beneficial treatment for firms that undergo a continuous certification process. Finally, the benefit for foreign residents that allowed them to operate inside a shelter maquiladora without having a permanent establishment was limited to only 4 years.
Strengthen tax enforcement for the small business regime and consider a requalification after some years or a sunset clause (2011).	A new tax regime for small taxpayers, was introduced (*Régimen de Incorporación Fiscal*, RIF) that substitutes the previous small taxpayers' regime (*Régimen de Pequeños Contribuyentes*, REPECOs) and the intermediate regime (*Régimen Intermedio*). The reform establishes a sunset clause: after 10 years of participating in this regime, taxpayers will migrate to the general regime for the income tax. The new regime will be administered by the Federal Tax Authority (SAT), whereas state governments administered the previous regimes.
Move towards taxing all wage elements at the same rate (2011).	The Tax Reform limited the deductibility of the worker's exempted salaries paid by companies. This measure reduced the differences in the tax treatment of different labour payment related expenditures.
The **corporate tax regime** could be further improved through a number of adjustments to treatment of interest, losses and consolidation that would make it less vulnerable to abuse and aggressive tax planning (2013).	The group taxation regime ("*Regimen de Consolidación Fiscal*") was eliminated. In place of it, a new transparent regime for corporations with stronger controls to prevent potential abuses was established. The new regime has a shareholding threshold of 80% (previously it was 50%); prevents the inclusion of losses from newly acquired companies; prevents the participation of companies with other tax benefits; does not allow the free flow of dividends between members of the group; participants must publicly report individual information and the amount of the deferred tax.
Evaluate the new **alternative** minimum **business** flat tax. In the long term, consider moving towards a **simpler business tax**, but keep IETU in place, unless the tax base of the regular business tax system can be broadened significantly. Consider IETU as the only business tax only if this does not lead to revenue shortfalls (2011).	In order to simplify the corporate tax regime, the tax reform eliminated the IETU and the Tax on Cash Deposits (IDE). Additionally, a new Income Tax Law was enacted, which broadens the tax base and simplifies the payment of taxes, by eliminating most of the preferential arrangements and special treatments. As a result, the Tax Reform leaves a single tax on corporate income, and it has the same revenue potential than the three taxes that existed in 2013 (CIT, IETU and IDE).
Enhance **tax enforcement** through extended use of risk models, training and attractive pay and career paths (2011).	Currently, the SAT operates 13 risk models that help more than 7 500 users of around seven Divisions (Customs, Foreign Trade, Tax Collection, Taxpayers Services, Evaluation, Large Taxpayers, and Auditing). The risk models associated to the tax refund process have helped reduce the resolution period of tax refunds (from 40 to 27 days) and of compensations (from 90 to 33 days). Since 2012, tax authorities have been providing training for new staff (521 new tax inspectors were trained between 2012 and 2013, while 1 314 new customs agents finished their training between 2011 and 2013). Accordingly, inspectors that successfully completed the programme achieved a salary increase, and one third have been promoted.

Social transfers

Recommendations in previous Surveys	Actions taken
Increase the coverage and size of ***Oportunidades*** cash transfers to the poor, complete the implementation of ***Seguro Popular***, and broaden the coverage of *65 y más* old-age pensions (2013).	Regarding *Oportunidades*, at the end of 2013 the program had a registry of 5.9 million households, distributed in 2 439 locations. 59% of households are located in rural areas, 19% in semi-urban and 22% in urban areas. From the total of beneficiary families 5 942 743 scholarships were given and 24 502 seniors were attended. Furthermore, it has been recently announced that *Oportunidades* will be substituted by an enhanced program named "*Prospera*". The new program seeks to connect social policy with economic dynamism by adding new dimensions, such as benefits in health, education, nutrition, financial inclusion, job placement and priority access to production programs. Through training and job programs, beneficiary families will be given help in generating their own income and depend less on cash transfers from the Government. The Senior Pension Program (*65 y más*) has already achieved national coverage. Currently the supply of services is present in 2 457 municipalities, including 400 municipalities within the National Crusade Against Hunger (CNCH). The coverage of this program more than doubled between 2011 and 2013 (from 2.1 to 4.9 million beneficiaries). Regarding the amount, the economic support provided to beneficiaries increased from 500 to 525 MXN a month, in the period of 2011-13.
Increase **cash transfers** to the poor, for example through ***Oportunidades*** or by introducing a social assistance scheme (2011).	Spending in *Oportunidades* had an increase of 23.5% in nominal terms between 2011 and 2013, from 26.0 to 32.1 billion MXN. The monetary support given for scholarships range from 165 to 1 055 MXN monthly in 2013 (from 150 to 960 MXN in 2011) depending on school grade and gender (women are given the highest scholarship monetary support). The amount of all monetary support is updated every six months, according to budget availability and based on the cumulative change, from June 2011 up to date, of the indexes associated with Minimal Welfare Levels (rural and urban), published by the National Council for the Evaluation of Social Development Policy.
Evaluate and **streamline** social benefit programs (2013).	Since 2007, the Federal Government has made important efforts to move from a model focused on operational efficiency to a model based on results, promoting both the Performance Evaluation System (PES) and the Results-based Budgeting (RbB). Thus, actions, programs and public spending are oriented to the effectiveness and the achievement of specific results, transparency and accountability. In this regard, social benefit programs are continuously evaluated under such systems and are obliged to have a matrix of indicators for results, which links such indicators with sectorial objectives.
Further encourage policies to support greater **financial inclusion**, including broadening the range of financial services, diversifying service providers to ensure commitments made by financial authorities (2013).	The main purpose of the financial reform is to increase the access to credit and reduce its cost, especially for families and SMEs, while maintaining the stability of the financial sector. One of the actions taken was to establish in Law the National Council on Financial Inclusion (*CONAIF*, which was created by Presidential Decree on 2011). The Council, alongside the Ministry of Finance, are in the process of finalizing the National Policy on Financial Inclusion, which will set the major policy lines, actions and targets the government will concentrate on accomplishing, in a coordinated manner. Furthermore, financial inclusion has been promoted by allowing the savings and loan sector to establish correspondents, which will foster greater financial access to larger segments of the population. This financial reform also allowed cooperatives to contract banking agents (previously, only commercial and development banks could do so), and set the ground for the government to issue new guidelines and policies to increase competition for different means of payment (especially credit cards), so as to reduce the cost and promote the use of electronic payments.

Thematic chapters

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Chapter 1

Boosting growth and reducing informality

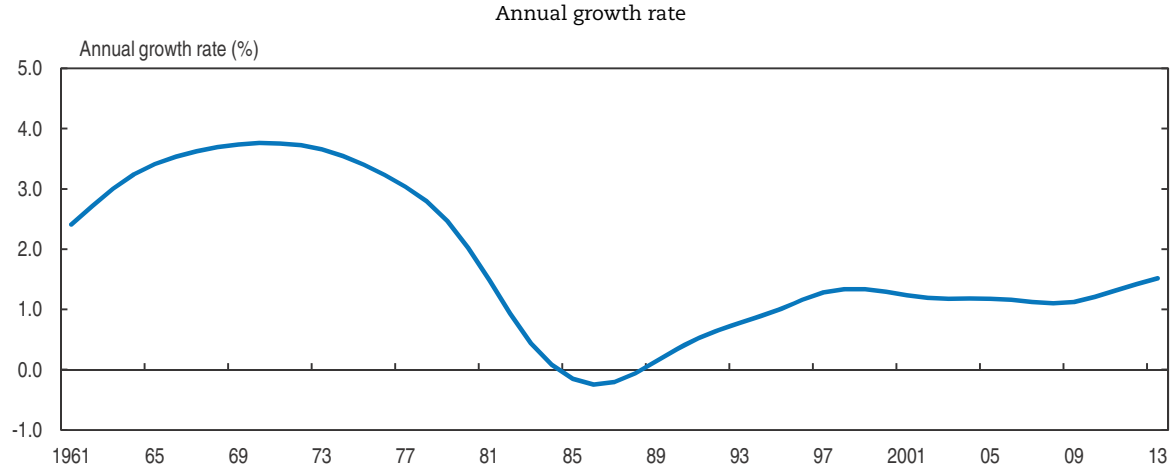
Mexico has embarked on a bold package of structural reforms that will help it to break away from three decades of slow growth and low productivity. Major structural measures have been legislated to improve competition, education, energy, the financial sector, labour, infrastructure and the tax system, among many, and implementation has started in earnest. If fully implemented, these reforms could increase annual trend per capita GDP growth by as much as one percentage point over the next ten years, with the energy reforms having the most front-loaded effects. Beyond this, a second wave could go further to tackle other structural bottlenecks. These challenges include reducing stringent regulation – particularly at the local level – and addressing corruption and weak enforcement of legal rights. The justice system is often slow and inefficient. And in the agricultural sector, strict land use restrictions and the structure of subsidies promote inefficiency. Moving even closer towards OECD best practices could increase potential growth by another percentage point annually.

The Mexican economy is very open to world markets and hosts many modern firms, notably in the sectors of aerospace, automobiles, foods and drinks, which employ highly-skilled and well-educated workers. Nonetheless, this accounts for a relatively small part of the economy and is highly concentrated in a few regions. Other parts of the economy are characterized by high informality, low-skilled work, weak productivity levels and outdated technologies. In the informal sector, unregistered firms employ millions of workers lacking access to a good education, reliable health care and affordable financial services – hampering their accumulation of human capital. A third segment of the Mexican economy consists of companies that, for decades, have been protected from competition – notably dominant firms in energy and telecommunications. These firms have been able to extract large rents from consumers and face low incentives to invest and improve productivity. Previous governments have sought to tackle these problems through a range of measures, but many of the reforms were not completed, and thus did not produce the hoped-for results.

Against this background, GDP per capita growth has been sluggish for three decades (Figure 1.1). The period prior to the 1980s was guided by unsustainable macroeconomic policies, which triggered a deep financial crisis in 1982, and was followed by a long downturn that only ended in 1989. Macroeconomic policies began to gain greater international credibility in the aftermath of the so-called "Tequila Crisis" in 1994, when Mexico also entered NAFTA. While Mexico has become more and more open to the global economy – broadening its trade exposure substantially beyond the United States – lack of sufficient economic reform hindered a higher trend growth of GDP per capita. Although recent reforms go a long way in addressing these challenges, follow-through and more

Figure 1.1. **Trend growth of GDP per capita has been weak for three decades**

Annual growth rate



Note: Smoothed by a Hodrick-Prescott filter with a lambda of 100.
Source: OECD Analytical database.

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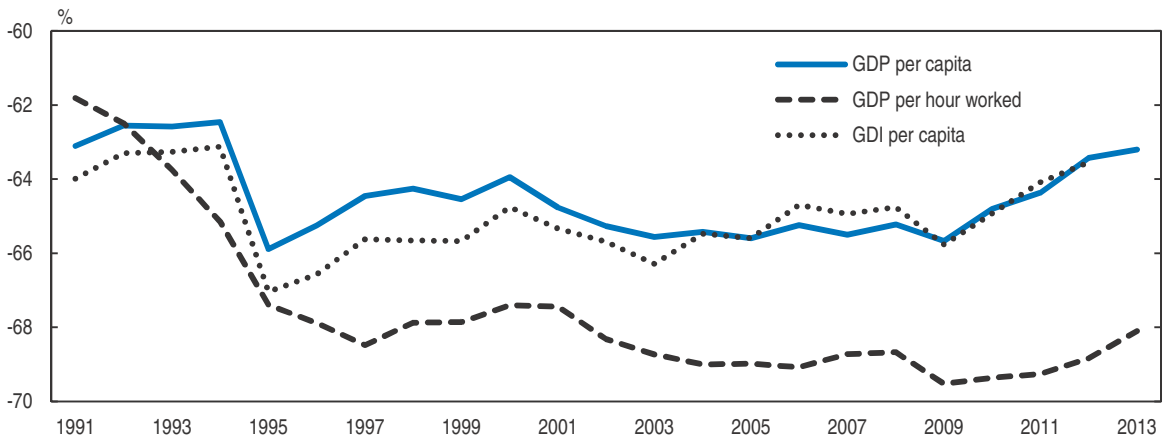
reforms will be needed to build a truly "modern state" that levels the playing field, enforces competition laws, encourages doing business in the formal sector, promotes innovation, and looks after the well-being of all citizens.

The central conundrum of Mexico's recent growth experience is that of low productivity (measured as GDP per hour worked) and slow convergence of incomes (Figure 1.2). Even setting aside crisis episodes, productivity growth has been weaker than what would be expected from a country that is far from the technological frontier. New results from the "KLEMS project" carried out in co-operation with the OECD show that the typical source of long-term GDP growth, total factor productivity (TFP), actually contributed negatively to growth (-0.4 per year) over the 1990-2011 period (Figure 1.3). Capital

Figure 1.2. **The percentage gap of GDP per capita and productivity are wide and persistent**



Note: Percentage gap with respect to the simple average of the highest 17 OECD countries in terms of GDP per capita, GDP per hour worked and GDI per capita (in constant 2005 PPPs). Preliminary data for 2013.
Source: OECD (2015), Going for Growth.

How to read this figure: Mexico's GDP per capita and per hour lags by more than 60% relative to the most advanced OECD countries.

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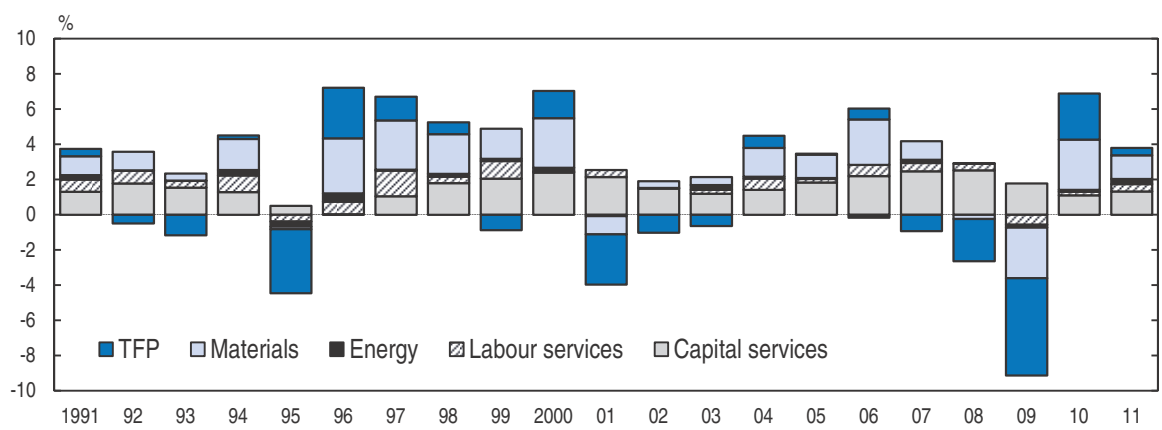
Figure 1.3. **The contribution of TFP to GDP growth has often been negative**

Annual GDP growth



Notes: Based on a KLEMS decomposition of growth in value added, with total factor productivity (TFP) measured as the residual.
Source: INEGI (2013).

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deepening was the most important and consistent source of growth, while increasing intensity of intermediate good use – notably through enhanced use of imported goods – was a close second contributor. An alternative decomposition of GDP per capita growth with an extended production function shows that human capital was a vital contributor as well, and once fully accounted for, implies that TFP was even lower (Table 1.1).

Table 1.1. **GDP per capita growth mostly comes from capital accumulation**

	2002-07	2007-12
Potential GDP per capita	0.4	0.5
Potential labour utilisation	-0.2	-0.1
Potential labour productivity	0.6	0.6
of which:		
Human capital	0.9	0.7
Physical capital intensity	1.1	0.9
Labour efficiency (TFP)	-1.3	-1.1

Source: OECD (2015), Going for Growth.

Mexico's slow productivity can be partly explained by the lack of sufficient reallocation of labour from low to high productivity sectors. Normally, in a developing economy, reallocation from low to high productivity sectors would contribute substantially to aggregate productivity growth. The main driver of intra-industry productivity growth has been manufacturing (Padilla-Pérez and Villarreal, 2014). However, in Mexico's case, productivity-enhancing reallocation has not occurred to a sufficient degree, as a large share of the reallocation of labour that has occurred has been towards low productivity services in the informal sector – yielding disappointing overall productivity outcomes. Moreover, episodes of strong productivity growth have been interrupted by frequent and severe economic downturns or crises, which suggests that there may have been insufficient resilience in the economy. However, the persistence of economic shocks in Mexico over the past 20 years is relatively low as compared with other OECD countries, suggesting that the problem for long-term growth outcomes is not so much a lack of macroeconomic resilience, but rather a sluggish trend (Sutherland and Holler, 2013).

Mexico has now embarked on a major reform program that was principally motivated by the slow growth and weak productivity of recent years. This chapter reviews key aspects of the reform programme, by examining each of the segments mentioned above. First, it examines the economy-wide and sectoral regulatory apparatus that promotes competition and the most recent structural reforms. Second, the challenge of informality is discussed, as well as its institutional drivers. And third, the environment that facilitates the most productive firms to emerge and prosper. Major reforms have been advanced in each of these areas, whose implementation will be critical to restart the catch-up process and boost productivity. Moreover, in each broad area further reforms could yield even more gains.

Improving regulation and addressing competition problems

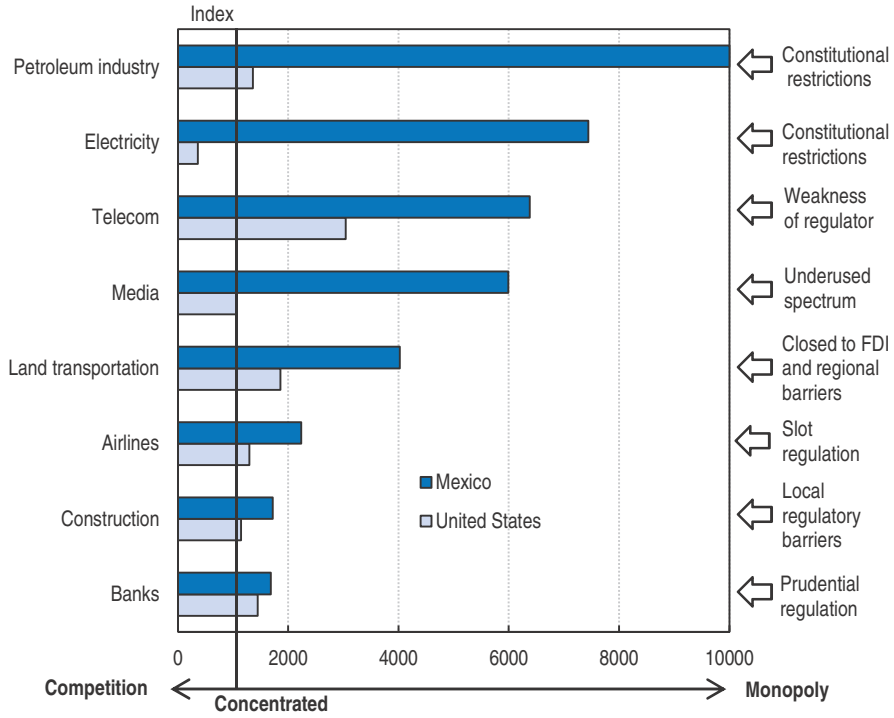
Reform of competition law

For decades, Mexico's economy has been hindered by a lack of product-market competition, with large firms becoming dominant players in several markets and earning large monopoly rents. To restore dynamism in these markets, between June 2013 and July 2014, the general competition agency COFECE has been strengthened and transformed into a constitutionally-autonomous body, with the power to remove "barriers to

competition" and regulate access to "essential facilities", similar to the UK competition authorities. Criminal penalties for hard-core cartels, including bid-rigging, have also been increased. This should help to address competition problems in the substantial number of markets that have high concentration of incumbent operators, where concentration ratios had been present for various reasons prior to the reforms (Figure 1.4). Given its expanded mandate, he competition agency's budget has been increased by about 50%, though it remains relatively small in budgetary and headcount terms.

Figure 1.4. **Concentration was high in key economic sectors before the recent reforms**

Herfindahl-Hirschmann Index (HHI), 2010



1. The HHI index is measured on a scale of 0 (most competitive) to 10 000 (least competitive) based on the sum of the squared market shares of firms in a sector. The US Department of Justice considers sectors with an HHI between 1 500 and 2 500 to be moderately concentrated and over 2 500 as highly concentrated.

Source: CIDAC (2011).

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A number of non-controversial changes have been made, including amending the bid rigging provision to include any bid procedure not just public procurement; making exchange of information for purposes of collusion a *per se* offence; adding "margin squeeze" to the list of monopolistic practices; and, adding an ability to seek info from third parties and public bodies in the context of merger reviews and allowing a longer timeframe for those reviews. These changes alone have added valuable tools to the competition law arsenal in Mexico.

The introduction of the competition authority's ability to prevent or remove "barriers to competition" has been somewhat controversial. While the statute specifies that actions should be in "necessary proportions to eliminate the anticompetitive effects", they include breaking up companies through divestitures. However, there may be good policy justifications for the Mexican authorities to have this as a tool of last resort, given broader institutional weaknesses (Ennis et al., 2014). Previous OECD reviews have noted that

problematic circumstances can arise from concentrated industries in Mexico – particularly those created following privatisation of state monopolies – as well as those protected from import competition, but for which no evidence of unlawful monopolistic practices can be found.

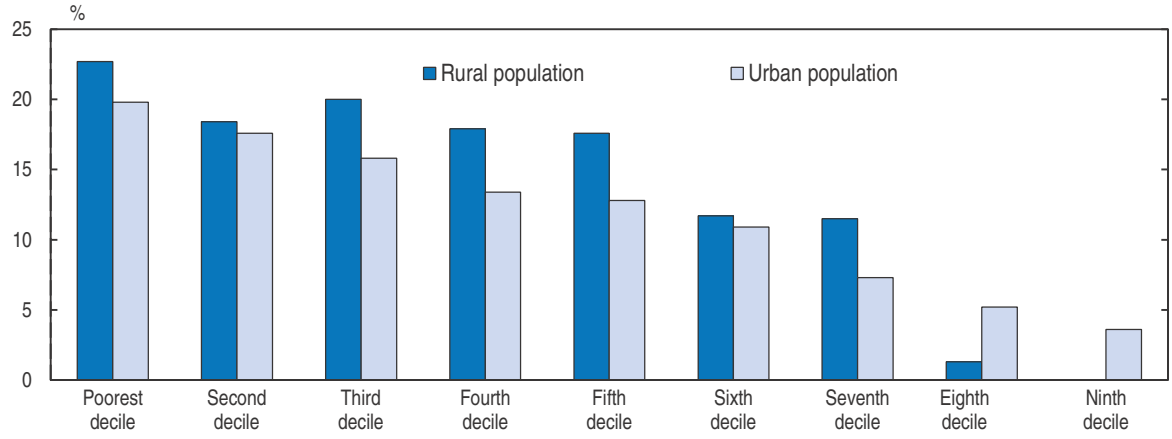
A second notable change to the competition law is the introduction of a power to regulate access to essential inputs, in a manner closely related to the "essential facilities" doctrine. This doctrine refers to situations where an entity controlling an essential input (or network, facility, etc.) also participates in the downstream market that relies on that input, and can leverage its control of the essential input by raising prices or foreclosing downstream rivals, to the ultimate detriment of competition in the downstream market. The new provisions favour commercial activity, by enhancing the competition authorities' ability to conduct investigations and stop restrictive business practices, thus making it easier for new businesses.

Important progress has been made in establishing specialised economic courts. In 2013, two new competition and telecommunications specialised courts as well as two tribunals in such matters were established. These are based in Mexico City but have nation-wide jurisdiction. The current judges were elected by the Federal Judiciary Council (FJC) based on their expertise on such matters. Moreover, further efforts are currently underway, in a joint work with the Competition Regulator (COFECE), to train specialized judges in telecommunication and competition analysis. As of mid-2014, these District Courts have handled more than 30 trials directly related to anticompetitive conduct. The introduction of specialized courts has been a key variable in improving the economic competition policy in Mexico.

Empirical evidence from the National Household Income and Expenditure Survey covering seven goods industries shows that social losses due to market power in Mexico are not only large and significant, but also very regressive. The lowest income decile is 25% more affected than the top income decile. The loss in social welfare is most acute for the rural population (Figure 1.5). Enhancing competition would increase the purchasing power of consumers and ease income inequality.

Figure 1.5. **Consumer welfare losses from competition problems are substantial and regressive**

Per cent of additional losses[1] per household's decile relative to the top decile



1. In seven goods markets: corn tortillas; soft drinks, juices and water; beer; medicines; milk; processed meat; poultry.
Source: Urzúa (2013).

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The energy and telecom sectors have already been opened to greater competition, with economy-wide effects. These reforms can be observed through changes in the stringency of product market regulation (PMR), using OECD indicators. An interim update of these indicators through August 2014 shows that Mexico has eased its regulatory stance from one of the most stringent levels (see below), though there is still considerable scope for improvement. Sector-specific indicators show more progress, notably in telecoms, where Mexico beats the OECD average. Two-thirds of these indicators' value reflects legislative changes in regulation, but *de facto* contestability of the market is also measured through the market share of either the incumbent or new entrants, and by this measure, it will take some time for the reforms to have their full impact on competition.

Energy

Mexico has launched a major reform of the oil and gas sectors, following years of declining oil production by the state-owned company PEMEX, high energy costs for the business sector, and a lack of funding and technology to exploit new energy resources. Congress passed 21 pieces of secondary legislation in August 2014 to implement a constitutional reform approved in late 2013. These laws established several largely autonomous, independently-funded regulators for the licensing, safety and environmental protection of the sector. These new regulators will help supervise the opening of the sector to greater competition and more efficient use of national resource wealth. In addition, the governance of PEMEX is being reformed, with a Board that for the first time will comprise independent directors responsible for establishing the company´s strategic vision of the company supported by committees, and it will no longer play the role of "gate-keeper" to the energy sector. Mexico now allows the entry of both domestic and foreign investors in the exploration, production and transportation of oil and gas, as well as the refining and marketing of hydrocarbons, potentially attracting considerable new investment, especially for prospective reserves where much larger initial investments and more advanced expertise is required (Table 1.2). These changes are estimated by market observers to likely boost long-term petroleum output by 75% annually relative to the baseline case (USIEO, 2014).

Table 1.2. **Mexico's prospective energy resources are considerable**

MMMboe (billion barrels of oil equivalent), January 2014

Basin	Cum. Prod.	Reserves			Prospective Resources	
		1P (90%)	2P (50%)	3P (10%)	Conv.	Non Conv.
		Development and Exploitation Projects			Exploration Projects	
Southeastern	46.5	11.8	17	23.4	16.8	
Tampico Mislanta	6.5	1.1	6.6	15.7	2.4	34.8
Burgos	2.4	0.3	0.5	0.7	3	10.8
Veracruz	0.8	0.2	0.2	0.3	1.4	0.6
Sabinas	0.1	0	0	0.1	0.4	14
Deepwater	0	0.1	0.4	2	27.1	
Yucatán Platform					1.5	
Total	**56.2**	**13.4**	**24.8**	**42.2**	**52.6**	**60.2**

Note: "1P reserves" = proven reserves; "2P reserves" = probable reserves; "3P reserves" = possible reserves. Prospective reserves include non-conventional resources which require special processing, such as shale oil.
Source: PEMEX.

The energy reform follows recommendations made in previous OECD *Economic Surveys* (OECD, 2013a), and allows for a range of modalities of private sector involvement, including profit-sharing, production-sharing and licensing arrangements. Downstream – including midstream, refining and distribution activities – will be open to full private sector competition, including for imports of oil and natural gas, supervised by a dedicated regulator (CRE) and the Ministry of Energy. For Upstream, contractual terms will be set primarily by the Ministry of Finance and the Ministry of Energy, while the upstream regulator (CNH) will administer the contracts. Contracts will be awarded through international public tenders, using an economic bidding variable so that the overall fiscal terms will be determined through market mechanisms. An overall national content requirement will begin at 25% in 2015 and rise to a share of 35% by 2025 (excluding deep-water), which is comparable to a number of other emerging markets. It will be important to ensure that the new contracting rules, including for local content, for oil and gas investment are carefully designed in order to ensure they are sufficiently attractive, yet also create a competitive market for large-scale private sector participation.

A two-stage process has been followed to determine process has been followed to determine the areas that will be grandfathered to PEMEX and the areas that will be available for bidding rounds. Through a "Round Zero" process, which has already concluded, PEMEX was granted 100% of what it requested in the so-called "2P Reserves", which is to say the equivalent to 83% of all of such 2P Reserves of the country, which represent resources for approximately 20.6 billion barrels of crude petroleum. Furthermore, Pemex was granted 21% of the prospective resources of Mexico, the equivalent of 22.1 billion barrels of crude, 67% of what PEMEX requested. The majority of the resources that were granted to Pemex are concentrated in shallow water deposits, while in deep water, where the oil company has limited experience, fewer fields were granted to it. In the case of deep water, 42% of the prospective resources were granted to it. Starting in November, preliminary terms of the "Round One" bidding process will be established, and the Ministries of Energy and Finance will begin to provide the details of the fiscal and contracting model for various fields. Bidding will begin in spring 2015. The government expects that with these open bids will attract USD 50 billion dollars of investment between 2015 and 2018.

The electricity sector has also been liberalised, by ending the monopoly of the state-run power utility CFE and by promoting competition from new entrants. OECD indicators of product market regulation updated for this Survey were used to score the new framework. These indicate a reduction in the indicator of about 1/3 in the sectoral indicators for electricity and gas (Figure 1.6, Panels A and B; Table 1.3). These changes are

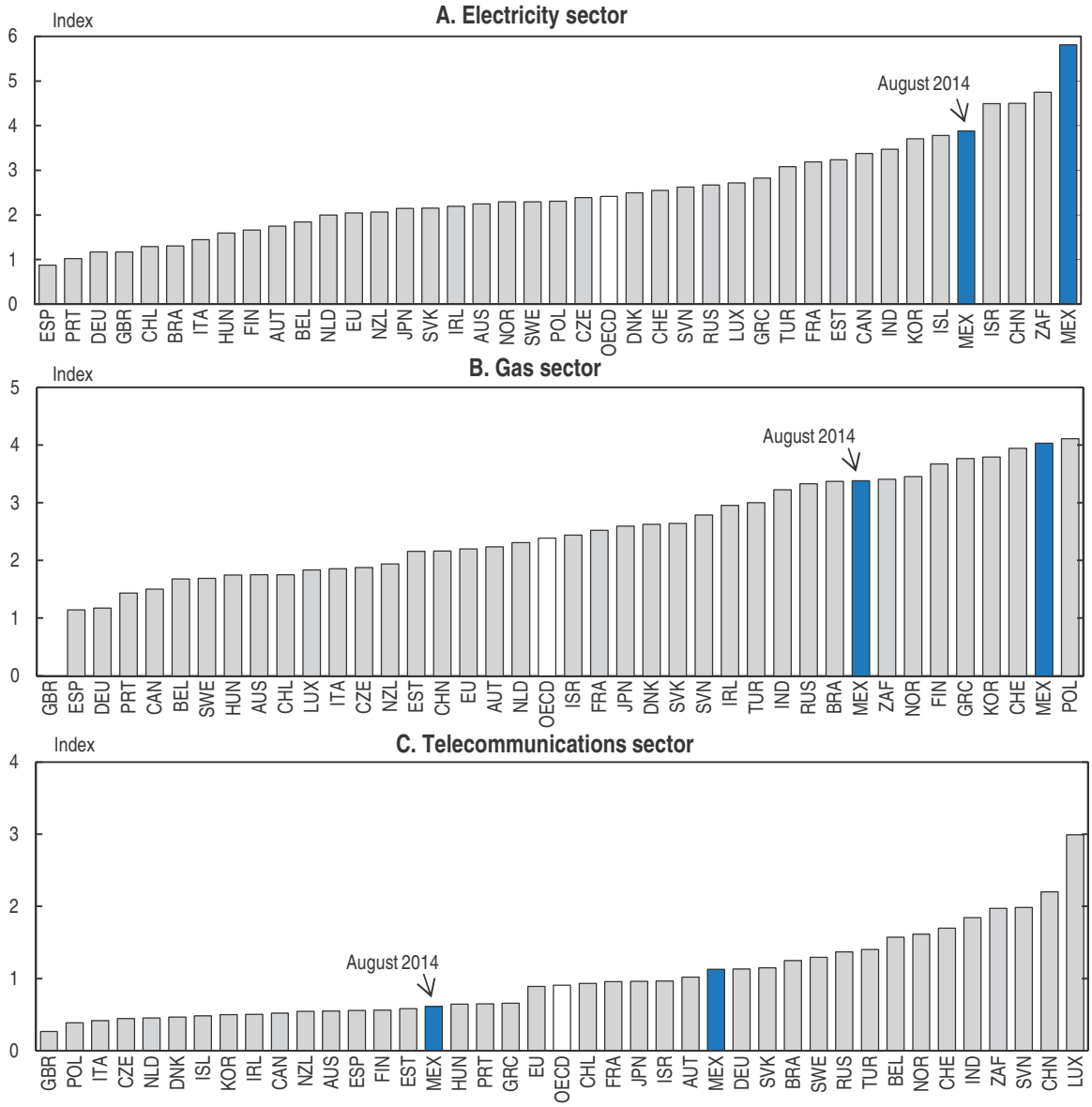
Table 1.3. **Regulatory stringency for electricity and gas sectors has been reduced**

	Electricity					Gas				
Year	Entry	Public ownership	Vertical integration	Market structure	Overall	Entry	Public ownership	Vertical integration	Market structure	Overall
1998	6	6	6	6	6	4.0	4.5	5.25	6	4.94
2003	6	6	6	6	6	3.5	4.5	5.25	6	4.81
2008	6	6	6	6	6	3.5	4.5	5.25	6	4.81
2013	6	6	6	5.25	5.81	3.5	4.5	3	6	4.25
2014	*2*	*6*	*3*	*5*	*4*	*0*	*4.5*	*3*	*3*	*2.63*

Note: Stringency of OECD product market regulation ranges from 6 (most stringent) to 0 (least stringent).
Source: OECD Product Market Regulation database, 2014 and interim estimates prepared in co-operation with Mexican authorities.

Figure 1.6. **The stringency of sectoral product market regulation has been reduced**

Index scale of 0-6 from least to most restrictive (January 2013)



Source: OECD Product Market Regulation database, 2014 and interim estimates prepared in co-operation with Mexican authorities.

How to read this figure: Mexico's regulation in the three network sectors mentioned above became substantially less restrictive from January 2013 to August 2014, moving towards the OECD average, or below it in the case of telecoms.

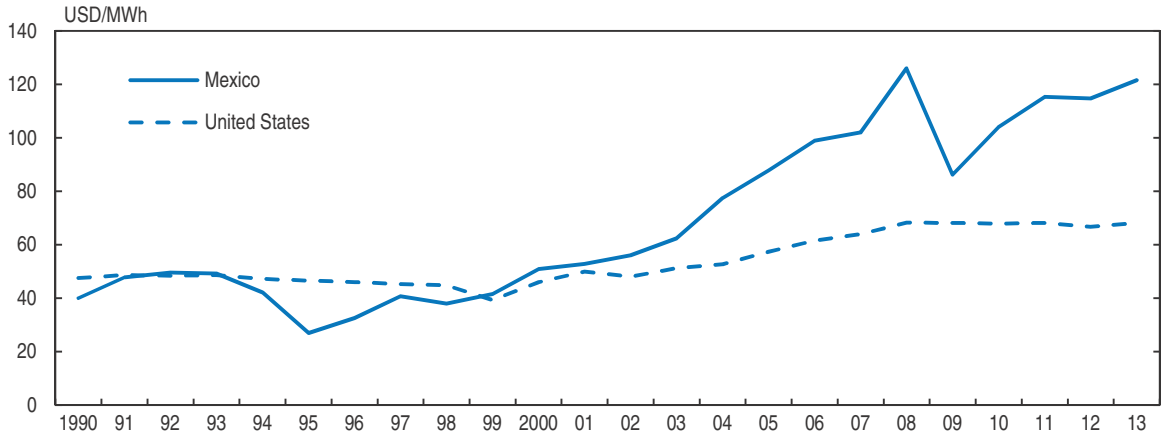
StatLink http://dx.doi.org/10.1787/888933174829

mainly driven by changes in the entry regulation and vertical integration indicators. Energy reforms now make it legally possible for private firms to fully intervene in the generation and marketing of electricity and to compete in the transmission and distribution activities through contractual agreements. The Energy Regulatory Commission (CRE) has the legal responsibility of granting electricity generation permits. The energy reform creates an Independent System Operator (National Energy Control Centre) that ensures legal

compliance by transmission and distribution firms interacting with Federal Electricity Commission. In addition, the degree of separation in the value chain of the electricity sector changed from the most stringent level to a legal separation status.

Expanded availability of shale gas in particular, and the more competitive framework for electricity, is likely to trigger a fall in electricity and gas prices once new gas pipelines are completed, narrowing the substantial gap with the United States, and thus making energy-intensive manufacturing sectors more competitive (Figure 1.7). Although the largest economic effects of the reforms are likely to be realized only in the medium and long term, energy reform will be among the most front-loaded, since the investments may happen in the relatively short term.

Figure 1.7. **There is a large gap in industrial electricity prices between Mexico and the United States**



Source: International Energy Agency via OECD.Stat.

StatLink http://dx.doi.org/10.1787/888933175030

Environment

Until recently Mexico extended large budgetary support for fossil fuels and was the only country in the OECD with negative income from environmental taxes. This can mainly be attributed to the variable tax component of the Excise Tax on Products and Services on Gasoline and Diesel. The excise tax turned into a subsidy when international oil market prices were high and the government compensated Pemex for the difference arising from lower domestic sales prices of gasoline and diesel set by the government. The subsidy on gasoline is expected to disappear by the end of 2014 and to have a positive collection of excise tax on fuel from 2015 onwards.

CO_2 emissions in Mexico have been growing considerably over the past two decades, rising about one-third from 1990 in 2010 (to 748.3 Mt CO_2). The largest contributors of emissions are energy and transport, followed by waste. At the same time, the share of renewable energy in total primary energy supply has declined from 12% to 9%. However, the emission intensity of the electric grid has slightly decreased owing to the substitution of oil by gas. Recent reforms include specific provisions geared towards eliminating barriers to renewable energy, as well as providing for the use of green certificates and the adoption of specific legislation on the promotion of geothermal energy. The recent tax reform preserved the allowance for accelerated deduction of investments on energy generation with renewable sources.

The liberalisation of the energy market should help in reducing greenhouse gas emissions in the sector, as it will help make carbon pricing more responsive to price signals. As part of the energy sector reforms, Mexico also adopted an Excise Tax (IEPS) on carbon emissions. The tax is determined by the carbon content of fossil fuels and applies to producers, manufacturers and importers of fuels. With a rate of 3.2 USD per tonne of CO_2 (natural gas and jet fuel are excluded), the tax is unlikely to have a major impact in the short run but is expected to gradually increase over time.

Mexico has strengthened its political commitment to reduce greenhouse gas emissions by 30% in 2020 (with respect to the business as usual scenario) provided adequate financial and technological support from developed countries is sufficient. For this purpose, a carbon tax on fossil fuels has been introduced in 2014. In addition, the retail price of gasoline and diesel will be raised, until 2017, in line with overall inflation. Based on current oil prices, this is expected to eliminate the fossil fuel subsidy that has prevailed at a high level in recent years, and result in gasoline and diesel products being effectively taxed; further action would be needed if oil prices were to rise significantly from current levels. Beginning in 2018, gasoline prices will be liberalised and determined by market conditions. Despite these initiatives and targets, reducing greenhouse gas emissions remains a major challenge for Mexico. Although carbon emissions per capita are low, the energy and carbon-intensity of the economy is high compared to other OECD countries. Therefore, establishing adequate prices, removing inefficient subsidies (and providing better targeted support to the poor), and improving energy efficiency will all be needed if Mexico is to meet its greenhouse gas emissions target. The new effective carbon tax should be evaluated, and raised if deemed inadequate.

Telecoms

A new regulatory and competition agency (IFT) focused on telecommunications and broadcasting was formed in 2013 and following the passage of the secondary legislation in May 2014, it is now fully operational. The IFT has exclusive authority for regulation and competition enforcement in the telecommunications and media industries, and has a range of new regulatory capabilities to promote competition, such as imposing obligations on dominant operators. The dominant operator in the fixed-line market Telmex has an 80% market share, while the mobile company Telcel has a 70% market share. OECD studies have suggested that data prices are relatively high (OECD, 2012a). An initial decision requiring these companies' owner, América Móvil, to provide free interconnection to other operators, triggered its announcement of a plan to sell assets to reduce its market share below the 50% regulatory threshold to avoid the application of asymmetric regulations. The response suggests that the new framework is having an impact, though attention will need to be paid as to whether a smaller market share still ensures adequate market competition from a customer perspective. A full-fledged competition assessment may still be required to ensure that individual market segments do not face market dominance. In addition, given the rapid technological developments in the telecommunications sector, close monitoring of the technological evolution and boundaries of the sector will also be required. There is also an outstanding international compliance issue regarding the conditionality of market access rules to FDI in the telecoms sector – these appear to be contrary to OECD investment instruments and other international conventions that prohibit reciprocity. These will need to be addressed in order to avoid future legal complications.

According to the OECD's regulatory restrictiveness indicators for the sector (Table 1.4; Figure 1.6, Panel C), Mexico's regulatory stance for telecommunications has now been relaxed by a very large margin, about 46% of the value of the previous value of the indicator. This is mainly driven by a shift in the entry conditions, which have been affected by the introduction of a stronger regulator and strengthening of the legal system which end a period where there were few barriers to a monopoly in the sector. Cross-country studies using these indicators imply that such reforms could have large positive effects on productivity growth that could help to accelerate the convergence process (Bourlès et al., 2010).

Table 1.4. **Large reduction in product market regulation stringency for telecommunications**

	Telecom			
Year	Entry	Public ownership	Vertical integration	Overall
1998	2.25	0	2.94	1.73
2003	1.5	0	2.08	1.19
2008	1.5	0	2.23	1.24
2013	1.5	0	1.88	1.13
2014	0	0	1.84	0.61

Notes: Stringency of OECD product market regulation ranges from 6 (most stringent) to 0 (least stringent).
Source: OECD Product Market Regulation database, 2014 and interim estimates prepared in co-operation with Mexican authorities.

The financial sector

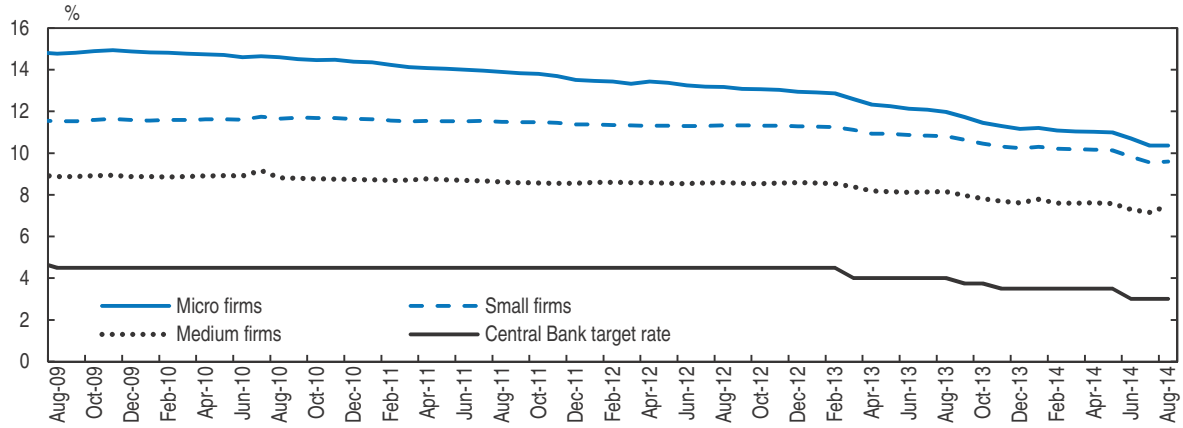
Mexico is underbanked compared to other OECD economies. Large segments of the population do not use formal banking services, and much progress needs to be made to promote financial inclusion and to increase the use of banking services. Financial sector concentration and lack of financial market depth have been a longstanding problem in Mexico. Such problems not only reduce productivity in the financial sector, but also limit the role that consumption and investment smoothing can have in tempering macroeconomic volatility. The empirical evidence suggests that there does not need to be a trade-off between the growth-enhancing effects of deeper financial markets and higher macroeconomic stability (Sutherland and Hoeller, 2013).

Concerns about the high cost of credit and lack of competition in the banking sector have motivated a major financial reform. Legislation passed in January 2014 strengthening regulation, increases competition and lowers the cost of borrowing. These changes should allow for more robust and sustainable private credit deepening, the penetration of which is currently far below the OECD average. Large segments of the population do not use formal banking services, and there is much progress still to be made to promote financial inclusion and increasing banking penetration.

Three sets of measures stand out in the reform: more effective property-rights protection for creditors, more formal legal authority for the regulator to manage the resolution of banks, and the promotion of competition among financial intermediaries. The reform reduces obstacles in the judicial process to recovering collateral, following longstanding difficulties in enforcing creditors' property rights. More immediately, government development banks have been given more scope for lending to small and medium-size businesses (SMEs), which often lack access to credit. The latter measure already appears to have borne fruit in driving down interest rates for SMEs, including those without support (Figure 1.8).

Figure 1.8. **Cost of credit for small firms has been reduced**

Lending rates, in percentage



Note: Market interest rates for various types of borrowers.
Source: CNBV.

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As part of the changes, brought about by the financial reform, the Federal Economic Competition Commission was instructed to report competition conditions in the financial sector. The findings were made public in July 2014 and, now represent the main issues on which current efforts are being focused. These measures complement rule changes already made, such as those regarding competition and transparency in payment system networks eliminating entry barriers for new participants in the market. Recommendations include access to ATMs on a non-discriminatory basis, and with charges based on long term incremental costs, as well as to regulate exchange fees for credit and debit cards, in order to foster the use of these payment systems.

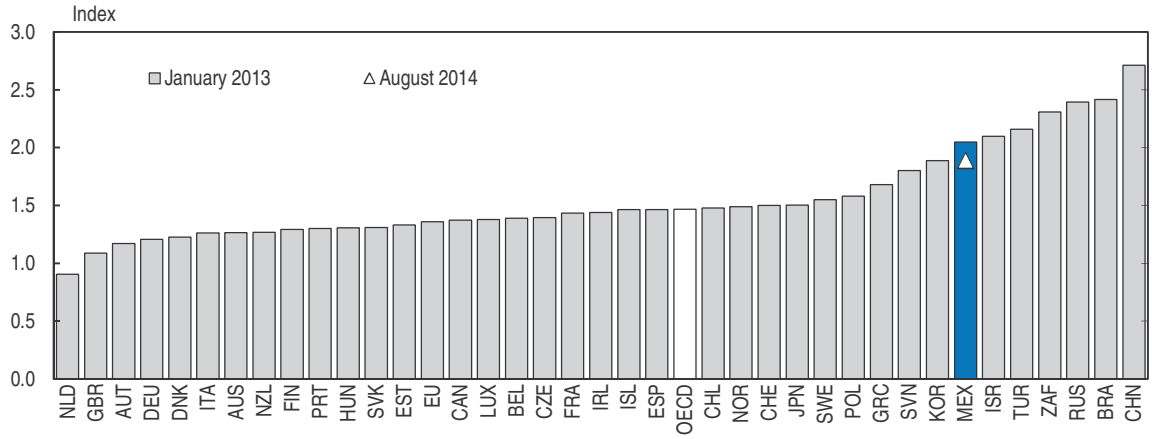
Other regulatory reform

Dynamism is still hampered by stringent regulations in many markets. The government aims to lighten the regulatory burden with constitutional reforms and secondary legislation. There is still a large stock of administrative regulations in many domains, notably in business entry and operation at the state and local levels, such as can be seen in the Sub-national Doing Business indicators (World Bank, 2014). Moreover, while sectoral regulation has been reduced substantially, the effect of these reforms on the overall OECD PMR index is not substantial, partially because the market share of dominant firms remains similar to before (Figure 1.9). Once the sectoral reforms start to take full effects, these sub-indicators are likely to evolve further.

New federal regulations are already subject to a regulatory impact analysis by the regulatory assessment agency (COFEMER) prior to promulgation that assesses the costs of regulations against their potential benefits, including consultation with the competition agency when required. COFEMER introduced mandatory competition assessment of new regulations developed by the federal government in March 2013. These regulatory reviews require consultation with the COFECE on matters that are suggested as problematic. Continued focus on this area will be necessary to ensure that ministries appropriately identify regulations that may restrict competition. Consideration of the competition impacts of regulations does not regularly occur at the municipal and state level, despite the fact that many regulations are made at this level. Local regulations may, for example,

Figure 1.9. **Overall product market regulation remains stringent**

Index scale of 0-6 from least to most restrictive



Source: OECD Product Market Regulation database, 2014 and interim estimates prepared in co-operation with Mexican authorities.

StatLink http://dx.doi.org/10.1787/888933175043

restrict competition in several markets – as happens with Tortilla producers – provide protections to professional associations, or have procurement procedures that may facilitate bid rigging.

Greater focus on municipal and state restrictions on competition could provide significant economic benefits. Efforts to roll back regulation at the state and local levels have encountered substantial difficulties and setbacks (see OECD, 2014a), despite a variety of regulatory and competition programmes to address problems. Application of the OECD's Competition Assessment Toolkit should be of help in diagnosing potential areas to address (see Box 1.1). A draft Presidential Decree would require a full review of the entire existing stock of regulation and mandate removal or revision of regulations that cannot be justified. This effort should be carried out with urgency, and even more importantly, an analogous one should be developed at the sub-national level that provides strong reform incentives for local governments.

The impact of reforms

Given the high intensity of structural reforms carried out in the context of the Pact for Mexico, an important question regards the pace and scale of the impact on productivity growth and GDP per capita. The intensity of Mexico's structural reforms have been impressive, making one of the most active reformers in the OECD, yet structural reforms take time to yield gains. Analysis in *Getting It Right* (OECD, 2012) and the last *Economic Survey* based on the Long-term Growth Scenarios (or OECD@100) suggested that potential GDP growth was likely to be around 3½ per cent annually, assuming a moderate pace of reform. An upside scenario suggested that 4% growth could be feasible with more reform intensity.

Recent estimates carried out in the context of OECD's contribution to the G20 have sought to quantify the impact of a particular package of reforms (IMF-OECD-World Bank, 2014). These were based on reforms in a number of different areas, but the most relevant for the present purposes are the estimates done using the sectoral-wise product market regulation (PMR) indicators. In Mexico's case, more precise estimates of the size of reforms is now available (Box 1.2). These are very close to the baseline assumed in the simulations, suggesting that GDP per capita could indeed be boosted substantially, and

Box 1.1. **The OECD Competition Assessment Toolkit**

The Toolkit contains a checklist that signals when there is a potential competition problem that should be investigated in more depth, along the lines of those regularly conducted by Competition Authorities. The checklist identifies potential problems if the policy, law or regulation will:

- Limit the number or range of suppliers, e.g. establishes a license process as an operation requirement
- Limit the ability of suppliers to compete, e.g. significantly raises production costs of new entrants relative to incumbents
- Reduce the incentive of suppliers to compete vigorously; reduce mobility of consumers between suppliers

If a more in-depth investigation reveals that there is an undue restriction on competition, the Toolkit contains advice on alternatives that may offset or mitigate potential harm to competition while still achieving the policy objective of the original law/regulation.

The multi-year Mexico-OECD Co-operation to Strengthen Competitiveness project in Mexico is done in co-operation with the Mexican Federal Competition Commission and the Ministry of Economy.

Source: www.oecd.org/daf/competition/assessment-toolkit.htm

combined with estimates of the effect of reform in other sectors, a boost to growth in the range of one percentage point of GDP growth annually could be hoped for in the coming decade, assuming effective implementation (Table 1.5). These effects could be even larger if even deeper institutional reforms are completed, as discussed below.

Reducing informality and modernising the state

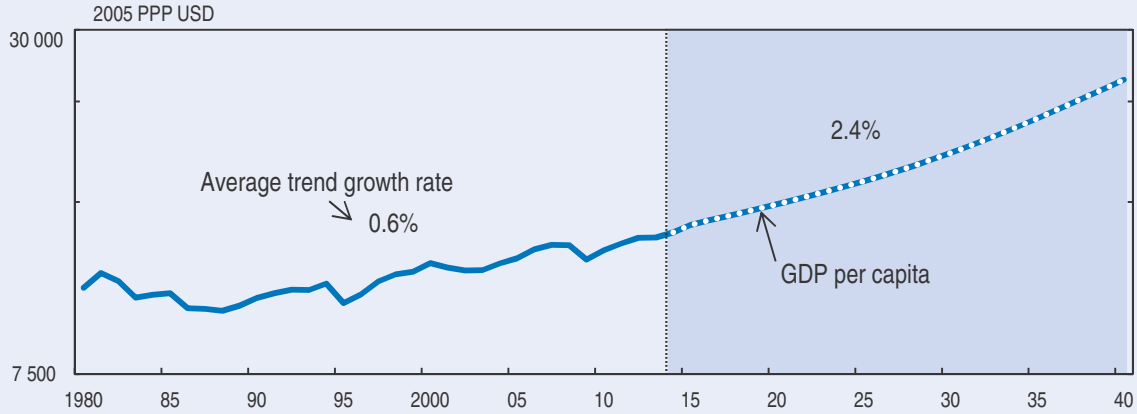
Promoting formality

Formal employment is essential both to improve inclusion and increase productivity: formality enables workers to have access to social rights – such as unemployment insurance, health care and pensions – and allows business to expand, modernize, innovate and become more productive. If formality increases, the vulnerability of social institutions will recede, fiscal revenues will increase and long-term sustainability of social entitlements will be strengthened. Yet 57% of workers have an informal employment relationship and a majority of small businesses still operate in the informal sector. The reluctance to operate formally reflects a variety of factors, including stringent regulation, but also corruption and weak enforcement of basic legal rights (OECD, 2013a). The comprehensive labour reform law of late 2012 contained initiatives intended to stimulate the creation of formal employment. Several aspects of the law were innovative in the Mexican context: i) new short-term training contracts, which should have helped to improve job matching especially for the youth and lower-skilled; ii) new grounds for termination without liability are now allowed for misconduct; and iii) back-pay while labour litigation is in progress is now limited to a maximum of 12 months, reducing employer uncertainty (rather than unlimited as before). Since its adoption, growth of formal employment has been more rapid than GDP growth, suggesting that the new reforms are helping.

Box 1.2. **Estimates of the GDP impact of structural reform**

Constitutional reforms and secondary legislation have already lowered restrictiveness in the energy and telecom sectors by a large margin – amounting to an approximately 19% reduction in product market restrictiveness for upstream service sectors. Estimates based on reforms of similar magnitudes suggest that the *level* of total factor productivity could be boosted by 2% of GDP in 2018, or about ½ per cent annually, assuming elasticities estimated across OECD economies. This would occur through accelerated total factor productivity convergence to the global technological frontier, as well as through the effects of capital deepening. These estimated effects would be magnified further through the natural evolution of the indicators as market shares of new entrants rise following the opening of these formerly uncontested sectors. These baseline estimates only include two of the multiple sectors affected by the reforms, and are below those of the Mexican government, whose estimates looked at a broader set of reforms in additional sectors. The IMF has estimated in its 2014 Article IV of Mexico that the effects of reforms could boost growth by about ¾ percent of GDP over the coming decade.

Figure 1.10. **Reforms will boost growth**



Source: OECD Long-term Growth Scenarios database.

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Table 1.5. **Impact of reform on the level of GDP in the medium term**

OECD estimates of legislated and envisioned reforms[1]
Impact after 5 years, assuming immediate implementation

	via productivity growth (%)	via capital deepening (%)	via employment growth (%)	GDP growth (%)
A. Pacto por Mexico Reforms:	**0.41**	**0.51**	**0.03**	**1.0**
1. Product market regulation				
a) Telecoms	0.06			0.06
b) Electricity & gas	0.32			0.32
c) Petroleum		0.45		0.45
2. Labour market reform				
Employment protection			0.03	0.03
3. Tax structure		0.07		0.07
4. Legal reform	0.03			0.03
B. Additional Reforms:	**0.91**	**0.00**	**0.10**	**1.0**
5. Judicial reform	0.50			0.50
6. Labour market reform				
a) Pro-formality reforms	0.42			0.42
b) Female participation			0.10	0.10
Total	**1.82**	**0.51**	**0.13**	**2.0**

1. The financial reform and the educational reform are also likely to have a significant impact in growth (the later mainly in the long term), but have not been included in the table because of difficulties quantifying the impact.

Source: Bourlès et al. (2010); USEIA (2014); Bassanini et al. (2009); Dougherty and Escobar (2014); Thévenon et al. (2012); Johansson et al. (2011); IMF-OECD-World Bank (2014); Dougherty (2014).

The recent wide-ranging fiscal reform included the creation of a new regime for micro and small firms that offers a variety of incentives to promote formalisation of the workforce. The new regime, which took effect in January 2014, replaces the previous REPECOS regime, and is similar to those that Brazil followed to reduce its informality rates. Mexico's new "RIF" (*Régimen de Incorporación Fiscal*) fiscal regime for small firms grants several benefits to taxpayers, including:

- A 100% discount upon Income Tax (ISR) , Value Added Tax (IVA), and excise taxes (IEPS) during the first year, that will decrease 10% each year, for 10 years.
- Simplified mechanisms to calculate and pay taxes and to file tax returns.
- To foster a taxpaying culture, taxpayers enrolled in the system will benefit from access to special development bank financing, other financial support given by the National Institute of the Entrepreneur, and training offered by the Tax Authority (SAT).
- Business owners as well as their workers will have access to housing and consumption credits from the Federal Agency for Workers Consumption (*INFONACOT*) and the Federal Agency for Workers' Housing (*INFONAVIT*).

Further fiscal measures that took effect in July 2014 consist of subsidizing part of the social security contributions made by workers and employers (also see Chapter 2). This includes a 50% subsidy during the first year, which then decreases to 10% in the tenth year. An upper limit of three times the general minimum wage has been set, thus favouring lower income workers.

A communication campaign called "Let's Grow Together" was launched by the President in September 2014 which seeks to build further on the fiscal measures, and co-ordinate information campaigns with the major business organisations and working groups in all 32 state-level governments. As part of this effort, labour inspections of enterprises regarding the fulfilment of social security obligations are being strengthened. During 2013, more than 43 000 inspections were carried out in workplaces under federal jurisdiction with this purpose. Enhancing enforcement is particularly important in light of evidence suggesting that it can be the most effective way of reducing informality in the short run (McKinsey, 2014).

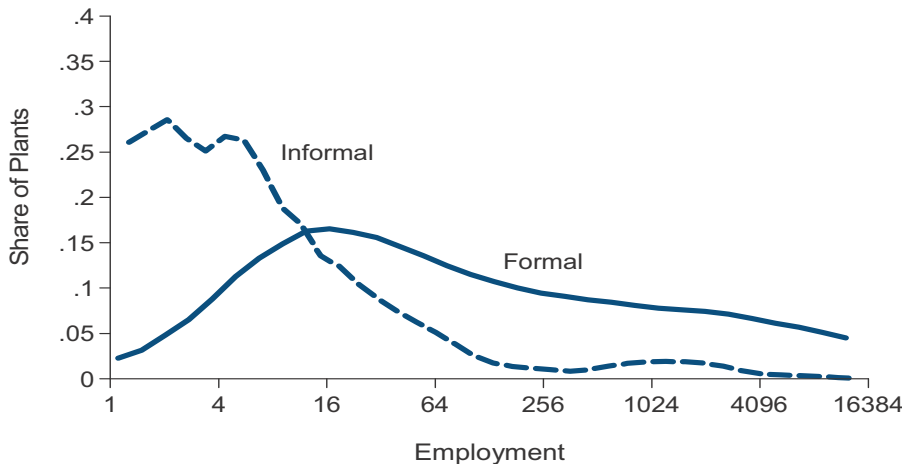
Longer term, the strengthening of state institutions that help to encourage formality and discourage informality needs to be addressed in order to boost productivity in a durable way (see Box 1.3). While the measures recently introduced go in the right direction and will help to reduce informality, evidence presented in the previous OECD *Economic Survey* (OECD, 2013a) showed that there was no "silver bullet": a broad package of polices will be needed, including ongoing improvements to educational outcomes, reforms of business regulation, strengthened legal institutions and reduced corruption. All of these reform measures would help to boost firms' sizes, pushing them and their employment into the formal sector (Figure 1.11), and it is easier to ensure that larger firms follow the rules. This empirical evidence complements that of a number of studies that have shown that formalisation could help to enhance productivity in Mexico (Levy, 2010).

Improving the judicial system

Boosting productivity and fully benefitting from the structural reforms passed by the government will require stronger judicial institutions to enforce laws and adjudicate disputes (Figure 1.13). Essential in this effort is the efficiency of the court system, which depends heavily on the quality of its personnel and the soundness of procedures (Palumbo

Figure 1.11. **Formality tends to increase with plant size**

Share of total employment across plants



Source: Hsieh and Klenow (2013).

Box 1.3. **Informality and productivity**

Informality has important implications for productivity, economic growth, and inequality of income (OECD, 2009). Informal employment is strongly linked to a firm's productivity. Trying to escape the control of authorities, informal firms remain small, adopt fewer productive technologies, use irregular procurement and divert resources to hide their activities. For example, informal firms may prefer informal financing since bank financing makes it difficult to mask their activities from authorities. This misallocation of resources harms informal firms' productivity. Because informal firms are generally less productive, aggregate productivity is reduced (Loayza et al., 2009). In addition, informal activities use public goods and services without contributing the tax revenue to finance these goods and services. Since public goods and services complement private capital in the process of production, a larger informal sector implies lower productivity growth.

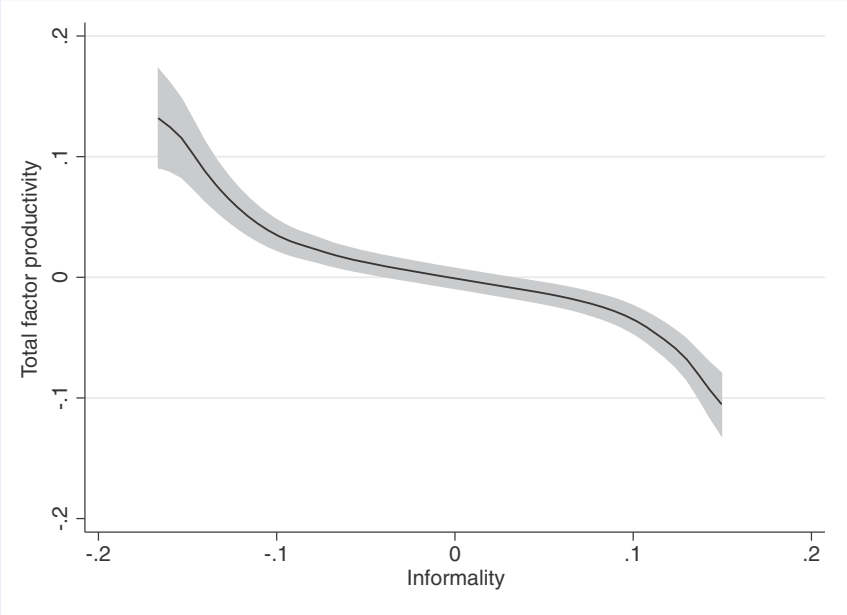
In recent years, the share of informal employment has increased in about two-thirds of Mexico's states, varying from 80% in one of the poorest to 45% in one of the richest. The differences across states in terms of informal employment can be helpful in explaining disparities in economic growth outcomes. Dougherty and Escobar (2014) study the determinants of informal employment using diverging outcomes across states and time to identify causal factors. Estimates using the annual manufacturing census illustrate that the effects of informality can affect high and low productivity sectors differently. For instance, panel data estimates of the effect of informality on total factor productivity, including fixed effects and a set of control variables, imply that the magnitude of the effect is highly heterogeneous, depending on whether sectors are at the bottom or top of the productivity distribution.

As shown in the Figure below, the detrimental effects of high informality is higher in the most productive sectors and lower in the least productive sectors. This is a result of negative spillovers from the diversion of labour away from high-productivity activities, diminishing the potential positive economy-wide benefits that this reallocation could have. As a result, the benefits of tackling informality would be higher for the most productive industries within states.

Box 1.3. **Informality and productivity** *(cont.)*

Figure 1.12. **High informality rates are the most damaging for productivity**

Effect on TFP index from above or below-average informality rates



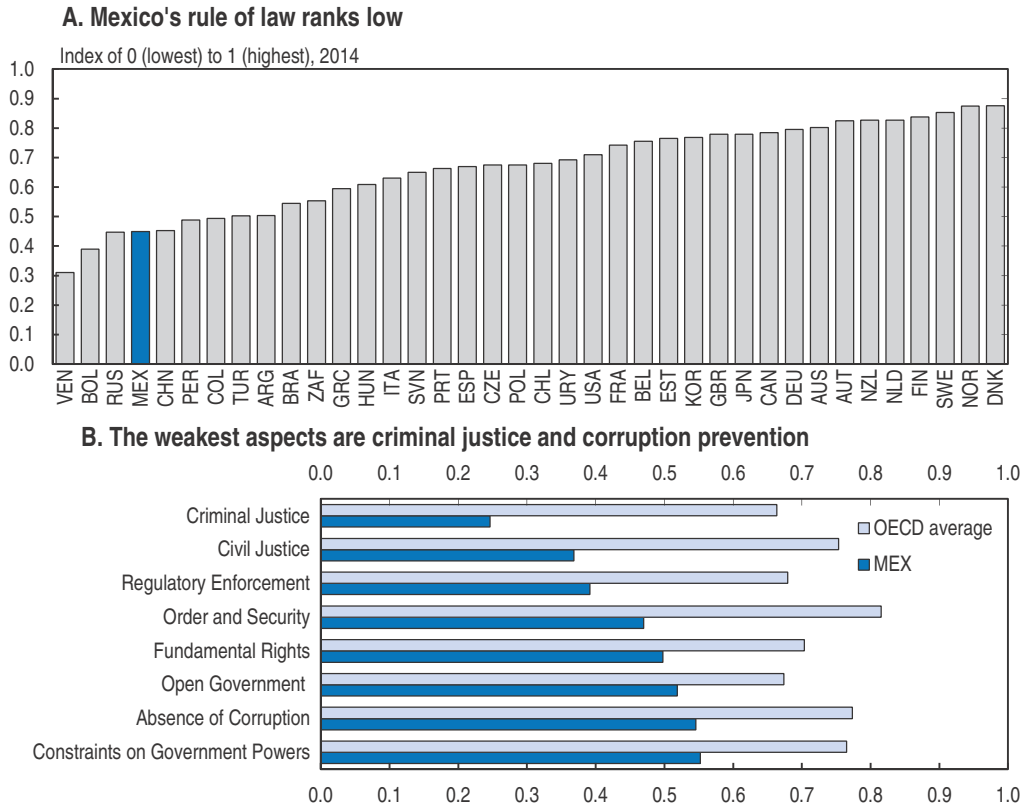
Notes: Residuals based on a fixed effects panel regression of TFP on industry-state informality rates and a set of control variables.
Source: Dougherty and Escobar (2014).

et al., 2013). Reliable enforcement of contracts gives agents incentives to save and invest, by protecting the returns from their activities. Empirical estimates carried out in the context of the last *Economic Survey* (OECD, 2013a) suggested that there was considerable scope to boost the quality of the judiciary in Mexico, since a low-quality judiciary makes contract enforcement and insolvency procedures problematic, lowering the average size of firms and their capital intensity, thus reducing aggregate productivity substantially (Laeven and Woodruff, 2007; Dougherty, 2014).

Improving criminal justice is not only important for the economy, but is also crucial to improve personal safety which is a major challenge for well-being in Mexico. Some progress has been made in pursuing reforms of the criminal judicial system, from a written system that was slow and lacked credibility, to an oral "adversarial" one, called the *Nuevo Sistema de Justicia Penal (NSJP)*. Data from the judicial reform supervisory body (SETEC) suggests that average trial times have been cut, from 343 days using the old system to 132 days using the new one. The new system is fully operational for state-level offenses (for all cases) in only four states (Table 1.6), while it is partially operational in certain districts of 21 more states as of November 2014.

More rapid implementation will be needed in order to meet the target of June 2016 foreseen in the 2008 Constitutional Amendment mandating a move to the new system, especially since half of the states do not yet have significant experience using the new system. A new evaluation and monitoring body as well as local working groups were set up in July 2014 to assist in accelerating the NSJP implementation.

Figure 1.13. **Adherence to the rule of law is relatively weak**



Note: The WJP Rule of Law index is a quantitative assessment tool designed to offer a picture of the extent to which countries adhere to the rule of law in practice.
Source: The World Justice Project (2014), *www.worldjusticeproject.org*.

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Table 1.6. **Gradual implementation of new system trials for criminal cases**

Stage	States
Fully operational (4)	Chihuahua (2007), Morelos (2008), Estado de México (2009), Yucatán (2011)
Partially operational (21)	Oaxaca (2007), Zacatecas (2009), Durango (2009), Baja California (2010), Guanajuato (2011), Nuevo León (2012), Chiapas (2012), Tabasco (2012), Puebla (2013), Veracruz (2013), Coahuila (2013), Tamaulipas (2013), Querétaro (2014), Quintana Roo (2014), San Luis Potosí (2014), Guerrero (2014),Jalisco (2014), Sinaloa (2014), Aguascalientes (2014), Hidalgo (2014), Colima (2014)
Formally committed (7)	Campeche (2014), Nayarit (2014), Tlaxcala (2014), Distrito Federal (2015), Baja California Sur (2015), Michoacán (2015), Sonora (2016)

Source: SETEC, November 2014.

A key enabling step was taken with the adoption of a unified national code of criminal procedure that was published in March 2014. Prior to the passage of the new criminal code, each state had its own procedures, which was a major barrier to implementing the 2008 reforms. The code seeks to standardise procedures involving investigations, arrests, charges, hearings, sentencing, alternative dispute resolution, and reparations, while ensuring the rights of all interested parties throughout the judicial process. The new code standardises crimes nationally and gives clear and transparent guidelines for how trials should be carried out. For federal offenses, the operation of the new criminal justice system began with two states in 2014 (Durango and Puebla).

Extension of the judicial reforms to the civil and commercial domains, which only started recently, has gathered speed. Now 26 states (all except Coahuila, Colima, Guerrero, Jalisco, Oaxaca, and San Luis Potosí) use new oral trial procedures in the commercial (*mercantile*) domain, while four states (Guanajuato, Nuevo León, Quintana Roo, and the DF) use the procedures for civil cases. Trial times have been shortened dramatically, as in the criminal domain. A key means of shortening civil trial times has been the introduction of alternative dispute resolution, which allows for out-of-court settlements and is being used in 70% of new system cases.

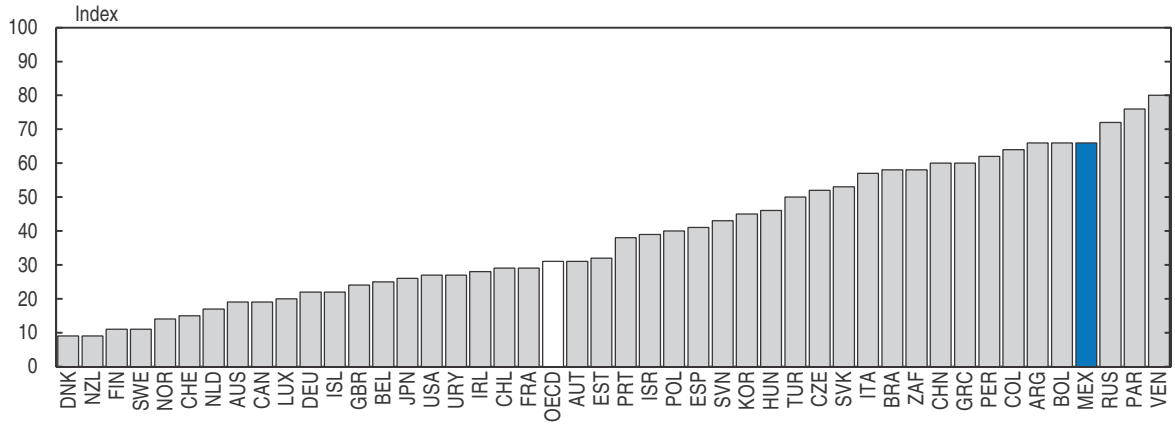
Reforms of certain aspects of the judicial process have also helped considerably. Most notable is the 2013 legislation on Mexico's *amparo* or "habeas corpus" petitions, a reform that now prevents firms from readily blocking regulators' legitimate actions while decisions are under appeal. Although the reform expands the scope to block arbitrary government action – particularly for oppressed groups – judges will now have to give more consideration to the legitimacy of a complaint and the negative effects of a suspension of government decisions. Moreover, in the competition policy domain, since 2013, specialised judges with relevant training and knowledge are adjudicating cases in dedicated courts. These are based in Mexico City but have nation-wide (Federal) jurisdiction.

Corruption

The motivation for recent reforms of the anti-corruption system is a public sector that is perceived as relatively corrupt compared to most OECD countries (Figure 1.14). The weak system also encourages private sector actors to offer large bribes, as has been alleged in the cases of the business groups Wal-Mart and Citigroup, which have both taken substantial advance charges against future earnings in expectation of penalties to be assessed under the US Foreign Corrupt Practices Act for their companies' activities in Mexico. While the extent of corruption is partly due to the inefficiency of the legal system that prosecutes few crimes, it also results from other institutional weaknesses such as weak enforcement, lack of constraints on government power and insufficient transparency (see Figure 1.13, Panel B). Corruption fosters a variety of illegal activities, including non-compliance with

Figure 1.14. **Mexico's public sector is perceived as corrupt**

Index, 0 (very clean) to 100 (very corrupt)



Note: The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be.
Source: Transparency International (2014).

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tax laws and regulatory obligations. Evidence included in the last Economic Survey showed that the degree of corruption in Mexican states is causally linked to the size of the informal sector. Making it easier for informal firms to join the formal sector is an important way to reduce the main incentives for corrupt behaviour, such as what is done in the new transitional pro-formalisation tax regimes in the recent fiscal reform.

Given high crime rates in many states, which directly reduce well-being and deter investment, an important priority of the government has been to improve security. Further professionalisation of police forces at all levels has been needed for some time, along with improved co-ordination amongst them (OECD-IMCO, 2013; OECD, 2013a). The administration initially focused on augmenting these forces by recruiting and training a rapid-reaction "Gendarmerie" force of highly trained Federal police, similar to those in France, Spain, Chile and elsewhere. While originally conceived as a larger force, it will start with 5 000 members, expanding to 16 000 by 2018. This size compares to the existing 36 000 member federal police force. Security coordination and training is now being improved amongst federal, state and local governments, though the scale and pervasiveness of organised crime is a major challenge. The military still plays an important backup role in addressing security challenges in problem areas.

To promote clean government, a new anti-corruption authority has been proposed that would be responsible for preventing, investigating and handing down administrative sanctions for graft-related offenses. The bill to establish the authority has been modified and still needs to be passed in Congress. Branches of the watchdog will be set up in all of Mexico's states to ensure that public employees act with "principles of legality, honesty, loyalty, impartiality and efficiency". The administrative sanctions that can be handed down against corrupt officials include removal and disqualification from office and fines. The authority also will work closely with prosecutors in the event of criminal offenses and can recommend precautionary measures such as pre-trial detention and the freezing of assets. Meanwhile, a special office in the Federal Prosecutor's office has been established by statute to target corruption and money laundering.

A broad political reform that allows for re-election of most offices passed at the Federal level. This is a welcome development that has been long advocated by the OECD in its *Getting It Right* reports (OECD, 2007, 2012b). The new political reform law – which States are required to implement by 2018 – will allow future senators, deputies, mayors and local lawmakers to run and serve for consecutive terms (the President is not included). These new rules should strengthen the incentives of local governments to provide higher quality services, and are complemented by laws requiring greater transparency of government finances. These rules should be adopted with expediency by states in order to promote stronger incentives for good governance.

Agricultural policies and land reform

Agriculture remains an area in need of fundamental reform: while it employs over 13% of the workforce, it accounts for only 3.5% of GDP. An important part of boosting productivity is for Mexico to further promote labour reallocation from low to high productivity sectors. Barriers to reallocation have meant that labour resources are misallocated, reducing productivity growth. Complexities in transferring land titles for communal land plots, called *ejidos*, which cover half of Mexican territory, have been a major obstacle. The property rights arrangements for this land promote small scale

farming, limiting economies of scale. Evidence suggests that the transfers of the land to private hands can alter the incentives for investment and thus boosts agricultural productivity substantially (Castañeda Dower and Pfutze, 2013).

A significant simplification of the land certification and transfer process is now needed to ensure more productive use. While a Constitutional Amendment in 1992 allowed these plots to be delineated and transferred, only 2.5% of the land entered into the private domain over two decades (Dell, 2012). This partly reflects the inherent difficulties in reaching agreement among a large number of co-owners, and ensuring that they are each compensated fairly. The recent energy reform provides one avenue for alternative use, through its requirement that land be yielded for rent or sale at market prices (with statutory royalty fees) when energy projects require access (Payan and Correa-Cabreara, 2014). Political factors have tended to limit various administrations from encouraging land transfers more aggressively. This partly reflects the inherent "insurance" dimension of the land for some farmers; however, these concerns can be better met through increased access to finance to encourage gains from land sales to be invested wisely, as well as benefit programmes that can provide an effective social safety net (see Chapter 2).

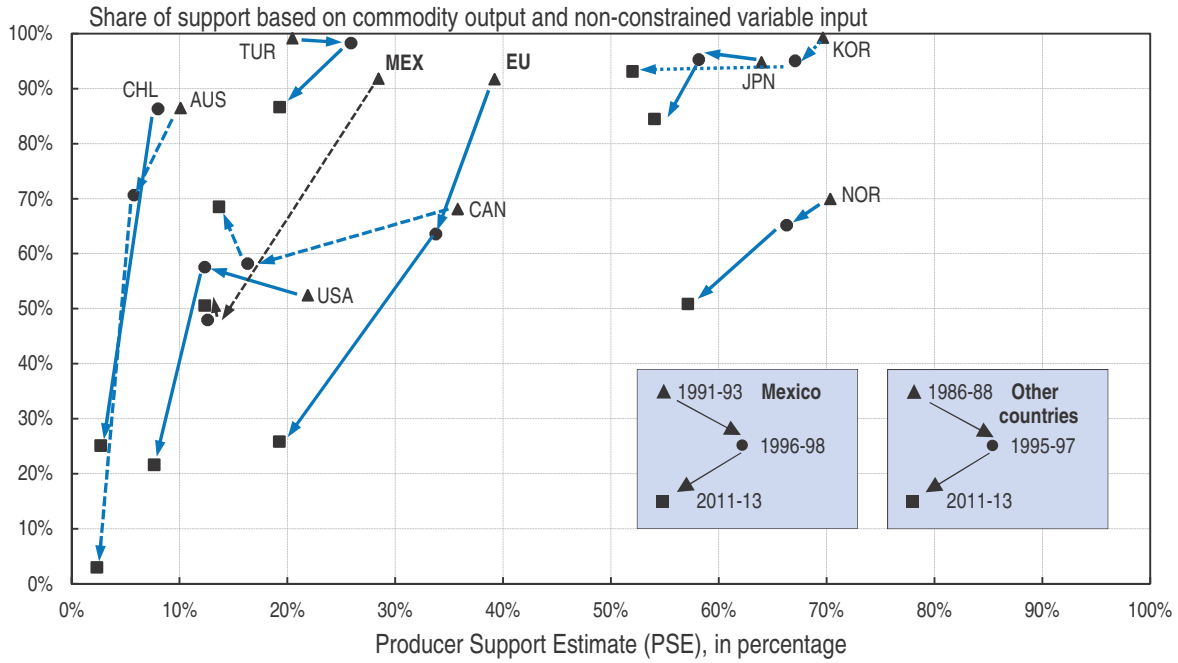
More broadly, agricultural subsidies need to be reformed, as they promote inefficient use of land. While the overall level of producer support is low in Mexico, it is heavily skewed towards input and production-linked support (Figure 1.15), and tends to be regressive, thus benefitting the richest farmers. The PROAGRO program introduced last year shifts from subsidies to "productive" incentives and is therefore welcome (OECD, 2014c), as is the intention to differentiate subsistence and commercial agriculture. Unlike the previous programme PROCAMPO, the new payments are linked to specific actions to improve land productivity, and they are required to plant. Farmers will have to give proof that the payment has been used for technical, productive, organisational or investment improvements, that is, technical assistance, machinery, certified seeds, fertilisers, restructuring, insurance or price hedging. However, the link between producer support and use of inputs should be reconsidered, as this can lead to inefficient distortions. Programmes to offer collective-based financing for smaller famers could also be further strengthened. Beyond this, it will be important to phase out subsidies to electricity for pumping water, as agriculture currently represents over 75% of water consumption in Mexico. Direct rural income support could be considered as an alternative, ideally channelled through targeted anti-poverty programmes (see Chapter 2).

Strengthening the future conditions for moving up the value chain

Boosting technological absorption

Innovation is essential to raise productivity, and here Mexico's performance has been weak. Both private and public sector R&D investment (under 0.5% of GDP in 2012) is well below that of nearly all OECD and emerging non-member countries (Figure 1.16). Mexico's President has made a commitment to raise R&D intensity to at least 1% of GDP, but it will be difficult to achieve this objective given Mexico's current industrial structure: over one-third of manufacturing R&D is carried out in low and medium-technology sectors. Moreover, obstacles to boosting the country's innovative potential include a weak domestic research and skills base, an underdeveloped knowledge-based start-up environment and institutional challenges.

Figure 1.15. **Producer support has declined and by could be lower and less distortive**



Note: The level of support is presented by the percentage PSE. The composition of support is presented by the share in gross farm receipts of Market Price Support, Payments based on output and Payments based on non-constrained variable input use.
Source: OECD (2014), Producer and Consumer Support Estimate database.

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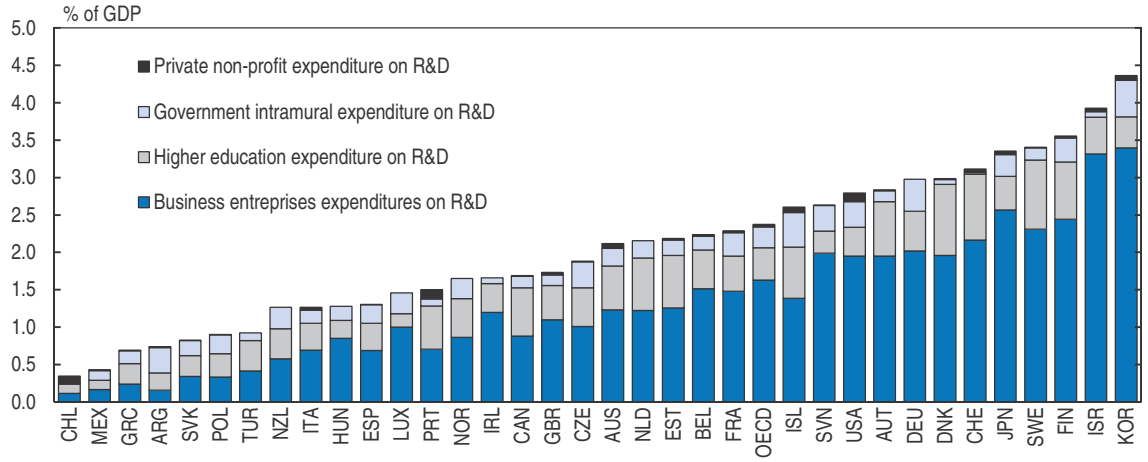
Figure 1.16. **R&D intensity is especially low**

Expenditure on R&D by sector of performance, 2012



Source: OECD, Main Science and Technology Indicators database.

StatLink http://dx.doi.org/10.1787/888933174843

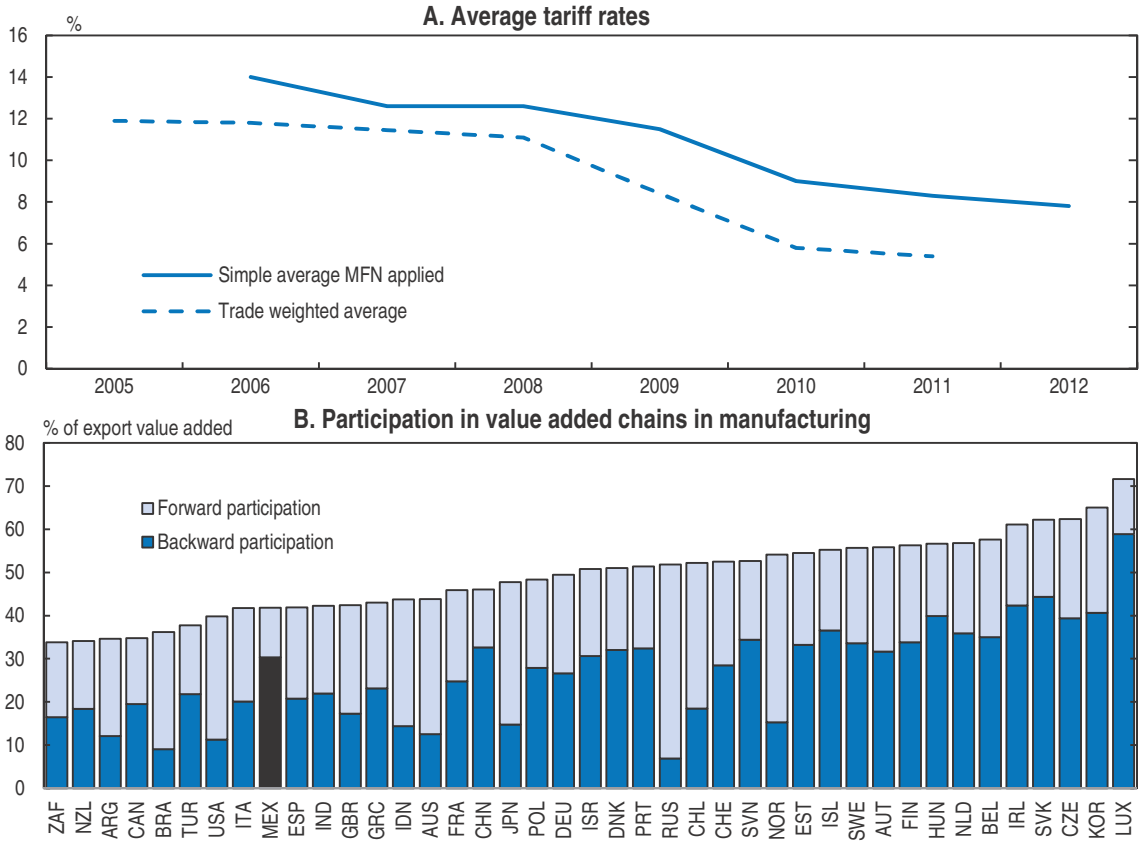
On the other hand, unilateral trade liberalisation has given Mexico greater market access to high-technology inputs, deepening its integration with global value chains (GVCs) and regional trade networks. Mexico has taken important steps to strengthen and promote the free flow of goods, services and financial resources. The country has struck free-trade agreements with over 40 countries, including nearly all G20 members, and continues to pursue the

strengthening of its trade links, reducing tariffs substantially (Figure 1.15, Panel A). Mexico has expanded its trade further by negotiating access to regional markets through the Pacific Alliance and is participating in FTA negotiations with the Trans-Pacific Partnership.

Trade opening steps have helped Mexico to be relatively well integrated in global supply chains. At present, about 30% of the value added of exports consists of foreign value added, which is close to the OECD median (Figure 1.17, Panel B). Mexico's reliance on domestic value added (11%) is, however, among the lowest in the OECD, as most intermediates are imported from abroad, partly reflecting Mexico's dominant role in assembly activities, chiefly in *Malquiladoras*. While these assembly activities have helped to boost exports and create jobs, the causal effect on productivity has actually been negative. As shown in Chapter 2, these low-skilled jobs have increased drop-out rates in schools. In order to further enhance Mexico's placement in global trade linkages, it will be important to ensure that the playing field is level for all firms, and firms are pushed to join the formal sector, as was done in last year's fiscal reform.

One manifestation of the dichotomy between trade openness and domestic linkages can be seen in the productivity growth relative to the United States. Mexico's labour productivity growth in manufacturing (2.4%) was much lower than in the same US industry (4.6%) over the past two decades, in spite of the close integration between those countries,

Figure 1.17. **Trade liberalisation and integration has proceeded**



Source: OECD-WTO, Trade in Value Added database, *www.oecd.org/trade/valueadded*.

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in particular in this industry. This fact illustrates that although industries such as electronics, aeronautics and scientific instruments are considered knowledge industries in developed economies, in Mexico they are dominated by labour and scale-intensive process with much lower productivity growth. This limits the potential convergence that could be achieved through global convergence (Rodrik, 2013).

While extensive structural reforms have taken place in certain sectors, product market regulatory stringency in the economy remains relatively high, well above the OECD average overall. This limits the ease with which new firms can enter these markets and recruit workers. The striking shift of labour away from manufacturing partly mentioned earlier in this Chapter partly reflects these issues. Beyond additional domestic product market deregulation, further reduction of trade barriers in many service sectors would also be helpful in boosting productivity (see Box 1.4).

Creating an innovation and start-up friendly business climate

Promoting the creation of new firms is a growing priority in Mexican innovation policy. The country has improved its legal framework to facilitate the founding and expansion of businesses. However, access to credit, especially in the seed and start-up phases, is still a relevant barrier to fostering start-ups in Mexico (OECD, 2013b, 2013c). Recent OECD evidence shows that young firms across OECD countries account for about 75% percent of job creation (Criscuolo et al., 2014). While comparable data is not yet available for Mexico, the figure could be even higher given the large share of employment in small firms. Strengthening the start-up environment through and expansion of programmes to support currently weak angel and venture capital financing would be helpful (Figure 1.19).

Science and technology programmes have been evolving, with a greater focus on science. The funding available to the National Council for Science and Technology (CONACYT) was increased by 20% in 2014. CONACYT has focused on "transversal" innovation policies that will impact development in high impact industry sectors, and helping to boost cooperation with universities, which is presently weak. One bill that has been proposed would give researchers and universities the right to develop commercial products based on publicly funded research.

Regional high-technology clusters have seen considerable growth, such as the aerospace cluster of Querétaro (Box 1.5), and case studies suggest that they have been able to find strong regional synergies between companies and with research and training institutions. One important question is how the government can play a positive facilitating role, such as going beyond industrial policy and helping build networks among businesses as well as between business and academic institutions.

Reviews of experiences with clusters in other OECD countries emphasise the potential importance of the government encouraging new firm creation, stimulating innovation, co-ordinating policies, strengthening human capital, facilitating access to finance and addressing congestion (OECD, 2009). Recent empirical evidence suggests that, after controlling for convergence in start-up activity at the region-industry level, industries located in regions with strong clusters experience higher growth in new business formation and start-up employment (see Delgado et al., 2014). Industries participating in a strong regional cluster register higher employment growth as well as higher growth of wages, number of establishments and patenting rates, and can even enhance growth opportunities in related industries and neighbouring clusters. However, policies to

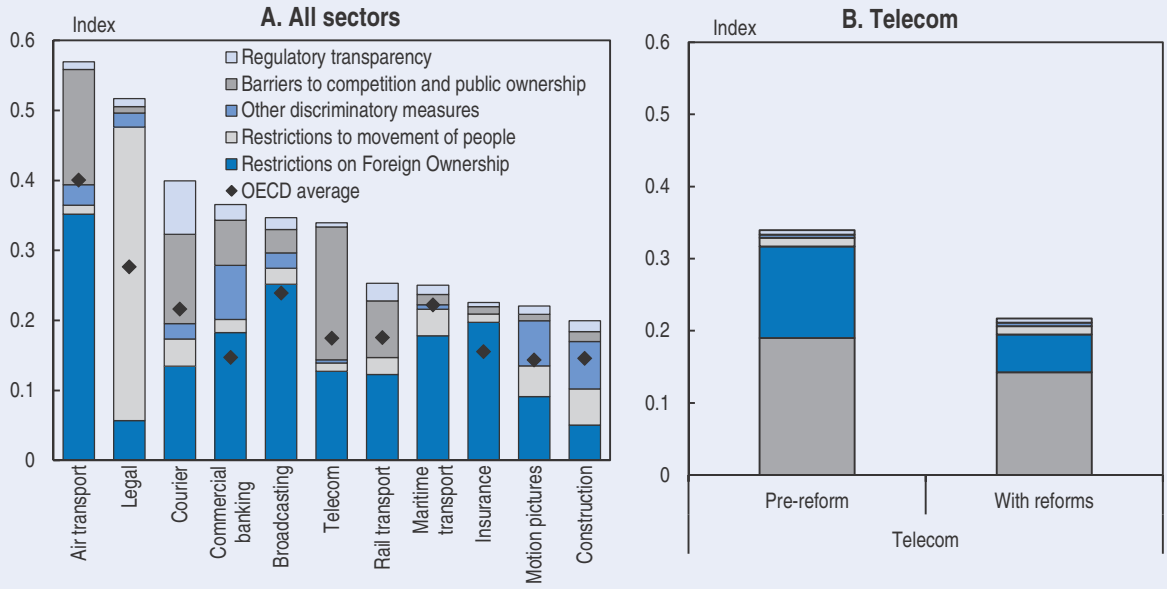
Box 1.4. **Services trade restrictiveness index update**

OECD Services Trade Restrictiveness Indexes (STRI) has been developed to measure the incidence of various types of barriers to services trade in specific sectors. A total of 18 sectors across most OECD countries are now covered. In the case of Mexico, particularly restrictive sectors include air transport, courier and legal services, where stringency in Mexico is well above the OECD average.

For the key sector of telecoms covered by the reforms, an update of this STRI pilot sector was carried out. The most significant change in Mexico's STRI score stems from the lift of foreign investment restrictions due to the recently amended Foreign Investment Act. In addition, based on the 2013 constitutional reform by the Congress, a new Federal Telecommunications and Broadcasting Law was passed on 11 August 2014 and is expected to enter into force as of 1 January 2015.

Figure 1.18. **Services trade restrictiveness in telecoms has been reduced substantially**

Services trade restrictiveness index restrictiveness, ranging from least restrictive (0) to most restrictive (1)



Source: OECD, Services Trade Restrictiveness database.

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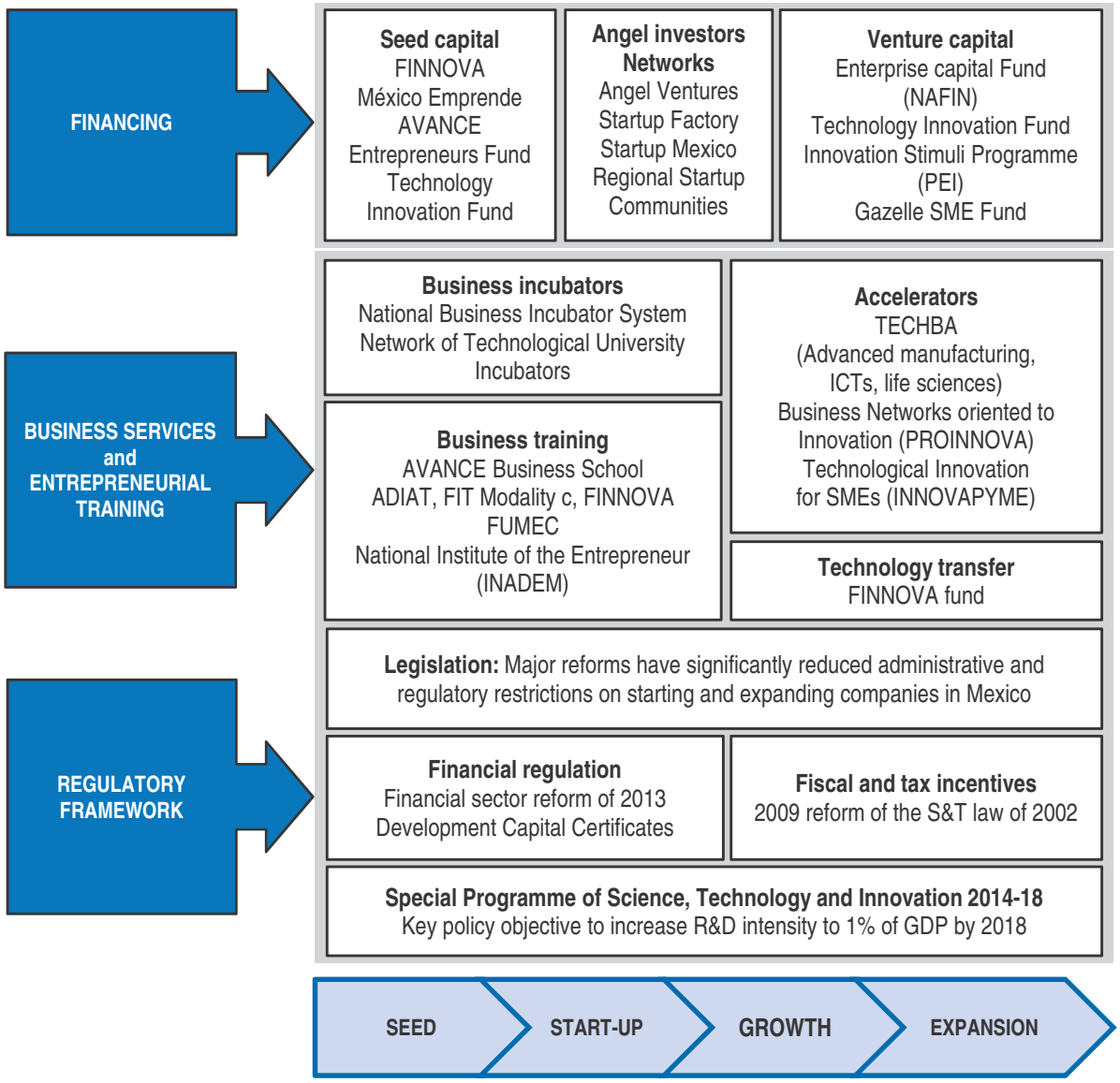
The major changes to the STRI score in telecoms stem from elimination of foreign equity restrictions. This reform alone reduces the STRI index by 7.5 basis points, mainly under restrictions on foreign entry. In addition an independent regulatory body, the Federal Telecommunications Institute, has been established. This is reflected in a reduction under the barriers to competition policy area. Another reform that is reflected in this policy area is elimination of minimum capital requirement, which in turn affects all sectors. These two changes reduce the STRI index by 4.7 basis points for telecoms.

The Federal Telecommunications Institute shall undertake market analysis to establish non-discrimination conditions for access to essential infrastructure resources, impose necessary measures to foster competition such as asymmetric regulation on any preponderant operator in the telecommunications market. Further reductions in the STRI index under the barriers to competition heading is expected when the regulatory authority has completed its market analysis and decided on imposing pro-competitive regulatory measures on incumbents found to have significant market power. This will be reflected in the STRI scores when a decision is made public.

Source: OECD Trade and Agriculture Directorate.

Figure 1.19. **Targeted policy tools to promote start-ups**



Source: OECD (2013), Start-up Latin America, OECD Development Centre, with updates.

promote clusters should avoid "picking winners" and focus on building on existing industry networks, enhancing infrastructure and promoting linkages with universities (Warwick, 2013).

Access to credit, especially in the seed and start-up phases, is still a relevant barrier to fostering start-ups in Mexico (OECD, 2013b, 2013c). Private equity and venture capital represent only 0.02% of GDP, one of the lowest figures in the region. A National Institute of the Entrepreneur was created in 2013 to refine and implement schemes to address entrepreneurs' needs, including forming a seed capital "fund of funds". Further strengthening of the start-up environment through enhancement and expansion of these programmes to support angel and venture capital financing would be especially helpful.

Box 1.5. **The Querétaro Cluster**

The aerospace sector is the fastest growing manufacturing industry in Mexico, and Querétaro is the most rapidly growing of several regional clusters in the sector (others being in Baja California and Sonora). Querétaro's development has been heavily driven by the industry itself. Key firms established in the state as anchors – notably Canadian company Bombardier and the French Safran Group – attracting additional related firms, eventually developing a network of local suppliers and relevant training institutions. The cluster's proximity to Mexico City has also made it easier to attract large numbers of bachelor-educated graduates, and it has begun to diversify into IT services.

Key to Querétaro's success has been the close relationship between the state government and private industry. An important co-ordination mechanism between the industry, education and research institutions is the Aerospace Research and Innovation Network of Querétaro (RIIAQ), which started in 2008 and helps develop and strengthen research, technological development and innovation capabilities.

Several training and education institutions now provide specialist courses and collaborative links with industry. Notable among these is the Aeronautical University in Querétaro (UNAQ), which is newly established public institution of higher education specializing in aircraft formations. In less than a decade, the UNAQ has grown extremely rapidly, aided by Federal government support.

Pacific Alliance members have been working jointly to boost SME financing, and one promising step was Mexico's joining of the Latin American Integrated Market (MILA) in 2014, making it the largest stock market in the region.

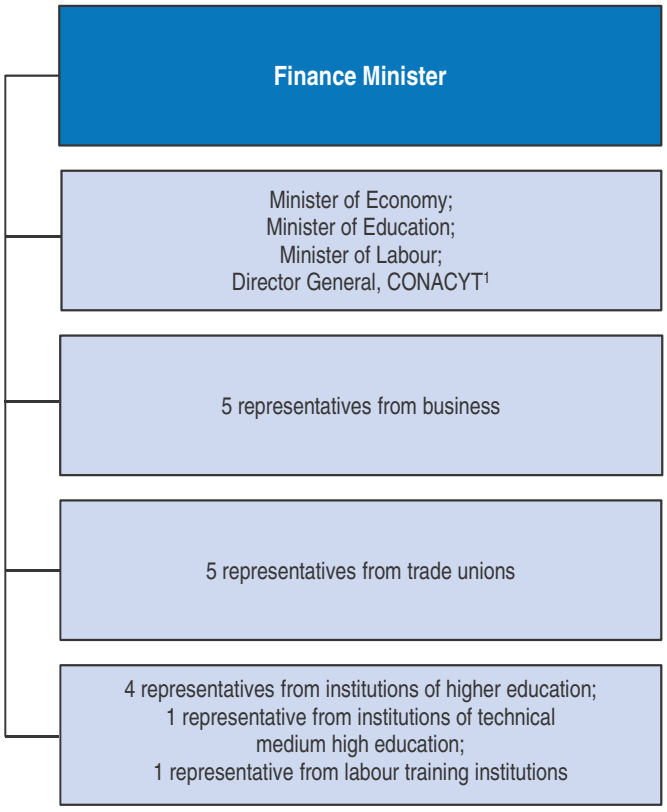
At the same time, fostering greater accumulation of human capital will be important; Mexico has one the lowest rates of doctoral degree completion in the OECD, and higher quality education more broadly will help, which means more investing in education at all levels (see Chapter 2). Strengthening co-ordination bodies that can help to identify the right policies can also help.

As a central part of the Programme to Democratise Productivity, a high-level consultative body – The National Productivity Commission (NPC) – was established in May 2013 to help strengthen co-ordination and help to identify the right policies. The NPC includes Federal Ministries, and the National Science and Technology Council, as well as representatives from the private sector, labour unions, and education institutions (Figure 1.20). The NPC contributed to the administration's Program for Democratising Productivity, which includes the Government's strategy for raising productivity in an inclusive fashion. More recently, the NPC has identified cross-cutting policy areas (such as labour training and innovation in specific sectors) in which co-ordinated actions are deemed crucial for boosting productivity.

Early signs suggest that the NPC is working well, helping to analyse problems and build consensus for reform, notably in the area of public sector management. In order to have a more robust impact, it could benefit from a stronger legal framework and more systematic processes related to the legislative branch. The productivity commission with the longest experience, Australia's is noted for its independence, transparency, and community-wide perspective. Thanks to these fundamental operating principles, it has strong credibility domestically. Legislation was submitted to Congress in October 2014 that

provides such a framework, focused around productivity and competitiveness, clarifying the Commission's economy-wide mandate and the establishing a requirement that the federal government respond to its policy recommendations; the new law should be passed and implemented.

Figure 1.20. **The structure of Mexico's Productivity Commission**



1. National Council for Science and Technology.
Source: Secretaría de Hacienda y Crédito Público de México (SHCP).

Recommendations to boost growth and reduce informality

Main recommendations

- Focus on fully implementing the reform package with close monitoring at a high political level, and strengthen administrative capacity and governance quality at all levels of government.
- Reform justice institutions, strengthen the rule of law, address security issues and reduce widespread corruption with reforms centred on the efficiency of judicial resolution of civil, commercial and criminal matters, and a strengthening of the transparency of public procurement.
- Improve and simplify the existing stock and quality of regulation at the local, state and national levels.
- Phase out restrictions on agricultural land ownership and transfer, while strengthening rural income support and access to finance.

Recommendations to boost growth and reduce informality *(cont.)*

Additional recommendations

- Promote high-tech industrial clusters with linkages to universities and early-stage investment vehicles.
- Address conditionality rules in the telecom reform that makes market access conditional on reciprocity.
- Examine the mandate of the new telecom competition regulator to be sure that it has enough scope of authority to deter future anti-competitive behaviours.
- Ensure that the new contracting rules for oil & gas investment are carefully designed in order to provide sufficiently strong motivation for large-scale private sector participation.
- Promote the implementation of the new political rules that allow for re-election of state and local offices.
- Pass the law that establishes the Productivity Commission's new mandate.
- Enhance the data infrastructure for evidence-based policy making.

Environment

- The new carbon tax should be evaluated given to determine the effective tax rate, and raised if deemed insufficient.
- Pass the pending renewables energy bill, and take further steps to fully implement the renewables target of 35% by 2024.
- Stay on track in the phase-out of the gasoline subsidy, such that gasoline prices are fully liberalised by 2018.

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Chapter 2

Sharing the fruits of growth

In 2013 the Mexican government embarked on a major reform agenda which, if fully implemented and pushed forward, will help Mexico break out from a recent history of economic stagnation and high levels of poverty and inequality that has hampered the quality of life of its citizens. Indeed, compared with other OECD countries, Mexico performs poorly in indicators that are essential to a good life, often resulting in traps that hinder growth and well-being. The government has introduced major structural reforms to fight poverty, improve the quality of education, create more jobs in the formal sector and move towards a universal social security system. This is a substantial accomplishment. However, Mexico needs to build a more inclusive state. This implies raising more tax revenue (without necessarily increasing tax rates) to expand social protection. It also means promoting an inclusive labour market to reduce informality and increase female labour market participation; inclusive schools to reduce educational gaps; inclusive health systems so that health care quality no longer depends on employment status; and inclusive cities to reduce geographical segregation.

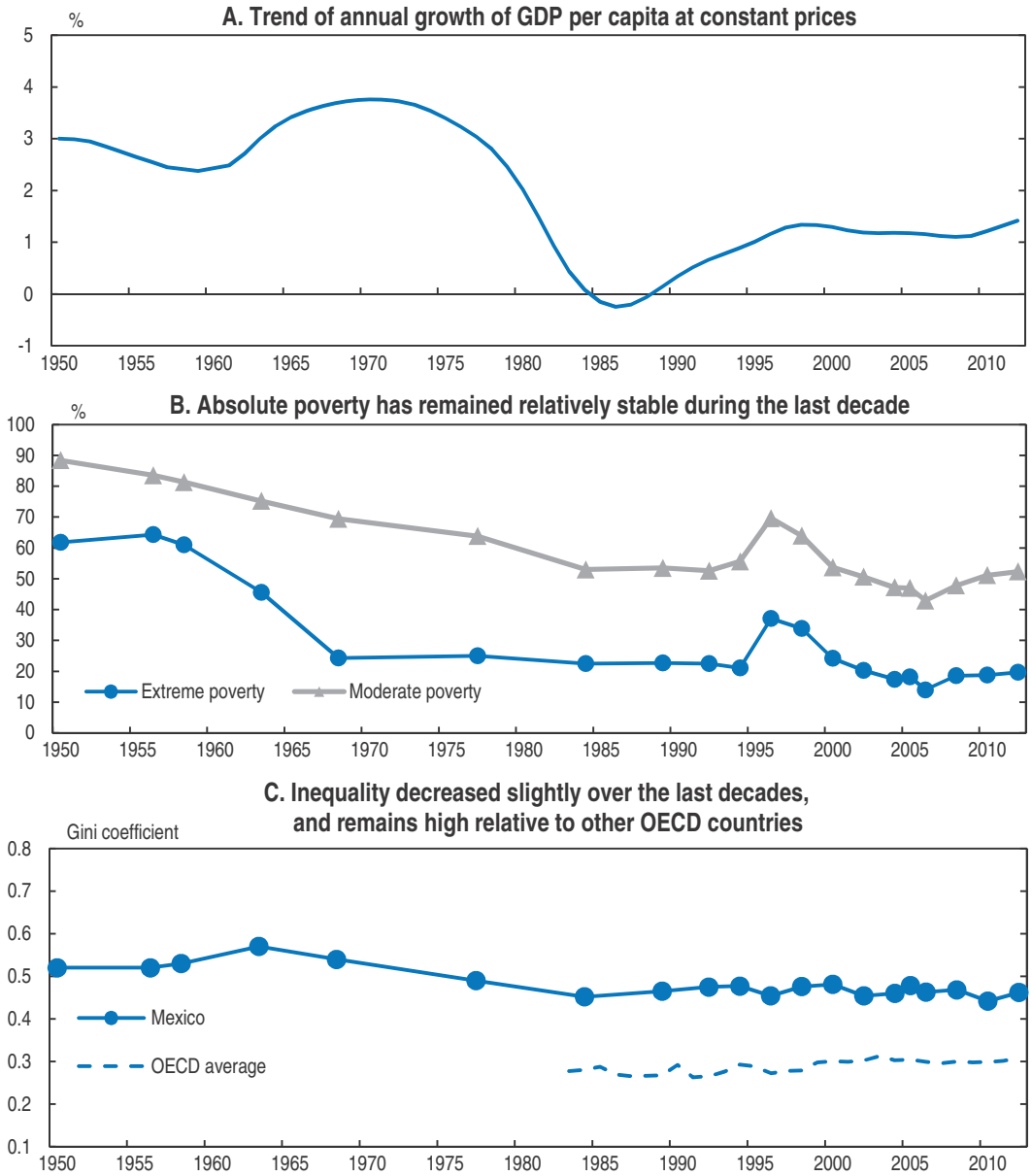
The Mexican government embarked in 2013 on a major reform agenda to break out from a history of economic stagnation and high levels of poverty and inequality (Figure 2.1). Previous governments had already attempted to achieve rapid economic expansion and significant reductions in poverty and inequality rates. However, these attempts were not entirely successful, in part because growth was not sustainable and led to the financial crises in 1982 and 1994. Poverty and inequality have, therefore, remained at levels that are very high compared to other OECD countries.

Mexico needs to improve its performance in many dimensions that are essential to a good life. Some areas where particular efforts are required are education, safety, income, housing, work-life balance and health (Figure 2.2, Panel A). The interrelation of these variables generates a vicious cycle that hinders economic growth and well-being. Indeed, poor qualities of education and health have a negative impact on people's productivity and induce informality (Mayer-Foulkes, 2008). Informality means poor job quality –affecting work-life balance and the time parents can spend nurturing their children with a negative effect on their well-being and future prospects – and lower fiscal revenues, which affects the state's capacity to provide high-quality public goods like health, education and social protection (LaPorta and Shleifer, 2014). As a result, intergenerational mobility is relatively low in Mexico: children of poor parents stay poor and children of rich parents stay rich, perpetuating the inequalities in time (Figure 2.2, Panels B and C) (Azevedo and Boullion, 2010).

Large inequalities of income reduce growth (Causa et al., 2014). Evidence shows that large inequalities can undermine progress in education and health, as well as create political instability, all of which reduce investment and affect long-run growth (Ostry et al., 2014). Furthermore, they translate into differences in subjective well-being (Stevenson and Wolfers, 2013). Although on average Mexicans report being more satisfied with their lives than people in most OECD countries, subjective well-being varies considerably across socio-economic groups (Figure 2.3). Empirical evidence produced for this *Survey* suggests that the level of subjective well-being in Mexico is significantly associated with the levels of income, education, job security, housing, health status and degree of social mobility (Box 2.1).

To end this vicious cycle and put the country back on a path of prosperity, the new government decided to take action and launched in 2013 the *Pacto por México*, which seeks to boost growth, reduce inequalities and improve well-being. Indeed, the major structural reforms discussed in the previous chapter have the potential to increase long run growth and will certainly contribute to reduce absolute poverty. Poverty reduction is determined not only by the rate of growth of the economy, but also by the change in the distribution of income (Bourguignon, 2005). Recognizing this, the administration has introduced reforms that go beyond macroeconomic variables and focus on improving the quality of life of Mexican citizens.

Figure 2.1. **Mexico has suffered from a combination of economic stagnation and high levels of poverty and inequality**



Note: Panel A: GDP is smoothed by a Hodrick-Prescott filter with a lambda of 100. Panel B: *Moderate 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. *Extreme 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.

Source: OECD Analytic database; Penn World Table; Székely (2005) and Socio-Economic Database for Latin America and the Caribbean (CEDLAS and World Bank).

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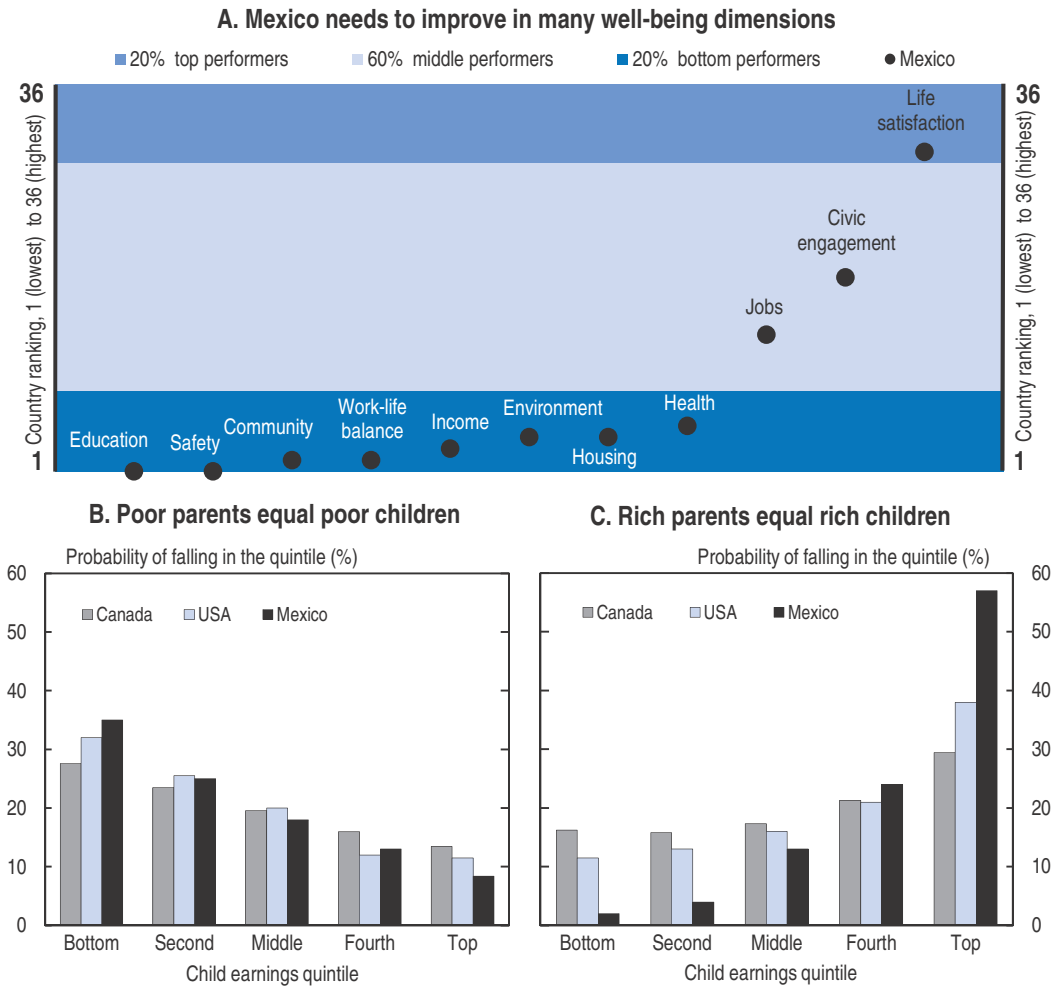
This chapter reviews these reforms and suggests areas where further improvements could be necessary. It argues that while what has been accomplished is substantial, more work remains to ensure that the fruits of growth are shared among all Mexicans. In particular, to reduce inequalities and improve well-being to the level of other OECD countries, Mexico needs to build a more inclusive state. This implies raising more tax

Figure 2.2. **Well-being and social mobility are low in Mexico**



Note: Data for panel A include Brazil, Russia and the 34 OECD countries. Panel B shows the distribution of earnings of children whose parents' earnings are in the bottom income distribution. Panel C shows the distribution of earnings of children whose parents' earnings are in the top income distribution.
Source: OECD, How's Life? Measuring Well-being (2014); and Olaberría (2014).

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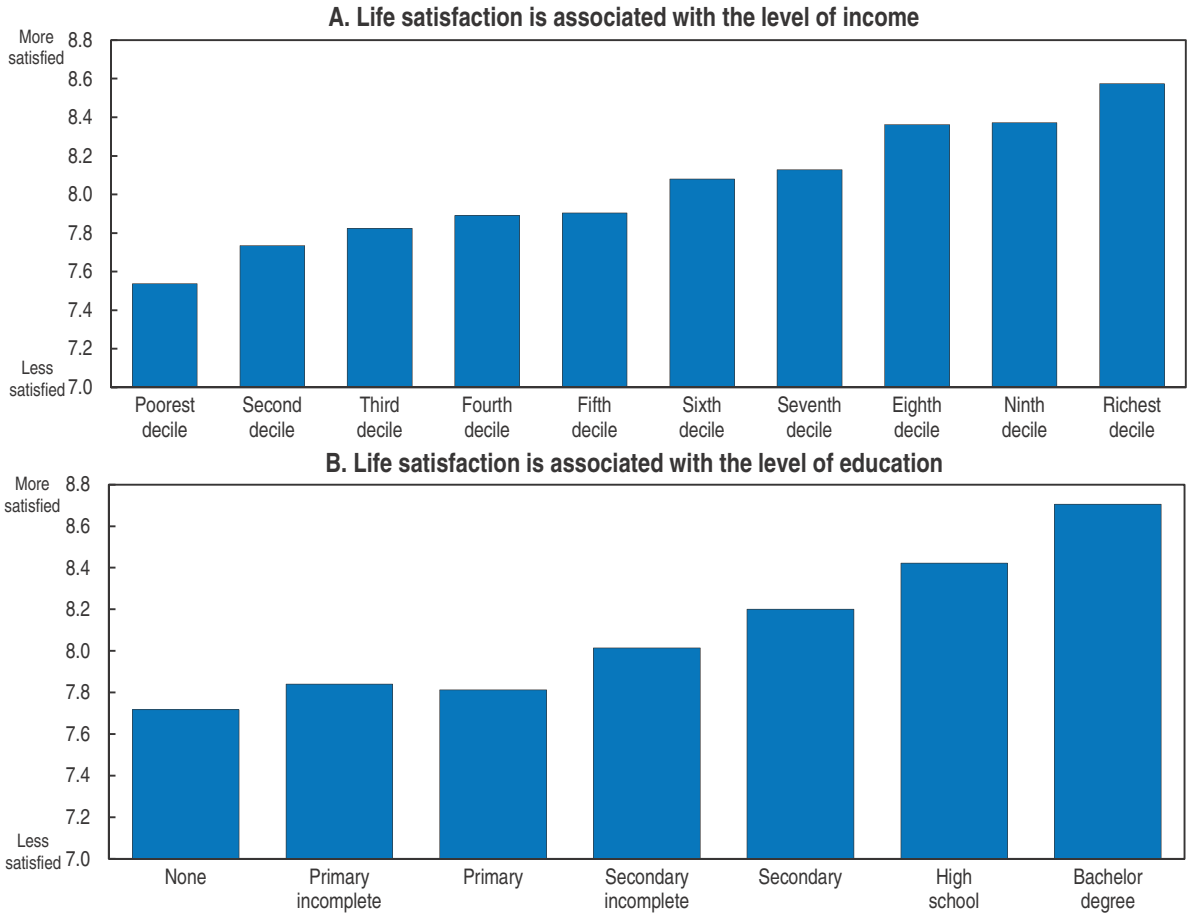
revenue (not necessarily by increasing tax rates) to expand social protection; but also promoting *inclusive labour markets* to reduce informality, *inclusive schools* to reduce the educational gaps, *inclusive health* so that access to comprehensive health care services no longer depends on employment status and *inclusive cities* to reduce geographical segregation. If efforts to do this are not heightened further, inequalities will persist and there is a risk that Mexico will remain with low levels of growth and well-being, ruining people's hopes and eroding government's credibility.

Building an inclusive state

An inclusive state is one that, while supporting growth, ensures that no person is left behind and levels the playing field providing opportunities for everyone to reach their maximum potential. To do this, the state needs to be efficient and effective at raising enough tax revenues to be able to provide social protection to all citizens, pay pensions, set the right incentives to join the formal market, guarantee an education of high quality for

Figure 2.3. **Inequality affects life satisfaction**



Source: INEGI, Módulo de Bienestar Autorreportado (BIARE), 2012.

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all children, guarantee a decent quality of health services and exercise a unique power to compel and maintain law and order. For many years, the Mexican state has failed to do this in a satisfactory way, but the recent reforms are contributing to change this history.

Despite progress made during the last decade (Scott, 2014), compared with most OECD economies where fiscal policy contributes to reducing inequalities, in Mexico poverty and inequality remain very high even after taxes and social spending are considered (Figure 2.4, Panel A). Even when compared to other countries in Latin America with similar products per capita (e.g. Argentina, Brazil and Uruguay), incidence studies of social spending suggest that in Mexico the impact of the tax and transfer system on reducing poverty and inequality is undoubtedly lower (Lustig, Pessino and Scott, 2014). This is mainly because these countries raise more tax revenues (as a share of GDP) that enable them to have a higher level of social spending with a relatively similar degree of tax progressivity (López-Calva et al., 2014).

The tax reform passed by the current administration will increase general government revenues from 19.6% to 24% of GDP over the period 2014-18, and contribute to reduce inequality indexes, as more than half of this increase will come from higher taxes on the richest 10% of the population. With this reform the Gini coefficient after taxes and transfers will decrease (Figure 2.4, Panel B). Indeed, Mexico will no longer be the

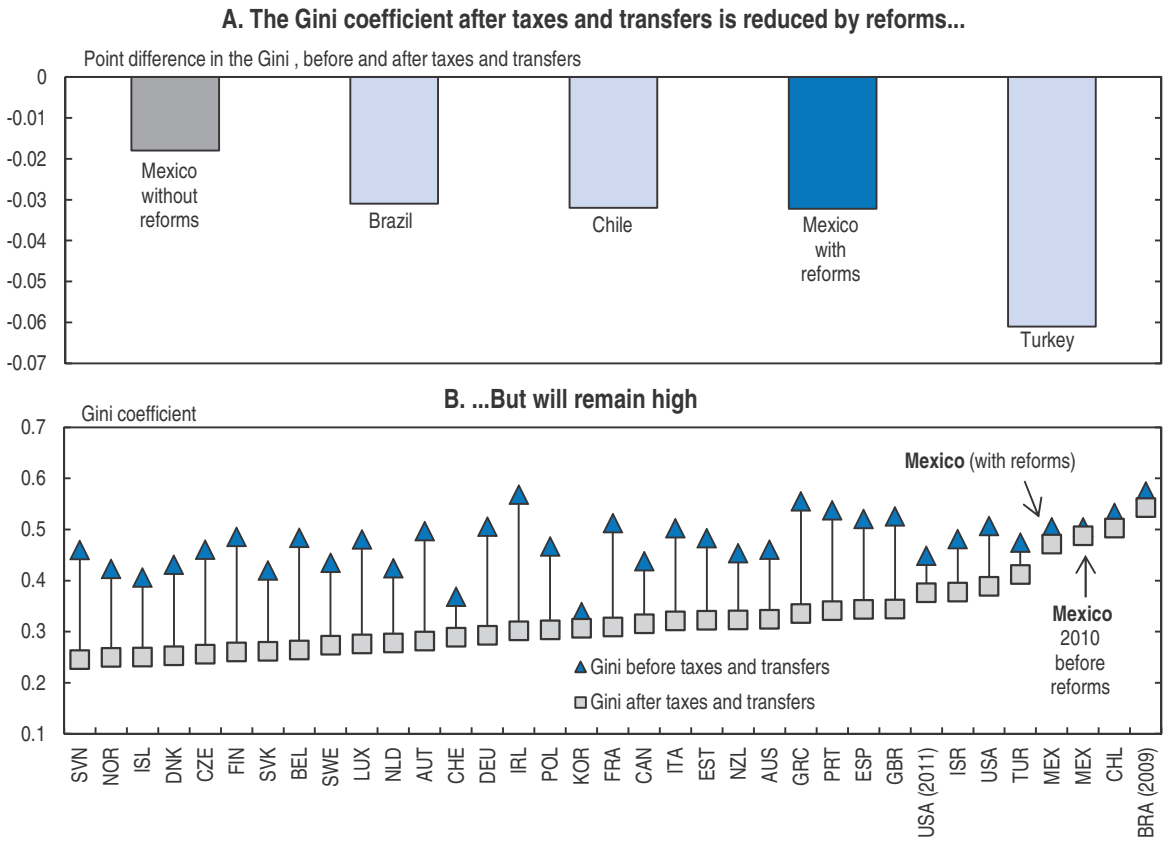
Box 2.1. **What makes Mexicans happy?**

It is increasingly recognized that measures of subjective well-being can be a good indicator of quality of life *per se* and help to understand what matters to people, beyond their material conditions (Stiglitz et al., 2009). Most studies analysing subjective well-being across countries find that around 80% of the variance in country life satisfaction can be explained by objective measures of material conditions, health, job security, personal security and education (Oishi et al, 2009; Stevenson and Wolfers, 2013). These studies also show that Mexico and other Latin American countries report, on average, levels of life satisfaction that are above what would be predicted by objective measures of well-being. This is a paradox. Do Mexicans report relatively high average levels of happiness because of a cultural bias, a data bias or because their levels of happiness are simply not affected by objective measures of well-being? To understand better the relationship between the objective and subjective measures of well-being in Mexico, a study conducted for this survey (Dugain and Olaberría, 2014) carried out an econometric analysis following the methodology of Caldera Sanchez and Tassot (2014) and using data from Gallup and *Modulo de Bienestar Autorreportado done by the Instituto Nacional de Estadistica y Geografía*. The results suggest that in Mexico there is a significant association between objective and subjective measures of well-being, in particular:

- **Income**: Individuals are better off when their incomes is high compared with other groups. After controlling for all other characteristics, results show that, of income does make a significant difference in terms of subjective well-being among the Mexican people. The higher the income, the more satisfied people are with their lives.
- **Education**: Controlling for income and other demographic characteristics, Mexicans with lower levels of education are significantly less satisfied with their lives than people with higher levels of education.
- **Unemployment**: Controlling for income and other demographic characteristics, Mexicans with jobs are significantly more satisfied with their lives and are happier than the unemployed.
- **Minorities**: Belonging to an ethnic minority does not have a significant effect on subjective well-being once income and education are controlled for. This result suggest that the fact that indigenous people report, on average, lower levels of life satisfaction and happiness is mostly explained by their lower opportunities.
- **Work-life balance**: Time spent on physical activities or with family and friends are significantly and positively associated with overall life satisfaction as well as overall happiness. Mexicans more satisfied with their family and social life are significantly more likely to be very satisfied with their life than Mexicans not having good family and social life.
- **Intergenerational Mobility**: results show that in Mexico, regardless of the objective economic situation, individuals who live better than their parents (e.g. had better educational opportunities, jobs or income) are significantly more satisfied with their lives and happier than individuals that are in a similar or worse situation than their parents.

In conclusion, increasing incomes, improving educational and health outcomes and reducing work related stress will not only contribute to higher growth, it will also increase the level of happiness in Mexico.

Figure 2.4. **Tax policy should do more to reduce inequality and poverty**



Note: For panel A, 2012 for Australia, Finland, Hungary, Korea, Mexico, the Netherlands and the United States. 2010 for Belgium.
Source: OECD, Income and Poverty Database; Mexico Ministry of Finance (SHPC); Commitment to Equity (Panel B, for Mexico and Brazil).
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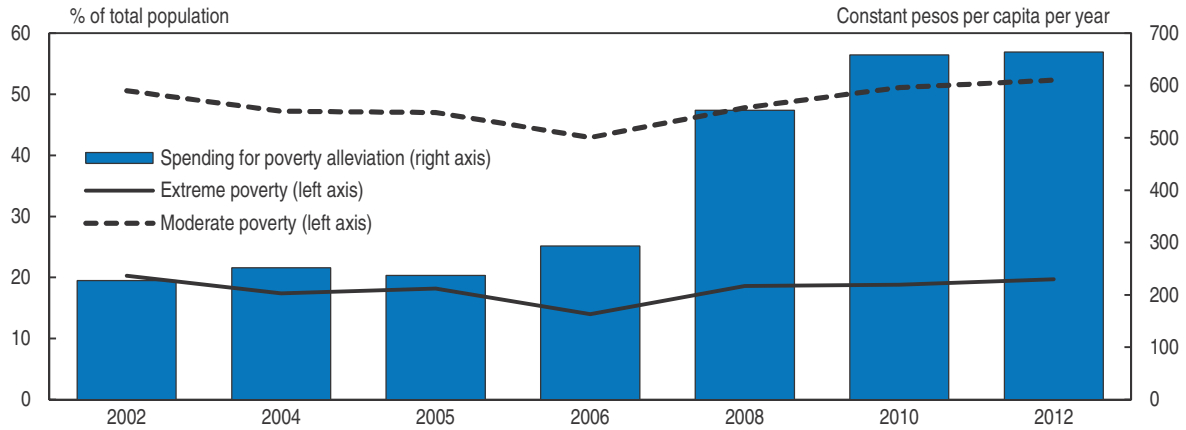
OECD country where the tax and transfer system does the least to reduce income inequality (so far, the Gini coefficients before and after taxes and transfers were very similar). However, revenues as percentage of GDP will still remain way below OECD averages (35%) and income inequality will remain well above the OECD average. Therefore, to reduce inequalities further, enhanced efforts are required to increase tax revenues and increase the efficiency of social spending.

Tax revenues can be improved in many ways, not just by increasing tax rates. In particular, revenues can be increased by reducing informality and encouraging more women to join the labour force. In this regard, the measures in the tax reform to promote formality are a step in the right direction. While preliminary results are encouraging, with close to 800 000 new participants in the new tax regime for small firms, continued efforts over the medium term are necessary. Encouraging formality and raising women labour force participation will enable more workers to have access to social rights – such as unemployment insurance, comprehensive health care insurance and pensions. As more workers join the formal sector, the vulnerability of social institutions will recede, fiscal revenues will increase and long-term sustainability of social entitlements will be strengthened. In the end, it will reduce the need for poverty alleviation. Hence, a key priority discussed in the next section is to make the labour market more inclusive.

The recent reforms will also help to improve the efficiency of social spending to fight poverty more effectively. Historically, Mexican households living in poverty have had limited capacity to insure against shocks. Consequently, their income and consumption patterns are very volatile and follow closely overall macroeconomic trends, increasing in good times and decreasing in bad ones (Banerjee and Duflo, 2007). For example, from 2007 to 2010, after the global financial crisis, Mexico recorded a cumulative decrease in real household disposable income of more than 5%, one of the largest declines among the OECD countries. The drop in household disposable income at the lowest levels of the distribution was even larger. As a result, despite an increase of 126% in real terms in anti-poverty spending, the absolute moderate poverty rate increased from 42.9% to 52.3% since 2006 (Figure 2.5).

Figure 2.5. **Poverty has remained relatively constant despite higher anti-poverty spending**



Note: *Moderate 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. *Extreme 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.
Source: CONEVAL, INEGI and Government Report Statistical Annex, 2013.

StatLink http://dx.doi.org/10.1787/888933175104

To strengthen the fight against poverty, the current administration has started to overhaul several social programmes. Among these is the "National Crusade Against Hunger" (*Cruzada Nacional Contra el Hambre*), which seeks to help 7 million people in hunger by pooling human and financial resources from various programmes at the federal, state and municipal levels. The goal is to lift people out of poverty, reduce infant mortality rates and improve inclusion. This reform seeks to improve the effectiveness of the fight against poverty by making social spending more progressive and targeting it better. Furthermore, by improving coordination this reform will reduce duplication among programmes and resources, raising their impact without raising costs. *Oportunidades* – the conditional cash transfer programme that helped to reduce poverty (Box 2.2) – is being modernized under the new name of "*Prospera*". Under this new programme, all beneficiaries will continue to receive support they had under *Oportunidades* and will also benefit from new tools to help them improve their productive potential. Specifically, children can now receive scholarships for college or technical college; and those looking for a job have priority in the National Employment Service. Furthermore, *Prospera* will facilitate access to financial education, savings, insurance and credit; it will also allow families to strengthen their own income by providing training and microcredits to support their productive activities in areas such as agriculture and craftsmanship.

Box 2.2. **Oportunidades**

Progresa was introduced in 1997 in rural areas. In 2002, it was converted to *Oportunidades* and extended to urban areas. This federal conditional transfer programme aims to improve the educational, health and nutritional conditions of people living in extreme poverty. In Mexico about 18% of the population lives in extreme poverty, being defined as living under the lowest national poverty line. This means that those people are not even able to satisfy their food requirements. From the beginning of the *Oportunidades* programme, the implementation was accompanied by a rigorous evaluation process, including the collection of data at individual level and the analysis of this data by national and international research institutions (SEDESOL, 2010). In its early years, the programme helped to decrease poverty, contributed to human capital formation and helped to smooth consumption during economic downturns (CONEVAL, 2012).

Currently *Oportunidades* covers the whole country and reaches about 6 million households, being about a quarter of the total Mexican population. The aim is to help families living in the conditions of extreme poverty by giving them better access to education, health care and nutrition. Different ways of assistance to families are available according to their needs, among others: resources for women, mothers of family, for the family income and a better nutrition; Scholarships for children and adolescents, starting from the third grade of primary going up to the last grade of semi-superior education (high school level); help for school tools; medical services packages and education session in health care; and nutrition complements for boys and girls from 6 to 23 month and with undernourishment between 2 and 5 years, as well for pregnant women and during the period of breastfeeding.

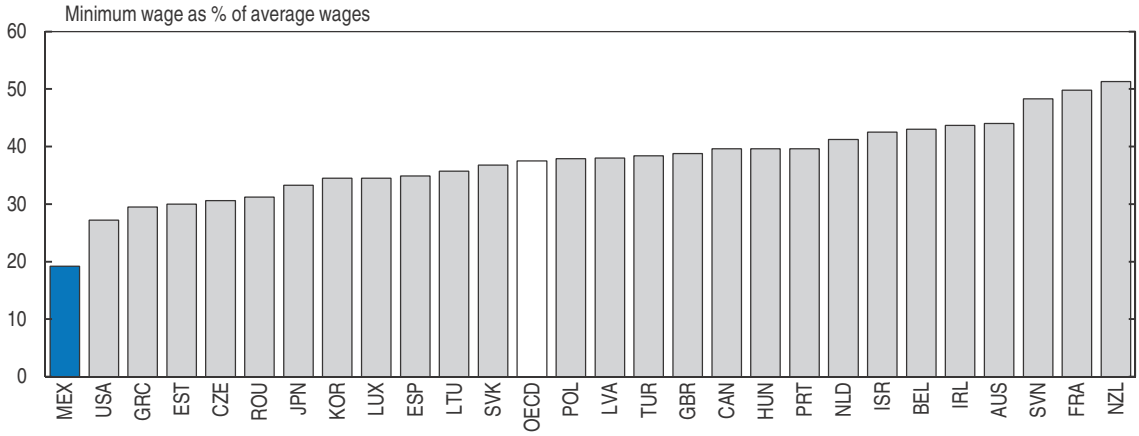
To provide income protection to the elderly, the administration has proposed a Universal Pension Act. Approving this Act should be a main priority as Mexico has one of the highest old-age poverty rates in the OECD. Approximately 66% of total population older than 65 years do not have access to a pension and 4 million live in poverty. The Universal Pension Act will assure that all Mexicans living in the country who are over 65 years old and are not entitled to receive a pension benefit will be eligible for a minimum pension granted by the Federal Government. It will be fully funded by the Federal Government and will have an average annual cost of 0.3% of GDP for the period 2014-18, and will remain below 1% of GDP in the long term.

Similarly, to cushion the income of workers who lose their formal job and allow them to seek for a new job, the administration has proposed the creation of unemployment insurance. This will guarantee a 6-month benefit to all workers who lose their job in the formal sector, and who have contributed during a minimum of 24 out of the last 36 months. The funding will be a mixed sub-account, funded by the employer, who will be required to contribute 3% of the employee's basic wage. This will not represent a new cost for the employer, given that this 3% comes out of the 5% that the employer now contributes to a worker's housing fund. This sub-account belongs to the worker, who can choose whether to use it for housing, pension or unemployment insurance. To complement this, there will be a Solidarity Fund that will guarantee a minimum wage for 6 months to all workers, funded with a Federal Government contribution of 0.5% of the workers basic wage, which represents approximately 9 billion pesos a year.

These reforms are an important step forward; however, a stronger commitment to improve social protection and increase household income is required to reduce poverty and inequality to the levels observed in other OECD countries. For instance, increasing the minimum wage and delinking it from the evolution of other prices in the economy should be considered. Mexico has the lowest minimum wage relative to the average wage in the OECD (Figure 2.6), and, measured in USD at PPP, the lowest in Latin America. In Mexico the minimum wage fell in USD terms between 2000 and 2012. As a result, Mexico is the only country in Latin American where the minimum wage is below the *per capita* poverty line (Cepal, 2014).

Figure 2.6. **The minimum wage is relatively low in Mexico**

The minimum wage as a share of average wages of full-time workers (2012)



Source: OECD, Labour Force Statistics Database.

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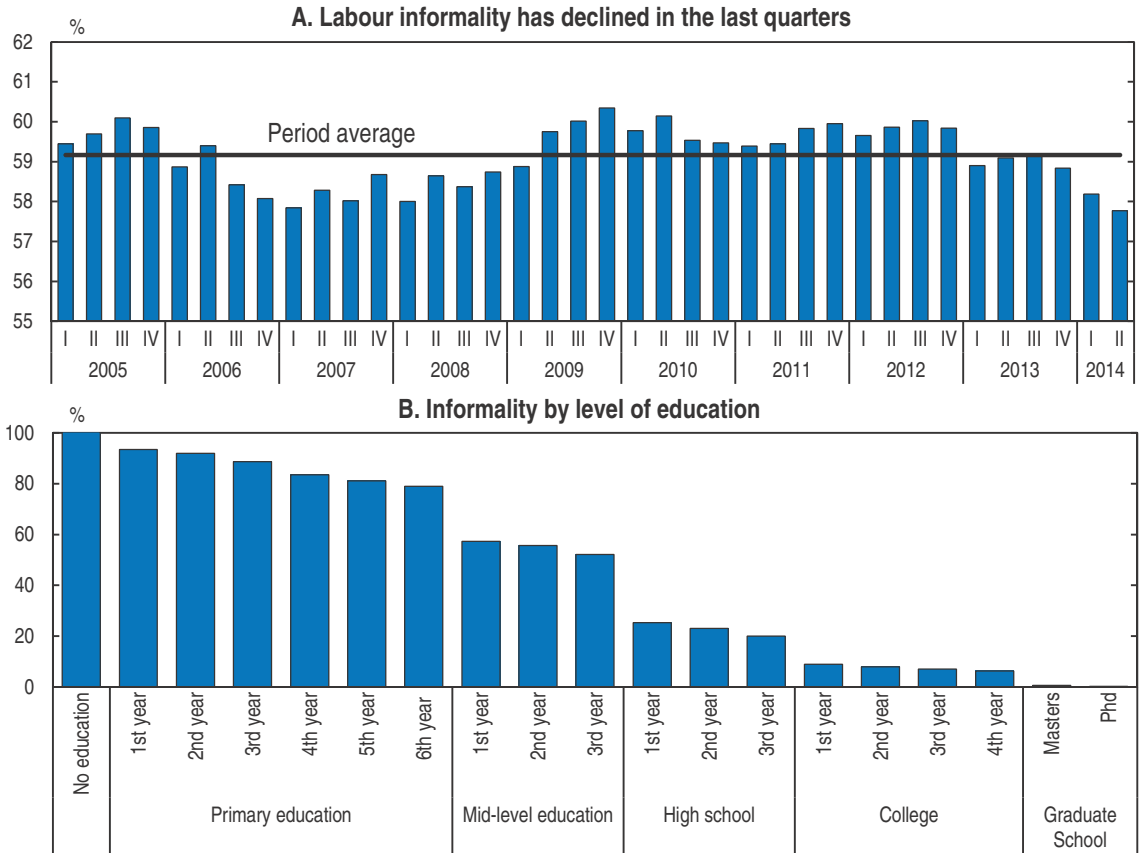
Evidence shows that low minimum wages have contributed to higher income inequality in Mexico (Bosch and Manacorda, 2010), a result that is consistent with evidence for the United States (Card and Di Nardo, 2002; Lemieux, 2006). Hence, Mexico should consider raising the minimum wage to fight poverty and inequality. The fact that, according to INEGI, 14% of workers – mostly in the informal sector – receive an income that is below the minimum wage, suggests that raising it may not be effective. Despite this, some studies on the impact of minimum wages on informality, although not conclusive, show that modest increases in the minimum wage may in fact draw more people into the formal workforce and spur productivity (Eyraud and Saget, 2008). Furthermore, Mexico should delink the minimum wage from other administrative and social features: Many wages, social benefits, pensions, fellowships, and even fines have traditionally been expressed as multiples of the minimum wage (Bosch and Manacorda, 2010). This should be changed as it generates pervasive incentives when potential increases are proposed as a result of the fear that it could put pressure on costs and inflation.

Inclusive labour markets

Labour informality is a pervasive characteristic of the Mexican economy and is a central concern for public policy. Many workers are self-employed or work in small and precarious firms, without access to social protection. Despite some improvements in recent years, 57% of workers still operate in the informal sector (Figure 2.7, Panel A). Indeed, while many Latin American countries saw a significant decline in informality rates over the last decade, in

Figure 2.7. **Labour informality has decreased over the last two years, but remains very high**



Source: INEGI. Encuesta Nacional de Ocupación y Empleo. Informalidad laboral. Tasas de informalidad trimestral.

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Mexico it remained relatively constant (Tornarolli et al., 2014). However, a clear downward trend started since the last quarter of 2013 and has continued throughout the first half of 2014, possibly reflecting the effects of the labour and tax reforms.

Informality is widespread in less urbanized areas and in the agricultural sector: Almost 6 of every 10 informal workers live in localities with less than 100 thousand inhabitants. In turn, two thirds of formal workers live in localities of more than 100 thousand inhabitants, where there is a higher presence of larger and legally constituted enterprises. Informality has a regional pattern (Dougherty and Escobar, 2013). The South of Mexico – characterized by poorer infrastructure, low population density and predominance of agricultural activities – has higher informality rates. Informality is also associated with educational attainment (Figure 2.7, Panel B). While on average, the informality rate among workers who have only primary education or less is above 80%, informality among workers with at least secondary education is 20%, among workers with tertiary education is 6% and among those with doctoral studies is 0.3%.

As described in Chapter 1, the government has started to address this problem through the creation of a new tax regime for micro and small firms that offers a variety of fiscal incentives that resemble the Brazilian example (Box 2.3), as well as by a campaign "Let's Go Formal" that includes benefits such as financing for businesses to expand, and housing and consumer credit. Recent evidence suggest that these measures may be having

Box 2.3. **Policies to reduce informality: the example of Brazil**

Many Latin American countries have been relatively successful at reducing informality during the last decade. Among these, Brazil stands out as one of the most successful cases (Tornarolli et al., 2014). The Brazilian example could, therefore, be of interest for Mexico to learn what policies have been successful in countries with a similar level of development.

Brazil experienced a significant reduction in the informality rate from 62.2% in 2000 to 49% in 2012. As in other Latin America countries (e.g. Argentina, Peru and Ecuador), this significant reduction in the informality rate was driven, on a large extent, by economic growth (Baltar, Krein and Moretto, 2006; Bosch, Goni and Maloney, 2007; Corseuil and Foguel, 2012; Tornarolli et al., 2014). Hence, it is likely that continued emphasis on creating the right conditions for economic growth will lead to further gains in formal employment. However, evidence suggests that, in the case of Brazil, specific policy interventions also contributed to reduce the informality rate.

For instance, a number of studies of the Brazilian case suggest that the reduction of employment costs helped to reduce informality. In particular, the introduction in 1996 of the Integrated Tax and Contribution Payment System for Micro- and Small Enterprises *(Sistema Integrado de Pagamento de Impostos e Contribuições das Microempresas e Empresas de Pequeno Porte* or SIMPLES Law), had a significant effect on the informality rate (Monteiro and Assunção, 2006; Cardoso Junior, 2009; Fajnzylber, Maloney and Montes-Rojas, 2011). This law facilitated registration and lowered the rate of taxation for small and microenterprises. Evidence suggests that this law contributed to the formalisation of nearly 500 000 microenterprises between 2000 and 2005, accounting for around two million jobs (Delgado et al., 2007). A more recent law aimed at microenterprises with up to one employee (Lei Complementar 128/2008) was approved in 2009 and also significantly reduced the cost of formalisation and contributions to social security. Recent evidence suggests that this law also had an impact on the formalisation of the self-employed (Corseuil, Neri and Ulyssea, 2013), although there appears to be some perverse effect also on firms substituting regular employees for self-employed service providers.

Stricter enforcement mechanisms have also contributed to a higher proportion of formal employment. Evidence suggests that stricter enforcement leads to a higher proportion of formal employment (Almeida and Carneiro, 2007; Ulyssea, 2008). Although Brazil did not increase the number of labour inspectors to the level recommended by the International Labour Organization, it introduced a couple of initiatives that have enhanced monitoring and enforcement. In particular, Brazil changed the incentives under which inspectors work, including a bonus system linking salaries to performance targets, which have greatly increased the effectiveness of enforcement and led to an increase in formal worker registration (Berg, 2010).

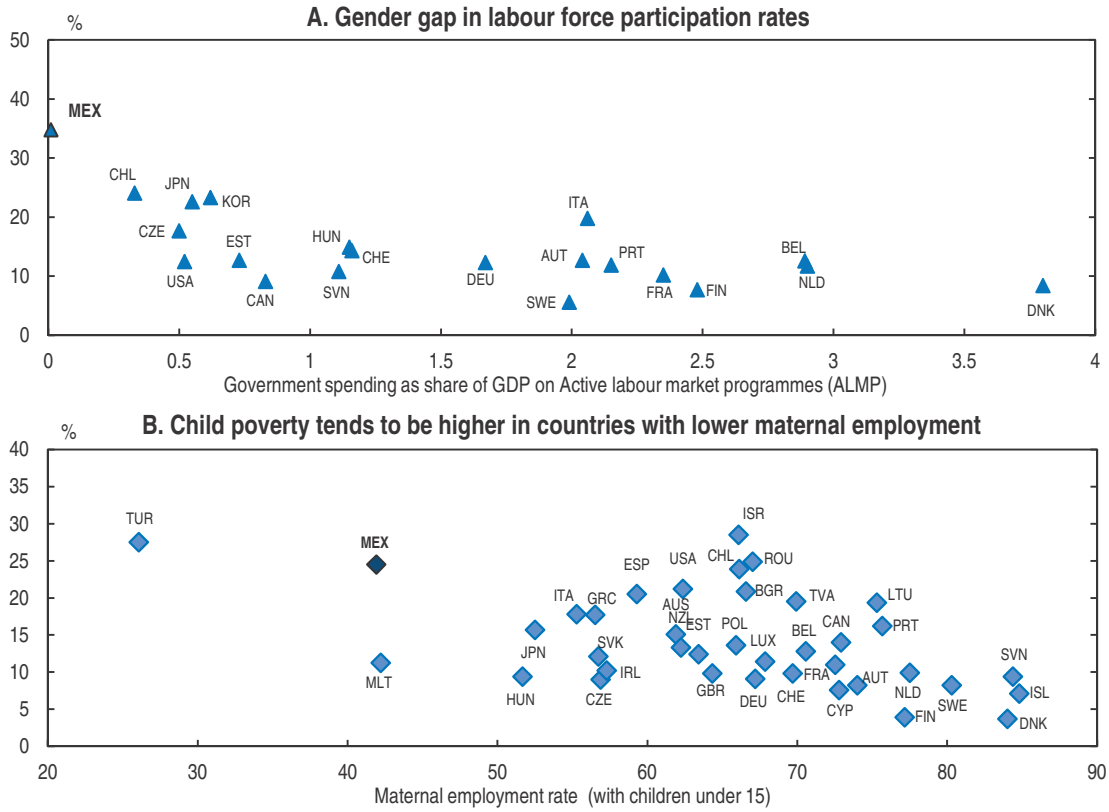
Note: This box is based on the findings of OECD (2014c).

a positive effect, as already 4.3 million firms have registered under the new scheme, as compared to 3.5 million under its predecessor. Similarly, the comprehensive labour reform law of late 2012 also represented an important step forward to reduce informality. It contained provisions to reduce the costs associated with workforce adjustment in formal sector firms. These reforms are likely to be effective as evidence from a panel of Latin American countries shows that more regulated labour market, in particular a larger tax wedge, increases the size of the informal economy (Lehmann and Muravyev, 2012). Indeed, since the adoption of the law the informality rate has decreased (Figure 2.7, Panel A).

However, further efforts are needed to improve formal employment prospects, especially for women and young people. For instance, Mexico should improve enforcement capacity, especially the resources devoted to labour inspection, so that labour laws can work more effectively. Evidence from other emerging economies suggests that stricter enforcement leads to a higher proportion of formal employment (Almeida and Carneiro, 2007; Ulyssea, 2008). Therefore, allocating more resources to enforcement, i.e. increasing the number of inspections and increasing fines for breaches of labour regulations, is a policy option that Mexico should consider.

Policies to encourage more women to join the labour force should be a priority. Mexico is the OECD country with the widest gender gap in labour participation rates (Figure 2.8, Panel A). Empirical evidence suggests that reducing the gender gap can have significant impact on growth (Thévenon et al., 2012). In particular, recent OECD estimates suggest that a 25% reduction by year 2025 in the gender gap for labour force participation rate would lead to an expected additional GDP growth of 1% in Mexico by then (OECD- ILO-IMF-World Bank, 2014), also boosting fiscal revenues. Bringing more women into the labour force should also reduce child poverty (Figure 2.8, Panel B). In Mexico, the percentage of single-mother heads of households increased from 14.6% in 1992 to nearly 25% in 2008, and an increasing proportion of them live in poverty (Arias et al., 2010).

Figure 2.8. **Mexico spends little on Labour Market Programmes and has the widest gender gap in the OECD**



Source: OECD, Labour Market Programmes Database and Family Database; and ILO.

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To reduce the gender gap, policies should seek to increase job market options for women, while reducing the opportunity costs of joining the labour force. Evidence shows that female labour supply is much more responsive to wage changes than male labour supply, affecting the hours they work but even more their decision to participate in the labour market (Killingsworth and Heckman, 1986; Evers et al., 2006). This is because the decision faced by women takes into account that there is a high opportunity cost (an outside option) of joining the labour force: choosing to bear children and/or become a housewife, while a partner may provide household income.

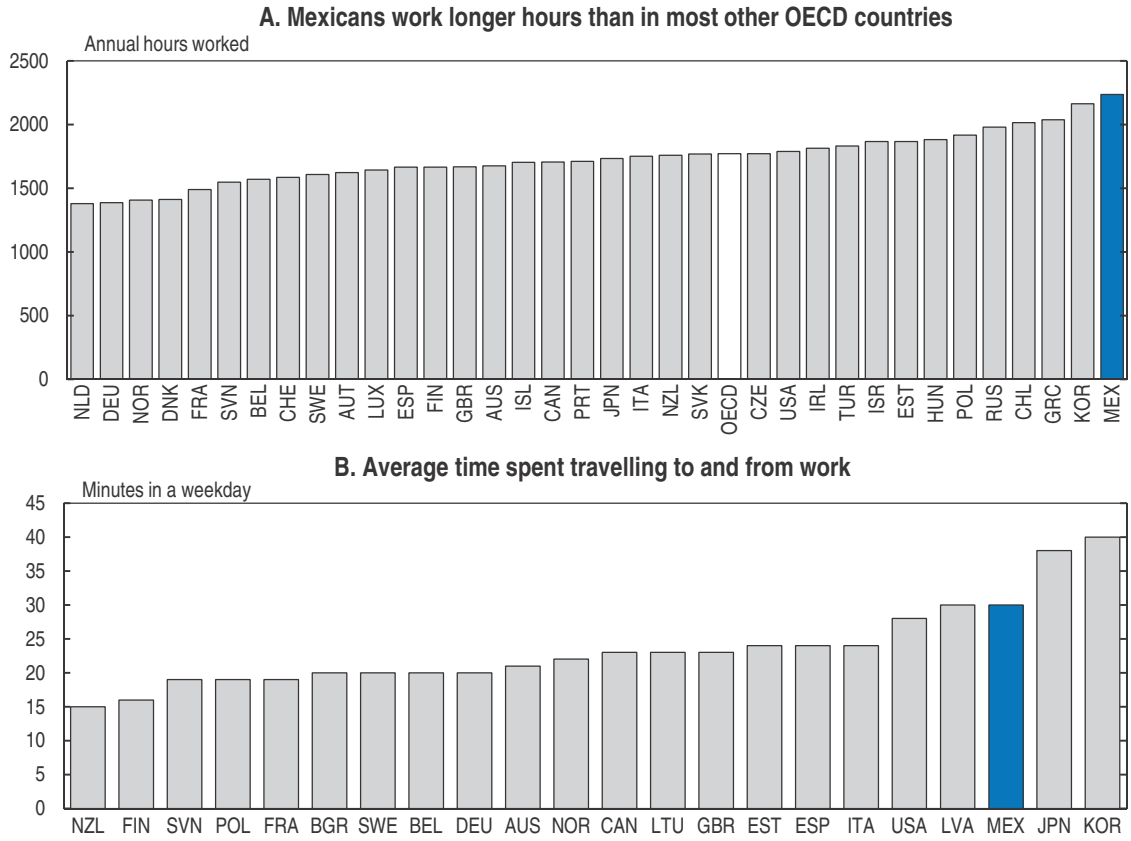
A place to start to increase the returns of joining the labour market is by expanding active labour market policies. Evidence suggest that active labour market policies are potentially very important to bring women into employment as the average effects of these programmes are larger for women than for men (Bergemann and Van den Berg, 2008). This is because women's labour supply is more elastic than men's, and therefore participation in a programme that increases labour market opportunities, like a successful skill-enhancing training programme, may subsequently lead to job offers that are acceptable. Mexico is the OECD country with the lowest level of public spending devoted to active labour-market policies (Figure 2.8, Panel A). Therefore, expanding spending in labour-market programmes could contribute to increase women's labour participation and reduce the gender gap.

But this should be complemented with policies to reduce the opportunity cost of joining the labour force. In particular, to encourage more women to join the labour force, Mexico needs to improve work-life balance and increase public support for family benefits and child-related entitlements. Data shows that Mexicans face important work-life conflicts. People in employment work longer hours (2 236 hours annually) in Mexico than in all OECD countries (OECD average of 1 770 hours) (Figure 2.9, Panel A). For most people at full-time work, 40 hours of work are required every week over 50 weeks per year (hence 2 000 hours annually). Mexicans not only spend long hours at work, because of poor public transportation services (in part as a result of the lack of an urban development plan, an issue discussed in the next section) they also spend a long time traveling to and from work (Figure 2.9, Panel B).

Work-life conflicts do not affect everyone equally; it depends on how people can cope with job pressures, which many times depends on the support available through their jobs and the public sector. For instance, working mothers have a reduced amount of time to spend with their children, unless they have access to networks or help for child care. Therefore, to bring more women to the labour market, a key priority is to provide more public support to families with children. In Mexico, women are three times more likely than young men to be neither in education nor employed, a number that largely reflects young women raising families. A priority should be to expand high-quality childcare (OECD, 2011b), especially for children aged up to three years, as Mexico is one of the OECD countries with the lowest share of children of that age in pre-school programmes.

In Mexico, child-related leave entitlements are limited. Maternity leave, although paid at 100% of last earnings, lasts just 12 weeks and only covers women in formal employment. Also, access to high-quality and affordable care is central for facilitating parental employment. Although efforts to increase childcare (*Programa de Estancias Infantiles para Madres Trabajadoras*) and pre-school enrolment rates (by implementing compulsory pre-school education) have translated into higher participation rates, more can be done. For

Figure 2.9. **Mexicans workers are under stress**



Source: OECD, Family Database and Labour Force Statistics Database.

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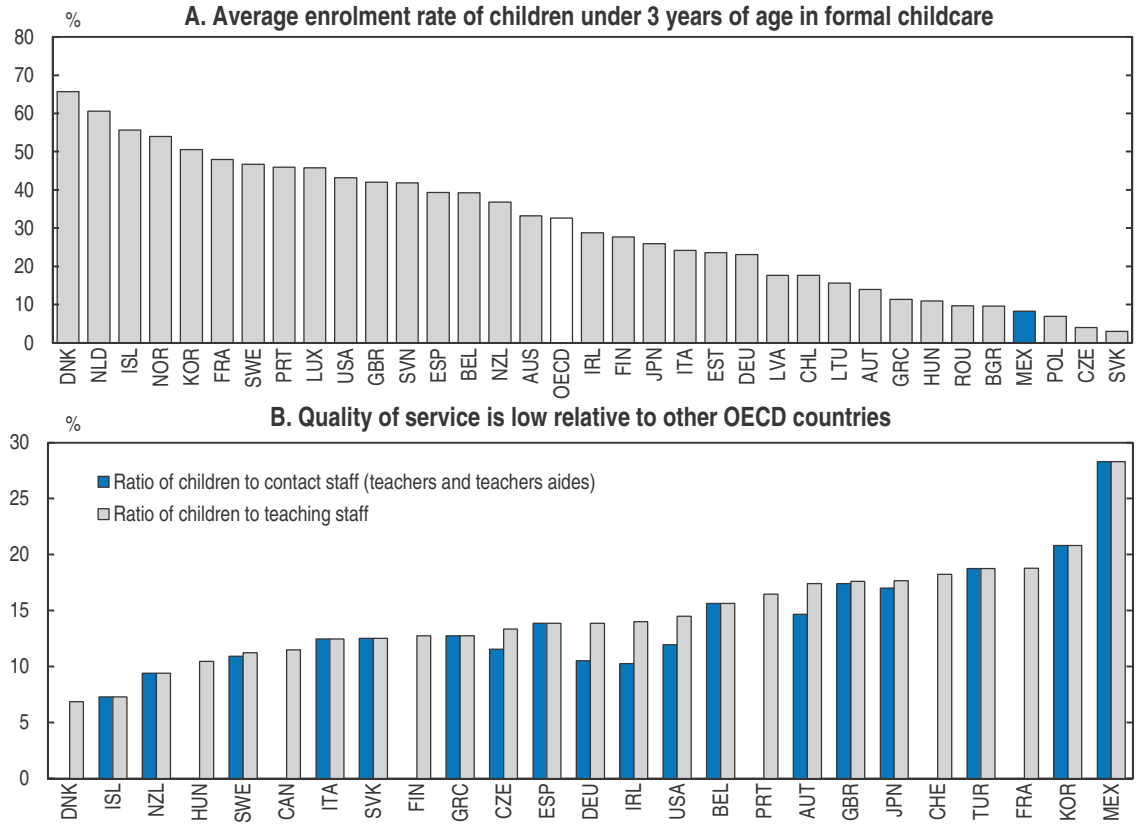
example, childcare enrolment rates among under-3's in Mexico remain one of the lowest among OECD countries (Figure 2.10).

As well, policies to modify gender roles could also contribute to higher female labour market participation. Gender gaps in unpaid (home) work in Mexico are among the largest in the OECD area: at home Mexican women spend 4 hours per day more on unpaid work than men (OECD, 2013a). This constitutes an important barrier to women's economic opportunities

Finally, improving work-life balance will not only help increase female labour-force participation rates, it can also contribute to improving educational and health outcomes. Evidence suggests that work-life conflicts can crowd out quality time spent with children, with negative effects on investment in children's human capital (Gauthier et al., 2014). Also, recent research shows that working long hours can have negative consequences for health (Dembe et al., 2008). For instance, people that report working long hours are more likely to follow unhealthy lifestyles, such as smoking, coffee intake and alcohol consumption, lack of exercise and poor diet (Burke and Cooper, 2008). Finally, working long hours can have a negative effect on mental health, life satisfaction and happiness (Barnay, 2014).

Figure 2.10. **Enrolment rates and quality of service among under-3's in Mexico remain relatively low**



Source: OECD, Family Database and Labour Force Statistics Database.

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Inclusive schools

Despite important improvements during recent decades (Box 2.4), Mexico's educational system needs to do more to increase growth and reduce inequalities. The Mexican educational system has grown rapidly in the last fifty years – from three million students to more than 30 million – and today nearly all children between the ages of 5 and 14 are in school. However, the quality of education remains well below OECD average (Figure 2.11, Panel A). For instance, the average student in Mexico has a PISA score of 417 out of 600 in reading, maths and science, much lower than the OECD average of 497 and the lowest rate in the OECD. But there are also important differences across states: those with lower poverty and inequality rates have higher PISA scores (Figure 2.11, Panels B and C). Finally, Mexico's public spending in education is low for OECD standards, inefficient and very regressive (Arias et al., 2010; Scott, 2009).

To address this challenge, the Mexican administration has introduced important reforms. The amendments to the Mexican Constitution (2013) established commitments that have materialised in a series of (secondary) legislative reforms: the General Education Act, a new professional teaching service law, and the Law of the National Institute for Educational Evaluation that will improve the quality of the teaching profession. These reforms will help to raise educational outcomes by developing conditions to improve

Box 2.4. **Recent improvements in the Mexican education system**

In recent years, education in Mexico has been a focus of many reforms and important progress has been made. For instance, Mexico has made the curriculum competence-oriented; it has professionalised teachers and school leaders; and it has strengthened the evaluation and assessment system to attain more transparency, accountability and support for improvement. Mexico has also established mandatory full time education for all children. Mexico has promoted the 'Full Time Schools Program', which goal is to reach 40 000 schools operating in this modality by 2018, benefiting around five million students. This consolidation of schools and their staff and more stable studying hours for students, may contribute to raising student performance if the learning time of students at school is used effectively.

Also, in 2009, Mexico introduced a National System of Upper Secondary Education (Sistema Nacional de Bachillerato) to provide a coherent framework of upper secondary education through better academic guidance, more education offer, a monitoring system for institutions, and mechanisms to deliver education (e.g. teacher training, school leadership professionalisation, infrastructure, scholarships).

Educational attainment and outcomes have also improved. Enrolment rates in Mexico cover virtually all children aged 4 to 15 and have increased among 15-29 year-olds from 42% in 2000 to 53% in 2012. Upper secondary graduation rates increased by 14 percentage points between 2000 and 2012 (compared with an OECD average increase of 8 percentage points), although only 47% of students graduate, in part, because dropout rates remain very high.

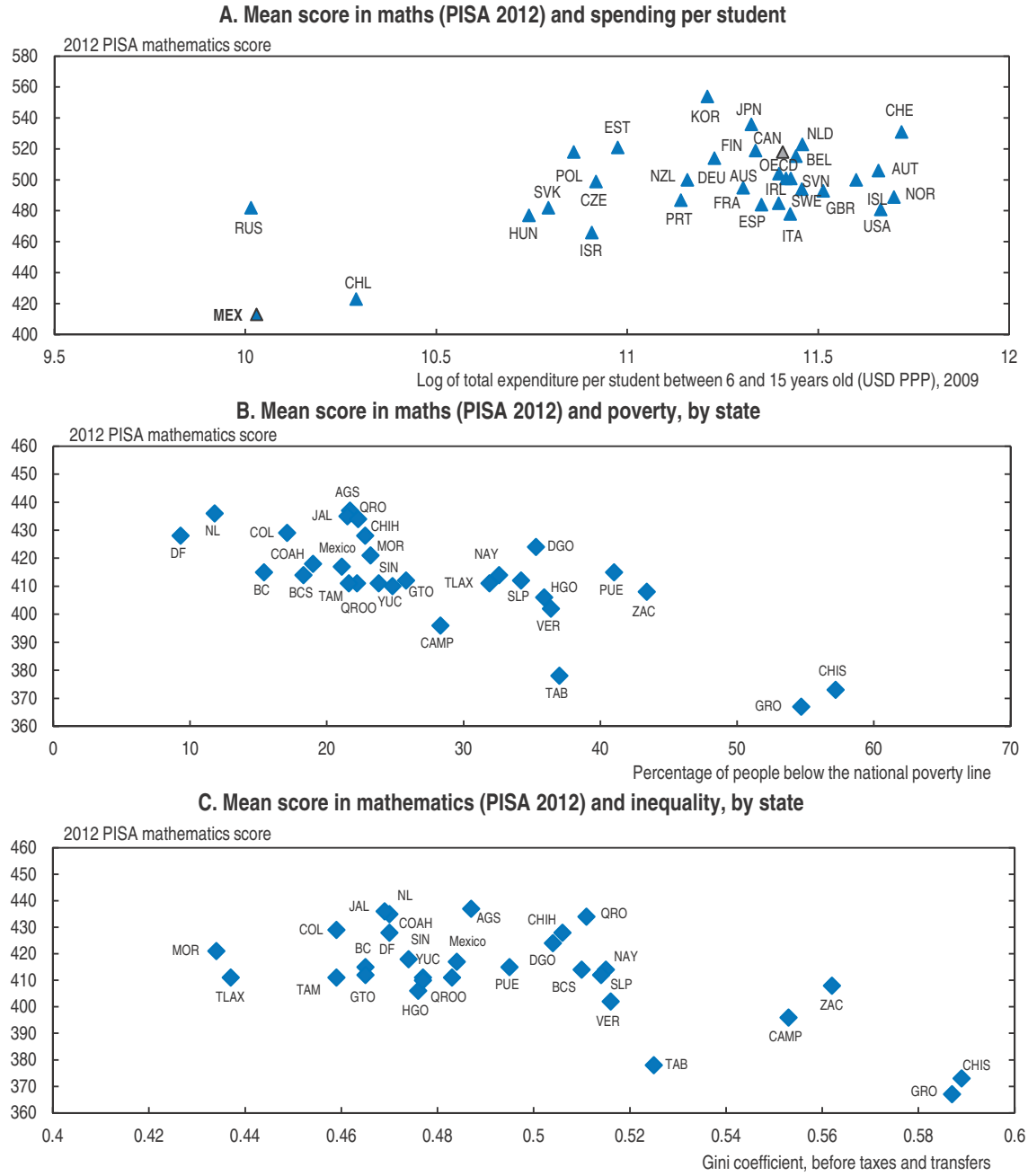
Mexico is also one of the few countries where both boys and girls improved their PISA mathematics performance between 2003 and 2012. However, the gender gap persists: boys scored 30 points higher in 2012 than in 2003 while girls scored 26 points higher, overall, student performance in mathematics has improved between 2003 and 2012 by an average of 28 score points.

To continue improving the quality of, and the access to, education, the current administration has made education a key area of reforms. The reform of the Mexican Constitution (2013) culminated in the new professional teaching service law, designed to provide coherence to the profession in primary and secondary education. This law aims to clarify selection, recruitment, induction, training, promotion and evaluation for teachers, school leaders and supervisors and promotes a new technical assistance service for schools. This is a step towards substantially improving initial teacher education; hiring the best candidates for teaching positions; guiding teachers during their first years in the classroom; promoting continuous development of all teachers, and consolidating in-service teacher evaluation and performance management system that recognises effective teachers while focusing on improvement.

The new law also provides autonomy to the National Institute for Educational Assessment and Evaluation (Instituto Nacional para la Evaluación de la Educación, INEE). This is an improvement and a step towards the development of Mexico's national assessment system and widens its efforts to bring data back to the school. This data can be very useful to guide improvement plans not only of teachers but also of schools. It will also serve to guide educational authorities in the support they provide for schools and teachers.

Note: Box prepared in collaboration with Diana Toledo Figeroa of the OECD Education Directorate based on the findings of Education at a Glance (2014a) and the Education Policy Outlook (2014b).

Figure 2.11. **Spending per student and PISA's mathematics score, national and state level**



Source: OECD, Education at a Glance (2013); PISA 2012 Results: What Students Know and Can Do, Volume I (2013).

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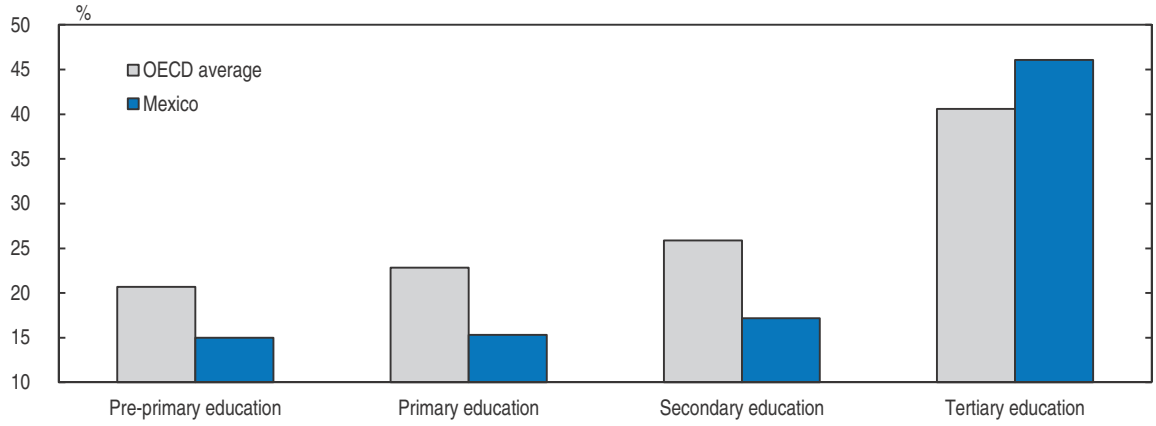
management schemes of Mexico's teaching profession. However, these reforms are only the beginning of a broader and deeper transformation of the educational system, which will also require reallocating spending and fostering motivation of students to remain in school and put more effort in school work. If students are not motivated to stay in school, put effort to school work and complete their education, it is unlikely that they will benefit from better standards set by the educational reform.

Mexico's public spending on education as a share of GDP is around the OECD average. However, the share of the population in school age is significantly higher than in most OECD countries: the population under 15 years of age represents around 38%, while the OECD average is around 22%. Expenditure per student is lower in Mexico than the OECD average at all levels. Moreover, 92% of education expenditure in Mexico is allocated to staff compensation and 83% is allocated to teachers' salaries, which leaves little room for investment in infrastructure.

Mexico's spending in education has a similar pattern as many OECD countries (Figure 2.12). However, Mexico expenditure per student is proportionally high in tertiary education: it spends three times as much on university students (two times the average in OECD countries) – who come in very large proportions from high income families (Scott, 2009) – than on primary students. Indeed, public spending on tertiary education is one factor contributing to high levels of inequality (Scott, 2014). Evidence suggests that investments in the early years can be more productive than those in later years, particularly investments in disadvantaged children (Heckman, 2006). Early investments lay the foundation for later investments. Although remediation for early deficits can be achieved later in life – e.g. when adolescent – it is costlier (Cunha and Heckman, 2006). Hence, efforts to level the playing field and give all students, including those from the most disadvantaged families, an opportunity to succeed regardless of their social background need to ensure that sufficient investment is made in the early years.

Figure 2.12. **Annual expenditure per student by educational institutions for all services, relative to GDP per capita**

Annual expenditure per student /GDP per capita (2011)



Note: Spending in tertiary education excludes spending in R&D.
Source: OECD (2014), *Education at a Glance*.

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More attention to Early Childhood Education would reduce the gap generated by family environments early in life, and also to increase motivation. Empirical evidence shows that early childhood care support can help reduce high school dropout rates, improve student performance and reduce gaps in learning achievement generated by different social backgrounds (Heckman, 2013; OECD, 2011a). Early learning confers value on acquired skills, which leads to self-reinforcing motivation to learn more. Early mastery of a range of cognitive, social, and emotional competencies makes learning at later ages more efficient and therefore easier and more likely to continue. This is particularly relevant

for children from disadvantaged environments who typically do not receive the same degree of early enrichment that children from middle-income and upper-income families receive.

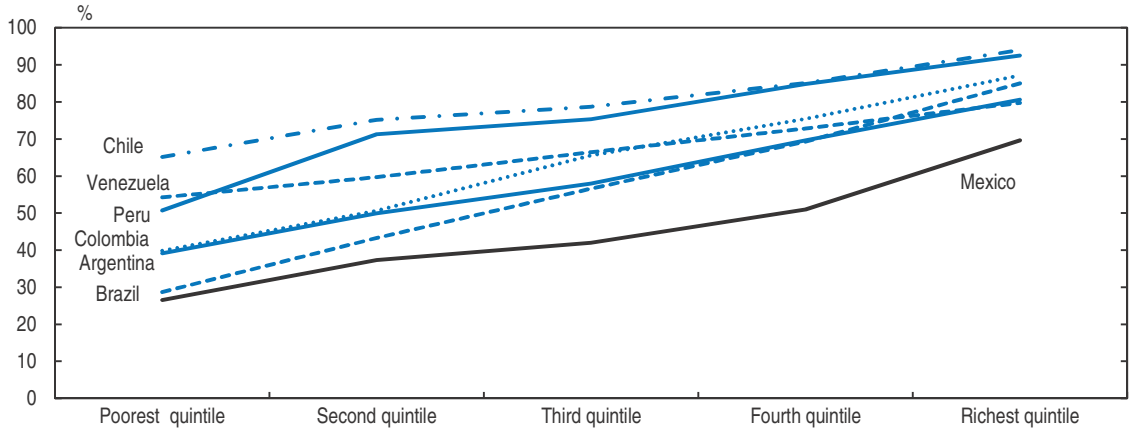
Although Mexico has achieved one of the highest rates of school enrolment among 4-year old in the OECD area, only 25% of children under the age of three received external care, which places the country in the bottom of OECD countries in care coverage and services for this population group. And intervention before the age of three has been shown to be very important. Human abilities are formed in a predictable sequence of sensitive periods, which have been established to be part of the formation of cognitive skills, before age three, where interactions among nutrition, stimulation and the environment play crucial roles.

Focus on the forces outside of school contributing to high dropout and low graduation rates

A key priority should be to reduce high school dropout rates and increase graduation rates. Mexico's high school graduation rates are low not only compared to other OECD countries, but also compared to other Latin American economies (Figure 2.13). The probability of dropping out from school and not completing education are influenced by many factors that go beyond the school. Indeed, evidence suggests that in most emerging market economies – including Mexico – family background matters more than schools (Baker et al., 2002). One important factor affecting dropout rates is income inequality. A recent study on the US schools shows that students who grow up in locations with greater levels of lower-tail income inequality are relatively more likely to drop out from school (Kearney and Levine, 2014). In Mexico a similar pattern seems to hold as states with higher income inequality between top income quintiles and bottom income quintiles are also states with the highest dropout rates (Figure 2.14).

Other factors contributing to low high school graduation rates are the important changes in the structure of production and the structure of families during the last few decades (Atkin, 2012; Arias et al., 2010). For instance, since the 1980s, when Mexico started to open to world trade, but particularly since entering into NAFTA in 1995, its industrial

Figure 2.13. **High-school graduation rates in Latin America by quartile of income distribution**



Source: Inter-American Development Bank (2012).

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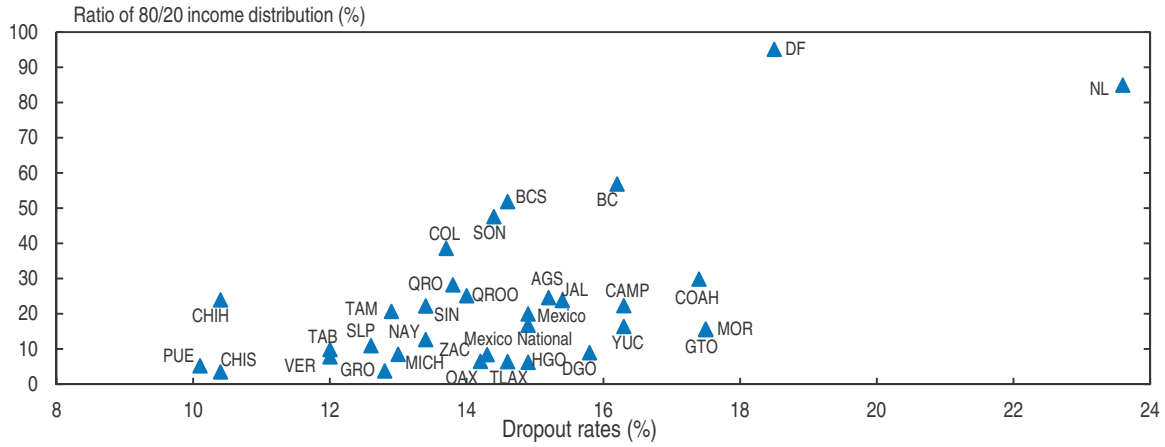
Figure 2.14. **States with higher inequality tend to have higher dropout rates**



Note: The ratio of people at the 80th percentile of income distribution with the people at the 20th percentile of income distribution.
Source: OECD estimations based on Subsecretaría de Educación Media Superior (SEMS) and OECD Regional Well-Being database.

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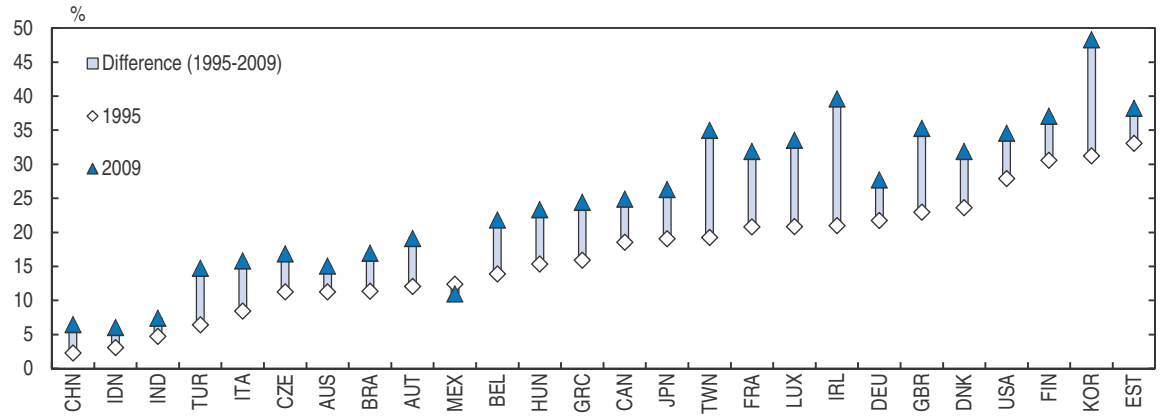
structure has been transformed. In particular, the share of manufacturing increased from 12% of total exports in 1980 to 83% in 2000, and total employment in export manufacturing sector rose from 900 000 formal sector jobs in 1980s to almost 3 million in 2000. Consistent with this, while in most countries the share of hours worked by high-skilled persons increased since 1995, in Mexico this share decreased (Figure 2.15).

Figure 2.15. **The share of total hours worked by high-skilled persons increased everywhere except in Mexico**



Source: OECD calculations based on World Input-Output Database (WIOD).

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Recent empirical evidence suggests that this deep transformation in the production structure has had an important impact on educational attainment in Mexico (Le Brun et al., 2011; Atkin, 2012). The large increase in the relative demand for low-skilled labour generated by the boost in manufacturing activities increased the opportunity cost of remaining (or keeping children) in school, contributing to low graduation rates. According to Atkin (2012), for every 20 jobs created, one student between 9th and 12th grade dropped out of school. Similarly, Le Brun et al. (2011) find that, while in Mexico manufacturing employment is accompanied by small improvements in educational attainment at early

levels, the gains are erased by the time children reach 16 years of age. Specifically, they find that girls aged 16 to 18 have a lower probability of graduating the more maquiladora employment there is in their area of residence.

The policy remedy to this problem should consider the trade-off between creating more jobs and keeping kids in school. One simple solution would be to raise the employment age for manufacturing industries to ensure that kids cannot be employed in these industries until they have reached high-school graduation age. Another option would be to modify the conditional cash transfer programme (*Oportunidades/Prospera)* to encourage students to remain in school until graduation, offsetting the negative effect generated by the strong demand of low-skill manufacturing jobs. Empirical evidence shows that, so far, *Oportunidades* has not had a significant impact on dropout rates (Azevedo et al., 2009). The effects of *Oportunidades* have been limited to increasing enrolment rates, and not necessarily graduation rates, because it is designed to increase school attendance starting in the elementary years.

A potential solution could be to change the flow of payments of *Oportunidades/Prospera* with a large final payment conditional on graduating. A programme like this has been tested in Colombia. Barrera-Osorio et al., (2011) compared a number of education-based conditional cash transfers designs among which are: a standard design, like *Oportunidades*, and a design called "tertiary treatment" that lowers the reward for attendance but incentivizes graduation and tertiary enrolment. This programme provides children with lower bi-monthly transfers relative to the standard treatment, but then guarantees a large payment upon graduation. Despite the reduced bi-monthly transfers, Barrera-Osorio *et al* (2011) find that the tertiary treatment increases attendance rates by at least as much as the basic treatment. However, the tertiary treatment appear superior to the *Oportunidades*-like type of payment structure when it comes to increasing enrollment rates at the tertiary levels. The tertiary treatment proves particularly effective, increasing matriculation by 48.9 percentage points. And the difference in the performance of the basic and tertiary treatments is entirely driven by their effects on the most at-risk students.

Changes in family structure have also had an impact on high-school dropout rates. Students who come from disadvantaged families – families who are under stress or who are indigenous – are at a higher risk of leaving school without a diploma (Arias et al., 2010). For instance, one of the adverse trends that have emerged in recent years is the increasing number of children born into poverty. This is a consequence of many factors, such as more births that occur out of wedlock, an increase in teenage pregnancy, more children living with single-parent households, and more children in households with a partner absent due to migration. According to Arias et al. (2010), all of these trends indicate a transformation of the family in Mexico, and its role in child development, that likely reduces the quality of parenting affecting educational outcomes of the children.

Among these, migration is a key factor affecting educational outcomes. Migration to the United States has increased greatly in the last 20 years, and although it has slowed down during the recent global economic crisis, recent research suggests that it will continue to be significant in the coming years (Chiquiar and Salcedo, 2013). Migration reduces the time parents spend with their children. Empirical evidence suggests that the effect of migration of the head of the household to the United States on the educational attainment of the children left behind is considerable (McKenzie and Rapoport, 2006). This can happen because of lower expected returns to education or financial constraints. For

instance, migration of a family member can create a culture of migration (Massey et al., 1998). Some children left behind see a lower return of investing in education as they expect to migrate to the United States later in life to join their parent and to work in jobs that require low skills (Chiquiar and Hanson, 2005). But parental absence as a result of migration can also force the children left behind to undertake housework or work to help cash shortages (Meza and Pederzini, 2008).

A way to offset these effects could be to promote more remittances of the emigrants targeted to educational attainment. Evidence from several research studies show that remittances can have a large and significant effect on school retention, particularly in poor areas, by alleviating credit constraints of the left behind (Cox-Edwards and Ureta, 2003; Taylor and Mora, 2006; Lopez-Cordova, 2005). Mexico already has a programme called "*tres por uno*" that encourages Mexican migrants abroad to invest in their communities of origin. Migrants have contributed US$15 million annually since the programme began (Hazán, 2012). This programme could be enlarged or broaden to channel remittances to education. Evidence suggests that channelling remittances to education can significantly increase educational expenditure on the target student (Ambler et al., 2014).

Finally, to make upper secondary education more appealing to students, the transition from school to work should be a priority. One way to prepare students for the labour market is through vocational education and training (VET) and work-based programmes (OECD, 2010). In Mexico, the VET system provides learning opportunities in remote regions and support for students at risk. To improve the system, Mexico reformed the technological baccalaureate and created trainee grants. VET has a key economic function in up-skilling and integrating young people into the labour market and in providing high quality technical skills. But Mexico should enhance efforts to expand the VET sector as it remains among the smallest in the OECD area. There are different possible pathways for Mexico to improve the VET sector. For example, the government could establish 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. It could also provide pedagogical training to VET teachers before they start teaching and develop the capacity to analyse and use data on labour market needs to guide the design of policies and improve decision making.

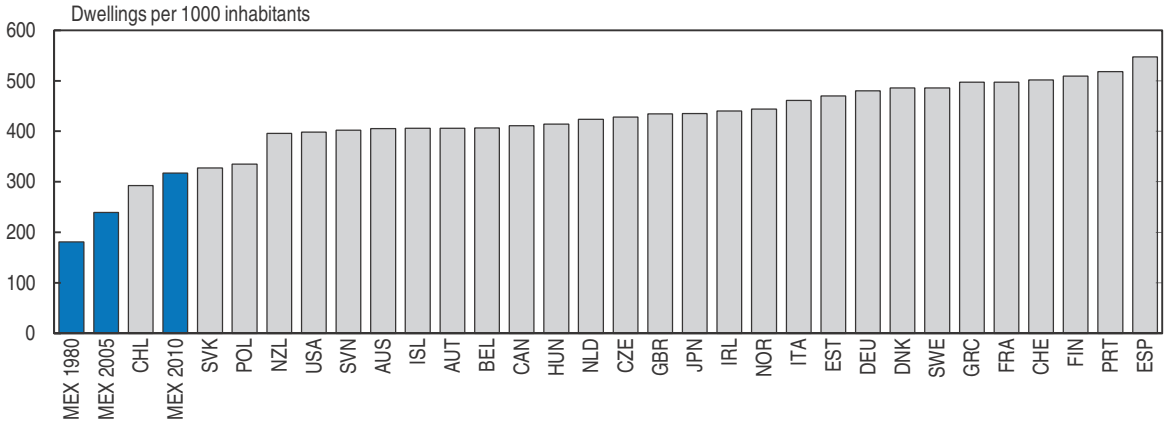
Finally, evidence suggests that mobility and the probability of dropping out from school are strongly linked (Weissbourd, 2009). Hence, community development efforts that focus on housing can help reduce dropout rates. This suggests that it is very important to integrate policies that seek to improve educational outcomes with housing and urban development programmes. In other words, the state should focus on building inclusive cities.

Inclusive cities

While Mexico's housing policies have been effective in facilitating the population access to housing (Figure 2.16), they insufficiently considered the housing sector's significant impact on urban development (Rojas, 2014). In Mexico, formal and informal housing production occurred in a weak urban development management framework with mostly uncoordinated and fractioned institutional arrangements for the planning and implementation of basic network infrastructure, transportation services, and the provision of basic urban services and amenities (see Box 2.5). The result is that, in spite of improved access to housing, there has been a worsening of the quality of life of a significant portion of households.

Figure 2.16. **Mexico has been effective in facilitating access to housing**

Number of dwellings per 1 000 inhabitants (1980, 2005, 2010)



Note: 1981 for Australia and Greece; 1982 for France; 1986 for Germany; 1988 for Finland; 1989 for Portugal and 1990 for Italy; 1982 for Chile. 2001 for Belgium, Czech Republic and Greece; 2002 for the Russian Federation; 2003 for Australia and Italy; 2004 for France and Switzerland; 2002 for Chile; 2005 and 2010 for Mexico.

Source: INEGI (1980) Censo General de Población y Vivienda1980; INEGI (2005) Conteo de Poblacion y Vivienda 2005; Andrews et al. (2011).

StatLink *http://dx.doi.org/10.1787/888933175203*

Today, the reality of many low and low-middle income families in Mexico is that they obtained a house but ended up with poor services, and poor access to good schools, hospitals, employment and economic development opportunities. Moreover, housing policies have contributed to increasing socioeconomic geographical segregation (Sánchez Peña, 2012), which can have negative effects on the well-being of the disadvantaged by affecting their health, educational achievements, work-life balance and personal security (Leigh and Wolfers, 2001).

The trend toward expansive peripheral development and declining cities centres has also put additional strain on transport and public services by increasing travel time and distances, contributing to rising motorisation rates and making the provision of efficient, quality public transport alternatives more challenging and costly. New housing developments in the outskirts are often built in absence of adequate public transport planning and investment, rendering car travel a necessity. Between 2000 and 2011, the number of registered vehicles in metro zones increased from 7.9 to 16.1 million. Meanwhile, the motorisation rate doubled over the past decade, from 10 vehicles per 100 people to 20 vehicles per 100 people. Rising motorisation rates in turn generate externalities, such as congestion, air pollution, greenhouse gas emissions, auto accidents and noise pollution. Regarding other public services, such as water, in the most egregious cases, agreements with developers to build water pipelines and other services remain unfulfilled.

A basic problem with recent housing policies in Mexico is that they have been based on allocating resources on the basis of employment status and not on actual housing needs. The quantity and amounts of housing loans made by INFONAVIT are positively associated with formality rates across states (Figure 2.17). Associating housing programmes to employment status does not help to target resources or guarantee their effectiveness in improving housing conditions. Furthermore, given that neighbourhoods have a major impact on the socio-economic outcomes of their residents, housing policies should be thought of an integral part of the national plan to improve inclusiveness, and not in isolation, as has been the case.

Box 2.5. **Housing policies and urban development in Mexico**

This box presents a short description of recent housing and urban trends in Mexico and the policies that have shaped them; and describes briefly the changes in housing and urban policy introduced by the current administration.

Over the second half of the twentieth century, Mexico urbanised more rapidly than most OECD countries, and by 2010 roughly 78% of the population lived in cities. Mexico has had a long history of informal housing development. For many years, the functioning of Mexico's housing sector restricted access to adequate housing for a large portion of the population, especially low-income households. Since housing developers have traditionally supplied houses for high-income and middle-income households, those not able to find housing solutions in the formal market resorted to informal solutions to cover their shelter needs. As a result, homes were for the most part self-built through an incremental, largely informal, process without permits. Even today around one-quarter of urban households in Mexico continues to be self-built, lacking legal titles, or constructed outside the formal development process.

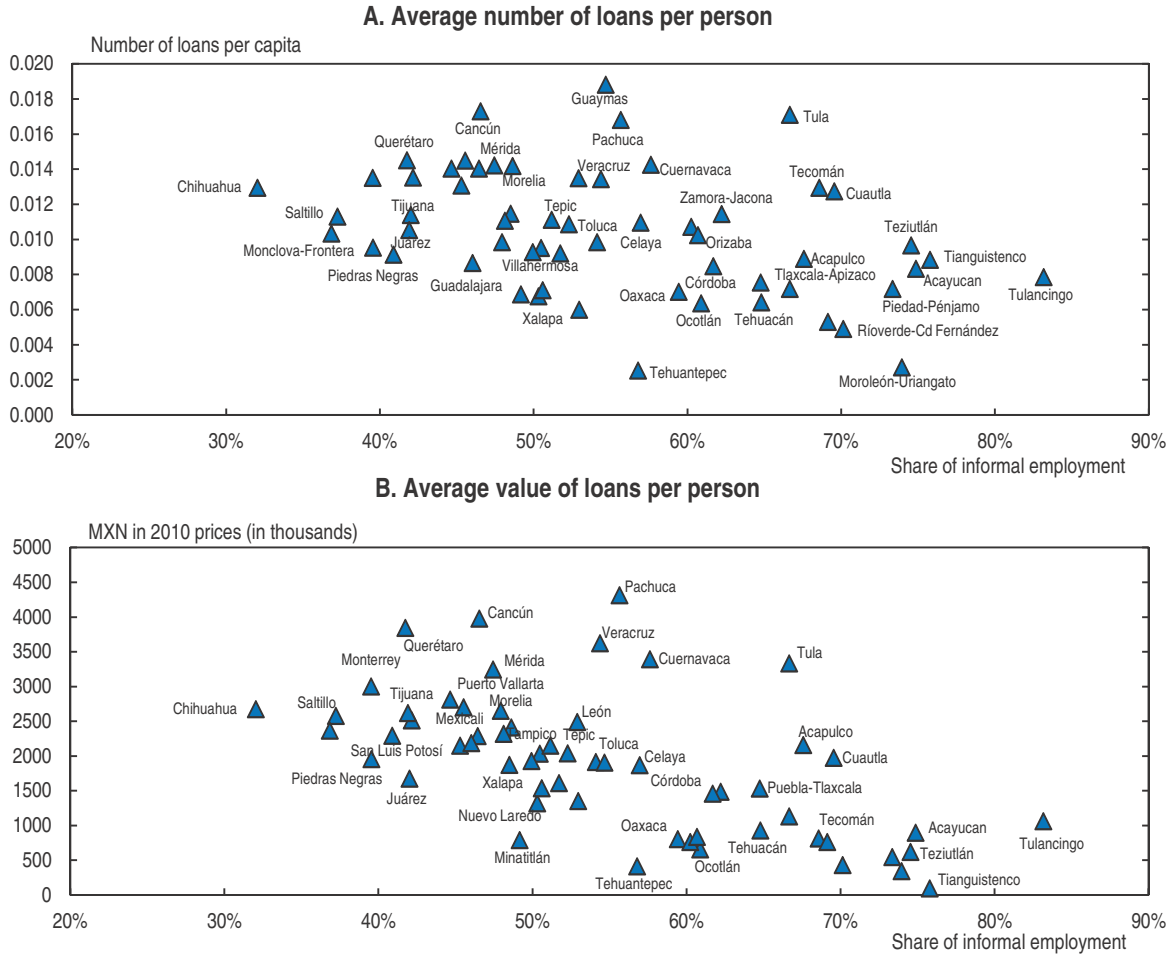
In 1972, the creation of two publicly-backed housing agencies tasked with providing finance for formal housing – INFONAVIT, for private sector workers, and FOVISSSTE, for federal workers – radically changed the face of housing development in Mexico. These institutions, which are financed with a 5% payroll tax collected on all formal workers, received a constitutional mandate to assist workers in accessing housing and became the most important actors in housing development in Mexico. Indeed, the rapid expansion of housing finance led by these institutions enabled the country's transition from informal to formal housing on a grand scale. By 2005 a majority of Mexican households bought a home built by a private developer with a mortgage financed by these agencies. By 2012, INFONAVIT granted about 73% of all housing loans in Mexico, for a total value of MXN 79 billion (USD 6.1 billion). Such a rapid expansion of the housing stock has been seen in only a few OECD countries, including Portugal, Ireland, Japan and Spain. This process helped Mexico address to a large extent and with remarkable speed transition to more permanent housing for an increasing share of the population. However, since in many cases housing development occurred without regard for urban development plans, it also contributed to many of the current challenges facing Mexican cities.

Partly as a consequence of these policies, urban expansion in Mexican metropolitan areas has been inefficient and costly, and has contributed to social segregation. By concentrating lending on lower-income segments of the formally employed population, favouring home ownership over other alternatives and relying on a business model of formal, mass-produced homes, INFONAVIT financed homes that were often developed where land was least expensive (in large land reserves far from city centres and disconnected from urban services and infrastructure). And in some cases, agreements with developers to build water pipelines and other services were never fulfilled, while promised transport infrastructure connecting the developments to urban centres never materialised. Also, many settlements are located in risk-prone areas, such as river banks and unstable hills, with devastating social and economic costs when disaster strikes. The suboptimal location of many INFONAVIT-financed homes in the past decade, has been a main contributor to a large share of uninhabited homes – estimated at approximately 270 000 for the stock of INFONAVIT homes alone. Furthermore, this process contributed to socio-economic segregation across metropolitan areas. In some cities, e.g. Cancun and Monterrey, low-income groups tend to be located in the outskirts, a trend that is fostered by housing subsidies and lower land prices in peripheral areas. In other cases, e.g. Guadalajara and Merida, there is a clear geographical divide (north/south; east/west) within the metropolitan zone.

Despite the country's rapid urbanisation, Mexico has until very recently lacked an urban policy to guide urban development. In the past, Mexican authorities have focussed on building houses, rather than building cities, and urban policy happened by accident through housing policy. But Mexico is now beginning to transition out of this type of policies. Housing and urban policy is considered a priority within the reform agenda the current administration initiated in January 2013. The authorities seek to reduce the housing deficit that still affects around 35% of Mexican households and to address the inefficient development patterns of recent decades. This new approach to housing and urban policy differs from those of the recent past in shifting from quantitative objectives for housing to a more explicit qualitative focus on housing and the urban environment. The objectives are made explicit in the National Housing Programme 2014-18, which aims to: i) provide decent housing for Mexicans, ii) address the housing gap, iii) transition toward a smarter, more sustainable urban development model and iv) improve inter-institutional co-ordination.

Note: Box prepared in collaboration with Marissa Plouin of the OECD Governance Directorate based on the findings OECD (2014d).

Figure 2.17. **The number and amounts of loans from INFOAVIT is positively associated with formal jobs**



Source: CONAVI (2014), Historicos de vivienda, accessed July 2014.

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The goal should be to build inclusive cities, not simply houses. The housing sector should adopt an urban-based approach to producing housing that contributes to building compact, liveable and diverse cities and not simply fulfilling the objective of adding more houses to the stock. Therefore, the consistency of housing policies needs to be reviewed, as they have mainly relied on the provision of subsidies and below-market-rate mortgage to meet the needs of low-income households. In fact, Mexico has been one of the few OECD countries, along Italy and Spain, where social housing policy has relied exclusively on offering assistance for home ownership, rather than renting. This policy has been largely driven by quantitative objectives, without paying attention to geographical patterns, and has generated rapidly sprawling cities.

To curb urban sprawl, the current administration has adopted new operating rules for federal subsidies, whereby larger housing subsidies will be granted to more centrally-located developments. This is a good step forward, but heavy reliance on home ownership could still be inefficient because, in many states, it is financially more advantageous to rent than purchase a home (OECD, 2015a). Moreover, rental housing may be the most efficient

and cost-effective way to reduce the curb urban sprawl, since they often are more densely developed and located in city-centres (Blanco et al., 2014). Finally, relative to home ownership, rental housing is subject to lower transaction costs, which can improve labour mobility and productivity.

In 2013, INFONAVIT introduced a pilot programme, *Arrendavit*, to assist affiliates with rental housing, but results have been much lower than expected. The likely reasons for this poor result is that Mexico has relatively high tenant protection, which limits the supply of rental housing. There is a complex and burdensome regulatory framework and judicial system that tends to favour the tenants. Other problems are that underdeveloped credit markets limit access to long-term financing for landlords, and that social housing policy is still focused on promoting home ownership. To promote rental housing for low income families, Mexico should first reduce the tax burden on rental properties. And it should boost the demand of rental housing by following the examples of Chile's "*Ciao Suegra*" or the US housing choice voucher programme, which supplements household's monthly rent by assuming the difference between 30% of household income and the metropolitan area's fair market rent, with a minimum housing quality.

Inclusive health

Mexico needs to improve health outcomes and reduce current inequalities in the health system, which have negative effects on people's well-being, educational outcomes, and productivity (Mayer-Foulkes, 2008). Building a "National Universal Health System" to ensure effective access to high quality health care to all Mexicans, regardless of their employment status, should be a top priority as proposed by the government. The *Pacto por Mexico* recognized this and committed to a system where quality and access are equal across all providers and where individuals can choose freely between them. However, effective action has been delayed by difference in opinions on how to effectively increase access to health.

Health care in Mexico is currently provided by segmented health networks employing their own staff and with entitlements determined by employment status (Box 2.6). The largest providers are *Instituto Mexicano de Seguridad Social* (IMSS), which targets people with formal employment, and *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (ISSSTE) for civil service employees. *Seguro Popular* – a publically-funded universal health insurance – covers remaining families, thus helping to achieve nearly complete coverage of the population. Indeed, thanks to the introduction of *Seguro Popular* in 2004 some measures of health performance have improved (Bosh et al., 2012). However, most health indicators remain poor. For instance, life expectancy is 74 years, six years below the OECD average (Figure 2.18); infant mortality rates are among the highest is Latin America; mortality from coronary heart disease is increasing while it is falling in almost every other OECD country; Mexico has the second highest obesity rate in the OECD and almost 1 in 6 adults is diabetic (OECD, 2015).

In part as a result of its current structure, the Mexican health system has large inefficiencies (Box 2.5). Mexico public spending on health is 6.2% of GDP, significantly less than the OECD average of 9.3%, and spending is often inefficient. Administrative costs, at 9.2% of total health spending, are the highest in the OECD and have not declined over the past decade (Figure 2.19, Panel A). Likewise, out-of-pocket spending remains at nearly 50% of total health spending – the highest in the OECD – and implies that individuals feel the

Box 2.6. **The structure of the Mexican health system**

The Mexican health care system is fragmented among numerous and unconnected providers. The various social security institutes (such as IMSS, ISSSTE and PEMEX) cover about 45% of the population, while the *Seguro Popular*, introduced in 2004 and run by the Ministry of Health (MoH) account for another 40.8%. *Seguro Popular* works through decentralised state health services (SHS). The social security schemes rely on a combination of employer and employee contributions and a transfer from the federal government budget, and *Seguro Popular* is financed through federal and state subsidies as well as a small fee. Horizontal integration between the different schemes is weak. Affiliates to one scheme cannot, in general, access services provided through the others, and regulation, financing and provision functions are vertically integrated within each scheme.

The high fragmentation of the system is an important source of inefficiencies. The fact that the several social security institutes, private insurers, federal and state health services have their own vertically integrated service providers with no access to each other's services, has resulted in a costly duplication of health administration and infrastructure, curtailment of patient choice and lack of competition between providers. For instance, in the Federal District, discharges per hospital bed in the MoH network are around three times the rate in IMSS. This suggests that those of IMSS may be underutilised.

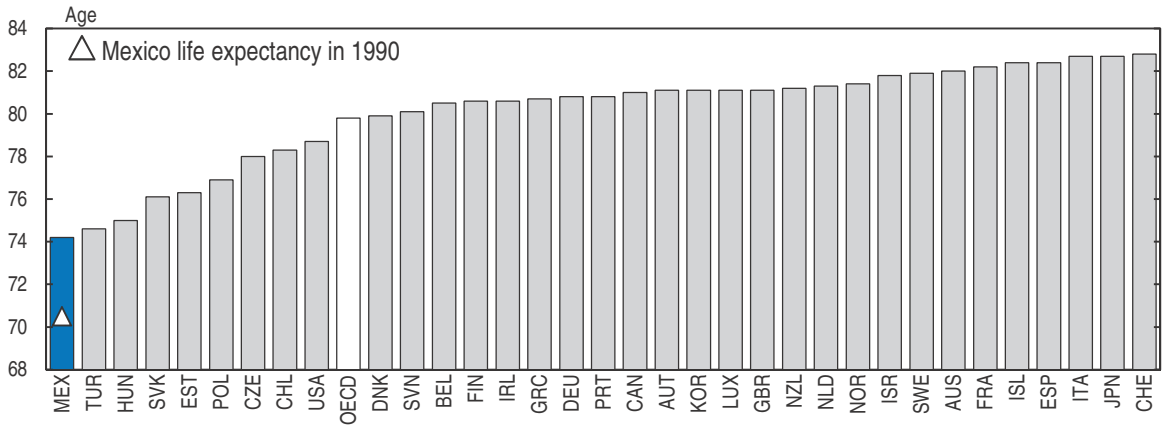
The fragmentation of the Mexican health system also reduces efficiency by increasing administrative costs. The existence of several vertically integrated insurer-providers leads to the duplication of administrative structures and precludes taking advantage of economies of scale in administration. This may explain why the Mexican health system has the highest relative administrative costs in the OECD (Figure 2.19).

Gaps in the governance of the health system across the federal and state levels also need to be addressed. Health care provision by the MoH was decentralised to the states in two waves in the 1980s and the 1990s. In this system, the central government would only set the overall policy framework (objectives, the regulatory framework, coordination and evaluation) while state authorities organise and operate health care services. The aim was to reduce bureaucratic and highly centralised decision making, which was perceived to be the source of a mismatch between resources and needs. This reform was also expected to improve coordination between providers that serve the uninsured population. However, it has not led to efficiency gains as the MoH tends to have weak regulatory and supervisory powers. There is also lack of coordination between the federal and the state levels, and marked differences in financial resources and management capacities across federal states. The historically-based federal transfers to the states have only recently been reformed, and many states still lack information and management systems for output-based management of their health care facilities. Moreover, the states' autonomy in organising and operating health care services is constrained by the centrally negotiated collective labour contract for health care employees, which limits the funds for non-wage uses.

Finally, the two programmes targeted at the currently uninsured may lead to targeting errors and inefficiencies. Around 7.6% of IMSS-Oportunidades users, a non-contributory scheme for the poor run by the main social security institute, are also insured by the main social security provider (IMSS). There is also some overlap between IMSS and *Seguro Popular*, which results in higher fiscal costs through the double payment of the subsidy per enrollee that both insurers receive from the federal government.

Note: Box prepared in collaboration with Ian Forde of the Employment and Labour Affairs Directorate and based on the findings of OECD (2014e).

Figure 2.18. **Life expectancy in Mexico is the lowest among OECD countries**



Source: Better Life Index, 2013.

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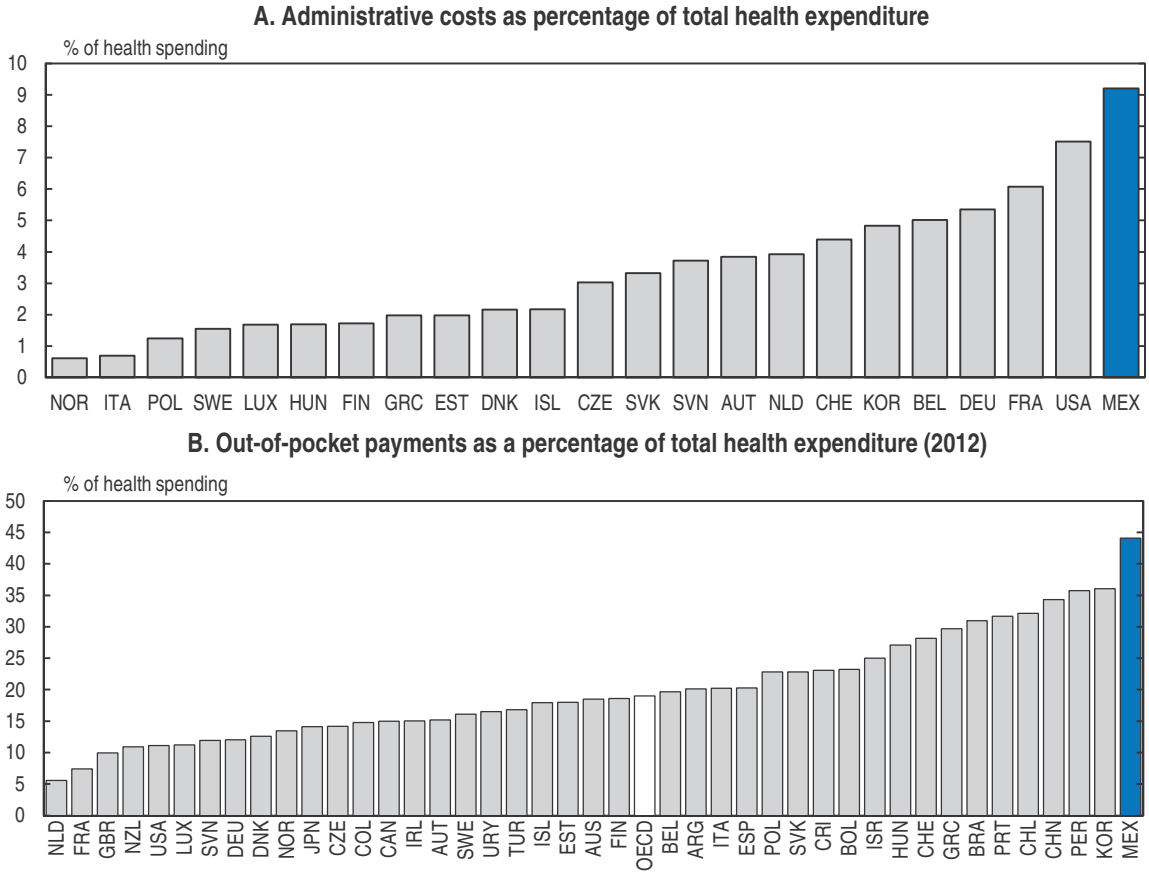
Figure 2.19. **Out-of-pocket payments in Mexico are the highest among OECD countries**



Note: The figure shows data that is comparable across countries. However, according to IMSS these figures underestimate Mexico's health expenditure as a share of GDP (which should be 8.6% according to IMSS), and over-estimates the out-of-pocket payments as a share of total health expenditure (which should be 37% according to IMSS). This is because public institutions, such as IMSS, can buy medicines at lower prices. Once the prices paid by the private sector are considered, public health expenditure increases and therefore, out-of-pocket spending as a share of total health expenditure is lower.

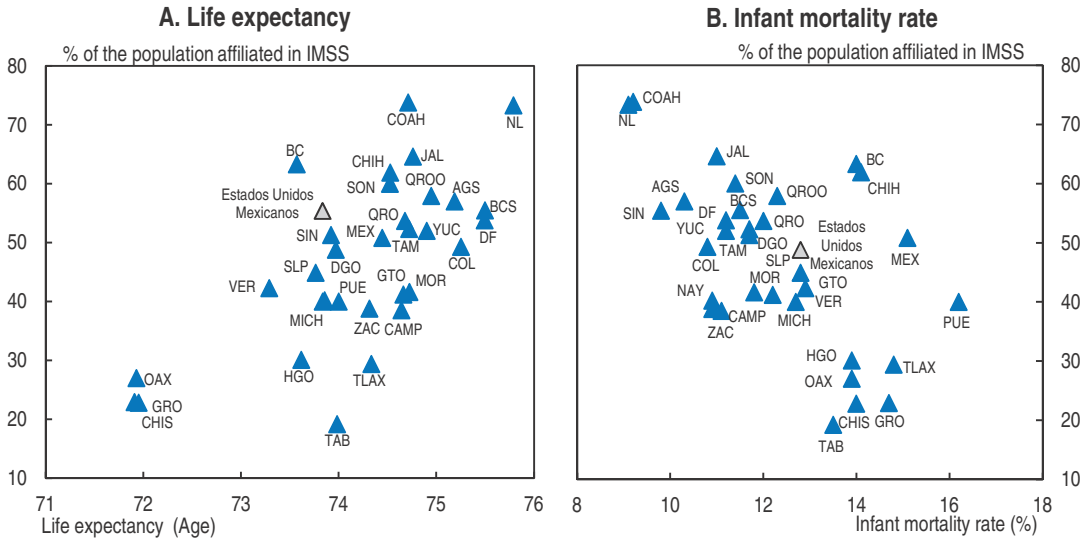
Source: OECD, Health Expenditure Database and WHO Global Health Expenditure Database.

StatLink http://dx.doi.org/10.1787/888933175230

need to visit private clinics despite having health insurance (Figure 2.19, Panel B). High out-of-pocket spending is a main factor driving families into poverty, offsetting the beneficial effects of social programmes like *Oportunidades* (Lustig, 2007). Although from 2008 to 2012, the percentage of households with catastrophic expenditure has decreased from 2.6% to 1.8%, and the percentage of households with impoverishing expenditure has decreased from 1.2% to 0.7%, further improvements are necessary.

Furthermore, the current fragmented system translates into differences in access and quality of practice since there are considerable gaps across providers. For instance, the number of specialist out-patient consultations per 1 000 enrolees is 47 within *Seguro Popular*, compared to 101 within IMSS; and the share of prescriptions that cannot be dispensed by a pharmacist due to lack of stock is 33 % within *Seguro Popular*, compared to 3.6% within IMSS. Partly as a result, there are large differences in health outcomes between IMSS affiliates and the rest – also reflected in differences across regions depending on the share of the population affiliated to IMSS (Figure 2.20). Furthermore, possibly related to the fact that treatment for some common and devastating illnesses remain excluded from *Seguro Popular,* its affiliates' out-of-pocket spending on medications and diagnostics is 456 Mexican pesos per consultation, compared to 114 pesos within IMSS. That the poor spend a much higher proportion of their income on health care than the richest households is a clear manifestation of social injustice, and calls for urgent reform.

Figure 2.20. **Health outcomes and affiliation to IMSS**



Source: IMSS and INEGI, Censos de Población y Vivienda, 2010.

StatLink http://dx.doi.org/10.1787/888933174962

While a comprehensive reform of the Mexican health system should involve the full coordination of the existing sub-systems, such a reform would likely face resistance due to concerns about the perverse effects that can create between institutions. Therefore, it is important to identify reforms that, without involving the elimination or merger of the institutions in place, have desirable features such as encouraging all people to have health insurance, providing equity of access to quality health care, and facilitating portability.

A place to start would be to move away from the current configuration of vertically-integrated and disconnected heath care networks. While beneficial, this would be a significant break from existing arrangements, with possible risks, and thus should be introduced gradually and after thorough consultations and pilot programmes. The ultimate goal should be to move towards a more inclusive an efficient system, where access to high-quality care depends on need, rather than employment status, and where individuals have some degree of choice over insurer and provider, thus introducing a higher degree of transparency and competition, which would drive up efficiency and quality.

In particular, Mexico should improve co-ordination in health care supply by allowing patients to receive health care in other public health institutions through Exchange Agreements, as already experimented in Baja California (*Convenios de Intercambios de Servicios*). This has the potential of improving spending efficiency, by reducing duplication, and also of improving access to high-quality care. It should also allow free choice of health networks to assure continuous care. Another incremental reform would be to allow Mexicans to retain their insurer even if their employment status changes. This would result in a gradual increase in the degree of choice of workers among existing competing network, fostering competition and quality.

At the core of existing arrangements is a large unevenness between the large amounts of contributions made to IMSS by employers and the more limited contributions made to *Seguro Popular* by the government. Increasing payments to *Seguro Popular* and improving access to quality care depends mainly on the financial ability of the federal government, since funding would come, in a large part, from budgetary resources.

In addition to improving spending efficiency, other measures could also contribute to improved revenues. For instance, enrolment in social security should be made mandatory for all self-employed workers, which may require a change in the legal framework. So far, the enrolment in social security is voluntary for these workers, creating a large adverse selection problem. Many self-employed workers choose not to be affiliated and only decide to affiliate once they need it, with a high cost for the system. A mandatory enrolment would eliminate this problem.

Furthermore, to make mandatory enrolment effective in practice, Mexico should strengthen enforcement mechanisms, notably better coordination with the tax collection agency (*SAT*). This will also help reduce the underreporting of wages to social security. In Mexico there is significant underreporting of wages by registered firms to evade payroll taxes (Kumler et al., 2013), and over-reporting of wages to the tax authorities to obtain deductions. Current legislation allows firms to do this as the Social Security Act (the law that defines payroll taxes) and the income tax law allows the basis for wage compensations to be different. A bill that has been approved by the House of Deputies and is currently waiting to be voted on in the Senate amalgamates the basis for wage compensations in both of these laws, which would solve this problem and pave the way for the social security and the tax collection agencies to share information and enforce compliance.

To improve efficiency and fiscal sustainability, resource allocation should be redesigned. Allocation of funds to health care services should be determined according to price, quality or optimal distribution of service provision, not by rigid institutional relations as it is today. Financial allocations to State Health Service (*Servicios Estatales de Salud*) from federal revenues should be determined according to need, and not on historical precedents, and give more flexibility to the states to determine their own mechanisms to

ensure that funds are spent to best meet local health care needs, promoting productivity and quality. Furthermore, for the high cost diseases, resources should go directly to providers avoiding state intermediation as is currently the case.

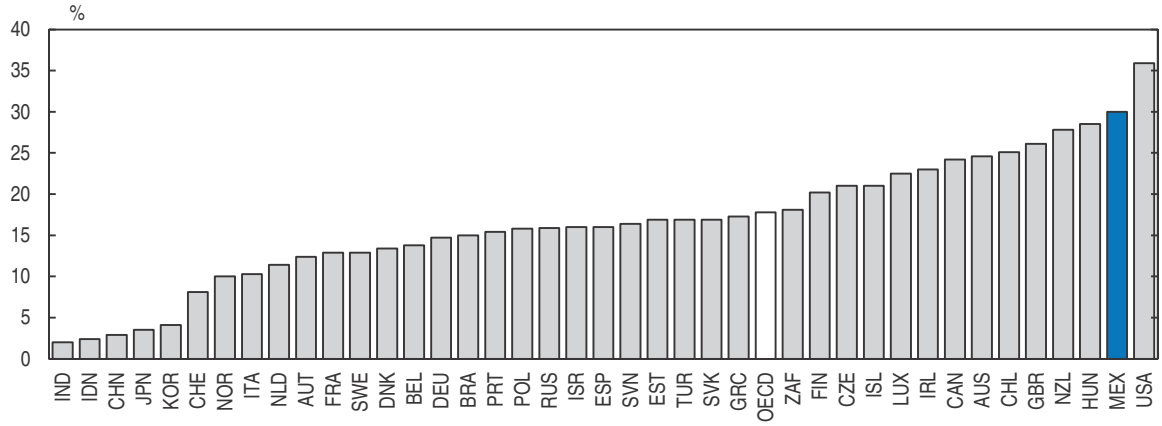
Finally, to boost health service delivery and reduce administrative costs, Mexico should consider converting government hospitals into corporate entities. The majority of public hospitals, owned and operated by the states, have little autonomy, usually limited to the purchase of a small amount of supplies. Budgets are allocated on a historical basis to each hospital, allowing little margin for decision-making at the unit level. Moreover, managers of these hospitals are subject to state and federal government legislation regarding human resource management. Converting government hospitals into corporate entities, and freeing them from institutional and governmental control, could improve hospital performance. Evidence for Latin American countries (including Mexico) suggests that hospitals with corporate status tend to have better facility and equipment maintenance, more availability of medicines and auxiliary services, greater administrative and labour efficiency, and superior clinical quality, including at the level of nursing training (Bogue et al., 2007).

Tackle the obesity epidemic which is a health as well as an economic and social problem

Although obesity rates have increased in recent decades in all OECD countries, with 30% of the adult Mexican population reported as obese, the Mexican rate is the second highest in the OECD, where the average is 17.8% (Figure 2.21). Obesity causes health problems, such as diabetes, cardiovascular diseases and asthma. Estimates suggest that, in Mexico, obesity was among the six main risk factors for mortality in 2010 (The Burden of Disease Project, 2010). While healthcare costs of 13 obesity-related diseases in 2013 were estimated at USD 880 million, with alarming projections for the next few years, recent estimates predict that, if an effective policy does not control the current trend, by 2020, direct healthcare costs in Mexico will rise above USD 1 billion (Rtveladze et al., 2013).

Figure 2.21. **Mexico has the second highest obesity rate in the OECD**

As a percentage of the population aged 15 and above, 2010 or latest available year



Source: OECD, Health Statistics Database.

StatLink http://dx.doi.org/10.1787/888933175245

Bending the obesity trend would also reduce inequalities. In Mexico, the prevalence of obesity is increasing at faster rates in the most vulnerable populations, such as those living in poverty (Fernald et al., 2004). Paradoxically, in Mexico obesity coexists with under-nutrition (e.g. obesity with iron deficiency) within the most vulnerable communities (Rivera et al., 2012). And obesity not only reduces self-esteem increasing discrimination, it also has implications for the accumulation of human capital and labour-market opportunities. According to Lundborg et al. (2014), there is a large adult male labour market penalty for being overweight and obese as a teenager. Furthermore, this study shows that child obesity affects cognitive skills and non-cognitive skills. Hence, a large part of the estimated labour-market penalty may reflect lower skill acquisition among overweight and obese teenagers.

Policy should target the several drivers of the obesity trend, among the most important are unhealthy diet and lack of exercise. For instance, Mexico is among the countries with the highest consumption of caloric beverages in the world (Barquera et al., 2010). Caloric beverages contribute 20-23% of the total energy intake in the population. Also, physical activity is very low across the country: in a national survey conducted in 2012, 58.6% of children and adolescents from 10 to 14 years reported not having done any organized physical activity in the 12 months preceding the survey (Medina et al., 2012).

During the last five years, there has been some progress in terms of policy. In 2008, the Ministry of Health (MoH) established an expert panel to develop recommendations for a healthy life. Subsequently, the MoH, with support from academia, initiated the development of the National Agreement for Healthy Nutrition (ANSA). ANSA was signed by all relevant actors in 2010 and led to initiatives banning sodas and regulating unhealthy food in schools and the design of other yet to be implemented initiatives, such as a front-of-package labelling system. The tax reform approved in 2013 included the introduction of taxes on high-caloric foods and sweetened beverages. Preliminary results of a study by the National Public Health Institute and the University of North Carolina indicate that the tax on beverages has been effective in reducing consumption. These are moves in the right direction, but efforts should be enhanced.

In particular, the state should promote physical activity among the Mexican population in the school, work, community and recreation environments through the collaboration of the public, private and social sectors. It should also promote and protect exclusive breast-feeding for the first six months of life and complementary adequate feeding afterward, as research shows that breastfeeding can help prevent obesity (Moreno et al., 2011). Finally, the state should educate the public about controlling the recommended portion sizes in foods prepared at home and in permitted processed foods and encourage restaurants and food outlets to offer smaller portion sizes.

The current Administration implemented a National Strategy to Prevent and Control Overweight, Obesity and Diabetes with three pillars: i) public health, which refers to prevention and healthy lifestyle promotion; ii) health care, focused on designing multidisciplinary healthcare services for population at risk; and iii) regulation, that includes taxation of high energetic content and frontal labelling and publicity restrictions of high caloric food and beverages. While it is still early to assess the impact of the Strategy, the Ministry of Health has established mechanisms to monitor and evaluate it.

Recommendations to share the fruits of growth

Social protection and labour markets

- Approve draft legislation for unemployment insurance and universal pension to protect job seekers and old-age people against the risk of income losses, and reduce inequality.
- Fully roll-out the new *Prospera* cash transfer programme to help beneficiaries expand their capabilities, complete their education, join the formal sector and obtain well-paid jobs.
- Encourage more women to join the formal labour force by improving access to quality child-care for children under three years of age, and extend active labour market policies.
- Take steps to delink the minimum wage from other prices in the broader economy; and investigate the effects on jobs and informality of raising the minimum wage in real terms.

Education

- Improve the equity and efficiency of education spending by refocusing such spending on pre-primary, primary and secondary education. Concentrate on the quality of teaching.
- Enhance investment in dual education and vocational education and training programmes.

Health

- Promote access to quality health care through improved coordination across health institutions to reduce redundancies; in particular, promote exchange of services between health care networks.
- To improve quality and reduce costs of services across all health care providers, standardise procedures and make health insurance mandatory.
- Allow free choice of health networks for new employees, and encourage competition between health care providers.
- To reduce underreporting of wages to social security, improve coordination between social security and the tax collection agencies.
- Allocate financial resources to state health services according to need and give more flexibility to the states to determine how to spend them.
- Consider converting government hospitals into corporate entities.
- Make sure that the National Strategy to Prevent and Control Overweight, Obesity and Diabetes is implemented and periodically evaluated.

Urban policy

- Develop a coherent national urban policy that takes into account the broader impacts of housing development on the urban environment and people's well-being.
- Eliminate distortions towards homeownership.

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Glossary

English acronyms

ATM	Automated teller machine
BRICS	Brazil, Russia, India, China, and South Africa
CPI	Consumer Price Index
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GHG	Greenhouse gas
ILO	International Labour Organisation
MXN	Mexican peso
MILA	Latin American Integrated Market
NAFTA	North American Free Trade Agreement
NEET	Neither educated nor employed
ANSA	National Agreement for Healthy Nutrition
OECD	Organisation for Economic Co-operation and Development
R&D	Research and development
SMEs	Small and medium enterprises
TPP	Trans-Pacific Partnership
USIEO	US International Energy Administration
USD	United States Dollar
WHO	World Health Organisation
WJP	World Justice Program

Mexican States

AGS	Aguascalientes
BC	Baja California
BCS	Baja California Sur
CAMP	Campeche
COAH	Coahuila
COL	Colima
CHIS	Chiapas
CHIH	Chihuahua
DF	Distrito Federal
DGO	Durango
GTO	Guanajuato
GRO	Guerrero
HGO	Hidalgo
JAL	Jalisco
MEX	México
MICH	Michoacán
MOR	Morelos

NAY	Nayarit
NL	Nuevo León
OAX	Oaxaca
PUE	Puebla
QRO	Querétaro
QRO	Quintana Roo
SLP	San Luis Potosí
SIN	Sinaloa
SON	Sonora
TAB	Tabasco
TAMPS	Tamaulipas
TLAX	Tlaxcala
VER	Veracruz
YUC	Yucatán
ZAC	Zacatecas

Spanish Acronyms

Banxico	Banco de México Bank of Mexico
BIARE	Módulo de bienestar autor reportado Self-reported well-being module
CFE	Comisión Federal de Electricidad Federal Electricity Commission
CNH	Comisión Nacional de Hidrocarburos National Commission of Hydrocarbons
CNP	Comité Nacional de Productividad National Productivity Commission
CNVB	Comisión Nacional Bancaria y de Valores National Banking and Securities Commission
COFECE	Comisión Federal de Competencia Económica General Competition Agency
COFEMER	Comisión Federal de Mejora Regulatoria Federal Commission for Regulatory Improvement
CONACYT	Comisión Nacional de Ciencia y Tecnología National Bureau of Science and Technology
CONEVAL	Consejo Nacional de Evaluación de la política de desarrollo social National Council for Evaluation of Social Development Policy
CPI	Índice de precios al consumidor Consumer Price Index
CRE	Comisión Reguladora de Energía Energy Regulatory Commission
EMOVI	Encuesta de Movilidad Social en México Survey of Social Mobility in Mexico
ENOE	Encuesta Nacional de Ocupación y empleo National Survey of Occupation and Employment
FOVISSTE	Fondo de la vivienda del instituto de seguridad y servicios sociales Housing Fund of the Institute of Security and Social Services

IEPS	Impuesto Especial sobre Producción y Servicios Special Tax on Production and Services
IFT	Instituto Federal de Telecomunicaciones Federal Institute of Telecommunications
IMCO	Instituto Mexicano de la competitividad Mexican Institute of Competitiveness
IMSS	Instituto Mexicano del Seguro Social Mexican Social Security Institute
INEE	National Institute of Education and Evaluation
INEGI	Instituto Nacional de Estadística y Geografía National Institute of Statistics and Geography
INFONAVIT	Instituto del Fondo Nacional de la Vivienda para los Trabajadores Institute of the National Housing Fund for Workers
ISR	Impuesto sobre la renta Income tax (Personal)
ISSSTE	Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado Institute of Security and Social Services for State Workers
MXN	Peso Mexicano Mexican Peso
NSJP	Nuevo Sistema de Justicia Penal New Criminal Justice System
PEMEX	Petróleos Mexicanos Mexican Petroleum
REPECOS	Régimen de pequeños contribuyentes Small Taxpayers Regime
RIF	Régimen de Incorporación Fiscal Tax Incorporation Programme
SAT	Servicio de administración tributaria Tax Service Administration
SCHP	Secretaría de Hacienda y Crédito Público Ministry of Finance
SEDATU	Secretaría de desarrollo agrario, territorial y urbano Ministry of Agriculture, Territorial and Urban development
SEDESOL	Secretaría de desarrollo social Ministry of Social Development
SENER	Secretaría de Energía Ministry of Energy
SETEC	Secretaría Técnica del Consejo de Coordinación para la Implementación del Sistema de Justicia Penal Technical Secretariat for the implementation of the New Penal Justice System

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