

Special Article

Transportation Bottlenecks Shape U.S.-Mexico Food & Agricultural Trade

Anyone visiting Laredo, Texas quickly notices that this bustling city is a major gateway for trade between the U.S. and Mexico. In fact, it is the busiest of all ports of entry for commercial trade along the more-than 2,000-mile U.S.-Mexico border. Delays are common, with tractor-trailers lined up waiting to carry cargo across the border. South of the border, queues are several miles long with Mexican trucks waiting to cross into the U.S.

The high volume of traffic at Laredo and other border crossings symbolizes the dynamic and fast-growing trade relationship between the U.S. and Mexico, spurred by economic growth on both sides of the Rio Grande and, beginning in 1994, by the progressive elimination of numerous tariff and quota barriers as part of the North America Free Trade Agreement (NAFTA).

Food and agricultural trade between the U.S. and Mexico has been a part of this growth, more than doubling in the last 10 years to a forecast \$10.9 billion in fiscal 2000. Mexico is now the fourth-largest U.S. export market for farm products (\$5.9 billion) and ranks third as a source of farm imports (\$5 billion). The trade is driven by three factors, each associated with a distinctive transportation pattern:

- Income growth in Mexico, with the exception of the 1995 recession, has been significant, averaging about 5 percent per year since implementation of NAFTA. More and more of Mexico's 98 million people have moved into the middle to upper classes, now estimated at about 30 million. Many of them reside in the industrial heartland, the "golden triangle"—an area outlined by Mexico's three largest cities: Monterrey, Mexico City, and Guadalajara. This is also where a good deal of value-adding activity takes place, such as transforming raw agricultural imports like feedgrains and oilseeds into meat products targeted for domestic consumption. U.S. products destined for the region move primarily by truck and, to a much lesser extent, by rail along the Laredo-Mexico City corridor. Some bulk commodities move through the U.S. seaports of Galveston and New Orleans to Veracruz and other Mexican seaports, then to interior locations.
- Income growth in the U.S. has led to dietary diversification and to demand for a stable year-round supply of certain foods. Mexico's climate and investment in irrigation have enabled an export-oriented industry in its northwest to develop to meet U.S. demand for off-season fruits and vegetables. A large share of Mexico's horticultural product exports moves northward by truck primarily through Nogales, Arizona, and to a lesser extent through the Rio Grande Valley, including the Texas towns of Hidalgo, McAllen, and Mercedes. The products are stored in warehouses and distributed to grocery chains and markets throughout the U.S. This trade is seasonal, peaking in November-March.



William T. Coyle

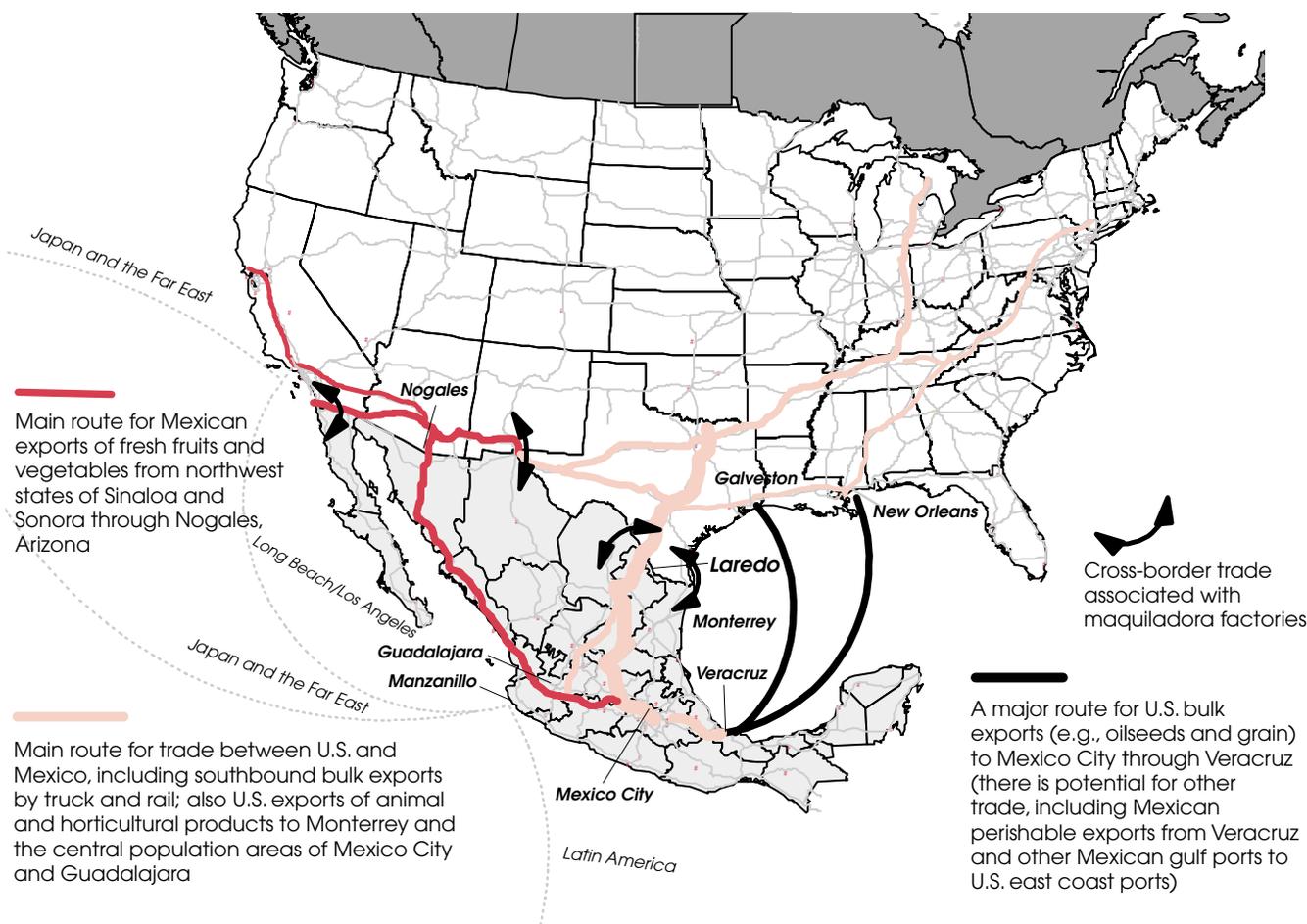
- Development of the *maquiladora* system—assembly of foreign component parts for re-export—is based on inexpensive Mexican labor, plentiful U.S. and other foreign capital, and a policy environment encouraging investment and trade. The system, a result of comparative advantage and government policy, employs 1.2 million workers in 3,521 plants, according to a March 2000 report by U.S.-Mexico Chamber of Commerce, and it accounts for about 40 percent of Mexico's total exports. Three-quarters of the plants are in Mexico's six border states with the U.S.

About 30 percent of the *maquiladora* factories are engaged in textile and apparel manufacturing and are important buyers of U.S. cotton, textiles, and yarn. These border areas, where population and income growth has been faster than in other parts of the country, in turn provide markets for U.S. food and agricultural products. Because much of the output is exported to the U.S., the *maquiladora* system is closely linked to the performance of the U.S. economy. The system is a large contributor to traffic congestion along the border close to where many of the plants are located, particularly at El Paso-Ciudad Juarez, Laredo-Nuevo Laredo, San Diego-Tijuana, and Brownsville-Matamoros.

Rising trade has led not only to congestion but also, in some instances, to costly delays at the border and elsewhere. Particularly vulnerable are time-sensitive perishable products that make up a sizable share of both south- and northbound food and agricultural trade.

Food and agricultural trade between the U.S. and Mexico grew briskly in the 1990's despite border and infrastructure constraints. During this time, growth in U.S. agricultural exports to Mexico outstripped growth in shipments to almost all other

Main Trade Routes for U.S.-Mexico Trade in Food and Agricultural Products



Source: Rob Harrison, "Harmonizing Truck Transportation," in Policy Harmonization and Adjustment in the North American Agricultural and Food Industry—Proceedings of the Fifth Agricultural and Food Policy Systems Information Workshop, University of Guelph, February 2000. Economic Research Service, USDA

major U.S. foreign markets, some of which are more developed than Mexico, including the European Union (EU), Japan, Taiwan, and South Korea. While growth in exports to China, Southeast Asia, and South America was more rapid in the mid-1990's, it was not sustained in these markets because of the effects of financial crises, recession, and supply-side factors on import demand (e.g., record crops in China). Growth in food and agricultural exports to Canada and Mexico was roughly equal; growth in total U.S. exports to Mexico was significantly faster than to Canada in spite of a much more integrated and seamless U.S.-Canada transportation system.

More than 45 percent of the food and agricultural products now crossing the U.S.-Mexico border is perishable—about three-quarters of northbound and one-fifth of southbound food and agricultural trade. This trade includes fresh and frozen fruits and vegetables as well as chilled and frozen dairy, livestock, and poultry products. U.S.-Mexico two-way perishable trade in

1998-99 was larger than with any other U.S. trading partner, slightly more than U.S.-Canada and more than double the volume with the EU and with Japan.

Extensive trade in perishables is a sign of a sophisticated transportation system. Refrigeration requirements and, in some cases, the short shelf-life of perishable products demand more intensive management, greater speed in marketing, and an unbroken cold chain from point of production to point of consumption.

Behind Border Congestion

Under NAFTA, trucks were to eventually be able to travel freely throughout member countries, as regulations that limited truck movement were eliminated. But the prohibition of reciprocal truck access continues because of U.S. concerns about safety shortcomings in Mexican trucking (overweight trucks, lack of operational logs, and no limits on number of hours driven per

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shift). Long-haul U.S. and Mexican trucks whose cargo is destined for locations deep within each country cannot simply drive across the border to destinations beyond the commercial zone (typically 20 miles beyond the border or covering several counties). Instead, U.S. and Mexican truckers must deliver their trailers to the border, and hire short-haul "drayage" tractors to pull their trailers across the border. Long-haul trucks on the other side then pick up the trailers and take them to their destination. Since about 80 percent of the value of U.S.-Mexico trade moves by truck, continuation of the complicated three-step transfer system is probably the main contributor to border congestion.

Such a system, particularly along the Texas-Mexico border where much of the long-haul transferring takes place, increases cross-border traffic. For example, almost half of the 127,863 trucks crossing at Laredo and nearby Colombia Solidarity International Bridge in June 1999 pulled empty trailers or none at all.

The truck-crossing system also substantially increases the time needed to cross. For example, delays at the Laredo border range from 4 to 23 hours, according to analysis by USDA's Foreign Agricultural Service in May 1999. Removing border bottlenecks would reduce travel time between Chicago and Monterrey, Mexico by as much as 40 percent, according to estimates by Texas A&M International University.

Some north-bound delays result from efforts to interdict drugs and undocumented immigrants. U.S. drug officials estimate more than 60 percent of cocaine entering the U.S. comes through Mexico. And according to the Immigration and Naturalization Service, more than half of the estimated 275,000 annual illegal immigrants to the U.S. come from Mexico. Other delays arise

from inspections by USDA's Agricultural Marketing Service, its Animal and Plant Health Inspection Service, and the U.S. Food and Drug Administration. U.S.-Mexico food and agricultural trade is among the most inspected because of the high volume of food and agricultural trade, especially perishable products.

Inadequate infrastructure is also a factor at the border, as well as in some parts of Mexico, increasing transit times and shipping costs. Based on World Bank data, Mexico's roads and rail system are less developed than those in the U.S. and Canada. Mexico's road system is not nearly as comprehensive as the U.S. system, as measured by roads per square kilometer, and provides less service as measured by road length per capita.

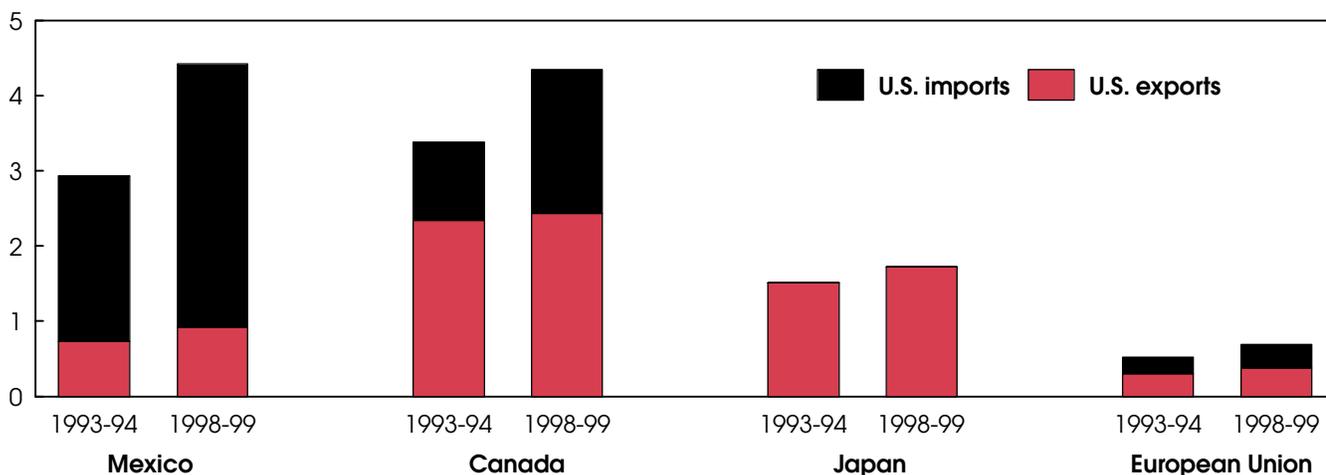
Overcoming Obstacles

Bottlenecks at the border and inadequate infrastructure are, in effect, a tax on trade, raising the cost of doing business with Mexico through delays and through degradation of fresh products. However, a broad spectrum of incremental measures is expanding the capacity and efficiency of the increasingly integrated U.S.-Mexico transportation system, reducing the effects of constraints, and allowing the system to accommodate trade growth.

Increasing the throughput of trucks at the border can be accomplished in a number of ways: through expansion of physical facilities at crossing points, deployment of more customs personnel, expansion of operating hours, application of new technologies for checking cargo, and automation of paperwork required for exports and imports.

Fastest Growth in U.S. Perishable Product Trade Is Across U.S.-Mexico Border

Million metric tons



Average of 2 calendar years. Perishable products include eggs, butter, cheese, bull semen, fresh and frozen fruits and vegetables, chilled and frozen meat and poultry, fruit juices, wine, and cut flowers and nursery products.

The Maquiladora System

Much of the traffic across the U.S.-Mexico border is generated by the maquiladora system. Maquiladora activities largely involve manufacturing plants in Mexico, which assemble products using U.S. or other foreign components. Many of the products of these factories are destined for consumption in the U.S. market, and therefore become U.S. imports. The system began in 1965 when Mexico relaxed strict controls on foreign investment, customs, and immigration. It was formalized into law in 1971 under the Border Industrialization Program (BIP).

A large share of maquiladora trade is automobiles and parts, electrical components, and other consumer goods. U.S.-Mexico maquiladora trade is primarily between states on either side of the U.S.-Mexico border, and between the Mexican border states and the northeastern U.S. (industrial sector). Traditional U.S.-Mexico trade, by contrast, is more diverse in terms of product origins and destinations, and is usually shipped further into the interior of Mexico or the U.S. Traditional trade consists of products destined for consumption or use as input components for manufacturers of locally consumed products within either Mexico or the U.S.

More than three-quarters of maquiladora plants are located in the six Mexican states along the U.S. border. This tends to concentrate maquiladora system shipping within the border region. Some maquiladora factories produce partial assemblies in Mexico and final product assembly is performed in the cross-border U.S. city. This commonly occurs along the Texas-Mexico border, for example, between the cities of El Paso, Texas, and Ciudad Juárez, Chihuahua. There are also situations where partial assemblies are prepared in Mexico and shipped to a corresponding U.S. production plant in interior states such as Michigan or Illinois.

One of the fastest growing maquiladora sectors is textile and apparel manufacturing. In the last decade, soaring bilateral trade has positioned both Mexico and the U.S. among the world's largest exporters of processed cotton products, creating the world's largest cotton textile trade relationship. Trade between the two countries now accounts for almost 10 percent of all world trade in cotton textiles. Mexico replaced China in 1995 as the largest source of imported cotton textiles for the U.S., and by 1999 Mexico's share of U.S. imports reached 20 percent. During this period, Asia's share dropped from about 60 to 45 percent.

A relatively recent trend is the establishment of maquiladora factories within the interior states of Mexico. As a result, more and more maquiladora trade is shifting from along the border to interior locations. Facilities located in coastal areas like the Yucatan are more accessible by water-borne transportation than over land.

Binational Border Transportation Planning and Programming Study, Task Force 8 Report, Current Trade and Passenger Flow Data, Final Report, La Empresa Barton-Aschman, May 8, 1997; and Steve MacDonald (ERS)

The speed of processing and inspection is particularly important in Nogales, since a large share (60 percent) of U.S. fresh fruits and vegetables from Mexico crosses at this point. Recent investments have expanded parking capacity at the Customs compound and reorganized the flow of trucks to help handle heavier traffic. The Customs compound, originally designed to handle 400 northbound trucks per day, now handles 1,000 to 1,400 daily.

To alleviate growing congestion on both sides of the border at Laredo, Texas, a fourth bridge was recently completed within the city limits, and is used exclusively for commercial traffic. This new bridge has significantly reduced the long lines of tractor-trailers, sometimes stretching back as far as 4 or 5 miles along Interstate 35. There is already discussion of a fifth Laredo bridge. But congestion may be due more to inefficient use of bridges and failure to utilize them for much of the day. And questions have arisen over the rationale for building new bridges in Laredo, when the problem is actually that nearly half of all crossings there involve trucks pulling empty trailers or no trailers at all.

Mexico's infrastructure has improved somewhat in recent years, with substantial public investment in highway construction and development of strategic nodes and feeders to connect regional and state road networks. But recently developed modern toll roads in Mexico are underutilized because the tolls are too expensive for widespread commercial use.

In addition to toll roads, much work has been done to modernize North-South highway corridors by widening roads to include safe shoulders. Nevertheless, some sections have minimal or non-existent shoulders and are in poor repair. These highway sections are scheduled to be modernized by 2001. While rail track is generally in good condition, Mexico's railroads are undercapitalized due to being state run for many years. The situation is changing since privatization was initiated in 1995.

New technology is reducing inspection times at the border. In 1998, the U.S. Customs Service began using a fixed X-ray unit that allows agents to scan an entire truck, reducing the need to unload suspicious cargo. In 1999, officials at Nogales started using a hand-held system which performs about 200 X-ray inspections a day, compared with 60 for fixed-location machines.

Mexico is also upgrading inspection procedures through its Customs Modernization Program to reduce the time for full inspections of southbound trucks from 90 minutes to 10 minutes or less. This program includes enhancement of inspection equipment at major points of entry; overhauling customs computers; and simplifying customs clearance, including the use of a single NAFTA customs document.

Mexico is installing X-ray equipment, both mobile and fixed units like those on the U.S. side. Top priority is being given to crossings at Nuevo Laredo and Colombia across from Laredo, Texas, and at Ciudad Juárez across from El Paso, Texas. The gulf coast port of Veracruz, the Pacific coast port of Manzanillo, and the Mexico City airport are also priorities.

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U.S.-Mexico Trucking Provisions under NAFTA

Transportation issues were a minor section in the North American Free Trade Agreement (NAFTA) described in Chapter 12 dealing with cross-border trade in services. Maritime services were not addressed because of prohibitions in the Mexican and Canadian constitutions. Since there were few restrictions on trucking between the U.S. and Canada, the main NAFTA trucking issue was access of U.S. and Canadian truckers to Mexico's interior and vice versa. At the time of the agreement, access by Mexican carriers to the U.S. and by U.S. truckers to Mexico was limited to commercial zones about 20 miles inside the border (sometimes more—up to 100 miles). All other shipments crossing the border had to be transferred to local drayage firms, for movement across the border, and then to domestic trucking companies for movement into the interior.

Provisions of NAFTA allowed investment in trucking firms in other NAFTA countries as long as those firms were engaged in intra NAFTA trade. U.S. and Mexican trucking firms were to be allowed to enter freely into the border states of the other country in December 1995. And by January 1, 2000, Mexican and U.S. trucking firms were to be allowed free access to any part of the other country. Trucks were to meet height and width, safety and driver licensing requirements of the other country. Nevertheless, truck access currently is not allowed.

Chronology of events:

Dec. 14, 1995—Letter from U.S. trucking interests to President Clinton requests delay in opening U.S. border to Mexican truckers because of safety concerns:

- Mexican trucks are too heavy (120,000 gross vehicle pounds, compared with 80,000 in the U.S.);
- Mexican trucks are too old (15 years, compared with 5 years in the U.S.);
- Mexican trucks are not required to have front brakes and anti-lock systems;
- Mexican truck drivers are not required to keep logbooks and are not restricted to 10 hours of driving per day.

December 15, 1995—Teamsters Union files suit to delay opening of the border.

December 18, 1995—Federico Peña, then U.S. Transportation Secretary, announces an indefinite delay in opening the border while safety issues are addressed.

February 15, 1996—President Clinton announces a 1-year ban on implementation of free trucking access in border states between the two countries.

September 1998—Mexico requests a binding arbitration panel from the NAFTA Commission to push the U.S. to open its border to Mexican trucks.

October 1999—President Clinton repeats opposition to open access for trucks because of unresolved safety issues.

Crossing the U.S.-Mexico Border in Due Time

Step	Truck (tractor-trailer) movement	Time
1	U.S. long-haul tractor drops off trailer (cargo) at forwarder on U.S. side	
2	Long-haul tractor picks up another U.S. trailer(cargo) at local terminal for return trip north	
3	Forwarder classifies cargo; arranges for transfer of cargo to Mexican trailer; arranges for inspections by SAGAR (Mexico's Ministry of Agriculture); for U.S. trailers entering Mexico, bond is purchased to secure return	Up to 2 hrs.
4	Forwarder requests U.S. "drayage" company to move trailer to SAGAR inspection point (drayage firms use tractors designed for very short distances)	
5	SAGAR inspection for diseases such as avian influenza in poultry and poultry products, or pests such as oriental fruit moth in apples.	30 min to 2 hrs.; after 4 pm must wait for next day
6	After passing physical inspection, documents are reviewed a second time	Few min. to several hours
7	Cargo released to forwarder	
8	Import documents prepared, and duties and fees paid by Mexican broker	3 to 5 hrs.
9	Forwarder arranges for another drayage tractor to pick up trailer from inspection point	15 to 30 min.
10	Trailer transferred across border to Mexico	15 min. to 3 hrs.
11	Trailer presented to Mexican customs; 10 percent of loaded trucks subjected to intensive "red light" inspection; red light inspection must be cleared in 3 hours	3 hours
12	All red light shipments subjected to secondary review (about 10 percent of shipments)	1 to 3 hrs.
13	Once cleared, truck proceeds to transfer lot to await Mexican long-haul tractor; perishables normally do not wait more than a couple of hours	Up to 2 hrs.
14	Mexican long-haul tractor moves trailer to kilometer 26 checkpoint where Mexican Customs checks cargo documentation to ensure all clearances are in order and clears cargo for entry into interior of Mexico	
	Typical total time	4 to 23 hours

Source: USDA/Foreign Agricultural Service, voluntary Gain Report (#MX9058), May 7, 1999.

Economic Research Service, USDA

A computerized trade data system is being developed that will permit simultaneous filing of import data at multiple government agencies. This will reduce the redundancy of paperwork required by Customs, USDA, and other government agencies with jurisdiction over imports or exports.

Mexican and U.S. customs authorities have harmonized hours of operation at some crossings, but operating practices vary widely from one crossing location to another. Some high-volume crossings such as Laredo and Otay Mesa in California operate every day. Others are closed on Sunday and have reduced hours on Saturdays and holidays. Part of this variability arises because certain ports specialize as crossings for certain cargoes, such as fruit and vegetable imports (Nogales), Maquiladora trade (Otay Mesa, El Paso, Laredo, Brownsville), and long-haul trade (Laredo).

Some observers assert that operating hours for border crossings need to expand to a 24-hour-a-day, seven-day-a-week schedule. In Laredo, hours were extended until midnight as an attempt to ease peak-hour congestion, but few trucks took advantage of the later hours because warehouses and freight forwarders were not operating at those hours.

Developing Free Trade Zones & Alternative Routes

Development of free trade zones on both sides of the border helps circumvent congested border crossings. Instead of being inspected and stored at the border, goods proceed to a bonded warehouse at a free trade zone site where products are cleared by customs and other agencies. Duties are deferred until imported goods are assembled or leave the site.

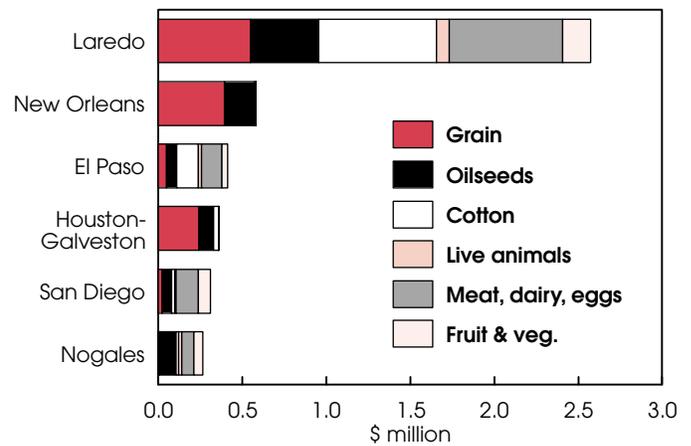
In the U.S., the San Antonio “Kelly USA” Intermodal Facility—already a global transportation hub—is slated to become a free-trade zone. The facility has potential to relieve congestion at the border ports of entry at Laredo, Eagle Pass, and El Paso, because of its location at the intersection of highways I-35 (north-south) and I-10 (east-west).

Another such site, ADNPlus Industrial Multiport, is being developed as a free trade zone in Monterrey; it allows for the shifting of customs clearance for some southbound freight from the congested Laredo crossing to a location 140 miles south. The site covers 44 million square feet and is adjacent to the Monterrey airport.

The Multiport park will have terminals for agricultural products, including a grain elevator, as well as for a range of other freight, including cars, chemicals, and steel products. It also will provide intermodal services for railroad, truck, and air cargo carriers. Other free trade zones include the Alliance Airport in Fort Worth, Texas.

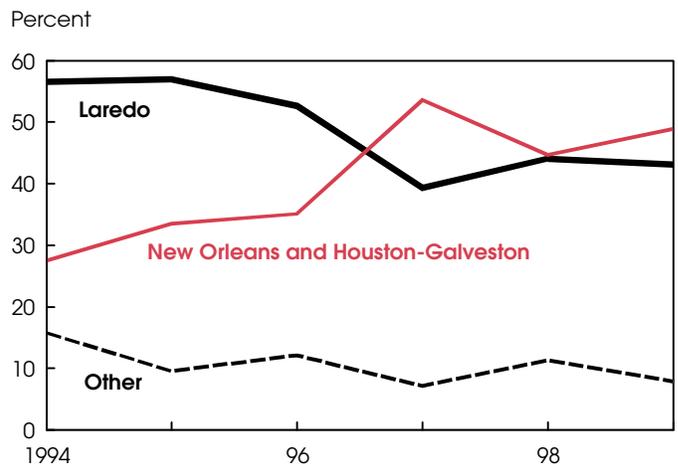
Development of alternative land and sea routes is yet another way to reduce delays and costs. Shippers of food and agricultural products are already shifting away from Laredo, the busiest

Laredo, Texas Is Leading Port for U.S. Grain and Other Ag Exports to Mexico...



Selected commodities, 1998-99 average.

...But Its Share of Grain Exports Has Declined



Source: U.S. International Trade Commission. Economic Research Service, USDA

port. The share of major categories of U.S. food and agricultural exports going through the Laredo Customs District has declined from 63 percent in 1993-94 to 55 percent in 1998-99. The largest declines were for cereals (exports of \$1.3 billion in 1999), fresh fruit (\$208 million), oilseeds (\$819 million), and vegetable oils (\$356 million).

For bulk commodities, like cereals and oilseeds, the shift has been away from truck and rail shipment through Laredo to ocean shipment through New Orleans and Galveston to Veracruz and other Mexican ports. For higher-value products primarily shipped by truck, the shift is to other land ports, like Brownsville and Eagle Pass (within the Laredo District), El Paso, or Nogales. Many of the ports around the Gulf of Mexico are expanding and

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upgrading facilities in anticipation of growing ocean trade between Mexico and the U.S.

Development of the Port of Manzanillo on Mexico's Pacific Coast has allowed for more Mexican food and agricultural exports to Los Angeles-Long Beach, bypassing land routes to the U.S. west coast. It has also bolstered direct shipments to Japan and other Asian destinations.

The option to adjust shipping routes depends on product perishability and the availability of lower cost alternatives. Time-sensitive products require prompt delivery, and shipping choices are limited by the urgency of reaching the final destination quickly. More storable products, like cotton, grain, and oilseeds, afford shippers more alternatives because time is usually not as critical.

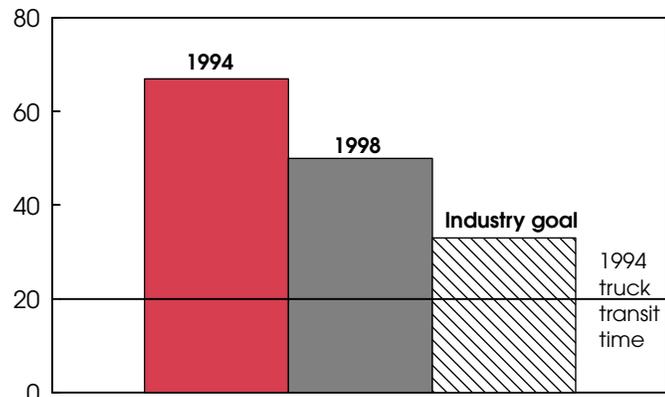
Except for air transport, trucks are the most expensive mode of transportation, but they are the most flexible and better able to guarantee delivery at a particular time and place. Rail and ocean shipping are cheaper, but their dependence on links with other modes of transportation for final delivery can cause uncertainty.

Making Rail More Competitive

Rail transportation in Mexico is becoming more competitive *vis a vis* trucking, according to the proceedings of the fifth Agricultural Food Policy Systems Information Workshop (Feb. 2000). In recent decades, Mexico's national railroad, *Ferrocarriles Nacionales de Mexico*, experienced chronic operating losses and poor productivity. Its share of the nation's cargo traffic was about 20 percent in 1980 but dropped to about 10 percent by 1995. A constitutional amendment in 1995 paved the way for privatization of the system, which divided the railroads into five concessions, including three main lines: the northeast

Transit Times for Rail Service Have Declined for the Laredo-Mexico City Corridor

Hrs. per 1,200 km



Source: Barry E. Prentice, Wade Derkson, and Arnold Maltz, "Rail Harmonization in Mexico and North America: Implications for Agriculture," in Proceedings of the Fifth Agricultural and Food Policy Systems Information Workshop, University of Guelph, February 2000.
Economic Research Service, USDA

Mexico's President-Elect Supports Trade

On July 2, 2000, Mexican voters elected Vicente Fox of the center-right National Action Party (PAN) to succeed Ernesto Zedillo, as president of Mexico. Fox takes office on December 1, ending seven decades of rule by the Institutional Revolutionary Party (PRI).

Fox, a former governor of the Mexican state of Guanajuato, is a businessman whose career includes running Coca-Cola's Mexico operation. In his campaign, he made a strong commitment to fiscal discipline, stronger trade ties with the U.S., and a more secure climate for foreign investment. He also promoted changes to the constitution that would allow competition in the electrical and petrochemical sectors, including privatization of Pemex, Mexico's petroleum monopoly. His support came disproportionately from the young, urban, and better-educated population, many of whom have benefited the most from the North American Free Trade Agreement.

Fox is a strong supporter of free trade and envisions the free movement of labor throughout North America by 2010. In his view, investment in education and raising labor productivity in Mexico will reduce illegal immigration to the U.S., and lay the groundwork for a free labor market throughout North America. His support for free markets in North America suggests likely support for modernizing infrastructure and facilitating trade, which could translate into reducing bottlenecks in the U.S.-Mexico transportation system.

corridor from Laredo to Mexico City; the northwest corridor through Hermosillo and Nogales and Saltillo to Eagle Pass; and the ports of Veracruz and Coatzacoalcos to Mexico City. Other concessions were a Mexico City terminal and a number of shorter lines.

The report also indicates that improved management and upgraded equipment are reducing transit times and costs. Between 1994 and 1998, for example, rail transit times over the 1200-kilometer Laredo-Mexico City corridor declined from 67 to 50 hours, which reduces costs for U.S. grain and soybean rail shipments to Mexico City. The overall level of rail traffic between the U.S. and Mexico almost doubled between 1992 and 1998.

Greater integration of Mexico's rail system with that of the U.S., and investments in warehousing and intermodal facilities, are helping to make shipping by rail a more attractive alternative than trucking. Pre-clearance by Customs of rail traffic avoids trains having to stop at the border, which formerly was the procedure.

In 1999, the Kansas City Southern Railway Company (KCSR) formed an alliance with the Canadian National Railway, which already had merged with Illinois Central, to form the "NAFTA Railway," linking Canadian, Mexican, and U.S. shippers through the heart of the U.S. Corn Belt. KCSR was also part of the successful consortium obtaining the northeast concession, thus facilitating the interchange of freight into Mexico through Laredo. A loaded railcar in the interior of the U.S. can go directly to

Mexico City, compared with the three handlings needed when going by barge, ship, and truck via New Orleans, Veracruz, and finally Mexico City.

Outlook for Reducing Transport Costs

While incremental measures—streamlining and automating customs clearance, expanding border facilities, and improving infrastructure—will continue to reduce the effects of transportation bottlenecks, two factors will affect the next generation of growth in U.S.-Mexico food and agricultural trade.

One is continued development of Mexico's rail system that has been spurred on by privatization in the second half of the 1990's and by greater integration with the U.S. and Canadian rail systems. This low-cost mode of transportation, currently with a small share of the Mexican freight market, has significant potential to become more competitive with trucking, primarily for dry cargo, but also for refrigerated products. Critical to the future of rail in Mexico is investment in intermodal connections with

trucking and ocean shipping services to fully realize its low-cost, long-haul advantage.

The second factor is liberalization of truck access, as agreed under NAFTA, which could challenge the rail system's competitive potential. Free truck access would dramatically increase the capacity of certain border points to process and clear cargo, thus lowering transaction costs and possibly raising trucking's already dominant share of U.S.-Mexico trade. **AO**

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For more information, plan on attending:

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