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Table of Contents

Doing Business in Mexico ____ *1*

Market Overview ____ 1

Market Challenges ____ 2

Market Opportunities ____ 3

Market Entry Strategy ____ 4

Leading Sectors for U.S. Exports & Investments ____ *6*

Aerospace ____ 7

Agribusiness ____ 13

Agriculture ____ 18

Automotive Industry ____ 24

Construction ____ 30

Cosmetics ____ 36

Education and Training ____ 40

Electricity ____ 42

Environmental Technologies ____ 46

Healthcare Products and Services ____ 50

Internet and IT Services ____ 58

Mining and Minerals ____ 61

Oil and Gas ____ 65

Packaging Machinery Industry ____ 68

Plastics and Resins ____ 71

Renewable Energy ____ 74

Safety and Security ____ 78

Telecommunications Equipment ____ 86

Textiles ____ 89

Transportation Infrastructure Equipment and Services ____ 92

Travel and Tourism ____ 100

Customs, Regulations & Standards ____ *102*

Trade Barriers ____ 102

Import Tariffs ____ 105

Import Requirements & Documentation ____ 106

Labeling and Marking Requirements ____ 107

U.S. Export Controls ____ Error! Bookmark not defined.

Temporary Entry ____ 108

Prohibited & Restricted Imports 110
Customs Regulations 110
Standards for Trade 111
Trade Agreements 117
Licensing Requirements for Professional Services 117
Selling U.S. Products and Services 119
Distribution & Sales Channels 119
eCommerce 125
Selling Factors & Techniques 126
Trade Financing 130
Protecting Intellectual Property 133
Selling to the Public Sector 136
Business Travel and Etiquette 144
Investment Climate Statement 149
Political Environment 149

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Doing Business in Mexico

The U.S. Commercial Service helps U.S. firms identify and navigate opportunities for selling products and services in Mexico. This section provides a market overview for doing business in one of the largest and most vibrant markets for U.S. products in the world.

Market Overview

There are four key reasons why U.S. companies should consider exporting to Mexico:

1. Mexico is the 15th-largest economy in the world with further growth potential from its young population (median age 28).
2. Given Mexico's large, diversified market, most U.S. products and services have ample opportunities. The new U.S.–Mexico–Canada Agreement (USMCA, see below) seeks to generate even more opportunities for U.S. companies.
3. Mexico has generally enjoyed stable economic growth since the 1990s, despite weakening in 2019 and a COVID-linked recession in 2020.
4. Close cultural, social, and economic ties make Mexico a natural market to consider for first-time and expanding exporters.

Mexico's USD 1.3 trillion economy is the second-largest economy in Latin America and the 15th-largest economy in the world. Mexico has a large, diversified economy that is linked to its deep trade and investment relations with the United States. Mexico is an upper–middle-income G-20 and OECD member with a per capita GDP of USD 10,118. Still, Mexico's 2.5 percent average annual GDP growth rate since the signing of NAFTA in 1993 has been slower than most emerging markets, due in part to its high rates of labor informality (57 percent), poverty (43 percent), and declining oil production. With deepening of the COVID pandemic and economic contraction in the U.S. and world markets, some analysts forecast a real reduction in Mexican GDP of 10 percent to 12 percent by mid–2021.

Mexico ranked number one among U.S. trade partners in total trade in 2019, with a value of USD 614.5 billion. Exports totaled USD 256.4 billion and Imports totaled USD 358.1 billion, and this trade directly and indirectly supports millions of U.S. jobs. U.S. exports to Mexico fell 3.26 percent while U.S. imports from Mexico rose 3.35 percent. The U.S. deficit with Mexico was USD 101.8 billion. Mexico is the first or second-largest export destination for 27 U.S. states. Top U.S. product exports include electronics, vehicles, fuels, minerals, plastics, and machinery. Mexico is the second-largest agricultural export market for the United States, importing USD 19.2 billion in U.S. agricultural products, including corn, soybeans, dairy, pork and beef products in 2019.

Both countries have over USD 144 billion in bilateral, reciprocal foreign direct investment (FDI). Mexico is the 20th-largest investor in the United States, having invested a total stock of USD 42.9 billion at the end of 2019 U.S. affiliates of Mexican-owned firms, in such diverse sectors as food, communications, plastics, metals, auto components and business services, employed 81,600 American workers in 2017 (the most recent year for which figures are available). Over the last 20 years U.S.-Mexico supply chains have become increasingly integrated.

In July 2018, Andrés Manuel López Obrador won the Mexican presidential election with the largest margin in decades. President López Obrador took office on December 1, 2018, and moved quickly to implement an ambitious agenda to reduce corruption and violence while boosting public investment and social program spending. His National Regeneration Movement party (*Movimiento de Regeneración Nacional* or MORENA) and its coalition partners hold 66 percent of seats in the lower house and 61 percent in the Senate. MORENA has majorities in 18 of 32 state congresses and is the largest block in three more. Public expectations remain high López Obrador will use his mandate to address Mexico's corruption, security, and economic challenges.

In August 2017, the United States entered into negotiations with Canada and Mexico (the Parties) seeking to update and rebalance the North American Free Trade Agreement (NAFTA), which had progressively eliminated tariffs and

trade restrictions since 1994. The resulting United States–Mexico–Canada Agreement (USMCA) was signed on November 30, 2018, and it entered into force on July 1, 2020. The USMCA replaced NAFTA to better serve the interests of American workers, farmers, ranchers, and businesses. The USMCA modernizes and rebalances U.S. trade relations with Mexico and Canada and reduces incentives to outsource by providing strong labor and environmental protections, innovative rules of origin, and revised investment provisions. The Agreement also brings labor and environment obligations into the core text of the agreement and makes them fully enforceable. Now in force, it will promote reciprocal trade with Mexico and Canada, support high-paying jobs for Americans, help grow the U.S. economy, and help North America recover from COVID-related economic losses.

The USMCA expands U.S. access in Canada for certain U.S. dairy, poultry, and egg products. It will also help reduce costs and facilitate trade via new commitments on customs inspections, automation, and the treatment of low-value goods. In addition to these achievements, the Agreement upgrades NAFTA in key areas. For example, the USMCA establishes the strongest and most advanced provisions on intellectual property and digital trade ever included in a trade agreement. Finally, the USMCA also includes several groundbreaking provisions to combat non-market practices—such as subsidies and currency manipulation—that have the potential to disadvantage U.S. workers and businesses.

For more information, see our USMCA Highlights below and visit the Office of United States Trade Representative website (www.ustr.gov) and the International Trade Administration page on the USMCA.

Mexico is a member of the World Trade Organization (WTO), Asia-Pacific Economic Cooperation (APEC), G-20, and Organization for Economic Cooperation and Development (OECD). Mexico has 13 FTAs covering 50 countries, including the 11-country Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP, formerly known as the Trans-Pacific Partnership). For U.S. exporters, Mexico's participation in these international agreements means that, in general, the Mexican market is one of the most open and competitive in the world.

In terms of demographics, Mexico is the most populous Spanish speaking nation in the world. Seventy-nine percent of its inhabitants live in urban areas. Ten percent of the population is considered wealthy, and about 44 percent lives in poverty. The remaining 46 percent of the population is considered middle class.

Market Challenges

At the time of this writing, the COVID pandemic creates significant uncertainty for the Mexican and North American economies, as well as business development efforts by exporters. Potential business deals, purchase orders, and projects have been placed on hold indefinitely, while in other instances projects are moving forward at a rapid pace. Stay-at-home orders in Mexico have complicated communications with potential business partners, buyers, regulators, and government contacts. Forecast drops in Mexico's GDP anticipate reduced government and private sectors revenues, along with an unknown effect on the Mexican peso in the medium term -projected real economic decline rates for 2020 are -6 to -10 percent.

Mexico's size and diversity are often under-appreciated. It can be difficult to cover this vast market with a single distributor or agent. As with any new commercial endeavor, U.S. firms should consult with legal counsel before entering into any business agreements.

The López Obrador Administration has moved forward with several changes in government procurement, the healthcare system, economic development policy, energy policy, and infrastructure priorities. Please see the relevant sections of this guide for more information on the specific opportunities and questions raised by administration policies.

The banking system in Mexico has shown signs of growth after years of stagnation, but interest rates remain comparatively high. Small and medium-sized enterprises (SMEs) find it particularly difficult to obtain financing at affordable rates despite Mexican Government efforts to increase access to capital for SMEs. U.S. companies need to conduct thorough due diligence, and they should be conservative in extending credit and alert to payment delays. As

one element in a prudent due diligence process, the U.S. Commercial Service offices in Mexico can conduct background checks on potential Mexican partners. U.S. companies should help Mexican buyers explore financing options. Options should include U.S. Export-Import Bank (EXIM) programs, especially since Mexico is the largest market for EXIM in the world.

Mexican customs regulations, product standards, and labor laws may present challenges for U.S. companies. At the U.S. Embassy and consulates in Mexico, U.S. Foreign Service Officers from the Departments of Commerce, State, and Agriculture are available to guide firms on regulations that affect their export product or business sector—from commercial, agricultural, and labor matters to intellectual property rights and standards.

Continued violence involving criminal groups has created heightened insecurity in some parts of Mexico, including in some border areas, in certain port zones, and along truck and rail corridors. The State Department provides a security assessment of every state in Mexico, and the American Chamber of Commerce in Mexico (AmCham) conducts an annual survey of security trends affecting businesses. All U.S. travelers to the country are strongly encouraged to visit the Department of State's Travel Warning website.

Market Opportunities

Taking into consideration the challenges above, many market opportunities for U.S. firms exist in Mexico. With the positive effects of USMCA, Mexico may provide better prospects than other countries.

Mexican companies, government agencies, and entire industries are deeply familiar with and receptive to U.S. products and services. U.S. producers often find it straightforward to market and sell their services and products in Mexico.

Key Sectors

Mexico's most promising sectors for U.S. exporters include agriculture; agribusiness; auto parts and services; aerospace; education services; energy; environmental technology; franchising; housing and construction; packaging equipment; plastics and resins; security and safety equipment and services; information technology; transportation infrastructure equipment and services; and travel and tourism services. However, given the size of the Mexican market, there is almost no product a company cannot sell successfully in Mexico with the right preparation, commitment, pricing, and service.

United States–Mexico–Canada Agreement (USMCA) Highlights

The USMCA improves market access for U.S. companies in several important ways.

- **Intellectual Property Rights (IPR).** The agreement provides for strong, effective protection and enforcement of IP rights. Canada and Mexico agreed to strong enforcement provisions against counterfeiting and piracy, ensuring protection of trade secrets, and *ex officio* authority for law enforcement officials to stop suspected in-transit counterfeit goods.
- **Digital Trade.** The agreement contains the strongest disciplines on digital trade of any international trade agreement, including rules to ensure that data can be transferred cross-border and minimizing limits on where data can be stored and processed.
- **Labor.** A new chapter brings labor obligations into the core of the agreement and makes them fully enforceable. The agreement requires parties to adopt and maintain labor rights recognized by the International Labor Organization, an Annex on Worker Representation in Collective Bargaining in Mexico, and new provisions prohibiting importation of goods produced by forced labor as well as violence against workers exercising their labor rights. The USMCA also supports Mexico's historic labor reform which creates a whole new labor justice system which will be phased in by states through May 1, 2022.
- **Environment.** With the most comprehensive set of enforceable environmental obligations of any U.S. trade agreement, provisions will combat illegal trafficking in wildlife, timber, and fish. They will also enhance

customs inspections, prohibit harmful fisheries subsidies, and combat illegal and unregulated fishing. Further, the agreement addresses environmental issues such as air quality and marine litter.

- **Automotive Manufacturing.** Through updated automotive rules of origin, the agreement increases regional value content for passenger vehicle and light trucks from 62.5 percent to 75 percent, phased over three years after USMCA enters into force. This intends to stimulate more North American auto production. The agreement encourages higher automotive manufacturing wages by requiring 40–45 percent of automotive content be made by workers earning an average base-wage of at least USD 16 per hour.

Market Entry Strategy

Successful market entry into Mexico is not entirely different from building sales channels in the United States. Start by establishing an agent, representative, or authorized distributor for products and services in Mexico or opening a representative office. Given the size of the market, the strategy should consider specific regional territories. Most firms assign Mexican agents or distributors in different locations. Many companies find it works well to use three or four specific territories, often centered in Mexico City for central and southern Mexico, in Guadalajara for western Mexico, in Monterrey for northeastern Mexico, and in Baja California for the northwestern border and maquiladora (twin plant manufacturing) zones. For selling to the government, it can be important to have a local office or representative. For regulated products or services such as healthcare solutions, it is necessary to allow time for and to utilize local support to obtain regulatory approvals.

Exporters also need to consider promotional plans. Trade shows, advertising, social media campaigns, and sales calls all work well in Mexico. Mexican buyers are generally price sensitive, and government buyers have strict rules for favoring lowest-price offers, so establishing an effective pricing structure is key. Legal counsel, protection of intellectual property, sales, shipping, labor relations, and after sales support all need to be elements of your strategy. We recommend the following considerations:

- To do business in Mexico, it is crucial to develop and maintain close relationships with clients and partners. Mexicans prefer regular direct communication, especially in the initial stages of establishing rapport. Email is widely used, but with more people working from home, platforms such as WhatsApp have become essential for initial connections and for quick interactions.
- Mexican consumers are generally quite knowledgeable about U.S. products and services. Popular U.S. brands are widely recognized in Mexico. Leverage and build upon this familiarity.
- The U.S. Commercial Service can assess market potential of products and services, provide advice on export strategies, and facilitate business agreements with potential clients and/or partners through our three offices located in Mexico City, Guadalajara, and Monterrey.

Contacts and Web Resources

The U.S. Commercial Service in Mexico prepares this Country Commercial Guide annually. Our mission is to help U.S. companies, states, cities, and non-profit organizations benefit from expanding their exports to and investment attraction from Mexico. To contact your local U.S. Export Assistance Center, visit Trade.gov.

Our Offices

We have offices in the major commercial centers of Mexico City, Monterrey, and Guadalajara.

U.S. Embassy Mexico City
U.S. Trade Center
Calle Liverpool #31, Col. Juárez
Mexico City, CDMX 06600
Tel: +52 (55) 5080-2000 ext. 5207

Fax: +52 (55) 5566-1115

U.S. Consulate General Guadalajara
U.S. Commercial Service Office in Guadalajara
World Trade Center
Av. Mariano Otero No. 1249; Torre Pacífico - Piso 4
Guadalajara City, Jalisco 44530
Tel: +52 (33) 3615-1140 ext. 102
Fax: +52 (33) 3615-7665

U.S. Consulate General Monterrey
U.S. Commercial Service Office in Monterrey
Prol. Ave. Alfonso Reyes No. 150 Col. Valle Poniente
Monterrey City, Nuevo Leon 66196
Tel: +52 (81) 8047-3100

The U.S. Commercial Service in Mexico offers specialists covering virtually every industry to assist you in entering the Mexican market. You can find their contact information and more information on our top-prospect sectors by reviewing the *Leading Prospects* section of this guide. You can also see our list of specialists at our Leading Industry Sectors online at Export.gov.

If you have specific questions about customs and documentation issues, ASK MANNY. Mr. Manuel Velazquez, Commercial Assistant in our Monterrey office, counsels U.S. companies every day regarding customs and shipping. He can be reached at manuel.velazquez@trade.gov or +52 (81) 8047-3248.

General Web Resources

U.S. Commercial Service Mexico	www.export.gov/mexico
U.S. Embassy Mexico	https://mx.usembassy.gov
U.S. Commercial Service Office Locator	www.export.gov/locations
U.S. International Trade Administration	www.trade.gov
U.S. Export Statistics – Trade Stats Express	http://tse.export.gov

Leading Sectors for U.S. Exports & Investments

Mexico offers an extraordinary range of sectors that represent opportunities for U.S. exporters. From 21 leading-prospect sectors, the U.S. Commercial Service Mexico has identified six clusters of these sectors that represent a high priority for U.S. Government support for export promotion and market access.

- **Energy.** This priority cluster combines oil & gas, renewables, and electricity, each of which has a best prospect summary below. For 2020, there remain a number of ongoing oil & gas and clean energy projects. However, there is also growing uncertainty about the direction of the sector and the role of the private sector in it.
- **Infrastructure/Construction.** Please see our sections on construction and transportation infrastructure. The López Obrador Administration has several infrastructure projects requiring design and construction—from ports and airports to rail, refineries, and natural gas pipelines.
- **ICT/Digital Technologies.** In our best prospect sections, we have overviews for the internet/IT and telecommunications sectors. There is continuing modernization of ICT in Mexico, with U.S. firms introducing new financial technology (FinTech) and cybersecurity technologies.
- **Aerospace/Defense.** Mexico's civilian aerospace market is huge, with nearly 50 percent U.S. share. The country is the largest market for U.S. defense products, equipment, and services in Latin America, and Mexico has one of the most dynamic aerospace sectors in the world. Please see our *Aerospace* and *Safety & Security* sections for more information.
- **Industrial Materials.** The growth of advanced manufacturing in Mexico, together with heightened interest in product quality and productivity, are generating demand for diverse industrial materials, systems, and services.
- **Automotive.** The auto sector is anticipating new auto supply chain opportunities and inward investment resulting from the U.S.–Mexico–Canada Agreement (USMCA).

Aerospace

Aerospace has been a major focus in Mexican economic development, both as an industrial sector and in connection with commercial, private, and defense aviation growth. All these factors combine to make aerospace a key part of our priority sector strategy and a best prospect industry sector for Mexico.

Overview

The following table provides the most recent statistics for the aerospace industry in Mexico. Please note that these figures include aviation products and services, as well as military-related purchases, but they do not include airport construction products and services.

Mexico Aerospace Industry Market Size
(Figures in USD billions)

	2017	2018	2019	2020 (Estimated)
Total Local Production	3.0	3.1	2.9	2.0
Total Exports	3.8	5.5	4.5	3.6
Total Imports	3.4	3.	2.2	2.2
Imports from the U.S.	2.2	2.4	2.5	1.9
Total Market Size*	2.6	2.8	.6	.6
Exchange Rates	18.91	19.22	19.26	20.00

**Total market size = [(total local production + imports) – exports]*
Note that 2018–2019 reductions in the value of the Mexican Peso mask growth in these numbers.
Source: Global Trade Atlas 2020

The aerospace industry is relatively young in Mexico, but its roots are deep. In the State of Baja California, for example, one firm has been in the market more than 60 years, and aerospace is one of its leading business divisions. Mexico's aerospace industry is an excellent example of growth, foreign investment attraction, and job creation. Based on the most recent available official figures from the Mexican Aerospace Industry Federation (*Federación Mexicana de la Industria Aerospacial* or FEMIA), 14 percent average annual export growth 2004–2019, 63,000 plus jobs created, and up to USD 6 billion in accumulated direct foreign investment (2007–2017). Moreover, global demand for new aircraft and maintenance services—and growing air passenger flows worldwide—has supported a positive future for the industry. We anticipate disruptions and adjustments in 2020 and 2021 due to the COVID-19 emergency, with a gradual return to the sector's vibrancy as the pandemic subsides.

Aerospace Supply Chains and Production

Mexico's aerospace sector grew from 100 manufacturing firms and organizations in 2004 to 360 by mid-2019, according to FEMIA estimates. Today these firms primarily include maintenance-repair-overhaul facilities (MROs), technical schools, research centers, and universities, as well as related service providers. In general terms, 72.2 percent of all firms are manufacturers, 13.2 percent focus on design and engineering, 11.2 percent are in MRO services, and 3.4 percent are other support entities. FEMIA estimated in 2019 that foreign direct investment by country of origin was 48 percent from the United States and 36 percent from Canada.

Various developments contributed to this recent explosive growth, from the 2004 arrival of the Canadian aerospace firm Bombardier to various government programs including business incentives, workforce training programs, and new universities. However, the sector's growth goes back to the late sixties when the Mexican Government's Maquiladora Export Program triggered expanding industrialization, employment, and regional development. The Maquiladora Program allows the duty-free importation of goods to assemble products for export. Aerospace firms moved to new industrial parks in northern border cities to take advantage of '*maquila*' cost savings and efficiencies. These parks evolved into diversified aerospace clusters. Companies with a long-term presence include Rockwell

Collins (1969, now Collins Aerospace), Safran Group (1991), Labinal (1996/now Safran Labinal), and Beechcraft (2007).

The sector is divided into original equipment manufacturers (OEMs, producing final aircraft), followed by companies involved in Tier 1 production (principal aircraft systems), Tier 2 (producers of sub-assemblies), and Tier 3 (parts and supplies). In contrast with the United States, the Mexican aerospace industry focuses on aerospace parts and assemblies that are integrated into final systems. In the space arena, the Mexican Space Agency (*Agencia Espacial Mexicana* or AEM) has led projects with academia to produce mini nanosatellites and other projects with NASA.

The Mexican aerospace industry has five main hubs, located in the states of Baja California (Tijuana-Mexicali), Sonora, Chihuahua, Querétaro, and Nuevo León. Baja California is the largest, with 110 aerospace firms supporting more than 35,000 direct jobs.

Mexico has improved its aerospace manufacturing capabilities, moving from production of components, small parts, and harnesses, to manufacturing of airframes, flight surfaces, small drones, and flight control and avionic assemblies. Among the multinationals, GE and Rolls Royce produce new turbine systems in Mexico, Fokker Aerostructures manufactures wings for jets, and Safran Group—with 10 facilities in the country and seven in the State of Querétaro—manufactures landing systems, engine parts, jet engine components, and jet housings.

Some local firms have obtained global certifications that allow them to diversify their manufacturing processes to production of small unmanned aerial vehicles (UAVs) and light aircraft projects. For instance, Aernnova produces airframe and flight structures. Light aircraft prototypes have also been developed, such as the sport model produced by the Mexican firm Horizontec/CENTA, and light attack planes for military training and acrobatics, made by the local company Oaxaca Aerospace. In the long-term, the Mexican Government and domestic industry hope to produce medium and large commercial aircraft.

Regulatory Harmonization and Sector Development

Regulatory harmonization has advanced in recent years. The 2012 Bilateral Aviation Safety Agreement (BASA) has achieved mutual recognition of aerospace standards between the United States and Mexico, such as the National Aerospace and Defense Contractors Accreditation Program (NADCAP) and the AS9100 aerospace quality management system, as well as certifications from the U.S. Federal Aviation Administration (FAA) and its Mexican counterpart, the Federal Agency of Civil Aviation (*Agencia Federal de Aviación Civil* or AFAC). Note that in 2019 AFAC replaced the agency previously named DGAC. Altogether, these developments have facilitated growth of manufacturing operations in the North American region. In addition, Mexico's accession to the Wassenaar Arrangement (2012) provides regulations to effectively control the exportation of sensitive dual-use aerospace products and materials.

In 2012, the Mexican Secretariat of Economy (SE) introduced the Aerospace Industry National Strategic Program 2012–2020, called Pro-Aéreo. It dubbed its 2017 updated plan Pro-Aero 2.0. The program has sought to elevate Mexico to the top 10 list of global aerospace suppliers by 2020 by attracting more small and medium-sized firms. The program still appears in Mexican government websites, though a restructuring of the program may take place shortly.

Aviation Growth

Mexico's rapid aviation growth further boosted the aerospace industry. Mexican commercial aviation and related demand for maintenance, repair, and overhaul (MRO) has been driven by several factors, including the expansion of low-cost carriers such as Volaris and Interjet, the 2016 approval of the Delta-Aeromexico partnership, the 2015 conclusion of the U.S.-Mexico Bilateral Air Transport ("Open Skies") Agreement, and increased use of Mexico as a regional hub. The Open Skies agreement eliminated restrictions on routes between the two countries, allowing passenger airlines and all-cargo carriers to serve any combination of city pairs in the United States and Mexico. In addition, it allows cargo carriers to begin or end routes outside the two countries. Another profound change in the aviation industry has been the growth of low-cost airlines vis-a-vis traditional airlines.

From 2016 to 2019, Volaris, Viva Aerobus, and Interjet invested in new assets and modernized their fleets, absorbing a good portion of market share from the traditional dominant airline, Aeromexico. Airline passenger flows reported by AFAC show an annual average growth of nearly 10 percent 2015–2017. In 2018, national and international passenger volume grew 5.5 percent, from 90.5 million in 2017 to 97.3 million in 2018. AFAC has not yet published 2019 figures. However, the travel disruptions of the COVID-19 pandemic have devastated the aviation industry. Mexican airlines lost more than 90 percent of March-April 2020 passenger volume over 2019 monthly averages. The International Air Transport Association (IATA) stated that passenger global demand fell 52.9 percent in March 2020. Aeromexico and Interjet have both sought bankruptcy protection.

Mexican aviation growth uncertainties began when the López Obrador Administration cancelled construction of the Mexico City New International Airport (NAIM). The President rejected the notion of Mexico City as a Latin America hub and ordered construction of a new Metropolitan Airport System (SAM) with expansion of the Toluca International Airport, the current Benito Juárez Mexico City International Airport, and creation of an international airport named "Felipe Angeles" at the Santa Lucia Military Air Base in the State of Mexico. (Further information on the current Administration's new plans for an airport system for the Valley of Mexico is available in our *Transportation Infrastructure* section.) The country has a network of 77 airports, of which 64 are international commercial airports, among a total of 1,424 airfields including military bases and small private airports. The international commercial airports are operated by private-sector companies with long-term concession agreements and others are managed directly by the government through the ASA agency described below. It is estimated that in 2019, the top five airports by passenger volume were Mexico City (50.3 million), Cancún (25.5 million), Guadalajara (14.8 million), Monterrey (11.1 million), and Tijuana (8.9 million). Some of the larger groups operating the international commercial airports include the following:

- **Grupo Aeroportuario del Centro Norte (OMA)** manages 13 airports in northern and central Mexico that handled 23.1 million passengers in 2019. Improvement projects are taking place for the period 2016–2020, mainly for the Monterrey, Culiacán, and Acapulco airports.
- **Grupo Aeroportuario del Pacífico (GAP)** manages 12 Pacific coast airports handling 48.2 million passengers in 2018 (more recent figures unavailable). In 2019, GAP airports with the most passengers were Guadalajara, Tijuana, and Los Cabos.
- **Grupo Aeroportuario del Sureste (ASUR)** manages nine airports in the Gulf of Mexico and southern Mexico, and one international airport in San Juan, Puerto Rico. Nationally it served 34 million passengers in 2019. In 2019–2023 ASUR continues infrastructure investment in Cancun, Merida, and Oaxaca airports.
- **Aeropuertos y Servicios Auxiliares (ASA)** is a government agency that operates 19 airports, co-operates five additional airports, and supplies fuel to 63 airports. The additional five airports it co-operates include Toluca, Querétaro, Cuernavaca, Palenque, and Tuxtla Gutiérrez. ASA airports handled 3.4 million passengers in 2019.
- **The Benito Juárez Airport is known in Spanish as *Aeropuerto Internacional de la Ciudad de México* (AICM)** and is one of the largest in the world, logging 50.3 million passengers in 2019. AICM operates under a concession structured as a majority state participation company with the name of *Grupo Aeroportuario de la Ciudad de México, S.A. de C.V.* (GACM). The *Transportation Infrastructure* section of this guide describes the López Obrador administration's plan for the new Metropolitan Airport System (SAM) that includes the current AICM, Toluca, and "Felipe Angeles" Santa Lucía international airports.

The Space Program

The Mexican space program is a further consideration for aerospace suppliers. The space program is managed by the Mexican Space Agency (*Agencia Espacial Mexicana* or AEM). The AEM, in its current form, was established in 2010 with specific, modest goals. Its efforts to expand the country's satellite network for communications, space science development, environmental modeling, and surveillance have generated opportunities for U.S.-produced space

systems and suppliers. AEM has several cooperation agreements with NASA on space education, and with international space agencies. It has managed a nanosatellite program with local educational institutions and academia to motivate new programs among space professionals. In 2017, the AEM, the Secretariat of Economy (SE), and ProMexico published the Orbit Plan 2.0 (*Plan de Orbita 2.0*), a strategic space sector development program outlining niche opportunities and recommendations on specific space projects. It appears the program has continued in the López Obrador Administration.

Leading Sub-Sectors

Leading sub-sectors for aerospace opportunities in Mexico include supplying manufacturing and assembly plants, the entire aviation ecosystem, and the defense sector.

Despite the rapid growth of Mexico's aerospace industry—or perhaps because of it—the mix of local Tier 2 and Tier 3 suppliers is still lacking. Large OEMs are unable to find specialized, fully certified local suppliers with advanced capabilities and with sufficient logistics capabilities. This fact, combined with evolving government regulations supporting supply chain growth, creates sales opportunities across Tier 2 and 3 suppliers.

In terms of supply chains, FEMIA estimated in 2016–2017 that Boeing had 26 Mexican suppliers, Airbus had 36, and Embraer 13. Large aerospace OEMs continue looking to expand their supply chain in Mexico to support global business continuity and establish middle- and long-term production programs. Other aerospace firms need partners to reach growth, project size, and investment targets.

Recently, research centers have been created to support R&D, not only for new turbines, motors, and components, but also to drive technological solutions for other complex systems, software, and engineering applications in manufacturing processes. In early 2018, the Center of Aeronautical Technologies of Querétaro (*Centro Nacional de Tecnologías Aeronauticas* or CENTA) was inaugurated with the support of the National Council of Science and Technology (*Consejo Nacional de Ciencia y Tecnología* or CONACYT). It provides services for the aerospace industry and supports new projects led by small and medium firms. In mid-2017, the Spanish company Indra opened a new Center of Technological Development in the State of Querétaro to increase offerings for transportation, infrastructure, energy, and other industrial sectors. Since mid-2019, aerospace firms in Tijuana have a new innovation and design center supported by the Mexican Confederation of Industrial Chambers (*Confederación de Cámaras Industriales* or CONCAMIN) and the Mexico-France Chamber of Commerce.

These opportunities go hand-in-hand with growth of the aviation sector, where we see demand for flight and maintenance training, parts and maintenance services, airport needs, and a variety of aircraft including both fixed-wing and helicopters.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring market opportunities, particularly in the following sub-sectors.

Supply Chain Opportunities

Some of the best prospects for products and services in the aerospace industry are:

- Thermal and hydro forming
- Surface treatments
- Nitro-carburized materials and nitrocarburizing
- Motors and rotors
- Testing equipment

- Special composites and processes
- Metal treatments
- Aerospace molding
- Special tooling
- Advanced composites
- Specialized aerospace services

Aviation Sector Opportunities

The growth of Mexican aviation may generate additional opportunities in and around airports:

- MRO services and maintenance programs
- Airport construction (see the *Transportation Infrastructure* section)
- Aircraft and helicopter flight training and MRO
- Aircraft supply and provisioning services
- Airport equipment, supply, provisioning, and concessions
- Small aircraft, executive aircraft, and helicopter sales, parts, and services

Defense Sector Opportunities

Another area of potential business opportunity is in defense aerospace. The Mexican National Defense Secretariat (*Secretaría de la Defensa Nacional* or SEDENA), which includes both the Army and the Air Force, and the Secretariat of the Navy (*Secretaría de la Marina* or SEMAR), received 2020 budgets of around USD 4.8 billion and USD 1 billion, respectively. Both SEDENA and SEMAR have growing R&D and manufacturing programs. We foresee supply opportunities for manufacturing radars, cannon prototypes, two-seater airplanes, experimental training airplanes, air-to-surface missiles, and launchers for military aircraft. In addition, we have identified military spending needs that include the following:

- Aerial surveillance systems
- C-295 airplanes for military transport
- Helicopters for high impact operations
- Tactical operations assets
- Cargo and personnel transport helicopters and airplanes
- Systems and equipment for maritime surveillance

Web Resources

Mexican Secretariat of Communications and Transportation (SCT)	www.gob.mx/sct
Mexican Secretariat of National Defense (SEDENA)	www.gob.mx/sedena
National Institute of Statistics and Geography (INEGI)	www.inegi.org.mx
Mexican Federation of the Aerospace Industry (FEMIA)	www.femia.com.mx
Mexican Space Agency (AEM)	www.gob.mx/aem
Mexico Now (magazine)	www.mexico-now.com
JetsNews (Aerospace supplements)	www.jetnews.com.mx
Vuela Magazine	www.vuela.com.mx
Revista Manufactura	https://manufactura.mx

Events

To explore these market niches and develop essential contacts, we recommend two activities. First, organize site visits to Mexican aerospace hubs and meetings with companies directly involved with the industry. Second, attend one or more of the upcoming commercial events in the sector. In some, the Commercial Service Mexico will participate:

- Mexico Aerospace Summit 2020 October 27-28, 2020, Querétaro Congress Center, Querétaro City, Querétaro
- Engine Forum Sonora 2020, November 13-14, 2020, Expo Forum Hermosillo, Hermosillo, Sonora
- FAMEX 2021, April 21–24, 2021, U.S. Pavilion, Queretaro Intercontinental Airport, Querétaro, Mexico

Contacts

For more information on the aerospace sector in Mexico, please contact:

Silvia I. Cárdenas
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5209
Silvia.Cardenas@trade.gov

Agribusiness

Overview

Mexico is a priority market for U.S. agricultural and food machinery and equipment. The agribusiness industry in Mexico has been in continuous and steady expansion, with the agribusiness landscape driven in part by strong consumer demand and a steadily growing middle class. Mexico is well-suited to large-scale agricultural production with its large land mass and a diverse range of climates. The highly fragmented state of Mexican farming leaves significant room for consolidation and increasing yields.

Mexico's newly re-named Secretariat of Agriculture and Rural Development (*Secretaría de Agricultura y Desarrollo Rural* or SADER) originally expected 4.6 percent growth in 2019 agricultural and fisheries production. However, Mexico's overall agricultural and fishing output decreased by 0.1 percent in 2020 (with agriculture down 0.4 percent, animal farming up 2.9 percent, and aquaculture increasing 3.0 percent). Despite the decrease in total tonnage produced in 2019, the country had an increase in terms of revenue per ton, resulting from investment in higher value-added crops (such as avocados, berries, and tomatoes). These changes in agricultural practices represent export opportunities for U.S.-made equipment and technology, and it opens more doors for U.S. exporters.

SADER states that Mexico is the world's 11th-largest agricultural and livestock producer, and the third-largest in Latin America. Of the country's total 60.8 million acres of arable land, 53.3 million acres are planted, with only 1.5 million acres using irrigation technologies (the latest data is from 2017). A significant portion of the Mexican labor force is devoted to agriculture, as can be seen in this chart:

Mexican Employment by Sector (2019)

Trade	Services	Industry	Agriculture
19.0%	18.01%	16.9%	11.5%

Source: Observatorio Laboral

Agribusiness Statistics

U.S. exports of agricultural equipment and parts to Mexico totaled USD 1.6 billion in 2019. Exports of tractor parts, off-road diesel engines, and engine parts accounted for USD 1.1 billion (67.1 percent) of the total. Exports of equipment for cultivating grain, oilseeds, and other commodity crops (including high-horsepower tractors, combine harvesters and center-pivot irrigation equipment) were worth USD 117 million, and equipment for raising livestock USD 64.8 million. The high proportion of parts in U.S. agricultural equipment exports to Mexico underscores the extensive agriculture equipment manufacturing operations maintained by major U.S. OEMs in the country.

U.S. agricultural equipment exports rose 1.5 percent in 2019, compared with 2018. U.S. exports fell sharply in the first four months of 2020, by 23.9 percent compared with the same period in 2019, as the economic impact of COVID-19 made itself felt in both the U.S. and Mexican economies. According to the U.S. Census Bureau's Foreign Trade Division, below are the largest exports of equipment to Mexico, by value, for 2019. (Source: Trade Policy Information System TPIS Database, USHS EXPORTS, Revised Statistics for 1989–2019. TPIS is designed and operated by the Office of Trade and Economic Analysis for the U.S. Department of Commerce, International Trade Administration.)

- Tractor parts, engines, and engine parts
- Mowers and power equipment
- Equipment for produce and high-value crops
- Equipment for grains, oilseeds, and other commodity crops
- Equipment for raising livestock
- Sprayers

- Low- and medium-horsepower tractors

Market Entry

The best way for U.S. suppliers of agribusiness equipment to enter the Mexican market is through regional distribution by representatives or distributors. The Mexican market is distinct from the U.S. market in that farms are smaller and therefore require different equipment than is customarily sold in the United States. U.S. fertilizer manufacturers should also be prepared to spend at least one growing season testing small plots in Mexico to prove the efficacy of their products.

Barriers

There are no major trade barriers in the agribusiness sector, although Mexico's size and diversity are often underappreciated by U.S. exporters. As with any commercial endeavor, firms should consult with competent legal counsel before entering into any legal agreement with a Mexican entity. The U.S. Commercial Service in Mexico offers services to conduct background checks on potential Mexican partners.

Leading Sub-Sectors

Agricultural equipment encompasses products with both agricultural and non-agricultural end-uses, such as commercial mowers and irrigation equipment. Major end-uses for agricultural equipment include cultivating crops (e.g., food, fiber, and fuel), raising livestock, and some immediate post-harvest processing (i.e., grading and sorting fresh produce).

In food and beverage manufacturing, food processing and packaging machinery is employed to produce semi-finished ingredients and finished food and beverage products. Other end-uses include pharmaceutical manufacturing and the packaging of a wide range of other consumer goods.

Commercial and industrial refrigeration equipment and commercial food service equipment are used in the distribution of fresh, frozen, and refrigerated food and beverage products, and in the delivery of these products to consumers at the final point-of-sale.

The agricultural and food machinery and equipment in the end-use descriptions mentioned above include the following products, as codified by the North American Industry Classification System (NAICS):

- Farm Machinery & Equipment Manufacturing (NAICS 333111)
- Food Product Machinery Manufacturing (NAICS 333294)
- Packaging Machinery Manufacturing (select codes within NAICS 333994)
- Commercial & Industrial Refrigeration Equipment (select codes within NAICS 333415)
- Commercial Food Service Equipment Manufacturing (NAICS 333319)

Opportunities

Demand for modern agricultural machinery presents U.S. suppliers with strong opportunities, albeit more muted than in years past due to increased foreign competition and the extension of better credit terms from other foreign exporters. Approximately 70 percent of Mexican agriculture is harvested through manual labor, utilizing rudimentary tools. Since only 1.5 million acres of arable land use involves irrigation technologies, there is modest demand for such products from producers who seek to ensure their crops are not left dependent on seasonal rains or irrigation through mobile water pumps.

In December 2018, Mexico's President Lopez Obrador changed the name of the agriculture secretariat to SADER from *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* or SAGARPA and launched the "*Bienestar para el Campo*" program that intends to bring benefits to 2.8 million small farmers by providing subsidies of up to USD 80 per hectare. This program may help spur demand for some U.S. products.

Recommendations

U.S. firms in irrigation technology, commercial mowers, and farm dairy equipment have particularly strong sales opportunities in Mexico, where the agribusiness market continues to build capacity to meet growing domestic demand.

Assembly plants producing new parts commonly require that their supplier base be as close to them as possible to reduce inventory volumes and to facilitate just-in-time and just-in-sequence deliveries. This trend opens a new field of opportunity to U.S. suppliers of production machinery and equipment, materials, pre-assembled components, molds and tooling, cutting tools, automation process equipment, raw materials, engineering and design, finished parts, and accessories sold through local representatives or distributors.

We highlight six areas of opportunity:

- **Tractor Parts, Engines, and Engine Parts.** These products currently dominate U.S. exports and support major U.S. and other OEM tractor assembly operations in Mexico. Major component exports (steering, mufflers, radiators, etc.) have been growing strongly.
- **Irrigation Systems.** Mexico's diverse agricultural economy offers many applications for irrigation systems. Mexico is currently the largest U.S. export market for agricultural sprayers. Drip and micro-irrigation equipment account for more than half of U.S. exports of irrigation products.
- **Mowers and Other Power Equipment.** Steady growth has characterized this category over the last decade. This equipment will continue to find widespread application.
- **Precision agriculture, and equipment integrating IT and big data for produce and high-value crops.** Mexico's specialization in higher value-added crops, due to the increasing demand from their major trading partners (the United States, Canada, and Europe) demands more efficient use of land and resources, and hence the increase in demand for sensors, big data, drones, robots, automated picking and packing systems, blockchain, and other modern technologies.

  Fertilizers. The Government of Mexico is seeking to boost fertilizer production, as local manufacturing is not sufficient to meet national demand. Of the 53.3 million planted acres of land nationwide, 66.8 percent are fertilized. Six states make up 43 percent of total fertilized land: Jalisco (8.3%), Sinaloa (8.1%), Veracruz (7.2%), Michoacán (6.8%), Chihuahua (6.8%), and Guanajuato (5.9%). According to independent projections, use of fertilizers has experienced significant growth over the past decade and will continue to grow in the coming years. Thus, we continue to predict strong market potential for affordable fertilizers in the Mexican agricultural sector. All international companies trying to promote soil or plant nutrition should consider the resources (human and economic), that will be required to run trials, implement protocols, and achieve certifications by the Mexican authorities, which may be cumbersome and could last longer than a year.
- **Pesticides.** Pesticides have become more regulated in Mexico. Despite on-going efforts to reduce their use in most of Mexico's harvested land, there is strong market demand for pesticides. These products need three registrations: Federal Commission for the Protection against Sanitary Risk (*Comisión Federal para la Protección contra Riesgos Sanitarios* or COFEPRIS), Secretariat of Environment and Natural Resources (*Secretaría del Medio Ambiente y Recursos Naturales* or SEMARNAT), and SADER. The process for registering the products must be conducted by a Mexican company. Contact Commercial Service Mexico for detailed guidance on how to follow this process.

Main Competitors

Competition in Mexico stems mainly from European manufacturers who are typically able to present more favorable financing options for sales. For a list of U.S.-based banks active in the Mexican market, particularly U.S. brokers and

banks working with the Export-Import Bank of the United States (EXIM), please contact Commercial Specialist Sylvia Montaño (Sylvia.Montano@trade.gov).

Mexican companies have financing options through the Trust Fund for Rural Development (*Fideicomisos Instituidos en Relación con la Agricultura* or FIRA), which was established by the Mexican Government in 1954. FIRA is a second-tier development bank that offers credit, loan guarantees, training, technical assistance, and technology-transfer support to the agriculture, livestock, fishing, forestry, and agribusiness sectors in Mexico.

Despite strong foreign competitors active in the Mexican market, U.S. suppliers account for 68.8 percent of this sector's market share, representing by far the top supplier.

Market Segmentation of Agricultural Equipment Imports in Mexico

Country	Market Share
United States	69%
Italy	5%
India	4%
Germany	3%
Spain	3%
Other	16%

Web Resources

Secretariat of Agriculture and Rural Development (SADER)	www.gob.mx/agricultura
Federal Commission for the Protection Against Sanitary Risks (COFEPRIS)	www.cofepris.gob.mx
Tax Administration Service (SAT) & Customs	www.sat.gob.mx
National Association of Fertilizer Traders (ANACOFER)	www.anacofer.com.mx
Mexican Association for Protected Horticulture (AMHPAC)	www.amhpac.org
National Union of Poultry Farmers	www.una.org.mx
International Egg Commission	www.internationalegg.com
Consejo Mexicano de la Carne	www.comecarne.org

Events

- Expo Agroalimentaria Guanajuato (Agro Industrial), November 11–13, 2020, Irapuato, Guanajuato
- International Production & Processing Expo, January 26–28, 2021, Atlanta, Georgia
- FIGAP Mexico 2020, May 5–7, 2021, Guadalajara, Jalisco

Contacts

For more information on the agribusiness sector in Mexico, please contact:

Juan Herrera
Commercial Specialist
U.S. Commercial Service—Guadalajara
Tel: +52 (33) 3615-1140 ext. 103
Juan.Herrera@trade.gov

Agriculture

The agriculture sector is large, diversified, and heavily integrated with the United States, making it a best prospect industry sector for U.S. companies in Mexico.

Overview

Mexico is the United States' second-largest agricultural partner. In 2019, U.S. agricultural and related product exports to Mexico totaled USD 20 billion with overall bilateral agricultural trade nearing USD 50 billion. The United States remains Mexico's principal agricultural trading partner, receiving almost USD 29 billion of Mexico's total agricultural exports. Overall U.S. market share in Mexico has remained high, as geographic advantages continue to make the United States the best supplier for most major agricultural goods.

However, Mexico actively looks for alternate sources of supply given bilateral trade uncertainties. In recent years, competition emerged from the European Union, South America, and Asia. Additionally, with President Andrés Manuel López Obrador taking office in December 2018, Mexico shifted its focus domestically, promoting programs and incentives to enhance both local small-scale production and consumption with a goal of becoming self-sufficient in core agricultural products.

Leading Sub-Sectors

The United States enjoys a commanding market share for several sub-sectors. Mexico is the top destination for U.S. agricultural exports of corn, dairy products, poultry meat and eggs, sugar and sweeteners, distillers dried grains, and rice. It is the second or third-largest market for another 25 key product groups such as soybeans, beef, pork, horticulture, and many processed foods or beverages. Below are summaries of a few of these selected sub-sectors of the agricultural market in Mexico. Additional information on each of these topics (as well as other agricultural sectors) is available on the U.S. Department of Agriculture's (USDA) Global Agricultural Information Network (GAIN) at https://gain.fas.usda.gov/.

Major Agricultural Exports from the United States to Mexico *(Figures in USD millions)*	**Calendar Years (January-December)**					**January-February Comparisons**		
Product	**2015**	**2016**	**2017**	**2018**	**2019**	**2019**	**2020**	**% Chg**
Bulk Total	5,375.8	5,710.3	6,194.4	6,566.7	6,402.0	1,045.3	1,060.9	1
Corn	2,302.2	2,549.8	2,645.5	3,060.8	2,719.0	459.6	414.9	-10
Soybeans	1,432.2	1,462.2	1,574.2	1,822.4	1,866.7	293.5	328.4	12
Wheat	650.9	611.6	852.1	662.1	812.1	133.5	144.6	8
Cotton	332.0	339.6	403.9	371.7	287.7	58.2	38.1	-35
Rice	283.6	266.5	291.7	268.0	275.1	39.4	43.5	10
Coarse Grains (ex. corn)	78.3	132.3	78.7	39.2	131.7	10.4	38.6	270
Other Bulk	126.5	128.8	131.8	127.2	130.4	18.2	22.2	22
Tobacco	54.1	69.8	52.5	90.7	77.2	18.9	13.3	-30
Pulses	73.2	89.5	111.8	89.5	76.9	10.7	15.6	46
Oilseeds (ex. soybean)	42.7	60.3	52.3	35.2	25.3	2.9	1.7	-42
Intermediate Total	3,941.9	4,065.1	4,062.3	3,938.9	3,789.3	603.5	636.4	5
Other Intermed. Products	830.8	897.9	1,126.4	983.8	941.4	172.1	160.1	-7
Soybean Meal	800.2	800.8	578.6	665.1	642.4	87.1	103.4	19
Sugar, Sweetnrs, Bev. Bases	632.5	620.5	664.8	649.2	600.9	86.3	88.4	2
Distillers Grains	346.3	355.8	374.4	415.6	421.0	77.3	73.1	-5
Planting Seeds	250.7	297.7	264.7	246.9	231.3	38.5	38.7	1
Animal Fats	242.9	240.0	213.6	231.8	231.3	35.1	41.2	17
Feeds & Fodders NESOI	146.4	153.6	158.2	184.0	229.1	25.3	49.5	96
Vegetable Oils (ex. soybean)	223.6	196.6	210.1	183.0	163.5	25.9	29.4	14
Soybean Oil	210.8	226.8	202.0	128.7	112.5	20.9	22.0	5
Live Animals	127.1	121.8	128.5	115.2	108.9	17.5	15.2	-14
Hides & Skins	130.2	153.2	140.6	135.3	106.8	17.6	15.3	-13
Hay	0.3	0.3	0.5	0.2	0.1	0.0	0.0	175
Consum.-Oriented Tot.	8,377.7	8,051.5	8,341.3	8,590.1	8,964.9	1,369.6	1,534.8	12
Dairy Products	1,280.1	1,217.8	1,312.3	1,397.5	1,545.5	231.5	260.9	13
Pork & Pork Products	1,268.2	1,359.6	1,514.1	1,310.7	1,278.4	171.3	242.3	41
Beef & Beef Products	1,092.5	977.3	979.1	1,058.3	1,106.7	197.9	217.0	10
Poultry Meat & Prods. (ex. eggs)	1,029.0	931.5	932.6	955.8	1,076.8	141.1	183.9	30
Prepared Food	704.6	709.6	678.5	743.2	777.1	129.9	127.0	-2
Fresh Fruit	560.3	501.1	570.4	618.6	610.2	73.0	76.2	4
Tree Nuts	269.1	253.3	256.2	370.7	343.5	57.9	59.3	2
Snack Foods NESOI	293.2	296.1	283.0	319.7	342.0	54.7	53.7	-2

Processed Vegetables	302.1	298.1	309.0	288.4	296.9	46.3	55.5	20
Condiments & Sauces	218.3	220.6	214.0	215.1	242.9	36.2	43.0	19
Choc. & Cocoa Prods.	236.8	239.1	231.0	218.4	220.8	39.3	38.1	-3
Fresh Vegetables	122.6	100.8	134.1	141.4	193.3	34.9	28.6	-18
Eggs & Products	186.4	181.0	169.4	166.1	181.4	28.9	36.6	27
Non-Alc. Bev. (ex. juices)	137.3	116.0	139.4	123.2	149.0	26.8	24.7	-8
Processed Fruit	119.4	112.0	120.3	125.9	134.5	21.3	22.1	4
Dog & Cat Food	67.1	76.9	85.1	89.7	103.4	16.4	19.1	17
Other Consumr-Oriented	85.8	80.4	76.9	94.8	102.6	17.8	14.3	-19
Meat Products NESOI	96.3	90.9	83.4	86.8	84.4	14.2	12.6	-11
Wine & Beer	205.2	184.8	170.1	178.7	78.0	11.6	5.7	-51
Fruit & Vegetable Juices	63.9	54.2	43.4	46.3	54.2	12.6	7.7	-39
Breakfast Cereals	39.7	50.2	39.1	40.9	43.4	6.2	6.4	3
Ag Related Products	877.1	868.4	870.5	882.6	898.0	153.2	144.7	-6
Forest Products	694.6	692.6	700.8	710.6	709.0	120.3	110.0	-9
Distilled Spirits	47.2	38.1	44.4	60.9	72.0	11.5	8.4	-26
Fish Products	50.0	65.7	57.3	56.3	64.1	10.5	14.7	39
Ethanol (non-bev.)	67.2	58.3	56.4	50.5	51.3	10.2	11.2	10
Biodiesel & Blends >B30	18.0	13.7	11.6	4.3	1.6	0.6	0.4	-36
Agricultural Products	17,695.0	17,826.9	18,598.0	19,095.7	19,156.2	3,018.5	3,232.1	7.1
Ag & Related Products	18,572.4	18,695.3	19,468.5	19,978.2	20,054.2	3,171.7	3,376.8	6.5

Prepared by: Global Policy Analysis Division/OGA/FAS/USDA
*Source: U.S. Census Bureau Trade Data *Denote Highest Export Levels Since at Least CY 1970 + Values of $0.05 million or more are rounded to $0.1 million.*
**Biodiesel aggregate includes only higher-level and pure biodiesel HTS chapter 28 codes; biodiesel blends below 30% by volume (aka. petroleum oils containing biodiesel) found in chapter 27 are excluded.*

Mexico Soybean Market Overview
(Figures in thousands of metric tons)

Indicator	2018	2019	2020 (Estimated)
Total Local Production	338	250	250
Total Domestic Consumption	6,195	6,252	6,302
Total U.S. Exports to Mexico	5,300	5,350	5,429
Total U.S. Imports from Mexico	3	2,183	2,500

Source: Foreign Agricultural Service's Production, Supply and Distribution (PSD) online database

The United States serves as the main exporter and supplier of soybeans to Mexico. Growth in Mexico's livestock sector has driven growth in demand for U.S. soybeans in recent years. Soybeans are generally imported and crushed in Mexico for use as edible oil for human consumption and soy meal for livestock feed. We expect growth of approximately 1.7 percent in the oilseed meal and one percent in the oil sector over the coming year, driven by continued meal demand from the poultry and livestock sectors. Mexican oilseed crushers are expected to continue increasing oil production to keep up with population growth and meal demand. Given continued demand for soybeans for crushing, steady growth in imports is likely.

Mexico Corn Market Overview
(Figures in thousands of metric tons)

Indicator	2018	2019	2020 (Estimated)
Total Local Production	27,671	25,600	27,100
Total Domestic Consumption	44,100	44,500	45,550
Total U.S. Exports to Mexico	16,755	15,400	16,500
Total U.S. Imports from Mexico	718	600	600

Source: Foreign Agricultural Service's Production, Supply and Distribution (PSD) online database, and U.S. Census Data

Mexico Wheat Market Overview
(Figures in thousands of metric tons)

Indicator	2018	2019	2020 (Estimated)
Total Local Production	3,000	3,290	3300
Total Domestic Consumption	7,500	7,500	7,600
Total U.S. Exports to Mexico	3,349	4,320	4,300
Total U.S. Imports from Mexico	526	1,000	750

Source: Foreign Agricultural Service's Production, Supply and Distribution (PSD) online database, and U.S. Census Data.

Mexico continues to be an excellent market for U.S. grains exports, despite also being a producer of these grains. Mexico was the top export destination for corn, wheat, and rice by volume in 2019. Grains imports in Mexico continue steady growth trends, with expansion in the animal feed sector driving growth for feed grains (particularly corn) rather than for food grains. Between 2020 and 2021, imports are expected to continue their modest growth to meet growing demand for feed and food grains. The United States is poised to remain Mexico's principal supplier due to logistical advantages and existing business relationships.

Mexico Dairy Products Overview

Mexico is the number one export market for U.S. dairy products. Although Mexico's domestic industry has experienced production growth, the country is a milk production-deficit nation and will continue to be an attractive market for U.S. dairy and dairy product exporters. The dairy processing industry competes for inputs and uses dairy imports to close the gap between demand and production. For example, about 97 percent of the skim milk powder consumed in Mexico is imported from the United States. Import diversification is on the horizon given the Mexico-European Union FTA modernization and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTTP). The United States–Mexico–Canada Agreement (USMCA) was signed in November 2018, was ratified by the Mexican Government in 2019, and entered into force on July 1, 2020. For more information on the USMCA, as well as the transition from North American Free Trade Agreement provisions, check the relevant pages at the Office of United States Trade Representative (www.ustr.gov).

The Government of Mexico has a subsidized milk program, called *Liconsa*, for the neediest segment of its population. This government-owned and operated subsidized milk program has eleven thousand outlets across Mexico, serving more than six million of the neediest consumers.

The Mexican dairy industry is working on changing consumer perception of dairy products by encouraging domestic consumption of a wider range of dairy products beyond only fluid milk. These efforts are characterized not only by

advertising campaigns but also in development and innovation of new dairy products appealing to different sectors of the society.

Mexico Poultry Market Overview

For 2020, continued growth is expected in the poultry and egg sectors, building on recent expansion and vertical integration. Mexico closed 2019 with steady growth of poultry and egg production. Chicken meat is still the preferred animal protein for domestic consumption due to its lower price and versatility in the Mexican kitchen. Mexico is the number one consumer of eggs in the world. Most of imports in poultry sectors continue to originate from the United States, while exports by Mexico are limited. A third-country tariff-rate quota for chicken meat has allowed Brazil to export mainly breasts and wings to Mexico

Processing Ingredients Market Overview

Mexico continues to be a growth market and one of the best opportunities globally for U.S. processing ingredients with a strong processing sector demanding an array of inputs. Though Mexico remains a growth market for U.S. processing ingredients. The processing industry itself in Mexico remains stable with low growth, as it is large and well established. It currently ranks ninth in the world and third in Latin America. However, the sector is diversifying to provide tailored products for consumers, moving away from one highly branded product line to multiple lines and niche products. Two examples include a proliferation of types of peanut butter (both in brands and varieties), and a number of independent craft beer companies bought by big brands such as AMBEV and Heineken yet maintaining their independent name. Also, some smaller companies branded their products a health product to take advantage of current trends and were quickly acquired by larger corporations covering mainstream distribution channels. Please see the report on processing ingredients published by the Foreign Agricultural Service (GAIN: Mexico Food Processing Ingredients 2020).

Mexico Fresh Fruit Market Overview

The United States is the largest supplier of apples, pears, and grapes to the Mexican market, and this trend is expected to continue. As Mexico is a price sensitive market, apple import levels depend heavily on the peso to dollar exchange rate. The U.S. apple industry has retained its dominant market position by successfully marketing American apples through in-store promotions. The domestic supply of pears is supported by imports, primarily from the United States. Wholesale markets remain the most important fruit distribution channel for U.S. pears.

Mexico is an important market for grapes from the United States as well as Chile and Peru. The volume of Mexican grapes on the local market depends on export volumes, as producers tend to supply the international market before the domestic market. Promotional efforts have increased consumption, leading to greater domestic production and imports, of which the majority are U.S. origin.

Opportunities

The U.S. Foreign Agricultural Service in Mexico is happy to assist you in exploring market opportunities. Two developing areas worth mentioning are health foods and the wine market.

With the rising trend in healthier eating, demand for organic products, alternative ingredients, and other niche food products in Mexico has grown in recent years. Presently, Mexico has some of the world's highest indexes for obesity and diabetes, especially among children. A growing number of Mexican consumers are pursuing healthier lifestyles, which include better eating habits, making Mexico an attractive market for American exporters of healthy and/or organic food products.

The developing wine culture in Mexico creates an attractive market for U.S. wine exporters. Expanding consumer interest in wine and a thriving middle class have contributed to the expansion of this industry. Mexico's transition to more wine consumption over other alcoholic beverages, increased interest among different consumer sectors (i.e., women and young adults), and growing interest among consumers in trying novel wines has also led to new opportunities for wine exports from the United States.

For further information about best prospects for foods in Mexico, please see USDA's country Exporter Guide. For additional information about specific market entry sectors, see the Retail Foods, Food Processing Ingredients, or Food Service reports. These and many other useful reports are available at https://gain.fas.usda.gov/.

Web Resources

U.S. Department of Agriculture (USDA)	Foreign Agricultural Service (FAS)
USDA DAS	Global Agricultural Trade System (GATS)
USDA FAS Production, Supply and Distribution online data base	(PSD) online database
USDA Global Agriculture Information Network	(GAIN) website

Events

- Confitexpo (Confectionary), August 3–6, 2021, Guadalajara, Jalisco
- ABASTUR (Hospitality), Sep 1–4, 2020, Mexico City
- ANTAD & Alimentaria (Retail, Food and Beverage), October 13-15, 2020, Guadalajara, Jalisco
- Expo Restaurantes (Restaurants), October 28–30, 2020, Mexico City
- Food Tech Summit, Sep 30-Oct 1, 2020, Mexico City

Contacts

For more information on Agricultural sectors in Mexico, please see our website at https://mexico-usda.com.mx/ or contact our Mexico offices:

Agricultural Trade Office - Mexico City
Tel.: + 52 55 5080 2000 ext. 5282
atomexico@fas.usda.gov

Agricultural Trade Office – Monterrey
Tel.: + 52 81 8047 3232
atomonterrey@fas.usda.gov

Office of Agricultural Affairs – Mexico City
Tel.: + 52 55 5080 2532
agmexico@fas.usda.gov

Automotive Industry

Mexico is a major market for U.S. vehicles, light vehicles, trucks, buses, autoparts, and supplies.

Overview

The automotive sector is one of Mexico's most significant industries, employing over one million people throughout the country. The sector is divided between the passenger vehicle sector and heavy vehicles for cargo, construction and agriculture. Mexico is the sixth-largest passenger vehicle manufacturer in the world, producing 3.7 million cars annually. It is the fifth-largest producer of autoparts worldwide with USD 99 billion in annual revenues and is the largest export market for U.S. autoparts. Mexico is the sixth-largest manufacturer of heavy-duty vehicles for cargo, and it is the largest tractor truck exporter worldwide, accounting for the most heavy-duty vehicle exports to the United States. It is also the fourth-largest exporter of heavy-duty vehicles for cargo and the second-largest export market for U.S. heavy-duty trucks.

The size of Mexico's passenger vehicle market and our shared border provide a robust market for U.S. Original Equipment Manufacturers (OEMs) and aftermarket autoparts. In addition, investments by established automakers and new OEMs have attracted strong Tier 1 and Tier 2 supplier bases. Due to COVID-19, industry expects a five percent decline for vehicle production and 40 percent decline for autoparts this year.

Automotive manufacturers are primarily concentrated in the northern region of Baja California, Sonora, Chihuahua, Coahuila, Nuevo Leon and San Luis Potosi. Nonetheless, OEM plants are also based in Guanajuato, Aguascalientes, Jalisco, Estado de Mexico, Hidalgo, Morelos, Puebla and Veracruz. In terms of their supply chain, auto parts producers are located close to these plants, principally in Coahuila, Chihuahua, Nuevo Leon, Guanajuato and Estado de Mexico, although are found in other parts of the country as well. The heavy-duty manufacturing plants are mainly concentrated in northern Baja California, Coahuila, Nuevo Leon, San Luis Potosi, Guanajuato, Queretaro and Hidalgo.

The United States–Mexico–Canada Agreement (USMCA) went into effect on July 1, 2020. USMCA changed the rules of origin for the automotive sector, requiring that 75 percent of automotive content be produced in North America and that core autoparts originate from the United States, Canada, or Mexico. Following a phase-in period, only goods meeting these content requirements will receive duty-free access. For additional information on the USMCA automotive manufacturing provisions, please visit the Office of United States Trade Representative website at www.ustr.gov.

Mexico Passenger Vehicle Sales in Mexico
(Figures in thousands of vehicles)

	2016	2017	2018	2019	2020 (Estimated)
Total Local Production	3,465	3,932	3,908	3,750	3,730
Total Exports	2,768	3,102	3,449	3,333	3,357
Total Imports	886.7	906.3	929.8	906.8	900.0
Imports from the U.S.	174.8	159.3	140.6	126.0	130.0
Imports Used Vehicles	147.8	123.6	141.7	159.4	150.0
Total Market Size*	1,584	1,736	1,388	1,323	1,273
Exchange Rates	18.68	18.91	19.23	19.26	20.00

**Total market size = (total local production + imports) - exports*
Source: Mexican Automotive Industry Association (AMIA) & United States Department of Commerce, Bureau of the Census, Foreign Trade Division.

Vehicle Market in Mexico
(Figures in USD Billions)

	2016	2017	2018	2019	2020 (Estimated)
Total Local Production*	35.0	33.3	39.2	38.2	36.2
Total Imports	32.7	33.7	37.5	35.5	35.0
New Passenger Vehicle & Light Trucks					
Total Exports	40.8	46.9	52.6	58.3	55.3
Imports from the U.S.	3.6	3.4	3.2	2.9	3.0
Medium & Heavy-Duty Trucks					
Total Exports	8.9	10.7	12.1	13.1	13.0
Imports from the U.S.	0.4	0.3	0.4	0.4	0.4
Exchange Rates	18.68	18.91	19.23	19.26	20.00

**Local production is calculated by applying the Mexican Government estimate of automotive production as a percent of GDP and converting the figure to U.S. Dollars. This is a rough estimate that cannot be directly compared to the export and import figures in the remainder of the table.*
Sources: Country economy, Mexican Automotive Industry Association & U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division.

The Mexican Automotive Industry Association estimates that Mexico will become the fifth-largest worldwide vehicle producer by 2025. In 2019, Mexico ranked as the sixth-largest vehicle producer with 3.7 million units. Out of the production, 64 percent were SUVs, minivans, and pick-ups, while the remaining 36 percent were vehicles. Established automakers in Mexico include Audi, Baic Group, BMW, FCA Group, Ford, General Motors, Honda, Kia, Mazda, Nissan, Toyota and Volkswagen. Mercedes Benz's production is in partnership with Nissan–Daimler. Hyundai produces through its Kia partner and Toyota opened its second plant in Apaseo el Alto, Guanajuato last year. The industry, with over one million jobs and 300 R&D centers, produces more than 50 brands and over 500 models through a network of 2,361 car dealerships nationwide. Around 90 percent of vehicle production in Mexico is devoted to exports, with 79 percent going to the United States.

Auto sales decreased by seven percent with 1.3 million units in 2019 compared to 1.4 million units in 2018. Among domestic vehicle sales, Nissan is the top seller, followed by General Motors, Volkswagen, Toyota, Kia, Honda, FCA Group, Mazda, Ford, Hyundai, and others. These brands represent 82 percent of the market in terms of sales.

Mexican Autoparts Market for OEM and Aftermarket
(Figures in USD billions)

	2016	2017	2018	2019	2020 est.
Total Local Production	85.0	92.0	97.0	99.0	57.0
Total Exports	62.2	73.5	79.3	81.0	27.4
Total Imports	40.0	49.1	54.1	55.3	50.0
Imports from the U.S.	28.3	29.7	26.7	27.3	29.0
Total Market Size*	62.8	67.6	71.8	73.3	79.6
Exchange Rates	18.68	18.91	19.23	19.26	20.00

**Total market size = (total local production + imports) - exports*
Source: National Auto Parts Industry Association (INA) & United States Department of Commerce, Bureau of the Census, Foreign Trade Division.

Leading Sub-Sectors and Opportunities

With the entry into force of the United States–Mexico–Canada Agreement (USMCA) on July 1, 2020, we anticipate increases in U.S. and Mexican exports in this sector. USMCA changes rules of origin for autos, requiring that 75 percent of auto content be produced in North America and that key core auto parts always originate from the United States, Canada, or Mexico. This means that—after a phase-in period—only goods with this content will receive duty-free access. For additional information on the USMCA automotive manufacturing provisions, please visit the Office of United States Trade Representative website at www.ustr.gov.

There are seven major sub-sectors in Mexico's automotive industry: original equipment, aftermarket parts, electric & hybrid vehicles, specialty equipment, remanufactured products, and heavy vehicles. Of these sub-sectors, CS Mexico sees strong opportunities in the following:

Original Equipment and OE Opportunities

The OE autoparts market represents USD 73 billion dollars, making Mexico the fifth-largest producer of autoparts, with over 2,500 companies in the sector. Over 600 of these companies are Tier 1 suppliers. U.S. autoparts manufacturers operating in Mexico represent 18 percent of all companies in this sector, followed by Japan, Germany, Canada, France and South Korea. The industry is deeply integrated between our two countries. Mexico imports 49.4 percent of all auto parts from the United States. Mexico, in turn, exports 86.9 percent of its autoparts production to the United States. U.S. exporters are advised to work closely with their partners in Mexico to comply with Mexican standards for electrical and electronic safety measures, as well as with labeling requirements, to avoid any delays.

The most effective way for U.S. suppliers of autoparts and equipment to enter the Mexican market is through local representation or regional distribution. Assembly plants prefer suppliers who are located closely to minimize inventory volumes and to facilitate just-in-time or just-in-sequence deliveries. It is easier to serve OEMs in Mexico if the U.S. exporter is already supplying them in the United States and has a supplier number. Automotive parts related to components for Tier 2 suppliers represent the most exported items from the United States. However, opportunities exist for production machinery and equipment, materials, pre-assembled components, molds and tooling, cutting tools, automation process equipment, raw materials, engineering and design, finished parts, and accessories sold through local representatives or distributors. As the technology becomes more sophisticated, Mexico will search for solutions including big data, wireless technologies, innovation for high production volumes, smart packaging, and track and trace systems in logistics. Additionally, electric and hybrid vehicle production trends will continue to create demand for clean energy technologies. The main competition for OE parts is from domestic manufacturers as well as those from China, Japan, South Korea, Germany, Canada and Brazil, among others.

Opportunities in Repair & Replacement Parts (Aftermarket)

The Mexican Aftermarket Industry Association (*Asociación Nacional de Representantes, Importadores y Distribuidores de Refacciones y Accesorios para Automóviles* or ARIDRA) estimates that the aftermarket industry market size represented USD 28.5 billion in 2019. They predict the industry will experience a slowdown in 2020 due to COVID-19 impacts. Nonetheless, new vehicle sales from previous years will continue to generate aftermarket growth after the five-year warranty expiration. Mexico is a price-driven market with heavy competition from China, Taiwan, Korea and local manufacturers. Only authorized dealerships can sell aftermarket auto parts approved by the OEM. Dealerships also provide car repair services and purchase auto parts from large distributors.

ARIDRA estimates that there are approximately 33.4 million vehicles in operation throughout Mexico with model years ranging from 1965 to 2018. Given the length of time that Mexican consumers keep their cars (15 years on average), consumers often need aftermarket parts for repairs after the warranty periods expire.

Electric & Hybrid Vehicles and Parts

The market in Mexico for EV and hybrid vehicles continues to develop. The Mexican Government offers incentives to Mexican consumers including the exemption of local taxes and emission control verifications. In 2019 the market for electric, plug-in vehicles and hybrid vehicles reached 25,608 units, representing a 43.8 percent growth over 2018. Hybrid vehicle sales are particularly significant. Market opportunities include electric motors, motor drive, battery power converter, on-board charger, auxiliary battery, charger port, traction battery bank and power electronic controllers.

Specialty Equipment and Opportunities

Vehicle modifications are limited due to government regulations. Some of these limitations include neon headlights, tailgate LED light bars, emergency and warning lighting, underbody lights, loud sound systems, dark-tinted glass, loud exhaust systems, and metal tires. Vehicles with drivetrain modifications done by the consumer will lose their original warranty. Therefore, modifications are usually carried out only on older vehicles. The most common include chrome, fiber glass, hydraulics, suspension, doors, body car, vinyl wrapping, rims, candy painting finishing, and application of ceramic and film protectants. Trends in vehicle modification follow the European style with lowered wheels and shaved features to enhance body styling. Due to exchange rates and income levels, it can take years for a consumer to customize a vehicle. Some of the most popular brands for customization are VW, Nissan, Chevrolet, and antique cars. Specialists look for sliding sunroof systems, convertible power tops and related motors, dashboard kits and custom mounted instruments, interior trim, custom shift knobs, LED lighting, and window security film with UV protection and heat reduction.

Remanufactured Parts

Remanufactured parts are those that have been repaired with new components which may have originated in different countries. While this is a significant sub-sector, there are limited opportunities for U.S. exporters due to the local remanufacturing services available at lower costs. This niche market is price-driven. In addition, producing a Certificate of Origin can be difficult for U.S. exporters since the part numbers are so numerous and Mexico's Free Trade Agreements typically require a majority of the content originating from a single FTA partner to obtain preferential treatment. Local companies in the market already remanufacture diesel and gasoline engines and their parts, including rotors and other high tolerance components. Other OEMs of parts or engines also remanufacture so they can offer competitive prices to their customers.

Used Automotive Products

Current Mexican regulations limit the importation of used vehicles into Mexico. These measures were adopted by local governments and private vehicle associations in response to concerns about the condition of older used vehicles, including high emissions, fuel efficiency limitations, higher maintenance costs, and poor mechanical condition. Used

vehicles also have a negative impact on new car sales, and there is an inherent difficulty in tracking and identifying used vehicles involved in criminal activity. The combination of these factors has prompted the Mexican Government to put these regulations in place.

As a mature market with auto parts sold by OE parts manufacturers and aftermarket sellers, there are limited opportunities for used parts exporters to Mexico. Although used parts can be imported into Mexico, local auto parts distributors require a warranty and do not generally import large volumes as they only import parts not found locally. Although there are limited opportunities, repair equipment and replacement parts are still needed.

Heavy-Duty Vehicle Products

Heavy-duty vehicle production is a major sector in Mexico, with U.S. companies and content representing a significant segment. The industry is comprised of 14 manufacturers and assemblers of commercial vehicles including buses, trucks, tractor trucks and engines supporting 18,500 jobs. There are four broad categories of production: Class 4-8 tractor-trailers, which are medium to heavy trucks hauling seven to 16.5 tons; five-axel "semi" tractor trucks; Class 5-8 passenger buses (school, shuttle, transit, and long-haul buses); and Class 3 "box" trucks.

Mexico is the leading global exporter of tractor trucks and largest exporter into the United States with 81 percent of its production. It also ranks as the sixth-largest manufacturer of heavy-duty vehicles for cargo with eleven manufacturing plants. Mexico is the fourth-largest exporter of heavy-duty vehicles for cargo and the second-largest export market after Canada for U.S. medium and heavy-duty trucks.

Mexican tractor-trucks account for 56 percent of the country's transportation vehicle exports. The Mexican Buses, Trucks & Tractor Trucks National Manufacturers Association or ANPACT, represents top industry players including Cummins (Columbus, IN), Detroit Diesel Allison (Detroit, MI), Freightliner–Daimler Vehículos Comerciales (Portland, OR), Kenworth Mexicana (Kirkland, WA), Mack Trucks de México (Greensboro, NC), and International-Navistar de México (Lisle, IL). Mexican company Dina Camiones is headquartered in Hidalgo. Other foreign-headquartered companies are Scania Mexico (Sweden), Volvo Group de México (Sweden), VW Camiones y Autobuses (Germany), Man Truck & Bus de México (Germany), Mercedes-Benz Autobuses (Germany), Hino Motors Sales Mexico (Japan), and Isuzu Motors (Japan).

The Mexican government ratified a new set of emission standards applicable to heavy-duty vehicles scheduled to come into force on January 1, 2021. The standards fall under the Normas Oficiales Mexicanas (NOM) number 044-SEMARNAT-2017 and require all new heavy-duty vehicles manufactured and sold in Mexico to comply with advanced emission-reduction technologies. The technologies are called EPA 10 and Euro VI, and they enable engines to use ultra-low sulfur diesel (ULSD). The Mexican regulation would align the country with United States, Canadian, and European Union standards.

Tractors in Mexico are produced by six players, over 80 percent of whose exports go to the United States. John Deere and Caterpillar are the leading manufacturers in Mexico with over 200 dealers across the country. CNH (Case and New Holland), AGCO (Massey Ferguson), McCormick, and FOTON are other key players with a solid market presence.

Passenger bus production has a long and historic manufacturing tradition in Mexico, with facilities across the country. Leading firms are Volkswagen, International – Navistar de Mexico, Volvo Autobuses, Marcopolo Mexico, Dina Camiones, Mercedes-Benz Autobuses, Scania Autobuses, MAN Truck & Bus, Grupo Autofin, Isuzu Motors Mexico, Hino Motors Sales, American Coach de Mexico, Irizar Mexico, Beccar, Autopartes y Componentes AYCO, RECO, Ayats, and Master Road.

Web Resources

Mexican Automotive Industry Association (AMIA)	www.amia.com.mx
Mexican Aftermarket Industry Association (ARIDRA)	www.aridra.com
Mexican Trucks and Buses Manufacturer's Association (ANPACT)	www.anpact.com.mx
National Auto Parts Industry Association (INA)	www.ina.com.mx
National Chamber of Freight Transport (CABACAR)	www.canacar.com.mx
National Association of Private Transportation (ANTP)	www.antp.org.mx

Events

- INA Paace Automechanika Show (OE / Aftermarket / Accessories), September 24-26, 2020, Mexico City
- Expo Transporte Anpact (transportation and buses) Dates and Venue to be defined – 2021
- Expo Carga (logistics and transportation) October 19-21, 2020, Mexico City
- Logistic Summit (logistics and transportation) April 21-22, 2021 Mexico City

Contacts

For further information, please contact:

Monica Martinez
Commercial Specialist, Vehicles, Trucks, Buses and Autoparts
U.S. Trade Center
Liverpool 31, Col. Juarez
C.P. 06600 Mexico City
Tel: +52 55 5080-2000, ext. 5218
Monica.Martinez@trade.gov

Construction

The construction sector—including building materials and specialized expertise such as sustainable building technologies and seismic stabilization—is a best prospect industry sector for Mexico. This section includes a market overview and trade data.

Overview

Mexico's USD 1.1 trillion economy makes it the second largest economy in Latin America and the 15th-largest economy in the world. Its infrastructure plans are an important consideration for any U.S. engineering or construction supply firm.

Mexico's construction industry is forecast to continue to contract in 2020 albeit at a sharper rate than in 2019, according to GlobalData, a leading data and analytics company. Before the COVID-19 pandemic, GlobalData expected Mexico's construction industry to grow by 1.1 percent in 2020. However, in view of the evolving economic effects of the coronavirus outbreak and uncertainty about its containment, GlobalData has cut its construction output growth forecast for Mexico to -7 percent in 2020, down significantly from the 5.1 percent contraction registered in 2019.

In its decree on the COVID emergency, the Mexican Government listed construction and infrastructure projects as essential industries. President López Obrador specifically directed key infrastructure projects to continue during the national COVID shutdown. Nonetheless, between looming economic recession and slow startup of projects, Federal Government infrastructure investment during 2019 decreased 17.8 percent in comparison to the previous year. The Administration continues focusing on development projects that will stimulate demand for construction materials and services. The President announced a series of priority national development initiatives, of which roughly half involve transportation infrastructure development or other types of construction. These range from large infrastructure projects to housing and commercial building construction—such as September 2017 earthquake reconstruction and urban development in marginalized communities (note that as of September 2019 only 30 percent has been rebuilt).

These large "signature" projects include the new airport to serve Mexico City at the Santa Lucía Military Base; the Isthmus of Tehuantepec Inter-Oceanic Corridor; the "Maya Train" on the Yucatan Peninsula; rural roads; and various sector-specific developments in oil and gas production, refinery development, agricultural production, and mines. President López Obrador announced these projects in December 2018 under his National Development Plan (*Plan Nacional de Desarollo* or PND) 2018–2024. This plan seeks to increase infrastructure investment from 2.5 to 4.5 percent of GDP by 2022.

In November 2019, President López Obrador along with private sector representatives announced the first package of an ambitious "Private-Sector-Led" USD 424 billion infrastructure plan. The first package identifies 147 projects, out of an estimated 1,600, totaling USD 43 billion. Of the 147 projects, 72 will begin in 2020. The overall plan covers transportation, telecommunications, water and sanitation, energy, tourism and social welfare.

For more details on these projects, please see our sections on transportation infrastructure, energy, oil & gas, and water.

The following table indicates the Mexican market for construction sector products and services as we calculated in our 2019 Country Commercial Guide. The Government of Mexico has changed certain data sources, preventing updated 2019 full-year numbers and a 2020 market estimate. We will review our market size methodology for this sector in coming months. In the meantime, here are the prior figures:

Mexico Building Materials and Services Statistics
(Figures in USD billions)

	2016	2017	2018	2019 (Estimated)
Total Local Production	90.13	90.3	90.4	90.0
Total Exports	37.95	38.1	38.3	38.0
Total Imports	42.43	42.7	42.7	42.0
Imports from the U.S.	32.23	32.5	32.3	32.0
Total Market Size*	94.61	94.9	94.8	94.0
Exchange Rates	18.68	18.91	19.22	19.15

**Total market size = (total local production + imports) - exports)*
Sources: Secretariat of Finance and Public Credit (SHCP), National Institute for Statistics and Geography (INEGI), Central Bank of Mexico (Banco de Mexico), Secretariat of Economy (SE), National Bank for International Trade (BANCOMEXT), Mexican Chamber for the Construction Industry (CMIC), National Chamber for Consulting Firms (CNEC), National Housing Commission (CONAVI), & National Chamber for Housing Development (CANADEVI)

Mexico's flat growth in 2019 will be exacerbated by the current COVID-19 crisis. Public sector policy uncertainty has slowed both public and private sector investment. In the January-November 2019 period, construction production decreased by nine percent annually, the largest historical drop for a similar period. This was due to the 19 percent contraction in public construction, while private construction increased by 2.1 percent. (INEGI).

Continuing a decade-long trend, the building works segment exhibits modest but positive growth. In contrast, the number of civil engineering works continues to fall—more slowly, but still at negative levels. The construction of higher value housing and productive building has helped the sector to a modest extent. Meanwhile, public investment remains below plan, although there could be a slight upturn if the 2020 Federal Expenditure Budget (*Presupuesto de Egresos de la Federación* or PEF) is fully implemented.

Other factors influencing the slowdown include global economic conditions and the drop in international oil prices, both exacerbating economic recession in Mexico and driving down the value of the peso to less than 23 pesos to the dollar in June 2020 (from a prior year average of 19 to the dollar).

For these reasons, we expect private sector investment to lag in 2020 and 2021, though we anticipate continued development of mixed-use buildings (commercial space, offices, and housing), logistics and distribution centers, industrial hubs around the country and housing developments (in all income levels) near new industrial and commercial centers. The November 2019 Private-Sector Led infrastructure plan mentioned above should help stimulate these and other projects.

On the public works side, the majority of PND projects, such as the Maya Train, have shifted from being planned as public-private partnerships (PPPs) to being primarily government-funded. For those projects involving PPP financing, including some in the Private Sector-Led package, the Public-Private Partnership Law allows the government to enter into infrastructure and service provision contracts with private companies for up to 40 years. This law provides more legal certainty to private investors by distributing risk more evenly, facilitating access to bank loans, and harmonizing existing state public-partnership models into one federal law. All investors can participate in the bidding process, except for some restricted sectors outlined in the existing Foreign Direct Investment Law.

Mexico ranks second among top markets for U.S. building product exporters due to its proximity, established transport links, and duty-free status under USMCA. For 2020, we will continue to see opportunities related to major PND government infrastructure projects, including work on specific highways and roads, railways, airports, ports, oil and gas-related infrastructure, telecommunications, and housing projects. In the private sector, we continue to see opportunities in mixed-use buildings (retail, corporate and housing), corporate offices, logistic and manufacturing

hubs, shopping malls, retail stores, and other small projects. The large private projects will be developed and executed by local and foreign investors. Most public projects will be developed and executed by local investors and a minority by foreign investors.

Leading Sub-Sectors

We see three leading sub-sectors in the construction industry: general construction, housing, and green building.

General Construction

Construction techniques in Mexico differ from those in the United States. Most of the houses, commercial and public buildings, industrial facilities (industrial manufacturing plants, logistical and distribution centers), and mixed-use buildings in Mexico are built with bricks and concrete, which are the traditional building materials in Mexico. Demand for cement, steel bars, glass, and air conditioner systems are growing and not always met by local suppliers. This presents a market opportunity for U.S. firms, especially in industrial areas along the Mexican-U.S. border where most facilities are being built with raw materials from both countries. Nonetheless, state-of-the-art panel systems for mixed-use buildings and facilities are gaining market share due to trends toward flexible spaces and areas in offices, distribution centers, as well as in luxury apartments.

There is also a high demand for plywood. Potential niche markets exist in the furniture manufacturing sector, the construction sector (which consumes large quantities of wood for concrete forming purposes), and the interior decoration sector, particularly in flooring, paneling, and molding.

Housing

Unfortunately, the scenario for 2020 is not positive. Mexico's statistics agency INEGI shows that for 2019 and 2020 a significant number of housing investment projects were postponed or canceled in several cities, mainly in the metropolitan areas of Mexico City, Guadalajara and Monterrey, which are the main engines of real estate development in the country.

Uncertainty over public policies accentuated housing project declines in the last 18 months. For 2020 we expect to see continued weakness in housing development in all segments, especially in the middle, residential, and residential–plus segments. Potential buyers have postponed purchasing decisions and will do so as long as they continue to perceive uncertainty. In addition, the Federal Law on the Remuneration of Public Servants reduced the income of Federal Government workers, further depressing home sales. The National Housing Registry (*Registro Único de Vivienda*) is a good source for information on housing inventories. It shows that units remain below the initial plans from housing developers and the Federal Government.

Mexico's housing sector is dominated and funded by large independent government and parastatal agencies. These include the National Housing Commission (*Comisión Nacional de Vivienda* or CONAVI), INFONAVIT (*Instituto del Fondo Nacional para la Vivienda para los Trabajadores*, the largest housing fund for private workers in Mexico), FOVISSSTE (*Fondo de la Vivienda del Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*, the largest housing fund for state workers in Mexico), FONHAPO (*Fideicomiso Fondo Nacional de Habitaciones Populares*, a government fund for creating low-income housing options), CFE (*Comisión Federal de Electricidad*, the government owned utility company), Pemex (*Petróleos Mexicanos,* the state-owned oil company), some state government housing agencies, and large private banks and other financial institutions. Government institutions provide almost 60 percent of the funds for the Mexican housing sector. The other 40 percent is covered by private banks and other financial institutions.

Under the López Obrador Administration, housing analysts suggest we might see a continuation of (1) housing support for six million workers not covered by the INFONAVIT and FOVISSSTE housing funds; (2) a subsidy for houses valued between USD 12,000 and USD 25,000; and (3) subsidies for green housing projects (up to 25 percent of the mortgage). New home construction could account for approximately 22 percent of housing investments through 2024. These initiatives have been offering opportunities to the Mexican housing developers focused on the low-income

market (e.g., Consorcio Ara, Gicsa, Frisa, Gigante Grupo Inmobiliario, Inmuebles Carso, ICA, Inmobiliaria Vinte, Thor Urbana Capital, and Acciona Parque Reforma, among several others).

There are no major barriers to the importation of housing building materials if they comply with USMCA Certification of Origin rules. Certain regulated products will need to comply with local standards testing (e.g., wires, switches, back-up power batteries), so it is good to check the requirements for your particular product.

For U.S. firms interested in entering Mexico's housing industry, one of the best options is to partner with a Mexican housing developer or construction firm that is active in the housing industry. Mexican companies' knowledge of the market and labor and legal aspects is invaluable to U.S. firms. Despite the Government's focus on subsidized housing, there are outstanding business opportunities in providing housing for the mid- and high-income segment of the housing industry.

Building materials suppliers which have successfully entered the Mexican market typically have hired a representative to sell to the major distributors and construction companies in the country. In addition, it is important that manufacturers register as building materials suppliers with INFONAVIT, FOVISSSTE, FONHAPO, Pemex, CFE, and state housing institutes.

Green Building

Like other emerging economies, Mexico is moving rapidly towards green, or environmentally-friendly, construction activities. The construction industry has embraced the green building movement. Mexico joined the World Green Building Council (WGBC) and is learning best practices from Europe, Canada, and the United States to lower costs and enjoy health benefits derived from green and sustainable buildings. The Mexican construction industry also aims to demonstrate to other countries how to use simple, moderate-cost strategies acquired through its own longstanding building practices to achieve green building advantages.

Mexico has a tradition of architecture that favors environmentally-sensitive, small-footprint building practices and designs. Nonetheless, policy efforts to promote green buildings are relatively new and generally focused on the housing sector. The top organizations documenting and implementing green practices, as well as working to define criteria for green buildings and homes include CONAVI, INFONAVIT, the Mexican Chamber for the Construction Industry (*Cámara Mexicana de la Industria de la Construcción* or CMIC), the National Chamber for Consulting Firms (*Cámara Nacional de Empresas de Consultoría* or CNEC), the National College for Architects (*Colegio Nacional de Arquitectos de la Ciudad de México*), the Mexican Council for Sustainable Construction (*Consejo Mexicano para la Edificación Sustentable*), Sustainability for Mexico (*Sustentabilidad para México* or SUME), and the Association of Firms for the Saving of Energy on Construction and Buildings. Additionally, INFONAVIT has created a "green mortgage" program, supported by mandatory employer and employee contributions.

The worldwide green building certification program developed by the United States Green Building Council—a program known as LEED for "Leadership in Energy and Environmental Design"—is increasingly used in Mexico. As a result of these efforts and developments, by early 2019 Mexico became home to over 755 LEED certified projects totaling 15,946,290 gross square meters of space. From hospitality to retail, whether single projects or LEED volume certification, the projects in Mexico represent the diversity and breadth inherent in LEED. Mexican public authorities have developed specific regulations and certifications to promote energy efficiency and buildings that respect the environment. One of them is the Certification of Sustainable Buildings Program (*Programa de Certificación de Edificaciones Sustentables* or PCES), an instrument developed by the Secretariat of the Environment (*Secretaría del Medio Ambiente* or SEDEMA) to ensure the energy efficiency of current and future buildings.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring construction sector opportunities. Residential U.S. building and construction products are generally well-received in Mexico by local construction companies seeking to offer their clients houses with better features and quality. When home construction recovers, Mexican

buyers will once again seek quality, affordable homes with more green products. Housing developers and construction companies located in border-states have greater access to the latest trends in design, products, and accessories. Nonetheless, developers and construction companies in Central Mexico are also interested in U.S. products that can improve the quality of their final product.

To the extent private sector construction continues, there are opportunities for U.S. suppliers in both residential and non-residential construction/building. These include wooden windows, doors, flooring, and frames from sustainable woods; ecological paints, coverings and coatings; ecological concrete pipes for potable water and sewage; energy saving light bulbs; ecological pipes and fixtures for electrical applications; skylights; green-certified electrical devices and home appliances; permeable concrete; and green roof systems and equipment. There is also demand for high-efficiency air conditioning systems and equipment; high-efficiency HVAC equipment for commercial buildings and hospitals; ecological water purification systems and devices; ecological indoor and outdoor furniture; natural insulation materials; ecological blocks and bricks; insulation; acoustics; and fire retardant thermal protection materials. Business opportunities in engineering, design, architectural, electrical, plumbing, foundation, landscape, and other green services and technologies are also significant.

The following table provides additional details on specific opportunities.

Best Prospects in Mexico for U.S. Manufacturers of Building Materials
(% of U.S. Market Share in Mexico's Construction Industry)

Description	HS Code	U.S. Market Share
AC systems	841582	61%
Air filters for AC systems	842139	87%
Aluminum doors, windows and frames	761010	63%
Bulbs for incandescent lamps	701110	86%
Clear glass with UV protection, thickness >6mm	700490	48%
Prefab construction systems	940600	29%
Solar panels for lighting	854140	75%
Solar water heaters	841919	27%
Steel doors, windows and frames	730830	64%
Tubes and pipes – cooper	741110	61%

Source: Secretariat of Finance and Public Credit (SHCP), National Institute for Statistics and Geography (INEGI), Central Bank of Mexico (Banco de Mexico), Secretariat of Economy (SE), Mexican Chamber for the Construction Industry (CMIC), National Housing Commission (CONAVI), & National Chamber for Housing Development (CANADEVI), Descartes Datamyne

Web Resources

National Chamber for Housing Development (CANADEVI)	www.canadevi.org.mx
National Housing Commission (CONAVI)	www.conavi.org.mx
Mexican Chamber for the Construction Industry (CMIC)	www.cmic.org
National Chamber for Consulting Firms (CNEC)	www.cnec.org.mx
Construction and Housing Development Center (CIHAC)	www.cihac.com.mx
National Institute for Statistics and Geography (INEGI)	www.inegi.gob.mx
National Workers Housing Fund Institute (INFONAVIT)	www.infonavit.org.mx
Secretariat of Communications and Transportation (SCT)	www.sct.gob.mx

Events

We recommend the following events to connect with Mexican buyers, representatives, and industry officials.

- Expo Ferretera, September 10–12, 2020, Guadalajara, Jalisco
- Expo CIHAC, October 14–16, 2020, Mexico City

Contacts

For more information on the construction sector in Mexico, please contact:

Juan Carlos Ruiz
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5223
juancarlos.ruiz@trade.gov

Cosmetics

Cosmetics and personal care products represent a best prospect industry sector for Mexico. This section includes a market overview and trade data.

Overview

Mexico is ranked in the top 10 markets in the world for cosmetics and personal care products, and it continues to be the second-largest market for beauty products in Latin America. Due to a strengthening economy and availability of a variety of both domestic and imported brands, consumption of cosmetics in Mexico grew steadily over the past 15 years. Nevertheless, current market conditions such as uncertainty of the policies of the Mexican administration now in its second year, weakening of the Mexican peso versus the dollar by about 30 percent, and the COVID-19 pandemic have resulted in lagging growth and conservative forecasts. Instead of an eight percent annual growth rate, based on the industry's momentum in previous years, experts now believe the beauty sector in Mexico might not even achieve four percent growth in 2020. Nevertheless, even if color cosmetics and fragrances see a downward trend, personal care products are increasing in demand, representing an opportunity for U.S. exporters.

Mexico is a mature market with opportunities for select products that can differentiate themselves from those manufactured locally, though it is important to consider that Mexico is a price-driven market. Exporters can expect to face heavy competition and must be prepared to invest in marketing, through both traditional and nontraditional channels, to gain brand recognition.

According to Mexico's National Chamber of the Cosmetics Industry (*Cámara Nacional de la Industria de Productos Cosméticos* or CANIPEC) the number of Mexican personal care brands has tripled since 2013, with several appealing to a younger audience looking for locally-sourced, environmentally-conscious products. The Mexican consumer spends on average close to MXN 3800 Mexican pesos, about USD 190, annually in cosmetics and personal care products. Of that, less than seven percent was spent on premium products in 2019. Locally-manufactured products mean lower prices than imported goods, and this is a critical element to consider if a U.S. exporter is planning on entering the Mexican market. It is a highly competitive market, but also one in constant evolution, and consumers are eager to follow world trends for beauty products.

Cosmetics and Personal Care Products Market in Mexico
(Figures in billions of USD)

	2017	2018	2019	2020(Estimated)
Total Local Production	6.90	7.10	7.15	7.10
Total Exports	2.55	2.67	2.65	2.62
Total Imports	2.76	2.87	3.00	2.94
Imports from the U.S.	0.89	0.90	0.92	0.90
Total Market Size*	7.11	7.30	7.50	7.42
Exchange Rates	18.91	19.23	19.26	20.00

**Total market size = (total local production + imports) – exports)*
Sources: Mexican Secretariat of Economy (SE), Mexican Institute of Statistics and Geography (INEGI), and Mexican National Chamber of the Cosmetics Industry (CANIPEC).

Leading Sub-Sectors

Skin care

Historically a focus for women, the skin care segment maintains a solid growth position in the beauty industry. As with hair care, men's interest in looking well-groomed and youthful has contributed to increased sales in this sub-sector. Additionally, associations and manufacturers have made efforts to educate the consumer on the benefits of

using skin care products from a younger age to prevent, rather than correct, skin damage. Solar exposure awareness has been one of the areas that CANIPEC has particularly promoted in recent years. This has contributed to the growth of products with a dual functionality such as cosmetics and skin care preparations that include solar protection.

Hair care

The demand for hair care products has increased due to Mexican men's increasing adoption of grooming products and the popularity of beards. It represents 20 percent of the personal care market. In recent years, there has been a boom in barber shops and specialty stores catering specifically to men and their hair care needs. Additionally, hair extensions for women have become quite popular among consumers due to both affordable low quality synthetic options and high-end natural hair extensions.

Fragrances

Perfumes and body splashes continue to be a strong segment, especially with the presence of online retailers like Amazon Mexico, Vorana, Linio, Mercado Libre, and specialty stores such as Sephora, which have opened in Mexico and are quickly expanding across the country. Unfortunately, it is also heavily affected by counterfeiting, as well as being very mature. As a result, the introduction of new fragances requires hefty marketing budgets that many smaller independent manufacturers cannot afford. Fragrances represent 14 percent of the market but domestic manufacturers continue to increase their market share especially in direct sales channels

Color Cosmetics and Nails

Color cosmetics including nails account for 15 percent of the market. They are sold mainly through retail channels and direct sales, but online retailers are quickly gaining popularity, especially since younger Mexican consumers follow the trends they see on the internet, where they primarily learn about popular U.S. brands. Many companies successfully enter the market by forming alliances with internet personalities (influencers) in the country to promote their brand among the younger population.

The market for nails and related products continues to grow with local manufacturers leading the way. There is also demand for popular U.S. nail polish brands that consumers discover through online video tutorials and blogs. Related accessories such as nail stamping plates and tools are also sought after by the Mexican consumer.

Opportunities

Regulation of imported cosmetics and personal care products is not cumbersome if no miracle nor therapeutical claims are made and, in most cases, only require labeling compliance as outlined in NOM-141-SSA1/SCFI-2012. Standard NOM 141 specifies the information that must be provided in Spanish to inform the consumer about the product's function and use. The ingredients list can appear in the International Nomenclature of Cosmetic Ingredients (INCI) format. Before exporting to Mexico, it is important to work with a Mexican importer of record to review the specific requirements that the product might have and ensure the products are compliant with all applicable Mexican standards. Some ingredients might be in the list of forbidden ingredients or be included in concentrations that would make the product qualify as a pharmaceutical. For products being imported into Mexico it is important to work closely with a Mexican company that can obtain the necessary permits and make sure that labeling requirements are correctly met.

Emerging niche sectors represent the best opportunities for growth without having to compete fiercely with multinational companies that dominate the mainstream market and spend considerable sums in marketing. Since the Mexican beauty sector is not a global trendsetter, niches that are more developed in the United States are in their early stages in Mexico, providing an opportunity for suppliers to pioneer in this arena.

Beauty products for men is a segment expected to grow at rates of over eight percent by 2025. Barber shops continue to be the fastest growing segment and although international brands such as Unilever and Procter and Gamble dominate the market, there is an increasing demand for niche products. This has spurred the creation of local Mexican manufacturing of grooming products sold exclusively at barber shops and specialized beauty suppliers.

Organic and natural products have strong potential due to the international trends towards environmentally-friendly products. The biggest impetus for buying natural or organic personal care products is the perceived health benefit. U.S. brands interested in selling to the Mexican consumer must be aware that there are several natural and organic Mexican brands that are gaining momentum, and more are created every month. These brands do not aim to compete with well-established commercial brands and do not invest heavily in marketing since they rely on social media and video bloggers to gain consumer awareness and brand recognition. These Mexican natural ingredient brands invest in well-designed packaging and can compete with international brands of the same category. The challenge for the U.S. exporter is to compete with locally-made products benefitting from considerably lower freight costs. Still, U.S.-made organic and natural products have a good reputation with the segment of the population that can afford imported products.

It is important to note that in the natural product sub-sector there is great uncertainty and expectation regarding the import of personal care products containing cannabidiol (CBD) oil. Marijuana–and hemp–derived products containing specified amounts of the chemical compound THC remain illegal under U.S. federal law, including the transport of those products over state and international borders. However, a 2018 directive from the U.S. Drug Enforcement Administration may signal an evolving approach towards regulation of these products. Meanwhile, the Mexican Government published regulations in October 2018 allowing for their import without cumbersome processes. Then in March 2019, the Mexican Secretariat of Health (*Secretaría de Salud*) announced that the guidelines were revoked until further notice. As of April 2020, permits for the import of personal care products containing CBD oil are not being granted, and the Mexican Government has extended until December 2020 the timeframe to produce new guidelines. Involvement in exportation and importation of CBD may subject you to criminal penalties until both the United States and Mexico have finalized their regulatory regimes. Please contact us for the latest developments.

The current COVID-19 pandemic is expected to have a great impact on the cosmetic and personal care sector. Spas and beauty salons might be the most affected subsectors of the industry, with social distancing measures posing a challenge to service providers and their suppliers. There are as yet no standard protocols for service providers, and industry associations believe spas and beauty salons will see a decrease in number of clients wary of close contact with therapists, stylists, and estheticians, in addition to increased expenses in sanitizing measures and protective equipment.

The ongoing coronavirus crisis and the lockdowns and business closures in Mexico are expected to unfavorably impact the cosmetic and fragances market in 2020. Considered a non-essential activity, beauty-related businesses were ordered to close operations until specific reductions in pandemic cases. The effects of these measures are already being felt by the consumers who will likely put off purchases of cosmetics and fragrances in the near future. In turn, the personal care subsector, specifically soaps, hand sanitizers, and related antibacterials, are expected to be in high demand in 2020. Self-care products will also be in demand as the population focuses on wellbeing and looks for alternative ways to maintain their appearance with fewer salon visits.

Finally, the COVID-19 pandemic is spurring development of ecommerce in Mexico for both cosmetics and personal care products. This will become an essential sales channel, and several distributors and retailers quickly launched or expanded their online presence due to social distancing measures. It is important to note that U.S. exporters cannot sell directly to the Mexican consumer through this channel in compliance with standards, customs, and labeling regulations. For online sales, the U.S. exporter will still need a Mexican importer of record to assist with the import process and labeling compliance. Contact us if you need assistance in finding such a parter in Mexico.

Web Resources

Cosmetology Chemist Association (SQM)	www.sqcm.org.mx
Federal Commission for the Prevention of Sanitary Risks (COFEPRIS)	www.gob.mx/cofepris
Mexican Institute of Statistics and Geography (INEGI)	www.inegi.org.mx
Mexican National Chamber of the Cosmetics Industry (CANIPEC)	www.canipec.org.mx
Association for the Cannabis Industry in Mexico (ANICANN)	www.facebook.com/ANICANNMX
Mexican Standarization and Certification Laboratory (NYCE)	www.nycelaboratorios.com.mx

Events

- Expo Spa, Latin American Spa Association, September 18-20, 2020, Mexico City
- EBIO, Expo Belleza Internacional de Occidente, August 30 and 31, 2020, Guadalajara, Jalisco
- EBS, Expo Beauty Show, October 25-27, 2020, Mexico City
- The Mexican Healthy Products Summit, January 21-23, 2021, Puerto Vallarta, Jalisco

Contacts

For more information on the cosmetics sector in Mexico, please contact:

Yazmín Rojas
Commercial Specialist
U.S. Commercial Service—Monterrey
Tel.: +52 (81) 8047-3290
Yazmin.Rojas@trade.gov

Education and Training

From education technology for school-age children to professional training for adults, U.S.-supplied education and training represent a best prospect industry sector in Mexico.

Overview

Mexico is the tenth-largest country of origin for students studying in the United States. In the 2018–2019 academic year, 15,468 Mexican students were enrolled in U.S. schools, primarily in undergraduate programs, contributing USD 633 million to the U.S. economy. Mexican students often choose to study in the United States due to the prestige of the American higher education system, as well as the strong ties and proximity between the countries.

Mexican Students in U.S. Colleges and Universities 2018–2019 Academic Year

Academic Level	Number of Students from Mexico
Undergraduate	8,802
Graduate	3,839
Other / Non-Degree	1,137
Optional Practical Training	1,690
Total	15,468

Source: IIE Open Doors 2019

Mexican private education institutions have prioritized international education, fostering student mobility and academic exchanges with institutions abroad, to become more competitive in the international market. A successful program launched in 2011 is *100,000 Strong in the Americas,* an initiative created to foster region-wide prosperity through greater international student exchange. Within this program, Western Hemisphere governments collaborate with private sector and higher education institutions to increase academic exchange and student mobility, including opportunities for students from disadvantaged backgrounds or historically underserved populations. As of October 2019, after 27 sets of competitions, the Innovation Fund has awarded 232 grants to teams of 477 higher education institutions in 25 countries and 49 U.S. States. In five years, Mexico has become the leading country in this hemispheric-wide initiative to form partnerships with U.S. colleges and universities to create sustainable student exchange and training programs in both countries. To date, 19 Mexican states and 24 U.S. states benefit from Innovation Fund partnerships.

Mexican higher education institutions actively participate in regional education consortia to increase their knowledge and collaboration with regional institutions and to develop mobility strategies to increase the exchange of students, faculty and collaborative programs. The most recent example of regional collaboration is the Hemispheric University Consortium (HUC) created in 2018 to facilitate collaborations in education and research to generate solutions to challenges in public health, climate change, sustainability, and innovation. The University of Miami serves as the coordinator of this unique consortium, comprised of 14 universities, developing problem-based research and educational programs with consortium members across each of their campuses.

The current COVID-19 pandemic is impacting student mobility making higher education institutions to change their dynamics implementing virtual recruitment strategies and more online collaboration with local institutions. We encourage U.S. higher education institutions to contact us for new updates.

Opportunities for community colleges and boarding schools are increasing, particularly among Mexican students looking for educational opportunities at a younger age or interested in two-year programs. Mexico's higher education system offers different options for U.S. community colleges to develop collaborative programs and increase academic mobility with technical universities in different regions in Mexico.

U.S. institutions must be aware of the new taxation of the Digital Economy in Mexico that came into effect on June 1, 2020. Mexico incorporated a new chapter into its VAT law aimed to set rules for the rendering of the considered 'digital services' by foreign residents. Under the new taxation regime, digital services – including distance learning – that are performed through digital content or applications via internet or any other network, which are fundamentally automated, are subject to specific VAT rules (16% tax) whenever the receiver of the service is located in Mexico. It is still not clear if hybrid or blended formats are subject to these new rules, as there is no clear guidance or interpretation of the law. It is expected to receive an update of the regulations by the tax authority in the following months as virtual education is becoming the new norm. Please contact the U.S. Commercial Service for further updates.

Workforce and professional training are also provided by employers in Mexico. With an eye towards global competitiveness, employers and economic development organizations are interested in training opportunities for the Mexican workforce. Employers in Mexico seek training to improve their business processes, reduce costs, improve workforce effectiveness, innovate, and strengthen their relationship with clients. Customized training in information technologies, quality control, management, and language programs are in high demand. In addition to traditional training methods, Mexico is investing in technology and opening the market for on-line or blended courses.

Finally, as part of the Mexican education model, technology plays a key role in providing learning tools to students and fostering interactive experiences. The Mexican Government, through the Secretariat of Education and private educational institutions, have been investing in equipment and technology solutions such as software, applications, and digital content to provide students a more participative experience. The COVID-19 pandemic has challenged the education sector, mainly in the K-12 levels, as students continue their academic activities through digital channels. The Mexican Secretariat of Education launched the 'Learn at Home' (*Aprende en Casa*) program, a virtual project that allows students from public and private K-12 institutions to follow academic lessons either online or through a TV channel. The program is aimed at families who lack Internet access or do not have electronic devices for each family member. Over 500,000 teachers and parents received online training providing tools to support online learning for students throughout the pandemic.

Higher education institutions in Mexico have evolved to educational models that incorporate innovative digital classrooms, laboratories (robotics, language), and digital libraries as part of their strategies to improve the teaching and student experience.

Leading Sub-Sectors

There are three key sub-sectors in the education sector:

- Academic-related training in the United States is the largest sub-sector and can be divided into undergraduate, graduate, non-degree programs (including language proficiency), and practical training. There are niche opportunities for Mexican enrollment in high school level boarding/private schools.
- Professional training services in Mexico represent significant opportunities for U.S. educational providers, which can include partnerships with educational institutions or local management companies
- The education supplies and technologies sector offers strong opportunities for U.S. solutions providers, particularly in the areas of software, online learning, classroom or field education tools, and distance learning services.

Opportunities

The U.S. Commercial Service in Mexico has identified the following key opportunities:

ESL programs for students, both short-term and longer courses of study, to address Mexico's critical shortage of English-language teachers as well as to fill the demand of bilingual professionals.

Collaborative programs for technical/vocational programs in engineering and technology as well as student recruitment for undergraduate and graduate programs.

Technology applied to K-12 education, including applications, software, and digital content, as well as software for school administrative processes.

To pursue these opportunities, we recommend to build relationship with education organizations, education agencies, and Mexican grant institutions. We see opportunities in smaller geographic regions in Mexico (outside of the major cities) where students are increasingly seeking quality education programs abroad.

Social media channels are also an effective recruitment tool to promote academic programs to Mexican students.

U.S. training companies have successfully partnered with Mexican institutions/universities to develop continuing education programs. However, training companies need to be flexible and sensitive to the specific characteristics of the Mexican market and typically need to work with a partner in country. The demand is for tailor-made programs conducted in Spanish.

U.S. technology suppliers should seek agreements with local distributors to increase Mexican sales.

Web Resources

Education USA	www.educationusa.state.gov
Mexican Secretariat of Public Education (SEP)	www.gob.mx/sep
National Association of Universities and Higher Learning Institutions	www.anuies.mx
U.S. Embassy education and English programs	mx.usembassy.gov/education-culture
COMEXUS–Fulbright-García Robles Scholarships	www.comexus.org.mx
Consortium for North American Higher Education Collaboration	www.conahec.org
100,000 Strong in the Americas Innovation Fund	www.100kstrongamericas.org
Peace Corps in Mexico	www.peacecorps.gov/mexico

Events

- Linden Educational Services Boarding Tours, various times and locations in Mexico
- Mexico College Fair Tour, various locations in Mexico
- Bett Latin America Leadership Summit, Mexico City

Contacts

For more information on the education and training sector in Mexico, please contact:
Martha Sanchez
Commercial Specialist, Education and Training
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5225
Martha.Sanchez@trade.gov

Electricity

This section includes a market overview and trade data for the electricity sector.

Overview

Mexico's National Electric System (*Sistema Eléctrico Nacional* or SEN) is one of the largest in the Western Hemisphere. It is comprised of nine regions, plus abinational electricity system in Baja California. Most of the nine

regions are interconnected, forming the National Interconnected System (*Sistema Interconectado Nacional* or SIN). The Baja California system operates in the Western Interconnection of the United States, overseen by the Western Electricity Coordinating Council (WECC).

As of December 2018, the generation capacity in Mexico reached 70,053 MW, a 3.1 percent increase over 2017 figures (67,958 MW). The installed capacity was divided into combined cycle (36.5%), hydro (18.0%), thermal (17.0%), coal (7.7%), wind (6.8%), gas (4.6%), photovoltaic (2.6%), nuclear (2.3%), cogeneration (2.0%), internal combustion (1.0%), geothermal (1.0%), and bioenergy (0.5%).

According to the International Energy Agency, Mexico's population is expected to grow to over 150 million by 2050, considerably increasing energy demand. The industrial and commercial sectors represent 72 percent of electricity demand, representing the strongest opportunity for U.S. exports given the need to reduce energy costs and improve energy efficiency. However, it is necessary to take into account recent policy developments which will impact the type of projects that are executed. For example, the Mexican administration suspended future power auctions, which had been the primary driver of new generation projects and canceled several large transmission line projects. Given the government's finite public budget, it is unclear how the government will replace private investment to build the necessary generation projects.

Electricity Market Framework

To understand the electricity market, it is important to take into account the country's 2013–2014 constitutional energy reform. This reform created a wholesale electricity markets to increase investment and growth, facilitate competition, and reduce costs. The energy reform also aimed to increase electricity coverage and stimulate the use of clean energy.

This reform implemented institutional changes to ensure transparency and open access for private companies to the national transmission network:

- The National Center for Energy Control (*Centro Nacional de Control de Energía* or CENACE) is the independent system operator (ISO) responsible for managing the Wholesale Electricity market, coordinating the operation and ensuring the reliability of the electricity grid.
- The Federal Electricity Commission (*Comisión Federal de Electricidad* or CFE), the state-owned monopoly of the electric power sector, became a state enterprise with technical, management, and budgetary autonomy.
- The Energy Regulatory Commission (*Comisión Reguladora de Energía* or CRE) became an autonomous entity focusing on public policy compliance. In terms of the wholesale electricity market, all the participants are required to register or to have a permit with CRE.

Since assuming power in December 2018, the López Obrador Administration has been developing its own set of priorities for the power sector, which include strengthening the role of CFE and reducing the regulatory autonomy of the CRE. The administration's policy priorities for the electricity sector and openness to rolling back the energy reforms are creating significant uncertainty for private participants in the electricity sector. CFE has also sought to renegotiate contract terms with private pipeline companies, undermining the confidence in CFE respecting contracts.

CFE currently owns five power generation subsidiary companies and several affiliates: one subsidiary to administer independent power producer (IPP) contracts; one transmission subsidiary; one distribution subsidiary; one subsidiary for basic retail service; one affiliate to administer legacy interconnection contracts; one affiliate for natural gas; one international affiliate (located in the United States); and one affiliate for qualified retail (focused on contracts with industrial and commercial users of electricity).

Development Program of the National Electrical System 2019–2033

On May 31, 2019, SENER published the 2019–2033 Development Program of the National Electrical System (*Programa de Desarrollo del Sistema Eléctrico Nacional* or PRODESEN). This planning document addresses electricity generation, transmission, distribution and commercialization of the SEN. The 2019 PRODESEN outlined

the process not only to meet electricity demand, but also to maximize power generation, transmission, and distribution for sustainable economic growth.

According to the PRODESEN, there are eleven priorities for the development of the electric power industry over the next 15 years:

1. Apply the same regulations to CFE as have been applied to private power producers to secure the same conditions of competition, equity and equality.
2. Rehabilitate transmission and distribution capabilities.
3. Treat state productive enterprises as public service companies.
4. Secure the profitability and return on investment of all the companies that participate in the electricity market.
5. Establish transparency and better industrial practices for all the participants of the SEN.
6. Increase power generation from clean energy sources and renewables and comply with international sustainability and emissions reduction commitments.
7. Comply with the efficiency, quality, reliability, continuity, security and sustainability of the electricity system.
8. Coordinate between SENER and CRE the criteria for new permits and authorizations based on the existing energy policy.
9. Establish a responsible balance in electricity tariffs in relation to the costs, considering transmission-distribution, back-up power generation, and the cost of fuels.
10. Guarantee open and non-discriminatory access to the General Distribution Lines (*Redes Generales de Distribución* or RGD) and consider reinforcements to the RGDs and related costs for any new applicants for power generation plants.
11. Develop a complementary photovoltaic-distributed power generation system for battery charging of electrical vehicles in the medium and long-term.

The PRODESEN specifically includes provisions concerning the modernization of the electrical system that allows for increased use of electrical vehicles and electrical transportation, energy efficiency, distributed generation, and energy storage.

The modernization process requires executing 13 expansion projects for national transmission lines that CENACE has identified. These projects include capacity increase, power compensation, interconnection, reduction of the electricity network, and limitation of the transmission capacity. To learn more about these potential projects, specific location, and estimated date, please visit the PRODESEN planning document.

Mexico's New Electricity Market Rules

On April 29, 2020, CENACE announced an Agreement to guarantee the efficiency, quality, reliability, continuity and security of the National Electric System in recognition of the COVID-19 pandemic. According to this agreement, the intermittency of wind and solar plants affects the reliability, quality and continuity of the National Electric System. Therefore, since May 3, 2020, the pre-operative tests from wind and solar plants were suspended. According to recommendations published by Mexico's Federal Economic Competition Commission (*Comisión Federal de Competencia Económica* or COFECE), the actions indicated in CENACE's agreement could run contrary to free competition and could increase electricity rates. It is unclear how and when these actions will be applicable. In addition, it introduces uncertainty over power generation from wind and solar plants that are currently operating and that typically cost less than conventional power plants.

On May 15, 2020, SENER published an Agreement in Mexico's Official Gazette (*Diario Oficial de la Federación* or DOF) regarding the reliability, safety, continuity and quality policy for the national electric system. This document established as a public service the planning and control of the SEN, as well as the transmission and distribution of electricity. This includes power generation, transmission, distribution, and commercialization of the SEN, as well as the operation of the Wholesale Electric Market. Private sector participants believe that this policy will allow CENACE to dispatch costly CFE-owned plants ahead of more economically efficient private sector renewable and CCGT generation. They have filed legal injunctions against the policy.

The U.S. Commercial Service is closely following policy developments and their impact on current and future business opportunities in the electricity sector for U.S. exporters.

Industrial and Commercial Sectors

Together the industrial and commercial sectors represent 72 percent of electricity demand. Industrial manufacturing, operations, and commercial activities have been impacted by high electricity rates.

In the wholesale electricity market, large industrial and commercial users of electricity are known officially as qualified users or *usuarios calificados*. These are companies that require high electricity consumption for their activities. They are registered with CRE to acquire electricity directly as a participant of the wholesale electricity market, or through an electricity supplier (known as a qualified supplier or *suministrador calificado*).

Qualified users of electricity with a minimum demand requirement of 1MW tend to evaluate different criteria before signing a Power Purchase Agreement (PPA) with their preferred qualified supplier. Most competitive alternatives offer a tailored package of power, capacity, cost-effectiveness, energy efficiency, and clean energy certificates, according to the manufacturing or business needs. The industrial sector has expressed high interest in renewable energy projects predating the country's energy reform. However, there is recognition among the private sector that challenges to successfully developing and participating in these projects remain, including permit delays, transmission constraints, and lack of return on investment. Moreover, on May 28, 2020, the CRE passed two resolutions to increase transmission rates on legacy PPA-generating facilities. This follows a previous attempt by the López Obrador Administration to restrict the rules around forming and modifying contracts for existing and planned PPAs. These measures, and the Administration's broader energy policy, has introduced greater investment uncertainty into the sector.

However, if the market and regulatory conditions were favorable, Mexico has the capacity to attract investment for renewable energy projects, which we have already seen through three long-term auctions between 2015 and 2018.

Even with these challenges, the industrial and commercial sectors are an important area of opportunity for U.S. exports as they represent the largest percentage of electricity demand. These companies are continuously looking for technological alternatives to increase energy efficiency and reduce costs.

Mexico Power Generation Equipment

(Figures in USD Billions, HS Codes 8501, 8502, 8503)

	2017	2018	2019	2020 (Estimated)
Total Local Production	10.42	10.82	10.60	9.17
Total Exports	4.22	4.36	3.82	3.38
Total Imports	4.51	7.15	4.89	4.40
Imports from the U.S.	1.30	1.63	1.23	1.11
Total Market Size*	10.71	13.61	11.67	10.19
Exchange Rates	18.91	19.23	19.26	20.00

**Total market size = [(total local production + imports) – exports]*

Source: Banco de México, PROMEXICO, INEGI, SENER, U.S. International Trade Administration, World Trade Atlas and interviews with importers, distributors, and end-users of electrical equipment and power generation equipment and services.

The market for power generation equipment in Mexico is estimated to decline by 12.68 percent from 2019–2020, while exports from the United States to Mexico are expected to decrease by 9.76 percent.

Leading Sub-Sectors

Key sub-sectors relevant for U.S. exporters include energy efficiency, distributed generation, energy storage technologies, and renewables for small scale projects.

Opportunities

Mexico's electrical power industry offers opportunities for U.S. products, services, and technologies in all the leading sub-sectors outlined above. The U.S. Commercial Service Mexico is happy to assist you in exploring these opportunities in different states of Mexico.

Web Resources

Mexican Secretariat of Energy (SENER)	www.sener.gob.mx
National Control Center for Energy (CENACE)	www.cenace.gob.mx
Federal Electricity Commission (CFE)	www.cfe.gob.mx
Energy Regulatory Commission (CRE)	www.cre.gob.mx
Mexican Electric Research Institute (IIE)	www.iie.org.mx
Trust for Electric Energy Saving (FIDE)	www.fide.org.mx
National Commission for Energy Efficiency (CONUEE)	www.conuee.gob.mx/wb
Federal Commission for Regulatory Improvement (COFEMER)	www.cofemer.gob.mx

Events

- Power-Gen International, March 31–April 1, 2021, Orlando, Florida
- Energy Mexico – Expo and Congress, January 26–28, 2021, Mexico City

Contacts

For more information on the electricity sector in Mexico, please contact:

Claudia Salgado
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5224
Claudia.Salgado@trade.gov

Environmental Technologies

This best prospect industry sector includes water technologies, air pollution control, waste management, and recycling. This summary includes a market overview and trade data.

Overview

The environmental technologies and water markets in Mexico are poised for growth over the next few years because of Mexico's commitment to addressing climate change, political will to fund projects in the sector, and a strong need for infrastructure modernization. Public and private-sector stakeholders are keen to address many of Mexico's greatest challenges in these sectors with the latest products, technology, and expertise. As a result, these sectors provide good business opportunities for U.S. companies in the 2021–2022 timeframe.

Water

The market for water and wastewater sub-sectors in Mexico is estimated to decrease 5.2 percent from 2019–2020, while exports from the United States to Mexico are expected to be 64.9 percent of the total import market. The National Water Commission (*Comisión Nacional de Agua* or CONAGUA) reports that 77 percent of available water is used in the agricultural sector, nine percent in the industrial and services sector, and 14 percent in urban areas.

CONAGUA's budget for 2020 is approximately USD 3.4 billion, which will be used to fund improvements to the existing potable water and municipal wastewater infrastructure, and to increase infrastructure for water irrigation projects in Mexico's agriculture areas. The Government also plans on investing in nine public-private investment projects in municipal wastewater treatment plants projects as well as potable water treatment plants at various metropolitan areas valued at USD 900 million.

The main water challenges in Mexico are over-exploitation, inadequate infrastructure, and contamination of water resources. Nine million people do not have access to potable water, and eleven million are not connected to sewage lines. To address these issues, as part of the National Water Plan (*Programa Nacional Hídrico* or PNH) for 2019 that runs through 2024, the Government seeks to modernize the country's infrastructure through public policies and other new initiatives, such as systems to measure consumption and improve water management in urban and agriculture areas of the country.

Mexico Water Technology Market Size
(Figures in USD billions)

	2017	2018	2019	2020 (Estimated)
Total Local Production	1.07	1.40	1.19	0.95
Total Exports	0.95	1.70	1.49	1.19
Total Imports	4.24	4.30	3.87	3.28
Imports from the US	2.46	2.58	2.37	2.13
Total Market Size*	4.36	4.00	3.57	3.04
Exchange Rates	18.91	19.22	19.26	20.00

**Total market size = (total local production + imports) – exports*
Source: Central Bank of Mexico (Banco de Mexico), National Bank for International Trade (BANCOMEXT), Secretariat of Economy, Global Trade Atlas, Border Environment Cooperation Commission (BECC), National Water Commission (CONAGUA), National Council of Industrial Ecologists (CONIECO), & interviews with importers, distributors, and end-users of water and wastewater equipment and services.

Environmental Technologies

The market for environmental technologies in Mexico is estimated to decrease by 0.2 percent from 2019 to 2020, while exports from the United States to Mexico are expected to be 64.7 percent of the total imports market over the same period.

The Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales* or SEMARNAT) is the federal entity in charge of the laws, standards, programs, and initiatives that shape the environmental sector in Mexico. Throughout the years, one of SEMARNAT's priorities has been to promote green

development in Mexico—advancing economic growth and development in Mexico by promoting a more competitive, sustainable, and low-carbon-emissions economy.

One example of these initiatives was the General Climate Change Law (*Ley General de Cambio Climático*), which is the national guide for climate change policy for the medium- to long-term with 10-, 20-, and 40-year goals. The General Climate Change Law aims to generate at least 35 percent of electricity from clean energy sources by 2024, reduce greenhouse gas (GHG) emissions by 50 percent by 2050 (compared to GHG emissions in 2000), and derive at least 50 percent of electricity from clean sources by 2050.

Mexico Environmental Technologies: Air, Waste Management, Recycling
(Figure in USD billions)

	2017	2018	2019	2020 (Estimated)
Total Local Production	1.95	2.10	1.84	1.58
Total Exports	0.73	1.0	0.85	0.68
Total Imports	1.74	2.80	2.68	2.41
Imports from the US	1.25	1.90	1.74	1.56
Total Market Size*	2.96	3.90	3.67	3.31
Exchange Rates	18.91	19.22	19.26	20.00*

**Total market size= (total local production + imports) – exports*
Source: Central Bank of Mexico (Banco de Mexico), National Bank for International Trade (BANCOMEXT), Mexican Secretariat of Economy (SE), Mexican Secretariat of Environment and Natural Resources (SEMARNAT), Mexican Congress (Cámara de Diputados), Mexican Tax Authority (SAT), Mexican Geography and Statics Institute (INEGI), U.S. International Trade Administration, World Bank, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations, Business Monitor, World Trade Atlas, bank reports and interviews with importers, distributors, and end-users of air, waste management and recycling equipment and services.

Leading Sub-Sectors

The leading sub-sectors for U.S. companies are in water resources equipment and services and environmental technologies, such as solid waste management, soil remediation, recycling, and air monitoring. U.S. products and services are considered competitive in the Mexican market due to quality, post-sale services, and guarantees offered by U.S. companies.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring market opportunities for environmental technologies. Here are some highlights.

Upgrading of Municipal Wastewater Treatment Plants

In 2020 and 2021, CONAGUA and the Agriculture and Rural Development Secretariat (*Secretaría de Agricultura y Desarrollo Rural* or SADER) will continue with upgrades to existing municipal wastewater treatment plants that are in over 1,400 municipalities in the states of Guerrero, Oaxaca, Veracruz, Tabasco, Coahuila, Sonora, Sinaloa, Chiapas, and Michoacán. The estimated budget projected by CONAGUA for the project is USD 200 million.

Upgrading of Potable Water Treatment Plants

In 2019, CONAGUA—in collaboration with the Mexico City water authorities, water authorities of the States of Puebla, Coahuila, Durango, Baja California Note and Baja California Sur—will publish international bids in Mexico's Daily Gazette. These tenders will invite companies to participate in various projects, including some to be financed by the North American Development Bank at U.S. and Mexican border cities. The projects include the upgrade of

existing potable water treatment plants, building of a desalination plant for the city of La Paz, State of Baja California Sur, Rehabilitation of the Rio Colorado-Tijuana Aqueduct, and water and wastewater infrastructure for the Santa Lucia International Airport. The estimated budget projected by CONAGUA in its National Water Plan for 2019–2024 is USD 900 million.

Waste Management and Recycling

In February 2020, the Mexico City Secretariat of Environment (*Secretaria de Medio Ambiente* or SEDEMA) announced a public tender for the installation and operation of treatment and use of solid waste in Mexico City. The main objective is to guarantee the treatment of at least 1,000 tons of daily solid urban waste sent to landfills from Mexico City transfer stations. The tender will select the treatment technologies, define the use of organic waste sent to transfer stations, and select solid urban waste use and treatment technologies in accordance with the solid urban waste inventory published in 2018. The office responsible for the tender is the General Directorate for Impact Assessment and Environmental Regulation. The ID of the public tender is 06C001 and the contract type is acquisition of services.

Air Pollution Control

The Federal Government developed management programs known as *ProAire* reverse the deterioration of and improve air quality in major Mexican cities and incorporate specific measures for the reduction and control of pollutant emissions. The programs are based on the relationship between emission pollutants, their sources, their impact on air quality, and community health. Additionally, in coordination with other federal agencies, SEMARNAT is responsible for implementing programs that reduce emissions from industries under federal jurisdiction and programs for verifying vehicle emissions.

On June 3, 2019, the Mexico City Government presented the Emissions Reduction Plan for the Mobility Sector, which is the framework for implementing more sustainable transport systems and improving existing technology to reduce emissions. Mexico City's head of government, Claudia Sheinbaum, commented during the presentation that the estimated investment for the mobility plan is MXN 55 billion (approximately USD 2.8 billion) and it will require the support of several private financing schemes. The objective is to improve operability and mobility in Mexico City and the metropolitan area and to reduce 30 percent of contaminant emissions by 2024.

Emissions Control

The National Emissions Registry (*Registro Nacional de Emisiones* or RENE), an instrument of the General Law on Climate Change, seeks to compile information regarding the emission of greenhouse gases and compounds. This creates an area of opportunity for U.S. technologies as companies of industries such as energy, transportation, agricultural, waste management, commercial trade, and services, have to report their direct and indirect emissions of greenhouse gases or compounds from all their facilities when they exceed 25,000 tons of CO_2 equivalent.

Web Resources

Secretariat of Environment and Natural Resources (SEMARNAT)	www.semarnat.gob.mx
National Water Commission (CNA)	www.cna.gob.mx
National Institute of Ecology and Environmental Change (INECC)	www.inecc.gob.mx
Attorney General for Environmental Protection (PROFEPA)	www.profepa.gob.mx
Mexican Institute of Water Technology (IMTA)	www.imta.gob.mx
National Bank for Public Works (BANOBRAS)	www.banobras.gob.mx
Border Environment Cooperation Commission (BECC)	www.becc.org
National Council of Industrial Ecologists of Mexico (CONIECO)	www.conieco.com.mx
National Association of Water and Sanitation Companies of Mexico (ANEAS)	www.aneas.com.mx
Mexico City Secretariat of Environment (SEDEMA)	www.sedema.cdmx.gob.mx

Events

- WEFTEC, October 5-7, 2020, New Orleans, LA
- Waste Expo, September 15-21, 2020, Virtual
- American Water Works Association (AWWA), June 13-16, 2021, San Diego, CA

Contacts

For more information on the environmental technologies and water sectors in Mexico, please contact:
Francisco Cerón
Commercial Specialist, Water
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5211
Francisco.Ceron@trade.gov

Claudia Salgado
Commercial Specialist, Environmental Technologies
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5224
Claudia.Salgado@trade.gov

Healthcare Products and Services

The Mexican healthcare sector has, in the past, represented an important market for all types of products and services. As of mid-2020, the sector remains large but due to a variety of considerations can no longer be considered a top prospect market for new-to-market companies. The public health market is undergoing a broad series of changes in the procurement system and structure of distribution, and the current value of the peso harms price competitiveness of U.S. products. In addition, evolving rules governing international shipments of products related to COVID-19 response have created uncertainty for export approval and market entry.

Overview

There are three different sub-sectors in Mexico's healthcare sector: medical devices and supplies, healthcare services, and pharmaceutical/bio-pharma. Overall, the import market for medical devices and supplies reached USD 4.9 billion in 2019, and the pharmaceutical import market was USD 2.5 billion in 2019. Neither of these estimates includes the import value for healthcare services.

However, the entire sector is facing ongoing challenges. In recent years, demand for imported medical devices was increasing, and there were not significant barriers to introducing new products into the market. Similarly, the services and pharmaceutical sub-sectors represented markets with large U.S. presence. Under the López Obrador Administration, suppliers for all health sector products and services continue to grapple with significant changes in the procurement process, heightened receptivity to generics and low-cost providers, uncertain product approval and registration timings, and continued issues in intellectual property protection. In addition, the peso has dropped to an historic low, hovering around 24 pesos to the dollar in June 2020. At the same time, the public health system, which underwent a contraction under government austerity plans, will be further impacted by the lasting COVID implications for the Mexican economy and public health budgets. The pressures of COVID-19 treatment have reduced priorities on treatment of other infectious and non-infectious disease, and the medical insurance sector will be burdened with increased claims for an unknown period into the future. We strongly recommend any new entrants into the market contact CS Mexico for updated guidance.

Mexico's Healthcare System and Trends

Mexico operates a universal healthcare system that evolved through Federal Government actions in the mid-2000s and was fully enacted in 2012. The system is split between an extensive government-run healthcare network and private sector providers and insurers. The government network covers both the provision of care and pharmaceuticals. As of June 2020, the government-run system is further split between multiple public healthcare networks. One is a network for government employees and their families called the Institute of Social Security and Services for Public Employees (*Instituto de Seguridad Social de Trabajadores del Estado* or ISSSTE) covering some 13 million people. The Mexican Institute of Social Security (*Instituto Mexicano de Seguridad Social* or IMSS) covers the rest of the employed population and their families, roughly 60 million people. A recently implemented system called INSABI (*Instituto de Salud para el Bienestar*) provides basic health insurance coverage for the remainder of the informally employed or unemployed population. Individual Mexican states also provide independent healthcare services and the Mexican Armed Forces have their own independent healthcare system.

Prior to the COVID-19 pandemic, the López Obrador Administration sought to combine the three federal level systems into a single national system for all families regardless of employment status and pushed forward staffing reductions throughout the public health system. At the same time, the President made significant changes to the procurement system to reduce alleged widespread corruption and to force reductions in the cost of drugs, devices, supplies, and services. Nevertheless, such changes have generated severe distribution issues leading to medical supply and pharmaceutical shortages for some communicable and non-communicable diseases.

In the prior administration, Mexico dedicated 4.2 percent of its GDP to the health care sector. Due to the various proposed changes of the current administration, the budget for the medical sector is uncertain. In all, public healthcare institutions account for 70–80 percent of all medical services provided nationwide, while private healthcare institutions serve approximately 25–30 percent of the Mexican population, which includes the overlaps between the two systems and includes the 32 million people with private medical and accident insurance. In 2014 (most recent data available), Mexico had 22,831 public health care units, including 1,386 hospitals, of which 194 were highly specialized medical centers, and 2,960 accredited private hospitals. Only about 100 private hospitals had more than 50 beds and the capacity to offer highly specialized services. Major private health provider groups include Grupo Empresarial Angeles, Star Medica, Hospital San José, Centro Médico ABC, Hospital Español, Amerimed Hospitales, Hospitales San Angel Inn, Grupo Christus Muguerza, and Médica Sur.

Mexico's epidemiological profile has changed dramatically over the past 20 years. In the 1990s the main causes of premature death were communicable diseases such as diarrhea and respiratory infections or birth complications. However, in 2016, obesity and diabetes were declared epidemics, the first noncontagious diseases to be considered as such. Deaths associated with these diseases caused 17.4 percent of deaths in 2014, according to the Mexican National Institute of Statistics and Geography, INEGI. However, a quarter of deaths stem from a range of cardio-pulmonary diseases including ischemic and hypertensive heart disease, stroke, and chronic obstructive pulmonary disease.

Obesity is the major risk factor for all the above, affecting seven in 10 Mexicans. Interpersonal violence is also a relatively high killer, accounting for 5.4 percent of deaths, or 32.7 deaths per thousand. Cirrhosis of the liver, kidney disease, and road injury round out the top 10 lists of killers, at 4.1 percent, 2.5 percent, and 2.3 percent of deaths, respectively. Both the Organization for Economic Cooperation and Development (OECD) and World Health Organization (WHO) maintain a wide range of health indicators for Mexico and other countries that may be useful for U.S. companies assessing this sector.

The COVID-19 global pandemic has affected Mexico significantly. According to official figures, up to August 3, 2020, there were 443,813 confirmed cases and 48,012 deaths. Non–communicable diseases such as diabetes and hypertensive heart disease have affected negatively the number of deaths in Mexico caused by COVID-19. The former highlights the urgency for public policies to improve lifestyle habits and overall health of the Mexican population.

The growth of medical tourism has also been significant in Mexico. While estimates vary, Patients Beyond Borders estimates that 200,000 to 1.1 million patients travel to Mexico yearly. Most are Hispanics living in the United States, but others are U.S. citizens seeking lower-cost healthcare options, and a smaller group of individuals from Canada and the United Kingdom seeking fast treatment options combined with a tourism destination. The COVID-19 pandemic in Mexico will affect negatively medical tourism services due to the demand for medical facilities and resources to respond to the health emergency.

Healthcare partnerships also drive cross-border healthcare, including hospital affiliations with educational institutions, partnerships for specialized care, and franchise or network activity.

Market Access for Healthcare Products

Mexican public healthcare does not use a reimbursement system as in the United States. Public healthcare institutions purchase the products for their services and do not charge patients per product or event. Patients receive all the products included in their attention with no charge. Reimbursement only exits for patients with private insurance coverage. Patients pay for care and are later reimbursed. There is not a general reimbursement policy for all insurance companies. Each company determines prices and reimbursement according to its own policies.

Previously, all purchasing for government healthcare drew from two annually updated official government supply and pricing lists called the Basic Formulary (*Cuadro Básico*) and the Catalog of Medicines (*Catálogo de Medicamentos*). The Secretariat of Health just announced the replacement of these two lists with a single one called National Health Supplies Compendium (*Compendio Nacional de Insumos para la Salud*).

The Secretariat of the Treasury (*Secretaría de Hacienda y Crédito Público* or SHCP) has taken steps to establish a centralized procurement system for all government purchasing of medical devices, supplies, medications, and services. Please see our *Selling to the Government* section for further information.

SHCP intends to use low-cost criteria for health sector purchases and has begun to issue tenders for devices and medications that would be open to suppliers from all countries without a rigorous process for screening quality or efficacy. The involved ministries are also increasing the use of direct awards to a selected group of suppliers. During the last year, about 80 percent of purchases have been done through direct awards.

The food and health safety regulator, the Federal Commission for the Protection Against Sanitary Risk (*Comisión Federal para la Protección contra Riesgos Sanitarios* or COFEPRIS), has not been fully staffed or budgeted in the new administration, and changes to product approval, registration, and testing are unclear.

Aside from the uncertainty these changes pose, the government low-price guidelines and general price sensitivity in the market can cause pricing challenges for U.S. companies, particularly at the current value of the peso. This has increasingly driven purchases to lower-cost and often lower-quality producers.

Under current Mexican law, government purchasing rules provide preference to suppliers from countries with which Mexico has a free trade agreement. This benefited U.S. suppliers under NAFTA, and the new United States–Mexico–Canada Agreement (USMCA) provides additional benefits. However, it is unclear how the Mexican Government will

adapt its health sector changes to its trade treaty obligations. The USMCA entered into force on July 1, 2020, and with regards to the healthcare sector, the agreement contains significant improvements and modernized approaches to rules of origin and intellectual property issues. For more specifics on USMCA, please visit the Office of United States Trade Representative website (www.ustr.gov) and the International Trade Administration USMCA webpage.

In terms of regulatory approvals and market access, Mexico remains sovereign as to setting and maintaining its regulations. For anything applied to or entering the body—whether a device, instrument, or pharmaceutical—a sanitary registration is mandatory. The Mexican regulatory framework for the medical and pharmaceutical sectors includes norms and registration requirements:

- **Mexican Official Standards.** Compliance with Mexican Official Standards (*Normas Oficiales Mexicanas* or NOMs) is mandatory for all products sold in the Mexican territory.
- **Sanitary Registration.** In addition to Official Standards, medical devices as well as pharmaceutical products such as active ingredients, finished medicines in bulk, and finished medicines in retail packages, must be registered with COFEPRIS. Intellectual property protection is a separate process with a different government agency (see our Intellectual Property sections in this guide). COFEPRIS had been driving a process of unilateral recognition of market authorizations to streamline product approvals for devices and pharmaceuticals containing active ingredients that have not been commercialized before in Mexico and that are already approved by the U.S. Food and Drug Administration and the European Medicines Agency, among others. This process has not continued in the new administration. CS Mexico and U.S. industry representatives have provided ongoing input to COFEPRIS. For the registration of generic drugs, there is a requirement to conduct the corresponding bioequivalence studies in Mexico. Only in some cases, such as personal use or research, are products exempted from being registered.
- **Import Permit.** Once the product has obtained a sanitary registration code, the importer must file an import permit application with COFEPRIS to have access to the Mexican territory. This process also applies to import of products for personal use or research exempted from sanitary registration.
- **Certificate of Origin.** The USMCA came into force on July 1, 2020. Products qualifying as North American under USMCA require a minimum set of nine data elements be submitted to prove origin and receive USMCA beneficial treatment. This certification may be issued by the importer, exporter or producer and does not have to be validated or formalized. Contact CS Mexico for a sample of the required data. Only North American products, as defined by the rules of origin, are eligible for preferential tariff treatment. For information on certification of origin and to ensure to qualify for USMCA preferential treatment, visit U.S. Customs and Border Protection USMCA Center.

Some companies have experienced significant delays in receiving registration/marketing approvals from COFEPRIS, and this is compounded by the current uncertainty over COFEPRIS' staffing and future role. In addition, foreign medical device manufacturers require a legally appointed distributor or representative in Mexico, responsible for the product and its registration process. It is highly recommended that U.S. companies ensure they carefully submit all documents the first time and exactly as requested to COFEPRIS, as small errors or omissions have resulted in long delays in some cases. When in doubt, contact CS Mexico for updates on the market.

Leading Sub-Sectors

As noted above, the entire sector is facing ongoing challenges. All these negative elements have contributed to a decrease of the market size as the following figures show.

Medical Devices, Equipment, and Instruments

The following table provides the most recent statistics for medical devices in Mexico.

Medical Device and Equipment Market Size in Mexico
(Figures in USD billions)

	2017	2018	2019	2020(Estimated)**
Total Local Production	14.8	15.5	13.9	14.7
Total Exports	11.6	13.2	10.8	10.1
Total Imports	5.4	5.7	4.9	5.2
Imports from the U.S.	3.6	3.9	3.0	2.8
Total Market Size*	8.6	8.0	8.0	9.8
Exchange Rates	18.9	19.2	19.26	20.0

**Total market size = (total local production + imports) – exports*
***Estimated based on market trends and economic forecasts. Please note these estimations could be severely impacted by the COVID-19 pandemic.*
Source: Secretariat of Economy's Tariff Information System via Internet (SIAVI).

Mexico's market for medical equipment, instruments, disposable, and dental products has fluctuated significantly in recent years in the mix of local production, exports, and imports. Imports of these products totaled nearly USD 4.9 billion in 2019, which represented a 14 percent decrease from 2018. However, the U.S. share remained about two-thirds, or 62.1 percent, of the import total. The change in public policies regarding investing in new equipment for hospitals and the change in the procurement systems directly impacted the volume of products purchased for public healthcare institutions. The situation may be worsened by the predicted reduction in Mexico´s GNP by as much as 10–12 percent in 2020, with the resulting impact on government budgets and investment programs.

The main third-country suppliers of medical devices are Brazil, Canada, China, France, Germany, Israel, Italy, Japan, the Netherlands, South Korea, and the United Kingdom. A growing competitive problem for U.S. suppliers is low-cost and frequently lower-quality supply from third countries.

Medical products from the United States are highly regarded in Mexico due to high quality, after-sales service, and pricing, compared to competing products of similar quality. Consequently, U.S. medical equipment and instruments have a competitive advantage and are in high demand in Mexico.

Large public and private hospitals regularly seek out the most modern and highly-specialized medical devices. Some medium and small private hospitals with limited budgets buy used or refurbished equipment. By law, public hospitals cannot buy used or refurbished products.

To reduce medical device costs, public health care institutions are consolidating acquisitions for several institutions in one public tender. In 2019, about 80 percent of public purchases were made with directly awarded contracts. This forces suppliers to reduce prices to be more competitive. See also the *Healthcare Services* topic below.

The 103 medical schools located nationwide represent an additional market. The most important are housed at the National Autonomous University of Mexico (UNAM), Universidad La Salle, the Popular University of Puebla, the National Polytechnics Institute (IPN), the University of Guadalajara, and the schools of the Army and the Navy.

Healthcare Services

In a drive to reduce costs and improve healthcare outcomes, there was a trend towards outsourcing specialized procedures and care. For instance, most dialysis services in Mexico are provided by private sector companies under contract to public healthcare agencies. There were also increasing agreements with U.S. healthcare providers to deliver cardiac care, cancer treatment, and other specialized care either in Mexican facilities or for patients to travel to the United States. Many public and private hospitals were outsourcing surgical procedures to companies that offer integral surgery services or surgery centers. These services were delivered as "pay-per-event" and include all the necessary equipment and personnel required to perform a surgery. Thus, hospitals were able to avoid big capital investments in

plant and equipment, materials, pharmaceuticals, and instruments, while gaining access to some of the most modern specialized surgical procedures.

However, under the current López Obrador Administration such agreements could be cancelled or avoided in an effort to crack down on perceived contract corruption. This could mean a reduced presence of large private companies as suppliers to public healthcare institutions.

Pharmaceuticals

Mexico is the eleventh-largest market for pharmaceuticals in the world and the second in Latin America after Brazil. The pharmaceutical market in Mexico is divided into patented medicines, which represent 51 percent of the market by value, generics with 35 percent, and OTC products with the remaining 14 percent. COFEPRIS reports that generics represent more than 80 percent of the market in terms of volume. Following the same trend as medical devices, the decrease of pharmaceutical imports from Mexico is directly related to changes in the procurement process, increased market participation of generics and low-cost providers, uncertain product approval and registration timings, continued issues in intellectual property protection, and low value of the Peso against the U.S. Dollar. In 2019, several public health institutions faced shortages of medicines due to these issues.

According to Pharma Boardroom Research, the value of Mexico's pharmaceutical market should have reached USD 11.1 billion in 2019 and could grow to USD 13.8 billion by 2027. Mexico's pharmaceutical imports will remain important while demand for foreign specialized medicines increases. Mexico's pharmaceutical industry is one of the most developed in Latin America, though it is still behind in terms of technology and innovation compared to the top pharmaceutical manufacturing countries. Through 2027, analysts expect pharmaceutical sales to grow at a compound annual growth rate of 2.4 percent, mostly driven by Mexico's aging population and the increasing incidence of chronic diseases. However, current administration public policies and issues in the registration process of new products could affect the entry of new-to-market players in the near future.

The United States is still the largest foreign supplier of pharmaceutical products to the Mexican market. In 2019, the United States exported USD 828 million to Mexico, accounting for 33.6 percent share of the total import market. Imports from the United States declined 21 percent compared to 2018.

Pharmaceutical Products Market in Mexico
(Figures in USD billions)

	2016	2017	2018	2019
Pharmaceuticals Sales*	9.675	10.026	10.800	11.100
Total Exports	1.587	1.358	1.540	.896
Total Imports	4.143	4.242	4.649	2.466
Imports from the US	.904	.973	1.049	.828
Total Market Size*	N/A	N/A	N/A	N/A
Exchange Rates	18.68	18.91	19.22	19.26

**Note that the total market size cannot be calculated, as a local production figure is not available. The pharmaceutical sales figures come from the local industry sources below. They are calculated at constant 2019 exchange rates, and the figures approximate the total market size.*
Source: Global Trade Atlas, CANIFARMA, AFAMELA, AESGP, Fitch Solutions.

Approximately 400 laboratories manufacture pharmaceuticals in Mexico, and they are concentrated in the Mexico City metropolitan area, and the states of Jalisco, México, Puebla and Morelos. The Mexican pharmaceutical industry stands out because of the presence of 20 out of the 25 largest companies worldwide.

The pharmaceutical industry in Mexico has a significant local production of active ingredients and finished products. Earlier Mexican health regulations only allowed manufacturers to register to sell in Mexico if they produced the

medication locally. When local and international manufacturers established themselves to sell products in Mexico, they made decisions about whether to source from their own Mexico-based manufacturing facility or to import. Over time, local pharmaceutical production expanded dramatically even though importation became easier.

The government of Mexico has expressed significant interest in expanding policies to promote generic pharmaceuticals in Mexico. This could reduce the long-term market size for original and brand-name medications in the country, Please contact CS Mexico for updated information.

Mexico is one of the most biodiverse countries in the world, with an extensive tradition of research in biological applications and life sciences. There are about 180 firms that develop and/or use modern biotechnology in Mexico. Many of these firms are international corporations that have biotechnology-related activities with important applications in the following sectors: human healthcare, agriculture, marine resources, energy production, and other areas. The sector benefits from government and private sector modernization and research and development programs involving research institutions and private industry.

There are four strategic life science regions identified in Mexico: Guanajuato, Jalisco, Morelos, and Nuevo León. Each boasts strong clinical research clusters, along with other clusters driven by foreign investment specifically oriented to pharmaceutical manufacturing. More recently, Baja California has developed industrial and academic potential in biotechnology. For instance, the city of Ensenada has cultivated R&D centers focusing on areas such as marine science and marine biotechnology, optics, applied physics, and agricultural biotechnology.

Mexico's pharmaceutical market growth will be driven in part by growth in biosimilars, for which sales are expected to surge in the coming years. Since June 2012, when Mexico published new guidelines for bio-comparable medicines, local R&D and production in the biosimilars sub-sector have significantly improved, and several multinational companies have announced investment and product launches.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring healthcare market opportunities. The Mexican market currently faces a number of significant uncertainties and challenges for public sector purchasing. Please contact the U.S. Commercial Service Mexico Sector Specialist for more information on specific opportunities in the sector.

Pharmaceutical Industry and Healthcare Services

The best sales prospects for pharmaceutical industry products and healthcare services are uncertain as different events and market conditions develop.

As of June 2019, the López Obrador Administration has taken steps to centralize public sector pharmaceutical and drug purchases. The Government claims this is an effort to reduce escalating wholesale costs and perceived corruption that took in previous administrations, allegedly driven by the principal pharmaceutical distributors in Mexico. Nevertheless, the results of such policies have caused shortages of supplies in the public healthcare sector and a perception of lack of transparency within the private sector companies that sell to the government. For further background and trends, please see the *Selling to the Government* section of this guide.

In private healthcare services, the trends we outlined above in epidemiology, cost/quality initiatives, and medical tourism are generating demand for new treatment products and services, including niche opportunities for specialized medical service companies (notwithstanding the uncertainties in the public sector). Some opportunities may also exist for remote medicine, healthcare IT, and other technology-related offerings.

The COVID-19 sanitary emergency may represent an opportunity of manufacturers of equipment to respond to the pandemic and new therapies to fight against the virus. Private and public health facilities will be looking for new technologies and pharmaceuticals to continue treating patients as long as a vaccine against this pathogen is released and distributed worldwide.

Web Resources

Public Institutions

Secretariat of Health	www.salud.gob.mx
Federal Commission for the Protection Against Sanitary Risks (COFEPRIS)	www.cofepris.gob.mx
Mexican Institute of Social Security (IMSS)	www.imss.gob.mx
Institute of Social Security and Services for Public Employees (ISSSTE)	www.issste.gob.mx
National Center for Health Technology Excellence (CENETEC)	www.cenetec.salud.gob.mx

Private Hospital Chains

Hospital San Angel Inn	www.hospitalsanangelinn.mx
Centro Medico ABC	www.abchospital.com
Medica Sur	www.medicasur.com.mx/
Grupo Angeles	www.gass.com.mx/
Hospitales Star Medica	www.starmedica.com/
Christus Muguerza	www.christusmuguerza.com.mx/
Beneficencia Española	www.beneficenciaespanola.com.mx/
Amerimed Hospitals	www.amerimedcancun.com/

Private Institutions

Mexican Association of Medical Device Innovation Industries (AMID)	http://amid.org.mx
National Chamber of the Pharmaceutical Industry (CANIFARMA)	www.canifarma.org.mx
Mexican Association of Pharmaceutical Research Industries (AMIIF)	www.amiif.org.mx
National Association of Drug Manufacturers (ANAFAM)	www.anafam.org.mx/
Mexican Pharmaceutical Association (AFMAC)	http://afmac.org.mx

Events

- AMIC Dental Expo, November11–15, 2020, Mexico City
- Expo Med, October 14–16, 2020, Mexico City
- Expo Materiales para Laboratorio, February 16–17, 2021, Mexico City
- Expo Farma 2020, June 30–July ,2 2021, Mexico City

Contacts

For more information on the healthcare sector in Mexico, please contact:

Marixell Garcia
Commercial Officer, Healthcare / SelectUSA
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000
Marixell.Garcia@trade.gov

Internet and IT Services

Mexico is a large and developing middle-income market, making internet and information technology services a best prospect industry sector.

Overview

The 2013 telecommunications reform enshrined Internet access as a constitutional right for all Mexican citizens. According to the National Institute of Statistics, Geography and Informatics (INEGI), in 2019 the country had 80.6 million Internet users, representing 70 percent of the population over the age of six and reflecting a growth rate of 4.3 percent over 2018. Efforts to improve market competition resulted in a 43 percent drop in prices for wireless since the telecom reform was enacted, according to Mexico's telecommunications regulator, the Federal Institute of Telecommunications (*Instituto Federal de Telecomunicaciones* or IFT). Mexico mirrors global trends towards mobility. Ninety-two percent of Internet users connect through a smart phone, and there are currently 106.8 million active smart phones in the country. IFT estimates that nine out of 10 cellular phone users own a smartphone.

Increased connectivity has spurred the growth of Mexico's emerging digital economy. According to market intelligence firm IDC, cloud storage is expected to grow 37 percent by 2020, while software as a service is expected to grow 32 percent and infrastructure as a service is projected to surpass on-premise infrastructure by 2021. According to the latest available data, 44 percent of Mexican businesses use public or private clouds and 32 percent expect to adopt cloud computing within the next year.

The Mexican eCommerce market was worth USD 12.3 billion at the end of 2018. The Mexican Government is in the process of defining Internet-related policies and regulations on issues such as privacy, net neutrality, server localization, and intellectual property. Practices such as zero-rating are commonplace, and there are currently no safe harbors regarding intermediary liability.

Mexico is an attractive market for technology products from the United States related to the IT services industry and a strong global player in the Business Process Outsourcing (BPO) market. Research and advisory firm Gartner ranks Mexico third globally for nearshoring and offshoring services, behind India and the Philippines. Mexico is also developing IT clusters throughout the country to offer IT, software development, call center, high-tech manufacture, and engineering services to domestic users as well as to countries in North America and Europe. The country is following the global trend towards a service-centric IT industry, where most technologies are offered under a service contract or lease. There is a growing interest in Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platforms as a Service (PaaS).

The Mexican government's policies addressing the COVID-19 pandemic designated the IT sector as an essential industry that could continue operating during quarantine. Several U.S. suppliers of IT solutions for telework and remote communications offered free licenses to the Mexican public sector during this period.

Mexico Internet and IT Service Market indicators

(Figures in millions)

	2017	2018	2019 (Estimated)
Fixed lines	19.9	20.6	20.4
Mobile Subscribers	114.3	118.2	121.1
3G and 4G Subscribers	74.7	78.2	84.2
Broadband Subscribers	17.1	18.1	19.3

Source: BMI Research

Mexico IT Market Overview
(Figures in USD billions)

	2017	2018	2019 (Estimated)
IT Market Value	11.4	12.1	12.9
Computer Hardware Sales	4.3	4.4	4.6
Personal Computer Sales	1.9	1.9	2.0
Software Sales	1.2	1.3	1.4
Services Sales	5.8	6.3	6.8

Source: BMI Research

Leading Sub-Sectors

We see growth and opportunity for U.S. companies in the following sub-sectors:

- IT security services
- Training
- Tailored software apps
- Leased infrastructure (NOCs, SOCs)
- IT system maintenance
- Consulting and systems integration
- CATV network apps
- Business intelligence
- Cloud analytics
- Virtualization
- Digital advertising

Opportunities

The main opportunities for IT solutions (products and services) are in sectors intensifying the use of IT, including manufacturing, transportation, security, energy, retail, and financial services. Improved competition in IT and telecommunications will drive demand for core-network and other infrastructure solutions.

Most government agencies and businesses will seek to forego capital investments and identify IT service providers that can integrate turnkey solutions under a lease contract. Cloud-based solutions have seen a growing demand among small and medium-sized enterprises, which utilize these solutions to increase their competitiveness and align their IT capabilities with those of larger partners and buyers.

In addition, the U.S.–Mexico–Canada Agreement (USMCA) will further improve opportunities in the sector. When NAFTA was negotiated, the digital revolution was in its infancy. The USMCA's new chapter on digital trade contains the strongest commitments of any international agreement and provides a firm foundation for the expansion of trade and investment in innovative products and services in North America.

Specifically, the provisions

- Prohibit the application of customs duties and other discriminatory measures to digital products distributed electronically (e-books, videos, music, software, games, etc.).

- Ensure that suppliers are not restricted in their use of electronic authentication or electronic signatures, thereby facilitating digital transactions.
- Guarantee that enforceable consumer protections, including for privacy and unsolicited communications, apply to the digital marketplace.
- Ensure that data can be transferred cross-border, and that limits on where data can be stored and processed are minimized, enhancing and protecting the global digital ecosystem.
- Promote collaboration in addressing cybersecurity challenges, while seeking to promote industry best practices with respect to network security.
- Protect the competitiveness of digital suppliers by limiting the ability of the United States, Mexico, or Canada to require disclosure of proprietary computer source code and algorithms.
- Promote open access to government-generated public data, thereby enhancing its innovative use in commercial applications and services.
- Enhance the viability of Internet platforms that depend on interaction with users by limiting the platform's civil liability with respect to third-party content, except regarding intellectual property enforcement.

Web Resources

Federal Institute of Telecommunications (IFT)	www.ift.org.mx
Mexican Internet Association	www.asociaciondeinternet.mx
National Chamber of the Electronics, Telecommunications, and IT Industry (CANIETI)	www.canieti.org
IT Industry Association (AMITI)	www.amiti.org.mx

Events

- Expo Data Center, 2020 date TBD, Mexico City
- InfoSecurity Mexico, 2020 date TBD, Mexico City

Contacts

For more information on Internet and IT services in Mexico, please contact:

Adriana Carrillo
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5215
Adriana.Carrillo@trade.gov

Mining and Minerals

Mexico's rich mining industry dates back more than 500 years and continues today, making it a best prospect industry sector for U.S. companies. This section provides a market overview and trade data on this historic sector.

Overview

Mexico's total production of mining and mineral products accounted for USD 12.69 billion in 2019. Precious and non-ferrous metals account for 86 percent of total production. For Mexico, the mining industry is an important revenue generator, contributing 8.3 percent to the industrial GDP and 2.5 percent to the national GDP. It is also a significant employment generator, supporting over 379,000 direct jobs and almost 2 million indirect jobs.

This report considers statistics prepared by Mexico's National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía* or INEGI), tracking production in four distinct mining categories: precious metals, non-ferrous, metallurgy, and non-metals. Statistics of machinery imports are gathered from the U.S. Office of Trade and Economic Analysis (OTEA), Industry and Analysis, International Trade Administration, U.S. Department of Commerce.

Production. In 2019, Mexico imported USD 2.17 billion worth of minerals and ores (NAICS 212) from the United States. Mexico is a major producer of 12 minerals, three of which are in high demand in the United States: fluorspar, graphite, and strontium. Mexico produced over 1.1 million tons of fluorspar in 2019, with over 70 percent of that exported to the United States. Graphite reserves are calculated at 3.1 billion tons, placing Mexico as the world's eighth-largest producer, exporting 33 percent of its production to the United States. The third most important mineral imported by the United States is strontium. Mexico produced 44,202 tons in 2019, with the United States importing 55 percent. Mexico is the world's second-largest producer of strontium.

Mexico leads the world's production of silver. With 6,300 metric tons produced in 2019, it is followed by Peru and China with half that capacity. Mexico is also an important producer of coal, intended predominantly for domestic use but insufficient to satisfy the volume demanded by the power, metallurgy, cement, and chemical industries. In 2020, the Mexican Government will continue exploring new coal deposits as it plans to reduce its imports of the commodity.

Foreign Direct Investment. Mexico is the world's fourth-largest recipient of foreign direct investment (FDI) for mining and the second destination of such FDI in Latin America. Mexico's total FDI inflow amounted to USD 32.9 billion in 2019, with only 1.8 percent invested in mining during that year. Most mining FDI originated with companies from Canada (which has the largest overall stock of mining investments in the country), the United States, Spain, Germany, and Japan. The majority of FDI mining inflow is directed to mining gold, copper, zinc, and uranium. Mexico's mining industry is dominated by Canadian companies, although there is also substantial Mexican capital involved in some of the most important mines producing silver, gold, and other important metals, and non-metal minerals. The U.S. presence is represented by the Penasquito mine, a multi-mineral asset and largest producer of gold in Mexico. Overall U.S. presence amounts to 33 companies.

Mexico Mining Production and Market Size
(*Figures in USD billions)*

	2015	2016	2017	2018	2019	2020*
Total Local Production	13.45	12.56	12.78	12.57	12.69	11.42
Total Exports	11.6	11.88	12.43	13.05	13.42	12.07
Total Imports	2.39	2.15	2.25	3.06	3.20	2.88
Imports from the U.S.	3.12	2.13	1.56	1.75	2.18	2.03
Total Market Size*	4.24	2.83	2.60	2.58	2.47	2.22
Exchange Rates	15.89	18.68	18.91	19.23	19.26	20.00

Total market size = (total local production + imports) – exports
**2020 per IMF forecast*
Source: INEGI, OTEA

Leading Sub-Sectors

Top sub-sectors of opportunity in the mining sector are machinery; safety and security equipment; technology for modeling, simulation, and environmental control; and parts and service for repair.

Machinery

Mexico is the U.S. second-largest trade partner for construction machinery and mining machinery, after Canada. The U.S. global exports of machinery for construction, mining, and agriculture amounted to USD 28.9 billion, 69 percent of which is directed to the first two. U.S exports of construction and mining machinery to Mexico totaled USD 1.8 billion in 2019.

Safety and Security

Mining operators are striving to find ways to maximize productivity while also improving workforce safety and minimizing damage to the environment. Mexico's mining industry faces significant security risks affecting workers, communities, and stakeholders and therefore, solutions in these fields are in high demand.

Technology

Mining companies are seeking to improve their operations and shorten project construction times. Therefore, there are opportunities for state-of-the-art modeling and simulation software to be applied in new mining operations. Automated preventive maintenance solutions, remote monitoring, and autonomous production are being implemented at mines. The Mexican Government is requiring more environmental control measures at mining companies. To comply with these regulations, mine operators must use gas detection products, soil stabilizers, dust removal systems, ventilation, water filtration, and erosion control systems. Exploration and drilling technologies are also in great demand.

Repair

The best prospects for selling replacement parts are specialized technicians and repair service companies which have their shops and plants near mining locations to provide the fastest technical service and support. Dealers offering permanent inventory in consignment at mining locations are preferred.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring opportunities in the mining sector.

Exploration

The sector lacks enough suppliers of exploration services and perforation technologies, Mexican government officials have expressed concern about the decrease in exploration investment over the last few years. In 2020, exploration will

be a priority for the Mexican Government in the mining sector. No new mining concessions were opened in 2019 and the effects of this showed in lower FDI in the sector. The President has stated that new concessions will be on hold during his administration (2018 to 2024).

Lithium Production

At the end of 2018, Mexico announced its great potential for lithium production with reserves calculated at 243 million tons, so far the world's largest. The Mexican Government has announced its interest in developing a complete supply chain from mineral mining through lithium products.

Energy

Clean energy projects are increasing in this industry as a means to reduce energy bills by up to 20 percent. At the end of 2019, Mexico's largest miner announced plans to reach 51 percent consumption of clean energy through 2024. This appears to be a trend being replicated by other miners in the country.

Capital Equipment

Mexico is the U.S. second-largest trade partner for construction machinery and mining machinery, after Canada. Machinery and equipment utilized in this industry are in constant renovation; new equipment, parts, and accessories are replaced periodically. Mexico's mining industry is integrating new technologies in their efforts to gain 4.0 status, including solutions for a faster supply chain and production flow to maintain low production costs.

Environment

With USMCA, mining activities in Mexico will follow the same environmental and labor regulations in place in its partner countries, and so will its suppliers. As result, environmental control products and services may be required by these miners.

Barriers

U.S. suppliers to the mining industry face no barriers to entering this market, and this will not change with the entry into force of the U.S. Mexico Canada Agreement (USMCA). For information on the implementation of USMCA, visit the Office of the United States Trade Representative website at www.ustr.gov; or the Customs and Border Protection website at https://www.cbp.gov.

Uncertainty has entered the mining picture as the current President has indicated that extractors of Mexico's mineral wealth could be asked to pay higher taxes and changes in the tax code that would limit deductions for exploration expenses. Despite this uncertainty and the current tax burden, mining of precious metals in Mexico is still attractive to foreign and domestic companies.

Web Resources

Mexico Mining Chamber (CAMIMEX)	www.camimex.org.mx
Assoc. of Mining Engineers, Metallurgists and Geologists of Mexico (AIMMGM)	www.aimmgm.org.mx
Info Mine	www.infomine.com
National Institute of Statistics and Geography (INEGI)	www.inegi.gob.mx
Chihuahua Mining Cluster (CLUMIN)	www.clumin.org
Zacatecas Mining Cluster (CLUSMIN)	www.clusterminerodezacatecas.org
Sonora Mining Cluster	www.clusterminerosonora.com.mx

Events

- XII Conferencia Internacional Minera, April 19-23, 2021, Chihuahua City, Chihuahua
- Discoveries 2020, November 11-13, 2020, Guadalajara, Jalisco
- Congreso Internacional Minero Sinaloa TBD
- For other events, go to: www.geomin.com.mx

Contacts

For more information on mining and minerals in Mexico, please contact:
Mario Vidaña
Commercial Specialist
U.S. Commercial Service – Monterrey
Tel.: +52 (81) 8047-3118
Mario.Vidana@trade.gov

Oil and Gas

The oil and gas sector is a best prospect industry sector for Mexico. This section includes a market overview and trade data on the sector.

Overview

Mexico is one of the largest oil producers in the world (with 1.67 million barrels produced daily in 2019), and the fourth-largest in the Americas after the United States, Canada, and Brazil. In 2019, the United States imported over 218 million barrels of Mexico's heavy crude and exported over 1.2 million barrels of refined petroleum products (more than 70 percent of Mexico's domestic gasoline, diesel and jet fuel consumption) to Mexico. Oil is a crucial component of Mexico's economy and earnings from the oil industry accounted for around 30 percent of total government revenues in 2019.

Significant oil reserves have been documented in Mexico, which will drive private sector investment and offer opportunities for U.S. companies as contractors, sub-contractors or suppliers of equipment and/or technology.

Mexico Upstream Oil and Gas Equipment and Services Market Overview
(Figures in USD billions)

	2017	2018	2019	2020 (Estimated)
Total Local Production	2.33	2.10	1.85	1.53
Total Exports	2.00	2.05	1.84	1.58
Total Imports	7.01	7.03	6.32	5.37
Imports from the U.S.	4.94	4.92	4.32	3.67
Total Market Size*	7.34	7.08	6.33	5.32
Exchange Rates	18.91	19.22	19.22	20.00

**Total market size = (total local production + imports) – exports*
Source: (Mexican) National Bank for International Trade (BANCOMEXT), Secretariat of Economy, Global Trade Atlas, interviews and information from officials from Petróleos Mexicanos (Pemex), the Secretariat of Energy (SENER), and National Hydrocarbons Commission (CNH) Contractors.

Mexican Energy Reform

In December 2013, Mexico amended its constitution to allow both local and foreign private investment into the energy sector for the first time since its nationalization in 1938. The reforms permit international energy companies to operate in Mexico and include provisions for competitive production sharing contracts and licenses. In addition to increasing the demand for technology and technical expertise for the development of upstream deep water and shale oil and gas fields, the energy reform also allows for greater private investment in retail fuel distribution.

At the end of 2018, the Secretariat of Energy (*Secretaría de Energía* or SENER) completed the revision of the investment plans of the 107 contracts awarded during 2015–2018 to private companies. In 2018 the Agency for Security, Energy and Environment (*Agencia de Seguridad, Energía y Ambiente* or ASEA) also completed their review of environmental permit and land rights applications. However, the López Obrador Administration, which is skeptical of private investment in the energy sector, suspended pending upstream bid rounds and upon taking power in December 2018 and has not announced plans to restart the auctions. Some of the U.S. companies that were awarded land, shallow- and deep-water projects include Murphy Oil, Chevron, Fieldwood Energy, ExxonMobil and Talos Energy.

While the López Obrador Administration has indicated that it will respect the current legal framework of the energy reform, it has enacted a series of regulatory changes that have negatively impacted private sector participants, particularly in the midstream and downstream sector, to the benefit of parastatal Pemex. In 2019 the government began construction on a new refinery in the Port of Dos Bocas in the State of Tabasco with an USD 8 billion investment.

Pemex's Structure

Pemex operates through two main divisions: Pemex Exploration and Production and Pemex Industrial Transformation. Pemex Industrial Transformation controls the national gas, refining, and petrochemical businesses and affiliated companies (Drilling, Logistics, Fertilizers, Ethylene, and Cogeneration and Services). Pemex International (PMI), Pemex's international business development subsidiary, purchases and sells fuel and basic petrochemicals, but not equipment.

In order to participate as a supplier to Pemex, companies must first complete the registration process at the Pemex Procurement International (PPI) website (www.pemexprocurement.com). Companies that wish to become registered suppliers must submit copies of their articles of incorporation, audited financial statements, and commercial and financial references. As of March 2020, PPI had over 10,000 registered suppliers, over 70 percent of which were U.S. firms. Pemex's 2020 budget is reported as USD 26.3 billion.

A number of private sector oil and gas contractors that were awarded land, shallow, and deep water projects contracts from 2015 to 2018 expect to start implementing their investment plans in 2021. These include BPH, BP, Murphy Energy, Chevron, Diavaz, ExxonMobil Grupo R, INPEX, Total, Premier Oil, Petrobal, Hunt, Grupo Mexico, Jaguar, Petrofac, Lukoil, and Hukchi Energy. These companies received approval of their investment plans in 2019 from SENER. The companies will invest more than USD 18 billion from 2021 to 2024 to purchase seismic services, exploration, drilling and extraction equipment, including platforms and related services.

Private sector oil and gas contractors partnering with Pemex in the farmouts (production sharing contracts) have faced difficulties, including payment delays for contractors and suppliers participating in upgrading Pemex infrastructure. Payment delays to private companies, including U.S. firms, extend to hundreds of millions of dollars, and some U.S. companies anticipate international arbitration to recover these funds.

Private companies that were awarded contracts in upstream auctions during the previous administration are beginning to make substantial investments in exploration, drilling, and production activities over the next few years. That said, drawn-out unionization negotiations between Pemex and the Talos Energy-led private consortium has raised concerns with other private companies that could face similar issues. The state oil company has asserted its view that it should operate the Talos consortium's massive 2017 Zama oil discovery, which straddles an adjacent Pemex block.

Mexican Regulatory Agencies

The National Hydrocarbons Commission (*Comisión Nacional de Hidrocarburos* or CNH) is responsible for regulating, overseeing, and evaluating all hydrocarbon exploration and production activities in the country for private oil and gas companies as well as for Pemex. The Energy Regulatory Commission (*Comisión Reguladora de Energía* or CRE) is responsible for granting permits for importation, commercialization, transportation, and storage of crude oil, gasoline, diesel, lubricants and new gasoline stations. ASEA approves the environmental and land use permits before exploration, drilling, and extraction activities can begin, including the construction of new gasoline stations and natural gas infrastructure. SENER is responsible for processing social impact assessments, which are mandatory for most major upstream, midstream, and downstream activities including the construction and operation of pipelines, storage facilities and refineries, as well as retailing and distribution. Private sector participants across the sector have expressed concerns that CRE, ASEA, and SENER permits have been chronically delayed, in some cases by over a year, as part of a broader Mexican government strategy to limit private investment and favor Pemex.

Production Sharing Contracts: Pemex and Round Zero Farmouts

A "Round Zero" hydrocarbon resource asset allocation process was completed in March 2014 when Pemex presented to SENER the areas in which they intended to retain exclusive rights to production or to develop production at a future date. Round Zero farmouts allowed Pemex to maintain control of 83 percent of reserves (1P, 2P, 3P) for current and

future investment and development. Under the energy reforms, Pemex can partner with other private companies in developing these resources.

Round Zero included the migration of contracts that Pemex formalized in 2013 with private companies for crude oil and gas mature fields exploration and production. In December of 2016 and in 2017, SENER awarded deep water exploration blocks to Statoil, PC Carigali, Murphy Energy, China National Offshore Oil, Chevron, and ExxonMobil. Under the first Farm Out project, CNH-A1-TRION/2016, the award was granted to Pemex in an alliance with BHP Billiton.

Gas Market Overview

Mexico has an estimated 17 trillion cubic feet (Tcf) of proven natural gas reserves. Natural gas is increasingly replacing oil as a feedstock in power generation. However, higher levels of natural gas consumption will likely depend on more pipeline imports from the United States or liquefied natural gas (LNG) imports from other countries. Mexico has an estimated 545 Tcf of technically recoverable shale gas resources, the sixth-largest in the world. The true potential of accessing and developing shale gas in Mexico is hindered by low availability of the required technology, the accessibility of low cost U.S. natural gas, and a presidential proclamation barring the practice. However, Mexico has encouraged the increase of domestic natural gas production by inviting private companies to bid on new natural gas pipelines and storage facilities for imported U.S. natural gas.

Leading Sub-Sectors

The demand for imported upstream oil and gas equipment and services is expected to decrease by 15 percent from 2019 to 2020, with a corresponding 15 percent decrease in U.S exports, given COVID-19 impacts on GDP and low oil prices. Private oil and gas contractors will drive market growth in order to comply with the award schedules set by CRE for shallow water, onshore, deep water, and heavy oil and gas projects.

In the next few years, there will be opportunities in the upstream sub-sector for U.S. companies to sell technology and services to private companies such as Chevron, ExxonMobil, Marathon Oil, Murphy, Premier Oil, and third country companies such as BHP Billiton, BP Exploration, Ecopetrol, Eni International, Japan Oil, Japan Petroleum, and Pacific Rubiales, which have bid on the shallow water tenders. Equipment needed includes derricks for oil and gas fields, drilling equipment for oil and gas fields, Christmas tree assemblies, drilling rigs, oil and gas field drilling machinery and equipment, as well as engineering services.

Opportunities

Pemex's 2020–2024 investment plan in shallow waters for 2021 implementation, includes the development of 16 new oil and gas fields; construction of 13 platforms; installing 14 pipelines (175 kilometers); and eight interconnections to the existing shallow water platforms in the Gulf of Mexico.

Onshore projects include constructing three new platforms and drilling in existing fields; installing 13 new pipelines (88 kilometers long); upgrading six refineries; and building a new refinery at the Port of Dos Bocas in the State of Tabasco. These significant projects will create new opportunities for U.S. suppliers of relevant equipment, technologies, and services. Still, Pemex has faced greater financial pressure in recent years and has struggled to pay international and domestic equipment and service providers in a timely fashion. Reports of firms pursuing legal remedies or laying off staff due to Pemex payment delays are commonplace.

The opening of the upstream oil and gas market will provide opportunities to sell technology and services to private contractors and Pemex. The projects include upgrading Pemex' six existing refineries; building storage facilities for crude oil, gasoline, diesel, and lubricant; and facilitating modernization of over 8,000 gasoline stations. Current tenders require a Mexican local content of 25 percent when there is local production, increasing to 35 percent by the end of 2025. When there is no local production, the local content requirement may be waived. U.S. suppliers and investors are encouraged to monitor progress and seek out opportunities that may include joint ventures, production sharing contracts, and/or concessions.

Equipment and services with greater demand include high pressure/high volume pumps; hydraulic submersible pumps; filter pots; Baur pipe; auxiliary fuel tanks; seismic services; trenchers; plows; boring tunneling machinery; mud mixing systems; mud recycling systems; vacuum trucks; pile drillers; operating separators; desilting equipment; and field gathering lines.

Web Resources

Secretariat of Energy (SENER)	www.energia.gob.mx
Energy Regulatory Commission (CRE)	www.cre.gob.mx
Petróleos Mexicanos (Pemex)	www.pemex.com
College of Petroleum Engineers of Mexico (CIPM)	www.cipm.org.mx
Pemex Procurement International	www.pemexprocurement.com
Mexican National Gas Association (AMGN)	http://www.amgn.org.mx
Centro Nacional de Gas (CENAGAS)	http://www.cenagas.gob.mx

Events

- Offshore Technology Conference (OTC), May 3-5, 2021, Houston, Texas

Contacts

For more information on the oil and gas sector in Mexico, please contact:

Francisco Cerón
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5211
Francisco.Ceron@trade.gov

Packaging Machinery Industry

Mexico's already significant packaged goods production has been boosted with the increase in demand (mostly driven by the COVID-19 pandemic) for sanitary, medical, and personal care products, as well as the tightening of food sanitary standards. For all these reasons, packaging machinery and food processing equipment is a best prospect industry sector in Mexico. This section includes a market overview and trade data on the sector.

Overview

The Mexican packaging machinery market is very dynamic as it grows and diversifies with the Mexican economy. Primary (processing), and secondary (handling) packaging equipment purchases have been growing about five percent per year, due in part to strong foreign direct investment in the food processing industry. The packaging machinery industry provides good opportunities for U.S. exporters. According to the Packaging Machinery Manufacturers Institute (PMMI), Mexico is the second-largest buyer of U.S. packaging equipment, with Germany and Italy serving as other important suppliers.

In 2019, the packaging material production industry represented 1.7 percent of Mexico's GDP, 5.8 percent of the industrial sector GDP, and 8.5 percent of manufacturing GDP. In terms of 2019 volume, Mexico produced 12.8 million tons of packaging containers and packaging materials with a value of USD 16 billion.

The table below shows Mexico's packaging machinery imports. U.S. sales in 2015 reflected an historic high for U.S. packaging machinery exports to Mexico—a whopping 35 percent of all Mexican purchases (driven by the investment of a couple of U.S. food and beverage companies). Sales returned to more usual levels in 2016 and 2017. In 2019, Mexico saw a dramatic decrease in machinery acquisition, mostly driven by perceived political instability, exchange

rate fluctuations, and a reduction of foreign direct investment due to uncertainty generated by cases such as the Constellation brands plant in Baja California. U.S. suppliers have remained competitive in this industry, and we recommend continued action to maintain market share.

The subsequent table shows Mexican demand for production of packaging materials to highlight the trends relevant for U.S. sellers of packaging machinery.

Mexico Packaging Machinery Market Size*
(Figures in USD billions)

	2015	2016	2017	2018	2019
Total Imports	678.1	696.1	757.6	764.1	390.35
Imports from the U.S.	239.4	182.8	150.9	155.00	98.49
Exchange Rate**	N/A	N/A	N/A	N/A	N/A

**This table covers Mexican packaging machinery imports*
***Data originally reported in USD*
Source: Association for Packaging and Processing Technologies (PMMI) with Mercado Integrado Latinoamericano (MILA), Mexican Customs, and Secretariat of Economy

Market Entry

The best way for U.S. suppliers of packaging machinery to enter the Mexican market is through representation or regional distribution with a partner that can offer after-sales service, maintenance, and spare parts on-site and in Spanish.

Barriers

U.S. packaging exporters have faced several challenges in Mexico over the last few years, and 2020 will be no exception. Competition in this sector is increasing, and a strong dollar makes U.S. equipment more expensive vis-à-vis European equipment (though cost is often secondary to other purchasing decisions). Because of tightening domestic markets, European and Asian companies are increasingly offering customization and payment terms to compete and gain market share in the Mexican packaging machinery market. Offering financing options to Mexican buyers greatly enhances the competitiveness of the offerings from U.S. packaging machinery manufacturers.

Mexican small and medium-sized companies tend to perceive U.S.-made equipment as designed only for large-scale production. Additionally, they believe that U.S. companies have rigid sales policies which do not allow for customization. Finally, Mexican buyers believe that U.S. industrial equipment generally has higher-than-average energy consumption. These perceptions create specific hurdles for U.S. equipment sales.

Leading Sub-Sectors

According to the Mexican Association for Bottling and Packaging (*Asociación Mexicana de Envase y Embalaje* or AMEE), plastic is the most dynamic material used by all industries that utilize packaging products, having a constant growth of its market share on the last five years.

Mexico Packaging Material Demand by Type

Packaging Material	Percentage Demand
Paper & Cardboard	32.7%
Plastic	29.3%
Glass	19.5%
Metal	18.1%
Wood	0.4%

Source: Asociación Mexicana de Envase y Embalaje

Concerning end-use segments for packaging equipment, the food and beverage industries exhibit the greatest demand for packaging materials, representing 58 percent of Mexican packaging machinery imports by value. This is followed by machinery for general packaging (14%), for personal care products (7%), and for pharmaceuticals (6%).

Opportunities

Major opportunities for U.S. companies exist in processing equipment and materials for the food and beverage industry, and for plastic container manufacturers geared towards the personal care industry, and cleaning and sanitizing products. The U.S. Commercial Service Mexico is happy to assist you in exploring opportunities in this sector.

Mexico's market evolution is leading to demand for higher quality materials and production standards in the packaging sector. For instance, 63 percent of food products utilize flexible packaging which is recording growth rates of over 10 percent per year. Companies involved in food processing and agribusiness (Tyson, Bachoco, Driscolls, Sunny Ridge, etc.) are demanding better and greener packaging technology. In most cases, flexible packaging is designed to help extend the shelf life of food products or to fulfill other market trends such as higher quality graphics. In addition, major retailers such as Walmart often demand that packages take up less space on the shelf. Innovation and flexibility are key to acquiring a competitive edge in packaging machinery sales in Mexico.

Many companies are looking at glass packaging, given its competitive prices compared to plastic containers, as well as its environmentally-friendly manufacturing process.

Despite the relatively high cost of European packaging products compared to U.S. equipment, Mexican companies regularly choose European solutions due to the barriers mentioned above, stronger after-sales service from European service centers in Mexico, and the flexible financing options that European competitors provide. This leads some Mexican customers to adapt European equipment to local needs rather than choosing what may be a better priced and better designed U.S. solution for the Mexican market.

U.S. firms should keep these critical points in mind, while continuing to take advantage of the U.S. reputation for innovative technology, geographic proximity, and the close bilateral trade relationship.

Web Resources

Organizations	
Packaging Machinery Manufacturers Institute (PMMI)	www.pmmi.org
Mexican Packaging Association (AMEE)	www.amee.org.mx
Institute of Packaging Professionals (IOPP)	www.iopp.org
Mexican Institute of Packaging Professionals (IMPEE)	http://envaseyembalaje.com.mx
Chamber of the Food Industry of Jalisco (CIAJ)	www.ciaj.org.mx
Centro de Innovación Diseño Empaque (ABRE)	ABRE Website
Magazines	
Enfasis Packaging	www.packaging.enfasis.com
El Empaque + Conversion	www.elempaque.com
EnvaPack	www.envapack.com
Industria Alimenticia	www.industriaalimenticia.com

Events

- Pack Expo International, November 8-11, 2020, Chicago, Illinois
- Expo Pack Guadalajara, June 15–17, 2021, Guadalajara

Contacts

For more information on the packaging machinery sector in Mexico, please contact:

Juan Herrera
Commercial Specialist
U.S. Commercial Service—Guadalajara
Tel.: +52 (33) 3615-1140 ext. 103
Juan.Herrera@trade.gov

Plastics and Resins

The Plastics and Resins industry is a best prospect industry sector for Mexico. This section includes a market overview and trade data for this sector.

Overview

Mexico's plastics industry relies heavily on imports from the United States. Total U.S. exports to Mexico of plastic materials and products accounted for USD 16.47 billion in 2019; 15.7 percent of that being polymers and resins. This sector also contributed USD 3.46 billion worth of exports of rubber and its products in the same year. This industry heavily supplies the automotive sector and follows a similar production trend, though diversified by its ties to the appliance, electronics, electric, and aerospace sectors, in that order.

Mexico is the largest market for U.S. exporters of plastics products (HS-39) and the second-largest destination for rubber (HS-40). Plastics were among the five top U.S. export categories to Mexico in 2019. Mexico is also the largest destination for U.S. tools, dies, jigs, peripheral equipment, and industrial molds. Additive manufacturing has now jumped to mass production in some industries.

According to Mexico's National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía* or INEGI), Mexico's economy was stable in 2019 with no accountable growth, while the value of total production in the plastics industry did grow by 2.2 percent. In 2020, this industry faces the challenges of a disruption in the supply chain due to the COVID-19 health crisis and that of a more environmentally-conscious society. Despite a negative

forecast for the Mexican economy in 2020 by the International Monetary Fund (IMF), manufacturers hope to maintain sustainable growth rates as Mexico implements the U.S. Mexico Canada Agreement (USMCA) to update the North American Free Trade Agreement (NAFTA) and negotiates other free trade agreements with key economies. Industry experts forecast that USMCA is likely to increase the opportunities for growth in the sector by substitution of parts that will no longer be imported from countries outside of North America.

U.S. exporters to Mexico partake in a market worth over USD 40 billion in 2019, with opportunities for continued U.S. participation in the sale of capital equipment, resins, plastic materials, and plastic parts. Recycling technologies are also being considered by producers as the industry is urged to create sustainable economies to satisfy worldwide environmental commitments. Considering that, bioplastics are being developed by companies as an alternative to reduce non-recyclable waste.

Mexico's Plastics and Resins Production and Market Size
(Figures in USD billions)

	2016	2017	2018	2019	2020** (Estimated)
Total Local Production	19.10	20.77	21.83	21.88	20.44
Total Exports	10.88	11.81	12.70	12.70	11.86
Total Imports	28.25	30.03	32.32	31.44	29.36
Imports from the U.S.	19.34	20.02	21.52	19.94	18.62
Total Market Size*	36.48	38.99	41.46	40.62	37.94
Exchange Rates	18.68	18.91	19.23	19.26	20.00

**Total market size = (total local production + imports) - exports*
*Sources: INEGI; **2020 estimates in USD from the IMF*

Leading Sub-Sectors

Mexico's plastics sub-sectors are capital equipment, plastic resins, plastic materials and parts, and plastic recycling.

Capital Equipment

According to data from the Secretariat of Economy, Mexico's global imports of capital equipment for the processing of plastics, including peripheral equipment and parts (HS 8477) was USD 447 million in 2019. Mexico's major trade partners for capital equipment include Germany, China, the United States, Japan, Taiwan, South Korea, and Canada, in that order. Mexico's main imports from the United States include machinery and equipment for injection, blow molding, extrusion and thermoforming, including peripheral equipment and parts, all totaling USD 57.2 million in 2019.

Plastic Resins

Mexico produces over 4 million tons of the various resins, with PET, PVC, and HDPE making up around 50 percent of total production. As Mexico's production capacity for primary plastic resins is not sufficient to meet the sector's demand, imports are still necessary. In 2019, Mexico imported plastic primary products from the world (HS3901) in excess of USD 1.2 billion, with 86 percent of that sourced from the United States. Other supplying countries include Canada, Belgium, South Korea, Portugal, and Taiwan.

Plastic Materials and Parts

Mexican manufacturers produce a large variety of secondary and tertiary plastic materials including PP film, PVC pipe and fittings, laminates, and acrylic materials. The area of Central Mexico known as the Bajio is a region worth considering for initial market entry due to a large concentration of factories in the automotive sector supply chain.

Plastics Recycling

Mexico has Latin America's largest recycling ratio of plastic waste at around 58 percent; however, that is only a portion of the country's 17 percent overall recycling rate. Only 40 percent of recycled PET materials are exported, but Mexico is working to increase its recycling capacity.

Plastics Thermoforming

Thermoformed plastics products are in high demand. A large number of companies in this sub-sector are competing to supply the food and beverage, pharmaceutical, automotive, and medical device manufacturing industries.

Opportunities

U.S. Commercial Service Mexico is happy to assist you in exploring market opportunities in the plastics sector. Below are some highlights.

Capital Equipment

U.S. exports to Mexico of primary processing machinery and equipment are low, but U.S. technology for extrusion machinery is preferred by manufacturers. The most popular imports from the U.S. include auxiliary equipment for plastics processing. Mexico's plastics manufacturers are attractive prospects for extruders, blenders, mixers, and automation solutions for primary and secondary plastics processing.

Plastic Resins

OEM clients provide the best opportunities in Mexico for U.S. suppliers of plastic resins. Most of these deals are carried over by headquarters-based buyers who concentrate purchasing decisions for the company's worldwide operations. Suppliers should consider participating in B2B meetings in this field, which provide direct interaction with key buyer contacts. Small U.S. exporters of resin should target the numerous small and medium sized manufacturers operating in the various industrial regions in Mexico.

Plastic Materials and Parts

Because of the increased demand of plastic parts by new foreign companies establishing plants in Mexico, supply of sophisticated high tolerance plastic automotive components is an opportunity for U.S. manufacturers. Buyers of auto parts often require their suppliers to establish their operations near their plants. Although this may be a challenge for U.S. SME autoparts producers, it is good to consider that these buyers prefer the experience and capabilities of certified suppliers.

Plastics Recycling

Most of Mexico's exports of recycled PET and other resins are manufactured by small and medium-sized recyclers. Large recyclers produce for their own consumption as their way to assure compliance with health and environmental standards (NMX-E-263-CNCP-2016, ISO 17422:2002, ISO 15270:2008, among others). Plastic recycling technologies and high purity recycles will be in demand in the next few years, not including waste-to-energy technologies which are opposed by environmental groups and the current presidential administration.

Customs and Environmental Regulations

Plastic resins and materials pertaining to HS3901 through HS3926 originating in the USMCA region are free of the 5 to 15 percent Mexican duty. A ban on single-use plastics that was implemented by 18 states was suspended temporarily during the COVID-19 pandemic to permit the manufacture and use of such products in the medical supply chain. However, 37 of the 39 Mexican states are firm in their decision to either prohibit or reduce the use of single-use plastics.

Web Resources

Asociación Nacional de Industrias del Plástico (ANIPAC)	www.anipac.com
U.S. Dept. of Commerce Trade Stats Express	http://tse.export.gov/tse/tsehome.aspx
Manufactura Magazine	www.manufactura.mx/industria
Ingenieria Plastica (online magazine)	www.ingenieriaplastica.com
Plastics Technology Mexico	www.pt-mexico.com
Ecología y Compromiso Empresarial, A. C. (ECOCE)	www.ecoce.org.mx

Events

- Plastimagen 2020, Centro Citibanamex, November 10-13, 2020, Mexico City, Mexico
- Expo Pack, Expo Santa Fe, Mexico City, June 8-11, 2021
- Meximold, Querétaro Centro de Congresos, Querétaro, México, October 7-8, 2020

Contacts

For more information on plastics and resins in Mexico, please contact:

Mario Vidana
Commercial Specialist
U.S. Commercial Service—Monterrey
Tel.: +52 (81) 8047-3118
Mario.Vidana@trade.gov

Renewable Energy

This section includes a market overview and trade data of the renewable energy sector in Mexico.

Overview

In 2019, the Mexican government's energy development plan reported power generation in Mexico accounted for 327,965 GWh (Gigawatt hours), of which 26.6 percent was generated with clean energy sources including renewables, nuclear and efficient cogeneration. In 2020, it is estimated that the power generation will account for 340,162 GWh (Gigawatt hours), with 31.6 percent projected from clean energy sources.

On January 2020, the Secretariat of Energy (*Secretaría de Energía* or SENER) published the Energy Transition Strategy to Promote the Use of Clean Fuels and Technologies in the Official Federal Gazette (*Diario Oficial de la Federacion*), which will be the guiding document for medium- and long-term clean energy obligations. This document outlines the administration's objective to base the energy sector on clean technology that promotes productivity, sustainable development and social equality by 2050.

According to an International Renewable Energy Agency (IRENA) publication, Mexico has significant and diverse resource potential and could attract large-scale investments to diversify its energy supply. If market conditions are favorable, Mexico could continue to attract investment for renewable energy projects, as seen in three long-term auctions that took place between 2015 and 2018. However, recent policy changes are creating challenges for companies interested in participating in current and new renewable energy projects.

Electricity Market Framework

To understand the electricity market, it is important to take into account the country's 2013-14 constitutional energy reform. This reform focused on increasing investment and growth by creating a wholesale electricity market to facilitate competition and reduce costs. The energy reform also aimed to increase electricity coverage and stimulate the use of clean energy.

Clean Energy Certificates

In order to comply with national sustainable development and emissions reduction goals outlined in Mexico's General Climate Change Law, the Mexican Government created Clean Energy Certificates (*Certificados de Energías Limpias* or CELs) in 2018.

A CEL is granted per each MW/h of electricity produced by a generator using clean energy technologies. Large consumers of electricity (primarily industrial and commercial, also known as Qualified Consumers) are required to consume electricity generated from clean energy sources. In 2020 the requirement demands that 7.4 percent of electricity generated originates from clean energy sources.

In October 2019, SENER modified the regulation so that clean power plants which began operations after August 11, 2014 as well as legacy power plants could also receive CELs. This change in the regulation alters the original purpose of the CELs, which was to promote new investments for renewable energy projects to support national clean energy targets of 25 percent by 2024 and 43 percent by 2030. A number of private sector companies filed legal injunctions against this regulatory modification and the initial court decisions have ruled in favor of the claimants.

The Federal Commission of Economic Competition (*Comisión Federal de Competencia Económica* or COFECE) invited electricity sector decision makers, public institutions, associations, users and permit holders, civil society organizations, business chambers and all interested parties to answer a questionnaire on CELs in order to evaluate market competitiveness and issue recommendations.

Development Program of the National Electrical System 2019–2033

On May 31, 2019, SENER published the 2019–2033 Development Program of the National Electrical System (*Programa de Desarrollo del Sistema Eléctrico Nacional* or PRODESEN). This planning document addresses electricity generation, transmission, distribution and commercialization of the National Electric System (*Sistema Eléctrico Nacional* or SEN). The 2019 PRODESEN outlined the process not only to meet electricity demand, but also to maximize power generation, transmission and distribution for sustainable economic growth.

PRODESEN emphasizes Mexico's multiple commitments to sustainable development, including commitments made in the United Nations Framework Convention on Climate Change, the Kyoto Protocol, the United Nations Climate Change Conference (COP 21) in Paris, the 2030 Agenda for Sustainable Development, and the Intergovernmental Panel on Climate Change.

Mexico's New Electricity Market Rules

On April 29, 2020, CENACE announced an Agreement to guarantee the efficiency, quality, reliability, continuity and security of the National Electric System in recognition to the COVID-19 pandemic. According to this agreement, the intermittency of wind and solar plants affects the reliability, quality, and continuity of the National Electric System. Therefore, CENACE suspended the pre-operative tests from wind and solar plants. According to recommendations published by COFECE, the actions indicated in CENACE's agreement could run contrary to free competition and could increase electricity rates. It is unclear when and how these actions will be implemented. In addition, CENACE's agreement calls into question power generation from wind and solar plants that are currently operating and that typically cost less than conventional power plants.

On May 15, 2020, SENER published a resolution in Mexico's Official Gazette that establishes as a public service the planning and control of the National Electric System, as well as the transmission and distribution of electricity. This includes power generation, transmission, distribution and commercialization of the National Electric System, as well as the operation of the Wholesale Electric Market. Private sector participants believe that this policy will allow

CENACE to dispatch costly CFE-owned plants ahead of more economically efficient private renewable generation. They have filed legal injunctions against the policy. These measures, along with permit delays, and the administration's broader energy policy, have introduced greater investment uncertainty into the sector.

The U.S. Commercial Service is closely following policy developments and their impact on current and future business opportunities in the electricity sector for U.S. exporters.

Renewable Energy Opportunities

Another important element for renewable energy development in Mexico expected to contribute to emission reductions commitments is electromobility. The López Obrador Administration is interested in further exploring opportunities and designing a strategy to promote the use of hybrid and electric cars and other transportation. The Mexican Secretariat of Environment (*Secretaría del Medio Ambiente y Recursos Naturales* or SEMARNAT) is developing a strategy for electromobility with other government agencies and stakeholders.

CFE has been working on the deployment of electric charging stations for some time. In early 2020, CFE made an announcement for the Service, Installation, Supply, Commissioning and Integral Support of Electric Station Modules for Recharging Electric Vehicles in the Official Federal Gazette.

At the local level, in May 2019 the Mexico City Government presented their Solar City initiative (*Ciudad Solar*). Solar Energy is the renewable energy source with the highest potential in Mexico City, with an annual average value of 5.7 kWh/m2/day (kilowatt-hours per square meter per day). *Ciudad Solar* includes, several small- to medium-scale solar projects, such as photovoltaic roofs in public buildings, a program for small and medium-sized companies, and training. The Solar City initiative is aligned with Mexico City's goal to reduce 30 percent of contaminant emissions from mobile sources by 2024. The utilization of solar energy for power generation and water heating is critical for the transition to renewable energy.

Leading Sub-Sectors

The renewable energy sub-sectors with the most potential for U.S. exporters are small-scale wind, solar, and hydro. Other relevant technologies that offer potential include energy storage, distributed generation and electromobility.

Opportunities

U.S. expertise in renewable energy, energy storage, distributed generation and electromobility technologies is highly valued. We encourage companies to connect to the U.S. Commercial Service Mexico to discuss the best strategy for your company to explore opportunities in the Mexican market.

Web Resources

Secretariat of Energy (SENER)	www.gob.mx/sener
Federal Electricity Commission (CFE)	www.cfe.gob.mx
Energy Regulatory Commission (CRE)	www.cre.gob.mx
National Energy Control Center (CENACE)	www.gob.mx/cenace
National Institute for Electricity and Clean Energy (INEEL)	www.ineel.mx
Fund for Energy Saving (FIDE)	www.fide.gob.mx
Mexican Association for Wind Energy (AMDEE)	www.amdee.org
National Association for Solar Energy (ANES)	www.anes.org
Mexican Solar Photovoltaic Association (ASOLMEX)	www.asolmex.org
Mexican Geothermal Association (AGM)	www.geotermia.org.mx
Mexican Hydro Power Association (AMEXHIDRO)	amexhidro.org

National Commission for the Efficient Use of Energy (CONUEE) www.conuee.gob.mx

Events

- Solar Power International, October 21-22, 2020, Las Vegas, NV (virtual events available)
- MIREC Week, October 13-15, 2020, Mexico City
- Solar Power Mexico, November 18–20, 2020, Mexico City
- Mexico WindPower Expo, March 17-18, 2021, Mexico City

Contacts

For more information on the renewable energy sector in Mexico, please contact:

Claudia Salgado
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5224
Claudia.Salgado@trade.gov

Safety and Security

The sale of both safety and security equipment and services represent terrific opportunities in Mexico, making this a best prospect industry sector for this country. This section includes a market overview and trade data.

Overview

The safety and security market shows strong demand for products and services by government, private enterprise, and consumer buyers. For purposes of this report, 'security' means preventing and responding to criminal threats. By 'safety' we mean addressing risk of accidents, workplace protection, and natural threats.

The safety and security sector includes equipment, solutions, and services used for public security, personal protection, residential security, industrial safety, corporate facilities, and infrastructure protection (access control, ID, perimeter security), as well as diverse solutions and systems designed for law enforcement and defense usage.

New technologies have entered the market in response to security trends and consumer habits. Increased demand in this sector accelerates competition among suppliers, but it is also driving more sophisticated buying decisions and interest in advanced solutions. The security market reflects Mexico's large urban populations, development levels, public security policies, and strength of local and state authorities. There are many additional factors in the country's evolving approaches to rule of law, from historic attitudes and education levels to criminal justice reform and law enforcement challenges.

The following tables provide the most recent estimates indicating approximate market size for the range of safety and security products and services in Mexico.

Mexico Safety and Security Products and Services Market Size Estimates
(Figures in USD billions)

	2017	2018	2019	2020 (Estimated)
Total Local Production	2.4	2.5	2.0	1.5
Total Exports	3.1	2.8.	2.2	1.6
Total Imports	1.7	1.6	1.1	1.6
Imports from the U.S.	0.7	0.6	0.5	0.9
Total Market Size*	1.0	1.3	.9	1,5
Exchange Rates	18.91	19.22	19.26	20.0

**Total market size = (total local production + imports) - exports*
Source: Global Trade Atlas 2020
Note: The safety and security equipment and services sector encompasses several different segments, including some defense products.

Mexico is one of the most important security markets in Latin America due to its size, leading industries, development, and total demand. Moreover, security is one of the most dynamic sectors in the economy. Since 2015, sales of security systems and solutions have grown, on average, about 13 percent according to domestic industry figures, far outpacing growth in the overall economy. However, in 2019, market growth slowed mainly because federal austerity programs and redirecting budgets to social programs. The private sector is now cautious with purchases and projects given the numerous changes implemented by Mexican President Andres Manuel López Obrador.

With an uptick in violent crime and ongoing supply chain threats in recent years in Mexico, safety and security remain a constant concern for the general public, companies, and all levels of government. Security spending is some aspect of nearly all household and organization budgets. In 2018 and 2019, analysts highlighted declining security as the top factor that could limit the country's economic development. Mexico's National Statistics and Geographic Institute (*Instituto Nacional de Estadística y Geografía* or INEGI) annually prepares a National Survey of Victimization and

Perception About Public Security (known as ENVIPE for its acronym in Spanish). The latest report published September 2019 shows that 33.9 per cent of homes had at least one victim of crime. At the individual level, 24.7 million people suffered a crime, just above the 2016 level though lower than in 2017. ENVIPE also reflected that the most dangerous Mexican states were Mexico City, State of Mexico, Baja California, Sonora, and Tabasco.

Sales in this sector have grown across end-user segments. The 2020 national security and defense portion of the Mexican federal budget—which includes the principal law enforcement agencies and the Mexican military (Army, Air Force, and Navy)—grew to USD 9.6 billion this year versus USD 7.7 billion in 2018. This includes funds for expanding the new National Guard, and infrastructure projects led by the military.

Private sector spending drove purchasing growth in this sector. This was due to certain factors, such as the spread of crime, limited public security resources, expanded private sector actions to protect assets, higher civic consciousness, and the widespread recognition of shared citizen and corporate responsibilities in crime prevention and education.

A major development in 2019 was the Administration's execution of the National Peace and Security Plan 2018–2024 (*Plan Nacional de Paz y Seguridad*), which includes eight specific areas of action to address Mexico's security challenges:

- Combat corruption and restore justice systems
- Guarantee employment, education and health conditions through economic development
- Respect and promote human rights
- Re-cultivate societal ethics
- Establish a council for rebuilding domestic peace
- Restore the function and dignity of the penal system
- Implement the specific actions of the 2018–2024 plan

This plan has five main elements:

- Reconsider the role of the armed forces in national security
- Create the National Guard *(Guardia Nacional),* with the goals of preventing crime, preserving public security, and combating criminal activity
- Form 266 national, state, and regional Coordination Zones (*Coordinaciones Regionales*) across the country by 2021
- Establish operational guidelines

The López Obrador Administration has the National Guard taking on law enforcement functions as a civilian force. Today it is composed of about 100,000 officers and has been deployed to 176 coordination zones throughout the country,

During 2019, the López Obrador Administration worked with the Mexican Congress to pass legislation creating the National Guard, including corresponding changes to the Mexican Constitution, and to enact secondary legislation on use of force and changes in the structure of public security operations in Mexico. Some officials familiar with the longer-term plan say that the ultimate size of the National Guard is envisioned to exceed 300,000 by 2024, though this estimate seems unlikely and more realistically would be well under 200,000. The Guard's Commander is the retired Army General Luis Rodríguez Bucio. The Guard falls under the Secretariat of Security and Citizen Protection (SSPC) and General Bucio reports to the president through the civilian SSPC secretary, but General Bucio also coordinates closely with the Mexican Army. Further, the Guard has an Operational Coordination system composed of three top chiefs from the SSPC, the Mexican Army, and the Mexican Navy.

We noted that the Peace and Security Plan establishes 266 Coordination Zones across Mexico into which Guard units will be deployed. In 2020, the plan is to deploy additional units to 50 *Coordinaciones*, on top of the 150 assigned in 2019 (for a total of 200 deployed zones). By 2021, Guard forces are expected in all 266 *Coordinaciones.* As a result of a joint Mexico-U.S. declaration in June 2019, the Guard has deployed 6,000 units to Mexico's southern border area, as well as to some cities with serious security risks.

Both the public sector and private security market will continue demanding solutions to reduce security risks at different levels, particularly to contain and eventually decrease kidnapping, homicide, extortion, robbery, assault, and other high-impact crimes frequently connected with organized crime. In the first months of 2020, other security threats have surged such as some assaults in supermarkets and at luxury shops, as well as sea attacks on oil platforms in the Bay of Campeche. Reports of common crimes like robbery dipped slightly during COVID-19 pandemic, but domestic violence and homicides – particularly against women – increased. National Guard units deployed in main cities to bolster state and local police forces grappling with enforcing COVID-19 restrictions while protecting their own officers.

Leading Sub-Sectors

For purposes of this report, the security sub-sector consists of goods and services responding to criminal threats. The safety sub-sector is for goods and services addressing risk of accidents (and certain emergencies), industrial protection standards, and natural threats such as fires and floods. As in the United States, we further segment the market between government, private enterprise, and consumer end-users.

Security

We anticipate a steady demand in several product and service categories. These include private security services, armored cars/vans, robbery prevention, CCTV, communications technologies, and cyber security solutions linked to IT applications. Mobile technologies and internet-connected devices have spread to advanced security applications, forcing organizations and individuals to replace older systems and adopt new security practices.

Personal and Household Security. As noted in the overview, INEGI conducts an annual survey of public security perception (ENVIPE, for its Spanish acronym). Household security spending represents an estimated 1.65 percent of GDP. ENVIPE 2019 reported that 24.7 million people were victims of 33 million crimes during the survey period (keeping in mind that one person can be subject to more than one crime). The main crimes were assaults and robberies in public spaces (28.5%), extortion (17.3%), fraud (14.3%), and partial and total vehicle robberies (11.5%). Domestic violence and femicide are also serious and growing concerns.

INEGI also compared survey responses to official crime reports and noted that only 10.6 percent of crimes were officially reported to law enforcement agencies, implying that 89.4 percent of crimes were unreported or without investigation. The INEGI survey also shows how perceptions of crime vary by state and by city. The riskier cities based on the survey are Hermosillo, Valle de Mexico, Puebla, Toluca, San Luis Potosi, and Villahermosa.

Business Security. Even though security data varies slightly depending on sources used, it is estimated that private sector companies dedicate 10–12 percent of total spending on security equipment. This spending is mainly used to enhance facility and asset protection, such as robust alarm systems, employee / contractor / visitor identification tools, CCTV systems, and high-quality perimeter protection. Other top categories are cargo theft surveillance, GPS mobile tracking systems, better logistics communications, and emergency applications. In January 2020, the business organization COPARMEX outlined the impact of Mexico's significant surge in violence, with daily averages of 95 individuals killed, four reported kidnappings, and 150 small businesses assaulted. Sixty-five percent of its members have fallen victim to a security-related crime.

Corporate perceptions are tracked in a security report prepared by the American Chamber of Commerce (AmCham). It is based on a survey of more than 300 local and multinational firms based in Mexico. In the most recently published 2017–2018 survey periods, the top private sector security incidents were these six (percentages represent number of companies reporting incidents):

1. Transport and supply chain attacks (42.1%)
2. Virtual extortion (39.9%)*
3. Theft (39.9%)
4. Third party offense or threat to employees (30.3%)
5. Facilities intrusion (23.7%)
6. Protest, blockades, social unrest (23.2%)

**Virtual extortion is a type of telephone-based extortion.*

Other incidents reported in the double-digits were information leaks, vandalism, and cyber-attacks. Direct extortion reached 9.6 percent and represents a serious recurring security problem for private companies.

AmCham's security report showed that companies were increasingly addressing external threats by adopting internal security measures using their own resources. These security measures included safety management systems; risk assessment and prevention planning; crisis management and business continuity planning; employee security awareness; improved hiring process screening; and implementation of executive protection programs. Most of the companies have established a chief security officer to prevent and resolve security threats.

CS Mexico monitors security developments based on issues reported by private firms and incidents reported in the news media. Among the concerns we follow have been railroad attacks to commit large-scale robbery of shipments, illegal tapping of oil and fuel pipelines, highway blockades and assaults, kidnapping, and cyber-attacks. In 2018–2019 the new administration launched an initiative to halt gas and oil theft, an illegal activity called "*huachicol."* Attacks on sea-based oil platforms attacks are also growing.

Safety

Industrial and facility safety protection is significantly higher than household safety and generalized civil protection (i.e., more money is spent on fire suppression systems in commercial buildings than on home smoke alarms or fire department equipment). There continues to be significant evolution of new safety standards to protect lives, improve workplace environmental conditions, reduce labor risk levels, and to create an industrial safety culture. For this reason, this section focuses on business and government purchases for facility and employee safety. The U.S. Commercial Service in Mexico can assist U.S. exporters with other types of consumer safety and civil protection, and we offer market research on these sub-segments as well.

Workplace Protection and Safety. Workplace safety is a major concern. The Secretariat of Labor and Social Oversight (*Secretaría del Trabajo y Previsión Social* or STPS)—with data from the Mexican Institute of Social Security (*Instituto Mexicano de Seguridad Social* or IMSS)—reported more than 200,700 work accidents and risks nationally in 2019, representing an improvement of 50 percent over 2018 (398,140). The industries that have recorded the most accidental deaths are commodity and related activities (mining, agriculture, livestock); industrial machinery operators including transportation (driving heavy-load trucks); wholesale activities; and sales, professional, and technical activities,

According to Mexico's Secretariat of the Economy (2018), Mexico has more than four million enterprises, of which micro and small firms represent 99.8 percent, and they contribute 42 percent of GDP and 78 percent of total employment. Private sector spending on safety is dominated by multinational firms, which must follow international safety standards and have resources to provide training, programs, and emergency responses. OEMs and large companies are generally familiar with safety regulations, such as NFPA, OSHA, NEC and the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS/2003).

STPS requires all manufacturing plants and companies to comply with official Mexican safety standards (NOMs). STPS performs regular safety audits on these larger types of enterprises. Nevertheless, STPS does not have the

resources or inspectors to perform regular safety audits on every company, nor are they able to keep the current NOMs up to date or adopt new ones from the United Nations GHS. Regularly, the STPS conducts industrial safety consultations at the national level to examine safety-related NOMs such as NOM-011-STPS-2001, NOM-015-STPS 2001, and NOM-020-STPS-2011. .

Consumer Safety and Micro and Small Enterprise Safety. Unfortunately, Mexico's four million micro and small businesses generally neglect the importance of workplace safety policies, making them a less attractive target market for U.S. exporters. The same is true of general consumers. For the most part, we see these small market sub-segments purchasing low price, low quality products that are manufactured in Asia or locally. For instance, many buyers will purchase simple, small fire extinguishers rather than more extensive fire suppression systems, and cheaper fire-retardant fabrics rather than materials with higher fire protection ratings such as Kevlar.

Civil Protection. Civil protection is constrained by government budgets and policy, making this segment a less dynamic market than might otherwise be assumed. However, regular earthquakes remind authorities, organizations, and citizens about the importance of effective emergency preparedness and response plans. The most common types of accidents and natural disasters in Mexico are earthquakes, volcanic explosions, gas explosions, fires, floods, and hurricanes. Emergency and first-aid kits are part of the regular equipment acquired by many organizations to be prepared, as well as conduct of regular emergency drills. With the COVID-19 emergency, the Secretariat of Health (*Secretaría de Salud* or SS) has been the leading federal agency to coordinate government planning. However, the national emergency defense plan known as DN-III, gives overall control for managing facilities, supply logistics, and planning to the Secretariat of National Defense (*Secretaría de la Defensa Nacional* or SEDENA) and Secretariat of the Navy (SEMAR), similar to the role the U.S. Federal Emergency Management Agency (FEMS) plays in the United States.

In fact, the federal program for all disasters including natural disaster response falls under SEDENA Plan DN-III, so this market sub-segment is part of the overall defense budget (USD 4.8 billion in 2020 only for SEDENA). On the civilian side, firefighters, civil rescue organizations, and the Mexican Red Cross generally depend on grants and donations for equipment and assets rather than government budgets. In recent years, both the Federal Government and state authorities have reinforced civil protection units. Coordination among rescue groups and governments has improved, civil protection is attaining wider coverage, and protection plans are better known by citizens. There may be specific opportunities for U.S. exporters, but be aware that agency resources are limited with respect to expensive equipment.

There is also need for increasing expenditures on residential and corporate fire prevention. Although building construction standards imply solid fire safety rules, Mexico has had fire-related incidents due to human errors. Firefighters in Mexico received better wages in 2019 versus prior years, but in some small communities they work on a volunteer basis. The Mexican Firefighters Association estimates that there are 14,250 firefighters nationwide (2019), but only 45 percent receive a salary. In Mexico City the number of firefighters is still small for the size of the city (around 1,900 firefighters in 2019). Higher education and regular training are not common among fire crews. The federal Civil Protection Unit of SEGOB regulates firefighters and emergencies at a national level, and each state and municipality manages and budgets its own civil protection unit and local firefighters. Last year, the Mexican Firefighters Association urged allocation of dedicated state and municipal firefighting budgets. More than 60 per cent of the 490 firefighters groups are civil associations formed by local communities without official support.

At the same time, Mexico is moving towards better public safety communications and warning technologies. In 2017, Mexico completed implementation of a national 911 emergency number system. Responses to medical, security, rescue, and fire emergencies are timelier, though false reports through the 911 system are still a problem. Missing children are also reported through an "*Alerta Amber*" program based on the U.S. Amber Alert. Media channels broadcast the alerts, and the program has successfully located lost children. Some opportunities exist at the municipal and state levels for monitoring and emergency response technologies. For instance, Mexico City has a network of more than 15,000 video cameras in operation, and there is significant local attention across the country to command,

control, and communications centers for emergency response. Some states have created command centers to improve police response times and security surveillance. The Mexico City C5 continues expanding its security cameras coverage. In very high crime areas, it has installed more security towers with panic buttons under the program *Mi Calle*. Another similar program for small businesses is called *Mi Negocio*.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring opportunities in the safety and security market here. This section highlights specific opportunities in both sub-sectors. Business opportunities are mainly in medium-sized and large urban areas, and potential suppliers should prepare an effective market entry strategy. This strategy should keep in mind local and foreign competitors, address changing consumer preferences and worries, and make available complete after-sales service. U.S. security products generally have a good market reputation, and end-users are familiar with U.S. brands and market trends, but other large foreign firms provide stiff competition. Potential suppliers should become familiar with Mexico's geographic markets by visiting and attending commercial events around the country. After-market service and system warranties can make a difference in gaining advantage over other suppliers. Suppliers should also consider how mobile security applications are impacting buying habits and modifying end-user expectations and demand.

In coming years we expect significant increases in consumption of personal protection products, alarms, CCTV, residential protection solutions, physical protection, and new electronic security devices. In fact, CCTVs and video-surveillance systems for residential, government, commercial, and industrial use are some of the most purchased goods in the security/safety sector, as well as electronic physical security products. Security solutions such as GPS and tracking systems for transport logistics will remain popular to reduce cargo theft, track assets, and aid rapid response to threats. We anticipate government purchases will continue through 2020 for body protection equipment, firearms, ammunition, CCTV, transportation and communication equipment, and a range of military equipment. Spending on consumable products will continue. The new National Guard will require a large quantity of all forms of supplies and equipment that will be purchased by SEDENA.

In certain applications, such as employee ID systems, we see rapid movement to integrated biometrics instead of standard physical credentials and basic smart card applications. Access control systems and surveillance cameras have been installed at many public spaces, not only in Mexico City, but also in medium-size cities. In addition, personal protection and private security services continue to expand among corporate and government end-users, with spending now reaching approximately one percent of GDP.

Security

Security solutions with business potential include:

- CCTV
- Access control solutions
- Alarms (residential, industrial, buildings)
- Perimeter protection and surveillance
- Fire systems
- Smart homes and buildings
- Cybersecurity
- UAVs and drones
- Communications systems (wireless, internet, GPS, etc.)
- Integrated security solutions (compatibility/integration services)

- High-tech night vision tactical equipment
- Police tactical equipment
- Communications integration services

Safety

Safety-related equipment and services with particular potential include the following, though several of these items may be difficult for U.S. suppliers to sell at competitive prices:

- Emergency response training
- Protective gloves, suits, and footwear
- Eye and ear protection
- Breathing protection equipment for gas and fine dust
- Protective gear for welding activities
- Equipment and gear to protect against falling objects and electrical hazards
- Smoke detectors, fire alarms, and fire suppression systems
- Certified inspection services and testing equipment (NOMs compliance)

Web Resources

National Institute of Statistics and Geography (INEGI)	www.inegi.org.mx
Secretariat of Interior (SEGOB)/National System of Civil Protecton	www.segob.gob.mx
Secretariat of Public Security and Citizen Protection (SSPC)	www.gob.mx/sspc
AmCham Mexico	www.amcham.org.mx
National Citizen Observatory (ONC)	onc.org.mx
Mexico United Against Crime (*Mexico Unido Contra la Delincuencia*)	www.muccd.org.mx
American Association for Industry Security (ASIS) Mexico Chapter	www.asis.org.mx
Latin America Security Association (ALAS) Mexico Chapter	www.alas.org.mx
National Council of Private Security, A.C. (CNSP)	www.cnsp.org.mx
International Institute for Risk Management (IIAR)	www.seguridadindustrial.com.mx
Federal Civil Protection Secretariat	www.gob.mx/proteccioncivil

Events

- Expo Seguridad Mexico (ESM) 2020 (including a U.S. Pavilion, Expo Seguridad Industrial, and NFPA Fire Expo), April 13- 15, 2021, Centro Citibanamex, Mexico City
- Constructo Safety Pavilion, March 24-26, 2021, CINTERMEX, Monterrey, Nuevo León

Contacts

For more information on the security and safety sectors in Mexico, please contact:

Silvia I. Cárdenas
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel: +52 (55) 5080-2000 ext. 5209

Silvia.Cardenas@trade.gov

Telecommunications Equipment

Telecommunications equipment continues to represent a best prospect industry sector for Mexico.

Overview

Since 2010, the Mexican telecommunications market has consistently outpaced GDP growth, driven in large part by mobile telephony, broadband, and broadcasting. With 121 million active wireless lines, Mexico has a wireless penetration of 96 lines per 100 inhabitants. Eighty-three percent of these are pre-pay lines and 17 percent are post-pay. América Móvil continues to dominate the market with a 62 percent share in terms of number of lines compared to Telefónica's 21 percent and AT&T's 15 percent. According to the Mexican Federal Institute of Telecommunications (*Instituto Federal de Telecomunicaciones* or IFT), in Q3 2019, Mexico had 19 million fixed broadband subscriptions or 55 subscriptions per 100 inhabitants. The technologies employed for connectivity are coaxial cable at 39 percent, DSL at 36 percent, fiber optic at 24 percent and satellite at 0.1 percent. Telmex is the dominant player in fixed broadband with a 50 percent market share in terms of subscriptions compared to Televisa at 24.3%, Megacable at 16%, and Total Play at 8%.

Mexico is the second-largest export destination after Hong Kong for U.S. telecommunications equipment (HS 8517), accounting for 12 percent of U.S. total export sales in this category. The value of U.S. exports of telecommunications equipment to Mexico was USD 2 billion through May 2018, compared to USD 988 million annually in 2017 and USD 1.3 billion in 2016. Growth over the last four years has been driven by recent investments in infrastructure and increased connectivity, as well as competition resulting from a sweeping reform of the telecommunications sector enacted in 2013 and 2014.

Mexico's telecommunications sector has historically been plagued by near monopolistic agents. By establishing measures to improve competition and strengthening IFT's regulatory powers, the telecommunications reform created a more attractive investment climate that motivated new players to enter the market. In 2015, AT&T acquired Iusacell and Nextel Mexico, Mexico's third- and fourth-largest carriers, with a combined market share of eight percent. AT&T has since modernized and expanded its network in Mexico through investments totaling more than USD 3 billion. Mexico's dominant wireless carrier, Telcel, has in turn invested USD 6 billion in technology and infrastructure.

IFT awarded advanced wireless services (AWS) spectrum to AT&T and Telcel in February 2016. This spectrum is ideal for bandwidth-intensive applications such as video streaming, VoIP, and music downloads. Given optimistic growth projections of bandwidth requirements in Mexico, the regulator is expected to continue reassigning spectrum to optimize its use. In 2018, IFT auctioned spectrum in the 2.5 GHz band for the provision of 4G and 5G services. AT&T won those auctions and is now the market leader in terms of spectrum. IFT is currently developing the country's 5G plan and has allocated the 600 MHz and 3.5 GHz bands for this technology. Telcel's market share in terms of revenue has not been significantly reduced since the reform. It still holds 70 percent of the market, while AT&T holds 19 percent. In terms of users, Telcel still dominates the market with a 62 percent share versus AT&T's 14.5 percent.

The Mexican Secretariat of Communications and Transportation (*Secretaría de Comunicaciones y Transportes* or SCT) awarded the tender for the National Shared Wholesale Network (NSWN), known as *Red Compartida* in November 2016. Construction of the Red Compartida was mandated by the telecommunications reform to address the reform's objectives of providing near-universal broadband coverage and increasing access to services in regions neglected by commercial carriers. The Red Compartida is a wholesale-only carrier, deploying infrastructure throughout the country and selling wholesale services to retail commercial carriers and Mexican Government agencies. Two consortia bid on the Red Compartida, and the project was awarded to Grupo Altan. Roll out of the network will continue until a goal of 92 percent coverage by 2024 is provided. At the end of 2019, the network had achieved a coverage of 50 percent.

The current policy of the Mexican Government is to provide universal connectivity, mostly through a program called Internet for All (*Internet para Todos*), which aims to establish internet hot spots in public areas such as town squares, schools, hospitals, and government buildings. According to SCT, the *Internet Para Todos* project will be "technology-

neutral". This could include wireless broadband, fiber optic lines, satellites, or other mixed solution and could represent opportunities for U.S. companies. CFE Telecom was established in 2019 as the state enterprise that will provide retail communications services in locations where no commercial services are currently provided.

The telecommunications industry was considered essential to Mexico's response to the COVID-19 pandemic and has continued operating during the government-mandated lockdown.

Opportunities for television broadcasting equipment have grown since the Mexican Government auctioned two new national television networks. The first was awarded in May 2015 to Mexican media conglomerate Grupo Imagen. The second was divided into 32 channels that were awarded in 2017 to 13 different companies, among them, Mexican companies Telsusa and Grupo Multimedios, who were awarded more than half of the channels. These new players compete with Mexico's established broadcasters Televisa and TV Azteca.

Radio broadcasting is also expecting infrastructure deployments as IFT is reorganizing the radio broadcasting spectrum to allow more stations to operate. IFT auctioned 191 FM and 66 AM stations in 2016 and is continuing to grant concessions for community radio broadcasters.

Leading Sub-Sectors

Carriers

For U.S. companies offering software, hardware, or other products or services to operators, the main potential customers in the telecom market in Mexico are the following:

- **Wireless telephony.** There are seven key wireless players, including Telcel, Movistar, AT& T, Maxcom, and Axtel. The two largest mobile virtual network operators (MVNOs) are Virgin Mobile and Megacel.
- **Internet.** There are 10 Internet service providers in Mexico: Infinitum (Telmex), Movistar, Maxcom, Axtel, Izzi, Cablevision, Bestel, Megacable, Alestra, and TotalPlay.
- **Fixed telephony.** There are nine providers of fixed services: Telmex, Movistar, Axtel, Izzi, Cablevision, Bestel, Megacable, Alestra, and TotalPlay.
- **Pay TV.** Several of the fixed providers also play in the pay TV space: Dish, Maxcom, Axtel, Izzi, Cablevision, Bestel, Megacable, Alestra, and TotalPlay.
- **Telco-OTT Providers.** OTT or "Over-The-Top" refers to telecommunications service provider that deliver one or more services and/or types of content across an IP (internet protocol) network. OTT providers that offer services in Mexico include Claro Video, Claro Musica, Blim, Spotify, Max Diversion, Axtel TV, Veo, Megacable Play, Netflix, Amazon Prime, Apple TV, and Totalmovie.

Cross-Sector Demand

The carriers listed above have demand for services in the following areas:

- Business intelligence software
- CATV network applications
- Consulting & IT systems integration; security services; telecommunications infrastructure; leased infrastructure (NOCs, SOCs); maintenance & service
- Tailored software applications for vertical markets
- Training (bundled with an overall solution)
- Wireless applications (mainly focused on mobile broadband, such as TV)
- Data center infrastructure

- Cybersecurity

Service contracts are the predominant business model in the Mexican user market. Software-, Infrastructure-, and Platform-as-a-Service (SaaS, IaaS, and PaaS) will provide the best opportunities. General global technology trends are also reflected in Mexico and will lead to opportunities in several areas:

- Cloud computing and network terminals, using web-based applications
- Green IT equipment for data centers
- Mobile broadband, online advertising, social networks, virtualization
- 3G and LTE (4G) equipment for mobile carriers
- Internet of things

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring telecommunications market opportunities. Carriers are increasing their spectrum capacity and LTE (4G) networks will continue expanding. Telcel and AT&T are expected to deploy 5G networks by 2021. Network and infrastructure projects are carried out by telecom original equipment manufacturers (OEMs) acting as integrators (including Nokia Network, NEC, Cisco, Ericsson, Huawei, ZTE, and Juniper Networks). These OEMs actively pursue opportunities. U.S. companies looking to enter the market can reach out to them directly or partner with smaller local distributors who are vendors for the OEM integrators. Nokia and Huawei are the main equipment providers for the Red Compartida.

Other opportunities include cloud computing solutions, mobile applications, equipment maintenance, services, data centers, and energy-efficiency solutions (hardware, software, and services).

Web Resources

Federal Institute of Telecommunications (IFT)	www.ift.org.mx
Mexican Internet Association (AMI)	www.amipci.org.mx
National Chamber of the Electronics, Telecommunications, and IT Industry (CANIETI)	www.canieti.org.mx
National Chamber of Cable Television (CANITEC)	www.canitec.org
Mexican IT Industry Association (AMITI)	www.amiti.org.mx

Events

- Expo Data Center, 2020 date TBD, Mexico City

Contacts

For more information on the telecommunications sector in Mexico, please contact:

Adriana Carrillo
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5215
Adriana.carrillo@trade.gov

Textiles

Although Mexico is a major producer and exporter of textile products, the Mexican textile sector is so large (and with tariff-free treatment under USMCA) that it represents a best prospect industry sector for U.S. exporters of specialty fabrics, yarns, and equipment. This section includes a market overview and trade data on the industry.

Overview

Mexico is a major textile producer, with an industry based on competitive labor costs and geographic proximity to the United States. U.S. specialty textile producers can capitalize on the large Mexican sector but should understand certain technical requirements, including rules of origin, verification audits, and reference prices.

According to the Mexican National Institute of Statistics and Geography (*Instituto Nacional de Estadística y Geografía* or INEGI), 60 percent of the Mexican textile industry is concentrated in the central and north-eastern parts of the country, including Puebla, Mexico City, and the states of Mexico, Hidalgo, Tlaxcala, Guanajuato, Nuevo Leon, and Coahuila. The textile sector represents around 2.4 percent of Mexico's GDP.

U.S. Textile Sector Exports to Mexico
(Figures in USD Billions)

	2017	2018	2019
Total Textiles & Apparel	5.99	6.35	5.93
Apparel	0.88	.99	0.95
Total Textile Mill Products	5.11	5.36	4.97
Yarn	0.54	.65	0.52
Fabrics	3.87	4.00	3.7
Exchange Rates*	18.91	19.22	19.26

**Original data in USD for 2017, 2018, 2019.*
Source: Office of Textiles and Apparel

Rules of Origin and the NAFTA Certificate of Origin

Mexico has gradually reduced its tariffs on textile imports from the United States that meet the rules of origin under the United States–Mexico–Canada agreement (USMCA) and previously NAFTA. Many textile and apparel exporters are not familiar with the rules of origin, or the implications of claiming USMCA certification of origin without knowing if the product qualifies as North American. U.S. exporters should be aware that labeling such as "Made in the USA" is not the same as qualifying under USMCA rules of origin.

Qualification for preferential duty treatment under the USMCA depends on whether the textile may qualify as goods produced in the North America region. USMCA rules concerning textiles are complex and detailed. As outlined by the U.S. International Trade Commission, the USMCA's modifications to the NAFTA textile and apparel rules of origin ease the requirements for duty-free treatment for certain products, but tighten the requirements for other products. The USMCA modifies some "fiber-forward" and "yarn-forward" tariff shift rules, meaning that finished goods qualify for North American origination so long as the yarn and fabric are formed and finished in one of the partner countries. The tariff shift rules are also different for goods classified under chapters 61 and 62 (knit and woven apparel) of the Harmonized Tariff Schedule of the United States (HTS). The NAFTA requirement that visible linings be sourced from one of the parties is eliminated, but new requirements specify that sewing thread, narrow elastic fabrics, and pocket bag fabrics must be sourced from one of the parties. The agreement has new rules for certain made-up goods described in HTS chapter 63, which are made from fabric coated with plastic.

The United States–Mexico–Canada agreement (USMCA) opens new opportunities for U.S. exporters in yarns, fabrics and apparel. Further details on the agreement for textiles can be found in the Office of the U.S. Trade Representative's

USMCA fact sheet on textiles and apparel and the International Trade Administration's How U.S. Textile and Apparel Companies Benefit from the USMCA.

Verification Audits

Since 2012, the Mexican Tax Administration (*Servicio de Administración Tributaria* or SAT) has been conducting extensive NAFTA verification-of-origin audits for textile and apparel imports. These are likely to continue under USMCA. Letters or questionnaires sent by SAT requesting information on a product's rules of origin should be answered promptly. U.S. exporters must also ensure they keep complete and clear records showing they are complying with SAT's deadlines. Mexican importers that do not answer may be subject to large fines.

Textile Decree and Reference Prices

Several measures affect Mexican textile importers, and collaterally, U.S. exporters. These measures include an importer registry, the establishment of reference prices (not to be applied to products entering Mexico with a USMCA certificate of origin), and a five-day waiting period for all imports.

Importers of textiles and apparel products must be registered in the Official Registry No.11 for the textile/apparel sector.

Leading Sub-Sectors

The technical textile industry in Mexico is experiencing remarkable growth brought about by increasing domestic demand and the shifting of production. This increase in demand has resulted in demand for greater investments in the technical textile market to produce industrial fabrics and medical textiles and is a great opportunity for U.S. exporters to increase their presence in Mexico.

Opportunities

The U.S. Commercial Service in Mexico is happy to assist you in exploring textile and apparel sector opportunities. Due the growth of the automotive and aerospace sectors, industrial fabrics for upholstery and protective fabrics represent an opportunity for U.S. companies. Some opportunities in raw materials include synthetic fibers, fabrics with textured polyester dyes, fabrics with artificial fibers, and fine wool fabrics.

Finally, the United States is the second-largest supplier of textile machinery to the Mexican market. Medium- and large-sized companies are investing in new technology and machinery to improve their production and supply chains. There are some opportunities in product design and the introduction of modern technology to yarn and textile production processes.

Web Resources

Mexican Apparel Association (CANAIVE)	http://canaive.mx
Mexican Textile Association (CANAINTEX)	www.canaintex.org.mx
Mexican Tax Administration (SAT)	www.sat.gob.mx
Secretariat of Economy (SE)	www.gob.mx/se

Events

- Exintex 2021, March 23-26, Puebla, Puebla
- Expo Producción 2021, March 16-21 Mexico City

Contacts

For more information on the textiles sector in Mexico, please contact:

Sylvia Montaño
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5219
Sylvia.Montano@trade.gov

Transportation Infrastructure Equipment and Services

The wide-ranging category of equipment and services for transportation infrastructure is a best prospect industry sector for Mexico. This section includes an overview of several key dimensions of this sector, together with selected trade data.

Overview

Mexico's USD 1.3 trillion economy makes it the second largest economy in Latin America and the 15th-largest economy in the world—and making its infrastructure plans an important consideration for any U.S. engineering or construction supply firm.

The following table provides the most recent statistics for transportation infrastructure equipment and services in Mexico as we calculated in our 2019 Country Commercial Guide. The Government of Mexico has changed certain data sources, preventing updated 2019 full-year numbers and a 2020 market estimate. We will review our market size methodology for this cluster of sectors in coming months. In the meantime, here are the prior figures:

Mexico Transportation Infrastructure Equipment and Services Market Overview
(Figures in USD Billions)

	2016	2017	2018	2019 (Estimated)
Total Local Production	4.77	4.80	4.79	4.75
Total Exports	4.03	4.05	4.03	4.00
Total Imports	1.40	1.42	1.48	1.45
Imports from the U.S.	0.88	0.89	0.91	.90
Total Market Size*	2.14	2.17	2.24	2.23
Exchange Rates	18.68	18.91	19.227	19.15

**Total market size = (total local production + imports) - exports*
Note: Data includes trucks for semi-trailers.
Source: National Bank for International Trade (Bancomext) & Secretariat of Economy

Mexico experienced flat growth in 2019, and economic forecasts for 2020 anticipate recession of up to 12 percent, due to the current COVID-19 crisis. The recession will impact public sector revenues, and uncertainty about a variety of government economic policies and related spending has slowed both public and private sector investment. These trends plus drops in international oil prices have driven down the value of the peso to less than 23 pesos to the dollar in June 2020 (from a prior year average of 19 to the dollar).

Still, the Mexican transportation sector continues to offer significant opportunities for U.S. exporters due to the sizeable growth in Mexican foreign trade and travel over the past 20 years and continued anticipated growth in the transportation of merchandise arriving at Mexican ports for domestic consumption and for export to the United States, Canada, and other final destinations. Despite uncertainties over the Mexican economy and public sector budgets, we see continued government and private sector demand for transportation sector improvements in efficiency, cost savings, capacity, and cargo security. President López Obrador specifically directed key infrastructure projects and cargo transportation services to continue during the national COVID shutdown.

The National Development Plan for 2019–2024 (*Plan Nacional de Desarrollo*, or PND) was announced by President López Obrador on May 1, 2019. Based on this plan, the administration intends to continue focusing on transportation infrastructure development, though with a major emphasis on the states of southern Mexico, particularly Tabasco (the president's home state), Chiapas, and the Yucatán Peninsula states of Campeche, Quintana Roo, and Yucatán. The president announced 25 priority national development initiatives, of which roughly half involve transportation infrastructure development or other types of physical infrastructure construction. These include a re-envisioned airport system for the greater Mexico City metropolitan area and surrounding states, development of a multi-modal cargo

corridor across the Isthmus of Tehuantepec, and a passenger and cargo "Maya Train" on the Yucatan Peninsula. There is also a program for rural roads, and developments in various sectors including oil and gas production, refinery development, agricultural production, and mines.

With an initial planed investment of USD 586 billion in infrastructure, many of these projects will require major investment or financing from the private sector in order to be accomplished. The PND includes a heavy focus on the construction and modernization of roads, airports, maritime ports and railways.

In November 2019, President López Obrador along with private sector representatives announced the first package of an ambitious "Private-Sector-Led" USD 424 billion infrastructure plan, much of which would indeed be spearheaded by the private sector. The first package identifies 147 projects, out of an estimated 1,600, totaling USD 43 billion. Of the 147 projects, 72 will begin in 2020. The overall plan covers transportation, telecommunications, water and sanitation, energy, tourism and social welfare.

For more details on these projects, please also see our sections on construction, energy, oil & gas, and environmental technologies.

A further consideration is the July 1, 2020, entry into force of the new United States–Mexico-Canada Agreement (USMCA). Among many advances, the agreement establishes greater certainty and fairness in government procurement, and it refines North America rules of origin that could expand U.S.-Mexico cargo volumes in the medium- and long-term. For more information on the USMCA, visit the Office of United States Trade Representative website at www.ustr.gov.

Leading Sub-Sectors

We break down our overview of leading transportation infrastructure sub-sectors into airports, ports, rail, and roads.

Airports

As highlighted in the *Aerospace* portion of the *Leading Prospects* section, there are several airport expansion projects originally initiated by the Peña Nieto Administration and private concessionaire airport groups.

Mexico City Airports

Mexico City does not have enough runways and terminal capacity to support aviation demand for this metropolitan region of more than 23 million residents. Most analysts agree that, with 61 landings and takeoffs per hour, the current Benito Juarez Mexico City International Airport (known as AICM for its acronym in Spanish) has reached maximum capacity and is unable to handle more planes and more passengers, despite demand for both. Mexico City airport projects are run by the Mexico City Airport Group (*Grupo Aeroportuario de la Ciudad de Mexico* or GACM), which operates as a concession with government participation.

In 2019, AICM served 50.3 million passengers, with an increase of 5.4 percent versus 2018. The airport managed 458,703 commercial and general aviation flights in 2018 and 224,967 operations in the first five months of 2019 (which would be more than 500,000 if annualized). AICM reached a record number of operations per day on December 14, 2018, with a total of 1,279 flight operations.

President López Obrador cancelled construction of a New International Airport for Mexico City (NAIM) in the enormous, undeveloped Texcoco basin just east of the current airport. He then instructed his team to pursue a three-fold strategy to develop an "Airport System for the Valley of Mexico" based on a paper produced by an engineer named José María Riobóo Martín. This paper was the basis for a new airport plan called the Metropolitan Airport System (SAM by its acronym in Spanish) that the Mexican government announced in November 2019.

- **Felipe Angeles International Airport.** The first element of the plan is for the Mexican Secretariat of Defense (*Secretaría de Defensa Nacional* or SEDENA) to build two commercial runways and a commercial passenger terminal at the Santa Lucia military airport located in the municipality of Zumpango, State of Mexico. The Santa Lucia airport is located around 45 kilometers north of AICM. Brigadier General Ricardo Vallejo

Suárez, Director of SEDENA' Engineering Military School, explained their plans for the Santa Lucia Base to reach 190,000 takeoff and landing operations per year in conjunction with the other two airports. SEDENA will design and build the new commercial section of the airport using pre-fabricated and modular construction materials, with a budget of USD 3.8 billion. The airport will have PBN navigation systems and a total of three runways (original plus two) with an initial capacity of 20 million passengers, and potential to expand to 80 million passengers. SEDENA is planning an intermodal transportation passenger station, which will include light rail, bus lines, and an underground metro station. They envision a dedicated 46-kilometer ground interconnection to AICM that would require 35 minutes transit time to make flight connections. No work has been announced on this system. The airport will have one fuel terminal, 30 gates (with expansion potential to 60 gates), a control tower, and a parking structure for 4,000 vehicles. Key technical agencies are SCT, traffic control (SENEAM), the Mexican equivalent to the FAA called AFAC (formerly DGAC), Airports and Auxiliary Services (ASA), the Federal Treasury (SHCP), environment and natural resources (SEMARNAT), and territorial status and urban development (SEDATU). As of mid-2020, President López Obrador asserts the airport will be operational in mid-2021, though this timeline would not account for all of the work to ramp up required services, equipment, training, and international aviation certifications. Other government statements anticipate a 2022 opening.

- **AICM Terminal 3 and Other Improvements.** GACM was directed to construct a third Terminal Building (T3) at AICM using the current land used for the presidential hangar. The project would not expand runway capacity for departures and arrivals. This project was suspended due to the COVID-19 drop in demand for flights, but if it moves forward it would expand the number of gates at AICM. As shown in preliminary plans, T3 would be connected to the current Terminal 2 (T2). Meanwhile, we expect GACM will renovate AICM facilities to the extent possible and will repair the current runways. Among the AICM renovations are improved runway drainage systems and electricity network, rehabilitation of runway B, remodeled sewage services, upgraded takeoff and landing navigation systems, and engineering improvements to address subsidence under the T2 building.
- **Toluca International Airport.** The Toluca International Airport will expand its services, though how this develops remains somewhat unclear. The International Air Transport Association, IATA, is on record opposing expansion of Toluca service due to the economics of serving this smaller, high altitude airport. Contact CS Mexico for a copy of our webinar presentation by Toluca airport director-general.

The French firm Navblue and Mexican air traffic agency SENEAM have prepared an interconnection study for proposing shared service for the three airports, seeking to warrant the best airspace usage. Aéroports de Paris (ADP) prepared a preliminary Master Plan for the three-airport concept. Neither study was fully in agreement with the capacity improvements advertised by the López Obrador Administration in promoting the concept.

Due to the extremely fluid nature of these projects, potential U.S. suppliers are strongly urged to contact the U.S. Commercial Service in Mexico City for updated information and assistance on bidding.

Other Airports

The entire Mexican airport network transported 104.7 million passengers in 2019, up from 97.4 million passengers in 2018. From 2013–2018, the number of passengers transported grew by 58.2 percent overall, an annual average of 9.6 percent. The most recent five years represented the highest growth rates over the past 25 years. This growth reflects both passenger demand and the growth in carriers serving Mexico. However, the COVID-19 emergency and the deep drop in air transport for Mexico and worldwide is significantly impacting growth in the near term.

Mexico's airports are managed by four regional airport groups, plus a fifth group running small federal airports. In addition to GACM, they are Grupo Aeroportuario del Cento Norte (OMA), Grupo Aeroportuario del Pacífico (GAP), Grupo Aeroportuarios del Sureste (ASUR), and Aeropuertos y Servicios Auxiliares (ASA). These airport groups are further described in our *Aerospace* section. Each has a series of projects. Contact CS Mexico for more information.

Ports

Mexico's port system has 24 Integrated Port Authorities, known as APIs (*Administración Portuario Integral*), covering more than 40 cargo and passenger ports on the country's Pacific, Atlantic, and Gulf Coasts. Of these, there are 16 international commercial cargo and passenger ports in the federal system. On the Gulf Coast, these ports are Altamira, Tampico, Tuxpan, Veracruz, Coatzacoalcos, Dos Bocas, and Progreso. On the Pacific Coast, they are Ensenada, Guaymas, Topolobampo, Mazatlan, Puerto Vallarta, Manzanillo, Lazaro Cardenas, Salina Cruz, and Puerto Madero. The Mexican port system has been continuing with a number of projects initiated under a USD 4 billion plan begun under the Peña Nieto Administration. The already announced PND did not go into detail on port projects or budgets, but contact CS Mexico for details on the National Port Development Plan. In July 2020, President López Obrador announced that the Mexican Navy (*Secretaría de la Marina* or SEMAR) would take over management of customs facilities at Mexican federal ports, in addition to its existing role as Port Captain at each port.

Mexico's ports are already riding a wave of growth from the prior administration of Enrique Peña Nieto. In 2012, port cargo volumes were 260 million tons and by 2017 SCT's Ports and Merchant Marine Administration reported 470 million tons moved through the country's ports. Based on continuing work and announcements related to the PND, we summarize some of the key port projects below.

SIPCOs. The Mexican Federal Port Coordination Administration has announced creation of five Intermodal Port Coastal Systems, or SIPCOs, to promote regional economic development and mitigate migration pressures by establishing special economic development zones into the port areas managed by the APIs. The SIPCOs will promote investment in industrial parks, logistic platforms, energy plants, and inland ports. They will be granted the necessary land, resources, and authority to coordinate with municipal, state, and federal governments. The five regions will be: North (Ensenada, Guaymas, Topolobampo, Mazatlan and Puerto Vallarta); North East (Altamira and Tampico); Central (Manzanillo, Lazaro Cardenas, Tuxpan and Veracruz); South East (Coatzacoalcos, Dos Bocas, Salina Cruz and Puerto Madero); and Peninsular (Progreso).

Shipyards. In June 2019, the Federal Ports Coordinator announced a plan to redevelop 17 Mexican shipyards to improve the country's ship construction and maintenance capacity. The project, estimated at USD 5 billion, would make improvements at 12 private shipyards, 4 Navy shipyards, and one shipyard operated by the state-owned oil company PEMEX.

Ports of Coatzacoalcos and Salina Cruz. These ports are destined for significant improvements as part of the Isthmus of Tehuantepec Interoceanic Multimodal Corridor. See below our section on this multi-model project.

Port of Veracruz. We expect the port to finalize work on a USD 1.6 billion project to construct five new terminals and a new cargo processing and logistics zone. The port is also working on a USD 5 billion project through 2030 that will quadruple its installed capacity to reach more than 90 million tons in its last stage by 2030.

Port of Tuxpan. The Port of Tuxpan is increasing its installed capacity from 13 million tons to more than 24 million, with facilities to manage more than 700,000 TEUs, 100 thousand vehicles per year, and a new natural gas pipeline.

Port of Manzanillo. The Port of Manzanillo is the second-largest port in Mexico, with projects underway to achieve the goal of more than 44 million tons of installed capacity by the end of the expansion. Served by 23 steamship lines, Manzanillo can handle ships to New Panamax size, or 12,500 TEUs. The port has been developing a new industrial zone with additional rail capacity and an entirely new port area in a natural lagoon to quadruple the developed port zone.

Port of Lázaro Cárdenas. Lázaro Cárdenas has a newly-built container and multi-use terminal and completed two projects to increase the installed capacity from 27 million tons to 47 million.

Port of Progreso. In Puerto Progreso, more than USD 51.6 million is being invested to complete 12 projects for port infrastructure and roadway improvements. These include deepening of the port, construction of a new natural gas

terminal, construction of a highway overpass, development of a high technology industrial park, and the creation of a tourist marine route to improve infrastructure for tourist boats, small vessels, and pleasure craft.

Other Ports. The State of Sinaloa has been pursuing significant changes to expand cruise ship capacity at the Port of Mazatlán and build political and investment momentum behind construction of a new industrial and container port in the town of Dimas. The Port of Mazatlán has been carrying out construction works valued at more than USD 39 million to improve passenger cruise facilities. The Port of Dimas project would include a .railway connecting it with the City of Durango to form a Northern Economic Corridor serving Central and Northeastern United States A similar private-sector project in the state of Tamaulipas will establish a new port at Soto la Marina connected with a barge and/or rail connection to the Gulf of Mexico near Ciudad Victoria. The Port of Matamoros is undergoing more than USD 22 million in improvements. Altamira Port is pursuing and expansion to increase its installed capacity from 15 million tons to 36 million. Other ports with improvement projects include the Port of Isla del Carmen, Port of Seybaplaya, Port of Chiapas, and a large passenger terminal in Puerto Vallarta intended to receive 148 cruises and up to 900,000 passengers per year.

The Isthmus of Tehuantepec–Trans-Isthmus Interoceanic Multimodal Corridor (CIIT)

The Isthmus of Tehuantepec is the narrowest portion of Mexico and of North America overall, separating the Pacific Ocean from the waters of the Gulf of Mexico and the Atlantic Ocean. Spanish efforts to make this an interoceanic trade route date to the early 19th Century, and a rail line across the Isthmus operated profitably between 1907 and the opening of the Panama Canal in 1914. The López Obrador Administration intends to make the Trans-Isthmus route competitive with the Canal, thereby boosting regional economic growth in the states of Oaxaca and Veracruz.

The Trans-Isthmus project would create a modernized and upgraded Interoceanic Multimodal Corridor that would provide an alternative to the Canal for northbound and Post-Panamax shipping. As part of this project, the Mexican Government seeks to modernize the railroad of the Isthmus of Tehuantepec; expand cargo handling and storage capacity at the ports of Coatzacoalcos, Veracruz, and Salina Cruz, Oaxaca; expand the trans-isthmus highway from two to four lanes; improve the airports at Minatitlán and Ixtepec; establish a fiber optic telecommunications connection and cellular / data connectivity; and construct a gas pipeline for commercial and private use. Alongside the route between both oceans, special economic zones will be created to attract private sector investment. As part of this program, the 76 Oaxaca and Veracruz municipalities involved will lower their VAT (value-added tax) and income tax rates in addition to offering petroleum at reduced prices.

To manage the project, the López Obrador Administration created a new independent federal agency called the Isthmus of Tehuantepec Interoceanic Corridor (*Corredor Interoceánico del Istmo de Tehuantepec*, or CIIT). CIIT manages all aspects of project design, coordination, and contracting. To ensure coordination across all aspects of the project, the administration of the two federal ports, Coatzacoalcos and Salina Cruz, has been moved to CIIT. Although CIIT is an independent agency, it is part of the Mexican Treasury (*Secretaría de Hacienda y Crédito Público*, or SHCP), which has had control over Special Economic Zones.

Rail

Mexico has a freight railway system owned by the national government and operated by various entities under concessions (charters) granted by the national government. The railway system provides freight and passenger service throughout the country (though most of the service is freight-oriented). The network connects major industrial centers with ports and with rail connections at the United States border.

Mexico is experiencing a rail freight revival after the privatization of the sector in the 2000s. Although railroads have played an increasingly larger role in the transportation sector, their participation in Mexican cargo movement remains relatively low. According to SCT and the Secretariat of Economy, of the more than 900 million tons of goods that were transported across Mexico, 85 percent was moved by trucks, 12 percent by railroads, and three percent by maritime and air shipments.

Based on the figures presented by the Railroad Transport Regulatory Agency, in 2018, 915 million tons (87,958 million containers) were moved by train in Mexico (an increase of 14 percent compared to 2017). The same year, Mexican railways moved 128 million tons connected with foreign trade shipments, of which 91.5 million tons (71.5%) were foreign-bound shipments, while the remaining 36.5 million tons (28.5%) were intermediate local destinations.

Currently, Mexico operates 74 intermodal terminals, including 30 inland multimodal terminals, 18 railroad terminals, 18 port terminals, and eight private automotive terminals. The Government's stated goal is to increase the volume of cargo using railroad transportation by at least 10 percent by the end of 2018, and to build new inland cargo terminals, port terminals, and multimodal corridors. A broader interest is to develop the railroad industry in Mexico for both cargo and passenger transportation.

Mexico's rail cargo system is comprised of eight concessionaire companies: Kansas City Southern de Mexico, Ferromex, Ferrosur, Ferrovalle, Coahuila-Durango, Ferrocarril Chiapas Mayab, Ferrocarril del Istmo, and Ferrocarril Tijuana-Tecate.

As confirmed by the Secretariat of Economy in 2019, these companies have announced combined investment plans of USD 630 million (up from USD 485 million in 2018). These resources will improve rail-related infrastructure such as connecting roads, rehabilitation and maintenance of the railway network, purchase of new locomotives, as well as purchase and rental of rail equipment. The improvements focus on improving services for the automotive industry and refined oil and gas products. To expand cargo capacity, rail companies reinforced the tracks and adopted double stack rail. There are only five countries where double stack is used to improve cargo capacity: Mexico, USA, Canada, Panama and Australia.

Mexico's rail cargo improvements coincide with the expansion of Mexico's foreign trade. One big driver of trade growth is the automotive industry (currently trains move seven out of 10 cars produced in the country, while a decade ago it was only three out of 10). Expansion of the oil and gas sector is a major emerging driver. Rail is already the main means of transporting fuels, cereals, minerals, and metals. The top four product sectors by volume are industrial (47.6%), agricultural (25.1%), mineral (12.9%), and oil and its derivate (8.1%), the latter growing 19 percent over 2016. Total 2017 cargo volume was 126.9 million tons, four percent more than in 2016, and 62.8 percent of this amount (79.8 million tons) was import or export cargo. Imports took up the vast majority of the foreign trade cargo at 61.2 million tons, which mainly moved across the borders of Nuevo Laredo, Tamaulipas (19.6 million tons), and Piedras Negras, Coahuila (13.3 million tons), as well as the port of Veracruz (8.1 million tons). The export load reached 18.6 million tons, of which 77.3 percent transited land border crossings.

A standard freight measure is the metric ton-kilometer (tkm), which measures not only volume but distance the cargo moves. In 2018, Mexican raillines moved 87.95.2 billion tkms, two percent higher than 2017. On a tkm basis, transport of oil and derivatives grew the most sharply, with an increase of 13.9 percent, which not only shows growth of rail service for the sector but also evolution of the railcar fleet. In 2018, tank cars were the fastest growing railcar type (+13.8%). Mexican rail is also getting more fuel-efficient. In 2018, rail cargo registered 122 ton-kilometers per liter, the highest fuel efficiency level in the last eight years.

Passenger rail, though limited, has had growing interest due to a combination of major projects and smaller tourist- or commuter-oriented initiatives.

The administration's plan focuses on seven railway projects, of which four are dedicated to freight rail.

- The most significant would cover railway construction and modernization as part of the CIIT project on the Isthmus of Tehuantepec, with a length of 215 kilometers and intended to connect the Pacific and Gulf coasts.
- A second signature project of the new administration is a tourist train service known as the "Maya Train." It would connect Palenque in Chiapas with a route circling the Yucatán Peninsula and connecting Escárcega and Campeche City in Campeche with the Yucatan cities of Mérida and Valladolid, and onward to the

Quintana Roo cities of Cancún, Playa del Carmen, Tulum, and Chetumal, before connecting back across the Peninsula through the region's largest Mayan archeological site, called Calakmúl.

- Another new line will connect the ports of Tampico and Veracruz, a distance of 475 kilometers.
- A fourth significant project is the proposal for a Mexico City–Querétaro mixed-use train, which revisits what was previously planned to be a high-speed rail project for this route. Passenger rail service is planned for this 250km Mexico City–Querétaro run, together with a 50km Mexico City–Teotihuacán line.
- A major effort is underway to finish the 57.7km standard-gauge interurban line from Toluca to Mexico City. The line will carry 230,000 passengers a day with a 39-minute trip between Zinacantepec and an interchange with Mexico City Metro Line 1 at the Observatorio Metro station.
- The railway industry also seeks to improve security at rail crossings by building 25 overpasses in the country totaling an extraordinary 600 kilometers. The full project would require USD 2.4 billion for construction, to be negotiated with the Federal Government. In addition, private funding and development is envisioned for construction of a new line from Guadalajara to Monterrey through Zacatecas, enhancing rail connections between these two major industrial cities, the Mexican Pacific coast, Mexico City, and the United States.
- Finally, approved by the President's Office but yet to be funded is the Northern Economic Corridor plan of the State of Sinaloa. This project would build a rail line over the rugged Mexican Cordillera connecting a yet-to-be-designed Pacific Coast port at Dimas with the City of Durango.

Roads

A range of different road projects include major maintenance of 10 concessioned highways, finishing 22 freeways under construction, the upgrade and modernization of another 86 freeways, and other minor maintenance programs that will improve connectivity between central Mexico and the rest of the country. The main freeways for these improvements are Arriaga-Tapachula (Chiapas), Coatzacoalcos-Villahermosa (Veracruz and Tabasco), San Luis Potosi-Matehuala (San Luis Potosi), Tampico-Ciudad Victoria (Tamaulipas).

Fifteen more public-private projects in different parts of the country will take place or continue their construction with an investment of USD 780 million. These PPPs include Tuxpan-Tampico (Veracruz and Tamaulipas), Cardel-Poza Rica (Veracruz), Atizapán-Atlacomulco (State of Mexico). Information on finalization of these projects is unclear due to COVID-19 restrictions.

Opportunities

The U.S. Commercial Service Mexico is happy to assist you in exploring opportunities in transportation infrastructure in Mexico. The COVID-19 pandemic and Mexico's economic downturn pose challenges for timely initiation or completion of infrastructure projects. However, below are a few highlights.

Logistics

Opportunities abound for specialized logistics service providers or cold chain service providers (i.e., those that transport, warehouse, and handle time and temperature-sensitive products). As firms that require these products proliferate throughout Mexico, they require a dependable and efficient supply chain. U.S. logistics firms that currently offer specialized supply chain services are well-positioned to take advantage of this niche market.

Additionally, most transportation entities are looking for the best technologies to improve their services, increase customer satisfaction, assure cargo security, and promote an efficient transportation system that supports Mexico's competitiveness in a global economy. Even with a weak peso and low government revenues, these trends have resulted

in an important demand for all kinds of equipment and services that can help increase the efficiency of the transportation and logistical sector in Mexico.

Ports

Products and services with the best prospects in the Mexican ports sub-sector include container cranes, heavy materials handling equipment, environmentally-friendly waste management systems, security systems, IT services, design and construction services, dredging, and many other products and services involved in port operations. There will also be significant opportunities for port terminal operators. Concessions to operate terminals in several ports will become available in the near future. Concessions to operate terminals at the Port of Veracruz are expected to continue beyond 2020.

Rail

Domestic production in this sub-sector consists of low-tech equipment (e.g., open and closed freight cars and rail track fixtures). It is important to note that all high-capacity cranes, railroad, and lifting equipment are imported. Under USMCA, most equipment for intermodal transportation manufactured in the United States can be imported duty-free.

Products with the best prospects in the Mexican rail sub-sector include frame, mobile, and rotary-cranes; self-propelled cranes on tires; front loaders with a capacity of over seven tons; mobile platforms; diesel electric locomotives; railway maintenance service vehicles; rail and tramway freight cars; automatic unloading wagons; covered and closed cars; steel rails, and assemblies for railway vehicles, containers, chassis, and trailers.

Roads

Domestic production in this sub-sector consists of low-tech equipment (i.e., front loaders and unsophisticated traffic control systems) and the manufacture of trucks and trailers. International brands manufactured in Mexico include Chrysler, Freightliner, Mercedes Benz, International, and Kenworth. These are primarily produced for export. Conversely, all high-capacity crane equipment is imported. Under USMCA, most equipment for intermodal transportation manufactured in the United States can be imported duty-free.

Products with the best prospects in the Mexican roads sub-sector include mobile and rotary-cranes, self-propelled cranes on tires, front loaders with a capacity of over seven tons, mobile platforms, and traffic control equipment.

Airports

Please see the *Aerospace* portion of the *Leading Prospects* section.

Web Resources

Secretariat of Communications and Transportation (SCT)	www.gob.mx/sct
Secretariat of Economy (SE)	www.gob.mx/se
Association of Mexican Railways (AMF)	http://amf.org.mx/
Inter-American Port Commission, Organization of American States (OAS)	www.oas.org/cip/
National Association of Private Transportation (ANTP)	www.antp.org.mx
National Cargo Transportation Chamber of Commerce (CANACAR)	http://canacar.com.mx

Events

For aerospace and aviation-related events, please see our *Aerospace* section. There are no major tradeshows covering road, rail, or seaport infrastructure in Mexico, though there are at times various government and industry association conferences on various specific aspects throughout the year. The U.S. Commercial Service in Mexico also organizes delegations covering various aspects of the sector, including site visits to Mexican ports. Please contact the individuals below for more information on tapping these opportunities.

Contacts

For more information on the transportation infrastructure equipment and services sector in Mexico, please contact:

Diana León
Commercial Specialist, Transportation Infrastructure and Deal Teams
U.S. Commercial Service—Mexico City
Diana.Leon@trade.gov

Juan Carlos Ruíz
Commercial Specialist, Construction
U.S. Commercial Service—Mexico City
JuanCarlos.Ruiz@trade.gov

Silvia I. Cárdenas
Commercial Specialist, Airports and Aerospace
U.S. Commercial Service—Mexico City
Silvia.Cardenas@trade.gov

Travel and Tourism

With Mexico's proximity to and familiarity with the United States, it is no surprise that travel and tourism represent a best prospect sector for U.S. destinations attracting Mexican travelers.

Overview

The United States is the primary destination for Mexican travelers. In 2019, 18.1 million Mexicans traveled to the United States, representing 22 percent of total foreign arrivals to the United States. Mexico remains the second-largest source of international travelers to the United States after Canada. The COVID-19 global pandemic has caused serious negative effects on international travel & tourism to the United States, and Mexico is no exception. As of March 2020, the United States and Mexico agreed to restrict non-essential travel across their shared borders which include leisure travel, and this agreement was extended into the summer months. The U.S. Embassy and Consulates in Mexica also remained closed for routine services including tourist visa applications through the summer months. We expect significant drops in Mexican tourism to the United States in 2020, and we expect the recovery will take several months to a year or more depending on the development of the pandemic on both sides of the border.

According to the U.S. Department of Commerce's National Travel and Tourism Office (NTTO), spending by Mexican travelers in 2018 (the most recent year for which data is available) totaled USD 21 billion, representing a two percent growth over 2017 figures. Travel and tourism exports account for 62 percent of all U.S. service exports to Mexico. The top destinations for Mexican travelers are California, Nevada, Texas, Florida, and New York, followed by New Mexico, Colorado, Illinois, and Georgia.

Arrivals of Mexican Travelers to the United States
(Figures in Millions of Travelers)

	2017	2018	2019	2020* (Estimated)
Total Arrivals from Mexico	17.28	18.50	18.14	18.32
% Change	-9%	4%	-2%	1%
Total Air Arrivals from Mexico	2.51	2.75	2.79	2.81
% Change	-1%	10%	1%	1%

**The U.S. Department of Commerce National Travel and Tourism Office estimated the 2020 growth rates before the beginning of the COVID-19 pandemic. Figures are expected to be lower due to the closure of the United States*

to non-essential travel.
Source: U.S. Department of Commerce National Travel and Tourism Office

Leading Sub-Sectors

It is important to differentiate between land and air travelers to the United States. Mexican land tourists typically travel to the southwestern states for shorter visits for family or shopping purposes. On average, Mexican air travelers tend to stay longer and purchase packages that include transportation, lodging, shopping, and recreational activities. Business travel, educational travel, and meeting / conference / incentive / exhibition travel (MICE) are additional segments worth attention.

Opportunities

Mexicans are drawn to the United States because of the diversity in destinations, infrastructure, and excellent travel and tourism services. Mexicans enjoy destinations that offer shopping, gaming, entertainment, amusement parks, and a cosmopolitan environment. Natural parks and other outdoor destinations are typically not as popular among Mexican travelers, with skiing being the notable exception. In winter months, Mexican tourists flock to resorts in Colorado, New Mexico and Utah to ski.

Wholesale operators continue to be an important distribution channel in the Mexican travel and tourism market. Wholesalers sell packages to travel agents who provide services to consumers. Mexican travelers prefer to purchase vacation packages through travel agencies, though purchasing airfare and hotel packages online has become much more common in recent years. U.S. wholesalers and tour operators are key players in the Mexican market, in part because they can negotiate directly with U.S. travel and tourism service companies and therefore offer competitive prices and packages. To save money, wholesalers in Mexico are now buying products and services from tour operators in the United States, who deal directly with local tourism service providers that develop travel packages. The younger Mexican population is much more comfortable buying travel packages over the Internet. The biggest online travel agencies (OTAs) in Mexico now offer hotel rooms, air tickets, and travel packages through their own websites. Travelers often have the option to pay for their travel to the United States by debit or credit card in fixed installments with no interest.

Social networking is increasingly important for the promotion of travel and tourism services. Several U.S. destinations and providers of travel and tourism services represented in Mexico have launched promotional campaigns through social networks including Facebook, Twitter, YouTube, and Instagram. Most of these promotional campaigns are in Spanish and include interaction with the end-consumer and travel agents.

In order to be successful in the market, it is crucial to establish and maintain personal relationships with travel and tourism companies in Mexico. U.S. travel and tourism firms are advised to travel to Mexico and develop a comprehensive follow-up strategy in order to gain sufficient exposure in the Mexican market. With the COVID-19 pandemic, all U.S. destinations regularly visited by Mexican travelers will need to invest in assertive post-COVID marketing and promotional campaigns to recover market volume. These activities should include deals and promotions by travel services and destination for local wholesalers. Industry experts point out the heavy toll COVID will continue to take on Mexico's economy, so recovery planning must consider short-term and long-term components.

According to the U.S. Department of Commerce Office of Travel and Tourism Industries, 36 million U.S. citizens traveled to Mexico in 2018. This travel may also present business opportunities to U.S. firms offering packages and travel services geared towards U.S. travelers to Mexico.

Web Resources

U.S. National Travel and Tourism Office	http://travel.trade.gov
U.S. Travel Association	www.ustravel.org
Brand USA	www.thebrandusa.com

Events

- International Pow Wow (IPW) May 10-14, 2021, Las Vegas, Nevada
- Brand USA Annual Mission to Mexico, January 2021, Mexico City

Contacts

For more information on the travel and tourism services sector, please contact:
Juan Carlos Ruíz
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5223
JuanCarlos.Ruiz@trade.gov

Customs, Regulations & Standards

Trade Barriers

Under the United States-Mexico-Canada Agreement (USMCA), there are virtually no tariff barriers for U.S. exports to Mexico, with some exceptions as noted elsewhere. The USMCA came into force on July 1, 2020.

On May 17, 2019, the United States announced an agreement with Canada and Mexico to remove the Section 232 tariffs for steel and aluminum imports from those countries and for the removal of all retaliatory tariffs imposed on American goods by Canada and Mexico. The agreement provides for aggressive monitoring and a mechanism to prevent surges in imports of steel and aluminum. If surges in imports of specific steel and aluminum products occur, the United States may re-impose Section 232 tariffs on those products. Any retaliation by Canada and Mexico would then be limited to steel and aluminum products.

Import Licenses

This section deals with licenses for sensitive products. For general import requirements, see the section *Import Requirements & Documentation* and the section on *Prohibited & Restricted Imports*.

Certain sensitive products entering Mexico must obtain an import license, for which the difficulty varies according to the nature of the product. Periodically, the Mexican Government publishes lists that identify the different items that have a specific import control. Items are identified according to their Harmonized System (HS) code number; therefore, it is important that U.S. exporters have their products correctly classified. U.S. exporters are encouraged to check with customs brokers as to the accurate classification of their products.

- The Secretariat of National Defense (*Secretaría de la Defensa Nacional* or SEDENA) requires an authorization to import guns, arms, munitions, explosives, and defense equipment, as well as special military vehicles (new or used). This would be in addition to the export license required by U.S. export controls.
- The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (*Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* or SAGARPA) requires the Zoo-Sanitary Requirements Form (*Hoja de Requisitos Zoo-Sanitarios*), which acts as an import permit prior to import authorization for some leather and fur products, and fresh/chilled and frozen meat. Agricultural machinery does not require approval from SAGARPA.

- The Secretariat of Health (*Secretaría de Salud* or SSA), through its Federal Commission for the Protection Against Sanitary Risks (*Comisión Federal para la Protección contra Riesgos Sanitarios* or COFEPRIS), requires either an "advance sanitary import authorization" or "notification of sanitary import" for medical products and equipment, pharmaceuticals, diagnostic products, toiletries, processed food, and certain chemicals. Food supplements and herbal products are highly regulated in Mexico, unlike in the United States.
- The Secretariat of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales* or SEMARNAT) requires import authorizations for products made from endangered species, such as certain eggs, ivory, certain types of wood, and furs.
- Toxic and hazardous products require an import authorization from an interagency commission called CICOPLAFEST (*Comisión Intersecretarial para el Control del Proceso y Uso de Plaguicidas, Fertilizantes y Sustancias Tóxicas* or the Intersecretarial Commission for Process Control and Use of Pesticides, Fertilizers, and Toxic Substances) which has representation from the four agencies mentioned above (SEDENA, SAGARPA, SSA, and SEMARNAT). This list includes many organic and inorganic chemicals.

Commercial samples of controlled products shipped by courier are also subject to these regulations. Liquid, gas, and powdered products cannot be shipped by courier, even in small quantities. Instead, these products must be shipped as a regular shipment by a customs broker. Some special treatment may apply in the case of samples intended for research, product registration, or certification. Unless returned at the sender's expense, Customs often confiscates or destroys samples lacking the proper documentation.

A resolution published in the DOF on January 26, 2009, abolished minimum estimated prices, also referred to as "reference prices" in all industries except for used cars and textiles.

Several measures regulating Mexican textile importers also collaterally affect other U.S. exporters. These measures include an importer registry, the establishment of reference prices (though they should not be applied to products coming in under a NAFTA Certificate of Origin), and a five-day waiting period for all imports.

Importers of textiles and apparel products must be registered in the Official Registry No.11 for textile/apparel sector. The instructions to register can be found in the Guide to Textile Sector Production.

Used Vehicles

Regarding used vehicle imports, a decree issued in April 2015 included new requirements, such as the following:

- A Vehicle Identification Number (VIN, or NIV) along with a visible digital picture
- Confirmation that the vehicle was manufactured in the United States, Mexico, or Canada
- The use of a customs agent affiliated with the customs house of entry of the vehicle
- The bill of lading for permanent importation for each vehicle
- An invoice stamped "shipper export" by U.S. Customs
- The RFC (the Mexican federal tax identification number), CURP (the identity number), and INE (the voter registration number) of the importer
- Proof of address of the Mexican importer including postal code
- Proof of payment of the IGI (*Impuesto General de Importación* or General Import Tax)
- Compliance with Mexican standard vehicle categories
- Payment of the 10 percent ad-valorem tax (one percent for the border zone) based on a minimum estimated price or "reference price"

This estimated reference price is determined based on the vehicle's year, make, and model. Importers of used vehicles must post a guarantee or bond representing the difference between the duties and taxes if the declared customs value is less than the established reference price. The importer must show payment of the IVA (16 percent value-added tax), the ISAN (vehicle's acquisition tax) listed in the bill of lading, and the one or 10 percent ad-valorem tax based on the minimum estimated price. Used vehicles destined for the border zone are allowed if they are not older than nine years old. If they are less than 10 years old, they are assessed a one percent ad-valorem tax. Those older than 10 years are subject to a 10 percent ad-valorem tax. Used vehicles aged five to nine years old are permitted in the rest of Mexico for resale. Used vehicles which are prohibited from circulating in their own country of origin cannot be imported into Mexico. These requirements and regulations are in effect through December 31, 2020, or until further notice. Please refer to our U.S. Commercial Service Mexico City Market Report on Regulations for the Importation of Used Vehicles and Trucks.

Steel

Since 2014, Mexican Customs has been requiring more information on steel products in their effort to process legitimate shipments of steel from the United States. Mexican importers are now required to present detailed material information prior to the shipment's arrival in customs.

U.S. exporters should provide their Mexican client with either a mill test report or a material quality certificate from the steel mill from which the raw material was sourced. This is independent of whether the products are secondary or tertiary (i.e., screws made of steel bar are tertiary since the bar itself is a secondary product from the mill). Tertiary producers must request the test report from their secondary producers who in turn get the report from the mill.

It is the Mexican importer's responsibility to issue their automatic notification (*aviso automático*) through the one-stop online import/export system single window (*ventanilla única* or VUCEM) at least five days before the goods arrive in Mexican customs, or shipments will face delays. Thus, to avoid delays we advise U.S. exporters to send to the Mexican importer in advance all necessary paperwork related to the steel export, the mill test report, or the mill quality certificate, as well as the commercial invoice.

On January 2017, due to changes in Mexican customs law, Mexican importers—in addition to being an authorized entity to import—must be registered in the Sectoral Promotion Programs (*Programas de Promoción Sectorial* or PROSEC) for the steel industry.

Trade Barrier Contacts

For more information and help with trade barriers please contact:

Braeden Young
Standards Attaché
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2182 Braeden.Young@trade.gov

Sylvia Montaño
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5219 Sylvia.Montano@trade.gov

International Trade Administration
Enforcement and Compliance
Tel.: +1(202) 482-0063
ECCommunications@trade.gov
http://trade.gov/enforcement/

Import Tariffs

There are no tariffs for products made in the United States that meet rules of origin requirements under the U.S.–Mexico–Canada Agreement (USMCA). However, there are several exceptions and caveats noted below that may affect overall pricing of U.S. exports. See our Trade.gov USMCA Day One website for a thorough explanation of USMCA certification of origin. The USMCA includes new rules of origin for autos, auto parts, chemicals, and steel-intensive products, thus affecting their tariff treatment. For a complete review of the USMCA, visit the Office of United States Trade Representative website . Few U.S. exports are subject to antidumping duties that limit access to the Mexican market. A list of these products may be found at the U.S. International Trade Administration's page on Mexico Anti-Dumping and Countervailing Duty Measures.

Mexico has implemented a Sectoral Promotion Program (*Programas de Promoción Sectorial* or PROSEC), which reduces Most Favored Nation (MFN) tariffs to zero or five percent on a wide range of important inputs needed by Mexico's export manufacturing sector. This program includes 20 different industry sectors and affects 16,000 HS codes. Mexican companies must be registered under this program to participate. The complete list of HS codes and sectors that must comply with PROSEC can be found in Annex 10 - Sectors and HS Codes via the Mexican Tax Administration Service's website.

All USMCA-compliant products "definitively" imported into Mexico are no longer assessed the customs processing fee (CPF). Products temporarily imported for processing and re-export may be subject to the CPF since the imports are not considered "definitive." The import duty, if applicable, is calculated on the U.S. plant value (FOB price) of the product, plus the inland U.S. freight charges to the border and any other costs listed separately on the invoice and paid by the importer. These can include charges such as export packaging, inland freight cost, and insurance.

We strongly urge all U.S. companies planning to bring samples, equipment, displays, or any other item into Mexico on a temporary basis to utilize an ATA Carnet. Mexico signed onto the international carnet system in 2014, and companies have had temporary import goods impounded by Mexican Customs when those goods were not accompanied by an ATA Carnet. See our *Temporary Entry* topic below for more information on temporary imports. To contact ATA Carnet Mexico executives for more information, please check their website.

In addition, Mexico has a value-added tax (IVA) on most sales transactions, including sales of foreign products. The IVA rate is 16 percent for all of Mexico. Basic products, such as food and drugs and some services, are exempt from the IVA.

A special tax on production and services (IEPS) is assessed on the importation of alcoholic beverages, cigarettes and cigars. In 2013, IEPS was expanded to include a tax on soda, high calorie foods, and junk foods. This tax may vary from 25 to 160 percent depending on the product.

Special Economic Zones (*Zonas Económicas Especiales* or ZEEs) are now entirely under state jurisdiction. As of April 2020, there are only two federal ZEE-style projects being developed where fiscal incentives would apply. These are the Trans-Isthmic Interoceanic Corridor and the Chetumal State border area. See the section on *Transportation Infrastructure* for more information.

For more information and help with import tariffs please contact

Manuel "Manny" Velazquez
Commercial Assistant
U.S. Commercial Service—Monterrey
Tel.: +52 (81) 8047-3248
Manuel.Velazquez@trade.gov

Import Requirements & Documentation

For tax purposes, all Mexican importers must register and be listed with the Official Register of Importers (*Padrón de Importadores*), maintained by the Secretariat of Finance and Public Credit (SHCP), which also maintains special sector registries. To be eligible to import more than 400 different items (including agricultural products, textiles, chemicals, electronics, and auto parts), Mexican importers must apply to the SHCP to be listed in these sector registries. U.S. exporters have occasionally encountered problems when products are added to the list without notice or importers are summarily dropped from the registry without prior notice or subsequent explanation. It is important to keep in mind that in many cases releasing goods from Mexican customs can take more time than expected.

The basic Mexican import document is the Import Request (*Pedimento de Importación*). Mexico requires import and export documentation including a completed *pedimento* for all commercial crossings. This document must be accompanied by a commercial invoice (in Spanish), a bill of lading, documents demonstrating guarantee of payment of additional duties for undervalued goods if applicable (see the *Customs Valuation* section of this guide), and, if applicable, documents demonstrating compliance with Mexican product safety and performance regulations (see the *Standards* section).

Mexican importers and exporters can dispatch their goods through an authorized legal representative who meets certain technical requirements and who has a certain degree of experience. Mexican customs brokers can clear products through Mexican Customs, but keep in mind that Mexico's customs regulations are very strict and require total compliance with all requirements by official importers. All commercial imports into Mexico, whether they are temporary or permanent, can be executed by a qualified and authorized Mexican customs broker.

Products qualifying as North American under USMCA require a minimum set of nine data elements be submitted to prove origin and receive USMCA beneficial treatment. This certification may be issued by the importer, exporter, or producer, and it does not have to be validated or formalized. Contact CS Mexico for an example of these data elements. Mexican tax authorities conduct fiscal audits on certain exporters in sensitive industries. A good source of information is the Mexican Tax Administration Service's website regarding Verification of USMCA Certification of Origin. Between 2019 and 2020 the number of site verifications and audits conducted by Mexican authorities at U.S. plants appeared to increase. If your company faces such an audit or inspection, please contact U.S. Commercial Service Mexico.

For more detailed information about certification of origin and future developments and information in connection with the USMCA, visit the Office of United States Trade Representative website where you can review the complete agreement.

In the case of the textiles, apparel, and footwear sectors, the importer must be registered in the *Padrón* for textile, apparel, and footwear products. Companies not registered in the *Padrón* are not allowed to import the product.

On December 3, 2015, the Mexican Government initiated a special program to strengthen the Mexican textile-apparel industry. The main purpose of this program is to protect local industry against counterfeiting from Asia and to promote the financing programs of the Mexican Development Bank to support small and medium-sized companies in the sector. A number of these measures affect Mexican textile importers, including the use of an importer registry, the establishment of reference prices (though they should not be applied to products coming with USMCA Certification of Origin), as well as a five-day waiting period for all imports.

As is the case with steel products, notice of importation must be provided to the Mexican Government at least five days prior to the shipment and must include the invoice, complete supplier information, and other documents.

The following links provide access to the three versions of the textile, apparel, and footwear Mexican reference price lists:

- 5/10/2016 – Annex 4
- 3/15/2016 – Annex 4

- 1/6/2016 – Annexes 3 & 4

For more information and help with import requirements and documentation please contact

Manuel "Manny" Velazquez
Commercial Assistant
U.S. Commercial Service—Monterrey
Tel.: +52 818047-3248
Manuel.Velazquez@trade.gov

Labeling and Marking Requirements

All products intended for retail sale in Mexico must be labeled in Spanish prior to importation. Products that must comply with commercial and sanitary technical regulations (*Normas Oficiales Mexicanas*, or NOMs) must follow the guidelines, as specified in the applicable NOM. For more detailed information see *Labeling and Marking* in the *Standards* section.

U.S. Export Controls The United States imposes export controls to protect national security interests and promote foreign policy objectives related to dual-use goods through implementation of the Export Administration Regulations (EAR). The Bureau of Industry and Security (BIS) is comprised of two elements: Export Administration (EA), which is responsible for processing license applications, counselling exporters, and drafting and publishing changes to the Export Administration Regulations; and Export Enforcement (EE), which is responsible for the enforcement of the EAR. BIS works closely with U.S. embassies, foreign governments, industry, and trade associations to ensure that exports from the United States are secure and comply with the EAR. BIS officials conduct site visits, known as End-Use Checks (EUCs), globally with end-users, consignees, and/or other parties to transactions involving items subject to the EAR to verify compliance.

An EUC is an on-site verification of a non-U.S. party to a transaction to determine whether the party is a reliable recipient of U.S. items. EUCs are conducted as part of BIS's licensing process, as well as its compliance program, to determine if items were exported in accordance with a valid BIS authorization or otherwise consistent with the EAR. Specifically, an EUC verifies the *bona fides* of transactions subject to the EAR, to include: confirming the legitimacy and reliability of the end use and end user; monitoring compliance with license conditions; and ensuring items are used, re-exported or transferred (in-country) in accordance with the EAR. These checks might be completed prior to the export of items pursuant to a BIS export license in the form of a Pre-License Check (PLC), or following an export from the U.S. during a Post-Shipment Verification (PSV).

UIS officials rely on EUCs to safeguard items subject to the EAR from diversion to unauthorized end uses/users. The verification of a foreign party's reliability facilitates future trade, including pursuant to BIS license reviews. If BIS is unable to verify the reliability of the company or is prevented from accomplishing an EUC, the company may receive, for example, more regulatory scrutiny during license application reviews or be designated on BIS's Unverified List or Entity List, as applicable.

BIS has developed a list of "red flags", or warning signs, , and compiled "Know Your Customer" guidance intended to aid exporters in identifying possible violations of the EAR. Both of these resources are publicly

available, and their dissemination to industry members is highly encouraged to help promote EAR compliance.

BIS also provides a variety of training sessions to U.S. exporters throughout the year. These sessions range from one to two-day seminars that focus on the basics of exporting to coverage of more advanced, industry specific topics. Interested parties can check a list of upcoming seminars and webinars or reference BIS provided online training. BIS and the EAR regulate transactions involving the export of "dual-use" U.S. goods, services, and technologies. For advice and regulatory requirements, exporters should consult the other U.S. Government agencies which regulate more specialized items. For example, the U.S. Department of State's Directorate of Defense Trade Controls has authority over defense articles and services, or munitions. A list of other agencies involved in export control can be found on the BIS website or in Supplement No. 3 to Part 730 of the EAR. The EAR is available on the BIS website and on the e-CFR (Electronic Code of Federal Regulations) and is updated as needed.

The Consolidated Screening List (CSL) is a list of parties for which the United States Government maintains restrictions on certain exports, reexports or transfers of items. The CSL consolidates eleven export screening lists of the Departments of Commerce, State and the Treasury into a single data feed as an aid to industry in conducting electronic screens of parties to regulated transactions. Exporters are encouraged to classify their items prior to export, as well as consult the CSL to determine if any parties to the transaction may be subject to specific license requirements.

Temporary Entry

There are three types of temporary import documentation: under the maquiladora manufacturing program, under a temporary import permit for samples and other goods to be returned to the United States, and under an ATA Carnet.

Maquiladora Imports

Mexico's maquiladora program, officially known as Manufacturing, Maquila and Export Service Industry (*Industría Manufacturera Maquiladora y de Servicio de Exportación* or IMMEX), allows manufacturers in Mexico to import raw materials and equipment into Mexico as a temporary import tax and duty free (including the value added tax, IVA). To receive this benefit, the goods to be temporarily imported must be used in an industrial or service process intended to produce, transform, or repair goods for subsequent export. These temporary imports must end up being part of a final export. Further information is at the Secretariat of Economy website.

Temporary Import Permits

Other temporary imports from the United States, however, are not assessed import duties, taxes, or compensatory fees, but they must comply with all other obligations set forth in Article 104 of the Mexican Customs Law (*Ley Aduanera*).

There are different types of temporary imports into Mexico, including:

- Temporary imports to be returned in the same condition
- Musical instruments for artists
- Temporary imports for cultural and sporting events
- Temporary imports for conventions, congresses, and trade shows
- Temporary imports for press, journalism, and cinematography

The first category applies to temporary imports that remain in Mexico for a limited time and with a specific purpose and are returned to the United States in the same condition and within the time limits established in the Customs Law (Art. 106). Such is the case of equipment for demonstration that is temporarily imported into Mexico for exhibitions

or sales visits. U.S. representatives do not need to contract the services of a Mexican customs broker, and may complete the declaration themselves, using the declaration lane at the time of entry. Overlooking this requirement may result in the confiscation of the products, with a high penalty fee for recovery. Temporary imports may remain in Mexico for up to six months.

In the case of medical devices, interested parties need to request an import permit for the specific exhibition and/or sales visit. The request needs to be submitted by a Mexican company authorized to sell/distribute medical devices in Mexico. The import is processed under a temporary importation form and there are basic requirements to obtain the clearance from Mexican Customs, including:

- A list of the products for temporary importation into Mexico.
- A letter from the U.S. company stating that the product is for temporary entry into Mexico and that it will not be sold.
- A letter from the Mexican partner or company indicating the nature of the business relationship with the United States indicating they take full responsibility for returning the product to the United States within the designated period.
- Preparation of a Temporary Customs Entry form (*Pedimento de Importación Temporal*).

The list of the products to be temporarily imported into Mexico must also be presented to U.S. Customs before the equipment enters Mexico in order to facilitate the duty-free return to the United States.

The laws on IVA and the Special Tax on Production and Services (*Impuesto Especial sobre Producción y Servicios* or IEPS) as enacted in 2015 require that these taxes be paid on temporary imports by deposit, bond, or tax credit (the latter only applying provided that the company has a certification). The benefit of the certification is not having to pay IVA or IEPS at the time of importation by obtaining a tax credit for the payment of these taxes.

The website of Mexican Customs provides the steps and requirements to follow for almost all circumstances and sectors that involve temporary imports into Mexico, though this material is only in Spanish.

The ATA Carnet Option

For temporary imports for trade shows, sales promotion, commercial samples, exhibitions, and demos, U.S. exporters have the ATA Carnet as a resource to ship and use equipment and merchandise in Mexico duty free and tax-free for up to six months. "ATA" stands for the combined French and English words "*Admission Temporaire*-Temporary Admission." Mexico acceded to the ATA Carnet system in 2014, and Mexican Customs officers are very familiar with the process. Many U.S. companies have had samples or equipment impounded when attempting to import the goods without an ATA Carnet, so we urge you to consider this option.

The ATA Carnet can be used in two ways. A passenger can directly show the equipment or merchandise to the Mexican Customs authority without needing to contract a Mexican customs broker. In this way one obtains approval directly from Mexican customs officers upon arrival. Alternately, if the equipment or merchandise is shipped via cargo airplane, ship, or in considerable volume, it is recommended to contract a customs broker to support the import process, then using an ATA Carnet will eliminate the paperwork involved in a regular import operation.

There are several advantages of the ATA Carnet:

- Duty- and tax-free temporary import of goods.
- No need to use a customs broker for clearance in the import process.
- Easy steps to arrange customs clearance, without losing time.

- For shipments arriving in the morning, goods can be cleared on the same day.
- Replacement of regular customs documentation for temporary entry—i.e., the traveler or the Mexican importer simply provides the ATA Carnet to Mexican Customs officers.

The ATA Carnet website provides more detail on how to obtain an ATA Carnet for Mexico.

For more information and help with temporary regimes and entries please contact

Manuel "Manny" Velazquez
Commercial Assistant
U.S. Commercial Service—Monterrey
Tel.: +52 (81) 8047-3248
Manuel.Velazquez@trade.gov

Prohibited & Restricted Imports

The following items are prohibited or restricted:

- Narcotics
- Live fish
- Predators of any size
- Images representing children in a degrading or ridiculous way
- Used clothes that are not part of your personal luggage
- Firearms and ammunitions
- Electronic cigarettes (as of February 2020).

A complete list of these items and their HS codes can be found at the Prohibited Items List at the Mexican Customs rules website.

In the case of medical devices and health care products, there are additional requirements. First, the products must comply with applicable standards. Second, foreign manufactured products need to have a legally appointed representative/distributor in Mexico. Third, the products must be registered with the Secretariat of Health (*Secretaría de Salud* or SSA) prior to being sold in Mexico. Except for blood, blood derivative products, and organs, almost all medical products can be imported into Mexico, provided they comply with existing regulations. See our *Healthcare* section for more information.

Customs Regulations

Some U.S. exporters have expressed concerns about the Mexican Tax Administration Service's (*Servicio de Administración Tributaria*, or SAT) procedures. These concerns include insufficient prior notification of procedural changes, inconsistent interpretation of regulatory requirements at different border posts, and uneven enforcement of Mexican standards and labeling rules. SAT has made efforts to increase transparency and communication and reduce corruption and fraud.

Agricultural exporters note that Mexican inspection and clearance procedures for some agricultural goods can be long, burdensome, non-transparent and unreliable. Customs procedures for express packages continue to be burdensome, though Mexico has raised the de minimis level to USD 50 from USD 1. However, Mexican regulations still hold the courier 100 percent liable for the contents of shipments.

Mexican Customs Authority (*Aduanas de Mexico*) Helpline

Tel: +52 (87) 7448-8728
Tel: +52 (84) 4287-3803
From the U.S.: 1 844 549 7885
Monday-Friday / 9:00–14:30 / 15:30–18:00 (in Spanish)

Tax Administration Service (*Servicio de Administración Tributaria*)
Tel: +1 (877) 448-8728 (from the United States)

For more information and help with customs regulations please contact:

Manuel "Manny" Velazquez
Commercial Assistant
U.S. Commercial Service—Monterrey
Tel.: +52 (81) 8047-3248
Manuel.Velazquez@trade.gov

Standards for Trade

Overview

Plans for standards development in Mexico are published annually in a publicly-available standards workplan and the country has a well-established process for notification, public comment, and amendment of standards before they are finalized.

Three definitions are important to keep in mind:

1. **Official Mexican Standards (*Normas Oficiales Mexicanas,* or NOMs).** NOMs are technical regulations, including labeling requirements, issued by government agencies and secretariats. Compliance with NOMs is mandatory. Any bureau, person, or council can propose the creation or modification of a NOM to the appropriate committee.
2. **Mexican Standards (*Normas Mexicanas,* or NMXs).** NMXs are voluntary standards issued by recognized national standards-making bodies. Compliance is mandatory only when a claim is made that a product meets the requirements of the NMX, when a NOM specifies compliance with an NMX, and whenever specified in government procurement.
3. **Reference Standards (*Normas de Referencia Federal*, or NRFs).** NRFs are applied to goods and services acquired, leased, or hired, when Mexican or international standards do not cover their requirements, or their specifications become obsolete.

In the information below, we review the government bodies involved in the setting and enforcement of standards, the standards development process, and ways in which U.S. companies can participate in the process.

Standards

The Mexican Government has a prominent role in Mexico's standards system. The Secretariat of Economy (SE), through the General Directorate of Standards (*Dirección General de Normas*, or DGN), is the organization with the authority to manage and coordinate standards development in Mexico. The Secretariat's authority is derived from the Federal Metrology and Standardization Law (*Ley Federal de Metrología y Normalización*, or LFMN). DGN participates actively in international fora, including the International Organization for Standards (ISO), Codex Alimentarius, the Pan American Standards Commission (COPANT), and the International Electrotechnical Commission (IEC).

Testing, Inspection and Certification

Certain NOMs require companies to obtain for their product(s) a certificate of compliance issued by an accredited certification body. In the case of products manufactured outside Mexico, this certificate must accompany the import documentation at the port of entry.

All products, processes, methods, installations, services, or activities must comply with applicable NOMs. The LFMN established the possibility for private entities to perform the conformity assessment function through visual verification, sampling, measurement, laboratory testing, or documentary examination.

Accredited conformity assessment bodies are classified in the following categories:

- Certification Bodies
- Testing Laboratories
- Calibration Laboratories
- Verification Units

Under NAFTA, Mexico recognized conformity assessment bodies in the United States and Canada on terms no less favorable than those applied in Mexico. However, only Underwriters Laboratories, Inc., and Intertek Testing Services NA, Inc., have been accredited.

Based upon agreements with other agencies, as well as with other certification organizations, DGN has established procedures for the certification of products to both technical regulations (NOMs) and voluntary standards (NMXs). Conformity assessment procedures issued by the DGN tend to be more fully developed and cover a significantly greater range of NOMs than those of other secretariats that develop NOMs.

NOM Annex 2.4.1.

On October 23, 2018, the Mexican Government published in its Official Gazette an amendment to Annex 2.4.1. (known as the "NOM Annex") of the "General Import and Export Tax Law," which identifies the HS codes of imported products subject to NOM compliance. The changes became effective on June 3, 2019. One key change is that importers can no longer use the exceptions listed previously in Article 10, Section VII (products imported for the company's own use) and Section VIII (products that will be used for professional use, industrial or manufacturing process) of the Annex to import the product without a compliance certificate.

This link provides the change published in the Official Gazette in Spanish on October 23, 2018: Diario Oficial de la Federación - Comercio Exterior. This link provides the deadline extension published in the Official Gazette in Spanish on February 28, 2019.

We encourage U.S. companies to work with their Mexican importer to confirm if their product must comply with mandatory NOM certification.

Product Certification and Accreditation

The Mexican Government authorizes private organizations to accredit conformity assessment bodies (calibration laboratories, certification bodies, testing laboratories, and verification/inspection units). The first authorized entity's private non-profit institution is the Mexican Accreditation Entity (*Entidad Mexicana de Acreditación*, or EMA).

Calibration Laboratories

Calibration laboratories are responsible for transferring the precision of reference standards to the measurement instruments used in the commercial and industrial sectors. The calibration laboratories can be sponsored by public or private organizations, including universities, professional associations, and private companies. Individuals interested in performing calibration activities can obtain certification after meeting the certification requirements set by law.

Committees, made up of technicians and specialists in metrology, evaluate applications for certification as calibration laboratories. These committees make recommendations to the DGN for final decisions on certification. The committees also establish the technical specifications for the evaluation of calibration laboratories, set the precision requirements for the calibration chains, and set the methods for comparison of standards.

Certification Bodies

EMA has accredited several organizations for certifying compliance in different fields. The accreditation list includes, but it is not limited to, the following organizations:

- ANCE—*Asociación de Normalización y Certificación* (product certification body for the electric sector NOMs)
- CALMECAC—*Calidad Mexicana Certificada, A.C.* (certifies Mexican quality)
- CNCP—*Centro Nacional Para la Calidad del Plástico* (Mexican Center for the Quality of Plastics)
- CRT—*Consejo Regulador Del Tequila* (Tequila Regulation Council)
- IMNC—*Instituto Mexicano De Normalización y Certificación, A.C.* (Mexican Institute of Standardization and Certification)
- INNTEX—*Instituto Nacional De Normalización Textil, A.C.* (Mexican Institute of Textile Standardization)
- NORMEX—*Sociedad Mexicana de Normalización y Certificación, S.C.* (Mexican Society of Standardization and Certification)
- NYCE—*Normalización y Certificación Electrónica* (for electronic standardization and certification)
- ONNCCE—*Organismo de Normalización y Certificación de la Construcción y Edificación* (the building and construction standardization and certification body)
- UL de México—Underwriters Laboratories de México, S.A. de C.V. (product certification body for electric and electronic equipment)
- Intertek (product certification body for electric and electronic equipment)

The Secretariat of Economy publishes foreign trade rules and general criteria in the DOF, which lists all products by tariff number that must comply with NOMs at the point of entry into Mexico. This document is constantly updated to reflect cancellations or changes in NOMs or the application of new ones.

National Institute of Standards and Technology (NIST) 'Notify U.S.' Service

Members of the World Trade Organization (WTO) are required under the Agreement on Technical Barriers to Trade (TBT Agreement) to notify to the WTO proposed technical regulations and conformity assessment procedures that could affect trade. Notify U.S. (www.nist.gov/notifyus) is a free, web-based e-mail registration service that captures and makes available for review and comment key information on draft regulations and conformity assessment procedures. Users receive customized e-mail alerts when new notifications are added by selected countries and industry sector(s) of interest and can also request full texts of regulations. This service and its associated website are managed and operated by the USA WTO TBT Inquiry Point housed within the National Institute of Standards and Technology, part of the U.S. Department of Commerce.

Publication of Technical Regulations

In accordance with the LFMN, the National Standardization Plan (*Programa Nacional de Normalización,* or PNN) is the official document used to plan, inform, and coordinate standardization activities, both public and private, carried out by the Mexican Government. The PNN is published annually in Mexico's Official Gazette (*Diario Oficial de la Federación,* or DOF).

The PNN includes a list of topics that will be developed into NOMs and NMXs as well as an approximate working calendar for each respective topic. The Technical Secretariat of National Standardization develops the PNN each year, approved by the National Standardization Commission (*Comisión Nacional de Normalización*, or CNN).

The LFMN and its implementing regulation establish a timeframe for each step of the NOM-making process (development, draft publication in the DOF, and publication of modified and definitive technical regulations and standards) and within the PNN framework. The actual NOM-making period, however, is based on various factors. These include the complexity of the topic and the inherent uncertainty about the amount of time needed for each step in the process (i.e. publishing period in the DOF, draft response, comments, and final technical regulation).

Any bureau, person, or council can propose the creation or modification of a NOM to the appropriate committee. Federal agencies wanting to propose a new NOM must create a committee, known as a National Standardization Advisory Committees (*Comités Consultivos Nacionales de Normalización*, or CCNNs). The committee drafts the NOM and registers it in the PNN. Then the draft NOM is published in the DOF for a 60-day comment period. After the comment period, the CCNN analyzes the comments, publishes them in the DOF, and authorizes the final NOM.

This link provides a PDF copy of the 2020 Mexico National Standardization Program.

U.S. entities can participate in the process in several ways. They can

- Review the PNN to learn about proposed standards
- Participate in the applicable technical working group (requires physical presence)
- Submit comments during the 60-day public consultation period
- Solicit the creation, modification, or cancellation of technical regulations and standards (NOM and NMX) to the appropriate government office or to a National Standardization Body

On August 2019, the Secretariat of Economy announced the "Infrastructure Quality Law" project which will replace the current National Metrology Law. This link provides information on the project and the law. As of the writing of this section, the law has not been approved by the Mexican Congress. The law aims to amend the national standardization model and provide updated guidance on the metrology, standardization, and conformity assessment process. The U.S. Commercial Section will write a summary on the law as soon as it is published in the Official Gazette.

Standards Bodies

The National Standardization Commission (*Comisión Nacional de Normalización*, or CNN) is the coordinating body for standards policy at the national level. Currently, the CNN is comprised of 43 members, including federal agencies, chambers, national standards bodies and associations related to standardization. The CNN's main functions are to approve the National Standards Program, establish the coordination guidelines between agencies and entities at the federal level, prepare and publish standards, resolve any differences between CCNNs, and comment on the registration of national standardization bodies.

The National Standardization Technical Committees (*Comités Técnicos de Normalización*, or CTNs) are bodies recognized by the Secretariat of Economy and their main function is to create NMXs in those areas where National Standardization bodies do not exist.

The principal Mexican Government entities that develop NOMs include the following:

- Secretariat of Economy (SE)
- Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA)
- Secretariat of Labor and Social Security (STPS)

- Secretariat of Communications and Transportation (SCT)
- Secretariat of Tourism (SECTUR)
- Secretariat of Land and Urban Development (SEDATU)
- Secretariat of Environment and Natural Resources (SEMARNAT)
- Secretariat of Energy (SENER)
- Secretariat of Health (SSA)
- Secretariat of Interior (SEGOB)
- Energy Regulatory Commission (CRE)
- National Industrial Safety and Environmental Protection Agency for the Hydrocarbon Sector

Organizations that develop NMXs include:

- Electrical—Association of Standardization and Certification (ANCE)
- Quality Systems—Mexican Institute of Standardization and Certification (IMNC)
- Textiles—Mexican Institute of Textile Standardization (INNTEX)
- Construction—Building and Construction Standardization and Certification Body (ONNCCE)
- Food Products and Quality Systems—Mexican Society of Standardization and Certification (NORMEX)
- Electronics—Electronic Standardization and Certification (NYCE)
- Dairy Products—Council for Milk Quality and Dairy Products (COFOCALEC)
- Steel—National Chamber of the Iron and Steel Industry (CANACERO)

Standards Classifications

Mexican standards are classified into economic sectors according to the following table:

Industrial Sector	**Letter**
Textile Industry	A
Environmental Protection	AA
Graphic Arts	AG
Steel Products	B
Metal Blinds, Shutters and Rods	BA
Products and Equipment for Medical, Hospital and Laboratory Use	BB
Construction Materials	C
Quality Systems	CC
Control, Measurement and Statistics Apparatus	CH
E-Business	COE
Vehicles (incl. auto parts)	D
Automotive Locksmith Services	DA
Blueprint and Photocopying	DD
Technical Drawing	DT

Plastics and their Products	E
Conformity Assessment	EC
Container and Packaging Products	EE
Electronic Data Exchange	EDI
Solar Energy	ES
Food Products	F
Non-Industrialized Food Products for Human Use	FF
Pharmaceutical Products	G
Cranes and Lifting Devices	GR
Technology Management	GT
Metalwork, Welding and Metallic Coating Products	H
Electronics Industry	I
Electricity Industry	J
Chemical Products	K
Oil Refining, Distillation and Exploration Products	L
End-Use Chemicals	M
Equipment and Materials for Offices and Schools	N
Equipment for General Use in Industry and Agriculture	O
Glass Industry	P
Items Used for Optics	PA
Handicrafts and Pottery	PP
Products and Equipment for Domestic Use	Q
Miscellaneous Industries	R
Security	S
Environmental Administration Systems	SAA
Industrial Hygiene	SS
Health and Safety at Work Management Systems	SAST
Rubber Products	T
Tourism	TT
Paints, Varnishes and Lacquers	U
Alcoholic Drinks	V
Non-Ferrous Metal Products	W
Toys	WW
Equipment for the Handling and Use of LP and Natural Gas	X
Agricultural Industry	Y
Basic Standards and Symbols	Z

Source: Secretariat of Economy

CS Mexico Standards Contacts

Braeden Young
Standards Attaché

U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2182
Braeden.Young@trade.gov

Sylvia Montaño
Commercial Specialist
U.S. Commercial Service—Mexico City
Tel.: +52 (55) 5080-2000 ext. 5219
Sylvia.Montano@trade.gov

Trade Agreements

For U.S. exporters, Mexico's trade liberalization efforts mean that the Mexican market is one of the most open and competitive in the world.

The United States, Mexico, and Canada are parties to the United States–Mexico–Canada Agreement (USMCA), which entered in to force on July 1, 2020, replacing the North American Free Trade Agreement (NAFTA). Qualifying goods and services which had zero tariffs under NAFTA will remain at zero under USMCA. For additional information on tariffs, see the Trade Barriers section of this guide and/or visit the FTA Tariff Tool and the FTA Resources Toolbox on our FTA Help Center.

USMCA is a 21st century, high-standard trade agreement, supporting mutually beneficial trade resulting in freer markets, fairer trade, and robust economic growth in North America. The Agreement modernizes and rebalances U.S. trade relations with Mexico and Canada, and it reduces incentives to outsource by providing strong labor and environmental protections, innovative rules of origin, and revised investment provisions. The Agreement also brings labor and environment obligations into the core text of the agreement and makes them fully enforceable.

USMCA upgrades NAFTA in a number of key areas. For example, the USMCA establishes the strongest and most advanced provisions on intellectual property and digital trade ever included in a trade agreement. Updates to the Customs and Trade Facilitation Chapter will help reduce costs and bring greater predictability to cross-border transactions. Likewise, new chapters such as Good Regulatory Practices and SMEs will help to reduce and prevent non-tariff barriers through increased transparency, evidence-based decision-making, and whole-of-government internal coordination, and promote cooperation to help increase SME trade and investment opportunities, respectively. USMCA also includes a number of groundbreaking provisions to combat non-market practices—such as subsidies and currency manipulation—that have the potential to disadvantage U.S. workers and businesses. In addition, through updated rules of origin, the USMCA requires that 75 percent of auto content be produced in North America and that key auto core parts always originate in North America.

For more information on the agreement, including tariffs and certification of origin, differences between the USMCA and NAFTA, new chapters, and more, visit the International Trade Administration's USMCA webpage (https://www.trade.gov/usmca).

Mexico is a member of the World Trade Organization (WTO), the Asia-Pacific Economic Cooperation (APEC), the G-20, and the Organization for Economic Cooperation and Development (OECD). Mexico has 13 Free Trade Agreements (FTAs) with 50 countries—including USMCA and FTAs with the European Union, European Free Trade Area, Japan, Israel, 10 countries in Latin America, and the 11-country Comprehensive and Progressive Agreement for Trans-Pacific Partnership. Mexico is also a member of the Pacific Alliance, a trade bloc formed by Mexico, Chile, Colombia, and Peru in 2011.

Licensing Requirements for Professional Services

U.S. professional licenses are not generally recognized in Mexico (e.g. engineer, architect, and lawyer). One must become accredited in Mexico or have a Mexican counterpart co-sign or validate the U.S. work. For example, a U.S.

architect may draw up plans for a building, but that must also get a "Stamp of Approval" by a licensed Mexican architect. A list of local professional associations can be found in the *Principal Business Associations* section of this guide. A guide to register your professional degree in Mexico (information is in Spanish) can be found at the Secretariat of Education website. For additional information, please contact your nearest U.S. Export Assistance Center or the U.S. Commercial Service in Mexico City (www.export.gov/locations).

Selling U.S. Products and Services

Distribution & Sales Channels

This section reviews several different factors in selecting and managing your distribution and sales in Mexico.

Retail

It is a challenging environment for retail sales, with the impact of an unprecedentedly strong U.S. dollar, the proliferation of interest-free financing offers (*meses sin intereses* or MSI), mobile retailing, and continued company activity in the form of mergers, acquisitions, and expansions. The COVID-19 pandemic has generated significant uncertainty about the recovery of the retail segment. The retail association ANTAD operates 59,300 stores, and it remains to be seen how its members will plan for economic recovery and the "new normal."

A common practice in Mexico is to offer consumer financing in the form of interest-free layaway / MSI. Originally extended primarily by national retailers during special events such as the 'Hot Sale' and '*el Buen Fin*,' the practice has become widespread among both local and international companies. Mexico has several large retail stores and chains including *El Palacio de Hierro*, Saks Fifth Avenue, Coppel, *Grupo Comercial Chedraui*, and Sears Roebuck de México.

Walmart de México leads retailing, with its share value more than twice as high as that of the second biggest player (FEMSA Comercio). Walmart's performance was especially impressive given Mexico's fragmented competitive environment, relevance of traditional sales, and small independent retailers.

Meanwhile, online shopping in Mexico is anticipated to more than double by 2022 to nearly USD 18 billion, with the major global eCommerce players moving into high gear following the 2016 recession. These projections have not been updated for a post-COVID environment in which growth of online shopping may be even larger than originally forecast.

Key players continuing to vie for a bigger stake in this eCommerce market are *Mercado Libre*, Amazon, Walmart, and Alibaba. The Argentina-based Mercado Libre is by far the most popular online retailer in the region, with operations in 18 markets.

Importers and Wholesalers

Key retail chains are among the largest importers and wholesalers, including Walmart de México, Costco de México, El Puerto de Liverpool SAB de CV, El Palacio de Hierro, Sanborns de México SAB de CV, and Sears Roebuck de México. The official database of Mexican importers features approximately 3,200 import firms as of December 2017 (the most recent year for which figures are available).

Geographic Segmentation

Mexico is a large market to cover, whether for distribution or for sales channels. The U.S. Commercial Service in Mexico recommends that U.S. exporters consider splitting the country into distinct territories rather than trying to sign a single agent or distributor with exclusive national rights.

Logistics and Distribution Infrastructure

Mexico is a leading global logistics center, in large part based upon its 13 trade agreements with 50 countries. Shipping logistics work well in Mexico, though not without some concerns. The World Bank's Logistics Performance Index for 2018 (the most recent year) places Mexico in 51st place out of 160 countries in terms of logistics efficiency. Transportation–logistics services are expensive in Mexico, representing eight to 15 percent of product costs in Mexico, compared to five to seven percent in the United States. According to the Mexican Secretariat of Communications and Transportation (SCT), 60 percent of Mexican products for domestic consumption travel by land on trucks, 14 percent travel by train, and 26 percent are transported by ship.

The Mexican Government seeks to reduce transport costs across the economy to increase competitiveness and facilitate supply chains. To do so, Mexico is modernizing its national transportation network. The López Obrador Administration's National Development Plan seeks to improve cargo transport infrastructure, particularly in Southern Mexico. This plan builds upon the prior Administration's National Infrastructure Plan, which launched improvements to highways, railways, and ports. These infrastructure projects are described in further detail in our section on transportation infrastructure.

Currently, Mexican transport infrastructure includes:

- Approximately 390,000 km of highways and roads
- More than 26,700 km of railroads
- A total of 64 international commercial airports; 1,424 airfields (including military and small private owned fields) and nearly 500 heliports
- More than 100 seaports and intermodal terminals
- Nearly 27,000 km of oil and gas pipelines

Logistics and Land Borders

The main land border crossings with the United States are Nuevo Laredo–Laredo, Ciudad Juárez–El Paso, Piedras Negras–Eagle Pass, Mexicali–Calexico, and Tijuana–San Diego. Tijuana is the busiest border crossing by volume of traffic; however, the Nuevo Laredo–Laredo border crossing is the largest by value, accounting for approximately 53 percent of all U.S.-Mexican trade in merchandise.

The Government of Mexico and some state governments are trying to promote other border crossings to decrease the concentration in Laredo and to offer options for expanding bilateral commercial traffic, such as Colombia, Nuevo Leon. At the federal level, the U.S. and Mexican Governments meet regularly in various working groups focused on the border to advance joint efforts increasing the capacity, efficiency, and speed of border crossings for people and goods. One result was the establishment of the Unified Customs Processing (UCP) program. The UCP brings together Mexican Customs (*Aduanas*) and U.S. Customs & Border Protection agents at the same location to jointly clear cargo. This has the potential to dramatically speed cargo inspections and increase border security. Despite this progress, as of June 2019, shippers have reported intermittent delays for truck and rail crossings as border personnel respond to a variety of priorities.

Highways

Sixty percent of goods are distributed by trucks. Mexico has a modern highway system, primarily comprising toll roads, connecting the main industrial areas located in the Mexico City–Guadalajara–Monterrey triangle. Outside this area, road transportation is more challenging.

Ports

The main maritime ports on the Gulf Coast of Mexico are Altamira, Tampico, Veracruz, and Progreso. On the Pacific Coast they are Ensenada, Guaymas, Lázaro Cárdenas, Manzanillo, and Puerto Madero. All these ports have the infrastructure and equipment to facilitate intermodal, door-to-door merchandise transportation. The Government's infrastructure program includes major projects to modernize and expand existing ports, including doubling capacity of the Port of Veracruz, improving existing multimodal corridors, connecting Gulf and Pacific ports, and linking production and consumer centers with NAFTA corridors.

Using an Agent to Sell U.S. Products and Services

Some U.S. firms sell their products through individual sales agents, and there are many Mexican firms interested in serving this role for U.S. firms. The use of sales agents can be an effective way to reach smaller cities and remote locations in Mexico.

Selecting an appropriate agent or distributor requires time and effort. There may be many qualified candidates, and U.S. firms should set high standards to select the best suited agent/distributor. Since most Mexican firms sell in limited areas, U.S. companies should consider appointing representatives in multiple cities to broaden the distribution network. It is usually not advisable to grant an exclusive, national agreement. It is essential to develop a close working relationship with the appointed agent/distributor and maintain continuous communication. Appropriate training, marketing support, samples, product support, and timely supply of spare parts (depending upon the industry) are critical for success. There are no indemnity laws to prevent a company from canceling an agent or distributor agreement, but cancellation clauses should be specific. Sales performance clauses in agent/distributor agreements are permitted, and failure to meet established standards can be a reasonable cause for contract cancellation. Before signing an agent/distributor agreement, all parties should fully understand the terms and conditions, and how the relationship is to be developed. Many international commercial relationships become strained because insufficient time is invested in developing a full understanding of what is expected.

The U.S. Commercial Service and other organizations—such as the American Chamber of Commerce in Mexico and U.S. state government trade representatives—maintain lists of Mexican agents/distributors, manufacturers, Mexican government offices, and private sector trade organizations. After identifying a suitable agent/distributor, we encourage the U.S. exporter to conduct a commercial background check on the Mexican firm. The U.S. Commercial Service offers an International Company Profile that provides background information on a potential business partner. Commercially available services, such as Dun & Bradstreet, may list larger Mexican firms.

If a product is new to the market, or if the market is extremely competitive, advertising and other promotional support should be negotiated in detail with your representative. Product and industry knowledge, track record, enthusiasm, and commitment should be weighed heavily. We suggest the U.S. exporter schedule annual visits of Mexican personnel to the U.S. company headquarters for training. (More information on the visa process is provided in the *Business Travel* section in Visa Requirements.) Another important factor to consider is financing, as credit from Mexican banks is limited, and, when available, is often expensive. Joint venture agreements may also be considered to strengthen market penetration. Direct marketing is another popular marketing strategy. Telemarketing is evolving and gaining in popularity and scope. While internet penetration has not yet reached U.S. levels (the Mexican Government estimates internet access by 71 percent of the population over the age of six), social media marketing is becoming increasingly important and should be factored into marketing plans when appropriate.

Establishing an Office

For U.S. companies interested in establishing a presence in Mexico, the General Law of Mercantile Organizations (or Civil Code) regulates many different forms of business entities. The type of business incorporation that a U.S. company or individual chooses is extremely important, as it determines the operations they may perform in Mexico and, among other liabilities, the amount of taxes owed.

The most commonly used types of business classifications are the Corporation (*Sociedad Anónima*) identified with 'S.A.' at the end of the company name, and the Corporation with Variable Capital (*Sociedad Anónima de Capital Variable*) identified with 'S.A. de C.V.' One of the advantages of the latter is that the minimum fixed capital can be changed after the initial formation.

The Civil Partnership (*Sociedad Civil*) is the most common organization for professional service providers. It has no minimum capital requirement and no limit on the number of partners, but it is taxable in the same way as a corporation. It is identified with 'S.C.' The Civil Association (*Asociación Civil*) is the form that charitable or nonprofit organizations adopt to operate, and is identified with 'A.C.'

A Limited Liability Partnership (*Sociedad de Responsabilidad Limitada*), identified with 'S. de R.L.,' is similar to an LLP in the United States and has the option of having variable capital, indicated by 'S. de R.L. de C.V.' As this is a partnership structure—in other words, an organization formed by individuals as partners—it has similar characteristics to a Civil Partnership apart from unlimited liability.

A foreign company may open a branch (*sucursal*) in Mexico as an alternative to incorporating. A branch can provide rights and responsibilities similar to a corporation, including tax liability and access to local courts, but requires the approval of the National Foreign Investment Commission (*Comisión Nacional de Inversiones Extranjeras* or CNIE).

Consulting with a law firm in Mexico prior to establishing an office in the country is important. A partial list of Mexican law firms with international business focus and experience can be found at the U.S. Commercial Service Mexico Business Providers List. For other types of legal representation, contact our U.S. Commercial Service office in Mexico City to obtain the Embassy's attorney list.

Franchising

The Mexican market is mature and competitive but also very receptive to the franchise model, which has continued to see sustained growth in recent years. U.S. franchise concepts are well regarded in the Mexican market due to brand familiarity as well as the strong relationship between the two countries. According to the Mexican Franchise Association, the franchise industry is responsible for around six percent of Mexico's GDP with more than 100,000 points of sale throughout the country from over 1,500 franchise concepts. About 85 percent of the franchises operating in the country are Mexican brands, 10 percent are from the United States, and the remaining percentage is shared by brands from Europe and Latin America.

Although the franchise sector in Mexico grew seven percent in 2019 and was on track for continued growth in 2020, the COVID-19 pandemic has greatly impacted the sector and the full economic effects on the industry remain unknown. As of June 2020, about 25 percent of the existing franchises were evaluating the possibility of closing given the economic crisis they faced during the pandemic. The Mexican Franchise Association has been working with the private sector to implement programs to help franchisors recover from this crisis. They plan to restructure existing operating models to include more technology, changes in space design to comply with new health regulations, and partnership agreements with local suppliers. According to industry experts, the franchise sector will have a slow recovery with minimal growth for the rest of 2020.

The food and beverage sector represents 35 percent of the Mexican franchise market, followed by retail, and then services in the personal care, health, education and business consulting sectors. The franchise model has been particularly successful for concepts that do not require high investment fees. Concepts with investment fees ranging from USD 50,000 to USD 250,000 have more opportunities to grow in the market than high-fee models. In 2019 some franchise companies started developing crowdfunding programs to incent participation of smaller investors and continue their expansion in the market. In only one year, 10 concepts have successfully achieved their expansion plans through crowdfunding opportunities, and it is expected that more local and international brands will adopt this model to finance their growth.

Traditionally, large cities such as Mexico City, Monterrey, and Guadalajara have been the dominant options for positioning a new franchise concept, comprising about 70 percent of the total number of franchises in country. Nevertheless, the development of franchise business opportunities has also been successful in smaller cities where local populations are looking for new products and brands.

Franchising in Mexico, as in any other country, requires a long-term commitment. U.S. franchisors must commit human and financial resources to develop a business plan (including market research) to identify the best strategy for growth, as well as flexibility to adapt to the local culture. Given that Mexico is so large and diverse, it is challenging to grant one master franchisee contract to develop the entire country. It is highly recommended to approach the country on a geographic basis and grant at least three regional rights covering Northern, Western, and Central Mexico. U.S. franchisors must support the master/regional franchisees throughout the business relationship if they want to be successful. One of the main challenges cited by franchisees is the lack of support from franchisors once the agreement is signed. Close communications with partners, continual training, and regular visits to the country are important to facilitating long-term success.

Franchising Legal Framework

Franchises in Mexico are regulated by Article 245 of the new Industrial Property Law (*Ley Federal de Protección a la Propiedad Industrial*). A franchise exists when, in conjunction with a written license to use a trademark, technical knowledge is transmitted to enable the franchisee to sell goods or render services using the operating, commercial, and administrative methods established by the holder of the trademark, with the aim of maintaining the quality, prestige and image of the products or services distinguished by the trademark. Franchising agreements must be recorded with the Mexican Institute of Industrial Property (*Instituto Mexicano de la Propiedad Industrial* or IMPI).

It is also important to register trademarks in Mexico to protect brands with IMPI. According to the law, a trademark must be used by either its owner, the licensee, or the franchisee of record, or it may be subject to cancellation due to non-use. The time frame for registering a trademark in Mexico is approximately four to six months.

Franchising Association

The Mexican Franchise Association (*Asociación Mexicana de Franquicias* or AMF) is a private entity with over 25 years in the market. The AMF's main purpose is to promote and develop franchising in Mexico, as well as to establish regulations to promote the industry, and work with public and private sectors to develop and implement programs to benefit the industry. It is mostly comprised of Mexican franchisors and franchisees as well as franchise consulting firms. More information about the AMF's activities can be found at: www.franquiciasdemexico.org.

For more information on franchising opportunities in Mexico, please contact Commercial Specialist Martha Sanchez at Martha.Sanchez@trade.gov.

Direct Marketing

With the establishment of large international firms in Mexico and their emphasis on adopting similar marketing strategies to those employed in their home market, the marketing services industry has become more segmented and specialized, offering U.S. companies a complete array of marketing options. The most important promotional tools employed by companies include 'above-the-line' (ATL) methods such as paid digital media (and to a lesser extent conventional advertising) and 'below-the-line' (BTL) methods such as targeted marketing, trade shows, and direct marketing.

Small and medium-sized U.S. companies entering the Mexican market should work closely with their local distributor/representative in the creation of marketing plans. Mexican consumer habits have evolved to converge online and traditional shopping experiences. A recent study from the Association of Online Sales (*Asociación Mexicana de Venta Online* or AMVO) indicated that nine of ten Mexican shoppers interact between digital and physical channels, prior to making the final purchase, either online or in-store visit.

The leading association in Mexico that coordinates the activities of communication agencies is the Alliance for the Strategic Value of Brands (*Alianza por el Valor Estratégico de las Marcas* or AVE), that includes companies related to Branding, Marketing and Public Relations.

Alianza por el Valor Estratégico de las Marcas (AVE)
Cerrada de Palomas 36, Col. Reforma Social
11650 Mexico City
Phone: +52 (55) 2623-0561
contacto@ave.mx
https://ave.mx

Joint Ventures/Licensing

Given the flexibility of engaging in joint venture agreements, U.S. firms frequently use joint ventures and licensing agreements to establish a presence in Mexico. Although some Mexicans rely on verbal agreements when doing business, we highly recommend you sign a written joint venture agreement with your Mexican business partner. According to Mexican law, joint ventures are considered separate entities from their parent companies and must register separately to pay taxes.

To safeguard intellectual property rights against third parties, licenses and patents in Mexico may be registered with the Mexican Institute of Industrial Property (*Instituto Mexicano de la Propiedad Industrial* or IMPI). Recording a license entails a government review that can take four to six months. For more information on IMPI, please see the *Intellectual Property* section.

U.S. professional licenses (e.g., engineer, architect, lawyer) are not generally recognized in Mexico. One must become accredited in Mexico or have a Mexican counterpart co-sign or validate the U.S. work. For example, a U.S. architect may draw up plans for a building, but a licensed Mexican architect must sign off on them. A list of local professional associations can be found in the *Principal Business Association* section of this guide. Instructions to register your professional degree in Mexico (information is in Spanish) can be found at the Secretariat of Education website. For additional information, please contact the U.S. Commercial Service in Mexico.

Express Delivery

The parcel and messaging sector in Mexico traditionally operated as a basic courier service, with broad service windows and minimal guarantees on delivery timing and verification. For a variety of reasons, the sector has rapidly modernized as it has in the United States, extending the range of services and focusing on logistics efficiency.

The courier and parcel delivery market has an estimated value of MXN 73 billion (approximately USD 3.8 billion), of which 77 percent is national and 33 percent international. According to latest available data from the Mexican Association of Couriers and Parcels (*Asociación Mexicana de Mensajería y Paquetería* or AMMPAC), Mexican express delivery companies transported 67 million pieces in 2018. About 80 percent of local providers offer door-to-door service, while the remaining 20 percent provides complementary services such as intermediary transport and parcel tracking. In Mexico about 190 million shipments are made per year, representing MXN 220 billion (approximately USD 11.3 billion) in expenditures for logistics, operation and storage.

International express delivery services have grown even faster than domestic service, averaging double-digit growth annually. Analysts forecast the industry overall will grow in Mexico 15–20 percent through 2021; however, the largest companies will grow at a higher rate due to their capacity to invest in infrastructure and technology.

Approximately 3,000 courier and parcel delivery companies currently operate in Mexico. They provide local, regional, and international coverage. Competition is strong and varied in terms of supply, prices, and guarantees. Still, local courier companies complain that they do not face a level playing field when providing international services. They particularly cite terms negotiated under the original NAFTA—granting equal access to Mexican motor carriers entering the United States—which have not transpired. There are signs of some consolidation. though revenues are growing at a rate of 20 percent per year.

Express Delivery Investments

According to AMMPAC, recent investments in technology and infrastructure have driven the sector's expansion. To match the growth of foreign providers, Mexican companies have invested significantly more than their foreign competitors. In 2017 and 2018, DHL, UPS, and FedEx increased their presence in Mexico with more e-customer shipping centers; however, local firms *Estafeta Mexicana*, RedPack and others continued to invest in technology, infrastructure, fleet modernization, points of sale, operating centers, and customer service. These investments are in addition to the over USD 2.15 billion invested by these companies between 2013 and 2017.

The goal of these companies is to differentiate based on their ability to harness big data intelligence to minimize the level of misdirected shipments, incorrect routes, and losses and damage to packages.

Extension of Express Delivery Services

Another reason for the growth of the sector is the incorporation of a wider range of services. Companies are competing aggressively on shorter and guaranteed delivery times, efficiencies through route consolidation, customs clearance expertise, geographic scope in cities served, and service reliability through technological improvements such as

satellite tracking. Altogether, this competition has increased domestic penetration for same day or overnight service to more than 50 key Mexican cities.

Several sectors have particularly benefited from expansion of express services. These include computers, spare parts, high-value products, and industries using just-in-time supply chains such as high technology, automotive, pharmaceuticals, textiles, and manufacturing. Consequently, these sectors have been key to driving ever-greater cargo volumes through express services.

Future Express Delivery Trends

For a variety of reasons—from the extent of rural areas to high security costs protecting shipments from organized crime—Mexico has relatively high logistics costs in contrast to labor costs and customer demand for ever lower pricing. To support further growth of the sector, AMMPC is calling for progress on several challenges, including improvements in the legal framework for express delivery and efforts in combatting organized crime.

In the short term, the sector will continue to work on a wider range of integrated logistics solutions beyond transportation. It will also seek improvements in customer service, communications tools, and faster response times to requests. The sector further plans to tailor services to the diversity of industries that most demand express service, from banking services, textiles, and apparel to electronics, pharmaceuticals, and cosmetics.

eCommerce

According to the most recent data by the Mexican Internet Association, the Mexican eCommerce market had an estimated value of USD 12.3 billion in June 2018, representing 18 percent growth over 2017. The market is expected to continue growing due to improvements in connectivity, enhanced financial inclusion, more streamlined logistics, and increased digital literacy. Analysts predict that the increased use of e-commerce platforms during the COVID-19 pandemic will cement consumer habits, contributing to growth expectations for the sector. Multichannel brick-and-mortar (brick-and-click) retailers have reportedly seen their online sales grow to account for 25 percent of overall sales According to the National Institute of Statistics, Geography and Informatics (INEGI), in 2019 the country had 80.6 million Internet users, representing 70 percent of the population over the age of six and reflecting a growth rate of 4.3 percent over 2018.

Current eCommerce Market Trends

Transportation services lead the categories of reported online purchases, followed by digital downloads, event tickets, travel, and apparel. Debit cards and personal credit cards are the preferred methods of payment. However, many online retailers offer payment alternatives such as cash payments at convenience stores. The top incentives for online shoppers are secure payment options, free shipping, and a guaranteed return policy. There is a growing trend towards purchasing through mobile devices. The Mexican Central Bank (Banxico) mandated that all financial institutions with over 3,000 clients provide commission-free payments via quick response (QR) code on their mobile applications starting September 30, 2019.

Popular eCommerce Sites

Online marketplaces such as www.mercadolibre.com.mx, www.linio.com.mx, eBay, and www.amazon.com.mx are widely used. Additionally, some brick-and-mortar retailers have been very successful in expanding their eCommerce sales. Among the most popular are www.walmart.com.mx and www.liverpool.com.mx.

Domestic eCommerce (B2C)

Online marketplaces such as Amazon, Mercado Libre and Linio are among the most popular sites for domestic eCommerce in Mexico. Amazon opened its first Mexican storefront and fulfillment center in 2015 and launched Amazon Prime in 2017. It currently has four fulfillment centers in the country. Local department stores have expanded their online operations too.

Cross-Border eCommerce

In 2018, 47 percent of Mexican online shoppers reportedly purchased from international retailers, and 72 percent of those purchases were made on U.S. sites. Mexico's current *de minimis* level is USD 50, much lower than the *de minimis* of USD 800 in the United States. However, cross-border eCommerce stands to benefit from the ratification of the USMCA, as Mexico will continue to provide USD 50 tax free *de minimis* and also provide duty free shipments for values up to USD 117. The International Chamber of Commerce Customs Guideline #11 defines *de minimis* as a valuation ceiling for goods, including documents and trade samples, below which no duty or tax is charged, and for which clearance procedures, including data requirements, are minimal.

Mobile eCommerce

Mobile eCommerce is growing in Mexico. It is estimated that 60 percent of online purchases are conducted through mobile devices. Buyers access their social networks predominantly through mobile devices, and growth of mobile transactions has also been driven by the popularity of ridesharing networks.

eCommerce Considerations

eCommerce Services. Both international and domestic companies support eCommerce start-ups of established retailers that want to expand to online sales. They provide services such as search engine optimization, inbound marketing strategies, lead nurturing, and marketing automation.

eCommerce Intellectual Property Rights. Products sold online are covered by Mexico's Federal Copyright and Industrial Property Law. The law also protects online original content and domain names.

Online Payment. Personal credit cards and debit cards are the most common methods of payment.

Social Media and Digital Marketing. Use of social media is widespread in Mexico. Facebook is the most-used social network, followed by YouTube, Twitter, and Instagram. Mexican buyers report being highly influenced by social networks when making their purchases. Shoppers go online to conduct price comparisons, research product features, or find nearby stores before making purchasing decisions. The growing trend toward mobility will increase this influence.

Major Online Buying Holidays. Retailers report the highest number of eCommerce sales during the December holiday season. The second-largest online shopping event is '*El Buen Fin*,' a full-weekend promotion adopted by most Mexican retailers held in mid-November. The third and fourth-largest events are Black Friday and 'Hot Sale,' an initiative of the Mexican Association of Online Retailers where eCommerce vendors offer significant discounts over three to four days. It is held in late May/early June. Other major buying holidays are Cyber Monday and Mother's Day.

Selling Factors & Techniques

Despite the strong similarities with selling in the United States and familiarity with U.S. brands and ways of doing business, it is essential to remember language and culture when you sell. In addition to developing strong working relationships with Mexican partners, U.S. firms should use Spanish-language materials and communicate in Spanish whenever possible while doing business in Mexico. Be conscious of distinct cultural practices, such as customary hours for breakfast and lunch. Pay attention to pricing. Address worries about after-sales support. Hiring local staff can help facilitate relationships and provide U.S. companies with insight on selling to the Mexican market.

Trade Promotion & Advertising

Mexico has several resources for trade promotion and advertising which include trade shows, articles in printed media, TV and radio advertisements and advertorials, outdoor advertising, and digital advertising.

Trade Shows

There are more than 1,500 trade shows per year in Mexico which include industry trade shows and consumer-related trade shows.

Mexico City is the top destination for major trade shows. Key cities such as Querétaro, Guadalajara, Monterrey, Veracruz, and Puebla mainly host specialized industry fairs related to the types of industries in their area. Tourist destinations such as Cancun, Acapulco, and Los Cabos are popular for conventions, seminars, and hospitality trade fairs.

According to the Mexican Association of Trade Fair, Shows and Conventions Professionals (*Asociación Mexicana de Profesionales en Ferias, Exposiciones, Congresos y Convenciones* or AMPROFEC) there is a total of 150 trade show organizers in Mexico divided into three regions: North, South and Central. For more information about Trade Show organizers and Trade Shows please consult the AMPROFEC website.

Trade shows offer a good opportunity for U.S. exporters to build market insights, research competition, view marketing trends, and network. Participating in a trade show requires investment in time, money, and human resources. The Commercial Specialists of the U.S. Commercial Service can help you identify events and recommend market strategies for your company. In addition, the U.S. Commercial Service organizes U.S. pavilions in several major trade fairs in Mexico and brings delegations of Mexican buyers to major shows in the United States. Please refer to the *Events* section of each best prospect industry.

Advertising

Print media is popular for advertising in Mexico. According to the National Chamber of the Publishing Industry (*Cámara Nacional de la Industria Editorial Mexicana* or CANIEM) there are 420 newspapers and 1600 magazines published in Mexico. Specialized and industry–related magazines are good ways to advertise a service or a product. Articles in these magazines can be paid advertorials. Some magazines directly contact associations or companies for content, offering a space in their publication at a lower cost or as an exchange for content.

Some chambers and associations publish their own magazines in printed and electronic versions distributed to their members. Industry-specific directories can generate traffic to the company website.

According to the specialized marketing magazine *Merca 2.0*, advertising content in Mexico in the first half of 2018 was distributed as follows: 55.8% television, 19.2% internet/digital, 8.9% radio, and 16.1% other forms including outdoor advertising. Digital advertising appeared on social media such as Facebook and Twitter, in browsers such as Google, and digital content and advertising in YouTube. (For more details on digital advertising see our *eCommerce* section). Billboards are used extensively for outdoor advertising in Mexico. Both plain–paper billboards and digital signage are noticeable on the streets. Mexico City, for instance, has a total of 3,600 billboards.

The Mexican Association of Advertising Agencies (*Asociación Mexicana de Agencias de Publicidad* or AMAP) is a good source to identify the proper advertising agency for your company marketing and advertising strategies, for additional information please visit the AMAP website.

Pricing

U.S. exporters should look carefully at broker fees, transportation costs, and taxes to determine if the product/service can be priced competitively. U.S. companies shipping goods not made in the United States (or goods produced in multiple countries outside USMCA) could find their products subject to duties. For more information about import tariffs, see the *Customs, Regulations & Standards* topics in the *Trade Barrier*s section.

It is also important to take into consideration the value-added tax (*impuesto al valor agregado* or IVA). With a few exceptions for border transactions or re-export, Mexican Customs (*Servicio de Administración Tributaria* or SAT) collects IVA from the importer on foreign transactions upon entry of the merchandise into Mexico. This IVA is assessed on the cumulative value consisting of the U.S. plant value of the product (Free On Board or FOB price), plus the inland U.S. freight charges, and any other costs listed separately on the invoice, such as export packing and insurance, plus the duty, if applicable. Temporary imports of raw materials intended for export in final goods may be exempt from IVA under certain conditions.

The IVA is 16 percent country-wide. The importer will pay other fees for such services as inland Mexico freight, warehousing, and customs brokerage fees, if applicable. The IVA is a pass-along tax, typically recovered at the point of sale when the product is sold to the end-user. Each time the product is sold the buyer is charged the IVA. If resold, the importing company will then be reimbursed.

Due Diligence

U.S. firms are strongly advised to conduct due diligence on a Mexican firm or individual before entering into any type of agreement. In Mexico's larger cities, it is possible to hire a local consulting or law firm to obtain information about a company or individual. In addition, local chambers and associations can assist U.S. firms in locating economic reports on a particular firm.

There are only a few private firms that conduct due diligence countrywide. The U.S. Commercial Service offers a due-diligence service called an International Company Profile (ICP), which can be ordered from our domestic U.S. Export Assistance Centers or our offices in Monterrey, Guadalajara, and Mexico City. The ICP is a report in English that includes financial and commercial information on a Mexican firm, along with ownership information, reputational insights, and a report on legal actions against the firm or its owners.

Sales Service/Customer Support

Service and price are extremely important to Mexican buyers. In many industries, the decision to select a supplier depends on the demonstrated commitment to service after the sale has been made.

Mexican customers demand uniform quality, compliance with international standards, timely deliveries, and above all, reliable local service and maintenance programs. This last factor has become, in many instances, even more important than pricing or financing. Many Mexican firms employ English-speaking staff, but it is a good idea for U.S. companies to work with Spanish-speaking sales representatives. Providing appropriate training, product support, and timely supply of spare parts is critical for success. Ideally, the U.S. exporter should also host periodic visits by Mexican representatives to their headquarters. All Mexicans traveling to the United States for training or other business purposes need a visa. More information on the visa process is provided in the *Business Travel* section under the heading *Visa Requirements*.

Local Professional Services

U.S. Commercial Service in Mexico's Business Service Providers Directory is designed to help U.S. companies identify professional service providers to assist them in the assessment, completion, and/or financing of an export transaction.

The directory at the link above lists several business support organizations and service firms with the experience and expertise to help U.S. exporters and investors interested in Mexico. Although these lists are not comprehensive, they are a useful starting point for firms that need professional services in Mexico.

Principal Business Associations

Mexico has an extensive roster of business associations. For some general associations and function-specific associations, here is a selected list, though there are dozens more in specific sectors. Please refer to the other sections of this guide for and sector- and issue-specific resources.

American Chamber of Commerce (*Cámara Americana de Comercio* or AmCham)	www.amcham.org.mx/
Business Coordination Council (*Consejo Coordinador Empresarial* or CCE)	www.cce.org.mx/
Mexican Council of Foreign Trade (*Consejo Empresarial Mexicano de Comercio Exterior* or COMCE)	http://comce.org.mx/

National Chamber of the Transformation Industry (*Cámara Nacional de la Industria de la Transformación* or CANACINTRA)	www.canacintra.org.mx/camara/
Mexican Republic Employers Confederation (*Confederación Patronal de la República Mexicana* or COPARMEX)	www.coparmex.org.mx
National Association of Importers and Exporters (*Asociación Nacional de Importadores y Exportadores de la República Mexicana* or ANIERM)	www.anierm.org.mx/
Mexico City National Chamber of Trade, Services and Tourism (*Cámara Nacional de Comercio, Servicios y Turismo de la Ciudad de México* or CANACO)	www.ccmexico.com.mx/
Mexican Association of Accounting Firms (*Asociación Mexicana de Contadores Públicos* or AMCP)	www.amcp.mx
Mexican Confederation of Customs Brokers (*Confederación de Asociaciones de Agentes Aduanales de la República Mexicana* or CAAAREM)	www.caaarem.mx
Mexican Association of Electrical and Electronic Communications Engineers (*Asociación Mexicana de Ingenieros en Comunicaciones Eléctricas y Electrónica* or AMICEE)	www.amicee.org.mx
Mexican Association of Industrial Parks (*Asociación Mexicana de Parques Industriales* or AMPIP)	www.ampip.org.mx
Mexican Association of Information Technology Industries (*Asociación Mexicana de la Industria de las Tecnologías de Información* or AMITI)	https://amiti.org.mx/ or www.facebook.com/AMITIMex/
Mexican Association of Insurance Institutions (*Asociación Mexicana de Instituciones de Seguros* or AMIS)	www.amis.com.mx/amiswp
National Chamber of Auto-Freight Transport (*Cámara Nacional de Autotransporte* or CANACAR)	https://canacar.com.mx
National Chamber of Consulting Companies (*Cámara Nacional de Empresas de Consultoría* or CNEC)	www.cnec.org.mx
U.S.-Mexico Chamber of Commerce (*Cámara de Comercio México-Estados Unidos* or USMCOC)	http://usmcoc.org/

Limitations on Selling U.S. Products and Services

Under the United States–Mexico–Canada Agreement (USMCA), the Mexican market is substantially open to most all U.S. products and services. Please contact the Agricultural Trade Office (ATO) of the U.S. Embassy to learn more about any restrictions on U.S. food and commodity exports. For further details on the USMCA, visit the Office of United States Trade Representative website at https://ustr.gov/usmca

U.S. investors receive national and most-favored-nation treatment in setting up operations or acquiring firms in Mexico. Exceptions exist for investments restricted under NAFTA. The United States, Canada, and Mexico have the right to settle any dispute or claim under the USMCA through international arbitration. The USMCA will eliminate some barriers to investment in Mexico, such as trade balancing and domestic content requirements. Local Mexican governments must also accord national treatment to investors from USMCA countries.

Some sectors are limited to ownership or control exclusively by the Mexican Government or Mexican national citizens. There are 11 sectors reserved for the Mexican Government, in whole or in part:

- A. Petroleum and other hydrocarbons
- B. Basic petrochemicals

- C. Planning and control of the national electric system, as well as the public services of transmission and distribution of electricity
- D. Generation of nuclear energy
- E. Radioactive materials
- F. Telegraphic services
- G. Radiotelegraphy
- H. Postal service
- I. Bank note issuing
- J. Coinage and printing of money
- K. Control, supervision and surveillance of ports, airports and heliports

There are three sectors reserved for ownership or control by entities run by Mexican Nationals:

- A. Domestic transportation of passengers, tourism and freight, except for messenger or package delivery services
- B. Development banks
- C. Certain professional and technical services

Trade Financing

This section covers a range of financing topics for selling to Mexico. It covers payment methods, things to know about banking systems in Mexico, foreign exchange controls, U.S. and correspondent banking, and project financing.

Methods of Payment

Mexican lending rates are significantly higher than in the United States. Requiring payment either by confirmed letter of credit or cash in advance can cost U.S. exporters sales opportunities. While favorable payment terms are important, U.S. companies should consider all financing options available to be as competitive as possible. In the case of existing contracts, many importers are defaulting on payment deadlines, paying 30 to 45 days late. Exporters are advised to protect themselves from the risk of default by obtaining foreign buyer financing or export insurance from the U.S. Export-Import Bank (see below for more information).

It can be difficult to collect from Mexican buyers in cases of non-payment. The U.S. Commercial Service in Mexico has supported U.S. companies in their efforts to obtain payment for products/equipment delivered, but it is often necessary to travel to Mexico to meet with the buyer and in many cases to hire a lawyer to handle the case.

U.S. exporters are advised to be cautious and seek counsel when negotiating contracts in Mexico. Once negotiated, be prepared for the unexpected as access to credit in Mexico is limited or costly. Moreover, 90 percent of the Mexican private sector is comprised of small- or medium-sized companies, most of which have limited access to credit.

For more information, see *Web Resources* in this section or contact the U.S. Commercial Service in Mexico City.

Banking Systems

The Secretariat of Finance and Public Credit (SHCP), the National Banking and Securities Commission (CNBV), and Mexico's Central Bank, the Bank of Mexico (BANXICO) are the principal regulators of the banking system. SHCP is concerned with institutional issues, such as licensing, and sets credit and fiscal policies. CNBV, a semi-autonomous government agency, is responsible for supervision and surveillance. BANXICO implements these policies and operates inter-bank check clearing and compensation systems. The Institute for the Protection of Bank Savings (IPAB,

replacing the former institution FOBAPROA) acts as a deposit insurance institution. The Mexican Banking Association (ABM) represents the interests of Mexico's banks.

Mexico's commercial banks offer a full spectrum of services ranging from deposit accounts, consumer and commercial lending, corporate finance, trusts and mutual funds to foreign exchange and money market trading. Currently, 48 banks are operating in Mexico, seven of which (BBVA Bancomer, CitiBanamex, Santander, Banorte, HSBC, Inbursa, and Scotia Bank) control 78 percent of the market share by total assets. Mexico's commercial banking sector is open to foreign competition. All major banks, except for Banorte, are under the control of foreign banks.

Following the 1994 peso crisis, banks in Mexico had been very cautious in their lending, preferring to provide loans only to their most sound customers. However, banks are now beginning to implement programs for lending to a wider range of companies, although at relatively high rates. In general, small and medium-sized enterprises (SMEs) have trouble accessing credit.

According to a third quarter 2019 BANXICO survey of established companies, the companies' main sources of financing were suppliers (76.0%), commercial banks (34.1%), other companies and/or their own headquarters (22%), foreign banks (5.6%), development banks (5.1%), and debt issuance (3.2%).

The Mexican Government has enacted several incentives to encourage more lending to SMEs, and banks have followed suit with new lending policies, but it remains to be seen whether the largest segment of the Mexican economy will gain better access to credit

At the end of March 2020, due to the COVID-19 outbreak, the Secretariat of Finance announced that commercial banks will be allowed to grant payment extensions up to four months with an optional two-month extension to individuals and SMEs for all type of consumer loans (auto, credit cards, personal loans, mortgage and commercial credit lines).

Mexican Payments System (SPEI)

One objective of the Central Bank is to promote the development of the Mexican payments system. The Central Bank supervises the operation of the Inter Banking Electronic Payments System (*Sistema de Pagos Electrónicos Interbancarios* or SPEI), not only for large but also for retail payments transactions and it also regulates the retail payments systems which include electronic funds transfers, card payments, direct debits and checks. SPEI is an electronic funds transfer system owned and operated by the Central Bank. The system has allowed participants to transfer money in real time since August 2004. The system is used for both large-value payments and low-value transactions such as payrolls and person-to-person transfers. SPEI is a hybrid system, clears operations every few seconds, and the results are settled immediately on the participants' cash accounts.

Digital Payment System (Cobro Digital or CoDi)

In January 2019, BANXICO, SHCP, and CNBV announced a new payments system through QR (Quick Response) code. The system called Digital Charge (*Cobro Digital* or CODI) is part of the government efforts to increase financial inclusion and reduce the cash economy. CoDi's users/customers must have a smartphone, and a level 2 bank account (accounts that can be open with customer's basic information). The sellers must have a static QR Code, a smartphone to download the CoDi app (for face-to-face transactions) or a web page to generate the CoDi requests for online sales.

Mexican Financial Technologies (Fintech) Law

With about 400 fintech start-ups, Mexico is currently the largest fintech market in Latin America after Brazil. Most of the Mexican fintech companies focus on payments and remittances, personal financial management, crowdfunding and lending. According to *Fintech Radar Mexico* 2019 the segments with most activity and dynamism in Mexico are payments and remittances (20.1%), lending (20.6%), enterprise financial management (13%), crowdfunding (7.4%), insurance (6.6%), identity fraud (4.1%), digital banks (3.8%), trading & capital markets (3.3%), Digital banks (3.8%), and wealth management (2%).

Due to the growing importance of the fintech industry in Mexico, financial regulators drafted Mexico´s first financial technology regulation law to reduce operational risk, enhance transparency and improve security. On March 10, 2018 the Fintech Law was published in the Official Gazette. The law applies to four broad areas of fintech services: crowdfunding and P2P lending, electronic money services, virtual assets, and application programming interfaces (APIs). The law was drafted to foster financial inclusion, consumer protection, financial stability, competition, and financial integrity.

The law allows companies and financial entities to obtain a special temporary authorization to offer financial services using technological tools through a regulatory sandbox. The Fintech Law also mentions the creation of a Financial Innovation Group formed by financial authorities and the private sector to share ideas, discuss innovations in the financial arena between the private and public sectors, and achieve better planning and development of the law. The law also establishes that SHCP, CNBV, and BANXICO are the main regulators of the fintech sector.

Development Banks

The mission of development banks is to fill financing shortfalls in the commercial banking sector. Mexico has seven government-owned development banks that provide services to specific areas of the economy. The dominant institutions are *Nacional Financiera* (Nafinsa) and the National Bank for International Trade (Bancomext). These institutions have become primarily second-tier banks that lend through commercial banks and other financial intermediaries such as credit unions, savings and loans, and leasing and factoring companies. Nafinsa's primary program funds SMEs and micro businesses. Nafinsa also undertakes strategic equity investments and contributes equity to joint ventures. Bancomext provides financing to Mexican exports and to SMEs. It also offers working capital, project lending, and training to firms in several specific sectors that require support, such as textiles and footwear.

The other Mexican development banks are Banobras (*Banco Nacional de Obras y Servicios Públicos* or National Development Bank for Public Works and Services), Rural Agriculture Bank (*Financiera Rural*), Bansefi (*Banco del Ahorro Nacional y Servicios Financieros* or National Savings and Financial Services Bank), Banjercito (*Banco Nacional del Ejército* or Mexican Army, Air Force and Navy Bank), and *Hipotecaria Federal* (which finances Mexican homeownership through financial intermediaries).

Non-Banks (SOFOMs)

The non-traditional banking sector in Mexico is comprised of exchange houses, credit unions, leasing, factoring companies, and financial lending networks with multiple objectives (SOFOMs, for their legal corporate structure called *Sociedad Financiera de Objeto Múltiple*)). SOFOMs are divided in two categories: *Entidades Reguladas*, or Regulated Entities (SOFOM ER); and *Entidades No Reguladas*, or Non-Regulated Entities (SOFOM NR).

Due to the financial reform, regulation and supervision of SOFOMs has increased. SOFOMs have the obligation to maintain up-to-date information with the National Commission for the Protection of Users of Financial Services (CONDUSEF), and they are required to give information about their borrowers to at least one credit bureau.

SOFOMs may offer financial factoring, leasing, and loans and/or other credit services but they are not allowed to receive deposits from the public.

Foreign Exchange Controls

There are no controls on the transfer of U.S. dollars into or out of Mexico. This means that profits can be repatriated freely. However, to prevent money laundering, SHCP maintains a regulation governing the deposit and exchange of U.S. dollars in Mexican banks. Dollar transactions that are processed through on-line banking are not affected. According to the regulation, banks must observe the following limits:

- Individuals who are account holders of the bank can deposit no more than USD 4,000 per month in all banking branches.

- National citizens who are non-account holders of the bank can deposit USD 300 daily, but no more than USD 1,500 monthly.
- Tourists who are not account holders of the bank can exchange no more than USD 1,500 monthly in cash.

Border and tourist-area businesses can exceed the USD 14,000 per month cash deposit limit if they meet three criteria. They must 1) have been operating for at least three years; 2) provide additional information to financial institutions justifying the need to conduct cash transactions in U.S. dollars; and 3) provide three years of financial statements and tax returns. The limit on individual account holders remains unchanged. There is no restriction on the sale of dollars. However, upon entering or departing Mexico, cash amounts of USD 10,000 or more must be declared and documented. For more information on the regulation in Spanish, see the Official Gazette notice on this subject.

U.S. Banks & Local Correspondent Banks

There are many U.S.-based banks active in the Mexican market, particularly U.S. brokers and banks working with EximBank programs. The U.S. Commercial Service Mexico maintains a list of these banks. Please contact Sylvia Montano (Sylvia.Montano@trade.gov) for more information.

Protecting Intellectual Property

Responsibility for IPR protection is spread across several government agencies. The Office of the Attorney General (previously known as the PGR, now called the *Fiscalía General de la República* or FGR) oversees a specialized unit, UEIDDAPI (*Unidad Especializada en Investigación de Delitos contra los Derechos de Autor y la Propiedad Industrial)*, that prosecutes IPR crimes. The Mexican Institute of Industrial Property (*Instituto Mexicano de la Propiedad Industrial* or IMPI) administers patent and trademark registrations and handles administrative enforcement cases involving allegations of IPR infringement. The National Institute of Copyright (*Instituto Nacional del Derecho de Autor* or INDAUTOR) administers copyright registrations and mediates certain types of copyright disputes, while the Federal Commission for the Protection Against Sanitary Risks (*Comisión Federal para la Protección contra Riesgos Sanitarios* or COFEPRIS) regulates pharmaceuticals, medical devices and processed foods. The Mexican Customs Service (*Aduanas*, part of the *Servicio de Administración Tributaria* or SAT) ensures that illegal goods do not cross Mexico's borders.

Mexico faces widespread commercial-scale infringement that results in significant losses to Mexican, U.S., and other IPR owners. Obstacles to improving IPR enforcement in Mexico include legislative loopholes, lack of coordination between federal, state, and municipal authorities, reduced budget and resources for IP agencies, cumbersome judicial processes, and pervasive presence and use of pirated and counterfeit goods in the informal marketplace. In addition, Trans-National Criminal Organizations (TCOs), which control the piracy and counterfeiting markets in parts of Mexico, continue to impede federal government efforts to improve IPR enforcement. TCO involvement has further illustrated the link between IPR crimes and illicit trafficking of other contraband, including arms and drugs. Mexico continues to rely on arrests and prosecutions of counterfeiters *in flagranti* as opposed to mounting proactive investigations that seek to dismantle pirating and counterfeiting networks. Online and broadcast piracy is a serious problem, and U.S. brand owners also face bad-faith trademark registrations, making it important for companies to register their trademarks early. Moreover, right holders have expressed concern about the length of administrative and judicial patent and trademark infringement proceedings and the persistence of continuing infringement while cases remain pending.

Despite these shortcomings, Mexico agreed to important IP provisions in the United States–Mexico–Canada Agreement (USMCA) and is working with the United States on their implementation. On June 30, 2020, Mexico passed a new industrial property law (*Ley Federal de Protección a la Propiedad Industrial*) and amended its copyright law (*Ley Federal del Derecho de Autor*) and Criminal Code (*Código Penal Federal*). The amendments to the copyright law and criminal code went into effect July 2, 2020, and the industrial property law will go into effect November 5, 2020. Among other changes, these new laws address enforcement against counterfeiting and piracy, protection of pharmaceutical-related IP, protection against circumvention of technological protection measures and rights

management information, unauthorized camcording of movies, satellite and cable signal theft, transparency with respect to new GIs, copyright protection, pre-established damages, and enforcement of IP rights in the digital environment.

For information on the USMCA's IPR provisions, please visit the Office of United States Trade Representative website at www.ustr.gov.

Guiding Principles for Effective Protection and Enforcement of Your IPR

In any foreign market, companies should consider several general principles for effective protection of their intellectual property. For general background and more information, please review our article on Protecting Intellectual Property and our IPR protection website Stopfakes.gov.

Several general principles are important for effective management of IPR in Mexico. First, it is important to have an overall strategy to protect your rights. Second, IPR is protected differently in Mexico than in the United States, so you need to understand the specific procedures for Mexico. Third, rights must be registered and enforced in Mexico under national legislation. Your U.S. trademark and patent registrations will not protect you in Mexico. On the other hand, signatories of the Berne Convention for the Protection of Literary and Artistic Works provide protection to each other's nationals' copyrighted works and provide that nationals of all signatory countries be provided with the same rights as Mexicans.

Registration of patents and trademarks is on a first-in-time, first-in-right basis, so you should consider applying for trademark and patent protection even before selling your products or services in the Mexican market. It is vital that companies understand that intellectual property is primarily a private right and that the U.S. Government generally cannot enforce rights for private individuals in Mexico. It is the responsibility of the rights holders to register, protect, and enforce their rights, and where relevant, retain their own counsel and advisors. Companies may wish to seek advice from local attorneys or IP consultants who are experts in Mexican law. The U.S. Commercial Service in Mexico maintains a list of local attorneys but assumes no responsibility for the professional ability or integrity of the providers listed.

While the U.S. Government stands ready to assist, there is little we can do if rights holders have not taken these fundamental steps necessary to securing and enforcing their IP in a timely fashion. Moreover, in many countries, rights holders who delay enforcing their rights on a mistaken belief that the U.S. Government can provide a political resolution to a legal problem may find that their rights have been eroded or abrogated due to legal doctrines such as statutes of limitations, laches, estoppel, or unreasonable delay in prosecuting a lawsuit. In no instance should U.S. Government advice be a substitute for the obligation of a rights holder to promptly pursue its case.

It is always advisable to conduct due diligence on potential partners. Negotiate with a full understanding of the position of your partner and give your partner clear incentives to honor the contract. A good partner is an important ally in protecting IP rights. Consider carefully, however, whether to permit your partner to register your IP rights on your behalf. Doing so may create a risk that your partner will list itself as the IP owner and fail to transfer the rights should the partnership end. Keep an eye on your cost structure and reduce the margins (and the incentive) of would-be bad actors. Projects and sales in Mexico require constant attention. Work with legal counsel familiar with Mexican laws to create a solid contract that includes non-compete clauses, and confidentiality/non-disclosure provisions.

It is also recommended that small and medium-sized companies understand the importance of working together with trade associations and organizations to support efforts to protect IP and stop counterfeiting. There are a number of these organizations, both Mexico- and U.S.-based. These include:

- U.S. Chamber of Commerce
- American Chamber of Commerce in Mexico (AmCham)
- National Association of Manufacturers (NAM)

- International Intellectual Property Alliance (IIPA)
- International Trademark Association (INTA)
- Coalition Against Counterfeiting and Piracy
- International Anti-Counterfeiting Coalition (IACC)
- Pharmaceutical Research and Manufacturers of America (PhRMA)
- Biotechnology Industry Organization (BIO)
- Institute for the Protection of Intellectual Property and Legal Commerce (IPPIC)
- Mexican Association for the Protection of Intellectual Property (AMPPI)
- National Association of Corporate Lawyers (ANADE)
- Mexican Association of Research Pharmaceutical Industries (AMIIF)
- Mexican Association of Phonogram Producers (AMPROFON)
- Motion Picture Association of America (MPAA)
- Business Software Alliance (BSA)

IP Resources

A wealth of information on protecting IP is freely available to U.S. rights holders. Some excellent resources for companies regarding intellectual property include the following:

- For information about patent, trademark, or copyright issues—including enforcement issues in the United States and other countries—call the Department of Commerce's STOP! Hotline at +1-866-999-HALT or visit www.STOPfakes.gov.
- For more information about registering trademarks and patents (both in the United States as well as in foreign countries), contact the U.S. Patent and Trademark Office (USPTO) at +1-800-786-9199 or visit http://www.uspto.gov/.
- For more information about registering your copyright in the United States, contact the U.S. Copyright Office at +1-202-707-5959 or visit http://www.copyright.gov/.
- For more information about how to evaluate, protect, and enforce intellectual property rights and how these rights may be important for businesses, please visit the *Resources* section of the STOPfakes website at http://www.stopfakes.gov/resources.
- For information on obtaining and enforcing intellectual property rights and market-specific IP Toolkits visit http://www.stopfakes.gov/business-tools/country-ipr-toolkits. The toolkits contain detailed information on protecting and enforcing IP in specific markets and contain contact information for local IPR offices abroad and U.S. Government officials available to assist small and medium-sized enterprises (SMEs). Also see the Mexico IP Snapshot.
- An English-language overview of Mexico's IPR regime can be found on the WIPO website.
- Although a firm or individual may apply for example, for a patent or trademark directly, most foreign firms hire local law firms specializing in intellectual property. The U.S. Commercial Service's Business Service Provider program has a partial list of local lawyers.

Additional resources for rights holders:

Intellectual Property Rights Attaché
Cynthia C. Henderson
Regional Intellectual Property Attaché for Mexico,
Central America and the Caribbean
U.S. Trade Center
Liverpool No. 31 Col. Juárez
C.P. 06600 Mexico City
Tel: +52 (55) 5080-2189
Cynthia.Henderson@trade.gov

Claudia Rojas
Senior Legal Specialist for Intellectual Property
U.S. Trade Center
Liverpool No. 31 Col. Juárez
C.P. 06600 Mexico City
Tel: +52 (55) 5080-2000, ext. 5222
Claudia.Rojas@trade.gov

American Chamber of Commerce Mexico
Paseo de la Reforma 295 Col. Cuauhtémoc
C.P. 06500 Mexico City
Tel.: +52 (55) 5141-3820
amchammx@amcham.org.mx

National Institute of Copyright (INDAUTOR)
Puebla No. 143 Col. Roma, Del. Cuauhtémoc
C.P. 06700 Mexico City
Tel: +52 (55) 3601-8270
h.contreras@cultura.gob.mx
www.indautor.gob.mx

Mexican Institute of Industrial Property (IMPI)
Periférico Sur No. 3106 Piso 9, Col. Jardines del Pedregal
C.P. 01900 Mexico City
Tel: +52 (55) 5624-0401 / 04
+52 (55) 5334-0700
juan.lozano@impi.gob.mx
anel.valencia@impi.gob.mx
www.impi.gob.mx

For more information, contact ITA's Office of Intellectual Property Rights Director, Stevan Mitchell at Stevan.Mitchell@trade.gov.

Selling to the Public Sector

This section covers a broad range of considerations for selling to the Mexican public sector. We start with an overview of the size and process of Mexican government procurement, followed by a section on project financing to help exporters bidding on major Mexican government projects.

Selling to the Government

The Mexican Government purchases large volumes of raw material, repair parts, finished goods, and hired services to execute important infrastructure and construction works, not to mention supplies for the broad scope of government functions, including a government-run hospital and healthcare network, schools, defense, police, research, international affairs, and more.

Procurement Centralization

Upon being sworn in December 1, 2018, the López Obrador Administration announced a new system of centralized procurement to support government anti-corruption efforts, increase transparency and accountability, and reduce costs. As of April 2020, significant aspects of the centralized procurement system were still being worked out, including consistency of the new system with procurement provisions of the Mexican Constitution and Mexico's obligations under its various free trade agreements including the U.S.–Mexico–Canada Agreement. In practical operation, we have seen the government turn away from open international tenders to expanded use of invitations to bid followed by direct awards. This section provides an overview of what we know of this new centralized system together with the government procurement system as laid out in Mexican law.

In December 2018, the Government took two actions to kick off centralized procurement. First, the then–Minister of Finance, Carlos Urzúa, assigned Raquel Buenrostro as the then–Comptroller General (*Oficial Mayor*) and centralized procurement authority for all procurement. The current Comptroller General is Thalia Lagunas. Second, the Mexican Government signed an agreement with the United Nations Office for Project Services (UNOPS) to advise on tenders for strategic projects, provide technical assistance on tracking contracts, and increase transparency.

The new system was announced in May 2019 as the "Integrated Strategy for the New Public Procurement System" (*Estrategia Integral del Nuevo Sistema de Contrataciones Públicas)*. This strategy sets forth two main objectives. These are (a) Improve the transparency of the public procurement process; and (b) contribute to economic development having a procurement system with strategic planning, social responsibility, and a greater, more diverse number of potential suppliers. (Supplier diversity is thought to mean reducing reliance on suppliers from the United States and other traditional source countries such as Spain.)

The strategy includes the following actions:

- Strengthen the procurement planning process
- Support small and medium-sized companies (SMEs) with social responsibility programs
- Establish strong coordination with procurement units
- Consolidate procurements
- Adopt technology tools
- Improve transparency in public administration
- Create a flexible legal framework

Government Budgets and Spending

As announced in the Government's 2020 Economic Program, Mexico's 2019 overall federal budget authorization is MXN 6.1 trillion, or approximately USD 316 billion (up from USD 5 billion in the 2019 budget). The budget includes increased spending for social programs but also channels funds to security and the energy sectors.

This table depicts the 2019 Government´s GDP percentage expenditure of the public sector compared with 2018.

	2018	2019
Federal Government	**1.6**	**1.5**
Legislative	0.1	0.1
Justice	0.5	0.4
Government Policy Coordination	0.2	0.1
Foreign Affairs	0.1	0.0
Financial and Fiscal Affairs	0.1	0.1
Defense	0.5	0.5
Security	0.2	0.2
Other general services	0.1	0.1
Social Development	**10.3**	**11.0**
Environmental Protection	0.1	0.1
Housing	1.0	1.0
Health	2.4	2.4
Recreation and Culture	0.1	0.1
Education	3.0	3.1
Social Protection	3.8	4.3
Economic Development	**5.1**	**4.9**
Commercial and labor affairs	5.1	4.9
Agriculture, Fishing and Livestock	0.3	0.2
Oil& Energy	3.4	3.9
Mining, manufacturing and Construction	0.0	0.0
Transportation	0.6	0.3
Communications	0.0	0.0
Tourism	0.0	0.0
Science and Technology	0.2	0.2
Other industries	0.5	0.1
Stabilization funds	0.2	0.1

Source: Secretariat of Finance *(www.*finanzaspublicas.*gob.mx)*

State and municipal spending should not be ignored. The largest states and cities in terms of economic size include Mexico City and the states of México, Nuevo León, Jalisco, Veracruz, Campeche, and Guanajuato, which together account for more than 50 percent of national GDP.

Using Local Partners for Government Sales

For most opportunities, it is not required to have a local representative or an office in Mexico to bid on a tender and sell to the Mexican Government. However, a local office can simplify obtaining bid documents and supporting after-sales service and parts, in addition to tracking competitors and reassuring the procuring agency of your long-term commitment to the market. Frequently, the tender requires some type of local presence and Spanish-language skills. For these reasons, we strongly recommend that U.S. companies seeking government contracts work with a partner in Mexico. The U.S. Commercial Service can assist in identifying potential partners for U.S. companies. More information about these services can be found in the *Trade Promotion & Advertising* section.

Navigating Mexican Government Procurement

The U.S. Commercial Service Mexico City has a guide to Public Procurement in Mexico. The guide has not been updated as we await more clarity on the evolving centralized procurement system. However, please contact us to inquire about an updated copy. Below is a summary of key points for U.S. exporters based on the Mexican procurement system as stated in existing law.

The Mexican Government Procurement Process

Mexican Government procurement and contracts are governed by Article 134 of the Mexican Constitution, the Public Procurement Act (*Ley de Adquisiones, Arrendamientos y Servicios Del Sector Público*, or LAASSP), and Public Works Act (*Ley de Obras Públicas y Servicios Relacionados con las Mismas,* or LOPSRM). The Secretariat for Public Administration (*Secretaría de la Función Pública,* or SFP) is responsible for defining, monitoring, and enforcing procurement and contracting rules, including managing any objections or disagreements with the legality of the procurement process. Depending on the sector, other government ministries and agencies may have oversight on the process. For example, in the energy sector the Electricity Commission (*Comisión Federal de Electricidad*, or CFE) and the National Electric System (*Sistema Eléctrico Nacional*, or SEN) significantly regulate tenders in their respective areas of responsibility.

The Mexican Government makes purchases based on a documented need. Any agency engaging in public tenders or other procurement methods is required to post all listings on *CompraNet* (see the section on tracking tenders, below). The government must set a procurement budget, enter its information into an Annual Procurement Program (APP) on CompraNet, consider any relevant standards for regulated products, and address the agency's objective in the short-, medium- and long term. Prior to preparing a tender, the procuring agency must complete a comprehensive market study to establish market prices and specifications. There are three types of procurement procedures agencies can use: public tender, restricted invitation, and direct award. A public tender is the preferred method; however, there are twenty exceptions that allow for an agency to by-pass public tenders. A restricted tender is invitation-only but must include at least three bidders. A direct award is a sole-source procurement and requires approval of a specific justification such as national security. When a single supplier does not exist that can fulfill the required need, the procuring agency can offer a joint bid and/or split award.

An agency seeking to procure a product or service will evaluate the bid on point-based, cost-benefit, or binary criteria. Through a point-based process, every component of a bid is weighted differently (50 points in total), and the experience of a supplier is 10 percent to 15 percent of the final score. The cost-benefit evaluation monetizes the benefit of each component of the bid to enable cost-benefit scoring. The binary process is typically used for commodity purchases in which the procuring agency first determines bids that meet all technical requirements and then automatically awards the purchase to the lowest price bid.

Prior to the final version of the tender publication, the procuring agency has the option to post a draft tender to CompraNet for 10 days. Once this period is over, the final tender will be published. Tenders are published on the agency's website, CompraNet, and the Official Gazette.

Tracking Tenders and Bidding

The Mexican Federal Government uses an online procurement information management tool called CompraNet, similar to the United States FedBizOpps system. CompraNet is a repository for all official tender information and documents by all bidders. CompraNet stores each tender listing, procurement procedure, and procurement type (e.g. purchase, lease or service contracts), records on submissions and announcements.

Companies should complete the following to pursue a Mexican Government procurement contract:

1. Go to CompraNet and press "Register your Company" (accept the terms and conditions).
2. Select the 'Foreign Company' tab (*Extranjera Incorporar*) and enter all corresponding data and document in the space provided.
3. Attach the required file to process a digital certificate from the SFP.

4. Send the form with all registration information.
5. Wait one to two business days to receive account information and a digital certificate.
6. Access CompraNet.

The system offers a PDF guide to register in Compranet as a company.

As part of the Secretariat of Finance's integrated strategy, it issued a decree to incorporate in CompraNet the Federal Digital Store (*Tienda Digital del Gobierno Federal*), a system for federal government agencies to procure goods or services electronically.

We encourage U.S. firms to carefully analyze tender specifications. They may differ from entity to entity as well as the value of the purchase, type of goods or services, and regulatory requirements. A bid will be disqualified if not received within the specified period. Bids can also be disqualified for not meeting technical requirements—even items as small as a discrepancy in a comma between a bidder's corporate name and the name appearing in its certifications. Likewise, each tender includes a specific schedule for participants to ask questions.

If a tender specifies a certain brand or gives preference to a supplier, a complaint can be filed with the Directorate General of Complaints (*Dirección General de Quejas*) at the procuring agency before the contract is awarded. Bids should only include the exact specifications listed in the tender. "Additional solutions" and/or specifications not listed in the tender request can disqualify the bid.

Finally, U.S. firms should communicate regularly with their Mexican representative and fine-tune all details related to the required documents. There have been cases of disqualification based upon seemingly insignificant omissions on the part of bidders to comply with tender requirements and procedures.

Corruption in Government Procurement

Corruption exists in many forms in Mexico, and it can, at times, influence tenders. The use of exceptions such as shortened procurement windows and sole source awards are common. Generally federal-level procurements have better oversight and anti-corruption safeguards than at the sub-national level. Despite these concerns, U.S. companies regularly win government contracts based on the strength of their bid. Please see the sections on *Corruption* and *Regulatory Transparency* in the *Investment Climate Statement* section.

Sector-Specific Procurement Developments

As noted at the beginning of this section, the new centralized public procurement mechanism is still evolving. However, we have observed significant changes in key procurement-heavy sectors.

Defense. The Mexican Secretariat of National Defense (*Secretaría de la Defensa Nacional* or SEDENA) and the Mexican Navy (*Secretaría de la Marina* or SEMAR) will handle the defense procurement process through their internal offices, led by their own General Comptroller's Office (*Oficial Mayor*) rather than the Secretariat of the Treasury (*Secretaría de Hacienda y Crédito Público* or SHCP). SEDENA and SEMAR will be more independent in the procurement process than other cabinet agencies and government offices. Both institutions will use the annual budgets assigned by SHCP and will follow the requirements of the Public Procurement Act and Public Works Act, outlined above. The requirements to register new suppliers in CompraNet remains the same as in past administrations. SEDENA has also been managing the procurement to equip the new National Guard. In short, defense procurements will remain similar to the prior administration and will have expanded scope with respect to supporting the National Guard. See our *Aerospace* and *Safety & Security* sections for more information and contacts for our team.

Health. The López Obrador Administration is reorganizing the public healthcare sector to expand access to healthcare services and medicines for all Mexicans and to fight corruption in health system procurement. As part of this reorganization, there are several changes underway that impact the government procurement process more significantly than for other government agencies. Please see our *Healthcare Products and Services* section for an overview of the industry.

The official government purchasing lists are changing, centralized procurement has caused supply problems, and multi-product and emergency tenders have had a range of issues. These include open international sourcing from low-cost countries (rather than phased procurement favoring domestic providers and trade agreement countries including the United States), low-price requirements, short response timelines, separation of product supplies from essential services (such as dialysis supplies separated from dialysis services), and direct supply rather than the use of wholesalers or distributors. Pharmaceutical and medical device / supply companies express concern about the exclusion of distributors since they are reliant upon Mexico's wholesale distribution system to guarantee controlled storage, inventory, and cold-chain handling. CS Mexico is actively monitoring these developments and communicating with the Mexican Government to implement fair procurement practices that ensure quality-controlled and efficacious products from reputable suppliers.

Infrastructure. As outlined in the National Development Plan, Mexico is planning a wide variety of infrastructure projects for the 2018–2024 Period (see our sections on *Transportation Infrastructure*, *Water*, *Energy*, and *Oil & Gas* for more details). Procurement for the most prominent of these projects appears to be taking a somewhat different route than either defense or healthcare. It appears tenders for these projects will appear in CompraNet and may be managed to some degree by SHCP. However, we have seen indications that agencies managing the various projects may opt for direct award solicitations when directed by President López Obrador or to focus on preferred identified suppliers. We encourage you to contact your CS Mexico team in the relevant sector for assistance.

Advocacy

U.S. companies bidding on a Mexican Government tender may also qualify for U.S. Government advocacy. A unit of the U.S. Commerce Department's International Trade Administration, the Advocacy Center, coordinates U.S. Government interagency advocacy efforts on behalf of U.S. exporters bidding on public sector contracts with international governments and government agencies.

The Advocacy Center works closely with our network of domestic U.S. Commercial Service Export Assistance Centers and with the U.S. Commercial Service in Mexico to ensure that exporters of U.S. products and services have the best possible chance of winning government contracts. Advocacy assistance can take many forms but often involves the U.S. Embassy or other U.S. Government agencies expressing support for the U.S. bidders directly to the foreign government. Consult Advocacy for Foreign Government Contracts for additional information.

Project Financing

For large infrastructure projects, several financing instruments are available. Project consortia often develop a finance mix between development banks, multilaterals, commercial banks, and national export credit agencies, such as the U.S. Export-Import Bank.

U.S. Export-Import Bank

The Export-Import Bank of the United States (EXIM), an independent agency of the Federal Government, offers various short-, medium-, and long-term export finance and insurance programs. Of specific interest to U.S. exporters are the guarantees for medium-term loans to foreign buyers of capital equipment. Most loans are made by U.S. banks with EXIM's guarantee. More than 85 percent of EXIM's transactions in recent years directly benefited small businesses. In Fiscal Year 2018 EXIM Bank's total exposure in Mexico was USD 4.45 million and guarantee authorizations were USD 47 million. Mexico remains one of the largest markets in EXIM's portfolio as the second in country exposure followed by Mozambique and Saudi Arabia.

Much of EXIM's activity is under so-called bundling facilities. A bundling facility is a large medium-term loan made to a Mexican bank by a U.S. bank with the guarantee of EXIM. The Mexican bank then makes loans to Mexican companies for the purchase of American capital goods. There also are several U.S.-based banks that extend EXIM bank credits in Mexico. The major Mexican commercial banks have signed agreements with EXIM bank to grant lines of credit to Mexican firms that purchase U.S.-made products. Many major Mexican banks have Master Guarantee

Agreements. Such credits generally are available only to Mexican blue-chip companies and to their suppliers with firm contracts.

Additionally, EXIM has made financing for renewable energy a top priority since the inception of its Environmental Exports Programs in 1994, offering competitive financing terms (up to 18 years in some cases) to international buyers for the purchase of U.S. origin environmental goods and services. Go to www.exim.gov for more information on EXIM.

U.S. Trade and Development Agency

The U.S. Trade and Development Agency (USTDA) provides grant funding for infrastructure project planning activities to help promote U.S. exports. By assisting U.S. firms to become involved in the early stages of project development, USTDA increases awareness of upcoming projects for the U.S. business community, growing the probability that U.S. exports will be used during the implementation stages. USTDA works closely with multilateral development banks, including the World Bank and the Inter-American Development Bank, to help U.S. firms take advantage of projects financed by those banks. Additionally, USTDA organizes reverse trade missions to introduce Mexican project sponsors to U.S. technology and companies. USTDA has an active program in Mexico, funding projects in a wide range of sectors, including energy, transportation, telecommunications, and the environment.

USTDA has published a comprehensive Resource Guide for U.S. companies on Priority Infrastructure Projects in Mexico. Go to www.ustda.gov for more information on USTDA.

U.S. Small Business Administration

The U.S. Small Business Administration (SBA) provides financial and business development assistance to encourage and help small businesses develop an export component to their businesses. The SBA assists businesses in obtaining the capital needed to explore, establish, or expand in international markets. SBA's export loans are available under SBA's guaranty program. Prospective applicants should tell their lenders to seek SBA participation if the lender is unable or unwilling to make the loan directly.

SBA also offers an Export Revolving Line of Credit (ERLC) program that is designed to help small businesses obtain short-term financing to sell their products and services abroad. The program guarantees repayment to a lender in the event an exporter default. The ERLC protects only the lender from default by the exporter; it does not cover the exporter should a foreign buyer default on payment. Lenders and exporters must determine whether foreign receivables need credit risk protection. Go to www.sba.gov for more information on SBA.

Multilateral Development Banks and Financing Government Sales

Price, payment terms, and financing can be a significant factor in winning a government contract. Many governments finance public works projects through borrowing from the Multilateral Development Banks (MDB). A helpful guide for working with the MDBs is the Guide to Doing Business with the Multilateral Development Banks. The U.S. Department of Commerce's (USDOC) International Trade Administration (ITA) has a Foreign Commercial Service Officer stationed at each of the five different Multilateral Development Banks (MDBs): the African Development Bank; the Asian Development Bank; the European Bank for Reconstruction and Development; the Inter-American Development Bank; and the World Bank.

Learn more by contacting the:

- Commercial Liaison Office to the Inter-American Development Bank
- Commercial Liaison Office to the World Bank

Financing Web Resources

Export-Import Bank of the United States	www.exim.gov
EXIM Country Limitation Schedule	www.exim.gov/tools/country/country_limits.html
Overseas Private Investment Corporation (OPIC)	www.opic.gov
U.S. Trade & Development Agency (TDA)	www.tda.gov
SBA's Office of International Trade	www.sba.gov/oit
USDA Commodity Credit Corporation	www.fsa.usda.gov/ccc/default.htm
U.S. Agency for International Development	www.usaid.gov
Federal Trade Commission	www.ftc.gov
Commercial Liaison Office to the World Bank	http://export.gov/worldbank
Commercial Liaison Office to the Inter-American Development Bank	http://export.gov/idb
Trade Finance Guide for U.S. Exporters	www.export.gov/TradeFinanceGuide
Financing and Payment Mechanisms Report	U.S. Commercial Service Mexico Website

Business Travel and Etiquette

This section on business travel provides an overview of business customs and travel tips that may be useful during your time working in Mexico.

Business Customs

Mexican business people in major cities place a great deal of importance on appearances, and in many settings generally dress more formally than in most U.S. cities. We recommend wearing professional attire when meeting with prospective business partners in Mexico and avoiding overly casual clothes and athletic shoes when going out to business meals.

Being sensitive to typical business hours and mealtimes is extremely important. It is not uncommon for offices to open at 9:30 or 10:00 a.m. and for people to work until 8 p.m. or later. This means that during the week, many Mexicans follow a pattern of five meals, with *desayuno* consisting of fruit or a pastry between 7 a.m. and 9 a.m. before going to work, a somewhat heavier *almuerzo* around 10:30 or 11:30 a.m., a heavy lunch called *comida* generally after 2 p.m., an evening snack called *merienda*, and/or a light dinner or *cena* after 8 p.m. Don't try to schedule a meeting between 2 p.m. and 4 p.m. unless you intend for it to be a lunch meeting.

The business lunch is a key tool in Mexico. Use it to build relationships and discuss matters in greater leisure. Before beginning a business discussion, it is common to discuss family, recent events, or other social themes. Mexican business people and government contacts may smoke and drink during business meals. Business lunches can span two hours or more and, again, usually do not begin until 2 or 3 p.m. Many restaurants do not open for lunch before 1:30 p.m. and most restaurants will not even begin offering dinner before 7:30 p.m.

Patience is key when doing business in Mexico. Business meetings in Mexico will often take longer than they would in the United States. Mexican social etiquette often includes more small talk before business. Social custom makes it difficult to say no. Therefore, "yes" does not always mean yes. In conversation, Mexicans emphasize tactful and indirect phrasing, and may be more effusive than Americans with praise and emotional expressions. Email communication may be significantly more formal than it is in U.S. practice, and it is courteous to mirror this formality in your own emails. The mobile messaging application WhatsApp is popular for quick, informal communications. Do not be overly aggressive while negotiating. It is considered rude.

The concept of time is flexible in Mexico. Guests to social events (except in the case of cities in the North) can arrive up to an hour late. However, punctuality is the norm for most business and government appointments.

Business cards are used extensively. Come with a large supply. Mexican pesos are used throughout the country. It is not legal or common to pay with U.S. dollars (although in border areas and tourist areas dollars are sometimes accepted).

Travel Advisory

The State Department provides a security assessment of every state in Mexico. All U.S. travelers and investors to the country are strongly encouraged to visit the Department of State's Travel Warning website. We also recommend you register your trips through the Safe Traveler Enrollment Program, which will allow you to receive security updates and instructions in the event of a natural disaster or other incident.

Visa Requirements

If a U.S. business person wants to reside in Mexico and work on a more permanent basis, it is necessary to obtain a Temporary Mexico Resident Card. This form may be obtained with validity up to one year, renewable up to a total of five years.

For definitive immigration regulations from the Mexican Government, please review the information on immigration law and regulations.

All U.S. citizens must have a passport or passport card to enter Mexico. Passport cards can be used only to cross into Mexico within 13 miles from the border. Passports are required for air travel or for land border travel when visiting any State of Mexico that is more than 13 miles from the border. There is a single visa form for tourist and business visitors, valid for 180 days upon entry with no fee. This form is normally distributed on all arriving aircraft. The bottom portion of this form will be torn off and handed back to you to become your Visitor Card (*Forma Migratoria Múltiple* or FMM), which you should keep in your passport.

IMPORTANT NOTE: All foreign visitors should keep their Visitor Card (FMM) bearing the official entry stamp as it must be surrendered upon departure from the country. It is extremely important to keep this form in a safe location. Upon exiting the country at a Mexican Immigration (*Instituto Nacional de México* or INM) departure check point, U.S. citizens are required to turn in this form. We are aware of cases where U.S. citizens without their FMM have been required to change their flight (at personal expense), file a police report with local authorities regarding the missing document, and visit an INM office to pay a fine and obtain a valid exit visa. In other cases, travelers have been able to continue their journey after paying a fine. If you enter Mexico by land and expect to depart by air or land, be sure to receive the FMM when entering Mexico, either at the initial border entry or at the interior checkpoint 21 km past the border. While it is always provided at Mexican international airports as part of immigration procedures, it is not always automatically given at land crossing. If you then try to return to the United States by air without the card you can be subject to a fine of up to USD 400 or may be detained and deported if stopped in the interior of the country.

For further information please visit the Mexican Secretariat of Tourism website.

U.S. companies that require travel of foreign business persons to the United States should ensure the Mexican or third-country national applies for their U.S. visa well in advance. Applicants for a U.S. visa should go to the following links:

- State Department Visa Website
- U.S. Embassy Mexico Visa Information

Expedited Entry into the U.S. and Mexico

Members of the U.S. Global Entry program know how convenient it is for entry to the United States. Global Entry allows U.S. citizens and residents of select countries, including Mexico, who have applied and been approved to have expedited entry at airport immigration and customs facilities when returning to the United States. Global Entry membership also gives you access to SENTRI lanes at the U.S.-Mexico land border. If you are not a Global Entry member, you can get more information and apply at the Global Entry website. Mexico has a similar program for frequent travelers entering Mexico by air. It's called the *Programa Viajero Confiable* (Trusted Traveler Program). Members of Viajero Confiable who are Mexican Nationals can now also apply for NEXUS to have expedited entry at airports in Canada.

Viajero Confiable provides similar benefits for entering Mexico and is in operation at airports in Mexico City, San Jose del Cabo, and Cancun. The application may be made online. Once preapproved, applicants must undergo an interview at an enrollment center at one of the three Mexican airports for final approval. Membership is good for five years and you can apply at the program website.

NEXUS offers benefits at airport and land border ports of entry in Canada. For more information visit the NEXUS site.

Those who cross the U.S. land border regularly but don't need the full benefits of Global Entry might be interested in membership in SENTRI, open to all nationalities who meet membership criteria. Information on the program is available at the SENTRI website.

Currency

Mexico's currency is the Mexican peso. In the first half of 2020, the average exchange rate was 19.97 pesos to the U.S. dollar. In most cities and tourist areas, credit and debit cards are widely accepted in established businesses. There is usually easy access to ATMs that accept U.S. ATM networks. Take the usual precautions to prevent skimming or theft of your card and banking information, including your PIN, and be cautious of anyone approaching you when at ATM machines.

Telecommunications/Electronics

Telephone Services

Telephone service is usually reliable, though certain remote locations in Mexico do not have direct dialing to the United States. Telephone service is heavily taxed in Mexico, and fees are relatively high. Select calling cards may be used in Mexico. More commonly, cellular telephones and smart phones are available and widely used. On mobile devices, country codes may be dialed with a plus sign (+) before the country code. Mexico's country code is +52 and it is +1 for the United States. In August 2019, the Mexican telephone system simplified dialing prefixes for Mexican numbers. To dial or send a message to a Mexican you are now required to enter only the 10-digit number consisting of the area code and phone number.

The three main mobile carriers, Telcel, Movistar, and AT&T offer national coverage and international roaming services. Telcel and AT&T offer packages with no roaming charges throughout North America available through T-Mobile and AT&T in the United States. The best reception is found on federal highways and in the top 50 cities in the country, including beach resorts. It is very likely that you will be able to use your mobile phone while traveling to Mexico, regardless of the company and technology (GSM, CDMA or PTT) you use.

Roaming services apply to both voice and data services. You can use data on your mobile phone if you have contracted such a service in the United States. However, if you do not have an international plan, roaming fees (voice and data) can be substantial.

Internet Services

Tourist and business hotels provide internet services in rooms, or at a minimum, in business centers. Internet hotspots are now common. Free Wi-Fi is offered in select public spaces through the government-sponsored *Mexico Conectado* program, and most restaurants and cafés offer free Wi-Fi to patrons. Because internet penetration in residential areas was relatively low until recently, Mexico still has many internet cafés that offer internet access for a fee.

Electricity

Mexico uses the same voltage (120v) and the same size wall plugs as the United States.

Transportation

Mexico City, Guadalajara, Monterrey, Tijuana, Querétaro, and other Mexican cities have frequent direct and non-stop flights from major U.S. cities. American carriers to Mexico include American, Delta, U.S. Airways, United, Jet Blue, and Southwest. Mexican carriers providing scheduled service within Mexico include Aeromexico, Volaris, Interjet, and Viva Aerobus.

Taxis, Uber, and Road Transportation

It is important to ONLY use registered *sitio* taxi services or application-based car services such as Uber throughout the country, including using only the taxi vendor booths located INSIDE the airports. For Uber or other app-based services such as Cabify, you will need to check if there is service in your city of destination, download the app, and configure a profile and payment account (preferably prior to arrival). Hotels and restaurants can also call a sitio or radio taxi for you. The taxi driver will provide you with a receipt (*un recibo*) upon request. For airport taxis, the receipt is usually the pre-paid stub from your ticket. App-based services may face local resistance. For more information, please see the *State Department Mexico Travel Advisory* as well as the advisory's *Travel and Transportation* section.

Airport Arrivals

The Mexico City Benito Juarez International Airport offers a fixed price taxi service to any point in the city. You can pay with a credit card or pesos, and you purchase tickets at one of several taxi company booths just after exiting the customs area. The fare from the airport to most areas within the city can vary widely as Mexico City is so large but should average MXN 200-350 for car service (rates are higher for an SUV). Alternatively, travelers can use the Uber app for an airport pickup and to move around Mexico City. Allow time for travel to and from the airport to major hotels. While the trip can take as little as 20 minutes in light traffic in the middle of the night, the same trip can take nearly two hours if accidents, demonstrations, rain, or other occurrences disrupt traffic.

The Monterrey General Mariano Escobedo Airport has a very similar taxi service. The fare to most locations in Monterrey is about MXN 250-300. With your ticket in hand, exit the lobby, and an attendant from the taxi company will guide you to your taxi. Alternatively, travelers can use the Uber app for an airport pickup and to move around Monterrey. Airport and Flight Information is available by calling +52 (81) 8345 4434.

The fare from Guadalajara International Airport to most locations in Guadalajara is about MXN 260-420. The trip from the airport to Guadalajara can take up to 45 minutes, depending upon traffic. Alternatively, travelers can use the Uber app for an airport pickup and to move around Guadalajara. For airport and flight Information, call +52 (33) 3688-5894.

Sitio taxi services and Uber (depending upon location) are available at other airports and hotels around the country as well.

Language

Spanish is the official language of Mexico. While many people in the large cities speak some English, it may be difficult for them to conduct detailed business discussions in English. Non-Spanish-speaking visitors to Mexico should consider hiring an interpreter for formal business meetings. It is considered courteous for U.S. business people to speak a few words of Spanish. Many mid- and high-level government officials and business executives speak English, and many are U.S.-educated.

Health

A high standard of medical care is available in the principal cities, especially from the main private hospitals and doctors. Many private Mexican doctors have U.S. training and speak English. The Centers for Disease Control and Prevention maintains a website with health recommendations for travelers at http://wwwnc.cdc.gov/travel/.

The Embassy and Consulates maintain lists of hospitals. For the three top cities, you can consult the following links:

- Mexico City
- Guadalajara
- Monterrey

The U.S. Embassy does not assume responsibility for the professional ability or integrity of the persons or firms whose names appear on the above lists.

In case of medical emergency, U.S. citizens may call the American Citizen Services at any U.S. Embassy or Consulate for help. Please find additional information and contacts for all U.S. consulate locations in Mexico at Mission Mexico - Locations.

Mexico does have health concerns. You should take normal tourist precautions regarding drinking water and eating uncooked items such as fresh fruits, vegetables, and salads. Some individuals react to the pollution and high altitude of various cities, so take things slowly at first. Travelers to Mexico City may require some time to adjust to the altitude (7,400 ft.), which can adversely affect blood pressure, digestion, sleep, and energy level. Individuals with the sickle cell trait should consult with the appropriate medical unit or their personal physician before commencing travel.

Visitors on short-term assignments carry an added risk because of the lack of time to acclimatize. Dehydration, stress, or illnesses compound the basic risks of high altitude. For more information, contact your health provider.

Please note that health insurance is an important consideration. Travelers are responsible for ensuring that they have adequate health coverage while in Mexico.

All travelers should be aware that the CDC has issued a Travel Alert Level 2 "Practice Enhanced Precaution for Mexico." Comprehensive information regarding Zika and risks to travelers is posted on the CDC website at http://www.cdc.gov/zika/index.html.

Local Time, Business Hours, and Holidays

Mexico spans several time zones, as does the United States. From the Yucatán Peninsula to Tijuana, there is a three-hour time difference. Mexico City and Central Mexico are on Central Standard Time (CST). Mexico has Daylight Savings time, though there is a difference of a few weeks from when it changes in the United States, except for certain border regions.

Listed below are Mexican holidays for 2019–2020. On these days, banks will not open and most businesses will be closed. Be aware of the popular "*puentes,*" which is the local term for when holidays fall near the weekend. As in the United States, holidays falling on a Thursday, Friday, Monday, or Tuesday are rapidly converted into long weekends and are not a good time to schedule business trips. Also review the *Business Customs* topic above for notes on business hours and meal times.

Mexican Holiday Schedule (July 2020-December 2021)

2020

- September 16, Wednesday, Mexican Independence Day
- November 16, Monday, Anniversary of the Mexican Revolution
- December 25, Friday, Christmas Day

2021

- January 1, Friday, New Year's Day
- February 5, Friday, Anniversary of the Mexican Constitution
- March 15, Monday, Birthday of Benito Juarez
- April 1, Thursday, Holy Thursday
- April 2, Friday, Good Friday
- May 5, Wednesday, Battle of Puebla
- September 16, Thursday, Mexican Independence Day
- November 2, Tuesday, All Souls' Day
- November 15, Monday, Anniversary of the Mexican Revolution
- December 25, Saturday, Christmas Day

Temporary Entry of Materials or Personal Belongings

Please refer to the *Customs, Regulations and Standards* topic in the *Temporary Entry* section.

Investment Climate Statement

The U.S. Department of State's Investment Climate Statements provide information on topics including openness to investment, legal and regulatory systems, dispute resolution, intellectual property rights, transparency and corruption. For more information go to the 2019 Mexico Investment Climate Statement.

Political Environment

For background information on the political and economic environment of the country, please use this link to access the U.S. Department of State Mexico page.