

Texas Ports Stay Busy as Trade Values Fall Along Gulf, Rise Inland

By Jesse Thompson

ABSTRACT: The value of trade moving through Texas land-based ports since 2014 has grown while falling at coastal ports, largely due to lower oil prices. Nonetheless, the long-term Texas port outlook is bright.

The overall impact of trade is impressive: Exports sent via Texas ports support as many as 1.1 million jobs.¹ The value of trade moving through Texas—the total of imports plus exports—was 5.1 times higher in 2014 (\$721 billion) than in 1996 (\$142 billion).² The expansion was about twice that of the rest of the nation (*Chart 1*).

Even as activity increased during the past five years, the rise wasn't universally felt—the value of trade stagnated at water ports, such as Houston, while rising strongly at inland crossings that include Laredo and El Paso.

Overall, growth in the value of trade slowed after 2011. Imports rose only 4.1 percent to \$388.2 billion in 2014 from \$372.9 billion in 2011, due largely to falling oil imports. Exports expanded 19.4 percent to \$332.8 billion in 2014 from \$278.8 billion in 2011. Declining energy prices have since depressed the value of total trade.

Over time, each of five port districts covering the state has charted its own path through shifting trade

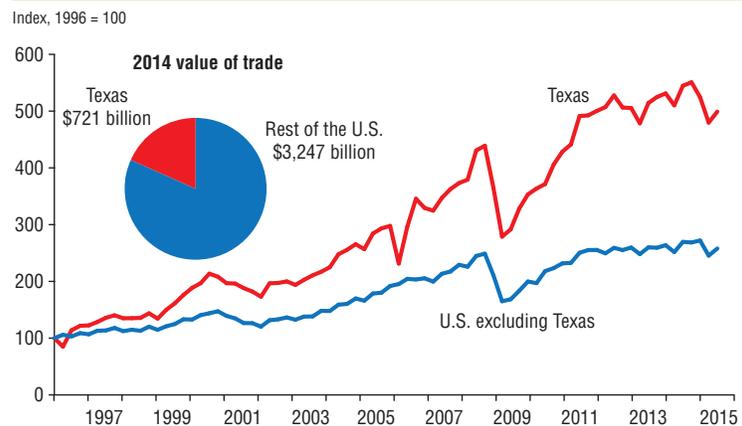
patterns as free-trade agreements, globalization, a growing economy and increased oil and gas production changed the landscape of Texas commerce. These same forces are driving investment in infrastructure to meet anticipated demand to move more goods in and out of Texas.

Land and Air Port Activity

Four of the nation's top 15 port districts are in Texas. Customs and Border Protection port districts usually encompass large geographic areas. For example, the Dallas–Fort Worth port district covers a box-shaped region that includes San Antonio, Midland, Amarillo and Tulsa, Oklahoma (*Table 1*).

DFW has a relatively small share of total U.S. trade but has worked its way up in the value of goods traded from a ranking of 20th a decade ago to 15th today. The district encompasses both the so-called “Silicon Prairie” of the DFW metropolitan area and the flourishing technology cluster in Austin. This concentration of high-tech industries is why more than half of all exports through the

Chart 1 Texas Trade Growth Outpaces Rest of Nation



SOURCE: Census Bureau.

**Table
1**

Texas Port Districts, 2014

District	Ports	Share of 2014 district trade (percent)
Dallas–Fort Worth Land port \$60.89 billion	Dallas–Fort Worth	90.53
	Tulsa, Oklahoma	7.38
	San Antonio	0.92
	Austin	0.90
	Oklahoma City, Oklahoma	0.02
	Addison	0.01
	Amarillo	*
	Fort Worth Alliance Airport	*
	Lubbock	*
Midland	*	
El Paso Land port \$88.70 billion	El Paso	76.58
	Santa Teresa, New Mexico	22.73
	Presidio	0.54
	Columbus, New Mexico	0.12
	Albuquerque, New Mexico	0.02
	Fabens	*
Houston–Galveston Ocean port \$247.45 billion	Houston	67.56
	Corpus Christi	10.30
	Houston Intercontinental Airport	7.59
	Texas City	7.07
	Freeport	3.72
	Galveston	3.25
	Port Lavaca	0.52
Laredo Land port \$278.19 billion	Laredo	71.58
	Hidalgo	11.01
	Eagle Pass	8.83
	Brownsville–Cameron County	6.49
	Del Rio	1.82
	Progresso	0.14
	Rio Grande City	0.10
	Roma	0.03
	Edinburg Airport	*
Port Arthur Ocean port \$45.73 billion	Port Arthur	72.39
	Beaumont	27.27
	Orange	*
	Sabine Pass	*

*Values either missing or less than 0.01.

NOTE: Locations are in Texas unless otherwise noted.

SOURCE: Census Bureau.

DFW port district consist of high-value computer and electronic components and equipment. Another 10 percent of exports through DFW is machinery, including industrial goods, aerospace and oilfield equipment.

Six Asian countries accounted for nearly two-thirds of the district's trade in 2014: China, Korea, Japan, Taiwan, Malaysia and Thailand. The lion's share, however, is with China. Its proportion of district trade more than quadrupled from 8.4 percent in 1996 to 37 percent in 2014, principally due to rising imports. This was accompanied by China's entry into the World Trade Organization at the end of 2001. DFW's trade with the Republic of Korea has grown the fastest since 2010, expanding 69 percent in

those four years, aided by a 2012 U.S.–Korean free-trade agreement. The total value of trade handled by DFW grew 10.4 percent year over year in the first half of 2015 (*Chart 2*).

The Laredo port district was the nation's third largest in terms of value in 2014—trailing New York and Los Angeles. It was the seventh largest in 1996 and owes much of its expansion to the North American Free Trade Agreement, which lowered barriers and costs to trade with Mexico beginning in 1994. Nearly 3 million trucks and 500,000 railcars cross the border at Laredo annually.

The bulk of the Laredo trade consists of intermediate and finished goods for the transportation equip-

▶ *The Laredo port district was the nation's third largest in terms of value in 2014—trailing New York and Los Angeles.*

ment and computer and electronic products industries along with machinery (excluding electrical machinery) and other manufacturing-related products. Many of these items pass back and forth between U.S. facilities and Mexican maquiladora plants, where materials and intermediate goods are processed and assembled on a duty-free basis before being reexported. These plants play an integral part of the Texas border economy.³ The value of exports through Laredo grew 0.8 percent in the first half of 2015 on a year-over-year basis.

Mexico accounts for 97 percent of the value of the trade moving through Laredo and El Paso. The two port districts combined accounted for two-thirds of the value of U.S. trade with Mexico in 2014. El Paso, West Texas' major U.S.-Mexico border crossing, ranks 14th nationally, with computer and electronic products and equipment comprising a larger share of goods relative to Laredo. Exports through El Paso declined 4.5 percent year over year in the first half of 2015 due to a fall-off in computer and electronic products and transportation equipment (*Chart 2*).

Lower Coastal Trade Value

Along the coast, ports remain busy, though the value of goods traded has declined (*Chart 3*). The Houston-Galveston district ranked fifth nationally in 2014 in the total value of exports and imports, which together equaled \$247 billion. Among U.S. seaports, it is the third largest in total value and the largest in foreign tonnage—the weight of foreign cargo moving in and out of the port.

The Houston port district grew rapidly from 2002 to 2008 as the value of trade nearly quadrupled, paced by rising prices and quantities of commodities transactions—principally energy-related—with emerging markets. Although Mexico is the port's largest trading partner, it accounts for just 12 percent of activity. A number of other nations, led by China, Brazil, Venezuela and Colombia, are increasing their share of commerce. While trade with the Republic of Korea and

China expanded rapidly from 2012 to 2014, the value of transactions with Canada increased the most, averaging 39 percent growth annually, as crude oil exports surged.⁴

The goods traded through the Houston port reflect economic activity along Texas' Gulf Coast, which has a large presence of oil and gas refining (the Texas Gulf Coast had 25 percent of U.S. operable refining capacity in 2014) and petrochemical manufacturing (the state had 70 percent of U.S. basic petrochemical capacity in 2014).

Rising U.S. energy self-sufficiency after 2010, following the emergence of shale oil, reduced demand for light, sweet crude oil imports from countries such as Nigeria. This damped Texas coastal trade growth as the value (and volume) of oil-related product imports dropped. The oil-related import share of Houston-Galveston imports fell from nearly 60 percent in 2011 to 42 percent in 2014.

On the export side, the value of oil, gas and petroleum and coal products accounted for nearly 40 percent of Houston-Galveston exports in 2011. That share rose to 42 percent in 2014. Since 2014, the value of those products has plunged 9.1 percentage points, part of an overall export value decline of 12.8 percent.

Fifty miles east of Galveston, Port Arthur focuses on oil-related trade. Crude oil from Saudi Arabia alone

accounted for 36 percent of its imports in 2014 and a quarter of its total trade. Mexico, another source of heavy crude, was responsible for 18 percent of total trade and Venezuela 16 percent. On the export side, refined products and petrochemicals comprise nearly \$9 of every \$10 of Port Arthur exports. The value of those goods slumped 24 percent in the first half of 2015 from 2014 levels (*Chart 3*).

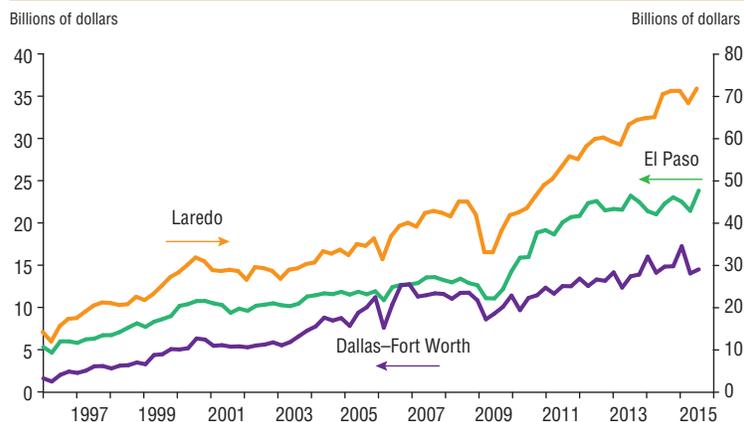
Nearly all of the coast's recent value of trade decline can be attributed to the 60 percent fall in oil and natural gas prices from the first half of 2014 to the first half of 2015. The lower value of trade is reflected in the price of motor fuels, natural gas liquids, commodity plastic resins and other organic petrochemicals and related products even as volumes traded have increased. In particular, gasoline, diesel, natural gas and propane export volumes rose substantially.

More Growth Coming

Since 2014, the value of trade through Texas land-based ports has grown while falling at coastal ports, largely due to lower oil prices. Still, the outlook for all Texas ports is strong.

Population is a significant driver of import demand, and the number of Texas residents has increased at a 1.7 percent annual average rate from 2010 to 2014. By comparison, the U.S. as a whole grew at an annual rate of 0.8

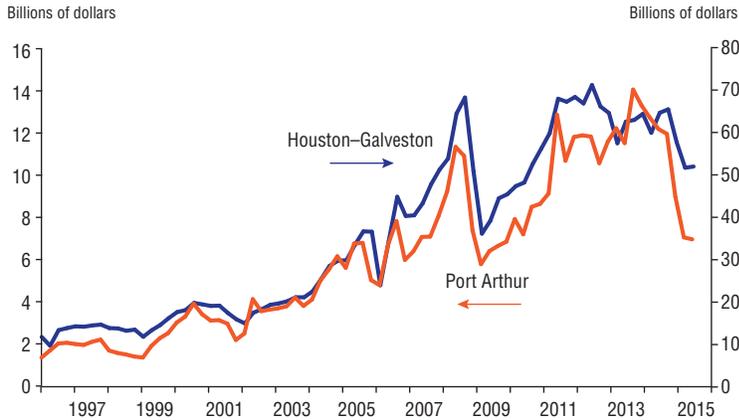
Chart 2 Port of Laredo Paces Growth of Inland Trade in Texas



SOURCE: Census Bureau.

Chart
3

Coastal Ports Trade Value Drifts Lower as Oil Prices Slide



SOURCE: Census Bureau.

percent over that time. New residents boost demand for imported food, clothing and consumer products. As an example, demand for consumer goods contributed to strong increases in imports of containerized goods through the Port of Houston between 2010 and 2014.

Along the U.S.-Mexico border from Santa Teresa, New Mexico, to Laredo and on to Corpus Christi, the Kansas City Southern Railway and the Union Pacific have invested hundreds of millions of dollars to expand rail capacity in anticipation of more freight demand. Federal agencies have launched several initiatives to improve infrastructure at border crossings and along major highways, including Interstate 35, which runs from Laredo's Mexico crossing to Duluth, Minnesota, near the Canadian border.

Extra freight capacity will be needed if the Mexican government's recent efforts to reform its state-owned oil company, Pemex, succeed and the number of U.S. firms operating there substantially increases. Machinery, equipment and railcars of pipe and special sands for oil and gas drilling will be needed to access Mexican oil resources.⁵

Companies such as Dow Chemical and Cheniere Energy and public entities have already invested tens of billions of dollars for new chemical and liquefied natural gas plants, export

terminals and supporting infrastructure along the Texas coast to export the benefits of the boom in oil and gas production.⁶ A \$68.9 million investment in the Barbour's Cut terminal on the Houston Ship Channel, expected to be operational in 2016, is one example of infrastructure investment underway to support greater numbers of larger ships, with some likely to traverse the expanded Panama Canal. In the process, ties with Asia are anticipated to strengthen.

Additional free-trade agreements could further boost activity. The U.S. has such arrangements with 20 countries, which accounted for 61 percent of Texas' exports in 2014. During the 10 years ended in 2014, exports to these markets grew 118 percent. As future agreements such as the Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership are concluded, Texas could realize additional benefits, solidifying its standing as a hub of trade growth by air, land and sea.

Thompson is a business economist in the Research Department at the Houston Branch of the Federal Reserve Bank of Dallas.

Notes

¹ "Texas Exports, Jobs and Foreign Investment," U.S. Department of Commerce, International Trade Administration, July 2015, www.trade.gov/mas/ian/statereports/states/tx.pdf.

² All dollar values are nominal and have not been adjusted for inflation.

³ "Changing World of Maquiladoras," Texas Comptroller of Public Accounts, *Fiscal Notes*, September 2014, <http://comptroller.texas.gov/comptrol/fnotes/fn15Q1/maquiladoras.php>.

⁴ U.S. crude oil exports, though generally banned, are allowed to Canada as long as they are consumed there.

⁵ "Potential Impacts of Mexico's Energy Reform on the Texas Transportation System," Texas A&M Transportation Institute, 2014, <http://tti.tamu.edu/policy/wp-content/uploads/2014/12/Mexico-Energy-Policy-Brief-final.pdf>.

⁶ "Booming Shale Gas Production Drives Texas Petrochemical Surge," by Jesse Thompson, *Southwest Economy*, Fourth Quarter, 2012, www.dallasfed.org/assets/documents/research/swe/2012/swe1204h.pdf, and "Producers, Refiners View Strategies to Trim Texas' Glut of Ultralight Condensate Oil," by Jesse Thompson, *Southwest Economy*, Fourth Quarter, 2014, www.dallasfed.org/assets/documents/research/swe/2014/swe1404d.pdf.