

IV. TRADE POLICIES BY SECTOR

(1) OVERVIEW

1. The progressive opening to foreign competition of the Mexican market has continued to place strong pressure for change on all economic sectors, and has brought about considerable improvements in numerous areas. In the agriculture sector, while most activities have modernized and have benefited from increased access to foreign markets, notably in the United States, others remain small scaled and mainly oriented to self consumption. Largely to increase the participation of the private sector in the commercialization of agricultural products, Mexico has introduced important institutional changes since 1997, including the elimination of CONASUPO. Mexico maintains various programmes designed to provide direct income support to farmers and to promote their productivity and competitiveness. Indicators of assistance to the agricultural sector have increased substantially since 1997, mainly as a result of depressed international prices. As noted in Chapter III, Mexico applies tariff quotas to several agricultural products, with most quotas reserved for specific countries, as indicated in its WTO Schedule of Commitments.

2. The energy sector remains largely under state control, as constitutional provisions restrict private participation in strategic areas such as the exploitation of hydrocarbons and the supply of electricity to the public. The capital-intensive nature of petroleum and electricity projects means that these two industries draw close to 57% of public sector investment. In view of Mexico's fiscal constraints (see Chapter I) and to meet the investment requirements imposed by its growing energy demand, the Government is seeking ways to increase private participation in energy while retaining its control of existing state-owned companies in the sector.

3. The manufacturing sector has confirmed its crucial role as a key catalyst for economic growth. The sector is well diversified and includes several world-class industries; its expansion has been closely tied to its ability to compete in foreign markets. The sector has also benefited, however, from strong government support through special trade and investment regimes. The close interlocking of the Mexican manufacturing sector with production chains in the United States has brought about considerable benefits; however it has also exposed the sector to U.S. cyclical downturns, as evidenced by the significant contraction of manufacturing activity since late 2000.

4. In the services sector, important changes have been made to the legal and institutional framework, often secured or otherwise linked to Mexico's multilateral and preferential liberalization initiatives. The degree of State involvement in the sector has continued to decrease in recent years although, as noted, not in the electricity sector. Increased competition and growing foreign participation have gone hand-in-hand with major adjustments to the market structure of key activities, notably financial and telecommunications services. However, competition policy concerns have arisen in recent years in the telecommunications market, and in domestic transport, which remains largely closed to foreign participation.

(2) AGRICULTURE

(i) Main features

5. Agriculture is an important sector for the Mexican economy in terms of employment, but less so in relation to value added or trade, both of which have been declining with respect to other sectors. Between 1997 and 2000, the agriculture sector (including forestry and fishing activities) grew at a real annual average rate of 2.4%, compared with an average growth rate for total GDP of 5.2%. As a result, the share of agriculture in total GDP fell from 6.5% in 1996 to 5.6% in 2000. The contribution of forestry to agricultural GDP remained minor but increased slightly, from 4.1% in 1996 to 4.4%

in 2000, while that of fishing activities fell from 3.2% to 2.7%.¹ Over the same period, employment in the sector contracted from 22.5% of total employment to close to 18%, mainly as a result of rural migration and the increase of non-agricultural activities in the rural communities.

6. Mexico's geography favours the production of a wide variety of agricultural products, ranging from temperate to tropical crops. In 2001, the value of agricultural output amounted to some Mex\$272 billion; grains and oilseed production accounted for around 17% of the total, followed by fruit (10%) and vegetables (10%). Maize (principally for human consumption) remains the main agricultural commodity in terms of value (10.3% of the total), followed by sugar cane, alfalfa, and tomatoes. Livestock products account for some 51% of the total value of agricultural output: bovine, poultry, and swine meat are the major livestock products, followed by dairy products. Large differences in production conditions persist within the agriculture sector: on the one hand, a large number of farmers work small plots of rain-fed land for subsistence; on the other, there is a modern sector, with large, plots, producing for the domestic and international markets.

7. Mexico exported agricultural products (WTO definition) with a value of US\$9.1 billion in 2000. Main export products include fresh vegetables, fresh fruit and coffee; prepared food and beverages, notably beer, tequila, and tinned products are also important exports. Mexico is a net importer of agricultural products; the total value of imports of these products reached US\$11.6 billion in 2000. Major agricultural imports include fresh or refrigerated meat, soybeans, corn, oilseeds, sorghum, cotton, and wheat.

8. FTAs are fostering trade and structural change in Mexican agriculture. Mexican agricultural products have benefited from NAFTA integration through new market access opportunities arising both from tariff reductions and increased disciplines with respect to sanitary and phytosanitary measures, which have secured market access for products such as fruit and vegetables. Meanwhile, import growth has been particularly strong for livestock, bovine meat, cotton, maize, sorghum, soybeans, and soybeans oil. The volume of Mexican livestock and grain production, though, has remained generally constant in recent years; exceptions include relatively large increases in barley, poultry and dairy output, and a significant fall in cotton production. For several products, domestic production has been growing at a lower rate than consumption, which has led to higher imports: between 1996 and 2001, the ratio of imports to domestic consumption increased significantly for bovine and swine meat, rice, sesame, sorghum, and wheat. On the other hand, this ratio fell for beans, a trend that might be explained by decreasing per capita consumption for this product. In maize, the increase in production and imports has been mainly driven by consumption in the livestock sector. The import-consumption ratio also fell for milk and eggs, the only products for which this occurred despite an increase in per capita consumption (Table AIV.1 and Table AIV.2).

9. The sugar industry in Mexico has a high social impact, and is defined in the Mexican legislation as of public interest due, in particular, to the employment it generates in rural areas and the importance of sugar as a basic consumption product for low income families. Since Mexico's previous Review, the sugar industry has come under strong pressure, notably as a result of the debt burden contracted during the privatization process which increased during the 1994 financial crisis; the production of increasing surpluses, which have resulted in depressed domestic prices; the increasing share of domestic production exported at international prices, which affected the profitability of the sugar mills; and the increasing use of sugar cane substitutes, mainly high fructose corn syrup, by the beverage industry. In January 2002, in a move to try to discourage substitution of sugar cane by other sweeteners, Mexico established an excise tax of 20% on soft drinks that are not sweetened with sugar cane (Law published in the Official Journal on 1 January 2002).

¹ These shares are based on real GDP (at 1993 prices) and thus differ slightly from the shares presented in Table I.1, which are based on nominal GDP.

10. These adverse circumstances have led several sugar mills into serious financial problems, notwithstanding substantial support, notably through loans and border protection. FINA, the government-controlled bank for the sugar industry held a debt of some Mex\$16.1 billion (some US\$1.7 billion) at the time of its liquidation in September 2000. Border protection has helped maintain domestic sugar prices well above their international levels – over 200% higher – at a considerable cost to domestic consumers.² In September 2001, the Mexican Government expropriated 27 sugar mills in an effort to address their financial problems, and to allow an efficient functioning of the industry. The Department of Agriculture took charge of the administration of the expropriated mills, which account for half of Mexican sugar production. A state trust was created in December 2001 to run the mills, with a view to reprivatization.³

11. Preferential trade in sugar between Mexico and the United States has been the subject of a dispute between the partners. For Mexico, the arrangement should allow the export of its total net surplus of sugar production to the United States from October 2000, which given the higher prices for sugar in the United States compared with conditions in the international market, might result in substantial profits for Mexican exporters. For fiscal year 2001, the sugar quota allocated to Mexico on the basis of its historical trade with the United States amounted to 7,258 tonnes of raw sugar (which accounted for 0.6% of the total allocated on this basis); in addition, Mexico was granted 2,954 tonnes of refined sugar, and 105,788 tonnes of raw sugar on the basis of bilateral agreements.⁴

(ii) Policy objectives and instruments

12. Since Mexico's previous Review in 1997, important changes have been introduced to increase the participation of the private sector in the commercialization of agricultural products and strengthen the links between the productive sector and market signals. The major change was the elimination of the state entity, Compañía Nacional de Subsistencias Populares (CONASUPO) in 1999, which resulted in the redistribution of its exclusive rights on import tariff quotas for powder milk to consuming and processing firms through a new allocation mechanism (Chapter III(2)(v)); the elimination of guaranteed prices for maize and beans; and the transfer of most of CONASUPO's warehouse network to producers, through the state governments, or to the private sector through public bids.

13. In January 2002, the new Administration's agricultural objectives for the period 2000-06 were about to be published. For the period 1997-01, the agricultural policy pursued the objectives established in the Agricultural and Rural Development Programme for 1995-2000, which included: to raise producers' income and contribute to rural poverty alleviation; to increase agricultural and livestock production more rapidly than population growth; to contribute to food security in basic foodstuffs; and to balance agricultural trade. The main instruments to achieve these objectives included the following programmes: PROCAMPO; the Alliance for Agriculture; and Marketing Support and Regional Markets Development (see below).

(a) Instruments directly affecting trade

14. Agricultural products benefit, on average, from higher MFN tariff protection than non-agricultural products (respectively 24.9% and 15.6% as at May 2001).⁵ Tariff protection for non-MFN originating goods is, however, relatively low (e.g. 4.9% for imports from the United States); moreover, such protection is being reduced progressively as provided for in Mexico's preferential trade liberalization schemes. In the case of NAFTA, tariffs for most agricultural products should be

² In May 2001, the average domestic producer price for standard sugar was some US\$0.195 per pound (Mex\$197 per 50 kg.) while the international price was US\$0.0895 per pound (Caribbean price, New York).

³ Decree published in the *Official Journal* on 3 September 2001.

⁴ USTR (2000).

⁵ Based on the WTO definition of agricultural products.

eliminated in 2003, except for maize, dry beans, milk, and sugar for which tariffs should be eliminated in 2008.

15. In its WTO Schedule of Concessions Mexico included tariff quotas for several agricultural products, including poultry meat, animal fats, milk, cheese, beans, potatoes, coffee, wheat, barley, maize, and products with a high sugar content. Mexico also maintains certain tariff quotas for imports from all preferential partners except from Bolivia, EFTA countries, and El Salvador (Chapter III(2)(v)).

16. In some cases tariff quotas have proved to be too limiting, and the Mexican authorities have allowed imports in excess of the quota at the in-quota rate to avoid a negative impact on expanding food-related industries and to meet other consumer demands; this was the case for barley, maize, and poultry meat, of which extra imports at the in-quota rate were authorized in order to supply the needs of the beer, maize's chemical derivatives, and foodstuff industries.⁶

17. Between 1994 and 1999, as a proportion of domestic production, in-quota imports from NAFTA partners, which as noted account for almost all in-quota imports, remained on average below 5% for milk, eggs, and potatoes; the highest ratio corresponded to barley, maize, and poultry (Table IV.1).

Table IV.1
Ratio of NAFTA tariff quota imports to domestic production, 1988-99
(percentage)

Product	Average 1988-1993	Average 1994-1999
Poultry	11.01	17.14
Milk	6.92	4.30
Eggs	0.65	0.58
Potatoes	1.32	2.40
Barley	28.12	60.79
Maize	16.00	22.33
Beans	7.17	8.31

Source: Department of Economy (2000). *El TLCAN en el sector agroalimentario mexicano a seis años de su entrada en vigor*, [online]. Available at: <http://www.economia-snci.gob.mx/> [22 October 2001].

18. The importation of several agricultural commodities is subject to the "special safeguard" clause available under the WTO Agreement on Agriculture; however, Mexico has not invoked this provision to date.

19. Specific safeguard provisions for a few agricultural products are also contained in Mexico's free-trade agreements. In particular the NAFTA provides for a special safeguard mechanism, which is activated through the publication of a decree in the *Official Journal* when imports exceed a given quantity. Imports exceeding the quota are subject to the base tariff rate applied in 1994 or the MFN rate in force, whichever is lower. This mechanism should expire ten years after the entry into force of the NAFTA. In the case of Mexico, 17 tariff items are covered, including products such as live swine, swine meat, potatoes, apples and extracts, and essences or concentrates of coffee,. Based on information for the period 1994-99, imports into Mexico exceeded the agreed quotas at least once for all items covered, except coffee products, thus resulting in the activation of the mechanism.⁷ Quotas are based on average imports for 1989-91, increased by 3% or 5% per year depending of the country of origin or the product.

⁶ Department of Agriculture, Rural Development, Fisheries and Food (2000).

⁷ See SAGARPA (2000) for details on Mexico's imports of products covered by NAFTA special safeguards.

20. In relation to sanitary and phytosanitary measures, isolated complaints were raised about Mexico's practices (Chapter III(2)(ix)). Some Mexican states have been found to be restricting competition through unnecessary barriers to out-of-state imports of agricultural products (Chapter III(4)(i)).⁸ Mexico also imposed anti-dumping duties on agricultural products (Chapter III(2)(x)).

21. Export taxes have been used sporadically to discourage exports of subsidized agricultural products destined for domestic consumers (Chapter III(3)(ii)).

(b) Internal policy instruments

22. The PROCAMPO programme, created in 1994, makes payments to eligible farmers according to the area planted during a historical base period, on condition that the land continues to be used for agricultural activities or for an environment programme. PROCAMPO, a direct support programme, aims to increase farmers' income, and favour progressive shifts in production patterns to better reflect comparative advantages.

23. The number of farmers and the cultivated area benefiting from PROCAMPO's disbursements remained relatively stable between 1996 and 2001, at some 3 million farmers and 14 million hectares. The rate of payment per hectare increased from Mex\$440 (some US\$56) for the 1996 autumn-winter sowing season to Mex\$778 (some US\$86) for the 2001 autumn-winter sowing season; as a result, the total PROCAMPO payments increased from Mex\$6.8 billion (some US\$866 million) to Mex\$11.7 billion (some US\$1.3 billion) (Table IV.2). However, as noted by the authorities, these figures remain below their 1994 levels; payments per hectare in 2000 were, in real terms, some 30% lower than in 1994.

Table IV.2
Direct payments under the PROCAMPO programme, 1996-01

	1996	1997	1998	1999	2000	2001 ^a
Total payments (million pesos)	6,793	7,533	8,492	9,372	10,379	11,752
Rate of payments (pesos per hectare)						
Autumn-winter	440	484	556	626	708	778
Spring-summer	484	556	626	708	778	829
Benefiting area (thousand hectares)	14,305	13,885	13,869	13,528	13,571	14,000
Benefiting producers (thousand)	2,987	2,850	2,780	2,724	2,681	2,800

a Provisional figures.

Source: Poder Ejecutivo Federal, *Primer Informe de Gobierno*, [online]. Available at: <http://www.presidencia.gob.mx/>.

24. The Alliance for Agriculture (Alianza para el Campo) consists of a set of specific measures primarily aimed at improving farmers' skills and stimulating technological development to increase the productivity and competitiveness of the agriculture sector. A key feature of the Alliance is the decentralization of decision-making from federal to state level through state agricultural councils, involving state governments and agricultural producers. The Councils are responsible for the allocation of federal and state resources to the various programmes available under the Alliance. The authorities consider this decentralized approach to decision-making essential for improving the efficiency of resource-use, given Mexico's large regional differences. For 2001, the Alliance consisted of some 24 schemes coordinated at the federal level and 11 schemes defined at the state level.

⁸ See for instance the CFC case I0-08-99 on barriers to trade in the State of Sinaloa [online]. Available at: <http://www.cfc.gob.mx/>.

25. Between 1996 and 2001, the federal resources engaged in the Alliance increased at a real average annual rate of some 11%. For 2001, the budgeted federal contribution to the Alliance amounted to Mex\$4.7 billion while the states contribution amounted to Mex\$1.7 billion. Most of these resources were allocated to the Department of Agriculture for programmes in the following areas: agriculture and livestock (36.6% of the total); rural development (44.2%); and animal and plant health (6%). The remaining resources were allocated to the National Water Commission, mainly for the development and modernization of irrigation infrastructure (Table IV.3). In order to benefit from Alliance support programmes, producers are required to finance part of the cost of the project; in 2001, budgeted producers' contribution was equivalent to some Mex\$4.5 billion (some 70% of the total resources from the federal and state governments). Some Alliance programmes under the heading "Rural Development" include training and extension and elementary technical assistance activities aimed mainly at low income producers.

Table IV.3
Budgetary outlays allocated to the Alliance for Agriculture programme, 1996-01
(Million pesos unless otherwise specified)

Type of programme	1996	1997	1998	1999	2000	2001 ^a
Total outlays	1,880.2	2,918.5	3,512.7	4,513.0	4,737.5	6,449.6
Share by state governments (%)	36	38	32	33	31	27
Department of Agriculture (SAGARPA)	1,880.2	2,669.6	3,010.3	3,959.8	4,117.9	5,802.9
Agriculture and livestock	1,109.3	1,495.6	1,762.7	2,164.4	1,835.0	2,636.8
Irrigation system	959.5	1,175.7	1,509.3	1,693.4	1,341.7	426.6
Mechanization	209.1	245.8	201.0	239.0	217.7	267.5
Kg. per kg. programme	50.2	155.1	187.0	232.7	137.9	227.2
Oilseeds	34.3	49.2	114.6	148.3	88.0	127.8
Transfer of technology	126.5	133.0	150.8	176.7	162.5	339.3
Other agricultural programmes	16.0	59.0	141.1	298.4	180.5	284.6
Prairie programmes	152.5	239.6	187.5	205.4	180.2	178.7
Milk programme	112.3	113.5	111.3	145.1	124.9	134.1
Cattle programme	96.9	145.0	138.7	158.0	176.9	n.a.
Genetical improvement	70.0	80.1	61.6	50.0	59.6	292.8
Beekeeping programme	0.7	13.3	21.4	19.4	22.3	27.8
Other livestock programmes	17.6	19.2	47.7	84.2	89.2	155.3
Information programme	4.5	22.4	22.5	26.6	29.0	48.9
Other programmes	20.0	20.0	11.0	74.0	82.2	126.2
Rural development	488.7	805.7	970.8	1,451.1	1,911.9	2,648.5
Support for rural development	238.1	360.3	383.8	591.0	659.8	948.4
Training	91.5	240.8	279.5	360.6	360.2	444.0
Coffee programme	135.2	128.7	199.3	200.1	265.7	338.0
Development in rural areas	n.a.	41.5	56.1	140.2	171.5	335.6
Rubber programme	15.3	21.1	20.1	20.6	26.5	59.2
Cocoa programme	7.3	5.8	9.2	12.4	20.9	52.3
Marketing training	n.a.	n.a.	n.a.	91.0	168.0	218.9
Other programmes	1.2	7.3	22.7	35.2	239.2	252.1
Sanitary programmes	155.8	235.3	276.9	344.2	370.9	517.5
National Water Commission (CAN)	n.a.	249.0	502.4	553.2	619.7	646.7

n.a. Not applicable.

a Preliminary figures.

Source: Poder Ejecutivo Federal (2001).

26. The marketing of agricultural products is supported through the Programme of Marketing Support and Regional Markets Development run by ASERCA (Support Services for Agricultural Marketing), which is also responsible for the implementation of the PROCAMPO programme. ASERCA does not itself purchase agricultural commodities. Between 1995 and 2000, marketing support was granted to specific regions and products; major products covered included maize, rice, sorghum, and wheat. The amount of support was estimated on the basis of a target price; resources were channelled to producers indirectly through support granted to the buyers who requested the lowest amount of support per tonne. This scheme was changed in 2001: currently support is granted directly to the producers without intervention of the buyers, and the range of eligible products and regions has been extended (it now also includes barley, canola, copra, peanuts and safflower), transactions are made at market prices rather than on the basis of a target price; and a fixed budget is granted to each State for this programme. The total outlays under ASERCA's programmes increased from Mex\$491 million (US\$64.6 million) in 1996 to Mex\$3,5 million (US\$376.8 million) in 2001. This increase is essentially due to the significant fall in the price of many agricultural products since 1996 (Table IV.4).

Table IV.4
Marketing support programme, 1996-00
('000 pesos and tonnes)

Product		1996	1997	1998	1999	2000	2001 ^a
Total outlays	pesos	490,843	2,035,217	1,930,620	1,573,619	2,928,509	3,544,142
Rice	tonnes	254	290	349	281	276	300
	pesos	18,812	25,452	50,904	42,224	69,087	76,407
Wheat ^b	tonnes	n.a.	2,355	2,780	2,820	1,782	2,740
	pesos	17,508	707,298	844,563	831,059	766,510	966,149
Sorghum	tonnes	1,234	2,376	1,652	1,435	699	1,628
	pesos	358,437	366,787	264,668	200,917	123,366	391,740
Maize	tonnes	238	3,069	1,750	1,377	2,885	3,792
	pesos	64,098	935,680	770,485	368,133	825,241	1,402,278
Soya	tonnes	n.a.	n.a.	n.a.	n.a.	n.a.	132
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	56,201
Safflower	tonnes	n.a.	n.a.	n.a.	n.a.	n.a.	120
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	47,983
Cotton	tonnes	60	n.a.	n.a.	146	n.a.	17
	pesos	31,988	n.a.	n.a.	131,286	n.a.	10,216
Peanuts ^c	tonnes	n.a.	n.a.	n.a.	n.a.	n.a.	26
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	8,000
Barley ^c	tonnes	n.a.	n.a.	n.a.	n.a.	n.a.	11
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	2,291
Canola ^c	hectares	n.a.	n.a.	n.a.	n.a.	n.a.	2
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	1,200
Copra ^c	hectares	n.a.	n.a.	n.a.	n.a.	n.a.	20
	pesos	n.a.	n.a.	n.a.	n.a.	n.a.	15,000
Development of regional markets	tonnes	n.a.	n.a.	n.a.	n.a.	3,116	2,595
	pesos	n.a.	n.a.	n.a.	n.a.	1,144,305	566,677

n.a. Not applicable.

a Preliminary figures.

b Support for wheat was suspended for 1996, payments included in the table correspond to payments due from the previous year.

c Programme started in 2001.

Source: Poder Ejecutivo Federal, *Primer Informe de Gobierno*, [online]. Available at: <http://www.presidencia.gob.mx/>.

27. Although the agriculture sector is serviced by various development banks and trusts funds, notably BANRURAL and the Trust Fund for Agriculture (FIRA), the authorities indicated that Mexican producers face serious credit-access difficulties; credit granted to the sector has decreased significantly in recent years. Between December 1996 and May 2001, the total credit granted by commercial banks decreased from the equivalent of US\$6.3 billion to US\$3.3 billion, while credit from development banks fell from some US\$2.4 billion to US\$1.7 billion.⁹

28. Specialized insurance services for the agriculture sector are provided by AGROASEMEX at government subsidized rates; coverage is offered mainly for meteorological risks. Due to the high administrative costs of AGROASEMEX operations and the high levels of claims, it was shifting its operations to second-tier activities. Before 2001, the subsidy of the cost of insurance premiums by other companies was 30%. In 2001, in order to enhance the use of insurance, the subsidy was modified to a range between 25% and 45%, depending on the product and the region. The total area covered by insurance has increased steadily since 1996, reaching 2.1 million of hectares in 2001.¹⁰

(iii) Indicators of assistance to agriculture

29. The total producer subsidy equivalent (PSE) estimated by the OECD indicates that the value of transfers to Mexican farmers associated with agricultural policies reached some US\$6.1 billion in 2000, or 18% of the value of agricultural production, which is substantially higher than its 1996 level (some US\$1.9 billion or 13% of the value of production). In 2000, the total support estimate (TSE), which includes transfers from consumers and taxpayers and net tax revenues, amounted to US\$7.5 billion in 2000, which represented 1.3% of GDP (Table IV.5). The increase of the PSE observed between 1999 and 2000 was mainly due to a significant increase of price support, from some 9.2% of the total value of agricultural output in 1999 to some 13.6% in 2000. This increase was mainly explained by the sharp decrease of international prices observed between 1996 and 2000, and the subsequent increase in marketing support outlays (Table IV.4).

30. According to the authorities, federal public expenditures for the agriculture sector reached Mex\$24.7 billion pesos (some US\$2.6 billion) in 2000; PROCAMPO accounted for 42% of total expenditures, the Alliance for Agriculture accounted for 11%, and marketing support programmes for some 17%.

31. In its Uruguay Round commitments, Mexico undertook to cut financial support for agricultural producers, as defined for the purposes of the negotiations, from just under Mex\$29 billion, the level of the Aggregate Measurement of Support (AMS) in the base period 1986-88, to a little over Mex\$25 billion in 2004 at 1991 prices. In its notification concerning domestic support commitments for 1996, 1997 and 1998, Mexico indicated that the total AMS increased from Mex\$0.9 billion in 1996 to some Mex\$3.8 billion in 1998.¹¹ Despite this significant increase, the total AMS remained substantially lower than the committed level, which for 1998 was just under Mex\$27.5 billion.¹² In 1998, the bulk of support was granted to maize (74.5% of the total AMS); other products supported were beans (16.6%), wheat (6.5%), sorghum (2.0%), and rice (0.4%).

32. Mexico notified that in 1997 and 1998 export subsidies were granted to sugar and wheat. In 1997, some 241,000 tonnes of sugar were subsidized, representing an outlay of US\$40.9 million (commitment levels stood at 1.446 million tonnes and US\$525 million); while in 1998 some

⁹ Poder Ejecutivo Federal (2001).

¹⁰ Poder Ejecutivo Federal (2001).

¹¹ Figures in 1991 constant prices.

¹² WTO document G/AG/N/MEX/7, 15 September 2000.

224,000 tonnes of wheat were subsidized, representing an outlay of US\$5 million (commitment levels were 374,000 tonnes and US\$10.9 million). No other export subsidies for agricultural products have been notified to the WTO.¹³

Table IV.5
Producer subsidy equivalents and total support estimate, 1996-00
(Million pesos, unless otherwise specified)

		1996-98	1998	1999	2000 ^a
Producer subsidy equivalent					
All commodities	total	31,056	37,022	41,259	58,004
	(US\$ million)	..	4,052	4,315	6,134
	%	14	14	15	18
Wheat	total	1,253	1,504	1,822	2,086
	%	22	30	37	37
Maize	total	6,356	9,762	12,089	15,707
	%	23	32	39	46
Other grains	total	1,551	1,954	2,756	3,514
	%	18	23	33	37
Rice	total	67	49	206	361
	%	9	6	25	38
Oilseeds	total	44	113	207	171
	%	12	26	48	45
Sugar	total	3,378	4,667	6,878	7,478
	%	34	39	57	56
Milk	total	5,886	8,327	10,377	11,774
	%	34	42	43	45
Beef and veal	total	231	3,330	1,719	2,842
	%	1	19	9	14
Pigmeat	total	3,163	347	1,645	1,680
	%	24	4	15	12
Poultry	total	654	-359	-2,018	2,059
	%	3	-2	-11	8
Eggs	total	-1,883	-3,253	-4,580	-5,112
	%	-20	-32	-44	-45
Total support estimate (TSE)		..	50,786	52,158	71,048
		(US\$ million)	..	5,559	7,514
Transfers from consumers		..	29,458	34,665	52,222
Transfers from taxpayers		..	26,855	24,522	26,084
Budget revenues		..	-5,526	-7,029	-7,257
TSE as a share of GDP		%	1.3	1.1	1.3

a Provisional figures.

.. Not available.

Source: OECD, Agricultural Policies, Markets and Trade in OECD Countries, Paris, various issues.

(3) ENERGY

33. The energy sector contributes some 3% to Mexico's GDP, 8% to total exports, and draws close to 57% of public sector investment.¹⁴ In 2000, the total supply of primary energy to the domestic market amounted to 4.8 million barrels of oil equivalent per day; of this, 8.2% was supplied by imports, up from 4.4% in 1995. In 2000, domestic production of primary energy reached 4.4 million barrels of oil equivalent per day, of which hydrocarbons represented 89%. Demand for primary energy increased at an average annual rate of 4.1% during 1995-00. At the end of this period,

¹³ WTO document G/AG/N/MEX/8, 14 September 2000.

¹⁴ Data in this and the following paragraph from Department of Energy (2001).

37% of Mexico's primary energy was destined for export, 15% for transport, 13% for industry, 8% for residential, commercial and public-sector consumers, and the remainder for other users.

34. The authorities estimate that over 2000-09 the total investment necessary to meet Mexico's growing energy demand will amount to some US\$139 billion, of which US\$59 billion will be required by the electricity industry, US\$40 billion by exploration and production of crude petroleum, US\$21 by the natural gas industry, and US\$19 billion by refining activities.

35. Articles 27 and 28 of the Constitution give the State the exclusive right to exploit hydrocarbons and to supply electricity to the public. These constitutional provisions have restricted private participation in the sector, and, over time, quasi-monopoly powers on key energy activities have been ceded to the national oil company, *Petróleos Mexicanos* (PEMEX), and on the public distribution of electricity to the Federal Electricity Commission (CFE) and its affiliate Central Light and Power (LFC).

36. The Department of Energy is responsible for, among other things, the exercise of the nation's rights over petroleum and electricity, the formulation of energy policies, participation in energy-related international matters, the formulation of short- and long-term plans for the sector, the establishment of guidelines for state-owned enterprises in the sector, the issue of permits as provided by the law, and the definition of official standards in areas under its responsibility.

37. The Energy Regulatory Commission (CRE), established in 1995, is a decentralized, autonomous agency under the Department of Energy. The CRE is responsible for overseeing areas such as the supply and sale of electricity; electricity generation, trade and export by private firms; acquisition of electricity for public distribution; transport and storage of natural gas not related to its production; natural gas distribution; the first-hand sales of natural gas and liquefied petroleum gas (LPG); and the pipeline transportation and distribution of LPG. The Commission also has authority to grant and revoke permits, and participates in the setting of electric power rates.

38. The 1995-2000 Development and Restructuring Programme for the Energy Sector preserved a central role for the State in strategic energy-related activities, while acknowledging the need for greater private participation. In 2001, the current Administration issued the 2001-2006 Sectoral Energy Programme (PSE), prepared as part of the process of consultations that led to the establishment of the 2001-2006 Development National Plan, and after gathering expert opinions within the Energy Sector National Forum and other feedback from the various entities operating in the sector.¹⁵ The PSE reflects the Administration's commitment to transform the energy sector to ensure that world-class energy firms operate in the Mexican market, give state enterprises the ability to compete successfully, while at the same time using the sector as a instrument to promote economic development and social justice. The Administration has also expressed its unequivocal determination not to privatize PEMEX, CFE or LFC.

39. The authorities have emphasized that the Mexican energy sector is at a crossroads that will determine the sector's long-term sustainability. To secure this, they seek to pursue a policy that grants state enterprises in the sector the administrative autonomy required for an efficient operation, which will in turn necessitate reform of the existing fiscal and regulatory framework affecting the sector. The authorities also aim to increase private participation in energy, which will also require regulatory reforms, promote competitive markets and, thus, create greater certainty, transparency, and equity for all participants in the sector.

¹⁵ Department of Energy (2001). The PSE is also contained in the Department of Energy's online information. Available at: <http://www.energia.gob.mx>.

(i) Petroleum

40. In 2000, Mexico was the world's sixth largest producer and tenth largest exporter of crude petroleum. Mexico's hydrocarbon reserves are among the world's ten largest but have been declining since the early 1980s; proved reserves have been estimated at just under 27 billion barrels of oil equivalent in early 2001.¹⁶ After years of stagnation, petroleum production experienced an increase from 2.7 million bbl/day in 1993 to around 3 million bbl/day in 1997, a level at which it has been maintained (Table IV.6). The authorities attribute falling reserves and slow production growth to public-sector financial constraints on new investment.

Table IV.6
Selected indicators for the petroleum and gas industry

	1996	1997	1998	1999	2000 ^a
Production indicators					
Crude petroleum production ('000 bbl/day)	2,858.3	3,022.2	3,070.5	2,906.0	3,012.0
Natural gas production (million cubic feet)	4,194.9	4,467.1	4,790.7	4,790.6	4,678.9
Petrochemicals production ('000 tonnes)					
National ^b	25,027	22,369	26,065 ^c	23,916 ^a	21,437 ^d
PEMEX ^e	15,103	12,920	11,210 ^c	10,112 ^a	9,319 ^d
Installed capacity utilization (index)					
Refining	90.6	88.5	91.4	87.5	91.5
Petrochemicals	83.4	72.6	66.1	61.8	60.8
Exports					
Crude petroleum ('000 bbl/day)	1,543.8	1,720.7	1,741.2	1,553.5	1,652.1
Natural gas (US\$ million)	31.8	37.0	30.9	114.3	48.8
Gasolines (US\$ million) ^f	298.7	542.5	419.1	56.7	711.3
Other refined products (US\$ million)	372.9	104.5	87.0	326.0	320.4
Imports					
Natural gas (US\$ million)	67.1	107.9	121.7	132.2	366.5
Gasolines (US\$ million) ^f	936.6	936.6	1,230.0	1,248.8	1,733.9
Other refined products (US\$ million)	613.4	1,569.7	859.5	1,267.7	2,527.1
PEMEX investment and fiscal payments					
Gross revenue (US\$ million) ^g	31,031	34,035	29,089	36,084	50,625
Fiscal payments (US\$ million) ^g	19,420	22,919	18,709	21,951	33,862
Investment (US\$ million) ^{g,h}	3,395	4,625	5,820	5,568	6,806
Fiscal payments as a % of federal budget revenue	37.6	36.0	31.4	31.1	37.0
Investment as a % of fiscal payments	17.5	20.2	31.1	25.4	20.1

a Preliminary data.

b Includes total production from 19 sub-sectors technically classified as petrochemicals.

c Data under revision.

d Estimate.

e Includes PEMEX's production of products historically classified as petrochemicals, excluding carbon dioxide.

f Including diesel.

g Data provided by the Mexican authorities.

h Including physical and financial investment.

Source: WTO Secretariat, based on data from the Department of Energy's online information. Available at: <http://www.energia.gob.mx/energia/estadisticas.html>.

41. Amendments in 1995 to the Regulatory Law of Constitutional Article 27 on Petroleum formally defined the part of the petroleum industry that comes under direct state control as comprising (i) the exploration, exploitation, refining, transport, storage, distribution, and first-hand sales of petroleum and the products obtained from its refining; (ii) the exploration, exploitation, manufacture, and first-hand sales of natural gas, as well as the transport and storage operations required for its

¹⁶ Includes condensates and liquids. Estimates from Department of Energy (2001).

exploitation and production; (iii) the manufacture, transport, storage, distribution, and first-hand sales of refined petroleum products that may be used as basic raw materials, and gas products considered as basic petrochemicals.

42. The Mexican oil industry was nationalized in 1938 and over time PEMEX has become the world's sixth largest petroleum firm by volume of oil production. PEMEX is structured as a holding company with four separate subsidiaries: (i) exploration and production; (ii) refining; (iii) natural gas and basic petrochemicals; and (iv) secondary petrochemicals. The authorities have noted that PEMEX operates in an environment characterized by excessive regulation, price controls, managerial shortcomings, and a heavy fiscal burden that has impeded it from undertaking short and long-term investment projects. The oil company hands over just over 60% of its total income to the Federal Government. This has prevented it from reacting quickly and effectively to domestic and international challenges, which has in turn resulted in inefficiencies, reduced supply, and under-investment both in the company and the energy sector as a whole.¹⁷

43. Moreover, despite Mexico's diversification away from oil exports, petroleum revenue continues to have a considerable impact on its economy, defining to a large extent the public-sector budget, a dependence that the Mexican authorities are seeking to break, through a comprehensive fiscal reform package (Chapter I(3)). In 2000, PEMEX paid almost US\$34 billion in taxes and royalties to the Government (Table IV.6), a contribution greater than all the taxes paid by the rest of Mexico's companies combined.

44. The PSE argues for abandoning the current 'command and control' approach to managing the petroleum industry, and establishing instead a flexible framework to give PEMEX management responsibility for decision-making with respect to exploration, extraction, processing, strategic alliances, and export decisions. The PSE also proposes defining a new fiscal regime that would permit PEMEX to generate profits and undertake the necessary investment while providing tax revenue to the Government. The Programme notes that PEMEX needs greater financial resources for exploration and the development of new fields, and for the modernization and expansion of refining and petrochemical plants. The new fiscal regime would seek to quantify and capture the oil rents by imposing a resource rent tax on PEMEX extraction operations, and a tax on petroleum profits on all other activities would be equivalent to Mexico's general income tax.

45. Mexico has six major refineries with a distillation capacity of some 1.5 million bbl/day. Investment in refining capacity has fallen short of growing domestic demand for refined petroleum products, which has turned Mexico into a net importer of such products since 1996 (Table IV.6). To address this, PEMEX is making efforts to modernizing its refineries, and anticipates increasing capacity by 150,000 bbl/day. Also, the National Refining System Re-conversion Programme seeks to bring about technological changes to increase the processing capacity for heavy crude, which make up most of Mexico's petroleum reserves.

46. Meanwhile, PEMEX is processing heavy oil in refineries abroad, notably the Deer Park refinery in Texas, which it operates as a joint venture with Shell. As noted in the PSE, it is paradoxical that legal restrictions to private investment in the Mexican petroleum industry have compelled Mexico to invest abroad in order to ensure an outlet for its heavy oil and meet domestic demand for refined products.¹⁸ The Programme thus calls for increasing refining capacity, particularly to produce higher-value-added products and increase the processing capacity for heavy crude, give PEMEX greater administrative autonomy, and implement a new fiscal regime. The PSE

¹⁷ Department of Energy (2001), p. 33.

¹⁸ Department of Energy (2001), p. 35.

foresees that the deficit in refined oil products will persist unless resources over and above the current investment programme of PEMEX become available.

47. The domestic price of hydrocarbons and refined products is set administratively with reference to world prices, in general reflecting opportunity costs as well as the need to ensure competitiveness and encourage rational use and conservation.

48. Mexico has supported the stabilization of petroleum prices in world markets, coordinating with the main oil exporting countries the implementation of adjustments to oil supply. As oil represents an important revenue source, the Programme considers it important for Mexico to continue participating in the stabilization of world oil prices. It also calls for Mexico to set an export platform, improve the quality of its export petroleum mix, and explore alternative foreign markets. Reflecting those policy aims, Mexico announced in early 2001 that it would cut petroleum exports slightly, from 1,825 million bbl/day to 1.75 million bbl/day, following an agreement with oil producers countries to curtail oil production.

(ii) Natural gas

49. Mexico has proven natural gas reserves of some 30 billion cubic feet; production was about 4.8 billion cubic feet in 2000 (Table IV.6). Mexico has not needed to emphasize natural gas development and exploration until recently, as most of the gas produced is "associated" gas that occurs as a co-product of oil production. It is a small but growing net importer of natural gas from the United States, the most readily available source by far, a trend that is expected to continue in the coming decades. The import tariff on Mexican imports of natural gas was eliminated in mid-1999, which has encouraged growing imports of this product.

50. The domestic market for natural gas has undergone considerable changes in recent years as a result of growing internal demand and structural reform; this market is the most liberalized in the Mexican energy industry. PEMEX controls the upstream sector but amendments in 1995 to the Regulatory Law of Constitutional Article 27 on Petroleum opened up the transport, storage, and distribution of natural gas, and the transport and distribution through pipelines of LPG. Regulations were also issued in 1995 on the first-hand sales of natural gas and related activities (e.g. pipelines and gas equipment) not formally considered part of the petroleum industry.

51. The 1995 reforms gave the State resource ownership and responsibility for operating services of a public nature, through PEMEX, and regulating, through the CRE. As at late 2001, the CRE had granted 105 permits for transport and distribution projects to national and foreign firms (from Belgium, Canada, Spain, and the United States), involving investment engagements of some US\$2.3 billion. The authorities have noted that the distribution permits were granted through public tenders, except in regions where there was an existing operator.

52. Changes are likely to continue, mostly as a result of increasing reliance on natural gas to generate electricity, with regulations favouring the use of less polluting fuels. The PSE foresees that natural gas will fuel just over 60% of electricity generation in 2010, up from some 22% in 2000. If current demand trends remain and no reforms are made to the legal framework, the Programme foresees Mexico's imports of natural gas expanding to the equivalent of some 24% of internal demand by 2006.

53. In view of the growing domestic demand for natural gas, the PSE calls for developing the domestic reserves of non-associated gas, encouraging investment in extraction activities, giving greater administrative autonomy to public enterprises, and promoting private participation in natural

gas activities within the existing legal framework.¹⁹ It also envisages establishing liquefied natural gas terminals to break Mexico's current absolute reliance on U.S. sources.

54. Mexico's growing natural gas imports have coincided with historically high prices for the fuel in North America. As U.S. natural gas prices rose, calls from Mexico's industry led to an agreement between the Mexican Government and the private sector whereby, since January 2001, PEMEX sells natural gas to firms at a fixed price of US\$4.00 per million Btu, compared with the U.S. Houston Ship Channel price of over US\$9.00 per million Btu. PEMEX covers the difference when gas prices exceed US\$4.00 per million Btu but firms must pay the agreed price even if U.S. prices fall below this level.

55. Mexico is the world's fourth largest consumer of LPG, and the largest per capita user. In 2001, LPG was used in more than 80% of Mexican homes, and supplied about 65% of the energy requirements of the residential and commercial sectors. Imports supplied about one third of the domestic demand, which was expected to continue growing despite the ongoing substitution of natural gas for LPG. Its use as a motor fuel has also expanded sharply in recent years, in good part because, unlike gasoline, LPG is not subject to the special tax on products and services (IEPS, Chapter III(2)(vi)).

56. LPG regulations give PEMEX responsibility for first-hand sales, transport through its own pipelines, and the operation of delivery plants. Private operators may engage in transport, storage, and distribution; the latter being reserved to Mexican participants. LPG imports are subject to prior licensing from the Department of Economy, which up to August 2001 was granted exclusively to PEMEX. Subsequently, the Departments of Economy and of Energy have spelled out the criteria for obtaining prior import permits, which allow operators to obtain LPG from sources other than PEMEX.

(ii) Petrochemicals

57. Although technically not part of the energy sector, the petrochemicals industry is included with the energy sector because of the close linkage between hydrocarbons and petrochemicals. Mexico's secondary petrochemical plants produce 13 types of petrochemicals at 61 plants located mainly in 10 complexes throughout the country. Most of PEMEX's plants have suffered in recent years from under-investment, falling capacity utilization (Table IV.6), and a slowdown in the development of the petrochemicals industry in general.

58. The production of petrochemicals in Mexico is divided into two subsectors: basic petrochemicals, reserved for PEMEX, and non-basic petrochemicals, in which there are no restrictions on private domestic or foreign investment. Basic petrochemicals include nine products: methane, ethane, propane, butane, pentane, hexane, heptane, naphtha, and carbon black feedstocks. PEMEX is the sole supplier of inputs to the petrochemicals industry. PEMEX and numerous private firms, accounting for some 83% of total production, participate in the non-basic petrochemicals industry.

59. Although the subsector is, in principle, open to private investment, PEMEX is the sole producer of ethylene, ethylene oxide, polyethylene, and ammonia. The PSE attributes this to the lack of integration in production chains, which undermines supply security, as well as to PEMEX's monopolistic power in the production, distribution, and sales of basic petrochemicals, to the high domestic price of natural gas, and the private sector's expectation that the petrochemical activities of PEMEX will eventually be privatized.

¹⁹ Department of Energy (2001), p. 98.

60. The PSE also notes that the division between basic and non-basic petrochemicals is unique in the world, and results in a lack of integration that undermines the competitiveness of whole production chains. According to the Programme, a fundamental condition for attracting private investment into the industry is the elimination of existing legal restrictions causing this fragmentation, as well as searching for solutions that will permit strategic associations between PEMEX and the private sector.

61. The Federal Government has sought to promote private-sector participation in the non-basic petrochemicals industry, recognizing that it does not have enough resources to invest in new plants and that there is a need to address technological lags and low productivity. The PSE points out that attracting private investment into petrochemical plants is also appealing because of their highly capital-intensive nature, low profitability compared with returns in hydrocarbon extraction, and the fact that private sector is explicitly allowed to participate in the industry.

62. The Government originally planned to sell a controlling stake of 70-80% in 61 petrochemical plants but these plans had to be scaled down following a ruling by Mexico's comptroller's office that the laws defining the petrochemical plants that could be privatized needed clarification and reform. A new strategy was announced in 1996, accompanied by necessary legal reforms, whereby the Government proposed to sell minority holdings of up to 49% in PEMEX plants. In 1998, a tendering process was initiated for the sale to the private sector of 49% of the shares in PEMEX's Petroquímica Morelos; however, lack of interest in the arrangement led to the process being declared void. Also studied was a scheme whereby PEMEX would seek associations with the private sector in the expansion of existing plants; the authorities subsequently deemed the scheme unfeasible because of constraints imposed by the existing regulatory framework.

63. In view of the disappointing recent experience, the PSE considers it vital to eliminate existing legal restrictions to vertical integration and to strategic alliances between the private sector and PEMEX. Among other objectives, the Programme also seeks: the restructuring and strengthening of PEMEX's petrochemical operations, and thus guarantee the supply of inputs to downstream industries; review of current prices for basic inputs to bring them into line with world prices through long-term contracts; and using the country's resource base to produce refined products that would benefit from Mexico's free-trade agreements.

(iii) Electricity

64. The electric energy industry has experienced rapid growth, Mexico's generating capacity rose from 26.8 to 36.1 GW between 1991 and 2000, when some 60% of such capacity was hydrocarbon-based and 26% hydroelectric-based (Table IV.7). Mexico's energy policy calls for the conversion of many oil-fired power plants to natural gas by 2005, with most new power plants to be run on natural gas.

65. In 2000, electricity sales amounted to 155,349 GWh, of which 60.4% were consumed by industry, 23.2% by residential users, 7.5% by commercial users, 5.1% by agriculture, and 3.8% by services.²⁰ Over the 1990s, average annual growth for electricity demand (5.2%) surpassed GDP growth, a situation expected to continue over the current decade. A modest amount of electricity is traded, mostly with the United States, with a widening deficit: in 2000, exports and imports were estimated at US\$3.2 million and US\$73.7 million, respectively.

66. At the end of 2000, there were 172 generating plants, of which all but one were state-owned. The electricity industry is dominated by the CFE, a state-owned decentralized organism with independent legal status. The CFE controls almost 90% of total assets in the industry; its operations

²⁰ Department of Energy (2001), p. 45.

span power generation, transmission, and distribution. The LFC is in practice, a CFE affiliate but it maintains a formal separate corporate identity. The vast majority of its customers are in Mexico City. References to CFE in the following sections include the LFC unless otherwise specified.

Table IV.7
Selected indicators for the electricity industry, 1996-00

	1996	1997	1998	1999	2000 ^a
Installed capacity (Megawatts) ^b	34,791	34,815	35,255	35,666	36,213
of which (% of total):					
Thermal	57.8	57.8	59.3	59.2	59.3
Hydro	28.8	28.8	27.5	26.2	26.5
Gross power generation (Gigawatts-hr)	160,494	170,519	180,490	202,694	216,166
of which (% of total):					
Public sector	94.6	94.6	94.7	89.3	87.0
Private sector	5.4	5.4	5.3	10.7	13.0
Domestic sales (Gigawatts-hr)	121,573	130,255	137,209	144,996	155,349
of which (% of total):					
Industrial	58.9	59.8	59.8	60.2	60.4
Households	23.4	22.8	23.1	23.0	23.2
Commercial	7.7	7.6	7.7	7.6	7.5
Agriculture	6.2	5.9	5.6	5.5	5.1
Public service	4.2	3.9	3.8	3.7	3.8
Budgeted Expenditures by CFE and CLF (US\$ million) ^c	5,295	6,752	6,513	7,894	9,306
of which (% of total):					
Operating expenditures	78.6	75.1	75.5	75.8	79.0
Capital expenditures	21.4	24.9	24.5	24.2	21.0

a Preliminary data.

b State owned, refers to real power.

c WTO estimates, based on the end of period exchange rate.

Source: WTO Secretariat, based on data from the Department of Energy's online information. Available at: <http://www.energia.gob.mx/energia/estadisticas.html>.

67. The constitutional provisions introduced in 1960, which created a state monopoly for the distribution of electricity as a public service, still stand but the Law for the Electric Energy Public Service of 1992 eased the terms for private-sector investment, both foreign and domestic. Private concerns may thus build and own plants for self-consumption and co-generation, as well as power generation plants of less than 30 megawatts. Electricity may also be shared among private producers and users through the establishment of a jointly owned firm, either using their own infrastructure or contracting CFE services. Private producers are not allowed to distribute electricity to the public but may sell excess power to the CFE. Investments in these areas require a permit from the CRE; if foreign participation exceeds 49%, authorizations from the Department of Economy and the Foreign Investment Commission are also required. Electricity imports may be used only by the importing firm.

68. In May 2001, a Decree reforming the Law for the Electric Energy Public Service allowed holders of permits for self-supply or co-generation to transfer their surplus energy to CFE without prior notice and for any amount, thus defining the criteria under which state-enterprises will acquire such energy.

69. Electricity rates are set by the Department of the Treasury and Public Credit, which takes account of consumer interests and the need to encourage investment. There are considerable differences in the average electricity tariffs paid by various users. In 2000, the following average rates applied (Mex\$ per KWh): for commercial users, 1.2603; public service, 1.0468; domestic

users, 0.5590; industry, 0.5346; and agriculture, 0.2868.²¹ Energy analysts estimate that some of these prices do not cover operating costs, let alone capital depreciation.

70. The PSE notes that current tariff policies distribute electricity subsidies with little regard to equity or energy-efficiency considerations. Due to the ineffective system of generalized subsidies, there is a wide gap between the price and cost of electric power. Data for 2000 show that tariffs covered 70% of the cost of electricity provided by the CFE and only 51% of that supplied by the LFC. The cost of subsidies granted by the Federal Government amounted to Mex\$56.8 billion; some three quarters of this assisted residential and agricultural users.

71. Deregulation of the electricity sector is a contentious but pressing issue in Mexico. Although the investment level has allowed demand to be met, it has resulted in a negligible reserve margin. Thus, due to a combination of high demand, maintenance and failures reducing available capacity, and delays in the commissioning of new plants, in April 2000 the reserve margin fell to 0.4%, while the minimum margin envisaged by international standards is some 6%.²²

72. The PSE also notes that in recent years fiscal restrictions have resulted in under-investment in the electricity industry. This in turn has caused losses equivalent to 10% of low-tension sales, in addition to commercial losses due to insufficient measuring and other equipment. The Programme estimates that for the period 2001-10 the industry's investment requirements will amount to almost Mex\$676 billion (equivalent to some US\$75 billion at the end-2001 exchange rate). As public investment in the industry is insufficient, it is considered essential to supplement public resources by national and foreign private investment. The PSE suggests that unless this is achieved the sector's modernization and expansion would be jeopardized, and public resources would continue to be diverted away from unmet basic needs in areas such as education, health, and security.²³

73. The PSE argues that private investment in the electricity industry has been constrained by factors such as the need to attain minimum scales and reach long-term contracts, and the fact that potential generators and consumers are often in different regions. To address these factors and finance electricity infrastructure, the Government has made use of schemes such as build-lease-transfer (BLT) arrangements. The State continues to assume all risks related to most of these investments, however, each of which must be registered as contingent government expenditure. Once a project becomes operational, it generates liabilities that are considered as expenditures in the federal budget and as part of the public debt.

74. The PSE also points out that the monopolistic conditions in Mexico's electricity market and the political limitations inherent in its current legal framework make involvement in self-supply, co-generation and small-scale generation projects unattractive to private operators. As there is no market in which such operators may sell their excess energy on a cost-recovery basis, projects are profitable only when the generator uses up all its capacity for its own consumption.

75. As an alternative to investing in new plants, the authorities have offered for tender capacity and energy purchase contracts (CCCE) to independent power producers (IPPs). This scheme, nevertheless, still demands guarantees from the CFE with respect to long-term electricity purchases, which are backed by the Federal Government and thus are linked to the State's capacity to acquire contingent debts. Also, annual payments to IPPs are part of the federal budget, and of Mexico's public external debt. The PSE thus observes that as the State's limit to acquire new debt has been reached, the need for private investment involving no State guarantees is undeniable.

²¹ Data from the Department of Energy online information.

²² Department of Energy (2001), p. 48.

²³ Department of Energy (2001), p. 47.

76. As at early 2001, 12 IPP permits had been issued for a total investment of some US\$3 billion; ten of these projects were in northern Mexico, with half entirely dependent on natural gas imported from the United States and the rest partially dependent on such imports.

(4) MANUFACTURING

(i) Main features

77. Mexico's manufacturing sector is large and diversified, accounting for an average 21% of total GDP over 1996-00. During this period the sector confirmed its important role as a catalysts for economic growth: manufacturing GDP expanded at an annual average rate of 7.1% in real terms, outpacing growth in the economy as a whole (Chapter I). Growth in manufacturing activities was also considerably higher than the 2.1% achieved during the first part of the 1990s. Moreover, while activity was subject to strong cyclical fluctuations in the first half of that decade over 1996-2000 growth was sustained across most manufacturing activities (Table IV.8).

Table IV.8
Manufacturing GDP, 1990-2001
(Mex\$ billion, constant 1993 prices and per cent)

	1990-95 ^a	1996	1997	1998	1999	2000 ^b	2001 ^{b,c}
Mex\$ billion, constant 1993 prices							
Food products, beverages and tobacco	58.0	63.3	65.4	69.7	72.5	75.1	77.1
Textiles, clothing and leather	19.3	21.1	23.3	24.2	24.9	26.3	24.4
Wood and wood products	7.1	7.2	7.7	8.0	8.0	8.1	7.3
Paper, paper products, printing and publishing	11.2	10.9	12.3	13.0	13.7	14.0	13.5
Chemicals and plastics	35.5	38.3	40.9	43.4	44.4	45.8	43.6
Non-metallic mineral products, except petroleum derived	16.8	17.5	18.6	19.5	19.9	21.0	19.9
Basic metal industries	9.9	12.7	14.2	14.7	14.8	15.3	14.7
Metal products, machinery and equipment	53.6	63.2	75.3	83.9	89.7	102.1	97.8
Other manufacturing industries	6.3	6.9	7.6	8.2	8.7	9.7	10.0
All manufacturing	217.7	241.2	265.1	284.6	296.5	317.5	308.1
Index, real GDP, 1993=100							
Food products, beverages and tobacco	98	107	110	118	122	127	130
Textiles, clothing and leather	100	110	121	126	129	136	127
Wood and wood products	100	100	107	112	112	114	102
Paper, paper products, printing and publishing	99	96	109	115	121	124	119
Chemicals and plastics	101	109	117	124	127	131	124
Non-metallic mineral products, except petroleum derived	96	100	106	111	113	120	113
Basic metal industries	102	131	146	152	152	158	151
Metal products, machinery and equipment	99	117	139	155	166	189	181
Other manufacturing industries	96	105	116	125	132	148	152
All manufacturing	99	110	121	129	135	144	140

a Annual average for the period.

b Preliminary estimates.

c Annualized estimates based on first semester.

Source: WTO estimates, based on Poder Ejecutivo Federal (2000), *Primer Informe de Gobierno*, September, p. 248..

78. The dynamism of Mexico's manufacturing in recent years is linked to a favourable policy environment, the sharp devaluation of the peso in late 1994, and the impetus provided by the continuous expansion of the U.S. economy, which is by far the main export market for Mexican

manufactures. Because of the latter, the cyclical slowdown in the U.S. economy that began in late 2000 was expected to have a major impact on the Mexican manufacturing sector; activity in the sector contracted in almost all manufacturing industries during the first semester of 2001.

79. In 2001, the largest manufacturing industries by value added are (share of manufacturing GDP between parentheses): metal products, machinery and equipment, which includes in particular motor vehicles (32%); food products, beverages, and tobacco (24%); and chemicals and plastics (14%). Between 1996 and 2000, value added expanded fastest in the metal products, machinery and equipment industry (with an average annual real growth rate of almost 12.7%); "other" manufacturing industries (9%); and textiles, clothing, and leather (5.6%). In 2001, only the food products, beverages, and tobacco industry was likely to continue expanding, while a contraction was expected in other industries, particularly in wood and wood products, and textiles, clothing, and leather.

80. The manufacturing sector has come under strong pressure to increase productivity as a result of Mexico's closer integration in the global economy, notably through the NAFTA, which has forced domestic industries to compete directly with some of the world's most competitive producers. At the same time, a more closely knit North American market has given Mexican producers access to the demand base, capital, and technology necessary to exploit economies of scale and sustain productivity gains. Productivity per person employed in the sector and per man-hour worked have thus increased steadily since at least 1990, although with average annual growth for 1996-00 slightly lower than for 1991-1995 (Table IV.9). This trend was halted in 2001, when slowing activity in the sector led to a slight fall in productivity per person.

Table IV.9
Productivity indexes in the manufacturing sector^a
(Base 1993=100)

	Personnel employed ^b	Average real salaries per person	Average productivity per worker	Average productivity per man-hour	Real unit cost of labour ^c
1990	..	83	83	83	100
1991	..	88	88	87	100
1992	..	96	93	92	103
1993	100	100	100	100	100
1994	97	104	109	110	95
1995	88	91	114	115	80
1996	90	82	125	126	65
1997	95	81	131	131	62
1998	98	84	136	136	61
1999	99	85	140	139	61
2000	100	90	146	145	62
2001 ^d	98	90	145	146	62

.. Not available.

a Period averages.

b WTO estimates, based on Banco de Información Económica, INEGI.

c Based on Mex\$.

d Average for January-May.

Source: WTO Secretariat estimates, based on Poder Ejecutivo Federal (2001), *Primer Informe de Gobierno*, September, p. 248; and Banco de Información Económica online information. Available at: <http://www.inegi.gob.mx/estadistica/espanol/economia/feconomia.html>.

81. Increased productivity in manufacturing reflects in part the substantial foreign direct investment (FDI) flowing into the sector. The authorities indicated that this amounted to some US\$28.4 billion during 1997-00, or about 64% of the total (Chapter I(5)(iv)). The two largest magnets of FDI in manufacturing were metallic products, machinery, and equipment (particularly

motor vehicles and electronics), which attracted almost half of total manufacturing FDI, and food products, beverages, and tobacco, which attracted about one fifth. About one third of manufacturing FDI went into the *maquiladora* industry.

82. As noted in the Secretariat Report for Mexico's previous Review, productivity increases in manufacturing during the early 1990s were linked to the shedding of workers even as the sector's output expanded. This tendency was reversed in 1996, with the number of persons employed in the sector expanding and returning in 2000 to its 1993 level. However, in 2001 employment in the sector started to fall again as producers responded to contracting demand.

83. Average real salaries per person have increased since 1998, after falling sharply over 1995-1997 in the wake of the financial crisis and sharp currency devaluation of late 1994. Nevertheless, and notwithstanding the productivity increases noted, in real terms, salaries in 2001 remained below the level in 1994. As productivity outpaced salary gains, the real unit cost of labour tended to fall until 1998, increasing slightly thereafter. Profitability in the sector would also appear to have increased, as the share of value added secured by labour has expanded less rapidly in recent years than aggregate value added. By this measure, manufacturing as a group seems to have adjusted well to, and benefited from the trade liberalization efforts Mexico has undertaken since the mid 1980s.

84. Much of Mexico's increased participation in foreign trade is explained by the close interlocking of its manufacturing sector with international production chains geared in large part to supplying the U.S. market. The resulting high import content of Mexican manufactures has meant that export growth has gone hand-in-hand with increased imports. Thus, the shares of manufactures in total exports and imports increased, respectively, from 44% and 75% in 1990 to some 83% and 86% in 2000 (the value of total exports and imports also expanded considerably, Chapter I(5)(ii)).

85. As noted in the Secretariat Report for Mexico's previous Review, intra-industry trade between Mexico and the United States is atypically high for trade between developing and developed countries, and more like the levels recorded between industrialized countries. This results from the geographic proximity between Mexican and U.S. producers, and Mexico's *maquiladora* programme, which has encouraged both intra-industry and intra-firm trade. As a result, the largest export industries tend also to be the most important importers. Thus, in 2000, electrical machinery apparatus, appliances, and supplies (ISIC 383) accounted for some 33% and 27% of total manufacturing exports and imports, while the respective shares for motor vehicles (ISIC 3843) were 21% and 13% (Table AIV.3).

(ii) The in-bond or *maquiladora* industry

86. One of the most striking characteristics of the Mexican manufacturing sector is the important role played by the *maquiladora* industry, which is based on the duty-free temporary importation of inputs (including machinery) for use in export-oriented manufacturing activities; a description of the specific instruments comprising the *maquiladora* regime and the considerable changes introduced as of 1 January 2001 is provided in Chapter III(3)(vii).

87. The *maquiladora* industry has traditionally been concentrated along Mexico's border with the United States. In recent years, however, there has been a tendency for *maquiladora* operations to expand more rapidly in non-border areas; thus, while in terms of number of establishments, employment, and value added slightly more than three quarters of *maquiladora* operations were located in municipalities along the Mexican-U.S. border in 1990, that proportion had fallen to about 60% by 2000.²⁴ The *maquiladora* industry comprised around 3,600 establishments employing

²⁴ WTO estimates, based on Poder Ejecutivo Federal (2001).

almost 1.3 million workers in 2000 (Table IV.10); *maquiladora* firms generated a value added of about US\$17.5 billion and exported products worth almost US\$79.5 billion.

Table IV.10
Maquila industries, structural indicators, 1990-2001

Maquila industries, structural indicators, 1990-2001

	Wages	All inputs	Domestic inputs	Value added	Value of output ^b	Value added share ^c	Labour's share ^d	Price-cost margin ^e	Domestic inputs
	(current US\$ million) ^a					(as a % of value of output)			
1990	1,732	10,161	174	3,364	13,525	24.9	12.8	12.1	1.3
1991	2,088	12,198	218	4,092	16,290	25.1	12.8	12.3	1.3
1992	2,625	14,336	267	4,797	19,133	25.1	13.7	11.4	1.4
1993	3,091	18,035	313	5,560	23,595	23.6	13.1	10.5	1.3
1994	2,379	14,493	214	4,212	18,704	22.5	12.7	9.8	1.1
1995	2,119	18,595	311	4,332	22,927	18.9	9.2	9.7	1.4
1996	3,067	28,202	566	6,320	34,522	18.3	8.9	9.4	1.6
1997	4,394	35,823	779	8,874	44,697	19.9	9.8	10.0	1.7
1998	4,857	37,254	1,028	9,999	47,253	21.2	10.3	10.9	2.2
1999	6,782	46,976	1,413	13,943	60,919	22.9	11.1	11.8	2.3
2000 ^f	8,713	54,438	1,761	17,492	71,931	24.3	12.1	12.2	2.4
2001 ^g	4,125	24,546	852	8,384	32,929	25.5	12.5	12.9	2.6
	Number of establishments	Persons employed	Labour productivity	Average wage		Exports	Imports	Net exports	
	(000 US\$/worker)					(current US\$ million)			
1990	1,703	446,436	7,942	1,017		13,873	10,321	3,551	
1991	1,914	467,352	8,511	1,091		15,833	11,782	4,051	
1992	2,075	505,698	9,221	1,265		18,680	13,937	4,743	
1993	2,114	542,074	11,162	1,462		21,853	16,443	5,410	
1994	2,085	583,044	8,971	1,141		26,269	20,466	5,803	
1995	2,130	648,263	10,764	995		31,103	26,179	4,925	
1996	2,411	753,708	14,319	1,272		36,920	30,505	6,416	
1997	2,717	903,528	16,451	1,617		45,166	36,332	8,834	
1998	2,983	1,014,006	15,841	1,628		53,083	42,557	10,526	
1999	3,297	1,143,240	18,477	2,057		63,854	50,409	13,444	
2000 ^f	3,590	1,285,007	20,036	2,427		79,467	61,709	17,759	
2001 ^g	3,735	1,276,911	8,816	1,104		44,631	33,329	11,301	

a Derived from data in Mex\$ using end of period exchange rates.

b Estimated as the sum of value of inputs and value added, the latter corresponding to the value of output which accrues to value adding factors of production such as labour and capital.

c Ratio of value added to value of output.

d Proportion of value of output paid to labour in the form of wages (equivalent also to the ratio of average wage to labour productivity).

e The price-cost margin is the residual, as a proportion of value of output, which accrues to all value adding factors other than labour.

f Preliminary.

g Preliminary estimates for January-May, or January-July for exports, imports and net exports.

Source: WTO Secretariat estimates, based on Poder Ejecutivo Federal (2000), *Primer Informe de Gobierno*, September, p. 254.

88. Main *maquiladora* activities are (per cent of total *maquiladora* value added in 1996/2000 between parentheses): electric and electronic materials (26/30); automotive equipment and accessories (23/17); textiles and clothing (12/16); and electric and electronic machinery (11/8).²⁵ The existence and development of the *maquiladora* industry is due in large part to foreign investment:

²⁵ WTO estimates, based on INEGI online information. Available at: <http://www.inegi.gob.mx/>.

in the mid 1990s, half the investment in the industry was of U.S. origin, 44% Mexican, 4% Asian, and the rest European or Latin-American.

89. The *maquiladora* industry has expanded for some three decades, with growth accelerating since Mexico's previous Review. Indeed, the recent good performance of manufacturing as whole is in good part due to the remarkable expansion of the *maquiladora* industry: between 1996 and 2000 value added and value of output expanded at the remarkable average annual rates of almost 33% and 26%, respectively.²⁶ During that period, employment increased at lower but still brisk rates that doubled the number of positions, confirming the traditional capacity of *maquiladora* operations to create jobs; similar trends were observed for average (nominal) wages and labour productivity.

90. Underpinning the expansion of the *maquila* industry was rapid export growth, which averaged almost 21% per year during 1996-00. Although this in turn resulted in higher imports, the industry managed to increase steadily its use of domestic inputs; nevertheless, in 2000 these represented only about 2.4% of the value of output or 3.5% of the value of all inputs used in *maquiladora* operations. The industry thus seems to have had some success in establishing more backward linkages with domestic activities.

91. Given its still relatively weak linkages with other domestic activities, Mexico's economic slowdown in 1995 had no apparent negative impact on the industry's value of output, as exports continued to expand; however, the value-added share fell in 1995 and 1996 as both the price-cost margin (a proxy for profitability) and labour's share were depressed. Since then, these two variables have increased, reflecting rising wages and, probably, profits in *maquiladora* operations. While it was not yet evident from preliminary statistics for early 2001, a slowing U.S. economy was expected to have a sizeable negative effect on the *maquiladora* industry in that year.

(iii) Policy objectives and instruments

92. Mexico's approach to trade and industrial policies since the mid 1980s has gradually increased the exposure of the manufacturing sector to foreign competition; as a result, the sector as a whole may now be clearly characterized as outward oriented although import-substitution objectives still tinge policies towards certain activities. Mexico's overall industrial policy objectives for 1995-00 were defined in the Industrial Policy and Foreign Trade Programme (PPICE).²⁷ Described in the Secretariat Report for Mexico's previous Review, the PPICE foresaw achieving greater competitiveness through the State creating conditions for high profitability in export activities; expanding access to foreign markets; accelerating the development of regionally and vertically integrated industrial groups; and encouraging "efficient import substitution".

93. Given the trends mentioned above, in recent years the PPICE appears to have succeeded in achieving its main aims of generating faster growth in manufacturing relative to the rest of the economy and creating a large number of jobs. As this took place against a generally favourable economic background, the sustainability of Mexico's industrial policies is likely to be tested by the downturn in domestic and foreign demand that began in late 2000 combined with a relatively strong exchange rate and growing wage pressures. Moreover, the use of some policy instruments will need to be modified under commitments made by Mexico both under preferential agreements (e.g. tariff protection) and in the multilateral context (e.g. TRIMs). The expected entry of China into the WTO may also affect access conditions for certain Chinese manufactures that would compete directly with

²⁶ Based on current US dollars.

²⁷ The main legal basis for the PPICE was provided by the decree published in the *Official Journal* on 31 May 1995 establishing the 1995-2000 National Development Plan.

Mexican products both in Mexico itself and in the U.S. market (e.g. textiles, clothing, footwear, and certain electronic products).

94. As at late December 2001, the PPICE's overall aims still served as guiding principles for the various programmes in force, since no successor programme had been statutorily established. In this regard, the Department of Economy carries out the PPICE's strategy through three main programmes that seek regulatory improvements, opening foreign markets, and promoting fair competition both in domestic and foreign markets.²⁸

95. Mexico's industrial policy is implemented, in practice, largely through various trade instruments detailed in Chapter III. The net assistance they provide to individual manufacturing activities is difficult to assess, though, and raises questions about the overall coherence of policy instruments. For example, the protection provided to Mexican producers through MFN tariffs would seem to be seriously undermined by the preferential access granted to foreign manufactures covered by regional agreements; effective tariff protection would be enhanced by concessions given to domestic producers for the duty-free importation of inputs from non-preferential sources, concessions which, however, are no longer available to exports destined to the NAFTA region.

96. At the border, tariff escalation is intended to provide downstream processing industries with more protection from import competition than other industries, a feature that became more evident after tariffs were increased in January 1999; escalation is also likely to be magnified by tariff concessions granted on inputs. Overall, tariff increases have brought the average MFN tariff in manufacturing to 16.5% in 2001. Under a four-digit ISIC definition, nominal tariff protection is the highest in a number of activities related to the processing of agricultural products, textiles and clothing, and footwear (Table AIV.3).

97. As also described in Chapter III, other trade-related measures with an industrial focus include the use of non-automatic import permits (e.g. for petrochemicals reserved to the State; used tyres, machinery and office equipment; vehicles; and used clothing) and of government procurement rules to provide domestic firms an advantage in public tenders (especially affecting pharmaceuticals and capital goods). The active use of contingency measures, particularly anti-dumping, suggests that they too are an important element to support certain industries (e.g. steel, petrochemicals, plastics, textiles, and footwear).

98. Another key policy instrument in manufacturing takes the form of fiscal concessions under the PITEX, ECEX, and the *maquiladora* regimes. In view of the narrowing down of benefits under these programmes a new scheme for sectoral promotion, PROSEC, was established in 2000 (Chapter III). Under PROSEC, firms may import selected inputs at reduced tariff rates, in some cases subject to compliance with national-content requirements or to no domestic substitutes being available.

99. In addition, special assistance is provided to the motor-vehicles industry, which has been a priority sector in industrial policy since the early 1960s. Support has been provided through strong tariff protection, tax incentives, and local-content requirements, while restrictions on foreign investment have been used to promote the domestic auto-parts industry. As also noted in the Secretariat Report for Mexico's previous Review, the motor-vehicle industry was relatively unaffected by the unilateral liberalization undertaken in the late 1980s, as the industry successfully argued that it required more time to adjust. In 2001, noting that particular difficulties were being encountered

²⁸ Details on recent progress on these programmes may be found in the Department's online information. Available at: <http://www.se.gob.mx/>.

concerning the implementation in the motor-vehicle industry of the WTO TRIMs Agreement, Mexico requested an extension of two years, from 1 January 2002, for the elimination of TRIMs.

100. Meanwhile, the motor-vehicle industry continues to be governed by the decrees of 1989 described in Chapter III(4)(viii). Additionally, the NAFTA rules of origin provide incentives to use intermediate inputs produced in the NAFTA region. Moreover, imports of used motor vehicles are prohibited except for imports into the border zone, which are subject to special rules. Although the NAFTA provides for a gradual liberalization of this prohibition, to be completed on 1 January 2019, such liberalization will apply only to NAFTA-originating vehicles.

(5) SERVICES

(i) Financial services

(a) Overview

101. The Mexican financial system is composed of the following institutions: banks; auxiliary credit organizations (financial factoring companies, financial leasing companies, currency exchange houses, general deposit warehouses, credit unions, and savings and loans); securities houses; insurance; bonding; and retirement savings. Primary responsibility for the regulation and supervision of the financial sector lies with the Department of the Treasury and Public Credit (SHCP) and its regulatory agencies: the National Banking and Securities Commission (CNBV) supervises the banking, securities, and credit ancillary organizations and activities sector; the National Insurance and Bonding Commission (CNSF) supervises the insurance and bonding sector; and the National Savings and Retirement System Commission (CONSAR) supervises retirement savings. In addition to its normal operations (including regulating the payment system and operating as a reserve bank and lender of last resort for credit institutions), the Central Bank regulates financial operations, the foreign exchange, and derivatives markets.

102. Two regulatory entities have been established since Mexico's previous Review: the Institute for the Protection of Bank Savings (see Box IV.1); and the National Commission for the Protection and Defense of Financial Services Users (CONDUSEF), which provides advice and defends customers of financial institutions (Chart IV.1). Other important regulatory reforms have resulted in the easing of foreign ownership restrictions, with significant changes to the prudential regulatory regime also introduced (see Table IV.11).

103. Mexico took part in the extended GATS negotiations on financial services and accepted the Fifth Protocol on 29 January 1999.²⁹ For banking and other financial services (excluding insurance services), Mexico made commitments only with respect to commercial presence: national treatment was bound for all such services included in Mexico's schedule; while market access was bound in general at 40% or 49% of common capital stock (under the Uruguay Round market access was generally bound at 30%), and individual holdings limited to 5% of the capital stock or 20% with SHCP authorization. With respect to insurance services, commitments on market access and national treatment were made only for commercial presence except in the case of re-insurance services, for which national treatment was bound for cross-border supply. Market access through commercial presence for insurance services included in Mexico's schedule was bound at 40% of the paid-up capital (under the Uruguay Round market access was generally bound at 30%); the limit on individual holdings by foreign investors was bound at 10% or 20% with SHCP authorization.³⁰

²⁹ WTO document WT/LET/288, 18 February 1999.

³⁰ WTO document GATS/SC/56/Suppl.3, 26 February 1998.

Box IV.1: The Institute for the Protection of Bank Savings

Following the financial crisis of the mid-1990s, the Mexican authorities adopted a number of measures aimed at averting the collapse of the Mexican financial market. These measures included financial assistance to distressed banks, debtor support programmes, and bank restructuring operations. The Institute for the Protection of Bank Savings (IPAB) was established by the Law for the Protection of Bank Savings (LPAB) of 19 January 1999, with the principal objectives of establishing a system for the protection of bank savings and concluding the rehabilitation processes of banking institutions. The IPAB is a decentralized public entity with legal personality and patrimony; it is governed by a board chaired by the Minister of the Treasury and Public Credit and including the Governor of the Central Bank, the President of the CNBV, and four members designated by appointment of the President and ratified by the Congress.

The LPAB was the starting point for the creation of an explicit, limited, and obligatory deposit insurance mechanism in Mexico. The Law contemplates the gradual elimination of the existing universal deposit guarantee by no later than 1 January 2005, when coverage of bank liabilities will be limited to a maximum of 400,000 UDI per person and per institution. Commercial banks are required to pay a contribution to the IPAB ranging between 0.4% and 0.8% of their liabilities per year; the IPAB must retain access to three-fourths of the revenue from such contribution to conclude the financial strengthening programmes and liquidate the FOBAPROA (Fund for the Protection of Bank Savings) and FAMEVAL (Support Fund for the Securities Market); the remaining fourth is to be used to cover the IPAB's administrative and operating expenses and to create a Reserve Fund for the Protection of Bank Savings.

The LPAB entitles the banks holding FOBAPROA notes to exchange them for IPAB notes provided they submit a financial consolidation plan approved by the CNBV. By end 1999, all banks entitled to this exchange – BANAMEX, BANCOMER, BANORTE, BITAL and BBV – had requested it and had begun to implement their financial consolidation. The IPAB also assumed the obligations contracted by the FOBAPROA and the FAMEVAL relative to the financial strengthening and bank debtors support programmes implemented by the financial authorities; at the end of 2000, total IPAB liabilities derived from the bank financial strengthening and debtor support programmes amounted to Mex\$882 billion (equivalent to some 16% of GDP).

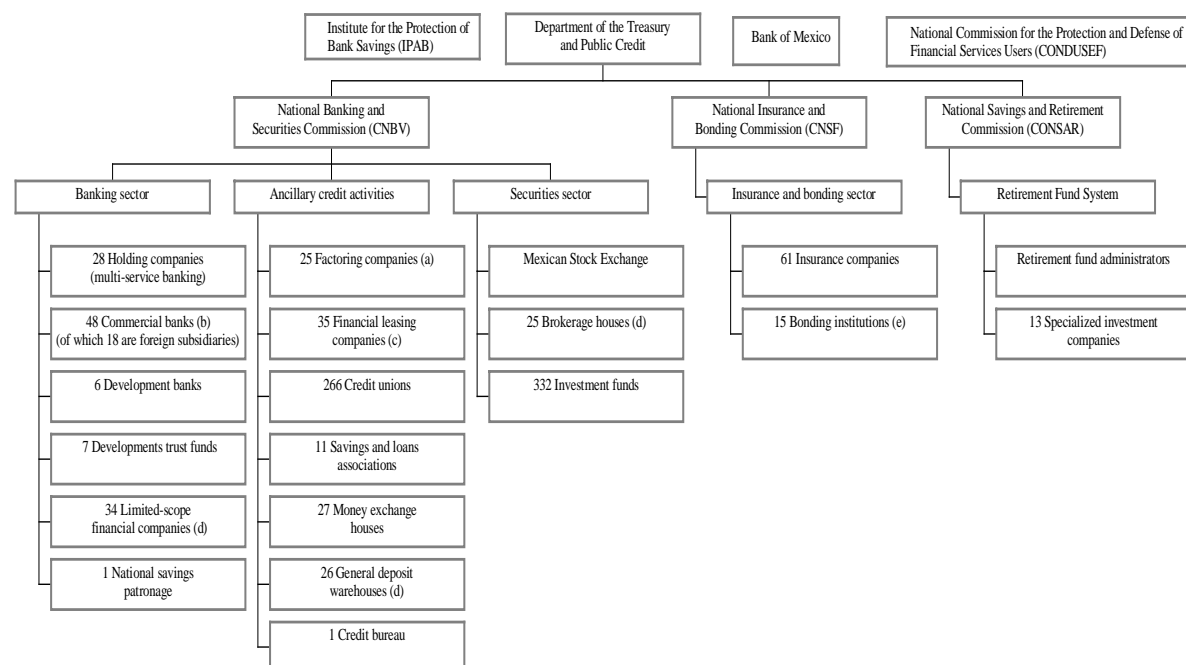
In 1999, the IPAB intervened in two commercial banks – Banca Serfin and BanCrece – to protect more than 3.5 million accountholders. In both cases, the IPAB prevented their bankruptcy by injecting resources for their recapitalization; shareholders lost the capital invested. Banca Serfin returned to the private sector in mid 2000, although the IPAB remained the largest creditor; in September 2001, BanCrece was sold to Banorte, through public bid, for Mex\$1.6 billion (some US\$176 million).

Source: IPAB (2000), *Annual Report* [online]. Available at: <http://www.ipab.org.mx/> [15 November 2001].

104. Foreign financial institutions may establish representative offices in the Mexico with prior SHCP authorization; representative offices may not act as financial intermediaries, nor promote acceptance of funds by the firm they represent. Foreign financial institutions without commercial presence may not solicit and transact business with customers in Mexico.

105. Access to the financial services market provided for in Mexican laws is in practice more favourable than Mexico's GATS commitments. In January 1999, the Credit Institutions Law, the Securities Market Law and the Law to Regulate Financial Groups were amended in order to allow foreign investment to participate up to 100% in the capital of commercial banks, financial groups, securities brokerage firms, and securities market specialists. The total percentage of foreign investment in other financial institutions (including general deposit warehouses, financial leasing companies, financial factoring companies, currency exchange houses, and insurance and bonding institutions) remains limited to 49% of the paid-up capital. Foreign investment is still prohibited in credit unions and development banks.

Chart IV.1
Structure of the Mexican financial system, December 2001



- a Of which six are under intervention.
 b Of which ten are under intervention.
 c Of which one is under intervention.
 d Of which two are under intervention.
 e Of which three are under intervention.

Source: WTO Secretariat, based on information provided by the Mexican authorities.

106. Notwithstanding the above provisions, unrestricted foreign ownership is possible only through the legal figure of subsidiaries of foreign financial institutions. The limits on foreign ownership of financial institutions do not apply to subsidiaries of foreign financial institutions based in countries with which Mexico has concluded agreements covering financial services providing for such establishment. Besides the NAFTA, Mexico has signed such agreements with Colombia and Venezuela, the European Free Trade Association, and the European Union. In the case of the FTAs with Bolivia and Nicaragua, which also include provisions on financial services, the establishment of subsidiaries is not allowed.

107. Foreign financial institutions from other countries may hold only non-controlling interests in domestic institutions. However, pursuant to its accession to the OECD, Mexico allows the establishment of subsidiaries of foreign financial institutions from all OECD countries.

108. As noted, the Mexican legislation allows the establishment of financial groups (holding companies) controlling different types of institutions. Such groups must include in general at least three of the following institutions: (i) a bank; (ii) a brokerage house; (iii) an insurance company; (iv) a bonding company; (v) a mutual fund management company; (vi) a currency exchange broker; (vii) a general deposit warehouse; (viii) a financial leasing company; (ix) a financial factoring company; (x) a limited scope financial institution company; (xi) a retirement savings company; (xii) managing companies of investment companies. Financial groups may also be established with only two types of entities provided they are selected among the following: (i) a bank; (ii) a brokerage house; or (iii) an insurance company. The establishment of holding companies must be authorized by

the SHCP, which grants such authorization on a discretionary basis.³¹ The majority of board members of a financial group must be Mexican nationals or foreigners residing in Mexico.

Table IV.11
Main financial sector laws

Laws	Date of publication (latest amendment)
General Law on Organizations and Auxiliary Credit Activities (<i>Ley General de Organizaciones y Actividades Auxiliares del Crédito</i>)	14 January 1985 (4 June 2001)
Investment Company Law (<i>Ley de Sociedades de Inversión</i>)	4 June 2001
Credit Institutions Law (<i>Ley de Instituciones de Crédito</i>)	18 July 1990 (15 January 2002)
Law to Regulate Financial Groups (<i>Ley para regular las Agrupaciones Financieras</i>)	18 July 1990 (4 June 2001)
Central Bank Law (<i>Ley del Banco de México</i>)	23 December 1993 (19 January 1994)
Regulations for the Establishment of Affiliates of Foreign Financial Institutions (<i>Reglas para el Establecimiento de Filiales de Instituciones Financieras del Exterior</i>)	21 April 1994
Law on Saving Systems for Retirement (<i>Ley de los Sistemas de Ahorro para el Retiro</i>)	23 May 1996 (16 January 2002)
General Law of Insurance Companies and Mutual Institutions (<i>Ley General de Instituciones y Sociedades Mutualistas de Seguros</i>)	31 August 1935 (19 January 2001)
National Insurance and Bonding Commission Regulations, on Inspection, Vigilance and Accountancy (<i>Reglamento de la Comisión Nacional de Seguros, y Fianzas en Materia de Inspección, Vigilancia y Contabilidad</i>)	14 January 1991
People's Savings and Credit Law (<i>Ley de Ahorro y Crédito Popular</i>)	4 June 2001
National Banking and Securities Commission Law (<i>Ley de la Comisión Nacional Bancaria y de Valores</i>)	28 April 1995 (1 June 2001)
Securities Market Law (<i>Ley del Mercado de Valores</i>)	2 January 1975 (1 June 2001)
Law for the Protection of Bank Savings (<i>Ley de Protección al Ahorro Bancario</i>)	19 January 1999 (1 June 2001)
Federal Law on Bonding Institutions (<i>Ley Federal de Instituciones de Fianzas</i>)	29 December 1950 (16 January 2002)
Law for the Protection of Financial Services Users (<i>Ley de Protección y Defensa al Usuario de Servicios financieros</i>)	18 January 1999 (5 January 2000)

Source: The Mexican authorities.

(b) Banking

109. The Mexican financial system is dominated by banking institutions, including commercial or multi-service banks (entitled to receive money from the public); development banks; limited scope financial companies (exclusively dedicated to one activity, e.g. operation of credit cards, or motor vehicle or housing credits); the National Financial Services Bank³²; and public trusts (intended to support specific activities).

110. Between December 1997 and March 2001, the total credit granted by commercial banks to the productive sector decreased significantly, from Mex\$539 billion (some US\$66 billion) to Mex\$463 billion (some US\$48 billion) (Table IV.12). This is explained by the mid-1990s financial crisis, which moved a large portion of the credit to the IPAB (see Box IV.1), more cautious behaviour on the part of commercial banks, and the limited resources available to them, which between 1995 and 1998 were mostly allocated to building reserves and strengthening the overall quality of their

³¹ Financial Groups Law published in the *Official Journal* on 18 July 1990.

³² In June 2001, the National Savings Patronage was transformed into the National Financial Services Bank, which is responsible for coordinating the Mexican Popular Saving System.

balance sheet. Credit to the productive sector was also affected on the demand side by relatively high interest rates and access to alternative financing sources such as suppliers' credit and inter-company credit.

Table IV.12
Total credit granted by commercial banks, by sector, 1997-01
(per cent, unless otherwise specified)

Sector	1997	1998	1999	2000	2001 ^a
Total credit (Mex\$ million)	895,348	949,169	1,026,820	946,633	914,540
Total credit (US\$ million)	113,070	103,893	107,403	100,113	100,546
Agriculture, forestry and fishing	5.6	5.3	4.5	4.2	4.3
Industry	26.2	27.0	23.1	22.1	21.9
Mining	0.6	0.4	0.4	0.6	0.6
Manufacturing	17.4	18.4	16.1	15.9	15.4
Construction	8.2	8.2	6.6	5.6	5.9
Services and other activities	28.4	26.5	22.4	24.8	24.5
Housing	24.7	26.4	24.6	22.2	21.8
Consumption	3.4	3.5	3.4	4.7	5.3
Domestic financial sector	1.7	2.1	14.4	15.4	14.8
Private	1.6	1.8	2.4	2.8	3.0
Public	0.1	0.3	0.4	0.4	0.1
FOBAPROA and IPAB	n.a.	n.a.	11.7	12.2	11.8
Government and public administration	4.8	5.7	5.0	5.2	5.6
Entities abroad	0.9	1.3	0.3	0.5	0.7
Past due credit (% of total credit)	24.0	31.1	29.0	24.7	23.2
Agriculture, forestry and fishing	43.4	75.0	78.6	76.8	66.2
Industry	18.7	28.1	32.1	30.6	29.2
Mining	10.7	28.9	35.3	26.6	28.9
Manufacturing	16.1	24.4	29.0	27.1	26.1
Construction	24.8	36.2	39.3	41.0	37.1
Services and other activities	27.4	39.0	44.5	36.0	32.6
Housing	28.9	28.7	27.1	20.9	21.6
Consumption	24.1	20.7	18.0	10.4	10.2
Domestic financial sector	52.7	43.8	5.1	4.5	5.0
Government and public administration	0.4	0.4	0.4	0.3	0.3
Entities abroad	4.5	0.2	11.6	0.9	..

.. Not available.

a Preliminary estimate as of May 2001.

Source: Poder Ejecutivo (2001), *Primer Informe de Gobierno*, [online]. Available at <http://www.presidencia.gob.mx/>.

111. Financial indicators for commercial banks have improved since the mid-1990s crisis. The proportion of past due loans to total loans has decreased sharply since 1994, standing at less than 5% in December 2001; capital adequacy (measured as the ratio of net capital to risk assets) has also improved and was close to 15% in 2001 (Table IV.13).

112. More stringent capitalization and reserve regulations increased the need for additional capital, which required the participation of additional investors. In January 1999, foreign investors were allowed to own a controlling share of a Mexican commercial bank, regardless of the bank's size.³³ This reform resulted in a striking rise of foreign participation which, measured as the share of foreign-

³³ Before the reform, foreign investors were not allowed to hold more than 20% of the outstanding shares of banks that held more than 6% of the aggregate capital of the Mexican banking system, thus, in practice, precluding foreign control of the three largest Mexican banks.

controlled banks in total assets, rose from 24% in 1998 to nearly 50% at the end of 2000; this share rose to some 73% in 2001 following the purchase of BANAMEX by CITIGROUP.

Table IV.13
Commercial banking soundness indicators^a
(Per cent)

Year	Total loans (real change)	Past due loans (real change)	Provisions for credit risks/ Past due loans	Past due loans/ Total loans	(Past due loans minus provisions)/Capital	Net capital/ Risk assets
1994	25.7	36.3	20.8	17.1	151.4	10.4
1995	-19.0	-29.4	34.9	14.9	83.7	12.9
1996	-10.7	-29.3	56.1	11.8	45.0	12.6
1997	6.9	-0.5	61.4	11.0	33.2	13.9
1998	0.3	-7.4	66.4	10.1	25.8	14.8
1999	-11.2	-29.8	95.6	8.0	2.1	16.2
2000	-2.2	-41.7	112.8	5.3	-4.0	14.5
2001 ^b	-7.3	-33.3	127.7	4.7	-8.3	14.8

a These figures should be interpreted cautiously. In 1997 more stringent criteria for defining past due loans were adopted, thus the reported figures for previous years would be higher if they were to be calculated with the new rules. The same applies for capital adequacy rules changed in 1996 and 1999.

b Preliminary estimate as at September 2001; do not include Banco Atlántico.

Source: National Banking and Securities Commission.

113. The opening up of the banking sector to foreign investment was accompanied by substantial efforts to upgrade the financial regulatory and supervisory framework to international standards. In terms of prudential regulations, changes aimed at strengthening the banking system included the adoption of: solvency regulations, including more stringent BIS capital rules and credit rating rules as well as loan provisioning requirements; financial information and disclosure regulations; and operating regulations, which included guidelines for overall risk management and the granting of credit. Additional reforms in June 2001 were aimed at increasing domestic savings through the financial system; introducing a more stringent framework on related parties lending; introducing prompt corrective actions providing better protection for bank depositors; promoting credit channels to all sectors of the economy; and strengthening the structures of corporate governance of financial institutions and securities issuers.

114. A compulsory deposit insurance mechanism was established in 1999 resulting in a gradual lifting of the universal deposit guarantee and limiting the coverage of bank liabilities (Box IV.1). The adoption in 2000 of a new bankruptcy law also contributed to the strengthening of the financial environment.

115. In December 2001, the banking system in Mexico included five government-owned development banks, and seven public trusts intended to promote and finance specific activities. The three major development banks in terms of total credit granted were: Nacional Financiera (NAFIN) accounting for 42% of total development banks credit; Banco Nacional de Obras y Servicios Públicos (BANOBRAS) accounting for 33%; and Banco Nacional de Comercio Exterior (BANCOMEXT) accounting for 17%. In addition two development banks were in the process of liquidation, including the sugar industry bank (FINASA) (see section (2) above), and two others had been authorized to operate but were yet to begin their activity. In March 2001, total outstanding credit from development banks amounted to Mex\$406 billion (equivalent to some 7% of GDP).

116. BANCOMEXT's main objective is to increase the competitiveness of small and medium-size companies working in export or import substitution activities, granting support through training

services, information, financial assistance, project coordination, and financing. NAFIN provides support to the productive sector by offering multiple financing programmes through a network of intermediaries, including commercial banks and other financial agents. In addition, NAFIN promotes domestic and foreign equity investments in private projects, encourages growth in the less developed regions by increasing and improving availability of financial resources, and supports domestic companies in becoming more competitive by offering technical assistance and training programmes (see Chapter III(3)(x) and (4)(iii)).

117. A recent study by the International Monetary Fund assessing the stability of the Mexican financial system pointed out that the role played by development banks and public trusts was seriously undermining an otherwise efficient financial system. Major concerns were related to most development banks: making losses despite various rounds of recapitalization; having been involved in quasi-fiscal activities outside the scope of the budget; having the fiscal incentives involved in their operations channelled in a non-transparent manner; incurring high operational costs; and engaging in operations overlapping the activities of other development or commercial banks either because their mandates were not clearly established or they did not live up to their mandates.³⁴

(c) Insurance and bonding

118. Mexico's insurance and bonding sector comprises insurance companies, mutual insurance companies, and bonding institutions. As at September 2001, there were 70 insurance firms of which two were state-owned (including AGROASEMEX, which provides specialized insurance services for the agricultural sector - see section (2)), two were mutual companies, and 66 were private companies. Among private companies, 34 firms – accounting for close to 40% of direct insurance premiums – were subsidiaries of foreign financial institutions, while 16 were part of Mexican financial groups. Additional market information is provided in Table IV.14. With respect to bonding activities, there were 15 companies in 2001 of which seven were part of Mexican financial groups and four were subsidiaries of foreign financial institutions. The total bonds issued by the bonding sector amounted to some Mex\$2 billion as at September 2001.

Table IV.14
Mexico's insurance market, January-September 2001
(% unless otherwise specified)

Direct premiums (Mex\$ million)	75,964
Life	34.0
Pensions	13.4
Injuries and illness	11.1
Damages	41.5
Vehicles damages	17.3
Vehicles	24.2
Reinsurance (Mex\$ million)	2,731
Total (Mex\$ million)	78,695

Source: National Insurance and Bonding Commission (CNSF).

119. The insurance industry is governed by the General Law of Insurance Companies and Mutual Institutions of 1935, as amended. Main responsibility for the application of these statutes rests with the SHCP and CNSF.

³⁴ IMF (2001b).

120. In addition to the foreign participation limitations described above, individual foreign investors may hold no more than 20% of the capital of an insurance company. Mexican nationals must have both majority ownership and administrative control of domestically established insurance companies. There are no nationality requirements for board members of domestic insurance companies. For subsidiaries of foreign financial institutions, the majority of board members and the director must reside in the Mexican territory, regardless of their nationality.

121. The law establishes several prohibitions for contracting services with companies established abroad, including: damage insurance for maritime and air transport vehicles registered in Mexico; civil responsibility insurance and any other kind of insurance covering events that might occur in Mexico; and credit insurance by firms subject to Mexican laws.³⁵

122. Foreign reinsurance companies may have representatives in Mexico, but these may only accept or assign reinsurance liabilities in the name of their main offices. To participate in reinsurance operations, foreign reinsurance companies must be registered with the SHCP. Companies engaged in reinsurance operations may use the services of intermediaries residing in Mexico or abroad. Reinsurance intermediaries residing in Mexico must be authorized by the CNSF, while reinsurance intermediaries residing abroad and wishing to offer services in Mexico must be registered with both the CNSF and the SHCP.

(ii) Telecommunications

(a) Performance and market structure

123. The Mexican telecommunication sector has expanded substantially over the last decade; the sector has grown some five times faster than the economy as a whole, resulting in a sharp increase in its contribution to GDP, from some 1.1% in 1990 to about 3% in 2000. During the same period some US\$28 billion were invested in network expansion and modernization. TELMEX (Teléfonos de México), the former state-owned monopoly, remains Mexico's dominant telecommunications company, despite the increasing participation of competitors mainly in long-distance and international services. TELECEL, which was divested from TELMEX in September 2000 is the main player in Mexican wireless market, accounting for some 77% of the total number of mobile phone subscribers as at September 2001; the second-largest mobile operator accounted for 9% of total subscribers.

124. Following the introduction of competition in domestic long-distance and international services in January 1997, and the entry of new operators, prices for these services have fallen substantially. According to data provided by the authorities, between the fourth quarter of 1996 and the third quarter of 2000, average rates for long-distance services fell by some 60% in real terms, average rates for calls to Canada and the United States fell by some 55%, while rates for international calls to other countries fell by some 61%. These rate reductions have contributed to the sharp increase in the volume of long-distance and international calls.

125. One of the most notable development in the telecommunications market since Mexico's previous Review has been the sharp increase in mobile services, particularly since the introduction on 1 May 1999 of the "calling party pays" billing system: mobile penetration increased from 1.1 users per 100 inhabitants in 1996 to 3.5 in 1998, reaching a rate of 8 per 100 in 1999. For 2001 mobile penetration stood at 17.3, surpassing the penetration level of the fixed service, which, despite sizable increases since 1998, remains low at some 13 lines per 100 inhabitants in 2001 (Table IV.15).

³⁵ Article 3 of General Law on Insurance Companies and Mutual Institutions.

Table IV.15
Structural and performance indicators of Mexico's telecommunications sector, 1995-01

	1995	1996	1997	1998	1999	2000	2001
Fixed local telephony							
Total number of lines ('000)	8,801.0	8,826.1	9,253.7	9,926.9	10,927.4	12,331.7	13,368.3 ^a
Density (number of lines per 100 inhabitants)	9.6	9.5	9.8	10.3	11.2	12.4	13.0 ^b
Long distance telephony							
National calls (million minutes)	7,294	7,867	9,143	11,717	14,425	16,811	..
Average rates ^c	..	3.1	1.9	1.4	1.4	1.2	..
International calls (million minutes)	3,055	3,558	4,033	4,286	5,570	7,776	..
Outward calls	950	1,055	1,214	1,316	1,563	1,883	..
Inward calls	2,105	2,503	2,819	2,970	4,007	5,893	..
Average rates for calls to the U.S. and Canada ^c	..	9.1	5.8	5.0	4.3	4.1	..
Average rates for calls to the rest of the world ^c	..	17.5	11.2	9.3	7.2	6.9	..
Mobile telephony							
Number of users ('000)	689	1,022	1,741	3,349	7,732	14,078	19,396 ^a
Density (users per 100 inhabitants)	0.8	1.1	1.8	3.5	8.0	14.2	17.3
Public telephony							
Number of public phones ('000)	246.5	238.6	259.6	316.6
Paging (number of users)	252	330	448	651	806	667	471
Trunking (number of users)	65	89	113	140	243	268	272
Restricted television services ('000 subscribers)							
Cable TV	1,250	1,450	1,383	1,611	1,983	2,282	2,437 ^a
Microwaves	286	236	267	288	355	346	330 ^a
Via satellite (DTH)	0	0	152	308	491	668	843
Internet users ('000)	94	187	596	1,222	1,822	2,712	..
Digitalization of facilities (%)	87.6	89.8	90.1	97.7	99.6	99.9	..
Optical fiber network ('000 kilometres)	42.8	56.1	85.1	75.3	85.7	98.1	..

.. Not available.

a September 2001.

b June 2001.

c Constant Mexican pesos of September 2000; all rates correspond to averages for the fourth quarter of each year, except for 2000, for which the figure corresponds to the second quarter.

Source: WTO Secretariat, based on information provided by the Mexican authorities.

126. As described in the Secretariat Report for Mexico's previous Trade Policy Review, from the early 1990s Mexico has engaged in a major programme to open up the telecommunications market, including deregulation, the introduction of competition, and the liberalization of foreign investment. In 1990, the Government initiated the privatization of TELMEX, then state-controlled, selling a controlling share to a private consortium including a Mexican group, Grupo Carso, and two foreign companies, France Telecom and SBC Communications, a division of Southwestern Bell; the privatization process ended in 1994, when the State sold its remaining shares in TELMEX.

127. The privatization of TELMEX came with a concession title which will expire in 2026 (corresponding to a 50 year concession from 1976, the date of the original concession title). Under the concession title, TELMEX was granted a monopoly for long-distance and international telephony until 31 December 1996. For other services, such as local telephony, wireless telephony, paging, trunking, or value-added services, the entry of new operators was allowed. The concession also

included obligations with respect to infrastructure expansion, in particular in rural areas; improvement of the quality of the services; and infrastructure interconnection.

128. Before introducing competition in long-distance and international services several steps were taken to ensure that competition would be viable, including the granting of concession titles, starting in 1995, to allow new entrants to develop their infrastructure and be prepared to provide their services under good conditions from January 1997. Moreover, TELMEX was required to rebalance its rates to eliminate the cross-subsidies between local and long-distance or international services; and the rules governing interconnection agreements between long-distance carriers and the incumbent company were established through a Resolution published on 1 July 1994, which also established that TELMEX would provide interconnection to new operators in 60 cities by 1997, spreading to 200 by the start of 2000.

129. Until 2002, concessionaires had not succeeded in reaching agreement on interconnection conditions between fixed networks or between fixed and mobile networks; these had to be determined by the authorities. An important issue underlying the determination of interconnection conditions concerned the rebalancing of TELMEX's local and long-distance rates. The tariff rebalancing programme, initially scheduled to be completed before the market liberalization in January 1997, was delayed due to the financial crisis in 1994. Although most firms acknowledged this situation, there was a disagreement on the extent of the misalignment as well as on whether this justified the imposition of interconnection charges well above the long-run incremental cost. The authorities resolved the dispute between TELMEX and long-distance operators by establishing a transitional interconnection regime for 1997 and 1998, which allowed TELMEX to recover part of the subsidies incorporated in the local services while tariff rebalancing was completed.³⁶ Subsequently, interconnection charges established by the authorities for 1999-00 and for 2001 were substantially reduced: for instance, according to figures from the Mexican authorities, interconnection charges for long-distance operators were reduced in constant terms from some Mex\$0.71 per minute in 1997 to Mex\$0.11 per minute in 2001.³⁷ For 2002, concessionaries agreed to set the interconnection rate at Mex\$0.09 per minute.

130. Competition in local services started progressively in 1999; previously, competition had been hampered mainly by the subsidized rates offered by TELMEX. The advance of the rebalancing programme and the establishment of interconnection agreements for local service networks have allowed various concessionaries to start local services operations. At the end of 2000, 17 concession titles for operating fixed local telephony services had been granted (including with wireless technology), of which seven had started operating in eight Mexican cities.

(b) Regulatory framework

131. The main law regulating the telecommunication sector in Mexico is the Federal Telecommunications Law (7 June 1995). Other bills and regulations include: the Law of General Means of Communications (19 February 1940, as amended); the Telecommunications Regulations (29 October 1990); and the regulations and rules issued by the Department of Communications and Transportation (SCT) and the Federal Telecommunications Commission (COFETEL). The latter includes long-distance services (21 June 1996), rules for international long-distance services (11 December 1996), rules for local services (22 October 1997), and regulations for satellite

³⁶ For additional details on developments in interconnection conditions in the Mexican market see OECD (1999b) and International Telecommunication Union (2001).

³⁷ Figures from Department of Communications and Transportation (2000), based on constant prices of September 2000, and on an inflation assumption of 9% for 2000.

telecommunications (1 August 1997).³⁸ The SCT and its autonomous regulatory body, the COFETEL, oversee compliance with the relevant laws and regulations.

132. COFETEL is the primary regulatory authority, although SCT retains certain important responsibilities including the authority to grant concession titles and permits, and impose sanctions; COFETEL's main functions include providing opinions to the SCT with respect to applications for the granting, modification, extension and cession of concessions and licences; resolving interconnection controversies among concessionaries; issuing administrative rules for the provision of telecommunications services; submitting for approval by the SCT the programme for the allocation of frequency bands and coordinating the corresponding bidding procedures; coordinating the bidding procedures to exploit geostationary orbital positions, and satellite orbits assigned to Mexico; establishing the procedures for the homologation of equipment; maintaining the registry of telecommunications; overseeing the observance of what is set forth in concessions and permits; and proposing to the SCT the imposition of sanctions for the violation of legal, regulatory or administrative provisions.

133. Under the Federal Telecommunications Law (LFT) a concession title is required for: the use of a frequency band, except for unlicensed spectrum that can be used by everyone and official-use spectrum; the installation, operation or exploitation of public telecommunications networks; the occupation of geostationary orbital positions and satellite orbits assigned to Mexico and the exploitation of its corresponding frequency bands; and the exploitation of signal transmission and reception rights of frequency bands associated to foreign satellite systems that may cover or render services in the Mexican territory. Frequency band concessions are granted for a 20-year period and may be extended once for an equal term; concessions over public telecommunications networks are granted for a 30-year period and may be extended once for an equal term.

134. Concession titles may be granted only to Mexican individuals or companies; foreign investment participation is allowed up to a maximum of 49%, except for mobile telephony services where foreign participation may exceed this maximum provided permission is obtained from the National Foreign Investments Commission (CNIE).

135. A permit issued by the SCT is required for the establishment, exploitation or operation of a telecommunication services company that does not have a public network nature, and of land transmitting stations. Providers of value-added services are not required to obtain a licence, although they must be registered with the COFETEL.

136. The LFT does not establish conditions to be set in the concession titles. However, the OECD noted that COFETEL's ability to impose conditions on the concession titles, through a process of negotiation over the business plan of individual companies, has been the principal instrument used by the authorities to regulate the telecommunications market.³⁹ For instance, to promote infrastructure expansion, COFETEL has imposed obligations on new entrants to build infrastructure in excess of the level they would otherwise have built. This policy of promoting infrastructure development through the regulation of entry into the market raises some concerns as it might limit the ability of new suppliers to respond quickly to market developments and technological changes since the investment obligations are set in the concession contracts months or years in advance; moreover, COFETEL's ability to set specific conditions in each concession generates incentives for lobbying from established concessionaires to raise entry conditions for new firms.

³⁸ Laws and Regulations applying in the telecommunications sector may be consulted in the CFT online information, available at: <http://www.cft.gob.mx/>.

³⁹ See OECD (1999b).

137. Provisions regulating interconnection in Mexico are contained in the LFT, the concession titles, and various rules issued by the SCT and COFETEL. The LFT establishes that concessionaires of public telecommunications networks must adopt architecture designs that allow interconnection and inter-operability of the networks. Concessionaires of public networks are required to negotiate interconnection agreements within a time-period not exceeding 60 calendar days. Discriminatory practices in the application of rates or any other terms of interconnection are prohibited. Although interconnections do not have to be approved by the authorities to be valid, concessionaires are required to register agreements with COFETEL. In case of failure to reach an agreement, the parties can appeal to COFETEL to rule on outstanding issues, including to determine the level of interconnection rates.

138. With respect to price regulations, TELMEX's concession title established a system of price control based on a price-cap mechanism, which applies over a basket of basic services including installation charges, monthly rates, and local, long-distance, and international services. The weighted average price of these services is constrained to a ceiling level. For all other prices, the LFT establishes that concessionaires may freely determine the rates for telecommunication services, in terms that will allow the rendering of such services within satisfactory conditions of quality, competitiveness, safety and permanence. The Mexican authorities indicated that tariff application was denied once to TELMEX because one of these conditions was not met and the company did not comply with its concession title. The law also established that COFETEL is entitled to impose specific obligations on prices (as well as on quality of service and information) on concessionaires that have been found by the Federal Competition Commission (CFC) to have substantial power in a given market.

139. Since its previous Review in 1997, Mexico has signed new agreements and protocols on telecommunications issues with Argentina, Belize, Canada, Chile, Costa Rica, El Salvador, Ecuador, France, Germany, Nicaragua, the Republic of Korea, Spain, and the United States. These agreements included memoranda of understanding, protocols for transmission and reception of satellite signals, agreements for the promotion of the Spanish language on the Internet, and cooperation agreements.⁴⁰

140. Mexico adopted the Fourth Protocol to the GATS as well as the Reference Paper to this Protocol on pro-competitive and transparency practices (Chapter II(4)). Mexico's offer generally consolidated the basic features and principles contained in the LFT. Most services were included in Mexico's offer, although radio broadcasting, cable television, and satellite transmission services were excluded. With respect to national treatment, all telecommunication services included in the Mexico's Schedule were bound (except for the presence of natural persons as specified in the horizontal commitments). Market access for cross-border supply was bound with the only restriction that international traffic must be routed through the facilities of an enterprise with a concession granted by the SCT. Matching LFT provisions, market access through commercial presence was bound at a ceiling of 49% foreign participation and remains subject to the obtention of a concession title or permit as described above (Table AIV.4).

141. In August 2000, the United States requested consultations with Mexico alleging that Mexico had adopted anti-competitive and discriminatory regulatory measures, tolerated certain privately established market access barriers, and failed to take needed regulatory action in the basic and value-added telecommunications sectors.⁴¹ Subsequently, the United States requested the establishment of a Panel, concerned that TELMEX would challenge the two corrective steps taken by Mexico, i.e. rules to regulate the anti-competitive practices of TELMEX and the announcement of significant reductions

⁴⁰ A comprehensive description of international agreements and protocols signed by Mexico is available online at: http://www.cft.gob.mx/html/6_inter/inter03.html.

⁴¹ WTO document WT/DS204/1, 29 August 2000.

in interconnection rates for 2001.⁴² Mexico blocked the establishment of this Panel in December 2000; and there has been no subsequent action.⁴³

(iii) Transport

(a) Air transport

142. In 2001, Mexico's airport network comprised 1,270 aerodromes, 57 international airports and 28 national airports. Between 1996 and 2001, the total number of passengers on national and international flights increased at an annual average rate of 6.6%, reaching some 36.5 million in 2001. Over that period, the volume of freight transported on national and international services also increased substantially, with international freight growing three times faster than national freight; in 2001, some 403,000 tonnes of freight were transported (Table IV.16).

Table IV.16
Main indicators for the air transport sector, 1996-01

Concept	1996	1997	1998	1999	2000	2001
Infrastructure and air operations						
Number of airports	1,116	1,280	1,309	1,333	1,215	1,355
National	30	29	29	29	28	28
International	53	54	55	55	57	57
Aerodrome	1,033	1,197	1,225	1,249	1,130	1,270
Number of aircraft	6,255	6,429	6,014	6,224	6,476	6,553
Commercial	1,184	1,271	1,055	1,155	1,173	1,198
Official	534	536	389	412	517	520
Private	4,537	4,622	4,570	4,657	4,786	4,835
Number of passengers ('000)	26,493	28,896	30,922	32,662	33,974	36,483
National services	14,199	15,428	17,046	18,248	17,762	18,650
International services	12,294	13,468	13,876	14,414	16,212	17,833
Freight transported ('000 tonnes)	285	335	388	407	379	403
National services	94	103	112	116	99	108
International services	191	232	276	291	280	295

Source: WTO Secretariat estimates, based on Poder Ejecutivo Federal (2001), *Primer Informe de Gobierno*, September, 2001.

143. The most important regulations affecting the air transport sector are: the Civil Aviation Law of 12 May 1995 and its Regulations of 7 December 1998; and the Airports Law of 22 December 1995 and its regulation of 17 February 2000. The Department of Communications and Transport (SCT) has ultimate responsibility for the air transport sector; its General Directorate of Civil Aviation has direct responsibility for regulating the sector, and approving the entry of new airlines. Other state agencies in the sector include the Mexican Air Space Navigation Service (SENEAM), in charge of air transit; and the Airports and Auxiliary Services Agency (ASA), responsible for operating, managing, and maintaining state-controlled airports.

144. Since Mexico's previous Trade Policy Review, the administration of airport infrastructure has undergone important changes, many relate to partial transfer to the private sector. The possibility of transferring the construction, administration, and operation of airport infrastructure to the private sector through concessions was established in the 1995 Airport Law, which paved the way for the modernization and development of Mexican airport infrastructure. The general guidelines for the effective opening up of airport infrastructure to private investment were published on 9 February 1998. These guidelines established that 35 (out of 58) of the airports controlled by ASA were to be

⁴² WTO document WT/DS204/2, 16 November 2000.

⁴³ WTO document WT/DSB/M94, 15 February 2001.

offered to the private sector on the basis of a "build-operate-transfer" (BOT) concession for a renewable 50-year period. Airports were divided into four regional groups and State-owned concessionary company was established for each.

145. A two-stage strategy was designed to transfer the control of these companies to the private sector. In the first stage, effective control and 15% of the capital of the concessionary company were to be sold to a strategic partner selected through international bid. Three of the four groups were transferred to the private sector between 1998 and 2000, for a total amount of US\$470 million. The fourth group, Mexico City Airport Group, which accounted for more than 35% of passengers serviced by Mexican airports in 1999, was not transferred to the private sector. The second stage consisted in the selling of the remaining 85% of the shares on national and international stock markets. The Mexican authorities started this process in December 2000, with the sale of 74% of the capital of one of the group (South-eastern Airport Group) for a total amount of some US\$428 million.

146. Under the Airports Law, foreign investment in concessionary companies is unrestricted up to a maximum of 49%; a permit from the National Foreign Investments Commission (CNIE) is required for a higher percentage of foreign investment.

147. The Airports Law distinguishes three categories of services offered in airports: airport services (use of runways, aprons, platforms, visual aids, lighting, passenger and cargo terminals, boarding services, security, and fire fighting and rescue services); auxiliary service (ramps, traffic, fuel supplying, aircraft food, cargo storage and security, maintenance and repair services for aircraft); and commercial services (commercial areas, car rental, restaurants, bank advertising, hotels, and others as required). The SCT is entitled to establish rules to govern the rates charged for airport services; auxiliary services may also be subject to regulation, where the Federal Competition Commission (CFC) determines that reasonable competition conditions are not met. All rates for airport and auxiliary services must be registered with the SCT.

148. The provision of regular national air transport services is subject to the obtention of a concession which is issued by the SCT and granted only to Mexican companies; holders of a concession may also supply regular international services provided they obtain an authorization for the corresponding destination. Other air transport services are subject to the obtention of a permit which may be granted to: Mexican companies for non-regular national services; foreign companies for regular international services, as established in international treaties; foreign and Mexican companies for non-regular international services; and to Mexican or foreign persons or companies for commercial private air transport services. Cabotage services are reserved for Mexican companies.

149. The Civil Aviation Law establishes that operators may freely determine the rates for their air transport services, in terms that will allow the rendering of such services within satisfactory conditions of quality, competitiveness, safety, and permanence. All rates must be registered with the SCT. Rates for international routes must be approved by the SCT. In addition, the SCT is entitled to regulate rates in the absence of effective competition between operators, as determined by the CFC.

150. With CFC approval, a holding company, CINTRA, was set up in 1995 to manage the two principal domestic airlines (Aeroméxico and Mexicana); in the wake of Mexico's economic problems both companies were facing precarious financial situation. CINTRA was established on a temporary basis to enable the recovery of the two airlines through debt capitalization; additional investment; and selling the companies separately once their financial and operating viability was re-established.

151. The situation of Aeroméxico and Mexicana improved significantly, but the resulting market concentration raised serious concerns with respect to competition in domestic markets for passenger and freight transport. Figures for December 1999 show that CINTRA's subsidiaries (Aeroméxico, Mexicana and regional companies) accounted for about 80% of total passengers transported on domestic flights. CINTRA's dominant position in domestic routes is reinforced by important market

access restrictions applying to foreign companies on both cross-border supply (cabotage is reserved to Mexican companies) and commercial presence (foreign investment in domestic air transport companies is limited to 25% of total capital).

152. In October 2000, the CFC confirmed that CINTRA should sell Aeroméxico and Mexicana as independent companies to different buyers to prevent the consolidation of a single company with market power to set prices and prevent the entry of or unduly displace other competitors in the domestic market for commercial passenger and cargo air transportation. The competition authority believed that this would be contrary to the interests of users at large and hinder the development of air transport and, more generally, of Mexico's economy.⁴⁴ As at January 2002, CFC's order to break CINTRA's dominant position had not been carried out, reflecting, in part, divergent views in Congress and political pressure from labour unions.

153. The objectives of Mexico's air transport policy, as established through an Accord published on 29 October 2001, include: to maintain Mexican control on the administration of national airlines; and to foster healthy competition and prevent predatory practices and dominant positions. This Accord also reaffirmed that the principles underlying international agreements on air transport are effective reciprocity and equivalent markets. Mexico has signed 36 bilateral civil aviation agreements: seven with countries in Asia, ten in the Caribbean and South America, three in Central America, 14 in Europe, and two in North America. Mexico's commitments on air transport services under the GATS were limited to some supporting services to air transport (see Table AIV.4).

(b) Maritime transport

154. Mexico has 11,500 kilometres of coast line and 108 ports (97 maritime and 11 fluvial); 54 of these ports are located on the Pacific and 54 on the Caribbean or Gulf of Mexico. In 2001, commercial, industrial, and tourist activities were carried out at 38 ports; the remaining 70 ports have mainly engaged in fishing activities. Between 1997 and 2001, freight traffic through the national port system increased by some 12%, reaching 247 million tonnes in 2001. Maritime transport continues to play a central role in Mexico's international trade, handling some 80% of the country's total trade volume, equivalent to 179 million tonnes in 2001 (Table IV.17).

Table IV.17
Main indicators of the maritime transport sector, 1997-01

	1997	1998	1999	2000	2001
Number of ports	107	107	108	108	108
Maritime	96	96	97	97	97
Fluvial	11	11	11	11	11
Quay length (km.)	176.8	179.2	184.4	184.9	184.9
Storage capacity (million m ²)	3.5	3.7	5.3	5.5	5.5
Freight handling (million tonnes)	220	237	231	244	247
High-seas	159	169	164	177	179
Cabotage	61	68	67	67	68
External trade (million tonnes)	159	169	164	177	179
Importation	33	43	45	52	52
Exportation	126	126	119	125	127

Source: Poder Ejecutivo Federal (2001), *Primer Informe de Gobierno*, [online]. Available at: <http://www.presidencia.gob.mx/>.

155. Mexico maintains 97 regular maritime routes serving 339 destinations in 94 countries. In 2001, 97 foreign shipping companies were serving Mexican ports. Between 1995 and 2000, the number of ships under Mexican flag increased sharply, from 9 to 171. In 2000, some 66% of the freight handled through cabotage (which remains reserved to Mexican shipping companies) was undertaken by ships under the Mexican flag.

⁴⁴ CFC (2000).

156. The reforms initiated in the mid 1990s to foster competition between ports, increase private investment, eliminate cross-subsidies and deregulate service tariffs have apparently brought significant results. As at December 2000, 64 ports had been grouped in 18 Federal-Government-owned Integral Port Administration entities (APIs), property of the Federal Government, five State-Governments-owned APIs, and one API in private hands. From 1996 to 2000, some 50 public bids were conducted for granting contracts to provide and develop port services, which resulted in an effective transfer of port services to the private sector and increased infrastructure investment.

157. According to Mexican authorities, at the end of 2000 virtually all commercial freight handling was managed by private operators; cumulated investment in infrastructure between 1996 and 2000 amounted to some Mex\$14 billion (in constant prices of 2000), 82% of which corresponded to private and 18% to public investment. Coupled with productivity gains this investment resulted in an increase of handling capacity for non-petroleum products from 59 million tonnes in 1994 to some 120 million tonnes in 2000.⁴⁵ Significant improvements were also registered in terms of time at ports, and reductions in handling rates; between 1995 and 2000, these decreased in real terms by some 22% for non-packed freight; 6% for containers; 25% for bulk mineral products; and 36% for bulk agricultural products.

158. Mexico's main legal provisions governing maritime transport are contained in several articles of the Constitution (e.g. Articles 27 and 28), the Port Law of 19 June 1993, its Regulations of 21 November 1994, the Shipping Law of 4 January 1994 (amended on 26 May 2000), and its Regulations of 10 November 1998. The Department of Communications and Transport, through its specialized Directorates, is the main agency responsible for policy formulation and implementation in the maritime transport sector.

159. Under the Foreign Investment Law, foreign participation in the sector is limited to a maximum of 49% of total capital in the following activities: Integral Port Administration entities (APIs); piloting port services for vessels carrying out inland navigation operations; and shipping companies commercially exploiting ships for inland and coastal navigation, with the exclusion of tourism cruisers, and certain port operations such as dredging. Foreign participation above 49% may be authorized by the Foreign Investment Commission in port services for inland navigation operations such as towing, mooring and lighterage, as well as in companies operating ships solely for high-seas traffic.

160. Foreign shipping companies and vessels from any country may participate in international maritime transport activities provided their country of origin provides reciprocal treatment to Mexico. Inland and cabotage shipping, except for tourist and cruising services, is reserved for Mexican shipping companies owning Mexican vessels; when these are unavailable or where the public interest so requires, Mexican shipping companies may be given temporary shipping permits to carry cargo on foreign vessels, and if no Mexican company is interested in providing the service such permits may be granted to foreign shipping companies. In granting these temporary permits priority is given to foreign vessels employing the highest number of Mexican crew members.

161. The Shipping Law provides for the possibility of reserving specific international transport activities for Mexican companies, wholly or partially, if the national economy is affected by anti-competitive practices by foreign operators.

162. By December 2001, Mexico had signed 129 multilateral and bilateral agreements relating to maritime activity; multilateral agreement were mainly within the International Maritime Organization, the United Nations Conference on Trade and Development and the International Labour Organization.

⁴⁵ Department of Communications and Transportation (2000).

163. Mexico made no specific commitments under the GATS with respect to maritime transport services (Table AIV.4). This sector has also been excluded from Mexico's free-trade agreements (FTAs) covering services, with the exception of the FTAs negotiated with the European Union and the EFTA countries, which included international maritime transport services; among other things, both agreements allow for the establishment of subsidiaries in the partner country.

(iv) Professional services

164. Article 5 of the Constitution stipulates that each Mexican State has discretion to define the professions that require a licence, the specific requirements for the obtention of such a licence, and the authorities in charge of its issuance. Thus, the list of professions requiring a licence may differ across States; professionals covered by such provisions may include: architects; anthropologists; bacteriologists; biologists; chemists; computer scientist; economists; education workers; engineers; health related professionals; journalists; lawyers; mathematicians; metallurgist; aircraft pilots; public accountants; social and political scientists; social workers; translators; and veterinarians.

165. Among the requirements to obtain a licence to engage in a profession in Mexico are a degree recognized by the Department of Public Education, and "to complete a social service".⁴⁶ This latter requirement, which is intended as a mechanism for Mexican students to pay back part of the social cost of their education, also applies to foreigners who complete their studies abroad. In any case, foreigners can exercise a profession in Mexico subject to the conditions specified in international treaties signed by Mexico, which are based on the reciprocity principle. Specific provisions on trade in professional services and temporary entry of businessmen were incorporated in a majority of the FTAs signed by Mexico. When no specific treaty has been signed, foreigners can exercise their profession provided they meet all provisions included in Mexican laws and that their country of residence grants reciprocal treatment to Mexican residents. The reciprocity condition applies also in States, for instance in Nuevo León, while in Baja California and Colima foreigners appeared to receive national treatment regardless of whether it is provided for in international treaty or reciprocal-treatment agreements.⁴⁷ However, the exercise of certain professions may be exclusively reserved to Mexicans, as is the case in the State of Mexico.⁴⁸

166. The following professional and technical services are reserved for Mexican nationals in all States: aircraft pilots; ships' captains, masters, engineers, and mechanics; crews of ships and aircraft under the Mexican flag; airport managers; harbour pilots; customs brokers; and train crews. For the provision of primary, secondary, teachers training or worker or peasant educational services, prior and express authorization granted by the Department of Public Education or the competent state authority is required. Authorization is decided on a case-by-case basis in accordance with public convenience and necessity, at the discretion of the Department of Public Education or the competent state authority. No legal remedy is available under Mexican law for the denial or revocation of such authorization.⁴⁹

⁴⁶ Law Regulating Article 5 of the Constitution.

⁴⁷ Law regulating professional activities in Baja California State (10 July 1957); Law on professions in Colima State (26 December 1964); and Law on professions in Nuevo León State (25 July 1984).

⁴⁸ Law on professional activities in the State of Mexico (24 June 1957).

⁴⁹ Article 3 of the Constitution.

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