

Crossroads

ECONOMIC TRENDS IN THE DESERT SOUTHWEST

Tourism and Recreation a Bright Spot in the Big Bend Region

by Roberto A. Coronado and Marycruz De Leon

ABSTRACT: Although challenges exist for the Big Bend region, bullish cattle prices, Mexico's reforms, the energy boom in the Permian Basin and a stronger U.S. economy all bode well for the tricounty area. Furthermore, tourism and recreation provide the region a new avenue of growth.

The Big Bend region is one of the most unique areas in Texas. Encompassing over 12,000 square miles, Brewster, Jeff Davis and Presidio counties lie in the Chihuahuan Desert that straddles the U.S. and Mexico. The area is home to Big Bend National Park, one of the largest national parks in the U.S., and boasts art museums and galleries, the McDonald Observatory and Sul Ross State University.

Despite its many assets, the region has struggled to keep up with Texas' booming growth. The population has fallen 3 percent since 2010, and the region has failed to recoup the jobs lost since late 2012, when employment peaked at 8,000 jobs. Unemployment in the area stands at 6.7 percent, well above the state average.

The economic prospects for this area were discussed at a Federal Reserve Bank of Dallas conference, "What Is in Store for the Big Bend Region?" at Sul Ross State in Alpine, Texas, in October. The sessions examined topics such as the U.S. housing market, water availability, energy, agriculture, Mexico's impact on the regional economy, and Federal Open Market

Committee communications. What came from the conference was a picture of a changing economy with growth opportunities tied to its abundant resources and proximity to Mexico.¹

Core Enterprises Are Shifting

Logan Boswell and Rob Hogan from the Texas A&M AgriLife Extension Service discussed the region's historical and current agricultural enterprises. Traditionally, beef cattle production has been one of the largest enterprises in the region. And although production has become constant the past 10 years, it remains one of the driving forces in the Big Bend. Livestock production in Brewster, Jeff Davis and Presidio counties totaled over \$31.5 million in 2013 (*Table 1*). Livestock production in the tricounty area should remain solid, and the short-term outlook for cattle prices remains bullish, according to Hogan.

While cattle production is one of the oldest enterprises in the Big Bend economy, tomato production is the largest. Greenhouse tomato farming leads agricultural production in Brewster and Jeff Davis counties. It contributed \$82 million in 2013 to the Big Bend region, up 3 percent from 2004.

Table 1 Agricultural Production Values in Big Bend Region

	Thousands of dollars		Percent change
	2004	2013	
Crops	81,959	82,372	0.5
Tomatoes	79,825	82,000	2.7
Livestock	30,035	31,513	4.9
Horses	580	58	-90.1
Hunting*	3,055	4,250	39.1
Recreation*	255	3,110	1,119.6

*Value of hunting and recreation on land designated as agricultural.

SOURCE: Texas A&M AgriLife Extension Service.

With its deserts, mountains and river canyons, the Big Bend region offers recreation activities such as fishing, photography and bird watching. Although recreation represents a smaller share than tomato and livestock production, its importance in the region has skyrocketed. Recreation production, the value from recreation activities on land designated as agricultural, has grown in all three counties, totaling \$3 million in 2013—up significantly from 10 years earlier, when it amounted to \$255,000. The rise of recreation is likely linked to the growing global trend in ecotourism. Hunting is also up, with the production value climbing nearly 40 percent over the past 10 years.

Boswell and Hogan provided a positive outlook for the region. Tomato farming and livestock production will continue to be the main economic drivers. Hunting and recreation offer opportunities for new growth.

Mexico Trade and Energy

Economic drivers impacting the Big Bend region include spillovers from Mexico and the nearby Permian Basin's energy production. Roberto Coronado, a senior economist and assistant vice president in charge of the Dallas Fed's El Paso Branch, discussed Mexico's current economic environment, its structural reforms and the implications for the border area.

Mexico suffered recurring crises from the 1970s to the mid-1990s that heavily impacted the standard of living and hindered that country's economic growth. In 1994, Mexico enacted a milestone reform: central bank independence.² Full autonomy was given to the central bank, and the mandate to pursue price stability was assumed. Although this boosted economic

stability, productivity and growth have not achieved their potential.

Structural reforms—energy, fiscal, financial, telecom, education and labor—implemented over the past couple of years are expected to boost productivity and growth. Energy reform will open production in Mexico to private investors, while fiscal reform is expected to boost government revenue through taxation. Financial reform will increase credit availability, and education reform is set to raise the quality of education. Labor reform will enhance the flexibility of the labor market, and telecommunications reform will increase market competition.

As the reforms boost Mexican growth, the border region—including the Big Bend area—is expected to benefit. Since the North American Free Trade Agreement went into effect in 1994, trade between the U.S. and Mexico has increased nearly threefold and Mexico has become the third-most-important trading partner for the U.S. As trade flows and business-cycle synchronization have increased, the border region has been at the core of this process. Border communities are either the entry or exit point for merchandise and people. A stronger Mexican economy and consumer would likely boost retail, tourism and recreation activities in the Big Bend region.

Michael Plante, a senior research economist at the Dallas Fed, provided an energy market update and described its

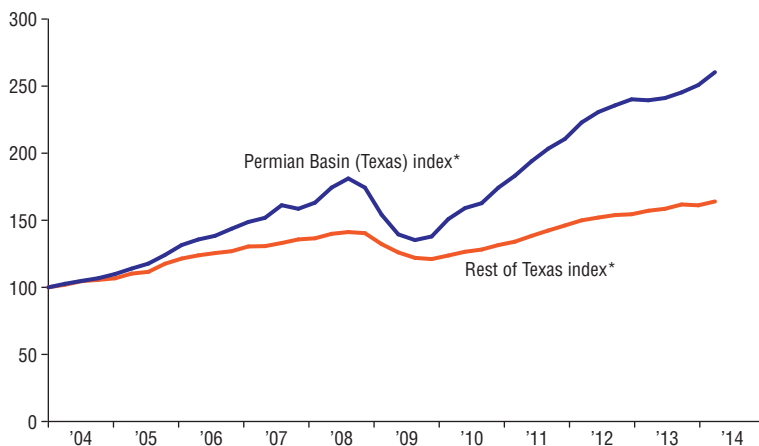
implications for the region. He noted that the surge in global oil demand started in the mid-2000s as activity and economic growth in emerging economies increased. The rise in demand, coupled with low supply growth and low spare capacity, led to a tight oil market and thus higher prices.

With technological developments, such as horizontal drilling and hydraulic fracturing, the U.S. has become a major source of new crude supply. Texas' long history in energy exploration and production has made the state an industry leader in developing new technologies. The state is home to four major basins: the Permian Basin, Barnett Shale, Haynesville Shale and Eagle Ford Shale. The Permian Basin, which borders the Big Bend region, is a mature oil field, but new technologies have revitalized old wells and allowed for drilling in areas that had not been previously viable. Horizontal drilling now accounts for over 50 percent of rigs in the Permian.³

Plante noted that the shale boom has been good to the region. Increased oil production has created jobs and boosted infrastructure and retail sales. Permian Basin retail sales (*Chart 1*) have more than doubled in the past 10 years.⁴ Government tax collection has also expanded. Texas severance tax receipts were up 45 percent in 2013 from 2012. The rise in employment, retail sales and taxes should also benefit the Big Bend region.

Chart 1 Permian Basin Retail Sales Grow

Index, first quarter 2004 = 100*



*Seasonally adjusted.

SOURCE: Texas Comptroller of Public Accounts.

Challenges Ahead for Region

While the energy boom has blessed the Big Bend region with advantages, it has also created challenges. The high-paying oil and gas-related jobs lure potential workers from the region, creating a shortage of agricultural employees.

Water availability and distribution is another issue challenging the region. Keith Phillips, senior economist and research officer at the Dallas Fed's San Antonio Branch, discussed the importance of using an appropriate economic system to allocate water in his presentation "Markets Key to Texas Water Availability."⁵

Phillips noted that Texas water usage is projected to rise 22 percent by 2060 due to rapid urban growth. Municipal usage now accounts for 27 percent of statewide use (*Chart 2*). A near doubling of the population will increase municipal water demand by 70 percent. Meanwhile, demand from the farming sector is expected to decline 17 percent.

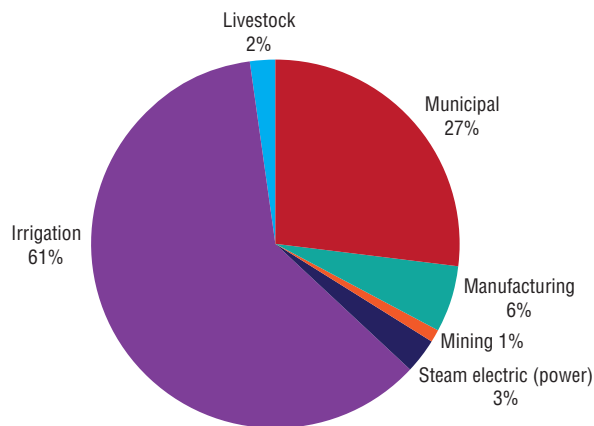
While statewide usage is expected to rise overall, water supplies are expected to fall 10 percent over the same period due to dry weather, excessive pumping and limited new resources. Groundwater accounts for 60 percent of the statewide water supply. Water levels in a majority of Texas' major aquifers are far below normal. Surface water accounts for the remainder of the state supply. Currently, surface water is at 33 percent of capacity in West and South Texas.

Phillips argued that market principles can be used to allocate Texas water sources more efficiently. Most consumers purchase water from public entities. Those water prices are based on cost of treatment and delivery and not necessarily on demand and supply. Prices do not change with scarcity, discouraging conservation. A more efficient pricing system could encourage water preservation.

Surface water and groundwater are allocated and priced differently. Inefficiencies in the system could be addressed by creating clearer ownership rules. For example, in Texas, groundwater property rights are not defined optimally. "Rule of capture" stipulates that groundwater is not owned until pumped out of the ground. This leads to an incentive to be the first to pump and to pump faster as water becomes scarcer.

Chart
2

Agriculture Industry Uses Most of Texas' Water
(2011 consumption shares)



SOURCE: Texas Water Development Board.

Despite the inefficiencies, Phillips said there is reason to be optimistic about Texas' water future. Groundwater management areas are outlining the amount of water each district can use, and some districts are implementing cap-and-trade systems. In addition, some sales of water from agriculture to cities and industries are occurring, and farmers and city planners are realizing that market principles are part of the solution.

U.S. Economy, Housing and Monetary Policy Impact

In "The U.S. Housing Market: Where Is It Heading?" Anthony Murphy, senior research economist and policy advisor with Dallas Fed, discussed the housing market's recent developments and outlook.⁶ Murphy noted that while the U.S. economic outlook has improved significantly over the past few quarters, the housing recovery is sluggish. Housing is affordable, and delinquencies and foreclosures are declining. However, home sales and single-family starts are restrained and mortgage originations remain subdued.

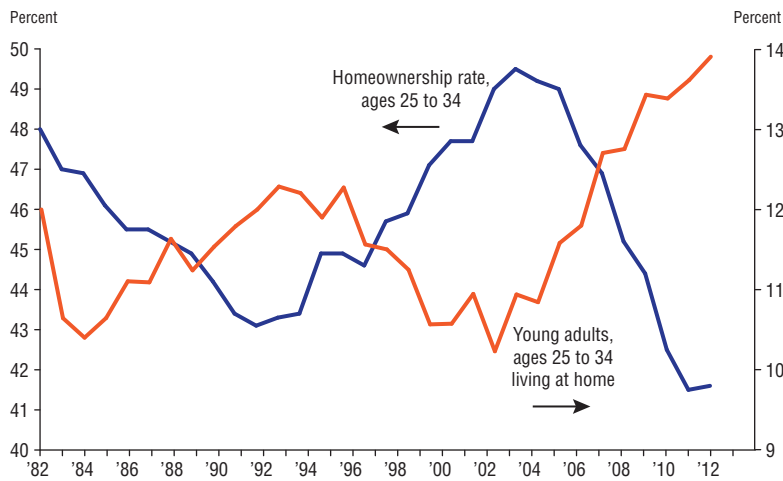
Murphy suggested explanations for the sluggishness and observed that a scarcity of young first-time homebuyers in the market may be to blame (*Chart 3*). He pointed to changes in attitudes of the young toward homeownership, the burden of student debt and tight mortgage credit conditions as possible reasons first-time homebuyers have shied away from the market.

Murphy showed results from a recent Federal Reserve Bank of New York survey of consumer expectations, which revealed that young adults rent versus buy because of weak balance sheets, low income and lack of access to credit—not because of a change of attitude toward housing. He found that student debt does not deter young adults from homeownership, but rather delays home purchases. Furthermore, Murphy said previous analysis of homeownership and student debt is incomplete because it does not compare like with like. More renters are expected to become homeowners as the economy continues to strengthen and as tight mortgage credit standards are relaxed.

Mark Wynne, vice president and associate director of research and director of the Globalization and Monetary Policy Institute at the Dallas Fed, brought a global view of economic policy to the discussion with his insight into the communications of the Federal Open Market Committee (FOMC) in "How the FOMC Talks."⁷

Inflation seen in the U.S. in the 1970s led to a breakdown of postwar economic principles. The new view was based on the premise that economic agents (such as businesses and households) incorporate expectations of economic activity (including growth and inflation) into their decision-making process, Wynne said. As a result of this systemic shift, macroeconomic theory now realizes the important role that public expectation plays in the interaction between economic policy and economic performance. This means that

Chart 3 | More Young Adults in U.S. Are Renting or Living at Home



NOTE: The 2013 homeownership rate and share living at home are 41.6 percent and 13.9 percent, respectively.
SOURCE: Census Bureau.

for policy to be more effective, greater transparency and fluent communication are in order.

In general, over the past decade, most central banks have been moving toward more transparency. In the U.S., the first time a press release was issued immediately following an FOMC meeting was in February 1994. Given that it was the first time policy would be firming since 1989, then-Chairman Alan Greenspan decided to issue a press release to avoid any misunderstanding of the committee's purposes.

Since the first release, the Fed has reached several milestones in its road to increased transparency. In 1995, the committee decided that all changes in monetary policy would be announced, and in 1999, the FOMC began releasing a statement after every meeting regardless of whether there had been a change in policy. By 2003, the FOMC began issuing forward guidance on monetary policy. During the

financial crisis, communication from the committee changed further to accommodate unconventional monetary policy. One of the most significant changes came in 2012 when the monetary policy statement came with contingent guidance.

Over the past 20 years, communication from the FOMC has changed significantly. Wynne noted the increased importance of communications to support economic activity, especially in recent years as interest rates have been at zero and conventional monetary policies have been exhausted.

Reason for Optimism

The Texas economy is booming, yet the boom has not been felt evenly across the state. The Big Bend region and other rural areas have been struggling as regulations and drought threaten historical enterprises such as livestock and farming.

However, there is reason for optimism.

Emerging enterprises such as hunting and recreation offer additional opportunities for economic growth. Furthermore, as energy exploration and production expand in the Permian Basin, the spillover effects will continue to benefit the region. In addition, stronger growth expected in Mexico due to reforms should bring increased retail and tourism to the Big Bend region. As the housing recovery gains traction and the U.S. economy continues to grow, domestic tourism will also rise.

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Notes

- ¹ Conference presentations may be viewed at www.dallasfed.org/research/events/2014/14bigbend.cfm.
- ² See "The Conquest of Mexican Inflation," by Mark Wynne and Edward C. Skelton, in Federal Reserve Bank of Dallas, Globalization and Monetary Policy Institute 2011 Annual Report, 2012, pp. 13–20.
- ³ See "New Technology Revitalizes Permian Basin," Federal Reserve Bank of Dallas research and data, www.dallasfed.org/research/econdata/permian.cfm.
- ⁴ Texas Permian Basin counties are: Andrews, Bailey, Borden, Cochran, Coke, Concho, Crane, Crockett, Crosby, Culberson, Dawson, Dickens, Ector, Edwards, Fisher, Floyd, Gaines, Garza, Glasscock, Hale, Hockley, Howard, Irion, Kent, Kimble, Lamb, Loving, Lubbock, Lynn, Martin, Menard, Midland, Mitchell, Motley, Nolan, Pecos, Reagan, Real, Reeves, Schleicher, Scurry, Sterling, Sutton, Terrell, Terry, Tom Green, Upton, Val Verde, Ward, Winkler and Yoakum.
- ⁵ See "Water Scarcity a Potential Drain on the Texas Economy," by Keith Phillips, Edward Rodrigue and Mine Yücel, Federal Reserve Bank of Dallas *Southwest Economy*, Fourth Quarter, 2013.
- ⁶ See "The Long-Awaited Housing Recovery," Federal Reserve Bank of Dallas 2013 Annual Report, 2014.
- ⁷ See "A Short History of FOMC Communication," by Mark Wynne, Federal Reserve Bank of Dallas *Economic Letter*, vol. 8, no. 8, 2013.

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