# Chapter 3

# Structural reforms in regulatory, competition and education policies to achieve faster productivity growth

Productivity growth has been insufficient over the past two decades for a convergence of Mexican living standards to the OECD average. Structural reforms in the areas of business regulation, competition policy and education will be crucial to stimulate productivity and foster the catching up process. The OECD has worked with Mexico in all of these areas to develop reform strategies. Efforts to reduce the regulatory burden for firms, including start-ups, should continue. There is also a need to better co-ordinate ongoing administrative simplification efforts at the federal and state levels. The recent competition law reform will strengthen enforcement of cartel law. Undue restrictions on firm entry and expansion in key network industries should be lifted to enhance productivity in potentially competitive segments. Higher quality education and more equitable access to it will be needed to help Mexicans develop their productivity potential in full. A key ingredient will be better teachers. Clear standards for teacher performance are needed to improve their initial education and professional development and to develop a teacher evaluation system that would guide their career development and help them develop their potential. School financing is currently complicated and uneven, leading to inequities. Given that overall spending on education is comparable to OECD levels, Mexico should work towards efficiency gains in the sector and creating a system that provides more reliable funding for all schools.

Strengthening productivity growth is one of Mexico's major challenges. Real GDP per capita growth over the last 20 years has been disappointing, in part related to past crises and increasing competition from countries with similar factor endowments. At 1.2% growth was lower than the average in Latin America and the Caribbean of 1½ per cent, and much lower than in developing countries of East Asia and the Pacific, where GDP per capita grew at an annual average of 7.3%. During this period Mexico's GDP per capita growth was not sufficient to converge towards the income of richer OECD countries (Figure 3.1). Mexico's gap in GDP per capita vis-à-vis the richest third of OECD countries is mainly due to weak labour productivity (Figure 3.2), which was insufficient to lead to convergence.

Strengthening productivity growth will require a broad-based strategy. One important element will be stronger product-market competition through better enforcement of competition law and high-quality regulation that ensures fair access for all entrepreneurs to markets at reasonable costs. Mexico needs to work further on limiting the costs for businesses to operate in the formal economy, in particular the regulatory burden (Chapter 4). The country also needs a stronger education and training system that allows educated individuals to reach their full potential and strengthen their productivity. This would also help to reduce poverty and income inequality, in particular if Mexico works towards enhancing equitable access to high-quality education.

The OECD supports Mexico in several of these areas. OECD competition experts have conducted joint analysis with the Mexican competition regulator Comisión Federal de Competencia (CFC) to identify barriers to competition and propose reforms. OECD regulation experts have worked with the Ministry of Economy and subnational governments to develop tools that would help reduce the costs of business regulation, while ensuring

-50 -50 GDP per hour worked GDP per capita -55 -55 -60 -60 -65 -65 -70 -70 -75 1992 1994 1996 1998 2000 2002 2004 2006 2008

Figure 3.1. **Gaps in GDP per capita and productivity**Gap to the upper half of OECD countries<sup>1</sup>

1. Percentage gap with respect to the simple average of the top 17 OECD countries in terms of GDP per capita and GDP per hour worked (in constant 2005 PPPs).

Source: OECD, Going for Growth 2011 (forthcoming).

StatLink http://dx.doi.org/10.1787/888932383907

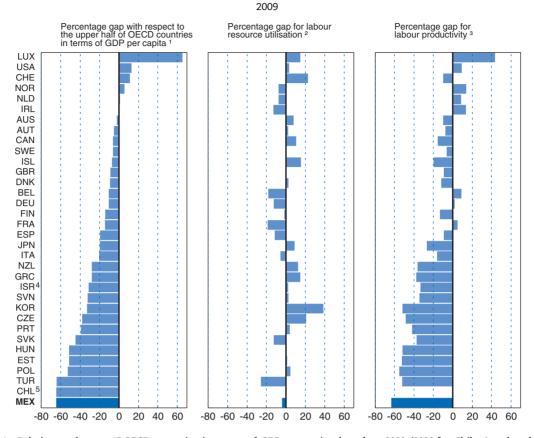


Figure 3.2. The sources of persisting real income differences

- 1. Relative to the top 17 OECD countries in terms of GDP per capita, based on 2009 (2008 for Chile, Israel and Slovenia) purchasing power parities (PPPs).
- 2. Labour resource utilisation is measured as total number of hours worked divided by the population.
- 3. Labour productivity is measured as GDP per hour worked.
- 4. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.
- 5. Data of hours worked are not available for Chile.

Source: OECD, Going for Growth 2011.

StatLink http://dx.doi.org/10.1787/888932383926

coherence and streamlining across different levels of government. OECD education experts have worked with the Ministry of Education to develop a reform strategy that would enhance the quality of Mexican schools. This chapter summarises progress that Mexico and the OECD have achieved together and suggests reforms that would help advance this agenda further.

# Improving regulation can have a significant impact on productivity growth

OECD research suggests that allowing more competition, while reducing the costs of business regulation could help Mexico increase productivity significantly. The OECD product-market regulation indicator (PMR) shows that regulation is relatively restrictive in Mexico (Figure 3.3, see also Woelfl et al., 2009). This is mainly due to barriers to entry, investment or foreign ownership in services and network industries, including telecommunications, transport and electricity. Regulatory burdens for firms are still important, notwithstanding major recent improvements. OECD simulations (see Box 3.1

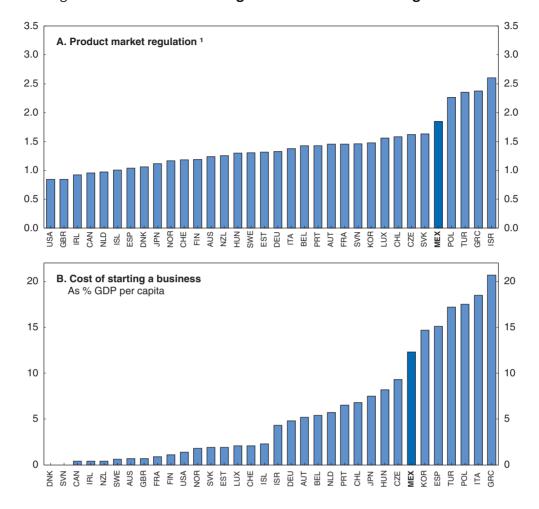


Figure 3.3. Product market regulation and cost of starting a business

Overall indicator, the scale of the indicator is 0-6 from least to most restrictive of competition.
 Source: OECD, Product Market Regulation Database; World Bank, Doing Business 2011.
 StatLink mp http://dx.doi.org/10.1787/888932383945

for details on the methodology) suggest that if Mexico brought its regulations in line with OECD best practice, labour productivity could be as much as 18% higher after 10 years. It could be 9% higher in a more moderate reform scenario, whereby Mexico's regulatory reform matched the PMR indicator score of the average of Belgium, France, Italy and Portugal. A breakdown of the effect of different reform efforts suggests that reforms in network industries could bring particularly high productivity payoffs. Far-reaching reforms in these sectors, including the full separation of ownership of essential infrastructure from competitive segments, would bring twice the productivity benefits of administrative regulatory reform, including the simplification of procedures for starting a business. These estimates – in particular the exact values – have to be interpreted with some caution. Nevertheless they give a sense of the order of magnitude of productivity improvements that Mexico could achieve when engaging in administrative and competition reform.

In Mexico competition in network industries is limited either by restrictions on foreign and private investment, such as in the production of gas and distribution of electricity, in

#### Box 3.1. The model used for the empirical simulations

The labour productivity effects of the simulated regulatory reforms are calculated for each sector separately, and then aggregated to a weighted average of the overall economy. The estimation equation used in the empirical model is the following:

```
\begin{split} \Delta lnLP_{ijt} &= \delta \left( \Delta lnLP_{jt}^{leader} \right) + \sigma \ prodgap_{ijt-1} + y_1 \ PMR_{ijt}^{ict} + y_2 \ PMR_{ijt}^{non-ict} \\ &+ \alpha \left( PMR_{ijt-1}^{*} \ prodgap_{ijt-1} \right) + country/industry \ dummies + time \ dummies + \epsilon_{ijt} \\ &\quad with \ \epsilon \sim &N(0, \Sigma). \end{split}
```

In this equation, the indices i, j and t denote countries, industries and years, respectively; LP denotes labour productivity; prodgap is the "productivity gap" – which is measured as the (log) difference between the level of productivity of a given sector in each country and that of the productivity leader – and PMR is the regulation impact indicator of anti-competitive product market regulation. Fixed effects for each country-industry combination are included so as to account for unobserved time-invariant factors affecting productivity growth in a particular sector or country (e.g. natural endowments or location). Time dummies are also included to control for global productivity shocks in any given year.

The simulations proceed in two steps. First, the simulated policy changes are defined at the level of sector-specific regulation indicators for each non-manufacturing sector. These changes in service sector regulation measures are translated into the corresponding knock-on effects for each sector of the economy, including manufacturing sectors, on the basis of input-output relationships between different sectors of the economy. This approach captures the idea that a sector that relies relatively heavily on inputs from a given non-manufacturing sector is likely to be affected relatively strongly by changes in that non-manufacturing sector. These knock-on effects are measured by the indicators that are referred to as regulation impact indicators in Conway and Nicoletti (2006).

In a second step, the impact of this reform on labour productivity growth is simulated for each sector of the economy using a dynamic empirical model. More precisely, an estimate of the reform impact is obtained by comparing the model predictions on labour productivity outcomes both with and without the hypothetical regulatory reforms. In the empirical model labour productivity growth in a given sector and country depends on its ability to keep pace with the growth of the same sector in the country with the highest sector-specific level of labour productivity (the productivity leader) by either innovating or taking advantage of technology transfers. The prospects of catching up with the productivity leader are affected by the policy environment in follower countries. In particular, Aghion and Griffith (2005) stress the role played by institutions that promote (or hinder) firm rivalry and/or entry of new firms in raising (or curbing) incentives to enhance productivity. In the model presented here, these institutions are proxied by the OECD indicators of anti-competitive regulations described above.

each of which a single state-owned firm dominates the industry, or by the overwhelming dominance of the private market incumbent in the telecommunications sector. The simulation exercise suggests that the impact on labour productivity would be particularly large if thorough reforms were undertaken across a number of sectors. At the same time, far-reaching reforms in these sectors are politically difficult, not least because there are powerful vested interests in preserving the status quo. Therefore, strong communication of the benefits of structural reforms is very important.

Mexico has pursued reforms in network industries for long with both successes and failures. Privatisation of airports has enhanced competition in the sector, although there

are still barriers to entry worth addressing. The closure of Luz y Fuerza del Centro – a highly inefficient state-owned company – has gone some way in enhancing the efficiency of the electricity sector. This has helped to reduce the time that customers in Mexico City have to wait for an electricity service from an average of 10 months to 4 months (World Bank, 2010). The concession of fibre optic networks with national coverage together with new radio spectrum allocations will allow for infrastructure competition in the telecommunications sector. However, more far-reaching reforms in the electricity, gas and telecommunications sectors have been limited by the need to mobilise large political majorities to change the constitution or – in the telecommunications sector – by regulatory and judicial weaknesses confronted with powerful vested interests. The impact of reforms to ease administrative burdens is smaller, but they could still help to improve quite significantly on Mexico's weak productivity performance. At the same time, administrative reforms are much easier to implement than far-reaching reforms of network industries, as no legislative changes are required and vested interests that would resist change are a lot less powerful than in network industries.

## Mexico is making efforts to ease business regulations

## The government is in the process of simplifying procedures to start up a new business

Mexico has achieved substantial progress in regulatory reform. Regulations are now subject to quality controls and more transparent mechanisms have been introduced to attain high quality regulation. Market openness and competition are explicit goals in the regulatory reform framework. Regulatory impact assessment (RIA) – a comprehensive analysis of impacts, costs and benefits of regulations – has been a mandatory requirement for new regulation proposed since 2000. Furthermore, most states have either a decentralised commission or a department within a ministry – usually the Ministry for Economic Development – in charge of regulatory improvement. Thanks mainly to efforts to ease administrative regulatory burdens for business start-ups, Mexico has climbed up 6 ranks in the World Bank's latest ranking of countries' business environment (Doing Business) and was the only OECD country among the top ten "most improved" (World Bank, 2010).

Notwithstanding these improvements, more needs to be done to improve business regulation and reduce its complexity. The cost of starting up a new business as measured as a percentage of GDP per capita remains comparatively high, more than double the average in OECD countries. The World Economic Forum's indicators of regulatory quality indicate, as well, that Mexico needs to do more to bring its regulatory quality in line with some of the richer OECD countries (World Economic Forum, 2009). High entry costs can increase informality and inhibit structural change, competition and innovation, thus hampering productivity growth.

With the support of the OECD, Mexico has started several initiatives to reduce unnecessary regulatory burdens, in particular for business start-ups, and increase regulatory quality. The launch of the one-stop shop tuempresa.gob.mx in August 2009 was a decisive step to reduce the cost of starting a new business. The site allows entrepreneurs to comply largely online with all federal procedures required to register a new business, significantly simplifying a process that formerly involved not only high fees, charges and taxes, but also a lot of time. The government plans to integrate a wider set of procedures

into *tuempresa.gob.mx*, which would be a welcome measure to reduce the regulatory burden for businesses that are already operating.

OECD research suggests that the cost reduction that entrepreneurs can achieve when registering their enterprise through tuempresa.gob.mx is substantial (OECD, 2009). OECD calculations show that the costs of registering a new business could be reduced by two thirds. Results from the World Bank's latest Doing Business report confirm the beneficial effects of tuempresa.gob.mx: the number of days required to register a new business went down from 13 to 8 and the number of formalities from 8 to 6 following the introduction of the one-stop shop. These improvements helped Mexico leap 23 places in the "Starting a Business" ranking (World Bank, 2010).

However, more needs to be done to increase the usage of the one-stop online site. As of December 2010, 25 437 citizens had managed their start up formalities using the portal, an average of about 1 590 users per month. So far, the government has promoted the site through brochures and other information material for specific stakeholders, such as business groups and universities, and in speeches. More extensive campaigns in the media will also be needed. The government should start to engage in more extensive media campaigns to make the one-stop shop known to a wide range of potential entrepreneurs. A second reason for the low usage of the portal is insufficient support from some interest groups, such as subnational governments and notaries. The Ministry of Economy should therefore enhance its engagement with strategic partners, such as subnational governments and notaries, to gain their support for the one-stop shop.

There is also a need to strengthen co-ordination with the subnational levels of government to maximise the impact of efforts to simplify procedures for business startups. As many formalities required to open a business take place at the municipal level, municipalities have adopted a programme to simplify these procedures called System for Quick Business Start-up (SARE). The system allows low risk businesses to start operations 72 hours after filing for registration and there is evidence that this has induced more firms to register, as discussed in Chapter 4. States and municipalities should co-operate with the Ministry of Economy to make tuempresa.gob.mx operational in their jurisdictions and establish business start-up portals at the state and municipal levels that would cover formalities currently bundled under SARE, to be interconnected with tuempresa.gob.mx. Managing start-up procedures online would greatly simplify the process and which could even help reduce opportunities for corruption, as direct contact between officials and entrepreneurs would be avoided. This could help strengthen the positive impact on formality and productivity, since corruption lowers the value of formality, while increasing its costs, thus reducing incentives to formalise, as discussed (see Chapter 4). Subnational governments should also commit to promote the portal and increase its usage. Federal and subnational authorities should work to interconnect tuempresa.gob.mx with state and municipal start-up portals.

# The regulatory review "Base Cero" is set to improve the quality of regulation in Mexico

In January 2010, President Calderón announced a regulatory review process to update the entire stock of federal regulations. The objective is to improve and simplify regulations to favour productivity and facilitate technology absorption, so as to strengthen innovation as a basis of economic growth. Each ministry identified formalities and regulations they considered worth reviewing. In the second stage, regulations were assessed according to: i) their incidence, that is the number of times that a business has to comply with the regulation; ii) the administrative cost associated with complying with the regulation; and iii) savings that could be reaped by reducing transaction costs either through elimination or simplification of the regulation. Several OECD countries, including Canada and Korea, have carried out similar exercises. Thanks to strong political leadership and consultations with the business sector to identify regulations in need of reform, the regulatory burden was reduced.

A number of formalities for exporters, importers, the farming and livestock sectors, start-ups and tax filers have already been simplified thanks to the initiative. Trademark registration and the presentation of training plans and programmes will be incorporated to tuempresa.gob.mx, so that these formalities can be completed online. The plan for the period 2010-11 is to simplify formalities related to foreign trade, taxes, public procurement and infrastructure development, labour flexibility, starting up a business, housing development, and access to finance. Projected savings amount to about \$35 billion pesos.

In addition, Mexico is aligning technical regulations (NOMs) with those of the United States and Canada under the Base Cero initiative. The main objective is to eliminate redundancies in certifications. In the future compliance with international standards will automatically imply compliance with NOMs. This could also facilitate technology absorption and promote competition in the standardisation industry.

Despite the ambitious goals of the Base Cero programme and its positive initial results, the initiative would benefit from adopting a more comprehensive approach to the review exercise by extending its scope to a wider range of high impact economic processes and to procedures that apply at different stages of the life cycle of business. Strengthening consultations with relevant stakeholders, particularly businesses would also help to increase the impact of simplification and address the most burdensome formalities. Furthermore, measuring and communicating the results better to the main stakeholders and the general public would help gather support for the initiative. The government should also make it clear to stakeholders that these exercises need to be carried out periodically, so that further gains are realised and regulations evolve to address changing needs. The federal government could also consider promoting the idea of carrying out similar review exercises at the subnational level, as in the state of Baja California.

The Federal Commission for Regulatory Improvement (COFEMER) is also co-operating with the OECD to enhance its regulatory impact assessment (RIA) system. The previous system became burdensome for ministries and departments, as they were required to prepare a complete RIA, even if proposed regulations had only minor costs and impacts. The OECD provided advice based on international best practices, including Australia, Canada and Ireland, to reform Mexico's RIA system. After the reform COFEMER can now concentrate its resources on regulations with the highest costs and burdens and the administration does not have to conduct a full RIA when introducing low-cost formalities or procedures. An electronic cost calculator was introduced to classify regulation initiatives as either high or low impact and the template to assess low impact regulations was simplified reducing the time that officials have to spend on this exercise. COFEMER should support the implementation of the upgraded RIA system by training personnel in line ministries and agencies to use it. COFEMER has taken first steps by publishing guidelines on how to draft RIAs.

#### Subnational governments need to be engaged in the reform efforts

A lack of horizontal and vertical co-ordination of regulation across levels of government can lead to redundancies, overlap and even inconsistencies, increasing the cost of regulations and reducing transparency. In Mexico, subnational governments have extensive regulatory powers. Federal, state, and municipal authorities have the capacity to design, implement, and enforce their own regulations. In some cases, boundaries for each level of government are defined, but in many others there are overlaps. Along with the efforts at the national level, it is necessary to engage subnational governments (states and municipalities) in the regulatory reform agenda. Many of the most burdensome formalities are administered at the subnational level. Even though some of the 32 state governments have adopted regulatory reform policy frameworks and use innovative tools, such as e-government, the degree of progress and commitment varies significantly across states (Garcia Villareal, 2010).

The Ministry of Economy and the OECD, jointly with the Mexican Institute for Competitiveness (IMCO), carried out a research project to reduce the regulatory burden and enhance competitiveness at the subnational level. This project identified the most burdensome formalities for the business sector in each participating state by pinpointing the costliest and most time-consuming stages and requirements in license and permits processing. Based on this, the OECD and IMCO provided specific recommendations for reform. Examples are provided in Table 3.1. The OECD also provided recommendations for improvements based on a study of best practices in three Mexican states and three provinces of other OECD countries. These efforts served as an input to draft a toolkit to simplify subnational regulations and formalities. The federal government should encourage states and municipalities to apply the recommendations in the toolkit, which will help improve their regulatory practices in the short-term, raising awareness of the issue and creating an opportunity for systematic regulatory planning in the longer term.

Table 3.1. Burdensome formalities and requirements in the process to start up a business and recommendations to simplify them

Problem	Recommendation
Information about requirements to complete different formalities is inaccessible, which creates confusion for the users and opens the door for corruption.	Use as many means as possible to make the information about formalities and requirements accessible and transparent for the user. To the extent possible, make use of electronic means (website, chat, etc.).
Lack of co-ordination between different offices (e.g., urban development municipal offices and state cadastral offices), creates redundancies and hinders the possibility to simplify and consolidate formalities.	Establish a shared database to allow immediate communication and updates between offices and avoid requirements for citizens to present original documentation to different government entities.
The stages in which public notaries participate represent a significant share of the total costs of starting up a business.	Make use of electronic tools to streamline and drive down the costs of the stages in which public notaries participate. The Ministry of Economy has already designed tools such as the system for Immediate Registration of Businesses (RIE) to achieve these objectives.
Registration for the state payroll tax (ISN) is burdensome and requires the physical presence of the businessman in the offices of the Treasury.	Allow electronic registration by establishing and interconnecting start up portals of states with tuempresa.gob.mx.

While it is important for subnational levels of government to develop their own regulatory framework, as they are often closer to the field, multi-level co-ordination will remain critical. Furthermore, states and municipalities should work on implementing regulatory reform to reduce the gap between those that are already advanced and those

that have barely started. The federal government should engage subnational governments in the regulatory reform agenda to create dynamic regional business environments.

# Mexico needs more competition to spur growth and improve consumer welfare

Despite improvements over the past years, scope remains for improving the functioning of competition in Mexico. Past OECD studies and the Comisión Federal de Competencia (CFC), the Mexican competition authority, found high levels of concentration and weak competition in many sectors of the Mexican economy. Improving the functioning of competition, including by sectoral reforms that would facilitate new firm entry and growth in network sectors, will be a key factor to achieve higher productivity growth rates, as suggested by the simulation exercise (see Box 3.1). This is because competition disciplines managers and thus helps reduce costs, while reinforcing incentives for innovation and the adoption of new technology. Competition can also lead to higher levels of employment (Nicoletti and Scarpetta, 2005) and enhance the resilience to economic shocks (Duval et al., 2007).

Stronger competition would also enhance consumer welfare, in particular for lower-income individuals. A joint OECD/CFC study found that 31% of the average Mexican household's spending is devoted to products produced in monopolistic or highly oligopolistic markets (CFC, 2009; Urzúa, 2009). The share is even higher for lower-income households, 38% for the lowest income decile compared to only 24% for the richest decile.

## The recent reform of the competition law is a major step ahead

One key route to increasing competition is through vigorous enforcement of a well-designed competition law. Enforcement has evolved rapidly in Mexico since the enactment of the first competition law in 1993. Since then, the law has been modified on several different occasions, most recently in 2006. Among other amendments, the 2006 reform allowed the CFC to create a well-respected leniency programme. This reduces penalties for firms that provide evidence on cartel operations, thus strengthening incentives for cartel members to co-operate with the authorities. Furthermore, the amendments allowed the CFC to impose structural remedies, such as divestitures, in monopoly cases; strengthened and simplified procedures related to efficiency considerations, merger notification, and included additional conducts that may constitute relevant monopolistic practices. The CFC has matured into a credible and well-respected agency with relatively strong levels of independence, a feature deemed essential for competition authorities to avoid special pleading.

Nevertheless, the 2006 version of the law lacked some important enforcement tools. Congress now passed a reform to address these lacunae. The reform further enhances CFC powers to gather information, establishes maximum penalties that are substantial enough to deter wrongdoing, increases efficiency of investigations and enhances the transparency and predictability of CFC procedures. One weakness of the previous situation was that the CFC had to announce office visits in advance and could only seek information previously requested. The new law now allows unannounced visits significantly increasing the likelihood of collecting useful evidence from suspects. Penalties were previously predicated upon a multiple of the minimum wage, which yielded maximum fines of about USD 7 million. Gains from illicit conduct could often far outweigh this figure. Thus, previous fine levels failed to deter serious cartel behaviour. The new reform increases maximum fines

to 10% of company revenue in Mexico, thus ensuring that fines can provide real deterrent value. The reform also expands the scope for criminal prosecution against individuals engaged in cartel activities and enhances operating efficiency by allowing settlements between the CFC and companies under investigation. Previously, settlements could not occur before finalisation of an investigation, delaying the process and forcing investment of resources even when both sides expect a similar outcome from the investigation. The reform will strengthen enforcement and enhance predictability and transparency.

One key topic partly addressed by the law that has been previously identified by the OECD as meriting reform is the way that amparos are handled. Amparo proceedings are similar to the habeas corpus figure in other countries and are established by the constitution, to grant all persons protection against acts of government. It can be brought by any party based on wide-ranging grounds, including that a law is unconstitutional or that an agency action is not supported by substantial evidence or founded on reasoning that is illogical or contrary to general principles of law. CFC investigations and cases, like those of regulatory agencies, are routinely subjected to multiple amparos, leading to court orders suspending CFC proceedings. Sometimes these appeals can unnecessarily delay or undermine actions and decisions by the CFC and other regulatory bodies that would otherwise have a beneficial effect on competition. It can take years before a court makes a final decision on whether or not a law or a regulation can be applied. Amparos are useful to check the arbitrary use of government power, but their efficiency could be improved. Building expertise in economic issues within Mexico's judicial system would help. Judges who hear amparo cases are sometimes unfamiliar with competition law or economic regulation issues. The new law foresees that appeals to CFC resolutions will now be referred to courts that are specialised in competition law. This might reduce the lengths of proceedings and increase the quality of courts' decisions, although establishing these new courts may take time and requires further legal changes. Amparos will still be available to companies affected by CFC decisions. Previously, the CFC had also organised many seminars for Mexican magistrates, judges and their staff about competition law and regulatory issues since 2006. Speakers included judges from the United States and Europe as well as competition enforcers from other jurisdictions. Since 2004, the percentage of amparo suits won by economic agents has fallen from above 50% to less than 20%.

#### Reforming sector-specific regulations

The new competition law amendment is a major step forward towards stronger competition across the Mexican economy, but sector-specific measures are also needed. In particular, undue restrictions on new firms in network industries need to be lifted and anticompetitive practices in the pharmaceutical sector should be curbed.

## Airline and airport sector

The airlines sector in Mexico was first liberalised in the early 1990s but the financial crisis in the mid-1990s stopped the process, as the government had to bail out the two major airlines, Aeroméxico and Mexicana, and became their principal shareholder. It was not until the mid-2000s that a second liberalisation process occurred with the entry of half a dozen low-cost carriers. Although the recent opening of bankruptcy proceedings in the case of Mexicana suggests that full service carriers can have difficulties in adapting to the new market conditions, it is a positive sign that the government has not come to the rescue of the company but rather let the market play its role.

Competition in the airline sector is generally considered a success, but further improvements are possible. Domestic passenger growth averaged 5.4% from 1989 to 2008 and the concentration level in the sector (as measured by the Herfindahl-Hirschman Index) fell by more than half between 1989 and 2008. A joint CFC/OECD (Ros, 2010) analysis shows that fares are approximately 30% lower on average on the routes where a low cost carrier operates. The main impediment to competition in the Mexican airline industry is entry conditions at Mexico City Airport. Landing and takeoff slots are not only allocated inefficiently but also they are often difficult for new entrants to obtain. According to a joint OECD/CFC analysis (Ros, 2010), this has resulted in Mexico City Airport's capacity being underutilised and fares on routes that involve Mexico City being between 40 and 80% higher than on comparable routes elsewhere in Mexico.

A better allocation of slots at Mexico City Airport would require abandoning the allocation mechanism currently in place, which is based on grandfathering, puts artificial restraints to the development of a secondary market for slots, and is controlled by a committee mainly composed of incumbent airlines. In this sense, airport conditions would be much improved if the Ministry of Communications and Transport (SCT) not only implemented a market-based mechanism - such as auctions - to systematically allocate slots in those hours where the demand for slots exceeds existing capacity, but also allowed the development of a more dynamic and transparent secondary market for this scarce good. Slot auctions and slot resale need to be put in place to permit successful entry and expansion of airlines. In this case, moreover, it would be advisable to implement accumulation limits to prevent distortions to effective competition as well as to delegate the co-ordination of the new system to an independent body. Although Mexico City Airport is empowered to auction slots in saturated hours since 2005, this has not yet been done. This can be attributed to the fact that the administrative definition of saturation used does not incorporate airlines' demand for slots. In addition, the airport has never published the rules that would govern the auctions. The exit from the market of several small airlines, and more recently of Mexicana, provides a unique opportunity for immediately moving to auction slots in saturated hours, thereby improving the efficiency and competition of the country's air transport industry.

Allocation of airport space in Mexico City Airport is not the only challenge for the industry. Despite the significant entry that has occurred in the last years, SCT still has many rules in place that have the potential to unduly limit further new entry and expansion. Unduly restrictive route-specific concessions are one issue. Airlines currently need a route-specific concession that states times of flight operations and requires service without long interruptions. SCT, moreover, has discretion in awarding concessions and approving new routes and schedules. In this context, relatively few companies have concessions. Given that it is not clear that concessions are needed at all provided that safety rules are followed, it appears that the legal need for a concession could be eliminated for any airline whose aircraft, safety procedures and pilot licenses meet ongoing safety requirements. Alternatively, if Mexico opts to maintain the system of concessions, some reforms would help strengthen competition. First, concessions should allow airlines to provide service on any route, as long as they maintain safety notification requirements on a route-by-route basis. Second, airlines should be free to change schedules upon simple notification. Third, the government should eliminate the rules whereby airlines lose their right to a route after failing to take up services 90 days after receiving approval or after interruption of services for 180 days.

#### Banking sector

The retail banking sector in Mexico is highly concentrated and interest margins are high. According to Chiquiar and Ramos-Francia (2009) interest margins are high in international perspective. With respect to deposit accounts, two firms share close to 50% of the market. With respect to credit/debit cards, in 2007 the four largest banks in Mexico were responsible for between 85 and 90% of the transactions in credit and debit cards, a figure that has not changed much since 2002 (Castellanos et al., 2008). Comparable figures for the top two banks were between 60 and 70%. A CFC/OECD market survey found that 95% of those interviewed who had a least one banking product had never changed banks. This compares with switching rates of 13%-30% for different banking products in the UK over a five-year-period for example, where switching rates are lower than elsewhere in the EU at least for personal current accounts (Office of Fair Trading, 2008). Low switching rates in Mexico could be related to high switching costs, although it could also be related to inertia.

Mexico has launched a number of actions that could reduce the perceived and actual costs of switching. The OECD recommended that the government require banks to provide transparent information to customers so they can easily assess the costs of bank switching. The bank a customer switches to should be permitted to switch payment orders upon the customer's request. In order to ensure that new banks can easily start and expand, it was recommended that access to jointly-owned bank infrastructure such as card network infrastructure and credit bureaus be available on minimal terms. In order to ensure that smaller banks have the opportunity to expand, lower pre-requisites for opening a new branch were recommended.

These recommendations have now been incorporated into the legal and regulatory framework and this is a major step ahead for competition in the Mexican banking sector. These legal changes are now being implemented and the government should make sure that this proceeds as quickly as possible to enhance bank competition in Mexico.

#### Inter-city bus transport sector

Inter-city bus services have been provided in a liberalised environment since the 1990s, but improvements to the competitive framework are possible. This would benefit consumers, especially low-income groups who account for much of the demand for inter-city bus transport in Mexico. Although there are over 1 800 firms with permits to operate inter-city bus service in Mexico, most of these firms own less than 5 buses and provide services on very few routes. Many of these firms are part of the four principal private operator groups in Mexico who own buses and co-ordinate bus operations in Mexico. For many routes, these groups do not offer competing services. On low-demand routes, this can be determined by the cost structure of the industry. However, regulatory changes could enhance competition in a number of cases with beneficial effects. OECD/CFC analysis for first-class services suggests that the presence of competitors would lead firms to reduce prices by as much as 10%. If the market is contestable, then potential entry can be enough to constrain prices to a similar extent (CFC and OECD, 2010).

Unduly restrictive regulatory barriers to entry or expansion, for example unnecessary constraints on obtaining permits, should be relaxed and authorities should ensure non-discriminatory access to bus terminals. It would be valuable for the government to ease the process for obtaining permission to provide inter-city bus transport. Currently, the

regulator is required to use demand and investment studies as a basis for the decision to allow further firms in the market. This creates high entry costs and puts the state in the role of planning supply. Letting market forces operate is likely to be more efficient. Thus, the requirement for the regulator to base decisions on new firm entry on studies of demand and investment should be dropped. Furthermore, in some cases access to existing bus terminals may be essential for competitors to enter. In these cases it may be worth establishing access conditions to terminals owned by one company. Access can be essential when construction of a new terminal is not economically feasible or is refused by the local government.

#### Pharmaceutical sector

In the pharmaceutical sector, strengthening competition would help bring down exceptionally high prices. Pharmaceutical prices in Mexico are the highest among a sample of 12 countries (Figure 3.4). At the same time "out-of-pocket" expenditures – expenses not covered by insurance plans – are particularly high, corresponding to 81% of total pharmaceutical expenditures (OECD, 2010e). As a result, Mexico's per-capita consumption of pharmaceuticals is the lowest in the OECD. In a country with strong income inequalities and high rates of poverty, ensuring access to high-quality medical services for everybody requires special efforts.

110 110 100 100 90 90 Average 80 80 70 70 60 60 50 50 40 40 30 30 20 20 10 10 n 0 MEX LISA FRΔ DELL ΙΤΔ CAN GRR RRΔ ESP CHI

Figure 3.4. **Price indices for medicines, 2005**<sup>1</sup>

USA = 100, nominal exchange rate

1. Price to the public.

Source: Danzon, P and M. Furukawa (2008), "International Prices and Availability of Pharmaceuticals in 2005", Health Affairs, Vol. 27, No. 1, pp. 221-233.

StatLink http://dx.doi.org/10.1787/888932383964

More transparent procedures for public procurement and an easing of government restrictions on generic pharmaceuticals would help to strengthen competition in the pharmaceutical sector. The social security institute (IMSS), the competition authority (CFC) and the OECD have agreed to co-operate to promote competition in public procurement. Starting in 2011, IMSS will conduct all its purchases, including medicines, through reverse auctions, which will greatly limit the scope for corruption and make collusion between pharmaceutical firms much more difficult. One reason for the lack of competition is government restrictions on generic pharmaceuticals that impede firm entry. Until recently, for instance, firms selling generics were required to operate a plant or laboratory in Mexico.

This requirement has now been lifted, which may contribute to increase the market penetration of generics from its currently very low level. However, the new law still needs to be implemented by aligning administrative rules with it. The government should strive to implement the new law as fast as possible. Non-branded generics represent less than 17% of the market for pharmaceuticals whereas in the United States the figure is 66.5%.

To promote more competition in generic pharmaceuticals, Mexico could facilitate the accreditation of producers who are interested in participating in the Mexican market. It would help if the government could issue criteria concerning the substantive aspects of the litigation most frequently associated with pharmaceutical patents, namely legality of extensions of patents in the pipeline and the awarding of patents for pharmaceutical compositions and adapted doses. This would make it more difficult for incumbents to seek an excessive extension of their patents through legal actions and it would enhance legal certainty, while reducing entry barriers, for generics producers. Increasing consumer demand for generics is also important. Publicity campaigns to increase consumer awareness of the quality of generics can be helpful.

Bid-rigging has been a problem in the generic pharmaceutical market, and the government has started to take action. A CFC investigation identified widespread bid rigging by manufacturers to state purchasers of generics. However, after the government changed bidding procedures in 2005 and 2006 to make it more difficult for firms to divide the market between them and increase international supply, prices for the 20 top-selling generic drugs declined by an average of 19% (Estrada and Vasquez, 2011). Fines against the bid riggers are relatively small, though, given the low legal maximum fine by international standards, suggesting the importance of increasing maximum fine levels with amendments to Mexico's competition law. A scandal reported by the media in November 2010 suggests that bid rigging is still a live issue for government policy in the pharmaceutical sector.

As in other countries, doctors often receive generous incentives and benefits from pharmaceutical firms for prescribing their products. At a minimum, pharmaceuticals firms should be required to make their marketing practices and expenditures that target doctors transparent. Mexico could also consider imposing restrictions on the kind and the size of incentives that doctors are allowed to accept, including "gifts" and expenses to participate in seminars. Many OECD countries place strict limits on any transfer of value between pharmaceutical firms and physicians. These limits are intended to prevent physicians from prescribing medicines based on the incentives they receive from its producer rather than on its medical effectiveness and its cost efficiency. Another option is to require doctors to prescribe medications by the generic compound name only, allowing patients to choose the cheapest option in the pharmacy. Pharmacies should be required to supply generics. Currently, doctors can still prescribe medications by their brand name, and pharmacies are then required to supply the prescribed brand.

The government is engaged in a number of efforts to promote generics, including a process to renew all medicine registration procedures that will conclude this year, leaving only generics complying with bioequivalence requirements; promotional and informational campaigns to deepen the adequate prescription and use of generics; and a current revision of the conceptual framework of intellectual property to assess areas of improvement.

#### Telecommunications sector

Fixed and mobile telecommunications remain a problem, particularly interconnection conditions which determine how much it costs to transfer calls between networks (CFC and OECD, 2009). Growth in fixed-line services has been flat, as consumers are switching to wireless and cable telephony. Nevertheless, Mexico's per-capita access to telecommunications services (fixed-line, wireless and cable modem) is significantly below the OECD average. This is in part a result of higher prices: According to OECD data, Mexican prices for moderate use mobile phone services exceed the OECD average by around 30% and fixed-line prices for moderate-use consumer and business services exceed OECD averages by 67% and 82% respectively in purchasing power parity terms. In 2009 and 2010, CFC issued five declarations of substantial market power that give the telecommunications regulator, COFETEL, the authority to impose regulations on the corresponding enterprises. According to a CFC-OECD study, if average telephone prices in Mexico were at the OECD average, consumer benefits would total USD 15 billion annually.

There is scope to improve the regulation of interconnection between networks, both in fixed-line and mobile telephony. COFETEL has issued an interconnection plan that calls for interconnection rates to be based on cost models. This is a good approach and consistent with that used in other OECD countries. The development of long-run incremental cost models and the determination of relevant parameters should be based upon a transparent methodology and subject to audits by independent experts.

In fixed-line telephony, Telmex sets a charge called a "long distance resale rate" for terminating calls to those local calling areas where it has a monopoly. COFETEL has maintained since 2001 that the long-distance resale service is an interconnection service and hence subject to interconnection regulation that would yield much lower rates, and ruled in 2008 that the rate should fall to about 15% of its current value. However, this ruling has been subject to a yet unsettled *amparo* suit. At the minimum, the government could consider merging local calling areas to have fewer that are non-competitive.

Interconnection conditions in mobile telephony are also problematic. Both SCT and a judge have determined that mobile interconnection rates should be considerably lower than actual rates. The ruling sets a rate for 2010 of 0.42 pesos per minute compared to the actual rate of 1 peso per minute. Yet, the regulator has no authority to regulate interconnection tariffs in mobile ex-ante for all cases. It can only propose changes for specific cases when a legal dispute arises between operators. The telecommunications regulator COFETEL should be authorised to regulate interconnection tariffs ex-ante to foster competition among operators as well as sector growth. Following a complaint by several competitors the CFC recently imposed a 1 billion USD fine on the incumbent in the mobile telephony market for monopolistic practices related to interconnection charges.

The telecommunications regulator COFETEL should be authorised to declare bottlenecks and essential facilities and to establish non-discriminatory conditions for access to these facilities. Access rules should be established in a clear and precise manner through legislation in order to avoid inefficient judicial review. Additionally, legislation should include the possibility of unbundled access to essential infrastructure when it promotes competition and does not harm investment incentives. Unbundled access would create access to parts of the incumbent operator's network, allowing competitors to grow without having to build out a complete network themselves. One issue is the unbundled access to the local loop (the connection between the telephone exchange office and a

home). For instance, local loop capacity could be rented out to providers offering DSL services. When establishing unbundled access to parts of the incumbent's network, the authorities should make sure the incumbent retains sufficient incentives to maintain the network and viable projects to build new infrastructure are not put at risk. It would be valuable to establish in the law that interconnection tariffs and tariffs associated with unbundled network access be regulated based upon long-run incremental costs.

Finally, the state-owned electricity monopolist *Comisión Federal de Electricidad*, CFE, owns a fibre-optic network and opening some of its capacity to competitors of the market-dominant telecommunications company has the potential of significantly spurring competition in the sector. The network has already been opened to competitors, which is a major step forward. The tariffs should be based upon a long run incremental cost methodology. The recent auctioning of broadband spectrum may further contribute to a more competitive telecommunications sector.

# Better education would enhance economic growth and the well-being of Mexico's citizens

## Education can improve welfare in several dimensions

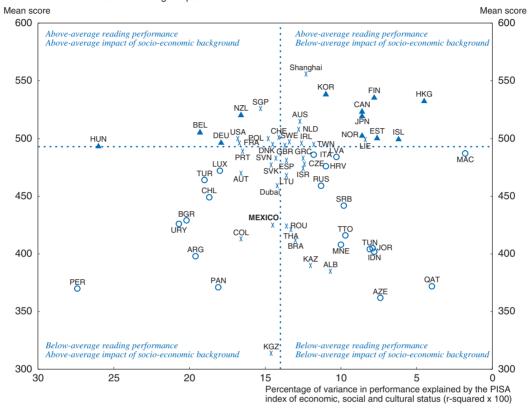
Mexico has increased its investments in education and the number of children attending school considerably, but further efforts to improve the quality and equity of education are needed. The share of public education spending in GDP has risen over recent years and at 4.8% it is around the OECD average of 5.2% (OECD, 2010a). Given that public spending overall is relatively low in Mexico, this translates into the highest share of education expenditure in total public spending in the OECD. However, due to the size of Mexico's young population, the amount spent per student is low by international standards even when adjusted by Mexico's GDP per capita: as a share of GDP per capita Mexico spends 15% per primary student compared to an OECD average of 20%, 16% per secondary student compared to an OECD average of 24% (OECD, 2010a). In terms of the number of children going to school and the level at which they graduate Mexico has achieved some significant progress over recent decades in a context of tight budgets, great linguistic diversity, sizable internal and cross-border migration, and a considerable proportion of the population currently 15% - living on less than USD 2 per day. Today's enrolment rate of children aged 5 to 14 is almost universal (Aguerrondo, et al., 2009; OECD, 2010a). The proportion of students graduating at upper secondary level has risen from 33% in 2000 to 44% in 2008, reducing the upper secondary attainment gap between Mexico and other OECD countries, although it remains sizeable. In Mexico, only 51.6% of 15 to 19 year-olds are enrolled in formal education compared to an OECD average of 81.5%. Moreover, results from the OECD Programme for International Student Assessment (PISA) show that Mexican students are far from achieving similar results as their OECD peers (Figure 3.5). The impact of socioeconomic background on results is strong, indicating that more equitable access to highquality education is needed.

Strengthening the quality of education and ensuring more equitable access would enhance productivity, economic growth and development. Recent studies have confirmed that the cognitive skills of the population have a strong positive impact on individual earnings, the distribution of income, and economic growth (Hanushek and Wößmann, 2007). It is indeed stronger than the impact of the number of years of schooling that individuals have achieved. The share of individuals that master basic literacy and the share

Figure 3.5. The relationship between socio-economic background and performance in reading, PISA 2009

Strength of the relationship between reading performance and socio-economic background <sup>1</sup>

- above the OECD average impact
- x not statistically significantly different from the OECD average impact
- o below the OECD average impact



For example, all countries in the upper right quadrant combine above-average student performance in reading
with high equity (as measured by the low impact of student socio-economic background on results). On the other
hand, a group of countries in the bottom left quadrant combine below-average performance with low equity
(high impact of socio-economic background on results). OECD mean used in this figure is arithmetic average of all
OECD countries.

Source: OECD (2010d), PISA 2009 Overcoming Social Background: Equity in Learning Opportunities and Outcomes, Vol. 2: Analysis, OECD, Paris.

StatLink http://dx.doi.org/10.1787/888932383983

high performers both have independent significant effects on growth according to these authors (Hanushek and Wößmann, 2009). Their estimates also suggest that the high-performer effect is larger in poorer countries. Making high quality education available will also ensure that children, who would otherwise risk becoming lower-productivity workers, are better able to develop their full potential. In the longer run, this would help Mexico raise the productivity of its workers, in particular at the lower end of the distribution, thus helping more citizens to participate successfully in the formal economy. Higher quality education with more equitable results has also been shown to improve public health, strengthen social cohesion and reduce crime (Wilkinson and Pickett, 2010, Field, et al., 2007; Lyche, 2010). Figure 3.5 shows that some countries are able to achieve good average learning results with high equality in secondary education. This indicates that more

children can develop their skills to their full potential in school, provided that the right policies are in place.

Mexico's education system faces several challenges. Many schools and their teachers operate under very difficult conditions. Teaching and leadership quality and support structures are weak for many schools. In some regions there is extensive absenteeism and late arrival of teachers, reducing effective teaching hours. Many teachers teach in one school in the mornings and another in the afternoons, or are in a different type of employment in addition to teaching. In many rural or isolated areas they teach in small schools where there are few opportunities for teamwork and learning from each other. There are important concerns about the quality of the training, selection and allocation of teachers to schools; the professional careers of teachers; and the quality of support for schools and teachers from school directors, supervisors and others who lead and manage the system.

There are already some good signs of progress. For instance, Mexico has shown significant progress in the recent years in terms of student achievement and the enrolment of 15-year old children. PISA results between 2003 and 2009 show a particularly improvement in mathematics, making Mexico the country with the largest increase (33 points) in its mean score. Mexico thus seems to be on the right path. If these trends persist, Mexico should be able to reach its performance goals in 2012. Mexico has made considerable efforts to develop student performance tests (ENLACE, EXCALE and PISA).

To step up Mexico's efforts to improve the education of its young generation, Mexico and the OECD established a co-operation agreement between 2008 and 2010 to develop strategies for improving the quality and equity of schooling. The main focus of the agreement was on strategies to improve the quality of the teaching profession and on school management, leadership, social participation, incentives and stimulus. The main recommendations and strategies that the OECD has developed with Mexico during this collaboration are outlined in the following paragraphs. The recommendations focus on basic education, because without strong improvements in this area efforts to improve other parts of the education and training system would be futile. The recommendations can be easily extended to the upper secondary level (Box 3.2).

# Standards for teacher performance should guide reforms to improve teaching and school management

The single most important policy reform Mexico can make in order to improve education outcomes for its young people is to build a good system to recruit, prepare, evaluate and develop the best teachers for all schools. Together with teaching, the quality of school leadership and management are important prerequisites to better help students learn in school. At present teachers and directors do not have appropriate initial education and training. The mechanisms of teacher allocation to posts and to schools have improved in recent years in some states with the introduction of the new teacher licensing examination. Although this goes in the right direction, these mechanisms are not yet sufficient and need to be further developed. At present, training and appointments to leadership posts are not consistent with what schools need to help students improve their results. Reforms to improve initial teacher education and professional development and to develop teacher evaluation should be guided by clear standards for teacher performance that are currently still lacking.

Mexico needs to develop and use a nationwide, coherent set of standards defining competences of teachers and school principals that they need to help their students attain their full learning potential. A first strategy to improve quality and equity of schools and student learning is to develop a clear definition of the roles and responsibilities of teachers and school leaders. Standards for teacher performance would also require a clear definition of the knowledge and skills students are expected to develop in each subject at different grade levels. The government has recently started relevant work on classroom teaching standards, school standards and curricula standards. During the school year 2008/09 a pilot project of the "Standards for Basic Education" was conducted in 480 primary schools and 128 lower secondary schools. They were developed observing Mexican teachers in schools with good results. This appears to be an interesting approach and a good start. Now it will be important that teachers get more involved in the development of these standards and provide feedback. Moreover, states that may have already developed their own set of teaching standards should be part of this process, as should potential users of the standards for different purposes such as training or evaluation.

One challenge will be to attract better qualified recruits to the teaching profession. If teaching is to acquire the status of a well-regarded profession in Mexico, the first step must be to improve the calibre of applicants to initial teacher education institutions, especially, but not exclusively, at the Teachers' Colleges (Normales). One way to achieve this is to raise the bar for entry into initial teacher preparation (ITP) programmes and to establish a national entrance screening exam and other assessment tools for people who want to train to become a teacher. There are almost twice as many applicants to the Normales than teacher posts to be filled later on. A failure to screen candidates before they enter teacher training can lead to inefficiencies, as some will learn that they can never practice the profession only after years of studies. Moreover, allowing only the best candidates to enter teacher training could increase the quality of instruction at Normales and improve the reputation of the teaching profession.

Normales and other institutions running programmes of initial teacher preparation (ITP) need to be substantially improved if they are going to remain the country's principal vehicle for preparing its teachers. The first step should be to put in place a set of rigorous accreditation standards for all Normales and other teacher training institutions.

Mexico has started to professionalise teacher appointments with its new teacher licensing examination (Concurso Nacional de Asignación de Plazas Docentes). This exam aims to identify capable teachers among those who want to enter the profession for the first time, teachers without a permanent position and teachers aiming to have a second permanent post (doble plaza). Successful participation in the exam is the prerequisite to obtain a permanent post. Mexico should further develop and improve the new teacher licensing examination. The exam is currently limited to a two hour multiple choice test. Enriching its content, e.g. by adding essay writing and oral assignments, could enhance the exam as an instrument to identify capable candidates. The exam should be used to ensure that only candidate teachers with a minimum level of competences are allowed to enter the profession. Those who do not reach this level should have access to extra training, such as the levelling courses that Mexico has developed, which are also a welcome instrument to support in-service teachers. The federal government should also work to convince those states that have refused to adopt the teacher licensing examination to join the initiative

later on. Mexico should further pursue its efforts to develop a similar licensing mechanism for principals' posts.

Mexico has no formal induction programme for beginning teachers that would help them learn their profession with the support of mentor teachers. Moreover, there is no probationary period for teachers before obtaining a permanent post. However, the first years of practice have been shown to be essential for teaching quality in later years (Hobson et al., 2009; Larsen et al., 2005), and there are concerns about initial teacher education and the initial selection of teachers in Mexico (OECD, 2010c). It is important to implement a formal induction period with substantial support for all beginning teachers (including those with non-permanent posts) and a probationary period for beginning teachers to demonstrate in practice that they are capable of effectively facilitating student learning. This would allow schools to retain only those teachers who meet the nationwide performance standards that are to be defined. However, teachers in the probationary period will need to have access to high-quality mentoring and support when required to meet those standards. A prerequisite for an evaluation of young teachers to help identify competent candidates is therefore a well-qualified cadre of principals and mentor teachers.

To improve the recruitment of teachers, teacher posts – including vacancies for inservice teachers – should be open for competition. Whereas new posts are now filled by means of the competitive teacher examination, most of the vacancies for in-service teachers are allocated through mixed commissions composed of members from the state education authorities and the trade unions. The waiting time is the main criterion that increases teachers' chances of obtaining the post of their choice. One improvement to better match teachers and schools would be to open all vacant posts to competition and improve its selection criteria, including through taking into account results on the competitive teacher examination. Moreover, schools should be allowed to choose from a shortlist of candidates.

There should be objective procedures to find suitable candidates to become principals, which take account of tests, portfolios and track record. Appointments for directors should be made from a shortlist of candidates, all of whom are qualified in terms of meeting the standards for school leadership. It should be the responsibility of the states to ensure that each school is led by a properly qualified and trained director. States should convene an appointment panel to decide which candidate will be best for the school and its needs. It is desirable that the school community is involved in choosing the principal, possibly through representatives of parents or the school council.

The quality of professional development and its relevance for teachers and schools needs to improve and incentives to engage in professional development should be more in line with desired results. Among countries that participated in TALIS, an opinion survey of teachers, Mexico has the highest percentage of teachers reporting that they would have liked to have received more professional development than they did – more than 80% – indicating that teachers do not feel well prepared for their job. TALIS also shows that the percentage of Mexican teachers whose school director reports a lack of qualified teachers as a factor hindering students' learning is almost twice the average of other participating countries (Figure 3.6). Many teachers fund their own choices beyond the courses offered by the federal government and the states, indicating that the supply of courses does not always correspond to their needs. In fact, the percentage of Mexican teachers who had to

80 80 Lack of pedagogical preparation Arriving late at school Absenteeism 60 60 40 40 20 20 O AUS KOR ALIS avg. Η

Figure 3.6. Behaviours that directors report as hindering school instruction

Source: OECD (2009), Creating Effective Teaching and Learning Environments: First Results from TALIS.

StatLink MEP http://dx.doi.org/10.1787/888932384002

pay for the whole cost of their professional development is more than twice the average across TALIS countries, 19%, compared with an average of 8%. The current supply of professional development is dispersed across a range of different providers and organisations and teachers say that the courses offered to them may not be relevant to their needs. Development options should be diversified and made more coherent and relevant to school needs. Current efforts to make the National Training Catalogue (Catálogo Nacional de Formación) more relevant should continue.

Principals should also receive training focused on their role as instructional leaders before they take up duties. Organising induction programmes for principals and ensuring relevant in-service training should help principals rise to their task. Developing nationwide standards for school leaders will open the possibility to evaluate directors based on clear criteria. Mexico should consider awarding training points to principals based on whether their training is tailored to their needs. The new National Training Catalogue includes an important section of courses offered by different institutions focused on school management and leadership in 2010, which is an improvement.

A standards-based teacher evaluation system is urgently needed in Mexico. Different studies suggest that the current promotion mechanisms for educators, the teachers' career ladder (Carrera Magisterial) and to a lesser extent career progression programme (Escalafón), may not be effective in evaluating teachers' performance (Nieto de Pascual Pola, 2009; Santibáñez, 2002; Guevara and Gonzalez, 2004). This suggests that Mexico does not have an adequate evaluation system for in-service teachers or the means to identify and reward outstanding teachers. Low-quality teachers are not identified and thus they often stay in the classrooms. This may contribute to the negative perception of teachers and also to weak student results. Mexico should work on a teacher evaluation programme based on the nationwide standards to be developed. In its first years, it should mainly help teachers to progress towards individual goals with adequate professional support opportunities. Once the system is implemented and there is consensus about its rules, the system can be used to reward excellent teachers and support less well-performing teachers, guiding them towards professional development. Teachers who are persistently poor performers should be excluded from the education system (OECD, 2010c; OECD, forthcoming). However, any

new teacher evaluation programme should be rolled out slowly and carefully. It should be implemented first in schools where competent directors and mentor teachers have been identified and trained. In addition, there are important local and state efforts to evaluate and assess education. The Ministry of Public Education (SEP) is currently developing an evaluation system based on value-added measurement to have further evidence of what a school specifically provides to the development of its students. The government also works on establishing a unique calendar for all student and teacher evaluations in 2011. As recommended by the OECD the government is negotiating a universal teachers' evaluation initiative with the teachers' union to improve professional development and guarantuee continuous improvement and a proposal to reform the teacher career path (Carrera Magistral), which would put considerable emphasis on teacher performance. An incentive scheme based on teacher performance is already being implemented.

# School funding needs to become more reliable and equitable and school autonomy needs to increase

In spite of adequate levels of overall spending on education, many schools operate with sparse resources that need to be distributed better across schools. More than 90% of resources are devoted to staff compensation. Other funding is directed only to a limited number of schools on application through more than 200 different federal and state programmes. Many of the smallest and poorest schools receive no funding under the current programmes because they do not have the administrative capacity to complete the application process or handle the reporting requirements. Today the most advantaged 50% of the schools receive most of the programmes' resources, while schools in low income areas have poor public infrastructure and often less qualified teachers. Current allocation of resources leaves little room for improvements in the schooling infrastructure. In practice, in many schools parents need to contribute to the funding of professional materials and school infrastructure, often through school shops that are administered by parent-teacher-associations. A fundamental issue therefore is the distribution of financial resources in the system, which should be based more on needs. More reliable funding for school material and specific programmes for all schools would be preferable.

Revising state funding formulas and replacing the multitude of special school funding programmes by a single improvement grant would enhance funding equity and reduce the attainment gap between advantaged and disadvantaged schools. In the state funding formulas, schools serving the most disadvantaged areas could receive proportionally more money per student. Moreover, a single, flexible grant that all schools would receive could be shaped to respond more closely to school needs and priorities than the current array of special funding programmes. The grant should be administered by the state, which would become the body that commissions education from schools.

Mexico has one of the lowest levels of autonomy in schools across OECD countries, with principals having currently little or no autonomy to decide on how their school is managed, including teacher employment. School leaders are central to establishing a school culture and capacity conducive to better student performance (Pont et al. 2008). To professionalise principals and to establish a basis on which to hold them accountable, school leaders need to be given more autonomy in making decisions. However, in Mexico where capacity and leadership training for school directors are still to be developed, it is important first to strengthen capacity. On the one hand, pilot projects across municipalities or groups of schools could be explored to provide more autonomy, financial

delegation and local management. On the other hand, it is necessary to develop support structures that allow schools to be autonomous. In school systems with well developed and prepared school directors, clear norms and regulations for schools and support arrangements to ensure equitable results, a large degree of school autonomy may be a viable solution (OECD, 2010c).

To strengthen accountability and raise awareness of the value of education Mexico has adopted a policy that demands every school to set up social participation council, in order to enhance engagement with the parents and the community. To fulfil their tasks properly over time these councils need to exercise some influence over important matters such as: the selection of school staff and resources, the curriculum design and other school organisational arrangements.

## Box 3.2. Main recommendations to improve productivity

- Co-operate with subnational governments to interconnect state and municipal portals
  for business start-ups with the new online one-stop shop for federal start-up
  regulations. Engage strategic partners, such as notaries and subnational governments,
  to support the portal and make it more widely known to the public through media
  campaigns.
- Consider extending the Base Cero initiative to a larger set of economic processes that have a large impact on productivity, not only the start-up phase.
- Implement the new regulatory impact assessment scheme.
- Encourage states and municipalities to apply the toolkit for the simplification of subnational regulations. Co-ordinate regulation across government levels.
- Set up specialised *amparo* courts with economic expertise to hear cases from agencies that deal with economic issues.
- Limit grandfathering of airport slots to ensure fair and efficient auctioning. Consider abolishing the requirement of route-specific concessions and allow airlines to operate as long as they fulfill safety notification requirements.
- Ease restrictions to obtain a license in intercity bus transport and ensure nondiscriminatory access to essential facilities. In particular, drop the requirement for the regulator to base the decision regarding the entry of a new firm on demand and investment studies.
- Implement effectively the legal changes to facilitate access to banking services and to ease banks' access to essential facilities.
- Quickly implement the removal of the requirement that firms need to operate a plant or a laboratory in Mexico in order to be allowed to sell generics. Require doctors to prescribe medications only by their generic compound name.
- 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. Allow unbundled access to essential infrastructure when it promotes competition provided that this does not undermine investment incentives. Interconnection tariffs should be based on longrun incremental costs.

#### Box 3.2. Main recommendations to improve productivity (cont.)

- Define nationwide standards for teacher performance and improve initial teacher education through accreditation standards for teacher training institutions. Improve the new teacher licensing examination and open all teacher posts to competition.
   Professionalise the appointment of directors.
- Professionalise the training and selection of principals to assume greater responsibility for teacher employment and pay.
- Gradually introduce a teacher evaluation system.
- Provide schools with reliable financing, in particular through a more efficient allocation
  of resources, for example by revising state funding formulas and replacing the multitude
  of special school funding programmes by a single improvement grant.

#### Notes

- This report can be consulted at: www.oecd.org/document/15/0,3746,en\_2649\_34141\_44973455\_1\_1\_1\_1,00.html.
- 2. The toolkit can be consulted at: www.oecd.org/document/14/0,3746,en\_2649\_34141\_46967374\_ 1\_1\_1\_1,00.html.

#### **Bibliography**

- Aghion, P. and R. Griffith (2005), Competition and Growth, The MIT Press, Cambridge, Massachusetts.
- Aguerrondo, I., F. Benavides and B. Pont (2009), School Management and Teacher Professionalization in Mexico: Context, Challenges and Preliminary Policy Orientations, OECD, Paris.
- Castellanos, S., et al. (2008), "Interchange Fees for Bank Payment Card Transactions at Point of Sales in Mexico", mimeo, Banco de México.
- Comisión Federal de Competencia (CFC) (2009), "Competencia y Distribución del Ingreso", Comisión Federal de Competencia, México, DF.
- CFC and OECD (2009), "Recomendaciones para promover un marco regulatorio más favorable a la competencia en la interconexión entre redes de Telecomunicaciones", Comisión Federal de Competencia, México, DF.
- CFC and OECD (2010), "Regulación y Competencia en el Autotransporte Foraneo de Pasajeros", Comisión Federal de Competencia, México, DF.
- Chiquiar, D. and M. Ramos-Francia (2009) "Competitiveness and Growth of the Mexican Economy", Bank of Mexico Working Paper Vol. 11.
- Conway, P. and G. Nicoletti (2006), "Product Market Regulation in the Non-Manufacturing Sectors of OECD Countries: Measurement and Highlights", OECD Economics Department Working Papers No. 530.
- Duval, R., J. Elmeskov and L. Vogel (2007), "Structural Policies and Economic Resilience to Shocks", OECD Economics Department Working Papers, No. 567, OECD.
- Estrada, E. and S. Vazquez (2011), "Bid-rigging in public procurement of generic drugs in Mexico", manuscript, Comisión Federal de Competencia, México, DF.
- Field, S., M. Kuczera and B. Pont (2007), No More Failures: Ten Steps to Equity in Education, Education and Training Policy, OECD Publishing.
- Hanushek, E. and L. Wößmann (2007), "The Role of Education Quality in Economic Growth", World Bank Policy Research Working Paper, No. 4122, February 2007.
- Hanushek, E. and L. Wößmann (2009), "Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation", IZA Discussion Paper No. 4575, November 2009.
- Hobson, A. J., et al. (2009), "Mentoring Beginning Teachers: What We Know and What We Don't", Teaching and Teacher Education: An International Journal of Research and Studies, Vol. 25, No. 1, pp. 207-216.

- García Villarreal, Jacobo Pastor (2010), "Successful Practices and Policies to Promote Regulatory Reform and Entrepreneurship at the Subnational Level", OECD Working Papers on Public Governance, No. 18, OECD Publishing, www.oecd.org/document/15/0,3746,en\_2649\_34141\_44973455\_1\_1\_1\_1,00.html.
- Guevara, M.R. and L.E. González (2004), "Reporte sobre la Situación en México", Analytical Paper, OECD, Paris.
- Hopkins, D., et al. (2008), "Reflections on the Performance of the Mexican Education System", Analytical Paper, OECD, Paris, www.oecd.org/edu/calidadeducativa.
- Larsen, M., C. Lock and M. Lee (2005), "Professional Certification and Entry-to-Practice Assessments: A Report for the Teaching Policy and Standards Branch", Ontario Ministry of Education, Ontario, Canada.
- Lyche, C. (2010), "Preventing Drop-out: Policies that Work", paper prepared for the OECD activity Overcoming School Failure: Policies that Work, OECD, Paris.
- Matthews, P., et al. (2008), Policy Measures Implemented in the First Cycle of Compulsory Education in Portugal (International Evaluation), Ministry of Education, Lisboa.
- Nicoletti, G. and S. Scarpetta (2005), "Product Market Reforms and Employment in OECD Countries", OECD Economics Department Working Papers, No. 472, OECD.
- Nieto de Pascual Pola, D.M. (2009), "Análisis de las políticas para maestros de educación básica en México" (comisionado por la Universidad Iberoamericana para la OCDE), Analytical Paper, OECD, Paris.
- OECD (2006), Cutting Red Tape: National Strategies for Administrative Simplification, Paris.
- OECD (2008), PISA 2006: Volume 2: Data, PISA, OECD Publishing.
- OECD (2009), "Tuempresa.gob.mx: A One-Stop Shop for Quick and Easy Business Start-Ups in Mexico", www.oecd.org/dataoecd/55/36/43863212.pdf.
- OECD (2010a), Education at a Glance 2010: OECD Indicators, OECD Publishing.
- OECD (2010b), Improving Health and Social Cohesion through Education, Educational Research and Innovation, OECD Publishing.
- OECD (2010c), Improving Schools: Strategies for Action in Mexico, OECD Publishing.
- OECD (2010d), PISA 2009 Results: What Students Know and Can Do: Student Performance in Reading, Mathematics and Science (Volume I), PISA, OECD Publishing.
- OECD (2010e), Value for Money in Health Spending, OECD Health Policy Studies, OECD Publishing.
- OECD (forthcoming), Establishing a Framework for Evaluation and Teacher Incentives: Considerations for Mexico, OECD Publishing.
- Office of Fair Trading (2008), Personal Current Accounts in the UK, www.oft.gov.uk/shared\_oft/reports/financial products/OFT1005.pdf.
- Pont, B., D. Nusche and H. Moorman (2008), Improving School Leadership: Volume 1: Policies and Practices, OECD, Paris.
- Ros, A. (2010), "The Determinants of Pricing in the Mexican Domestic Airline sector and the Impact of Competition and Airport Congestion", Working Paper, 23 April, 2010 OECD-CFC Competition Assessment Project.
- Santibáñez, L. (2002), "Están mal pagados los maestros en México? Estimado de los salarios relativos del magisterio", Revista Latinoamericana de Estudios Educativos, Vol. 32, No. 2, pp. 9-41.
- Urzúa, C. (2009), "Efectos sobre el bienestar social de las empresas con poder de mercado en México", Finanzas Públicas Vol. 1, No. 1, pp. 79-118.
- Wilkinson, R. and K. Pickett (2010), The Spirit Level: Why More Equal Societies Almost Always Do Better, Penguin, London.
- World Bank (2010), Doing Business 2011: Making a Difference for Entrepreneurs, Washington, DC.
- Woelfl et al. (2009), "Ten Years of Product Market Reform in OECD Countries Insights from a Revised PMR Indicator", OECD Economics Department Working Papers, No. 695.
- World Economic Forum (2009), The Global Competitiveness Report 2009-2010, Geneva.



#### From:

# **OECD Economic Surveys: Mexico 2011**

## Access the complete publication at:

https://doi.org/10.1787/eco\_surveys-mex-2011-en

## Please cite this chapter as:

OECD (2011), "Structural reforms in regulatory, competition and education policies to achieve faster productivity growth", in *OECD Economic Surveys: Mexico 2011*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/eco\_surveys-mex-2011-6-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

