



THE TEXAS ECONOMY

An Overview of '96 and Outlook for '97

THE TEXAS ECONOMY expanded at a modest pace in 1996, following more intense growth in 1994 and 1995. The strength of the oil and gas industry was a welcome surprise last year, and the stabilization of the Mexican economy helped Texas exports. Texas' role as a distribution hub continued to enhance growth, as in previous years. On the other hand, a weak semiconductor industry and a severe drought tempered growth. Perhaps the greatest restraint on job growth, however, was the tightest labor market in a decade. While the changes of 1996 affected individual cities to varying degrees, Texas' diverse economy prevented any single factor from dominating the state's expansion.

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What's in Store for Texas Cities?

*An End to Welfare
As We Know It?*

*Despite Short-Term Volatility,
Dollar's Value Stable
For Nearly a Decade*

What Helped Growth in 1996?

Oil and Gas. The energy industry helped bolster the 1996 expansion. In particular, the upstream energy industry—the production and exploration side of the business—was strong in 1996. One reason was higher oil and natural gas prices. Stock prices of drilling, exploration and production firms reflected the industry's strength,

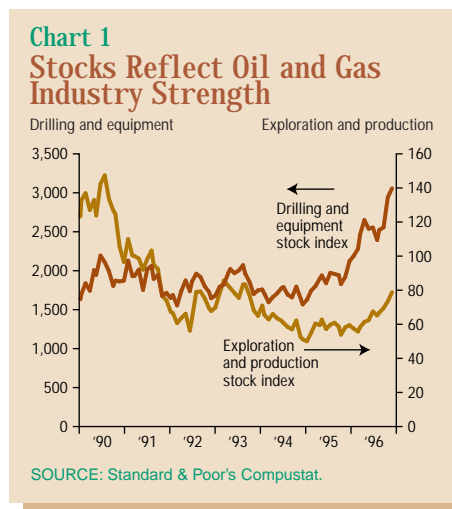
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as Chart 1 shows. Another source of the industry's strength was technological improvements that have allowed firms to downsize while increasing productivity.¹

Advancements in technology have lowered production costs worldwide and renewed interest in drilling in the Gulf of Mexico. The gulf's deep waters and large salt deposits hindered the discovery of oil with older technologies. The recent strong interest in the Gulf of Mexico is largely a product of important new tools such as three-dimensional seismic imaging, coiled tubing and measurement-while-drilling, which have lowered drilling costs, reduced risk and widened the range of economic prospects available to the industry. These advances have lowered the cost of finding oil all over the world. For example, exploration and development costs in the United States fell from about \$7 per barrel in 1991 to about \$4 in 1995. The industry can now be profitable with lower oil prices.

One indication of the energy industry's current strength is the Texas rig count—the number of rigs drilling for new wells—which climbed to post-Gulf War levels in December. Although this recent increase looks feeble next to rig counts during the oil industry's boom years, the comparison is misleading because improvements in technology have enabled the industry to do more with fewer rigs. For example, the drilling success ratio for new field wildcat wells—the percentage that are not dry holes—nearly doubled over the past 10 years.

Not only is the industry using fewer rigs, it's also improving labor productivity. Since the height of the oil and gas industry boom in 1982, this sector has shed nearly 170,000 jobs in Texas, more than half its 1982 employment. With competitive cost pressures and new technology, the oil industry is smaller but also stronger and more profitable than in past years.² Increased competition has led firms to outsource



many functions to reduce costs and shift risks. Much work done by oil industry firms in the early days is now done by contractors and consultants. Thus, the industry can contract or expand much more quickly in response to market conditions. Another result of this increased competition is a consolidation of the industry into major oil cities such as Houston and Dallas.

While technological improvements and industry restructuring have caused a downward trend in upstream energy industry employment over the past several years, higher energy prices have helped stem the decline. Oil and gas extraction employment stabilized, and oil field machinery manufacturing and services experienced strong employment growth in 1996.

Furthermore, what's good for the energy industry is still good for Texas. Although downstream energy firms such as refining and petrochemical companies are hurt by higher oil prices, the state as a whole still benefits. Work done at the Dallas Fed shows that for each *sustained* \$1 increase in oil prices, Texas gains about 16,000 jobs.³ However, overall labor tightness in Texas is also affecting the energy sector, restraining growth in both white-collar and blue-collar jobs. Geophysicists, petroleum engineers, machinists and roughnecks are all in high demand.

Mexico. Exports to Mexico have been particularly important to Texas. In the first half of 1996, the state sent one-third of its export goods to Mexico, while the United States sent 9 percent of its total exports to Mexico. The dramatic decline of the peso in December 1994 and subsequent recession had a significant impact on the state's exports to Mexico. Dallas Fed economists have estimated that had the peso crisis not occurred, Texas exports to Mexico would have been 31 percent higher in 1995.⁴

Since the peso devaluation, the Mexican economy has stabilized. After turning positive in the third quarter of 1995, real Mexican GDP growth averaged an annual rate of 6.7 percent in the first three quarters of 1996. Consequently, Texas' exports to Mexico accelerated. Between the fourth quarter of 1995 and the second quarter of 1996, exports to Mexico increased 17 percent, surpassing the pre-crisis level, as shown in Chart 2.

With this improvement in the Mexican economy, border retail sales also strengthened in the first half of 1996. However, the increase was not enough to provide much of a boost to retail trade employment in border cities. Flat retail employment, combined with a leveling off in border construction and manufacturing job growth, restrained border employment growth.

Distribution Hub. Texas' role as a distribution hub continued to stimulate growth in 1996. Spurred by the effects of trucking deregulation, distribution activity increased with a 6.6 percent jump in trucking and warehousing employment in 1996. The industry provides easy access to North and Latin America, and its strength is evident in the continued expansion around the D/FW International and Alliance airports and in the strong warehousing activity in Dallas, Fort Worth and El Paso. Another active distribution hub is the Houston Ship Channel, the nation's second largest port in terms of cargo volume.

“Homebuilders enjoyed a banner year in 1996.”

Chart 2
Texas Exports to Mexico Rebound



SOURCE: Massachusetts Institute of Social and Economic Research (MISER).

Construction. The construction and real estate industries have been bright spots for Texas. Both benefited handsomely from firm expansions and relocations into the state. After good years in 1994 and 1995, construction activity rose at a strong pace again in 1996, with increases in both residential and non-residential construction (*Chart 3*). Dallas and Fort Worth saw particularly high growth, with companies drawn into the area by the convenient distribution facilities of the D/FW International and Alliance airports. In Dallas alone, over 12 million square feet of industrial space was added in 1996, after a gain of 8 million square feet in 1995.

The office market also profited from firm relocations and expansions. Occupancy rates in Austin's office market and Dallas' suburban office market have risen above the U.S. average, and rents are going up. However, Texas is still a bargain, with prime Dallas office space renting for about \$20 per square foot, compared with average citywide rents of \$25 in Chicago and \$21 in Atlanta and Minneapolis.

Homebuilders enjoyed a banner year in 1996. From January through September, the Dallas/Fort Worth single-family market ranked fourth most active in the nation. Because of robust demand and shrinking inventories, prices

for existing homes in major Texas cities rose at rates above the national average. Despite a recent cooling in new home demand, the strong increase in homebuilding earlier in the year means 1996 will surpass the excellent record posted in 1995.

These increases in industrial, residential and office building have caused a 6 percent increase in Texas construction employment in 1996, above the 5.5 percent rise at the national level. In addition, construction-related segments of the manufacturing and retail sales industries flourished in 1996 because of strong building activity.

What Hindered Growth in 1996?

Semiconductors. After being a source of strength for Texas employment in recent years, the high-tech manufacturing industry weathered a less robust year in 1996 caused by weakness in the semiconductor industry. Semiconductor production is a major part of high-tech manufacturing in Texas. In fact, if Texas were a nation, it would be the fifth largest producer of semiconductors. The industry's fortunes changed in early 1996, and a barometer for the industry's health, the book-to-

bill ratio for semiconductors, fell.⁵ The Standard & Poor's 500 semiconductor stock price index also suffered a deep decline.

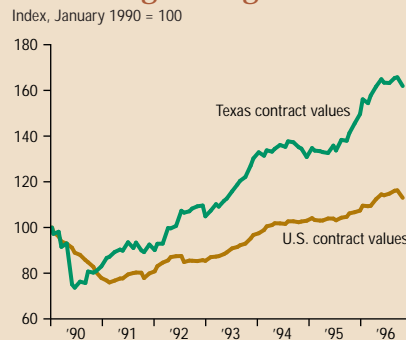
The industry responded with a midyear flurry of layoffs, hiring freezes and plant construction slowdowns. Chart 4 shows how the weakness in semiconductors put a damper on Texas' rapidly growing high-tech manufacturing industry, which includes electronic and nonelectrical equipment and instruments and related products. After growing at a vigorous rate of 7.3 percent in 1995, high-tech manufacturing growth fell to 2.5 percent in 1996.

Following three quarters of weakness, the book-to-bill ratio bounced back in the fourth quarter of 1996. Most recently, business contacts in the industry report increased confidence that the industry has bottomed out and is poised for positive growth in 1997, but at more moderate levels than in 1994 and 1995.

Drought. The rural areas of Texas were hit hard by a relatively short but severe drought last year. The wheat crop was ravaged, and feed prices soared. Lack of water, forage and feed forced producers to accelerate the liquidation of their herds, despite rock-bottom cattle prices. Disaster relief and crop insurance helped mitigate losses, but farmers and nearby communities felt the pinch of lowered incomes. Many farmers and ranchers had difficulty repaying their loans, and a number of producers chose to discontinue production, perhaps influenced by the impending phase-out of government payments.

Labor Market Tightness. In addition to the effects of the drought and the semiconductor price drop, tightness in the labor market slowed employment growth in 1996. The Texas unemployment rate in October hit its lowest level in 15 years, and the unemployment rate for nonborder areas was substantially less than the nation's (*Chart 5*). Overall labor force growth slowed in Texas in 1996 as it picked up in the nation.

Chart 3
Texas Construction Activity Still Going Strong



SOURCE: F. W. Dodge, a Division of the McGraw-Hill Companies.

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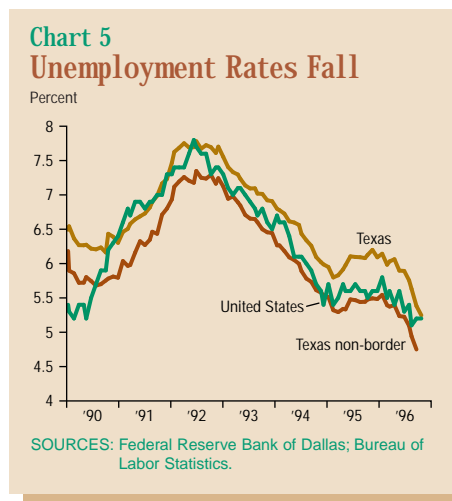
These numbers are consistent with the Dallas Fed's survey of business conditions, which has been reporting labor market tightness for some time across a wide variety of sectors. Improvements in the California and Mexico economies may have contributed to the tightness by reducing migration to Texas from these areas.

Outlook

Texas' employment growth may slow in 1997 to about 2 percent from the 2.3 percent posted in 1996. Factors that benefited Texas in 1996 will continue to help the state in 1997 but won't give as much of a boost as in the past.

Higher energy prices will continue to help the economy. However, oil and gas prices are not expected to go up further—if anything, they'll decline in 1997. The vigor in the industry will continue, but the growth rate may be somewhat lower.

Similarly, a growing Mexican economy will be a plus for Texas. But after bouncing back with a 34 percent annual growth rate in 1996, exports to Mexico



are expected to grow at a rate closer to the 10-year average of 14 percent.

The current growth in the construction industry should also decelerate to sustainable levels. Lower migration to Texas is expected to help stabilize residential construction growth. Nonresidential construction should continue to rise, a result of previously planned office construction projects. Also, industrial and retail construction may slow in 1997, with recent warnings of over-

building. This, in turn, foreshadows a slower year for wholesale and retail employment growth.

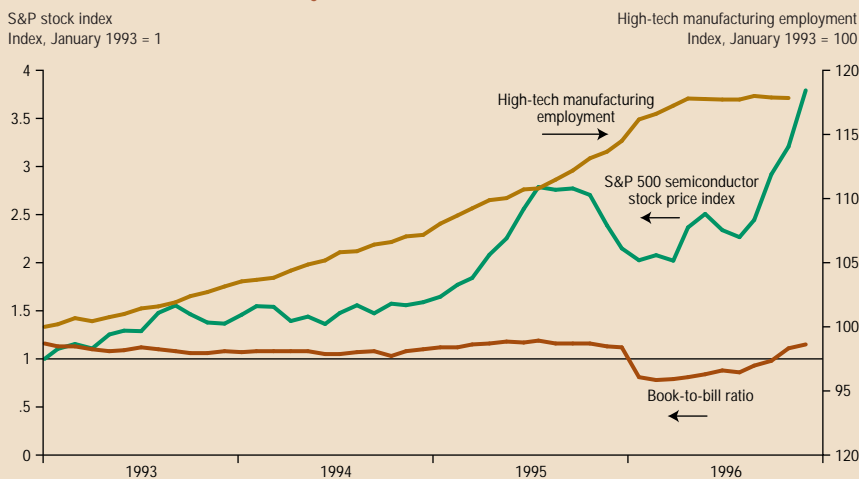
Other service sectors may also slow. High fuel costs, rising trucking industry wages and a slowdown in warehouse construction will affect the transportation and distribution industries. Also, the tighter labor market may restrain overall growth and cause a shift from temporary employment to manufacturing sectors as more manufacturing firms hire proven temporary workers away from temporary employment agencies.

Although Texas' cost differential with the nation is slowly subsiding, the state's costs should remain below the national average in 1997. Texas' wages, rents and housing prices are still below the nation's. Therefore, the state's cost advantage and its role as a prime distribution hub should continue to aid further expansions and relocations into the region.

The national economy and labor market tightness will be the wild cards in 1997.

—Sheila Dolmas
Mine Yücel

Chart 4
Semiconductor Industry Retrenches



Notes

Steve Brown, D'Ann Petersen, Fiona Sigalla, Lori Taylor and Madeline Zavodny contributed to this outlook.

¹ See Bill Gilmer, "Oil Extraction in the Southwest," *Southwest Economy*, Issue 4, 1996.

² See Gilmer (1996).

³ Steve Brown and Mine Yücel, "The Energy Industry: Past, Present and Future," *Southwest Economy*, Issue 4, 1995.

⁴ See *Southwest Economy*, Issue 5, a NAFTA retrospective, September/October 1996.

⁵ The book-to-bill ratio is the ratio of shipments to orders.