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a more diversified structure within the corporations. The United States Steel Company, from 1986 the USX Corporation, is now involved in the oil and gas industry as well as the chemical industry.

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Göran Rydén

MEXICO. The economic history of post-conquest Mexico can be divided, somewhat arbitrarily, into six distinct periods. In the first, from the Spanish Conquest in 1519 to 1630, the indigenous population declined by more than 90 percent but productivity increased. In the second period, from 1630 to 1810, per capita output probably fluctuated around a level comparable to that of the thirteen British North American colonies in the early eighteenth century. Upswings occurred due to occasional bursts of activity associated with short-lived bonanzas in the colony's main export industry, silver mining; but the long-term trend was flat. The third period began with the outbreak of the independence wars (1810–1821), which provoked a sharp decline in per capita income led by the collapse of silver mining and external trade, from which the economy did not fully recover until after 1880. Elite political strife, peasant rebellions, and foreign invasions interrupted each short-lived upswing until a military coup brought Porfirio Díaz to power in 1877.

The fourth era in Mexican economic history, conventionally called the "Porfiriato" after President Díaz, coincided with the onset of sustained economic growth from the 1870s until the outbreak of the Mexican Revolution in 1911. In this era, political stability and institutional reform, combined with the development of an extensive railroad network and foreign direct investment, led to rapid, export-led economic growth. The fifth period extends from 1911 until 1982. The economy had just managed to recover from the Revolution (1911–1917) in the 1920s, when the Great Depression provoked a shift toward state-led import-substitution industrialization (ISI) that came to be viewed as part of the Revolution's legitimating legacy. This strategy produced high rates of economic growth from the 1930s until the financial and economic crisis of 1982.

The sixth and final era began with the 1982 crisis and the decisive shift in 1985–1986 to a market-oriented economic strategy that culminated with the signing of the North American Free Trade Agreement (NAFTA) with Canada and the United States. This treaty went into effect on 1 January 1994. Despite its promise, rates of economic growth achieved in this era averaged well below those of the Porfiriato and ISI periods.

The Conquest Era, 1521–1630. The Aztec (also called *Mexica*) capital city of Tenochtitlán fell to an invading army of Spanish adventurers and indigenous allies led by Hernán Cortés on 13 August 1521. The Spaniards called their new colony Nueva España (New Spain). Spanish rule lasted until Mexico became independent in 1821.

Rapid and profound demographic and economic changes followed the Conquest. A pre-Columbian population estimated variously at between 10 and 30 million fell to barely 1.1 million by 1605 as a result of introduction of European diseases for which the native population had no natural immunities. Abuse, forced labor, malnutrition, and social disruption contributed to the high mortality rates in the virgin soil epidemics that took four to five generations to run their course. Demographic recovery at rates of less than 1 percent in the seventeenth and eighteenth centuries raised the total population of the colony to nearly 6 million in 1810 (see Table 1).

The Spanish conquerors introduced European plants, animals, technology, and economic organization. The indigenous side of this "Colombian Exchange" included corn (maize) and beans (*frijoles*), staples of the indigenous diet, as well as cacao (for chocolate), cochineal (red dye) and indigo (blue dye), tomatoes, peanuts, pumpkins, and many varieties of hot peppers (*chiles*). The Europeans brought wheat and other grains, bananas, sugar cane, melons, onions, grapes, and orchard crops as well as a variety of domesticated ungulates (hoofed animals), including sheep, cattle, horses, donkeys, pigs, and goats. Initially, these animals contributed to undermining the indigenous economy as ungulate irruptions in several areas devastated native agriculture. However, many indigenous communities eventually acquired animals for production and transportation as well as for food.

By the end of the sixteenth century, the remaining indigenous population probably had a more productive agriculture and a more varied diet than before the Conquest. As the population fell, those who survived abandoned marginal lands or converted them to pasture. Land grants to Spanish immigrants led to the creation of private haciendas and ranchos and accelerated the introduction of new plants and animals as well as iron tools and implements.

The chief value of New Spain to the mother country, however, came from silver production. The indigenous population produced small quantities of precious metals from surface and placer mines. In the 1530s, the Spaniards introduced deep-shaft silver mining at Sultepec and Zumpango near Mexico City and at Taxco to the south. The major strikes, however, occurred in the north at Zacatecas (1546) and Guanajuato (1550). The mines used a mixed labor force of indigenous forced laborers, free wageworkers, and (later in the century) African slaves. Productivity increased with the introduction in the mid-1550s of the

TABLE 1. *Population and Per Capita GDP of Mexico, 1519–1999*

YEAR	POPULATION (MILLIONS)	GROWTH RATE OF POPULATION	PER CAPITA GDP (INTERNATIONAL DOLLARS OF 1990)	GROWTH RATE OF PER CAPITA GDP	TOTAL PERCENT CHANGE IN PER CAPITA GDP BETWEEN DATES
1519	10 to 30		500–600		
1605	1.1	(2.0) to (3.1)	755	0.2–0.4	20–34
1700	2.6	0.9	755	0	0
1800	6.0	0.8	755	0	0
1820	6.2	0.3	566	−1.4	−25
1845	7.5	0.9	592	0.2	5
1860	8.0	0.4	535	−0.7	10
1867	8.5	0.7	535	0	0
1877	9.7	1.3	642	1.9	17
1900	13.6	1.5	1,157	2.6	80
1910	15.2	1.1	1,435	2.2	19
1940	19.7	0.9	1,556	0.3	8
1980	69.7	3.2	5,254	3.1	238
1992	89.6	2.2	5,112	−0.2	−3
1999	95.8	0.9	5,817	1.6	14

(1) Population based on INEGI (1985).
(2) The estimate of GDP per capita 1519 is pure speculation; it assumes that 400 1990 international dollars would represent a bare subsistence.
(3) 1630 and 1700 GDP per capita estimates are set equal to 1800 to embody the assumption that per capita GDP did not change much in the colonial era. (See Coatsworth, 1988.)
(4) The 1800, 1845, 1860, and 1877 GDP per capita figures are based on Coatsworth (1978, 1989). They are converted to 1990 international dollars following Maddison (1994, 1995). Maddison's 1994 estimates extrapolated INEGI (1985) figures to construct estimates for 1820, 1850, 1870, and 1877. However, the INEGI figures are merely Coastsworth's 1978 estimates, which he first published in 1970 dollars, converted by INEGI to pesos of 1970 at the 1970 exchange rate of 26.5 pesos to the dollar. To covert INEGI's GDP figures from 1970 pesos to 1990 international dollars, Maddison divided them by 2.5. His estimates are thus those of Coatsworth multiplied by 26.5 and then divided by 2.5; this is the same as Coatsworth's figures multiplied by 10.6. I have preferred to use Coatsworth's 1989 estimates of Mexican GDP in pesos of 1900. These figures are converted to 1990 international dollars using the ratio of 1910 GDP per capita estimates by Coatsworth in 1900 pesos to Maddison in 1990 international dollars (13.6).
(5) For 1820 GDP per capita, I set aside Maddison's extrapolation in favor of a figure that reflects the substantial decline in economic activity known to have occurred during the independence wars between 1810 and 1820. The figure in the table assumes that per capita income fell by one-fourth, probably an upper limit, though contemporary estimates run up to one-third.
(6) The 1900, 1910, 1940, 1980, and 1992 GDP per capita estimates are from Maddison (1995).
(7) The 1999 estimate is from the INEGI Web page converted to 1990 dollars using the ratio applied by Maddison for 1992.

"amalgamation" process, which used small amounts of mercury to refine ore too poor in silver content to be refined by traditional smelting. The Spanish crown retained ownership of all subsoil mineral resources and levied a tax of 20 percent on gross output, the royal "fifth," later dropped under certain conditions to a royal "tenth."

To subordinate and exploit the indigenous population, the Spaniards experimented with a variety of institutional arrangements. The Spanish Law of the Indies assigned differing rights, privileges, obligations, and taxes to the colony's diverse ethnic strata or "castes." Indigenous villages received communal lands in mortmain, which made alienation and sale illegal and thus restrained, but did not eliminate, usurpation and theft. Indians could not bear arms, ride horses, dress like Europeans, move from their villages without permission, or aspire to certain occupations and offices. Indians were usually exempt from sales and excise taxes, but paid a *tributo* (head tax) not levied on others. Africans, mestizos (people of mixed European and indigenous ancestry), and others of mixed ancestry received a mixture of privileges and exclusions. Europeans stood at the top of the hierarchy.

Initially, the crown issued grants of *encomienda* to leading conquerors, "entrusting" them with responsibility for conversion and control of indigenous peoples in specified villages and areas. *Encomenderos* demanded personal service and collected tribute payments in kind or labor, using native lords as go-betweens. Faced with high mortality rates, similar to those that had virtually wiped out the entire indigenous population of the Caribbean by 1520, the crown formally abolished Indian slavery and personal service with the "New Laws," issued in 1542, but simultaneously encouraged the use of African slaves. The same legislation sought to abolish the *encomienda*, but this provision was temporarily withdrawn. The crown had already begun creating royal *encomiendas*, assigning indigenous villages to direct supervision by royal officials. By the 1570s, most private *encomiendas* had been abolished or abandoned in central Mexico, where population decline had made them far less valuable than before. After experimenting with government-managed labor drafts called *repartimientos de indios* for Spanish employers, the system was abandoned in stages between 1599 and 1630 in favor of a free-labor market distorted by caste distinctions.

Colonial Stagnation, 1630–1821. The slow recovery of the indigenous population after about 1630 coincided with a period of stagnation in government revenues, trade, and mining output. In per capita terms, the era period from 1630 to 1690 probably witnessed a substantial decline in the sectors dominated by the enterprise of Spaniards and creoles (Spaniards born in the colony). The period from 1690 to 1810, though usually treated as a distinct era of growth and prosperity, is now viewed as a century in which GDP did not grow faster than the population. Substantial advances in mining output occurred from the 1690s into the 1720s, but the rise in silver production over the entire century barely exceeded population growth. After 1750, interregional migration accelerated, particularly from the depressed Puebla-Tlaxcala area to the grain estates, mining centers, and artisan industries of the Bajío, north and west of Mexico City. This movement pushed cattle and sheep raising northward. Woolen textile production fell, however, displaced by cotton substitutes increasingly smuggled in from Britain.

In the second half of the eighteenth century, the Spanish government initiated a series of administrative and economic policy reforms, especially during the reign of King Charles (Carlos) III (1759–1788). Collectively known as the "Bourbon Reforms," the policy changes sought to centralize power, tighten administration, raise taxes, increase trade, and promote mining production. The reforms had mixed economic effects. Mining production benefited from lower prices charged by the royal monopolies that supplied mercury and blasting powder as well as from tax exemptions and the creation of a mining Tribunal (1776) and an engineering academy (1792). Trade increased when ships were allowed to sail without waiting for the annual fleets (1740), new ports in Spain and the colonies opened to trade (1764–1778), and the monopoly of the Mexico City Merchant Guild (*Consulado*) on all foreign trade transactions ended (1778). Other measures lowered some export taxes and encouraged trade between the colonies, but the fundamental commercial monopoly that required all foreign trade to be carried in Spanish ships through Spanish ports remained in place. In addition, administrative and fiscal reforms increased burdens on other sectors of the economy by raising excise and sales taxes, collecting the *tributo* more efficiently, imposing new government monopolies on the production and sale of tobacco as well as other products, and issuing new and cumbersome regulations to reduce contraband. The net effect of the Bourbon Reforms was probably small and possibly even negative. With GDP per capita stagnant over the eighteenth century, Mexico's economy fell from rough parity with the thirteen British North American colonies to approximately 44 percent of U.S. GDP in 1800.

Independence to Restored Republic, 1821–1876. A legacy of inefficient economic organization compounded by political instability blocked Mexican economic growth at independence. Many of the colonial regulations and restrictions on economic activity disappeared in 1821, including caste-based limits on occupational mobility and officeholding as well as the prohibition on direct trade with countries other than Spain. However, many colonial institutions and practices continued until the Liberal Revolution in the 1850s, while political risks increased dramatically. Between 1821 and 1867, thirty-three individuals served as Mexico's chief of state, some of whom returned to office several times. There were more than fifty changes of administration, many of them violent and nearly all unconstitutional. During the same years, Mexico experienced fourteen large-scale indigenous and peasant revolts and at least sixty local rural rebellions.

Instability bankrupted successive administrations and made it impossible for Mexico to make regular payments on its external public debt after defaulting in 1827. A short-lived conservative-inspired development bank, the Banco de Avío, used customs revenues to finance the importation of modern textile and other machinery in the 1830s, but the revenues were soon diverted to military expenditures, and most of the new enterprises failed. Instability also made the country vulnerable to foreign aggression. Mexico experienced three major foreign invasions (Spain in 1829, the United States in 1846–1848, and France in 1863–1867). Most disastrous for the country was the U.S. invasion that forced Mexico to cede half of its national territory. The California Gold Rush in the United States began only a few months after California ceased to be a part of Mexico.

The Liberal Revolution, called *La reforma*, brought Benito Juárez to power from 1855 to 1872 and resulted in a new Constitution of 1857 that separated church and state; outlawed the archaic privileges (called *fueros*) of Catholic priests and military officers, which had exempted them from the jurisdiction of ordinary civil and criminal courts; abolished the inalienability of property (mortmain) and ordered the privatization of the landholdings of indigenous villages, municipal governments, and the church; and established a federal system of government with strict limitations on the taxing powers of the national government. When the church refused to sell its properties and supported Conservative revolts, the Liberal regime confiscated church lands and urban properties and sold them at auction. In 1864, Mexican conservatives allied to the church invited Austrian archduke Maximilian of Habsburg to become "emperor" of Mexico, backed by a French of expeditionary force sent by Napoleon III. In 1867, Napoleon withdrew his forces, and the Liberals under Juárez restored the republic. By this time Mexican GDP per capita had fallen well below late colonial levels.

The Porfiriato, 1876–1911. Mexico's first modern spurt of sustained economic growth occurred during the Porfiriato. Population grew from 9.7 to 15.2 million (1.3 percent per annum). GDP per capita rose 2.5 percent per year. The end of civil and international strife, along with the reform legislation of the Liberal Revolution and succeeding governments, encouraged both domestic and foreign investment. The new legislation included a complete revision of the tariff code as well as new commercial and mining codes in the 1880s.

High transportation costs, which had inhibited regional specialization and kept much of Mexico's land and mineral resources isolated from profitable exploitation, were finally overcome with the building of an extensive railroad network. Though the Mexican government first granted a concession for railway construction in 1837, the first major line, running between Mexico City and Veracruz, was not inaugurated until 1873. A period of rapid construction began in 1880, when the government approved concessions for two trunk lines to run from Mexico City to the U.S. border. Other lines followed until the rail network reached a total of 19,205 kilometers (11,934 miles) on the eve of the Revolution in 1910. Recognizing the importance of efficient rail service and fearing acquisition of Mexican rail companies by unscrupulous U.S. "financiers," the government decided to "Mexicanize" the major companies. Between 1903 and 1908, the government purchased a controlling interest in all the major companies and created a new enterprise, the National Railways of Mexico (Ferrocarriles Nacionales de México), to run the system.

Primary product exports fueled Mexico's economic growth during the Porfirian era, though domestic agriculture and manufacturing also grew substantially. Exports grew 7.6 percent per annum from 1878 to 1910 as the export portfolio diversified. Silver exports fell from 76.3 percent of total exports in 1877–1878 to 28.8 percent in 1910–1911, as the price of silver fell by more than half. Since Mexico maintained a silver-based monetary system until the Monetary Reform of 1905, progressive devaluation may have initially stimulated exports. Meanwhile, export production of industrial metals, such as copper, lead, and zinc, increased rapidly to supply external, mainly U.S., demand. When the U.S. McKinley Tariff of 1890 raised duties on ore imported to the United States but kept rates on processed metals low, U.S., European, and Mexican companies heavily invested in the creation of a modern smelting industry. Mexico also became a major oil producer by 1910, with the discovery of large deposits in the Tehuantepec region and along the Gulf Coast north of the port of Veracruz.

While mineral ores, metals, and petroleum never amounted to less than half of all exports during the Porfiriato, agricultural exports also boomed. The demand for henequen fiber, native to Yucatán and produced nowhere else in the world, skyrocketed when it went into use as binder twine in McCormick reapers on farms throughout the United States. Mexico also exported chickpeas from Sonora, coffee from Tabasco and Chiapas, vanilla from Veracruz state, and cattle and hides from the northern states along the U.S. border in this era.

Demographic and economic growth stimulated both domestic and foreign direct investment in industry. Domestic light manufacturing (textiles, beer, paper, shoes, food processing) modernized with a national market now accessible by rail. The production of cotton and other industrial crops grew rapidly, while domestic food production kept pace with population.

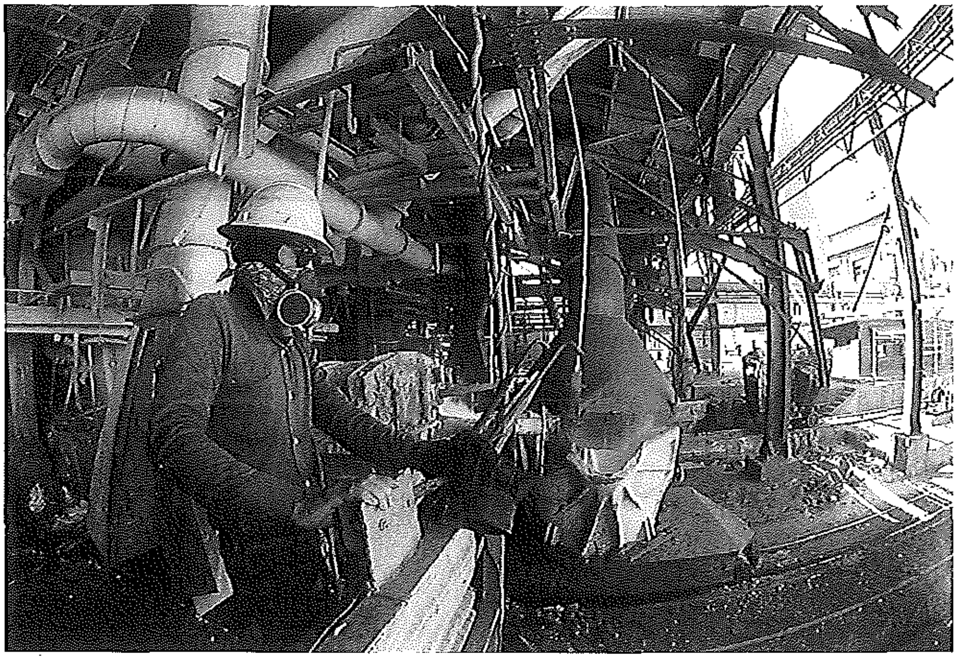
Despite the material progress between 1867 and 1910, Mexican social conditions did not improve and may even have worsened significantly for many. Life expectancy at birth in the late Porfiriato was estimated at 29.5 years, the infant mortality rate stood more than 280 per 1,000 live births, and illiteracy remained high at 78 percent. Inequality in the distribution of income as well as assets probably increased. Modernization and economic growth provoked widespread concentration of landownership. Church and public lands passed to wealthy bidders while indigenous villagers were forced to privatize communal plots, making them vulnerable to usurpation. Railroads connected once-isolated crop and cattle lands to distant markets and made them worth taking. Landless villagers poured into the market for unskilled labor, just as economic growth increased demand and salaries for skilled and educated employees. With tax revenues to the central government running at less than 5 percent of GDP, the Díaz government had few resources to devote to social questions.

Revolution and Institutionalization, 1911–1982. The Mexican Revolution marked a watershed in Mexico's economic history. As many as one million inhabitants may have died in civil warfare between 1911 and 1916, while another half million or more fled the country. Contending armies wreaked havoc on the railroads, seizing locomotives and rolling stock for troop transportation while blowing up track and bridges to deny their use to enemies. Insecurity in the countryside increased as peasant militias and military commanders seized haciendas. Successive governments sought to enlist urban workers' support by backing strikes and enforcing wage agreements. Global demand for Mexican exports, especially oil and metals, skyrocketed during World War I but collapsed in the 1919 recession. The economy began to recover in the 1920s, but growth declined again due in part to renewed civil strife, including a widespread peasant revolt called the Cristero War (1926–1929) linked to church-state conflicts. Mexico had just surpassed prerevolutionary levels of per capita GDP when the Great Depression struck.

Pressures for political, social, and economic change, encouraged during the presidential administration of Lázaro Cárdenas (1934–1940), led to massive agrarian reform and government support for union organizing. Between 1935 and 1940, the Cárdenas government expropriated and redistributed eighteen million hectares of land, amounting to a third of the country's arable farmland. In 1938, when foreign-owned petroleum companies refused to obey an order of the Mexican Supreme Court upholding an official arbitration decision that favored oil workers and their union, the Cárdenas government expropriated the companies and created Petroleos Mexicanos (PEMEX), a state-owned company, to take over production and distribution. A retaliatory embargo by the United States and Great Britain ended quickly as World War II broke out and Mexico's oil and mineral resources became vital to the Allied war effort.

The depression reduced Mexico's capacity to import, while government policies tended to cushion the fall in consumer demand among lower- and middle-income people. Mexican industry experienced a quick recovery from the depression and substantial growth in manufacturing output, but since the country lacked the capacity to import capital goods, this growth was achieved by making more intensive use of existing plants and equipment. During World War II, this trend continued and intensified, as the economy responded to huge increases in demand for war-related metals and other products. Bottlenecks grew in transportation, smelting, and other industries. Output rose but productivity declined. Wartime inflation reversed the wage gains achieved in the 1930s but favored some farmers, including those newly endowed with land titles. In 1942, the United States and Mexico cooperated to create a large-scale guest-worker program that permitted some three hundred thousand Mexican workers to perform agricultural labor and eventually other jobs in the United States to make up for wartime labor shortages. This *bracero* (laborer) program lasted until the U.S. government closed it down in 1964, by which time more than four million Mexicans had participated.

After 1940, the government's strategy shifted from reform and redistribution to investment and productivity growth. The governing party was renamed the Partido de la Revolución Institucional (PRI) in 1946 to emphasize this change of direction. The political capital accumulated in the Cárdenas era and the high rates of economic growth actually achieved during the postwar decades legitimated the regime and contributed to stability. Labor peace was assured by collaboration between the government and the leaders of the Confederación de Trabajadores de México (CTM), the largest union federation officially incorporated into the PRI beginning in 1938. An explicit strategy of import-substitution industrialization (ISI) adopted during the administration of President Miguel Alemán Valdés from 1946 to 1952 required an environment that protected domestic manufacturers and welcomed (but for political reasons also strictly regulated) foreign direct investment. Government development banks like Nacional Financiera (NAFINSA) provided loans and other assistance to many domestically owned industries. After a sharp devaluation in 1954, Mexican authorities pegged the peso to the U.S. dollar and worked successfully to keep inflation low; this policy of "stabilizing development" continued until U.S.



MEXICO. Metal refinery in Chihuahua, 1987. (© Kal Muller/Woodfin Camp and Associates, New York)

macroeconomic policy itself became unstable in the early 1970s.

Over the four decades from 1940 to 1980, Mexican per capita GDP grew at an annual average rate of 3.2 percent. This post–World War II "miracle" coincided with high rates of population growth due mainly to falling mortality rates. Manufacturing and services grew faster than the economy as a whole. Agricultural production kept pace with population growth until the 1970s. The ISI strategy also succeeded in reducing the country's "dependence" on exports and foreign investment. From 1940 to 1976, exports fell from 11.6 to 3.8 percent of GDP. Mexico's share of world trade also fell dramatically.

Internal pressures combined with external shocks to undermine Mexico's ISI strategy in the 1970s. The U.S. decision to float the dollar in 1971, the 1973–1974 oil price shock, and U.S. "stagflation" created dilemmas for Mexican policymakers. Political worries following the repression of a nationwide prodemocracy student movement in 1968 pushed Mexican authorities to deepen the country's commitment to protectionism, public ownership, and centralized regulation of economic activity. Balance of payments and fiscal constraints made these policies unsustainable. President Luis Echevarría Alvarez (1970–1976) was forced to devalue the peso and sharply reduce spending in the last year of his administration.

The discovery of vast new oil reserves in the states of Tabasco and Chiapas and in the Gulf of Mexico, announced in 1976, restored the government's shaky credit and allowed the new administration of José López Portillo (1976–1982) to borrow heavily from international commercial banks, both to finance petroleum development and to cover fiscal deficits. In 1976, Mexico was a net importer of petroleum products. By 1980, oil exports amounted to more than U.S. $6 billion, more than 70 percent of total exports. Awash in petrodollars and commercial loans to government and the private sector, Mexico experienced a brief episode of Dutch disease. With the peso overvalued by as much as 30 percent, nonoil export producers lost markets and declined sharply.

A severe financial and economic crisis hit Mexico when the oil boom ended during 1981 and 1982. The crisis originated not in Mexico but in the United States, where U.S. authorities began driving up interest rates to control inflation. This caused a rapid increase in Mexico's debt burden and then, as a deep recession hit the United States, a rapid fall in oil prices. With debt payments spiraling upward and oil revenues down sharply, Mexico was forced in September 1982 to announce that it could not meet payments on its external debt, much of it now in short-term instruments that were payable in full in less than 180 days. The peso collapsed, the government nationalized the banking system, and though Mexico eventually met its debt payments with loans from international agencies and the United States, the economy sank into a deep and prolonged recession provoked by sharp cuts in spending and increased taxes.

The Free Trade Era, from 1982 into the Twenty-first Century. After failing in efforts to revive the economy without abandoning ISI and the prevailing state-directed economic strategy, the new administration of President Miguel de la Madrid Hurtado (1982–1988) abruptly abandoned it in favor of a new strategy based on freer trade, deregulation, and privatization. In 1985 to 1986, Mexico joined the General Agreement on Trade and Tariffs (GATT), dropped tariff rates on a wide range of imports, and began dismantling a long list of nontariff regulatory barriers to foreign imports. These policies were carried further under succeeding presidents, Carlos Salinas de Gortari (1988 to 1994), Ernesto Zedillo Ponce de León (1994–2000), and Vicente Fox Quesada (2000–). The economic policy changes enacted by the Salinas administration were especially dramatic and decisive. The government lowered tariffs even further and eliminated most other nontariff barriers, did away with a wide range of regulations and restrictions on foreign direct investment, renegotiated the external debt on more favorable terms, privatized several hundred state-owned companies, and in 1993 signed the North American Free Trade Agreement (NAFTA) with the United States and Canada.

The effects of Mexico's new economic strategy varied across sectors of the economy. Inefficient producers deprived of tariff and other protections quickly succumbed to foreign competition, though grain farmers and commercial banks got a temporary reprieve when NAFTA negotiators agreed to delay the full effects of external competition for especially weak sectors of the Mexican economy for up to fifteen years. Small and medium manufacturers of consumer products were especially hard hit. New foreign direct investment concentrated in sectors privatized by the government, such as telecommunications, airlines, steel, and truck manufacturing, and in sectors producing for the U.S. market, such as automobiles and auto parts. Assembly plants using imported components to produce export products (called *maquiladoras*) expanded rapidly after NAFTA and spread out from the northern states to other regions of the country. Mexican exports rose from 8.2 percent of GDP in 1980 to 28.1 percent in 1999. By this time, petroleum exports had declined to 7.2 percent of total exports. GDP growth, however, remained disappointing. In 1999, Mexican GDP per capita was only 10.7 percent above the level it had reached in 1980.

At the end of the twentieth century, Mexico's economy had resumed growing steadily, though still at rates below those of the 1950s and 1960s. Economic integration with the United States reached unprecedented levels as the full impact of NAFTA took hold. Slower population growth—down to 1.6 percent per year at the end of the twentieth century—promised lower dependency, lower unemployment rates, and higher savings. The cumulative effects of welfare improvements during the twentieth century were also evident. Life expectancy rose to more than seventy years, the infant mortality rate had dropped to about thirty per one thousand live births, and the illiteracy rate was down to 10 percent. Nonetheless, Mexico continued to lag in efforts to address poverty, low educational attainment, and a wide range of chronic public health problems, including rural malnutrition as well as urban air and water pollution.

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MEXICO CITY. The greater Mexico City Metropolitan Area (MCMA), covering 4,918 square kilometers, contained a total population of 16.8 million people in 1995, second in the world only to Tokyo. Of that number, 8.6 million lived in