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Migration

The Economic Context and Implications

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IV. Migration: the economic context and implications

Introduction

At least 10 million Mexicans live in the United States today and they are joined by as many as 400 000 every year. They affect the Mexican economy both through the labour market – the balance of emigration and return migration influences the level of the labour supply and its composition – and through remittances, which are important in household incomes and the balance of payments. Migration also plays an important role in the increasing integration of the Mexican and US economies, a process also spurred by NAFTA.

This chapter reviews the main characteristics of migration in Mexico and then discusses migration policies in Mexico and in the United States insofar as they affect Mexico. The last section turns to economic aspects of migration, including those associated with illegal entry into the United States, labour market incentives and impacts, human capital issues and remittances.

Characteristics of migration in Mexico

Emigration has been growing

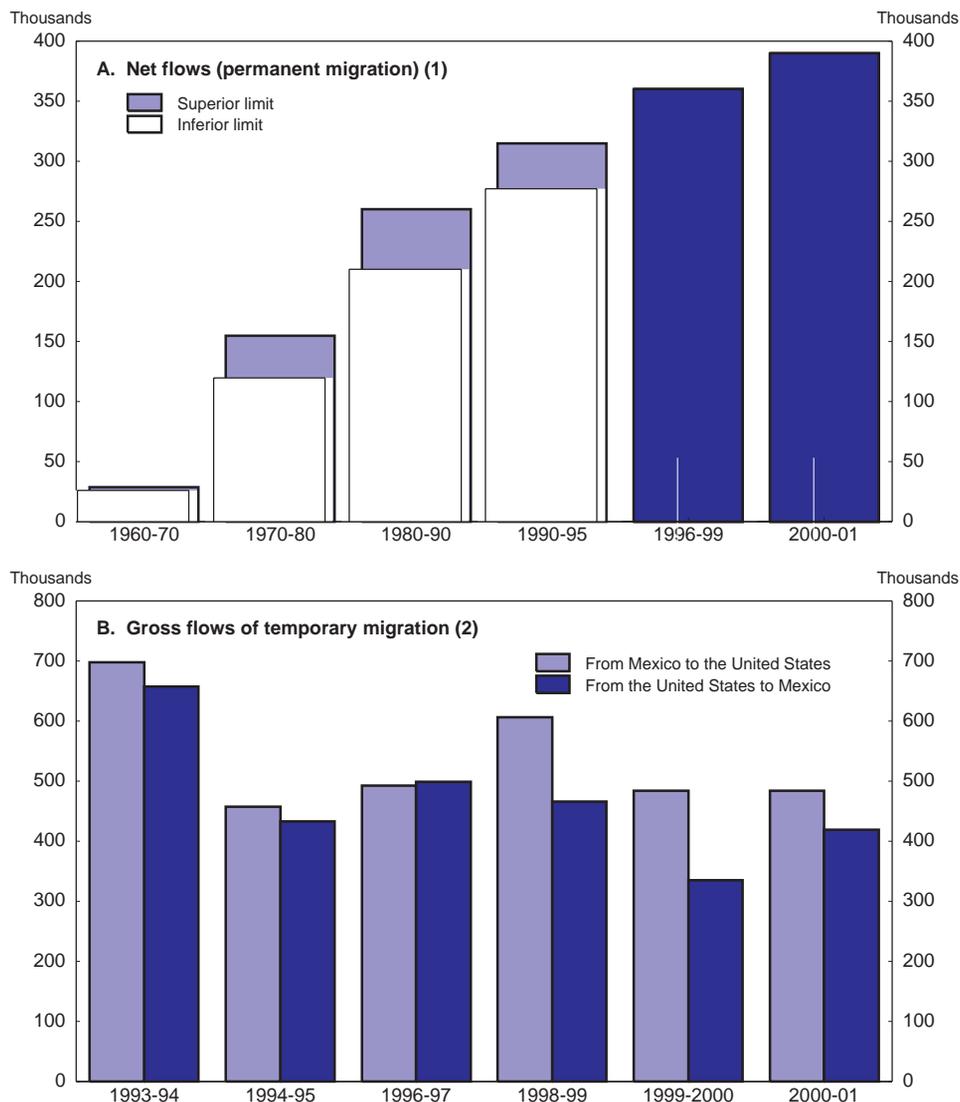
Mexican migration flows are dominated by emigration to the United States. Immigration is rather limited, with 500 000 foreigners residing in Mexico in 2000, representing about 0.6 per cent of the population. Foreigners mainly come from North America, and a number of them are in fact children of migrants returned from the United States.¹²⁴ They are often professionals working in multinational corporations located in the northern border area. There is also a tradition of seasonal migration of agricultural workers from Guatemala in the south of the country, involving between 50 000 and 75 000 legal entries a year as well as an unknown number of illegal entries.¹²⁵ But those immigration flows which have been growing fastest over the last two decades are transit flows of Central Americans emigrating to the United States. About 200 000 persons transit legally through Mexico every year, and although there is no available estimate of illegal transit flows, the number of apprehensions led by the Mexican authorities reached 150 000 in 2001 and

138 000 in 2002 (against 10 000 in 1980).¹²⁶ (The related policies are reviewed in some detail at the end of the next section.)

Mexicans themselves have a long history of migration to the United States. Large-scale flows began around 1900 with the extension of railroads in the south of the United States and the connection with the existing Mexican railroads. They grew after the First World War, and again during the Second World War, when the first bilateral *Bracero* (day labourer) programme was set-up by the two governments, providing a six-month renewable visa for seasonal agricultural work in the southwest of the United States. Large-scale repatriation occurred in periods when economic conditions were poor in the United States, sometimes organised by the US government. The phasing-out of the *Bracero* programme in the early 1960s, under pressure from US religious and labour organisations, did not halt the upward trend in migration flows, and net outflows of permanent migration from Mexico grew steadily over the last four decades, to reach about 360 000 per year in the period 1995 to 2000 (Figure 31, Panel A). In fact, in the second half of the 1990s, Mexico has been the country with the highest emigration rate in the OECD (by far) and one of the highest in the world (Figure 32). As a consequence, in 2000, 8.5 million Mexican-born were residing in the United States, amounting to about 30 per cent of the foreign population in the United States, and almost 9 per cent of the Mexican population. According to a demographic survey, in 1997, 18 per cent of households in Mexico had direct family relatives with some migration experience to the United States.

Migration flows are diverse in nature, in particular in terms of permanence of residence, and associated return flows. Emigrants may stay in the United States for temporary periods or they may settle permanently. Temporary migrants may remain from days to months but consider Mexico to be their place of principal residence; they are often “circular” migrants who regularly work short periods in the United States, a traditional example being the agricultural worker migrating for the harvest season in the south of the United States. Other emigrants consider the United States to be their permanent residence, even if they return regularly to Mexico for visits.¹²⁷ Often though, the distinction between these two migration patterns is more a matter of degree than of type, since an emigrant may start with a number of temporary jobs in the United States but may stay longer as time passes and may decide to establish residence there. A decrease in net flows was expected in the second half of the 1990s as a result of a reduction in the demographic pressure, according to the Binational study on Migration between Mexico and the United States (1997). Yet it did not materialise, and flows remained about as high as in the first part of the decade, highlighting the importance of inertia in migratory flows associated with the building of networks and economic hardship in Mexico after the 1995 peso crisis. A survey of migration conducted at the northern border (EMIF, see Annex IV) provides information on temporary flows of people residing in Mexico (which came in addition to permanent migration flows). On this

Figure 31. **Migration flows between Mexico and the United States**
Yearly averages



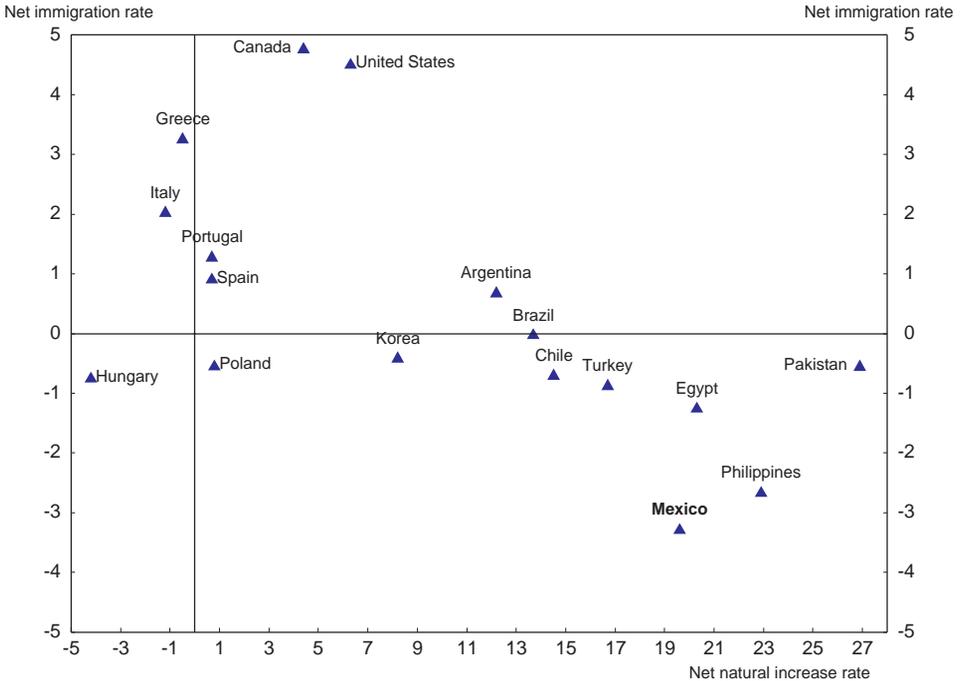
1. For years 1960 to 1995 interval estimates provided by the Ministry of Foreign Relations; for years 1996 to 2000 estimates from CONAPO.

2. Refers to all temporary flows of people residing in Mexico, most of which cross the border for work motives.

Source: CONAPO, *Surveys of Migration to the Northern Border* (EMIF); Ministry of Foreign Relations, Binational Study on Migration between Mexico and the United States, 1997.

Figure 32. **Net immigration and natural increase of population in selected OECD and non-OECD countries¹**

Rates per 1 000 inhabitants 1995-2000

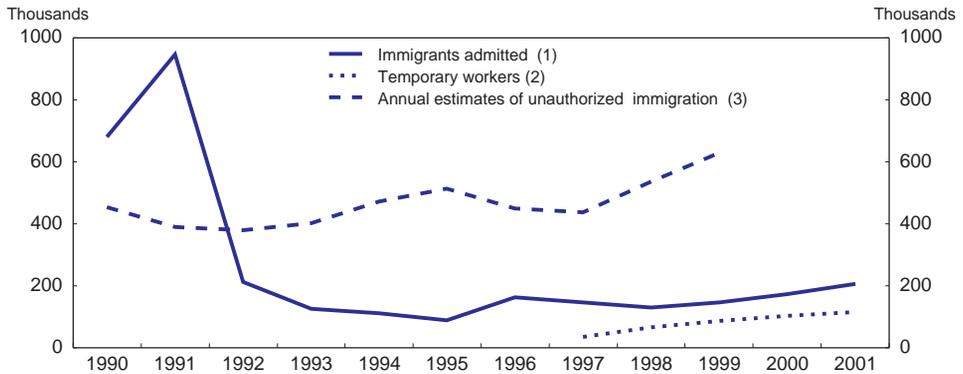


1. The net immigration rate is the number of immigrants less the number of emigrants relative to the average population of the country. The natural increase rate is the annual number of births less the annual number of deaths relative to the average population.

Source: OECD, SOPEMI; United Nations Population Division.

basis, temporary emigration is estimated at about 540 000 per year, on average since 1993, with return flows of 470 000, with no clear trend (Figure 31, Panel B). Temporary outflows for labour motives, on the other hand, have tended to decrease and in 2000-01 they were lower than return flows.¹²⁸

Migrants differ also in terms of their legal status. Although by nature difficult to estimate precisely, the numbers of unauthorised Mexican migrants – who have either entered in the United States without permission or have overstayed the term of their visa – are very large. According to CONAPO (2001), they were 3.5 out of the 8.5 million Mexican-born residing in the United States in 2000, while the US Immigration and Naturalization Services (INS) estimated that 4.8 out of

Figure 33. **Gross immigration flows of Mexicans in the United States by legal status**

1. Fiscal years. Persons lawfully admitted for permanent residence in the United States. Include both new entries and adjustments of previous status (temporary workers, undocumented, students).
2. Fiscal years. Includes visitors and intracompany transferees.
3. Estimation of gross entries for calendar years.

Source: United States Department of Justice, Immigration and Naturalization Service (INS).

9.1 million Mexicans were staying without authorisation. Legal permanent immigration into the United States increased substantially at the start of the 1990s, mainly due to the massive legalisation programme started in 1986, but unauthorised entries seem to be largely dominating the flows since 1992, exhibiting a rising trend (Figure 33). As to the temporary/circular flows, two-thirds of the people were crossing the border without papers at the end of the 1990s.¹²⁹ Overall, the US border patrol apprehended 3.9 million deportable Mexicans between 1999 and 2001.

A number of Mexican-born people have also acquired US citizenship. Naturalisation, however, is less frequent for Mexican-born people than for other foreign-born, with 20 per cent of the Mexican-born residing in the United States legally being naturalized in 2000, against an average of 37 per cent for the foreign-born population – a feature probably related to the geographic proximity of Mexico and the corresponding lasting cultural ties with the country of origin.

The emigrant profile is changing

The bi-national migration study conducted jointly by the Mexico and US governments in 1997 identified two main migration patterns: the sojourner migrants, who tend to be young men, with little schooling, working in agriculture and with low earnings; and the settlers or permanent residents, who tend to resemble more the US population as a whole, being more balanced between genders and better educated than the sojourners (Table 13). Over time however,

Table 13. Characteristics of Mexico-born migrants compared with Mexico's and US' populations

Characteristics	Mexico resident population ¹	Mexico ENADID 97 Population having worked or working in the US at the date of the survey	EMIF 1998/2001 ²		US Resident population Census 2000	
			Migrants going to the United States	Mexican migrants coming back from the United States	Mexican-born	Total Residents
A. Demographics						
Age (median)	22.0	..	..	..	32.6	35.3
Age (average)	26.0	..	34.0	33.0	..	..
Male proportion	48.8	83.6	79.5	87.3	54.2	49.1
B. Schooling³						
Years (average)						
Primary incomplete	35.0	40.7	25.1	28.1	16.5	1.6
Primary complete ⁴ and lower secondary	38.7	41.6	48.5	54.0	31.9	7.5
Upper secondary complete ⁴	12.7	10.4	}26.4	}17.9	38.2	40.0
Tertiary	12.5	6.1			13.5	51.0
Not specified	1.0	1.2	..	..	..	..
C. Labour force⁵						
Total participation	54.5	82.4	..	..	69.2	67.2
Male	75.1	..	..	..	87.4	74.7
Female	35.9	..	..	..	47.7	60.2
Unemployment rate	1.9	..	..	..	7.3	4.0
Employment Sector						
Agriculture	17.9	..	35.7	33.2	13.3 ⁵	2.4
Construction/ manufacturing	24.8	..	22.6	29.6	36.2 ⁵	22.1
Services	57.3	..	41.3	36.9	50.5 ⁵	75.4

1. For parts A and B data source is the 2000 Mexican Census. For part C data source is the 2002 National Employment Survey (ENE).

2. Corresponds to phases spreading from 11 July 1998 to 10 July 2001. For parts A, B all emigrants. For part C only worker emigrants.

3. Educational attainment of population aged 25 years and older, except for EMIF 12 years and older.

4. In the case of EMIF includes tertiary education.

5. Current Population Survey (CPS) March 2000 data for Mexican-born.

Source: INEGI; CONAPO; US Census Bureau.

although there is no single comprehensive and reliable source to analyse the profile of Mexican migrants, data from the various available sources (see Annex IV) suggest that the characteristics of migrants are becoming increasingly diverse.

The origin of migrants remains quite concentrated in a few traditional sending states as well as in rural areas, although increasingly, migrants tend to

come from other states in Mexico and from urban areas. Between 1998 and 2001, 42 per cent of the temporary migrants crossing the northern border still came from the traditional sending states located in the western part of the country¹³⁰ – Zacatecas, Michoacán, Guanajuato, Nayarit and Durango being the most important – , which concentrated a much smaller share of the total Mexican population. There has been a steady increase of emigration from some central and southern states, such as Puebla and Oaxaca, which made only a minor contribution until the 1980s, and from the state of Mexico. With the progressive urbanisation of the Mexican population, urban areas have become the main source of migration flows since the 1980s, even in the sojourners group, where the share of migrants coming from urban areas now matches the composition of the total population.¹³¹

Along with this diversification in the place of origin, the occupational structure of migrants is also evolving. Temporary migrants are still more often employed in agricultural activities than the average Mexican before and after crossing the northern border, but less and less so (one out of three in 2000/2001 against one out of two in the early 1990s). Settled migrants, on the other hand, are much more likely to be employed in construction and manufacturing or in services than the temporary migrants (Table 13).¹³² California remains the main destination, absorbing about half of the flows, along with Texas and Illinois; but due to the particularly strong reinforcement of border controls and other repressive policy measures *vis-à-vis* undocumented immigrants in California, the other states are gaining importance.

Increasingly too, migrants tend to stay longer in the United States. First, the share of settlers is increasing, as evidenced from the above statistics on flows. Demographic surveys also show that the return rate of migrants has decreased in the more recent cohorts.¹³³ In Guanajuato for example, 8 out of 10 international migrants have established their residence in the United States over the 1990s.¹³⁴ Circular migration also seems to have become less frequent, since it is more and more common to cross the border without a first migration experience.¹³⁵ Second, the average duration of temporary stays is lengthening. Traditionally, it used to be of about 7 months for seasonal agricultural workers, but migrants now frequently combine seasonal jobs with temporary jobs in other sectors. Urban migrants also tend to stay longer: a survey conducted in Mexico City found an average duration of stay of 22 months (Lozano, 2000). A number of factors explain that trend, including: the massive legalisation started by the United States in 1986, the family reunification process, the reinforcement of controls at the border which makes crossing much more difficult and expensive, and the shift in occupations. Although men still largely dominate temporary flows, with four men out of five migrants at the end of the 1990s, more and more women are coming to the United States, very often to settle.

Migrants do not generally come from the lowest socio-economic groups in Mexico nor from the most marginalised areas. According to CONAPO (2002), only

26 of the 386 most marginalised municipalities had a high or very high intensity of international migration.¹³⁶ Thus, indigenous municipalities, often among the most marginalised, make a small contribution to international migration. Settlers are clearly more educated than Mexican residents (Table 13). As to temporary migrants, those who had returned from the United States by 1997 were less educated than the average Mexican, in part reflecting the relatively low education level in the traditional sending regions. Temporary migrants crossing the northern border have become significantly more educated over the 1990s, reaching an education level comparable on average to that of the Mexican-born residing in the United States of the same age category.¹³⁷ Temporary migrants now also include educated Mexicans from urban areas going to the United States to earn extra revenue – although they occupy the same low-skilled jobs as the other Mexicans in the United States (Lozano Ascencio, 2000).

Leaving Mexico requires the accumulation of a certain amount of resources for the journey, as well as for supporting the family until the migrant having a job can send back money for the first time. This is all the more the case if the migrant does not have access to a network of relatives already in the United States. Those who lack “connections” rather migrate inside the country, to the northern border area, for instance, where they can find jobs in *maquiladoras*, or, as many indigenous people, to the northern agricultural regions to work as *jornaleros* (day workers). Some of them may then decide to cross the border, when they have accumulated enough money and information. Available evidence shows that having already made an internal migration increases the probability of emigrating.¹³⁸

Migration policies¹³⁹

A large number of policies affect migration flows, including economic policies in both origin and destination countries. This section concentrates on specific migration or migration-related policies, while economic aspects will be addressed in the following sections.

Emigration from Mexico to the United States

US immigration policies are having an impact on migration of Mexicans to the United States. The extent to which such policies can determine the level of flows is debatable, but they are certainly affecting the nature of flows. In the recent past, the two most significant US policies enacted have aimed at reducing illegal immigration. The Immigration Reform and Control Act (IRCA), passed in 1986, allocated more funds to the Immigration National Services and to border enforcement, and established sanctions on employers who knowingly hired undocumented workers. At the same time, IRCA offered legal permanent status to almost three million persons out of a total undocumented population estimated at between five and six million at the time, about two thirds of which were of Mexican

origin. Ten years after IRCA, though, as illegal immigration continued, the 1996 Illegal Immigration Reform and Immigrant Responsibility Act, which was passed in combination with laws dealing with welfare reform¹⁴⁰ and terrorism, followed up on some IRCA provisions: penalties on smugglers and immigrants entering illegally were further increased, deportation was facilitated, and a doubling of the Border Patrol by 2001 was mandated (see section below). The changes were only partly successful, and illegal entry has remained at very high levels, building up the stock of undocumented Mexicans in the United States.

The limited size of authorized immigration in the United States – relative to US employers' demand for low-skilled labour and migrant workers supply – together with the fact that sanctions on employers are rarely enforced – largely explains the failure to halt illegal immigration. Only a small share of permanent immigrants comes into the United States specifically for work reasons (a maximum of 7 300 Mexicans, mostly highly qualified). The vast majority comes under the family reunification motive (196 000 in 2001), and they are allowed to work. The number of Mexicans authorised to enter the United States through temporary work visas was also relatively small until 1997. It has been growing since then, reaching approximately 115 000 in 2001, but is still far below the estimate of unauthorised inflows (Figure 33). Two-thirds of the temporary workers enter the United States to work in low-skilled jobs, in agriculture (with H2A visas) and increasingly in other sectors (with H2B visas). Highly-skilled Mexicans, who represented only about one tenth of temporary workers in 2001, come into the United States with a different visa (H1B visa). Since 1994, highly-skilled migrants can enter through the provisions of chapter 16 of NAFTA; unlike Canadians, Mexicans have been subjected to an annual cap (set at 5 500 persons). However, the cap has not been binding and it is to be removed in January 2004.

Regarding the outlook for migration flows, the US Office of Labour Statistics estimates that the United States will face a shortage of workers over the coming years, and that a little more than half of the jobs being created will require personnel with modest training only and formal education below high-school level. Thus, with the number of people of working age in Mexico growing by 1.3 million per year,¹⁴¹ and wage differentials likely to remain large (see below), migratory flows from Mexico to the US are expected to continue to grow.

The position of the Mexican authorities *vis-à-vis* Mexico-US migration flows was for long one of deliberate non-engagement. However, since the 1990s, in particular after NAFTA came into force, the Mexican authorities have started to take a more active stance on migration matters. Although the country has no “emigration policy” as such, it is trying to pursue certain objectives regarding the situation of Mexicans residing in the United States on the one hand, and regarding migration flows on the other.

There has always been an interest in protecting the rights of Mexicans living in the United States, but since the mid-1990s, the Mexican government has

been strongly involved in reaching out to the Mexican-born community, with a view to improving its situation. At end 1996, the Mexican Constitution was changed to allow Mexicans to keep their nationality even if they opt for another. This means that those who get naturalised have a political voice in the United States, while keeping their Mexican citizenship. The network of Mexican consular offices in the United States has been extended over the years, to provide general assistance to Mexicans travelling or residing there and to ensure that they have access to the justice system. These consulates also provide consular IDs (*matricula consular*) to Mexican migrants, including unauthorised migrants, in the United States. The new *matricula consular* is a sophisticated identity card with enhanced security features that encodes a great deal of information. IDs for Mexicans abroad have existed for more than a century. They were relaunched by the Mexican consulates in the United States after the setting of the bilateral agenda in 2002. By August 2003, the *matricula consular* was recognised by more than 14 states, 100 cities as a valid identity document by the police in particular or to obtain a driving license, by 100 financial institutions when opening an account.¹⁴² Apart from this “legal” support, in the early 1990s, the Mexican authorities established a Programme for the Mexican Communities Living Abroad – which has now become the Institute for Mexicans Abroad – to institutionalise relations with the emigrant community and its organisations, through activities in community organisation, education and culture, and with the creation of a network of cultural institutes, healthcare, and information. The programme also aims at promoting business ties between Mexicans and Mexican-Americans, in particular through the Council for Business Promotion. Given the role that they play in their communities of origin and the amount of remittances that they send, some groups of Mexican residents in the United States are now also militating to keep their voting rights in Mexico, but no agreement has been reached on this issue.

Regarding migration flows, the position of the Mexican authorities has moved over time towards increasing dialogue with the US authorities and accepting some responsibilities. The Binational Study on Migration between Mexico and the United States (1997), which started in 1994 at the initiative of both governments to analyse the nature, causes and consequences of migration for both countries, provides an illustration of this new attitude. After the Mexican elections in 2000, migration issues became high on the agenda of the new administration, and in February 2001 the presidents of both countries set a bilateral agenda on migration, comprising five items:

- regularising about 3.5 million undocumented Mexicans living in the US;
- establishing a jointly managed guest-worker programme, along the lines of that existing between Mexico and Canada for agricultural workers;¹⁴³
- increasing the number of immigration visas provided to Mexicans;

- strengthening border security through co-ordinated actions, in particular to prevent the death of migrants and fight the trafficking of persons;
- promoting regional development in Mexican regions of high migratory intensity.

In the field of border security, the Mexican authorities have taken a number of steps over recent years. Some progress has been made regarding immigration into Mexico (section below). On other items, however, progress has been slow, after the negotiations with the United States to reach a bilateral migration agreement were interrupted in the aftermath of 11 September 2001. In the United States, a guest-worker programme is no longer envisaged. On the Mexican side, the Labour Ministry is now working on a plan to better organise the recruitment of temporary workers going to the United States with H2A and H2B visas, which currently suffers from deficiencies. US employers have been using intermediaries to recruit migrant workers in Mexico, and irregularities have been commonly reported in the way these operate, charging workers large fees for the provision of a visa.¹⁴⁴ The plan would be to allow workers willing to work in the United States to put advertisements on a website or with a telephone employment service (Chambanet and Chambatel, both already operating for domestic employment). While reducing the risks of fraud and the cost of recruitment intermediaries for US employers, this would also allow workers to be informed of their rights once in the United States. The Mexican government has also undertaken a number of initiatives to try to reduce the costs for migrants sending back remittances and promote the investment of remittances in the regions of origin (see below).

Given that there is little possibility of negotiating a migration agreement with the US government in the near future, the Mexican authorities now seem to be shifting to a more bottom-up strategy, trying to build support from various sectors in the US society. Increasingly, they are also working at the state (or even municipal) level rather than at the federal level. Migration matters are under federal jurisdiction in both countries, but in practice the impacts of migration are predominantly felt at the state (and local) levels, and responsibilities in some affected areas are increasingly devolved to state and local authorities, as is the case for welfare in the United States or education in Mexico. Traditional sending states in Mexico are trying to increase their knowledge regarding migration affairs and are seeking more active intervention through the creation of specialised institutions.¹⁴⁵ The objectives of the state offices are: *i*) encouraging potential migrants to remain in Mexico through the development of their regions of origin; *ii*) establishing cultural and commercial links with source localities and migrants clubs in the United States; *iii*) improving the health status of migrants communities in both countries; *iv*) promoting programmes of temporary work visas with Canada and the United States; and *v*) favouring cost reduction for transfers of remittances. There has not been a clear statement of the objectives of Mexican policy towards

emigration flows, and both federal and state governments seem to want both to reduce emigration flows and to keep “the door open” to the United States.

Immigration

The legal basis for immigration policy in Mexico is provided by the General Population Law. Family connections and employment skills are emphasized as a basis for admission, and the lack of details provided in the law on objectives and rules confers significant discretion to the Mexican authorities. Highly-skilled migrants coming into Mexico from the other NAFTA countries benefit from a special regime and in 2000, 170 000 businesspersons and professionals from the United States and Canada entered Mexico.¹⁴⁶ More generally, immigration in practice is relatively easy for highly-skilled people, and much more difficult for the low-skilled. Highly-skilled immigrants can get two types of visas, a “non-immigrant” visa for a temporary period or an “immigrant” visa (initially for one year, and possibly permanent after 5 years of residence). They are provided on a sectoral basis, under the general rule that there should be no more than one foreigner for every 9 Mexicans employed in a firm. Some 22 500 temporary visas were issued to such highly-skilled immigrants in 2002. As to the low-skilled, a visa arrangement (rather than a true guest-worker programme) is in place for seasonal agricultural workers coming from Guatemala to Mexico’s southern states; in 2002 about 39 000 persons came as agricultural temporary workers.¹⁴⁷

Illegal immigration through the Guatemalan border in transit to the United States or to stay in Mexico is important. So has been the effort by Mexican authorities to reduce its scale through expulsion. The General Population Law, which regulates immigration, was changed to increase penalties against those involved in migration-related traffic. The regional conference on migration, or “Puebla Process”, was launched in 1996 as an attempt to bring governments from North and Central America together, to address regional migration issues (including migrants’ human rights) jointly. It has resulted essentially in Mexico and its southern neighbours (Guatemala and to a lesser extent Nicaragua) tightening their control on undocumented migrants. The controls on transit migrants coming from Central America through Mexico’s southern border have been further tightened since July 2001 with the *Plan Sur*, and massive deportations have been conducted.¹⁴⁸ In 2000 and 2001, two regularisation processes have been conducted for immigrants who had been residents in Mexico for more than two years. The number of applications processed is rather low, however, compared with the stock of undocumented Guatemalans estimated to be around 150 000 (OECD, 2003).

Economic aspects of migration

Migration from Mexico to the United States is primarily economically motivated. This section deals both with economic factors and economic consequences

of migration. A discussion of the cost of smuggling follows labour market and human capital issues associated with emigration. Finally, the size and impact of remittances, as well as the policies to reduce their costs and improve their use, are assessed.

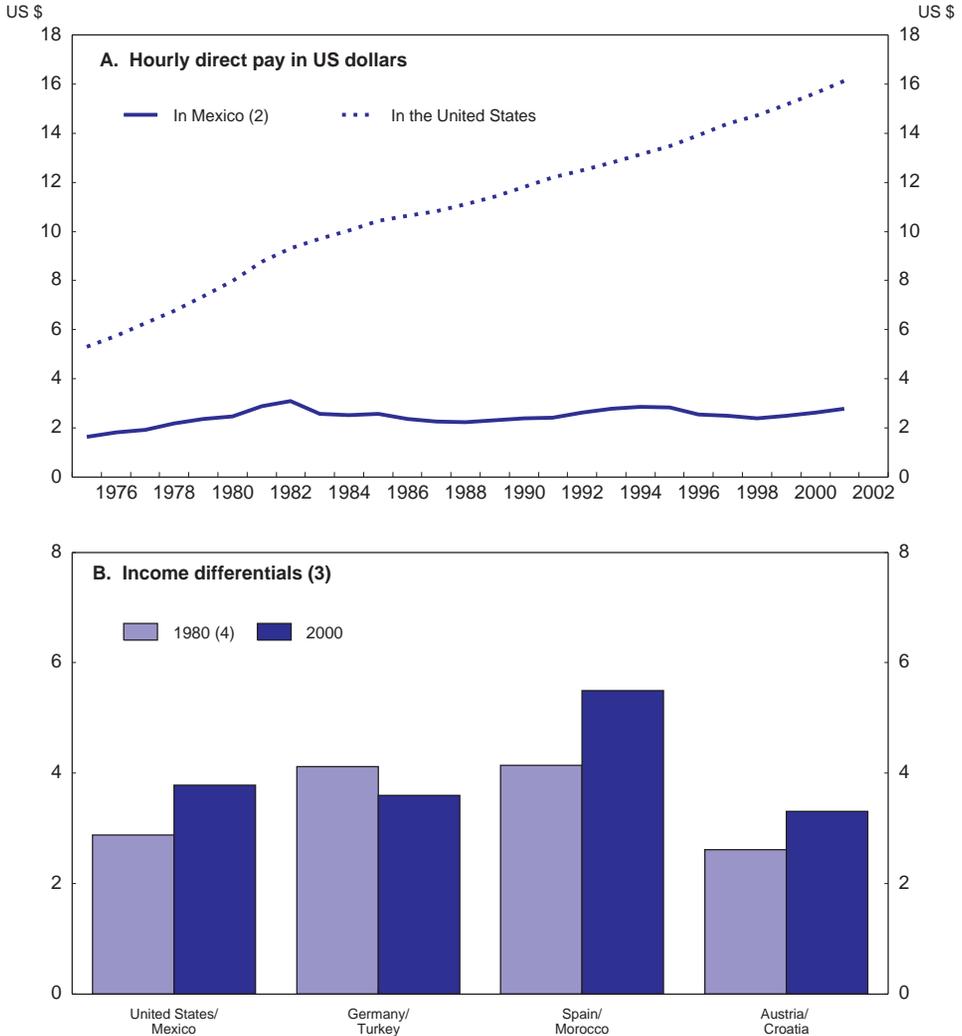
Labour market and human capital

Labour market incentives

Wage differentials between Mexico and the United States, already high in 1980, have continuously increased since then. In 2001, a production worker in the manufacturing sector was earning 5 times more per hour worked in the United States than in Mexico (Figure 34). The difference is even larger when compared with *maquiladoras*, where wages are about one third lower than those in the rest of the manufacturing sector. As to observed earnings, a survey realised in three important sending states found that on average hourly wages of migrants in the United States were about six times higher than those of the employed population in their communities of origin at the end of the 1990s.¹⁴⁹

As would be expected, given these wage differentials, work is the main motive for emigration of Mexicans to the United States, which is illustrated by the significantly higher participation of Mexicans in the labour force in the United States than in Mexico (see Table 13 above).¹⁵⁰ These labour flows result from a combination of push and pull factors on the Mexican and United States labour markets respectively. The initial motivation for the migrant flow lies largely inside the United States, where US farmers have recruited Mexican workers for decades, creating linkages between jobs in US agriculture and workers of particular Mexican communities (Binational Study, 1997). Since 1990, the strong growth in the demand for low-skilled labour in the tight US labour market has been a new pull factor for Mexican workers. Part of this increase in demand for low-skilled (and low-paid) workers has followed the implementation of NAFTA, when US firms have had to restructure and adapt their production processes and organisation after the trade and investment liberalisation. In the garment industry, for example, after the restructuring prompted by the increased competition from Mexican exports, the share of Mexicans in the sector's employment more than doubled, reaching close to 20 per cent in 2000 (Spener *et al.*, 2002).¹⁵¹ Spener and Capps (2001) show that there are strong connections between manufacturing trade and migration flows: the sectors where Mexico's exports have been growing most over the 1990s being also those where employment of foreign and Mexican-born are the highest in the United States – and have been increasing most, pointing to some complementarity between trade and investment liberalisation and labour migration.¹⁵² The construction of networks also appears to be key in helping migrants find a job in the United States and ensuring support for newcomers (Munshi, 2002).

Figure 34. **Hourly pay in manufacturing – Mexico and the United States¹**
For a production worker



1. Hourly direct pay includes all payments made directly to the workforce before payroll deductions of any kind.

2. Using Purchasing Power Parities (PPPs) for private consumption.

3. Ratio of GDP per capita in current PPPs in wealthy OECD countries to that of source countries.

4. 1990 for Austria/Croatia.

Source: United States Department of Labour, *International comparisons of hourly compensation costs for production workers in manufacturing*; United Nations, 2002 *World Development Indicators*.

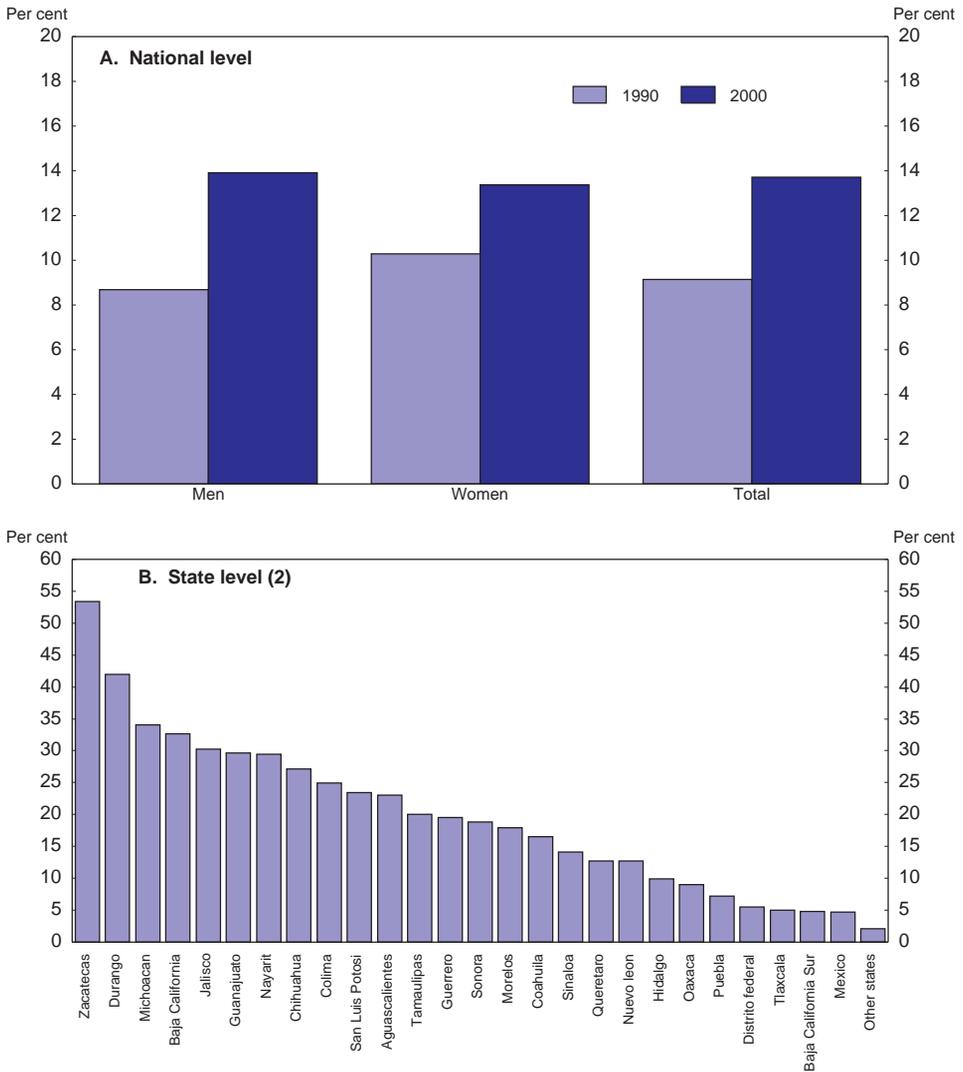
Since the mid-1980s, however, push factors have also become important, as a result of rapid population growth in the 1970s, and recurrent Mexican economic crises, as well as significant labour adjustments, following structural policies, such as trade liberalisation and privatisation, and the restructuring of rural Mexico with low profitability of small-scale farming (Annex I.B). In the absence of unemployment benefits, most people have no choice but to work for subsistence, and the open unemployment rate has remained relatively low in that setting, generally below 3 per cent since 2000, after peaking at 6 per cent following the peso (1995) crisis, but only thanks to an increase in informal employment and a sharp decline in real wages. Over the 1990s, less than half of job creation in Mexico has been in the formal sector (see Chapter I). Formal employment growth recovered after the peso crisis, with net job creation above 500 000 every year for 5 years (based on IMSS registers). Although real wages rose steadily in the late 1990s, the increase did not offset the sharp decline following the 1995 crisis and in 2000, real wages in the formal sector were still substantially below their 1980 level.¹⁵³ Wage differentials between the United States and Mexico are commonly reported as being the main driving force for migration, while job availability in Mexico plays less of a role – about 85 per cent of the temporary migrants to the United States over the period 1998-2001 had a job in Mexico before emigrating.

Labour market effects

The large size of migrant outflows could be expected to have significant effects on the Mexican labour market. In 2000, the Mexican-born workers in the US represented the equivalent of 13 per cent of the Mexican labour force (Figure 35). In the few Mexican states with high emigration, the ratio reaches from 25 to more than 50 per cent. Net outflows of permanent migrants represented 14 per cent of the 16-year-old population entering the labour force. Had these migrants stayed in Mexico, the labour force would have grown at a still faster rate than observed between 1990 and 2000 (by 0.7 percentage point per year).

Analysis of the consequences of this reduction of the labour supply is very scant though. Given the low open unemployment level, the reduction in labour supply is more likely to have reduced employment in the informal sector than unemployment *per se* (open unemployment). It has also probably exerted some upward pressure on wages, preventing them from falling more than they did in real terms. This seems to be the case in the traditional emigration regions. Hanson (2003) finds that regional wage differentials have widened in Mexico over the 1990s, in particular, regions with access to foreign trade and investment performing better, and states with high historical migration rates also performing better. Apart from the level of wages, migration may also affect the wage distribution. Relative to the United States, Mexico has high wage dispersion and high returns to education¹⁵⁴ – both having increased with trade liberalisation – implying that the

Figure 35. **The Mexican labour force in the United States**
As a percentage of Mexican labour force¹



1. Persons 15 years and over in Mexico and 16 years and over in the United States.

2. OECD estimates. The Mexican population residing in the US has been allocated across the Mexican states using the data provided in ENADID (1997). The activity rate of immigrants from the different Mexican states in the United States is assumed to be unique and equal to that of all Mexican-born residents in the United States.

Source: INEGI, *XII Censo General de Poblacion y Vivienda 2000* and *ENADID97*; US Census Bureau, *Census 2000*.

United States-Mexico wage differentials decrease with education. However, contrary to what would be expected in that context, Mexican immigrants in the United States, as noted above, are on average more educated than Mexican residents. Chiquiar and Hanson (2002) show that in 1990, the education group of Mexicans most represented in the United States was that with 12-15 years of schooling, corresponding to upper high-school and the level just above, which fall in the middle and upper segments of Mexico's wage distribution. This pattern can be explained by the fact that the cost of migration is high (see section on smuggling cost below) and probably even higher for less educated Mexicans.¹⁵⁵ By removing workers from the middle of Mexico's income distribution, migration is likely to contribute to raising wage dispersion in Mexico.

Is there a brain drain risk for Mexico?

With immigration policies in OECD countries becoming increasingly selective and skilled-biased, the concern has been raised that migration of skilled people, while clearly beneficial for the host country, may hamper the innovation capacity in sending countries, especially developing ones, and thus limit their ability to grow and catch up. The possible negative effects for sending countries would arise from the (at least temporary) loss in human capital and productive capacity, but also from the lower return on public investment in tertiary education, *i.e.* a waste of national public resources. On the other hand, sending countries may benefit from highly-skilled migration through a number of channels. The possibility of emigrating may provide an incentive to individuals in the sending country to accumulate skills, both because migrating abroad would increase the return on their human capital investment, and because it may raise the domestic return to skills. Besides, skilled emigrants may return and diffuse the skills they have acquired abroad, as well as favour the exchange of knowledge and the collaboration with foreign institutions and enterprises.¹⁵⁶

Relative to other less advanced countries, the number of highly-skilled Mexican migrants in the US is not very high. Consistent with the relatively high dispersion in earnings (and in education) in Mexico, graduates and/or post-graduates are relatively under-represented in the Mexican diaspora in the United States. In 2000, the highly-skilled represented 4 per cent of Mexican-born residents in the United States aged over 20, against 13 per cent of the population in Mexico. Managers and professionals account for only 6 per cent of the Mexican workers in the United States, against 39 and 26 per cent for the Asian and African worker communities respectively. When it comes to students, who are often a central component of the international migration of highly-skilled persons, the number of Mexicans is also relatively low, despite a significant growth since the entry into force of NAFTA (12 500 in 2001-02, of which 4 400 at the post-graduate level, *i.e.* about 3 per cent of the number of post-graduate students in Mexico).¹⁵⁷ Information on the return

behaviour of the highly-skilled Mexicans is scarce, but since they are the Mexicans who integrate most easily in the US society, they would also be the most likely to stay. In 2000, 40 per cent of the highly skilled Mexicans in the United States had already acquired United States nationality.

Because the rates of educational attainment in Mexico are relatively low, migration to the US appears to take away a non-negligible share of the population with a tertiary education in Mexico, suggesting that Mexico is experiencing some "brain drain" as a result. Based on official Mexican estimates (CONAPO), Mexican-born population with a bachelor's degree (*licenciatura*) or higher education represented 6 per cent of the population with the same education level in Mexico in 2000. Somewhat higher estimates are provided by Adams (2003). In a study based on data from the US population census, he finds that the Mexican-born population in the US with a tertiary education represents over 16 per cent of the nationals with that level of education in Mexico.¹⁵⁸ As a comparison, for 14 countries out of 20 for which comparable data exist, less than 10 per cent of individuals with a tertiary education have migrated to the United States. In a few smaller Latin American countries, the proportion, however, is higher than 25 per cent.

Apart from wage differentials, the unsatisfactory work environment in Mexico and better conditions for career development in the US are important drivers of the migration decision, rather than job availability (with trade liberalisation and NAFTA, the demand for highly-skilled workers has been growing significantly in Mexico). This seems to be particularly the case in scientific careers, as research and development activities are very little developed in Mexico – in 1999, their share in GDP was 0.4 per cent, against 2.2 per cent on average for the OECD. In 2000, 15 per cent of the Mexican students who were provided with a scholarship to make post-graduate studies abroad at some point in the previous three decades had stayed abroad to work; while less than 2 per cent of those who got a scholarship to study in Mexico were working abroad, two-thirds of them in the fields of mathematics and natural science (CONACYT, 2000). Grantees who do not work for the Mexican government or in research departments after their study are required to repay their scholarship (and usually do so), thus limiting the loss of public resources. The National Council of Science and Technology (CONACYT) has also been managing a repatriation programme since 1991, which supplements the salaries of researchers in the first year after they come back to work in Mexico; its scale is limited though, since it has financed about 200 researchers per year on average.

Other human capital issues

There may be other human capital issues than brain drain at stake in an emigration country such as Mexico. Firstly, even with low- or medium-skills, migrants may benefit from their work experience in the United States, and

become more productive than they would have been otherwise, if and when they come back to Mexico. Secondly, migration may affect the human capital of the family at large, in particular through education.

In the United States, most Mexicans occupy jobs in the low-skill segment of the labour market, as day workers in agriculture (one out of four day workers in the United States is Mexican), or workers in the textile/clothing industry, in construction, domestic and cleaning services or as cooks. Based on the Mexican Migration Project (MMP), a survey conducted since 1982 on both sides of the border, Reyes (1997) finds that migrants with low education and low-wage jobs in the United States, often undocumented, are precisely those with the highest probability of returning to Mexico. These jobs, which are often in the grey/informal sector – 88 per cent of the migrant workers crossing the border to come back to Mexico in 1998-99, had been working in the United States without a contract¹⁵⁹ – often involve repetitive tasks and little possibility of training. According to the EDER survey, only 6 per cent of former migrants had benefited from a professional training in the United States¹⁶⁰, suggesting limited possibilities of human capital enhancement. It cannot be assumed either that acquired skills can be transferred, since this would require that migrants are able to find jobs in Mexico where these can be used, and that they are willing to continue working in the same type of activity as in the United States.

Indirect observation suggests that previous migrants nevertheless generally benefit from their migration in terms of occupation status/level and wage. According to the EREM survey (Papail, 2002), the migratory cycle accelerates the labour force shift away from agriculture (before the migration to the United States) into trade, services and transport. On average, migrants surveyed in the MMP survey tend to occupy jobs slightly more qualified than the ones they had during their last stay in the United States, with for example higher-skilled manufacturing jobs. Using the same MMP data, Zahniser and Greenwood (1997) find that, once controlled for a possible selectivity bias over the 1982-1996 period, the return to United States experience, as measured by earnings, is about eight times the return to Mexican experience.¹⁶¹ Not surprisingly, the returns are higher for those who have kept the same broad occupation as in the United States, thus allowing more transfer of acquired skills. However, the EREM survey points to migration being above all often a rapid way for migrants to operate a transition from salaried work to self-employment or small business ownership (20 per cent of previous salaried migrants did) – a shift which is taking place along the working life of non-migrants too, but at a slower pace – thanks to savings accumulated during the migration period, rather than a result of enhanced human capital.

Migration to the United States is also likely to have an impact on the family members who remain behind, and in particular on schooling outcomes for children. On the one hand, if migrants send remittances to their families, this may raise the

family income and allow children in the household to obtain more schooling. On the other hand, having a migrant abroad implies a significant disruption of the family life, which may have negative consequences on a child's schooling outcomes. Providing the only available test of the relationship between household migration behaviour and educational attainment in Mexico, Hanson (2002) finds that the overall effect is positive, *i.e.* that children in migrants households belonging to the 10-15 year cohort complete significantly more years of schooling.¹⁶² Children of migrants who follow their parents and spend part of the year in the United States and part in Mexico may encounter specific problems of repetitive adaptation. To facilitate their entry at school, several state governments and Mexico's federal government have developed a transfer certificate as part of a Binational Programme for Migrants Education, in which some exchanges and training of teachers involved with children of migrants take place.

Fiscal impacts

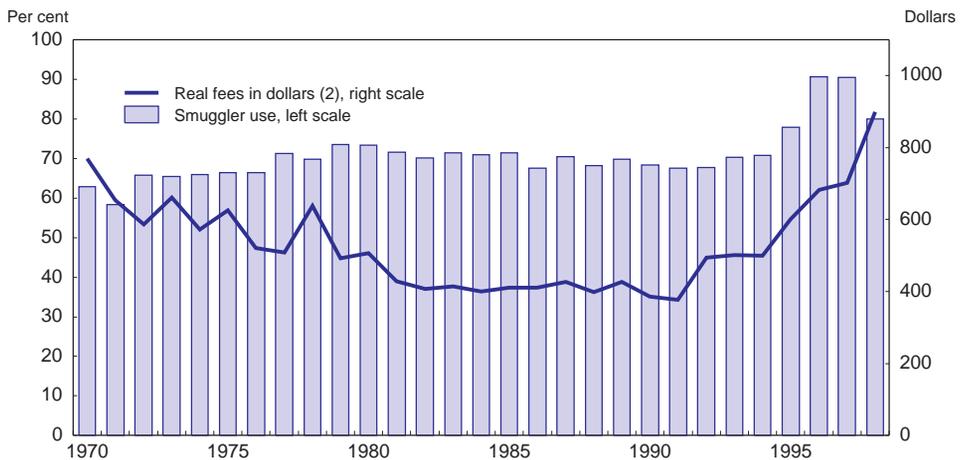
There is no available estimate of the fiscal costs and benefits associated with emigration. Compared with the hypothetical case in which the migrant is working in Mexico, a number of changes in tax revenues for the Mexican government would be expected in the short term. First, if the migrant is working in the formal sector before leaving, the person stops paying payroll taxes and income taxes. At the aggregate level, this shortfall might be compensated by the entry of a new worker in the formal market, or higher wages if there is labour shortage in the particular sector/qualification of the migrant. Second, the value added tax revenues are reduced by the amount the person was paying on his consumption before migrating, but increased by that paid by relatives on consumption resulting from the remittances the migrant is now sending. Third, the government stops its transfers to the migrant, notably for health services.¹⁶³ The net impact on public finances is therefore quite uncertain.

In the longer run, a usual argument made is that Mexico is losing a lot with emigration because it pays for the education costs of migrants as well as health costs during childhood and old age. Assessing such costs would require a generational accounting approach, which is not available. However, even if migration was indeed found to be costly in terms of public revenues/expenditures, it is not obvious what the policy implications should be. For example, Mexico cannot reduce the amount spent on education to equate the benefits associated with education (in the large sense, including economic, equity and cultural) to the costs associated with the fact that some leave the country, since it would imply a sub-optimal education level for those remaining. Besides, this approach would be too narrow, as it would ignore the more global effects of migration on fiscal revenues (for which a dynamic general equilibrium approach would be required).

The cost of smuggling

The main response of the US authorities to rising illegal immigration has been to intensify border enforcement effort¹⁶⁴, by increasing the number of border patrol officers, their equipment and the technology used to deter, detect, apprehend and remove unauthorised immigrants. The strategy has been to block entry through traditional routes (*i.e.* the roads going through the main border cities) so as to force migrants to move through remote and sparsely populated areas where they can then be spotted and detained more easily. The strategy has succeeded in significantly raising the cost of illegal crossing. Crossing has become more expensive and more dangerous, migration candidates often risking their life.¹⁶⁵ Increasingly, unauthorised migrants have resorted to smugglers, a survey showing smuggler use rates at about 90 per cent at the end of the 1990s (Figure 36). The smugglers, commonly known as “*coyotes*” or “*polleros*”, operate either from the interior of Mexico, recruiting groups of people in their community of origin, or from the border, often through organisations (Spener, 2001).¹⁶⁶ While the fees charged decreased in the 1970s and 1980s, because the supply of smugglers outpaced the demand, the *coyote* prices have trended upwards again since 1994 (Orrenius, 2001). The median *coyote* price reported in the Mexican Migration Project survey was about US\$600 in 1998. In any case, with increased border patrol efforts, prices have continued to rise in recent years, and interviews commonly report fees of US\$1 000-1 700 at the start of the 2000s.

Figure 36. Smuggler use rates and fees¹



1. From 1996 onwards data points become slightly less reliable due to the smaller size of the sample.

2. Divided by CPI, 1994 = 100.

Source: University of Pennsylvania and University of Guadalajara, *The Mexican Migration Project*.

This cost obviously reduces the net benefits from migration for the individuals, for their families and for the communities receiving the remittances. A fee of US\$1 000 represents the equivalent of about one month of work at the US minimum wage in 2002. The following calculation provides an order of magnitude of the annual cost of smuggling at the national level: assuming an annual gross flow of 500 000 unauthorised migrants (about the average INS estimate over the second half of the 1990s) – of which 90 per cent use a *coyote* – and an average fee of US\$1 000 (probably a low estimate), the annual cost of smuggling would reach US\$450 million, or almost 5 per cent of the 2002 remittances (and about 0.1 per cent of GDP in that same year). Besides, since migrants most often do not have such an amount in advance and have to contract a debt often at usurious rates, the overall cost is probably higher. However, smugglers (and creditors) being Mexican residents, most of this sum probably remains in the Mexican economy, so that money is mostly redistributed among Mexicans.¹⁶⁷

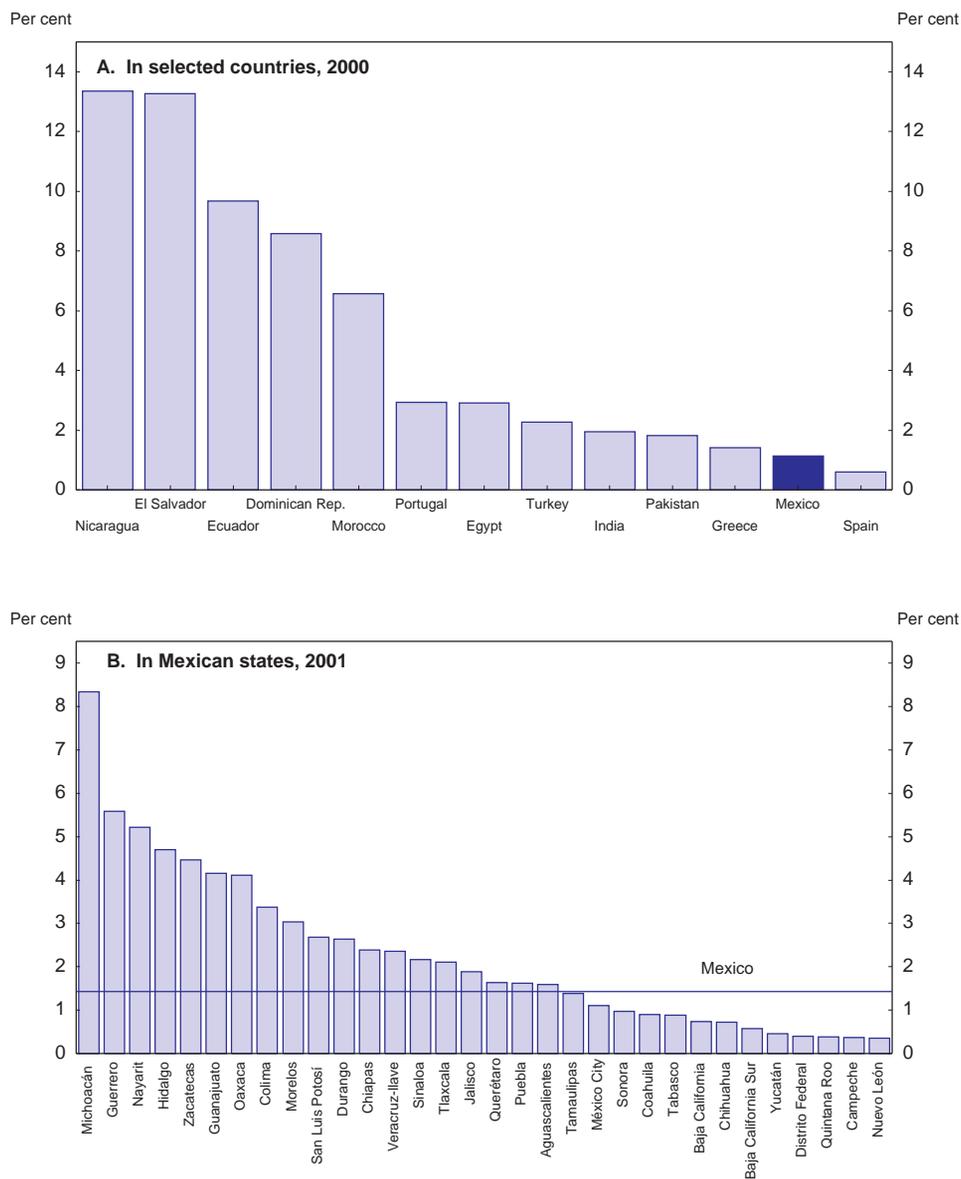
Remittances

Size and use

Being able to send money back to families who remain in Mexico is the main motive for emigration to the United States. Migration generates three main types of financial flows to Mexico. Pension benefits received by previous migrants from the US Social Security represent a relatively small amount, US\$236 million in 2001 for about 49 300 Mexicans (corresponding to an average yearly benefit of US\$4 782). Wages of trans-border workers residing along the northern border of Mexico are more important, as US\$1.25 billion were paid to 81 000 workers in 2001 (*i.e.* an average wage of US\$15 440 per year). But remittances sent by migrants working in the United States are by far the most important, amounting to close to US\$9 billion in 2001 and rising since then, to almost 10 billion in 2002 and as much as 8.3 billion in the first eight months of 2003.¹⁶⁸

Remittances have been multiplied by 4 between 1990 and 2002 according to central bank estimates – part of the increase being due to improved coverage in data collection and to increased use of formal channels¹⁶⁹ – and they were the second highest in the world in 2002, just after India. They now provide a significant and relatively stable source of foreign exchange in Mexico, equivalent to as much as 90 per cent of oil exports revenues, 145 per cent of tourism receipts, and 72 per cent of the net foreign direct investment flows in 2002. However, compared with other emigration countries, in particular those in Central America or smaller OECD countries such as Portugal and Turkey, the remittances to GDP ratio is relatively low (Figure 37). In fact, the effect of remittances is mostly felt at the regional level. In Michoacán for example, remittances are as high as 8.3 per cent of state GDP and they are equivalent to 60 per cent of the federal public transfers (Figure 38). Their

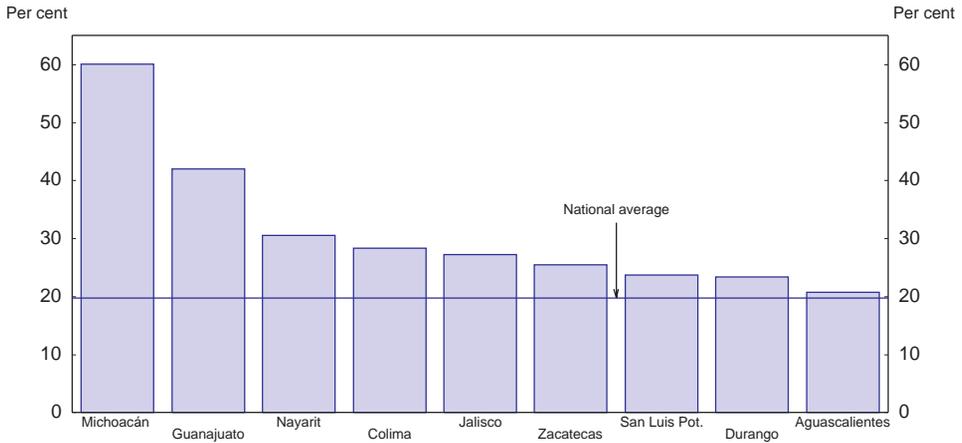
Figure 37. **Workers' remittances**
Per cent of GDP



Source: OECD; Bank of Mexico; IMF, *Balance of Payments Statistics Yearbook*.

Figure 38. **Remittances and federal public transfers in the traditional states of emigration, 2001**

Per cent of total public transfers received¹



1. Total federal contributions to the states (appropriation lines 23, 28 and 33 of the federal budget of expenditure).
Source: Bank of Mexico; Ministry of Finance.

relative importance is likely to be even higher in the 109 localities with very high emigration intensities.

According to the national household income and expenditure survey, about 1.2 million Mexican households, or 5 per cent of the total, were receiving remittances in 2000, for an average annual amount of US\$3 016 per household. Although the household survey typically underestimates the total amount of remittances, it provides useful insights on the relative importance of these remittances for some of the households receiving them. Households receiving remittances belong to all deciles of the income distribution. For them, remittances represented on average almost 40 per cent of income, being a complement of income in the majority of cases, but the unique source of monetary income for 4 out of 10 households on the receiving end. The highest incidence is among rural households, and although the amounts received are lower than for urban households (Table 14), they are important in relative terms: the average remittance in rural areas is more than three times the average allowance provided through the main poverty programme PROGRESA/Oportunidades to poor households living in marginalised areas.¹⁷⁰

On the sending side, migrants from the traditional emigration regions in Mexico were sending back about US\$328 dollars per month in the second half of

Table 14. **Households and remittances**

	1992	1996	2000
Number of households receiving remittances (thousands)	659.7	1 076.2	1 252.5
Proportion of households receiving remittances (per cent)	3.7	5.3	5.3
Localities of less than 2500 inhabitants	6.2	10.0	9.9
Localities of 2500 inhabitants and more	2.9	3.8	4.0
Average remittances (dollars per year)	2 113	1 942	3 016
Localities of less than 2500 inhabitants	1 810	1 582	2 016
Localities of 2500 inhabitants and more	2 323	2 245	3 757
Share of remittances in current income of households receiving remittances (per cent)	28.7	40.9	38.8
Proportion of households receiving remittances where remittances are the only source of monetary income	n.a.	46.5	40.0

Source: INEGI, *Encuesta Nacional de Ingresos y Gastos de los Hogares* (ENIGH).

the 1990s, corresponding to a quarter of their income or one week of work in the United States (Papail, 2002). Proportionately, permanent migrants send money back home less often than temporary migrants, and relatively smaller amounts, but given their number they are responsible for most of the remittances (62 per cent in 1995 according to Lozano (1997)). They tend to send remittances most often to their parents (the majority of households on the receiving end have heads of households aged 50 or more in 2000) or to other relatives, while temporary migrants send money to their close family. When migrants have been staying in the United States for some time, remittances become more occasional and it is not rare that they will stop sending remittances. In fact, the trend towards increasing permanent emigration is raising concerns about a future decline in remittances as family links become looser. This seems to be the case in some localities of the historic emigration regions. On the other hand, transport and communication technologies increasingly allow migrants to keep ties with their community of origin, and networks of Mexicans living abroad continue to develop, allowing them to remain involved in the cultural, economic and political life of their region of origin. And in fact, while individual remittances tend to dry up once migrants get settled, there are still collective remittances being sent through hometown associations to improve infrastructure, public services and recreation facilities in the communities of origin.

According to the research available, households allocate most of the remittances to satisfying basic family needs, buying food, clothes, health, education and transport, and to purchasing some durable goods. Expenditures for the

maintenance or construction of housing come in second, while the share reserved for savings and productive investment is very limited. Actually, the expenditure profile is quite similar to that of households not receiving remittances, the main differences being a slightly higher saving rate (14 per cent in 1996 against 12.5 in other households) and slightly higher investment in housing (4 per cent instead of 2.6 per cent) (Castro and Tuiran, 2000). The various types of expenditures generally take place at different stages of the migration process (CONAPO, 2002). At first, money is sent to the place of origin to repay debts contracted to pay for the trip to the United States and other debts, and for household basic consumption; subsequently, remittances may be used for buying equipment for the house and improving housing; and later, remittances may serve to buy tools, equipment and inputs for agricultural production (typically cattle in the historic emigration region), or to establish small shops. The use of remittances may also be influenced by the type of migrants. Papail (2002) finds that the share of remittances used for current consumption in a number of municipalities with high historic emigration has gone down from 70-75 per cent in the 1980s to about 64 per cent in the late 1990s, to the benefit of savings and financing of small business, a shift that can be related to the increasing proportion of single persons in migratory flows.

The share of remittances dedicated to productive investment in the traditional emigration regions is estimated to be about 6 per cent in some studies, while others provide somewhat higher figures.¹⁷¹ This relatively limited share is sometimes seen as a sign that emigration is not improving the development prospects of source regions and of Mexico in general. This view of emigration has to be somewhat qualified, however. First, basic consumption is often vital for migrants' families, so that remittances make in any case a significant contribution to reducing poverty in those families. Second, consumption expenditures also have some multiplier effects. The second round effects of remittances are generally smaller at the local level than at the national level, because part of the demand is leaking to other localities, most often to urban areas.¹⁷² Third, by improving nutrition, health and education (accounted as consumption expenditure), remittances are in reality invested in human capital, which is a key element in the process of development of the region (or the country at large, if migrants' family members change region). This is all the more important in that households receiving remittances are less covered by institutional health services than other households.¹⁷³ Overall, there is little doubt that households receiving remittances see improvements in their standards of living, and in the nine major sending states, the Binational Study (1997) found that migratory intensity is generally associated with improved services for housing and a greater use of modern technologies in agriculture.

As to investment, Massey and Parrado (1998) find that, while the act of migration in itself prevents the participation of the migrant in family business affairs, the accumulation of "migra-dollars" over time provides a significant source of capital and, controlling for other determinants, increases the probability of

business formation. According to the EREM survey, migrants stay longer in the United States when they intend to create a business (6.5 years instead of 5 for those who do not create a business) and the amount invested is generally low – less than US\$5 000 in 80 per cent of the cases (Papail, 2002). This underlines the potential tension existing between migration and business creation: accumulating enough savings to invest implies staying for a relatively long period in the United States, which in course may lead migrants to settle and finally stay in the United States and renounce their initial plans. About a quarter of the micro-businesses created in Mexico since 1975 employ other workers (2.7 on average), most of them being unpaid family members though, and the number of paid jobs created is 0.2 per former migrant. Overall, migration and remittances can ease the financial constraint weighing on Mexican households. However, for migrants or their families to invest more, as for most Mexicans (especially in rural areas), measures are needed to overcome a number of constraints: limited access to banking services, lack of basic infrastructure in many localities, marketing problems, and limited entrepreneurial skills (Chapter III).

For a long time, groups of migrants in the United States have also been financing and carrying out some projects in their communities of origin. Hundreds of Mexican home-town clubs exist in the United States, that organise social activities for the migrants in the United States but also work at maintaining links with the community of origin, including through financing projects which provide collective benefit in their home-town. Since the mid-1990s, the Mexican government – initially the states and more recently the federal government – has been trying to promote these “collective” remittances, by adding public finance, and to improve their use. The first initiative was the “Two for one” (*Dos por uno*) programme launched in Zacatecas in 1993, in which the state government added two additional dollars for every dollar brought by migrants groups; since 1996, the programme has become “Three for one” (*Tres por uno*), with the federal government (the Ministry of Social Development, SEDESOL) also adding a dollar. Similar programme have been in place in Guanajuato and Jalisco since 2000. The federal government is currently trying to extend the *Tres por uno* to the national level.

Compared with “family” remittances, collective remittances involve very small amounts. In Zacatecas, for example, migrants brought US\$1.2 million in the *Tres por uno* programme in 1999, to be compared with US\$300-350 million of transfers to families in that state (Papail, *op. cit.*). Overall, between 1993 and 2000, 429 projects were initiated in Zacatecas, for a total value of about US\$17 million.¹⁷⁴ The projects financed are mainly basic infrastructure and communications projects (roads, wells, drinkable water, electrification, *etc.*), public service infrastructure related to education, health and social security (schools and clinic building, allowances for needy groups, *etc.*), recreation and other community related projects (like sports fields and church renovation). In times of severe budget constraints, collective remittances contribute to finance projects which would normally fall

under the state's responsibility. A number of problems seem to be encountered in implementing the projects, notably linked to the mistrust of the migrants *vis-à-vis* local authorities, which are generally in charge of the operation. Most attempts to promote purely entrepreneurial projects through collective remittances seem to have failed, as they provide benefits to a small number of persons rather than the whole community. However, despite their small size and mixed success, these experiences involve political and organisational learning processes at the local level (Goldring, 2003), which, in the longer run, could contribute to "institutional" development.

There are also a number of initiatives taken by state governments and some federal agencies to promote the financing of productive projects by migrants. For instance, since 1996, the programme "My community" promotes the creation of enterprises, co-financed equally by migrants and the state government in poor areas of Guanajuato, with the explicit objective of retaining potential migrants. In that state, 14 *maquiladoras* have been created, of which only four are still operating, mainly because of a lack of real business strategy, and the difficulty of finding able managers in the community of origin. The governments of Jalisco, San Luis Potosí, Michoacán and Zacatecas have created investment funds to promote investment from migrants, but they appear to suffer from excessive red tape and have provided limited results (García Zamora, 2002). A programme called "Invest in Mexico" has also been launched in August 2002 by NAFIN (the development bank for small and medium size enterprises), the InterAmerican Development Bank and three state governments, aiming at directing part of the existing remittances and part of the savings that Mexican workers have accumulated in the United States to the creation of enterprises, by providing loans (or loans guarantees) and technical assistance.

The cost of remittances and related issues

Despite new technology and increased competition in the sector, transferring remittances remains expensive.¹⁷⁵ The remittance industry is composed of two elements, the originator network in the United States and the distribution network in Mexico. On the originator side, transfer agencies – or remittance companies – dominate the market (one of them, Western Union, with a market share exceeding 30 per cent). Over recent years, banks, postal services and non-banking financial institutions such as credit unions have increased their share of the market, as a result both of their willingness to find new markets and clients, and thanks to the Mexican government initiative described above to provide *Matricula consular* to undocumented Mexicans in the United States. In January 2003, 74 US banking institutions accepted the *Matricula consular* as a valid ID for opening an account, and the US Federal Reserve Bank is currently studying the possibility for all banks to recognise it as a valid document.¹⁷⁶ The originator network then channels the money through the distribution network in Mexico, which includes

commercial banks, post offices and gas stations (often the only possible distributor in remote areas).

There are two components to the overall charge on remittances which are set by the originator: the transfer fee and the fee resulting from the exchange rate applied to the transaction. Originating companies are able to discriminate prices depending on the number of competitors in the various locations (in the United States but also in Mexico). Available research shows that both types of fees have been decreasing since the end of the 1990s as a result of increased competition. In 1999, the charge on a US\$300 transfer to Mexico by a wire transfer company could amount to as much as US\$60 or 20 per cent, more than half of it through the “exchange rate fee”.¹⁷⁷ In the second half of 2003, the total fee for a similar service generally ranged between 10 to 18 dollars (including the charge paid to the distribution network in Mexico which ranges from one to four dollars). Some foreign banks (such as Citibank, Bank of America and BBVA) now provide a “debit card” service in partnership with the two largest Mexican banks (Banamex and Bancomer); this is one of the cheapest way to transfer money. Fees on the more traditional type of transfers also continue to decrease – since April 2003, one bank offers a 5-dollar transfer fee.

While information on the transfer fee is readily available to the migrant, it is not the case for the exchange rate fee, making comparisons difficult – only in California are transfer companies required to disclose both fees to customers. Even in the case of debit cards, which have very low exchange rate fee and advertise themselves as low cost alternatives, there are other types of fees.¹⁷⁸ To improve transparency, the Mexican consumers’ federal office (PROFECO) is publishing information on fees charged by some market players on the internet website of the Mexican Consulates in the United States. This information, however, is provided on a voluntary basis by the companies involved, so that information is often incomplete and difficult to verify. Regulations or agreements such as that referred to in the case of California regarding the publication of the fees would be required both in the United States and Mexico to enhance transparency and competition.

The US Federal Reserve Bank and the central Bank of Mexico are also working at a project to connect the automatic clearing houses of the two countries, which would significantly reduce the costs of financial transfers between the United States and Mexico, and could also have an effect on remittances. At the moment, transfers take place between a bank or a wire transfer company in the US and their counterpart or correspondent. Starting from the second semester 2003, an electronic link between the US and Mexican automatic clearing houses should enable all financial institutions in the United States to transfer money to any bank in Mexico at the exchange rate published every day at noon by the Mexican central bank, at low cost (the expected fee is less than one dollar) and in a short delay

(two days). The effect of this linking facility on the cost of transfers will, however, depend on how banks pass on this decrease in transaction costs in their fees. In practice, many remittances do not originate in banks in the United States, but in other outlets offering money transfer services (including in gas stations), and these normally impose a fee to access the banking system which ultimately processes the transfer.

Another obstacle met in reducing the cost of remittances is that only about one in five Mexicans (37 per cent of the labour force) has a bank account and many large towns in the rural areas of the historical emigration regions have no bank branch. Cashing in remittances transferred through banks would thus often require a very long journey for the recipient, which explains the still high market share of wire transfer companies. For the “debit card” services, banks envisage to develop mobile branches, or to put automatic teller machines into petrol stations in the unbanked areas. On the other hand, non-bank institutions (savings and loans and credit unions) could also play a role in remittance transfers. There are at the moment about 630 such intermediaries in Mexico, which have assets equivalent to less than one per cent of bank assets, but serve about 7 per cent of the labour force, mostly low-income and located in remote and often marginalised areas. Some credit unions have indeed envisaged developing links with counterparts in the US to transfer remittances to the migrants’ families.¹⁷⁹

The project of BANSEFI – the state-owned development bank which will act as a bank for savings and loans and micro-credit institutions – to organise jointly with 17 non-bank institutions a network of small financial institutions called “*L@ Red de la Gente*” may facilitate their participation in remittance services. BANSEFI is already engaged itself in remittances transfer through its 562 agencies (half of which are located in areas where there is no bank in a 20 km periphery). The network would be composed of those small financial intermediaries that would comply with regulations derived from the new Law on Popular Savings and Loans passed in 2001, and BANSEFI would operate as a banker for them, as done in other countries such as, for example, in Germany and Canada (Québec).¹⁸⁰ Regarding remittances, the objectives would be twofold. First, to encourage the intermediation of the sums remitted and hence an increased potential of lending for productive activity. Second, BANSEFI envisages to propose a number of financial products and services that migrants could buy for their family, such as savings products, insurance (including the health insurance package for people not contributing to the IMSS), and initial down payment to get a loan and/or a subsidy for housing,¹⁸¹ which would possibly reduce the share of remittances exclusively used for consumption.

Clearly, this project goes beyond the remittances aspect as it aims to provide access to financial services not only to migrants but to the low income population without such access at the moment. By providing remittance payment

services, these small non-bank financial institutions may also be able to retain the remittances recipients as their member/customer. Besides, developing a type of federation of savings and loans and credit unions would permit economies of scale (for liquidity management and accounting services for example) to reduce operating and regulatory costs¹⁸² and, if successful, could go some way towards formalising the sector, making it more efficient, and increasing its reach. The World Bank has committed a US\$45 million loan to strengthen the popular banking sector. In the long-run, once regulated under the new international standards, the savings and loans and credit unions may be able to distribute guarantees and/or funds received from international and national development banks (such as NAFIN, *Financiera Rural*, federal mortgage institutions, the World Bank, and the InterAmerican Development Bank). Allowing the small intermediaries to develop is important because they are the only ones dealing with low-income groups in rural areas. Developing such financial services for them could relieve somewhat the credit constraint that they face, thereby helping them to diversify their activity away from agriculture (see Chapter II and Annex I.B on Agriculture).

Conclusions

While it has social costs, emigration seems to be rather beneficial in economic terms for Mexico, both for the migrants and for society, due mainly to the remittances and savings accumulated in the US and brought back when returning. The effects on the labour market and human capital are less clear. In regions with high historical emigration rate, the large reduction in labour supply may have pushed the wages of those remaining upwards somewhat. The emigrant population is heterogeneous, but, by and large, emigration of highly-skilled people is relatively limited, and Mexico does not seem to experience a serious brain drain. Although they most often occupy jobs at the low-end of the US labour market, migrants, if and when coming back, seem to benefit from some return on their US experience. However, since emigration often results from low development prospects in the source regions, policies in Mexico should obviously aim at improving the situation at large, rather than preventing emigration as such.

The benefits from emigration are generated outside Mexico, but policy may nevertheless influence their impact on Mexico. This is especially the case for remittances, and in recent years a number of government initiatives have been taken regarding the cost of these transfers and the uses to which they are put.

Given the importance of remittances both in the balance of payments and in some households' income, the attempts to reduce the still relatively high costs of transferring remittances should be pursued. The establishment of an electronic link between the US and Mexican automatic clearing houses is expected to significantly reduce the exchange rate costs of financial transfers, benefiting migrants and their families provided banks pass on to their customers these cost reductions.

Some initiatives have also been taken to increase the amount of information available on the fees charged by the various providers of remittance services. More could be done, however, and making obligatory the publication of information on the various costs associated with remittance services by the various providers on both sides of the border would also help increase the competition on that market in general (and thereby favour the pass through of any reduction in exchange rate costs). The Mexican government should therefore work at reaching an agreement with the US authorities on this matter.

Not surprisingly, given the average living standards of migrants families, remittances are almost entirely used by migrants' families for consumption expenditures. This is appropriate, since it tends to reduce poverty levels in those families, and generates some multiplier effect at the local level. Besides, part of this consumption sustains education and health, thus contributing to enhancing human capital. For migrants to invest more of their income, the poor environment for investment (lack of infrastructure in some regions, lack of credit for micro and small enterprises, lack of skills of individuals) would have to be improved. The project to develop the network of existing savings and loans institutions under the aegis of BANSEFI and channelling migrants remittances through it seems promising. If successfully implemented, it may not only improve the access to remittance services of rural and low-income households and reduce their costs, but also ease the credit constraint weighing on these low-income groups somewhat, both through the intermediation of remittances and through the channelling of credits from development banks.

The attempts by some states and the federal government to favour collective remittances from clubs of emigrants to their locality of origin by adding public funding, when the remittances are used for social or infrastructure investment, have met implementation problems, notably due to a mistrust of emigrants *vis-à-vis* local authorities. However, in the longer run, they may contribute to institutional capacity building. Yet, migrants should not be expected to remedy a general problem of lack of public investment.

The benefits of emigration are sufficiently strong for many Mexicans to attempt to cross the border illegally to the United States, often repeatedly. US immigration policy greatly limits legal flows of labour immigration compared with the demand for Mexican labour in the US; hence, illegal immigration has become the most important component of flows. It is often argued that a side effect of US immigration policies is the observed shift from a traditional circular immigration to a more permanent immigration. This cannot be ruled out. Another effect is the increase in smuggling costs, with the strengthening of border enforcement policies, which reduces returns to migration for Mexicans. The forces driving emigration – wage and employment differentials on the one hand, relative demographic developments on the other – are unlikely to diminish in the near future, so these phenomena are likely to persist under unchanged policies.

Up to the 1990s, the position of the Mexican authorities *vis-à-vis* Mexico-US migration was one of deliberate non-engagement. Since then, Mexican authorities have taken a more active stance, trying to pursue certain objectives for Mexicans residing in the US on the one hand, and for migration flows on the other. The possibility of reaching a bilateral migration agreement with the United States was interrupted after September 11, 2001. The efforts to reach such an agreement should be pursued, however, since higher levels of legal immigration to the United States would be beneficial for Mexico (strengthening of the position of Mexicans in the US and hence their working conditions and salaries, reducing sums lost in smuggling fees, increasing remittances). While the gains to Mexicans in reaching such an agreement are quite clear, it is also the case that there would be economic benefits for the United States. The contribution of Mexicans to certain sectors of the US economy is considerable, even though there may be some costs to certain groups of low-skilled workers competing with Mexicans (see OECD, *Economic Survey of the United States*, 1997). An agreement which would increase the proportion of Mexicans in the United States who work legally would raise their “reservation wage” and hence reduce the downward pressure on low skilled wages; the fiscal position would also benefit from increased number of taxpayers and reduced costs of border enforcement. In the meantime, the plans to set-up a system for postings of Mexicans ready to work in the US on H2A and H2B temporary visas, to the extent that it increases the information available to employers as well as transparency, thereby reducing abusive charging on immigrants by private recruiters, should be encouraged.

Notes

1. With population growth rates higher in Mexico (between 1½ and 2 per cent per year) than in the rest of the OECD area, but GDP growth close to the average, Mexico is not closing the gap.
2. The peso crisis had many causes and it would be futile to attempt to rank these by order of importance. With the benefit of hindsight, however, it has been possible to understand how the crisis occurred and how it was amplified. This episode is documented in many studies by academics and experts, both in Mexico and abroad. The OECD *Economic Survey of Mexico* September 1995 provides a detailed analysis of the crisis and the adjustment process that followed.
3. The level of GNP is just below GDP, since it does not include profits earned by the large foreign-owned manufacturing and internationally traded service sectors which are not available to domestic residents. On the other hand, it includes net current transfers received from abroad – migrants remittances essentially.
4. See supporting material to Chapter I, in Annex I.A.
5. Cf. Annex I.A, Tables and Figures on GDP growth, employment and productivity.
6. The weakness of productivity gains cannot be evaluated with certainty, because complete and reliable labour market statistics are not available. The National Employment Survey reports a broad aggregate, which includes all the self-employed, unpaid dependent employees and uninsured wage earners (*i.e.* formal plus informal sectors). It probably overestimates employment, because it includes “underemployment” according to Mexican terminology. Thus broadly defined as the number of people having an occupation, employment has risen from about 30 million persons in 1991 to 40 million in 2002 (Annex Figure I.A.2). Data reported in the national accounts, on the other hand, include wage earners, but exclude unpaid workers and workers without contracts. Wage-earning jobs reported in the national accounts probably underestimate employment. At the same time both the level and growth of GDP in recent years might have been underestimated. Bearing these caveats in mind, the section reports a few stylized facts, based on several indicators.
7. See Annex I.B. on the adjustment of the agricultural sector.
8. Evidence is only scattered, because of data unavailability. B. Bosworth (1998), based on his estimates of the capital stock finds that in the aftermath of the 1982 debt crisis, physical capital per worker dropped and was lower in 1994 than in 1981. While the cost of labour was falling, the cost of capital rose in the 1980s and most of the 1990s: for imported equipment, it reflected the currency devaluation, but more generally it was due to the unavailability of credit. As a result the capital-labour ratio declined.
9. National accounts employment data exclude the self employed and unpaid workers. They are sometimes used as a proxy for formal labour. These are “estimated” data

rather than observed data, and they refer to jobs. The same employee can occupy several remunerated jobs. The National Accounts available since 1995 report both series of remunerated jobs and employed persons. Jobs data are used in this analysis because they are available over a longer period. In Annex I.A, employment data are shown according to various definitions.

10. Norma Samaniego (ILO, 2001), on the basis of Employment Survey data.
11. Evidence from firm-level data available for 10 OECD countries provides useful insights on these effects. In the countries under study, which include the United States, France, Italy, the United Kingdom as well as Finland, the Netherlands and Portugal, labour productivity growth in manufacturing appears to be largely explained by evolutions within individual firms, and the exit of lower-productivity firms also makes a substantial contribution (through a “creative destruction” process). Mexico is not included in the OECD study for lack of data. Cf. Scarpetta *et al.* (2002), as well as *The sources of economic growth* (OECD 2003), Chapter III and V in particular.
12. Insufficiencies in the credit system and bankruptcy procedures are seen as key impediments to productivity growth in the Mexican economy at large, according to research done by the Central bank of Chile. This work finds that the difference of performance between Chile and Mexico can be explained by the fact that Chile undertook reforms in these sectors roughly 10 years earlier, which generated faster productivity growth, cf. Bergoing *et al.* (2001). For SMEs in particular, credit has been practically non-existent for a decade. Before the privatization of banks, credit was allocated to privileged sectors which benefited from subsidies. Cf. Chapter II below and the more detailed review of the Mexican banking sector in Bonturi (2002).
13. Bosworth in 1998 (op.cit.) concludes that “capital is by far the most binding constraint” on rapid output growth over the medium-term. Evidence of the lack of capital is also found in the more recent article by Shiao *et al.* (2002). Regarding ICT, experience of other OECD countries shows that weak productivity growth might reflect the small size of the ICT sector as well as low use of ICT (Annex I.A. Figure).
14. One-third of budget revenue is still related to oil receipts, hence vulnerable to changes in oil prices.
15. The sole water and waste water sector is estimated to require US\$2.2 billion year, which is twice the annual budget of the National Water Commission (CNA), which has full authority in production and regulation for water management (cf. *OECD Environmental Performance Review: Mexico 2003*).
16. Net foreign direct investment (FDI), averaging about 2½ per cent of GDP per year between 1994 and 2002, allowed the economy to grow without incurring high foreign indebtedness. About one third of the total went into manufacturing, with the *maquiladoras* exporting sector receiving less than half this amount. The other main destinations of FDI since 1994 have been commerce (retail distribution) which absorbed about 10 per cent of FDI and financial services, especially in the later period.
17. See Table in Annex I.A and OECD, *Economic Outlook*, No. 71, Chapter IV “Intra-industry and intra-firm trade and the internationalisation of production” (2002).
18. Manufacturing labour costs and productivity in Mexico relative to the United States are discussed in Montout (2002) with an application to the automobile industry in NAFTA.
19. Annex I.C presents some details on recent economic developments, including background Tables and Figures.

20. In June 2003, the OECD foresaw an average 3 per cent GDP growth for the total OECD area (and a little more for the United States) in 2005-08. Mexico's growth was then projected at around 4 per cent over that period. See OECD, "The medium-term reference scenario" in *Economic Outlook* 73, June 2003. These projections will be revised, taking into account the new short-term projections for the OECD.
21. Bassanini, Scarpetta and Hemmings (2001).
22. The importance of ICT is discussed in OECD (2003) *ICT and economic growth: evidence from OECD countries, industries and firms*. The intensity of R&D has also been found to play a role on innovation and productivity growth, as put in evidence on the basis of aggregate data (Guellec *et al.*, 2001) and on sectoral data (Scarpetta *et al.* 2002). Lederman and Maloney (*op. cit.*) identify the need for Mexico to catch up in innovation and technological progress. They argue that trade liberalisation and NAFTA, though helpful for this, may not be enough; and that substantial improvements should be made in Mexico's national innovation system to make it more efficient.
23. Higher investment rates, including FDI, are generally recognized to generate positive externalities through the adoption of best practice organisation and technology. Nicoletti *et al.* (2003).
24. Cf. Lederman and Maloney (2003).
25. The role played by pro-competition regulations in growth is put in evidence in Nicoletti and Scarpetta (2003). Mexico is not included because data limitations have impeded reliable measures of MFP. Although the estimates made for the 21 countries included in this research are subject to usual caveats associated with econometric analyses, they provide a benchmark, which is of relevance for Mexico.
26. High inflation is negatively associated with the accumulation of physical capital in the private sector, while high government deficits can impair growth. Cf. Bassanini, Scarpetta and Hemmings (2001).
27. The "financial deficit" of the public sector is a narrower concept than the public sector borrowing requirement (see below). Nonetheless, it takes into account the cost of the social security reform for the private sector since 1997, a burden on the budget which is equivalent to about 1½ per cent of GDP per year, half of which being the transition cost to a fully-funded system, which means that the government is actually reducing an implicit government liability. It also includes amounts that have been paid into the oil fund, since its creation in 2000, as well as the real component of debt servicing related to banking sector support programmes.
28. Spending related to the deferred public investment projects (PIDIREGAS) are not recorded in the financial balance when the investment is made, but rather on completion of the project, when the financial obligations are serviced (see Annex Box 6). However, the PSBR records the projects from the start, *i.e.* when the investment decision is made. The cost of the financial rescue programmes that is included in the PSBR corresponds to the total liabilities created through: *i)* the bank restructuring operations, which are the largest component, as only the real component of debt servicing is recorded in the budget; *ii)* debtor support programmes; *iii)* the bail-out programme of the toll road concessions. The PSBR also includes the inflation adjustment of the indexed debt and use of resources by development banks to finance private and social sectors.
29. The liquidation of *Banrural* reduces the net indebtedness of the development bank sector, while increasing the federal government debt. The closure of *Banrural* and the creation of a new entity, *Financiera Rural*, aims at solving the structural fiscal problems

generated by *Banrural's* operations, while strengthening the rural financial system by establishing a more transparent and efficient financial institution. Resources directed to cover *Banrural's* liabilities translate into an increase of the Federal's government debt by 37.9 billion pesos. At the same time a capital contribution was made to the *Financiera Rural*.

30. Thanks to the new tax measures as well as improved tax collection, revenue from income tax increased by 6.5 per cent in real terms, but this was significantly less than what had been expected. Revenue from the special taxes on telecommunications and soft drinks, which were created in 2002, also fell short of estimates.
31. Payment of the initial capital of *Financiera Rural* was authorised by Congress and covered by the federal government with 10.9 billion pesos funded from non-recurrent resources related to the IMSS pension reform. The resources were made of unclaimed retirement savings (the SAR/IMSS 92).
32. The main sources of high spending increases have been: spending on staff (+7.6 per cent in real terms), reflecting contractual wage negotiations in the education and health sectors, as well as in state-owned enterprises (PEMEX and CFE) and allocations to strengthen the judicial branch. Social security spending, shown under the classification by function, was boosted by large increases in pension payments and the constitution of pension reserves, while higher investment on highways and the development of e-Mexico were the main factor behind the boom in the item "communications and transports".
33. Resources are transferred to states through revenue sharing (*participaciones*) and through grants (*aportaciones*) ear-marked for specific purposes. Regarding resources transferred through the Programme to develop infrastructure and improve the states' financial position (PAFEF), these were adjusted downwards in the first half of the year, but replenished in the second half, when oil-related revenue increased.
34. The government's initial budget proposal was based on a more prudent assumption, US\$17 per barrel. But Congress approved a revised budget, with a higher average oil price. The spread between the average price of the Mexican export mix and the WPI benchmark, which reflects the still large weight of heavy crude oil ("Maya") relative to lighter oils ("Istmo" and "Olmeca") in Mexican exports, fluctuates around 5-6 dollars per barrel, but at times it has reached as much as 8 dollars or as little as 4 dollars. The spread tends to narrow, for instance, when the main suppliers of heavy crude to the US cut back production.
35. It should be noted that at the same time investment projects decided by the public sector and financed by the private sector have been increasing over time (see Annex Box 6).
36. In the 2003 Budget, Congress authorizes additional government indebtedness for implementation of the "Programme for voluntary separation" which is in operation until end August 2003. By July 2003, a little more than 15 500 workers had participated in the programme. The related increase in spending in 2003 is expected to be offset by savings in future years since jobs are being cut. In the next four years, the federal government entities which benefit from the programme in 2003 must have savings of at least the amount they have received.
37. These clauses are called "automatic stabilizers" under the Mexican terminology; their aim is to make fiscal action compulsory to meet budget targets in case of unforeseen events which threaten these targets.

38. The government can cut “programmable” expenditure without Congress approval (according to a pre-established list of priorities), if tax revenues are lower than budgeted by 5 per cent or less. The so-called “programmable” expenditure items are those on which the federal government has some discretionary power, *i.e.* excluding interest payment on the public debt and revenue sharing with the states. But for a higher tax revenue shortfall, Congress has to approve the specific spending items to be adjusted.
39. By mid-2003, in particular, states were allocated 7 billion pesos as an advance on likely net revenue windfall. If a windfall of twice that amount does not materialise, the funds will have to be returned to the federal government the following year.
40. The set of tax measures approved for 2002 was estimated to bring in additional resources for an amount of 61 billion pesos that year, according to official estimates made at the time. Most of the increase (24 billion) was to come from the elimination of the special tax rate for retained earnings under the corporate income tax; another 23 billion from the “payroll” tax (substitute tax). The special taxes created in 2002 were to bring in 14 billion pesos (of which 8.8 billion on account of the luxury tax); and changes to the special regimes on income tax were to enhance revenue by 10.5 billion pesos. A number of other changes implied revenue losses. New fiscal measures approved by Congress in 2003 are expected to bring additional tax revenues of 0.3 billion pesos.
41. These and related issues are discussed in Davila and Levy (2000).
42. The composition of the Board of SAT has been reviewed, to include Ministry of Finance representatives, plus three independent members, of which one is nominated by the President, two by the State governments, with a two-year mandate. An effort is being made to increase the scale of tax controls and apply sanctions for non-compliance more effectively.
43. One particular problem in the past has been that budget data are on a cash basis, while the PSBR is on an accrual basis, and the accounting principles have not always been clear. Since 2002, however, new accounting principles are being developed with the objective of providing more transparency.
44. Once the budget is approved, however, the detailed budgets of state-owned enterprises are published, including their programmes, objectives and indicators on their operation. Transfers to public entities that carry out non-commercial activities are recorded in federal government expenditures. And the impact on public finances of financial intermediation by development banks is included in the PSBR.
45. This obligation was introduced with the 2002 budget. The *Presupuesto de Gastos Fiscales* of 2002, published in 2002 provides estimates of revenue shortfall due to exemptions that year. The projected tax exemptions for 2003 were published in September, according to the Law. The projections for 2002 put in evidence the very high share of tax exemptions in proportion of the tax take.
46. For instance, the Committee asked the Ministry of Finance for a breakdown of the IMSS current spending into pensions and other expenditure, information on the fiscal cost of the “Programme for voluntary separation” introduced in 2002 as well as estimates for 2003 and 2004, and a quantified outcome of the “Programme of savings and austerity of the federal public administration”. A greater involvement of Congress at an early stage was among the recommendations made in past OECD *Economic Surveys*. Strengths and weaknesses of the Mexican budget process are reviewed in Larre and Bonturi (2001).

47. Introducing a clause might even have a perverse effect, according to some experts. Under the present situation, in case of non-approval, there would be a provisional appropriation for spending. An explicit clause might be needed for the revenue law, however, because of the risk that the government would be unable to collect taxes).
48. There are no official estimates of the fiscal cost that a reform of ISSTE would entail, but it would be only a fraction of what the IMSS reform is costing.
49. There is a general consensus that underdeveloped infrastructure is a factor limiting Mexico's growth potential and worsening regional imbalances, especially since NAFTA; cf. Davila, Kessel, and Levy (2000).
50. Headline consumer price inflation was 5.7 per cent in December 2002, exceeding the 4.5 per cent central bank target by more than 1 percentage point. According to the Central Bank's estimates if administrated and regulated price had grown at 4.5 per cent, headline inflation would have been almost on target. A low pass-through from import prices and the monetary tightening have helped contain core inflation, which was below 4 per cent.
51. According to market participants, the appreciation of the peso in the second quarter of 2003 reflected to some extent changes in Mexico's policy of managing its foreign reserves. In response to the increasing quasi-fiscal cost of maintaining growing accumulated international reserves, a system to slow their pace of accumulation has been put place starting on 2 May 2003. Part of the foreign currency flows that could potentially increase the level of the country's reserves has been channelled to the market. More precisely, half of the foreign reserves accumulated in the previous quarter, once the amount sold has been subtracted, is sold by auction on a daily basis in pre-established amounts determined at the beginning of the quarter.
52. According to OECD medium-term projections, annual inflation should be around 1.5 per cent by 2005 in the euro area, the United Kingdom and the United States and close to 2 per cent in Canada.
53. A well-developed financial sector *i)* mobilises savings, by channelling the small-denomination savings of individuals into profitable large-scale investments, while offering savers a high degree of liquidity; *ii)* provides insurance to individual savers against idiosyncratic risk through diversification; *iii)* reduces the costs of acquiring and evaluating information on prospective projects, for example through specialised investment services; and *iv)* serves in the monitoring of investments to reduce the risk of resource mismanagement. (see OECD, 2003, *The sources of growth in OECD countries.*)
54. Until then credit allocation was mostly determined by the government (see Bonturi, 2002). Bergoing, 2001 identifies the insufficiencies in Mexico's financial system, with reforms occurring much later than in Chile, as a key factor explaining the weaker growth performance of the Mexican economy relative to Chile.
55. In March 2003, the rating agency Moody's qualified as positive the deposit and debt of the main Mexican banks as a result of better management of banks as well as debt profile (in foreign and local currencies).
56. There were signs of a pick-up in credit to enterprises in 2000, before the slowdown, but it did not last.
57. Moreover banks were lending mainly on a short-term basis and therefore bank credit was financing primarily non-investment expenditure (see Bank of Mexico survey "Encuestas de Evaluación Coyuntural del Mercado Crediticio").

58. For enterprises rated AAA the share of commercial bank financing in total financing was 78.3 per cent in the second quarter of 2003; for small enterprises, it was 24 per cent. See also Martínez Trigueros (2000).
59. *Ley General de Títulos y Operaciones de Crédito, Código de Comercio, Ley de Instituciones de Crédito, Ley del Mercado de Valores, Ley General de Instituciones y Sociedades Mutualistas de Seguros, Ley Federal de Instituciones de Finanzas and Ley de Organizaciones y Actividades Auxiliares del Crédito.*
60. The 1995-2000 recovery took place against the background of a contraction of credit, especially to housing and enterprise. Credit started to pick up only slightly and temporary in 2000. There is also a need to increase the savings base. Only 20 per cent of the Mexican population holds a bank account.
61. Bansefi, formerly PAHNAL, was created in 2001 to promote savings and financial services in remote areas and to low-income families.
62. Given the legal framework in force for saving and loans institutions and popular financial organisations, the CNBV has developed new rules, which can be divided into six groups: organisation and functioning, operations, accounting, prudential regulation, protection savings schemes, and supervision.
63. Since May 2003, the private pension funds (SIEFORES) have been able to invest up to 100 per cent of their total assets in AAA issuers, with a limit of 5 per cent per issuer; for the AA issuers the limits are respectively 35 per cent and 3 per cent respectively, and for A issuers 1 per cent and 5 per cent. Before, a maximum limit for nongovernmental titles was applied equivalent to 35 per cent of the assets of the SIEFORES, accompanied by a maximum limit of 10 per cent in a same issuer. SIEFORES should also be able to invest in foreign security with a share gradually increasing, up to 20 per cent in three years (a law already approved by the lower house and submitted to the Senate).
64. The progression has however been uneven, with enrolment rates declining after the budget cuts that followed the debt crisis and the mid-1990s financial crisis.
65. According to Duryea and Pages (2002), the increase in Mexico's population school attainment was the highest in Latin America between 1980 and 2000.
66. Upper-secondary education in Mexico consists in: *i) bachillerato* programmes that can be either general or bivalent (general and technical) and of which the aim is to prepare for superior education); *ii) technical education per se* which has a professional aim.
67. The repetition rate is defined as the proportion of students from a cohort enrolled in a given grade at a given school-year who studied in the same grade in the preceding school-year. Terminal efficiency is defined as the percentage of students completing an education level relative to the number of students who started in the same cohort.
68. According to the 2000 population census, out of the 7-29 year old population who left school, 27.5 per cent did it because they did not like or want to study, and 38.5 per cent for economic or familial reasons. The second motive is more important for the older group (aged 20 to 29).
69. At level I students are capable of completing only the least complex reading tasks developed for PISA, such as locating a single piece of information, identifying the main theme of a text or making a simple connection with everyday knowledge. Below level I, while students have usually the technical capacity to read, they have serious difficulties in using reading literacy as an effective tool to advance and extend their knowledge and skills in other areas. Thus, they may be at risk not only of difficulties in their initial transition from education to work but also of failure to benefit from further education and learning opportunities throughout life.

70. These results might be partly related to the uneven distribution of resource between and within States (see World Bank, 2000 and 2001).
71. See the National Education Programme 2001-2006 and CENEVAL survey on the job situation of the recent graduates (Zubiran, 2003).
72. The National Education Programme recognizes inefficient use of teaching time, insufficient/inappropriate training of teachers and limited accountability of teachers. Absenteeism is estimated to reduce teaching time by 50-75 per cent in rural areas (see World Bank, 2001). Lopez-Acevedo (2001a) provides an overview of these issues in the case of primary education. She notes in particular that the lack of interaction between education professionals even at the school level is an important factor explaining the low motivation of teachers.
73. The teacher career programme *Carrera Magisterial* was created in 1992 to increase quality of basic education by encouraging teachers to continue their professional development. The impact of *Carrera Magisterial* on attainment levels of students has been limited. Actually, the programme does not guarantee continued good performance, since steps cannot be taken back and there are no limits on the number of step advancements by school, encouraging a certain degree of "step inflation" among many managers. Introduced in 1997, the programme of performance incentives for teachers in upper secondary and tertiary education (*Programa de Estímulos al Desempeño del Personal docente de educación media superior y superior*) operates through a point system that is used to calculate cash bonuses given in reward for good performance. Bonuses go from 1 to 14 minimum wages and quality of teaching performance accounts generally for 60 or 70 per cent of the total number of points. As stated in the 2000 OECD *Economic Survey on Mexico*, it is better designed than *Carrera Magisterial*.
74. OECD estimates based on data provided by national authorities put the ratio at 4.4 and 4.7 per cent of GDP in 1999 and 2000, respectively (see OECD, 2003, *Education at a Glance*).
75. As in many other low-income countries, teachers' salaries are relatively high in terms of GDP per capita (see OECD, *Education at a Glance*, several issues).
76. So far, the amount spent in the form of grants and student loans only represents about 5 per cent of the overall public spending on tertiary education compared with about 20 per cent on average in other OECD countries. One recent example of scholarships for students from low-income background in Mexico is the National Programme of scholarships and financing for superior studies, (*Programa Nacional de Becas y Financiamiento para Estudios de Tipo Superior*, PRONABES) created in 2001 (see <http://sesic.sep.gob.mx/pe/pronabes/inicio.htm>). On returns on education in Mexico see López-Acevedo (2001b) and Psacharopoulos and Patrinos (2002).
77. See Márquez (2001). According to this study, this situation reflects the fact that when operating in a low skill environment, firms do not create skilled vacancies because of the difficulties of filling them (even if filling that vacancy would increase their profits). Workers, in turn, do not have the incentives to obtain training given the lack of skilled vacancies (even if obtaining them would increase their productivity and wages). Comparable result was found on the manufacturing sector by Tan and Lopez-Acevedo (2003).
78. These programmes were renamed in 2002 by the new administration. Evaluations, mainly by the World Bank, have shown mixed success, which are partly due to the use of these schemes as income support in periods of high unemployment (1995-96).
79. CONOCER is in charge of defining norms for and fostering a standardized system of labour competency certification in Mexico. Surveys among firms and students that

- have used programmes certified by CONOCER show that it has a positive effect on productivity.
80. The mean and median job tenures in Mexico are among the lowest in OECD. Moreover, workers' mobility in the informal sector is twice as large as in the formal sector: according to Calderon Madrid (2000), in 1995, one-half of informal employees had been working in the same firm for more than two years compared with 3/4 of formal employees.
 81. Sixty per cent of the working population has not accumulated pension rights, but there is a minimum pension equivalent to one minimum wage financed on general budget (see Larre and Bonturi (2001) for details on financial and labour market impacts of the pension reform).
 82. See OECD *Implementing the OECD Jobs Strategy: assessing performance and policy*, Annex I.A.
 83. Some analysts cite the existence of a minimum wage as a source of high wage cost. However, the minimum wage (which in Mexico is lower than the official poverty line) has been less and less binding in the last decade. In real terms, it has decreased more than average wages and the share of the urban employees paid between one and two minimum wages has declined from about 40 to 25 per cent, while the share of those paid more than two minimum wages increased (see Annex Figure 23).
 84. The worker used for Mexico in international comparisons earns four times the minimum wage. According to IMSS data 61 per cent of insured workers earn less than that amount. For workers earning the minimum wage Health and Maternity contribution rate can be 10 percentage points higher. The effect on total wedge of this regressive pattern is however limited by the existence of a salary tax credit (see below).
 85. This Federal payroll tax of 3 per cent (increased to 4 per cent by the 2003 budget) was introduced to finance the "salary tax credit". This was an optional tax in the sense that the employer could choose from the following two options: either to pay, obtaining in full the salary tax credit as in the past; or, not to pay the tax, but then the government deducted the payroll tax liability from the entitlement to salary credit. See OECD 2002 *Taxing Wages*.
 86. However, most firms do not comply with the legislation – see 1997 OECD *Economic Survey on Mexico*, which gives more details on this point of the labour law, confirmed by more recent anecdotal evidence.
 87. Severance payments associated with fair dismissals are not much higher than in other OECD countries, but the definition of fair dismissal is the tightest in OECD, with redundancies and poor performance not being normally legal grounds for dismissals. In that case, severance payments are of three months, plus 20 days per year of service.
 88. Most allowed temporary jobs in Mexico are seasonal jobs in the agriculture sector.
 89. See Maloney (1999).
 90. According to Azuara (2003), to receive a pension exceeding the minimum guarantee (equivalent to one minimum wage), rates of return for a worker earning two minimum wages during 40 years have to exceed 8 per cent (5.5 per cent for workers earning three minimum wages). These levels are well above current rates of return.
 91. See Samaniego *et al.* (2000).
 92. Garro and Melendez (2003) defend the view that the regressive structure of Sickness and Maternity contribution rates reduces formal employment opportunities for low-income workers. However, the main reason for not having a progressive tax system is

that this would tend to increase the possibility and profitability of tax evasion in the form of underdeclaration of company incomes and payrolls.

93. Increasing contributions on higher revenues would be a step backwards from the 1997 IMSS reform (OECD *Economic Surveys* 1998 and 2000) and it would probably induce tax evasion or avoidance from higher income groups.
94. "Paper unions" (also called "white unions") have also been used extensively by large enterprises to avoid existing regulation. The progressive welcome democratisation of the industrial relation system will however limit this possibility in the future. These practices also have contributed to making the legal and regulatory environment uncertain and inequitable.
95. There is international evidence that part-time work favours women participation to the labour market. In the case of Mexico, one could argue that it can favour formal labour market participation.
96. In Chile, the introduction of such accounts has not been followed by a significant reduction of severance payments and Mexico should be careful to avoid this problem (see OECD *Economic Survey of Chile*, forthcoming).
97. This is a much better option than limiting withdrawals to unfair dismissals. In Brazil, the necessity of being dismissed without a just cause has several drawbacks (see OECD *Economic Survey of Brazil* 2001).
98. Another important issue is the choice of a scheme for dismissed workers whose amount saved on the personal account is insufficient to cover minimum withdrawals. One option is the use of a solidarity fund as in Chile (see Annex Box 8).
99. Spending of 3.5 pesos on the PET generates only 1 peso of income for the workers. See World Bank (2001).
100. This is the case of the proposal to reinforce of the indirect employer relationship (according to which a firm is responsible for employers' obligations towards workers employed by its sub-contractor). This could raise business costs of subcontracting and result in discrimination against small providers.
101. OECD, 2003, *The Sources of Economic Growth in OECD Countries*.
102. See Nicoletti *et al.* (2003).
103. Practically, all the final decisions issued by the Judiciary, especially those of the Supreme Court of Justice, regarding the constitutionality of Competition Law have been favourable to the Commission's position.
104. Esquivel *et al.* (2002) show for instance that phone density is playing an increasingly important role in explaining the differences in productivity gains between regions.
105. Article 28 of the Constitution lists strategic areas where functions should be exercised exclusively by the State: postal services, telegraph and radiotelegraphy, petroleum and other hydrocarbons, basic petrochemicals, radioactive minerals, nuclear energy, electric power, and the functions of the central bank in producing coins and paper currency. Changing this list necessitates voting a constitutional amendment, which requires a two-thirds majority of both houses of Congress as well as approval by a majority of the state legislatures. Private sector participation in the distribution of power in particular would require a constitutional change.
106. If the state-owned Federal Electricity Commission (CFE), which generates 80 per cent of Mexican electricity, were responsible for all the investment needed, its net debt

- would be multiplied by 5 and its debt/asset ratio would increase to 104 per cent by the year 2011 (compared with 16 per cent in 2001).
107. TELMEX has a market share of 77.1 per cent in domestic long-distance, 71.3 per cent in outgoing international long-distance, and 41.7 per cent in incoming international long-distance market.
 108. This is one of the issues in the WTO dispute proceeding against Mexico.
 109. See decisions of 2001, 2002 and 2003.
 110. The project law also aims at eliminating barriers to enter the industry by simplifying the requirements to obtain concessions for operating or using public telecommunication networks, as well as the requirements for concessionaires to allow interconnection to their networks through procedures explicitly stipulated in the law.
 111. In the 2002 *Economic Survey on Mexico*, it was suggested that all operators should be required to contribute to the universal fund.
 112. The CFC has stated that if the two major airlines, Aeromexico and Mexicana, were not sold to independent owners, the resulting entity would constitute an unlawful concentration subject to attack under the Federal Law of Economic Competition.
 113. Nicoletti *et al.* (2003).
 114. SARE concerns "low public risk activities" as defined by INEGI 1999, which represent more than two-thirds of SMEs creation. Formalities for firm creation in general have to be completed within three months. According to the *Consejo Coordinador Empresarial* survey, in 2001, the average number of days to open a business varied from 27 in Durango State to 88 in the Federal District (down from nearly 120 in 2000).
 115. See OECD, *Regulatory Policies in OECD Countries*, 2002, Box 6.
 116. Besides the Federal Registry of Formalities and Services, other important tools include: the system of electronic tax declarations, various one-stop shop initiatives, the use of regulatory impact analysis and the reinforcement criteria for the simplification of formalities. See OECD 2003, *From red tape to smart tape*.
 117. According to the *Global Competitiveness Report 2002-2003*, Mexico ranks 47th out of 75 countries on the corruption index and 62nd on laws and contracts. Mexico holds the 58th position on the quality of public institutions (based on a combined index) and it ranks poorly in UN statistics concerning crime (in particular robbery and homicide).
 118. Efforts are already made at the federal level. For instance, an institute (*Instituto Federal de Especialistas de Concursos Mercantiles*) providing the federal judges with highly skilled professionals to assist them on technical issues was created in 2003.
 119. See Chapter I above; and OECD (2003) *The Sources of Economic Growth in OECD Countries*.
 120. Mexico also lags behind OECD countries in sciences and technology and innovation system. The weaknesses in those areas are emphasised in reports by CONACyT, which also set out policy orientations both in qualitative and quantitative terms.
 121. These programmes are discussed in greater detail in OECD (2003) *Environmental Performance Review: Mexico*.
 122. For example, the Huelco Bolson aquifer, used for drinking water supplies by El Paso and Ciudad Juarez may be exhausted by 2025 at current pumping rates. There are a further 18 critical bi-national aquifers (EPA, 2003).
 123. Indeed, the number of employees in the federal water utility did not fall after the privatisation of large part of its functions. In the Federal District the number of water utility

- employees per 1000 connections averaged 13.4 in 1993, against 4.6 in Lima, Peru and 2.7 in the United States.
124. 63 per cent of the foreigners were US citizens and 45 per cent of the foreigners are between 5 and 19 years old in 2000 (CONAPO, 2001).
 125. In the early 1980s, about 40 000 refugees came to Mexico from Guatemala, but 75 per cent of these have now returned to Guatemala, the others having been granted permanent residence or Mexican nationality.
 126. Based on Mexico's National Institute of Migration statistics.
 127. The Binational Study (1997) – a study launched in 1994 at the initiative of both governments to analyse the nature, causes and consequences of migration for both countries, named the temporary migrants “sojourners” and the more permanent ones “settlers”. Permanent flows are estimated from the Mexican and US census. Some uncertainty remains, however, about the definitive character of the change in residence (some Mexicans residing in the United States may decide to come back at one point, either during their working life, or when retiring).
 128. Temporary migration flows are based on EMIF data. Temporary outflows for labour motives refer to people stating work or work search as their motive for crossing the border.
 129. Source: CONAPO. 80 per cent of the Mexicans who had been to the United States between 1992 and 1997 (and had come back to Mexico) did it without authorisation (ENADID 1997).
 130. See STPS, *Encuestas sobre Migración en la Frontera Norte de México* (EMIF), Table 3.2.
 131. 62 per cent of migrants crossing the border to the United States were from urban origin in 1998-2003, against 55 percent in the 1993-1997 period. 61 per cent of Mexicans lived in urban areas in 2000, against 57 per cent in 1990. In part, the urbanisation of migration flows is related to the geographical diversification, since migrants from the non-traditional sending states tend to be more urban than those from the traditional sending region. According to the 1997 demographic survey (ENADID), 60 per cent of the migrants came from urban areas in the non-traditional zone of international migration, against 40 per cent in the traditional area (Lozano, 2001).
 132. Still, according to the 1990 census, 13 per cent of the Mexican-born were employed in the agricultural sector and since then the share has increased by more than 3 percentage points.
 133. See ENADID 1992 data shown in Durand *et al.* (2001).
 134. Estimations by the Consejo Estatal de Poblacion (COESPO) of Guanajuato, based on census data.
 135. 59 per cent of the migrants proceeding from the south had no previous international migration experience in 1998/99, against 30 per cent in 1993/94 (source EMIF).
 136. International migrants most often come from municipalities with a medium degree of marginalisation. The index of marginalisation, used by the Mexican authorities to target their anti-poverty policies, is calculated taking into account the access to primary education, housing conditions, the income level and access to infrastructure and health services.
 137. EMIF data of Table 13 show a slightly inferior educational attainment than data from the 2000 census for the 25-49 population (24 per cent in the primary incomplete category, 39 per cent in the primary complete and lower secondary, and 31 per cent above

- that level). Given that the universe considered in the EMIF is the population aged over 12 and 25 as in the census, this probably tends to lower the average somewhat (as youngsters have not been able to reach upper secondary and tertiary levels).
138. According to the 1997 demographic survey, 40 per cent of the migrants who returned to Mexico had a previous experience of internal migration. According to the 2000 Census, the internal migration rate was about 7 per cent.
 139. This section is largely based on the Binational Study Migration between Mexico and the United States (1997), Orrenius (2001), US-Mexico Migration Panel (2001) and Weintraub *et al.* (1997).
 140. Welfare reform legislation denied undocumented immigrants and many legally residing immigrants access to most public benefits, including Medicaid.
 141. CONAPO, population aged 12-64 years old.
 142. The *Matricula Consular* contains holograms and embedded designs. Strong opposition to its recognition has been encountered in some states and some Federal agencies, but support is also provided, notably by deputies at the US Congress.
 143. This programme has existed since 1974. In 2001, it involved about 11 000 Mexican workers. Workers are assured the minimum wage and have right to healthcare, pension, insurance accident and housing.
 144. A network of people fighting human trafficking reports that the US Consulate in Monterrey once discovered a labour recruiter who was charging people \$1 500 for the permits, while the processing cost usually falls below \$200 [<http://pmail.friends-partners.org/pipermail/stop-traffic/2000-November/001120.html>]. More recently, Reuters News (6 February 2003) also reports the apprehensions of four persons (including an employee of the Monterrey US consulate) charged with selling H2A and H2B visas for 1 500 dollars.
 145. The offices of state services to migrants co-ordinate the various programmes directed at migrants and their families and now have a national co-ordination. La Coordinación Nacional de Oficinas Estatales de Atención a Migrantes (CONOFAM) was created in 2000, and has 24 participating states. As to improving knowledge, the Consejo Estatal de Población de Guanajuato, for example, is developing a survey at the state level with its federal counterpart (CONAPO) and the Colegio de la Frontera Norte. They have also developed a Guanajuato module for the Northern Border Survey (EMIF).
 146. OECD (2003), *Trends in International Migration*: SOPEMI 2002 Edition.
 147. Source: Instituto Nacional de Migración (INM).
 148. The *Plan Sur* increased the number of border agents, established new blocks and increased military participation. 150 000 persons were deported in 2000, and about 140 000 in 2001, sending them back directly to their country of origin instead of leaving them at the border.
 149. Source: EREM survey, conducted in 6 towns of the states of Jalisco, Guanajuato and Zacatecas (Papail, 2002). Data are corrected for the age structure. While the average annual wage in Mexico in 2002 was 5 894 US dollars, the average for Mexican-born in the United States was 28 818 US dollars, and for non-Hispanic Americans, it was 37 514 US dollars (Banamex, May 2003).
 150. According to the survey at the northern border (EMIF), 70 per cent of the emigrants to the United States were in search of a job.

151. Their share is much higher in the Los Angeles region, where they represented already more than 50 per cent in of the workers in 1990. While Mexican *maquiladoras* have specialised in the mass production of standardized garments, the leading garment districts in New York and Los Angeles retained jobs in design, as well as in direct production for the small-batch, high-fashioned garments, the latter relying on low-cost immigrant labour.
152. This is particularly the case for apparel, electronics and computer-related goods.
153. The wage in the formal sector is measured based on the average contribution wage to the IMSS.
154. The returns to education, defined as the incremental revenue from additional years of education relative to the average earnings, are higher in Mexico than in the United States.
155. As noted by Chiquiar and Hanson (2002), the better educated Mexicans may be better able to manage the US immigration process and may be less subject to credit constraints. This finding goes against the hypothesis of a negative selection bias developed by Borjas (1987).
156. For an analysis of the international mobility of the highly-skilled workers, see Guellec and Cervantes (2002).
157. It is interesting to note that US students are also increasingly going to Mexico; in 2000/01, they were 8 360. Mexican students have a low mobility intensity, about half the OECD average (Tremblay, 2002).
158. The study by Adams uses data from the 2000 US Population Census, referring to foreign-born individuals residing in the US, aged 25 and over. The figure for Mexico may somewhat over-estimate the outflow of the highly-educated Mexicans, since a number of Mexican-born in the US may have come as children and received their education in the US. Considering a wider set of data on immigration to OECD countries, international migration takes much more than 10 per cent of those with tertiary education in other countries, as well. For instance it takes more than 30 per cent in Turkey, Morocco and Tunisia.
159. Source: EMIF 1998-1999.
160. Papail (2002). Training was provided mostly to the more educated (over 10 years of education).
161. The returns to US experience are also found to be twice as high as those of getting secondary education, thereby providing persons who do not plan to continue their education beyond the lower secondary a powerful incentive to migrate at a young age.
162. The data used came from a 1 per cent subsample of the 2000 Mexican Census. School attendance is compulsory until age 10, and after 15, children often no longer live with their parents, which makes it impossible to link them to their original family. Potential simultaneity biases between household migration behaviour and schooling outcomes are controlled for by treating household migration behaviour as endogenous, using as instruments the interaction of historical state migration patterns and household characteristics. Controlling for the various factors affecting schooling other than migration, such as household resource constraints, the education level of parents, the location in a rural or urban area, and local labour market conditions, the estimated increase ranges from 0.7 year to 1.6 years of schooling, with a much larger impact for girls than for boys, and for older children than for younger ones, suggesting that schooling outcomes of these groups are more sensitive to fluctuations in household income.

163. Other changes, which are particularly difficult to measure, include i) the shortfall in the taxable profits of the enterprise in which the migrant was previously working, and ii) the increase in the taxable profits of the banks or other companies operating the transfers of remittances to Mexico.
164. From 1994 to 2001, the annual border-enforcement budget of the INS nearly tripled to more than 2.5 billion dollars, and as a result of heightened security concerns following the September 11 events it may exceed 5 billion dollars in the fiscal year 2003.
165. In 2000, for example, 369 persons died when trying to cross the border, mostly due to harsh climate conditions faced during the long walks in the desert.
166. Coyotes are generally previous migrants. Spener (2001) emphasizes the fact that few of them are part of major smuggling rings, and that they are rarely connected with organised crimes. In Mexico, they are more perceived as “service providers” than as criminals.
167. With only a small part likely to remain in the United States to pay for the costs associated with the conveying of migrants on the US territory.
168. To some extent, remittances might include transfers stemming from money laundering, which would explain part of the discrepancies among statistics.
169. Improved technology and secure transactions, the entry of banks in the remittance industry and the increased number of distribution outlets in Mexico and recollection outlets in the United States have all been factors contributing to increase the share of remittances sent by emigrants through formal channels.
170. The average allowance received through PROGRESA for food and education was around 340 pesos a month in 2000 (SEDESOL data), *i.e.* about US\$560 a year.
171. Source: Papail (2002) and own calculation based on Zárate-Hoyos (1999). These figures take into account both the remittances per se and the savings accumulated by migrants in the United States that are brought or sent back on return to Mexico. Data from the Mexican Migration Project used by Zárate-Hoyos (1999) show that the propensity to invest savings in productive activities is 17 per cent, against 3.7 per cent for remittances. Savings represent about 25 per cent of the amounts remitted.
172. Indeed, the increasing integration of the economy is probably reducing the indirect effects of remittances at the local level, just as the integration of Mexico into the North American market may reduce their indirect effect at the national level.
173. See Corona (2000).
174. Source: Goldring (2003).
175. In fact, the cost of sending remittances from the United States to Latin America has remained higher than to the rest of the world (O’Neil, 2003).
176. See “Analiza EU acceso bancario a inmigrantes”, Reforma, 12 February 2003.
177. Based on data provided by Orozco (2000) for Western Union.
178. For example, some banks charge monthly maintenance fees. Other charge extra fees for withdrawing money via ATM, when a sender or a recipient contacts a person in the bank for inquiries regarding the remittance, and/or when there is more than one withdrawal during a given period of time, etc. (Orozco, 2003).
179. See Garcia Zamora (2000).
180. BANSEFI would help them to manage their liquidity and would provide accounting services. For details on BANSEFI see Annex III of the OECD *Economic Survey* 2002.

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181. BANSEFI is already distributing social assistance provided under *Oportunidades* (previously PROGRESA); here it would also make the link with housing subsidies provided by various public housing funds (FONAPO, FOVI, INFONAVIT).
 182. This would, among others, allow them to benefit through BANSEFI from the new transfer system put in place by the central bank and thus to lower the exchange rates fees.

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BASIC STATISTICS OF MEXICO

THE LAND

Area (sq. km)	1 964 375	Inhabitants in major metropolitan areas (million, 2000)	
Agricultural area (sq. km) (1990)	394 000	Mexico City	18.1
Forests (thousand sq. km)	65	Guadalajara	3.7
		Monterrey	3.3

THE PEOPLE

Population (thousands, Census 2000)	97 483	Employment ¹ (thousands, 2002)	41 086
Inhabitants per sq. km, 2000	49.6		
Annual population growth, 1990-2000	1.85		

PRODUCTION

Structure of production, 2002 (per cent of total, 1993 prices)		GDP in 2002 (US\$ billion, current prices and current PPPs)	935.3
Agriculture	5.4	GDP per capita in 2002 (US\$, current prices and current PPPs)	9 224
Industry	26.7	Gross fixed capital formation in 2002 (per cent of GDP, 1993 prices)	19.3
<i>of which:</i> Manufacturing	19.8		
Services	67.9		

THE GOVERNMENT

Public sector indicators (per cent of GDP, 2002)		Composition of Parliament (Sept. 2003)	Senate	Chamber of Deputies
Public sector total expenditure	23.7	PRI	20	222
Federal government total expenditure	18.4	PAN	46	151
<i>of which:</i> Capital expenditure	2.2	PRD	16	95
Federal government revenue	16.1	Other	6	28
Net debt of public sector (December 2002)	25.2			

FOREIGN TRADE

Exports of merchandise (per cent of GDP, 2002)	25.2	Imports of merchandise (per cent of GDP, 2002)	26.5
Main exports (per cent of total, 2002):		Main imports (per cent of total, 2002):	
Manufactures	88.3	Intermediate goods	75.0
Petroleum products	9.0	Capital goods	12.4
Agriculture	2.4	Consumer goods	12.6

THE CURRENCY

Monetary unit: Peso		Currency unit per US\$, average of daily figures:	
		Year 2002	9.6605
		September 2003	10.9231

1. People economically active according to results of the Quarterly National Employment Survey.

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.

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The economic situation and policies of Mexico were reviewed by the Committee on 20 October 2003. 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 31 October 2003.

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The Secretariat's draft report was prepared for the Committee by Bénédicte Larre, Stéphanie Guichard and Ann Vourc'h under the supervision of Nicholas Vanston.

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The previous Survey of Mexico was issued in April 2002.