



Strength in the high-tech and energy sectors was an important source of Texas' economic might relative to other parts of the country in 2010.

Texas Economy to Ride Higher in the Saddle in 2011

By Keith R. Phillips and Emily Kerr

The Texas economy grew moderately in 2010, outperforming most other states. Jobs increased by 209,000, a growth rate of about 2 percent—near the state's average pace since 1980. Strength in the high-tech and energy sectors was an important source of Texas' economic might relative to other parts of the country. The state also suffered less from housing price declines.

Leading indicators, generally positive at the end of 2010, suggest an improving outlook in 2011 as consumers and businesses regain confidence in the economy. The Dallas Fed forecasting model projects Texas job growth of 2.5 percent to 3.5 percent this year.

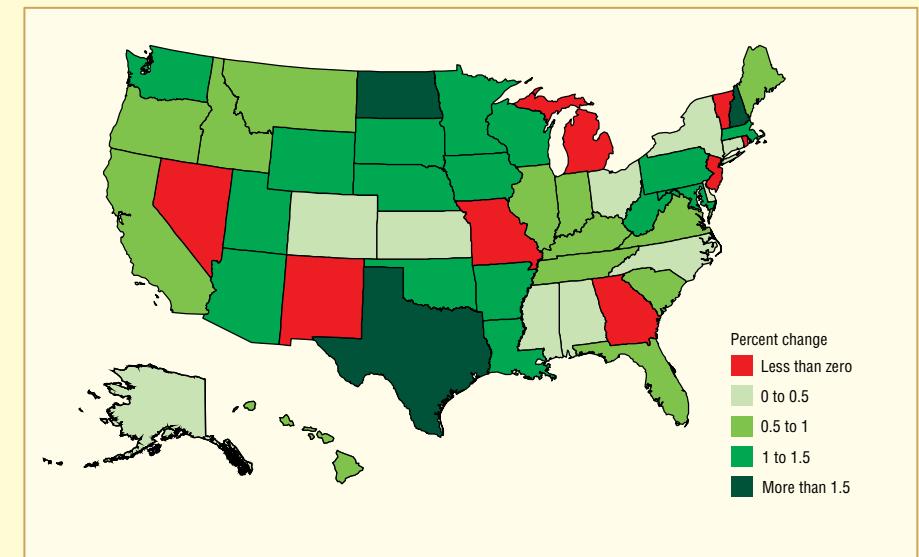
Job Growth Strong in Texas

The number of U.S. jobs expanded 0.7 percent in 2010; Texas experienced triple that rate. Texas was among three

states where employment grew more than 1.5 percent (*Chart 1*). In general, energy-producing states performed better than other areas. Natural resources and mining spurred employment gains in North Dakota, South Dakota and Minnesota, for example. Eight states experienced an employment drop-off in 2010, with Nevada recording the largest decrease. Weakness there is largely tied to the struggling housing market, as prices continued falling in 2010. Nevada had the nation's highest foreclosure rate.

Looking across Texas industries, employment data in 2010 showed that support activities for mining as well as metals and machinery manufacturing—partly tied to the energy industry—were among the fastest expanding sectors last year. Professional and business services, accounting for roughly 12 percent of total Texas employment, added

Chart 1
2010 Texas Job Growth Better Than Most States



more than 59,000 jobs last year, a 4.8 percent annual growth rate. Health-care services, which held up through the state's recession and account for about 12 percent of Texas employment, expanded 4 percent.

Business-Cycle Index Shows Expansion

While job growth is a key economic performance measure, the Texas Business-Cycle Index (TXBCI) provides a broader view of the state's economic health. The TXBCI, which combines movements in employment, the unemployment rate and state real gross domestic product (GDP), hit a bottom in November 2009 and grew at an annual pace of 2.2 percent through December 2010.

We define periods of negative change in the TXBCI as recessions in Texas. The TXBCI's average annual growth rate during nonrecession years was roughly 5 percent prior to the most recent Texas downturn. Employment and output growth will need to continue to accelerate for the TXBCI to reach its historical expansion pace. The index increased at a healthy rate early in 2010 as the housing market picked up because of the homebuyer tax credit and a rebound in manufacturing, particularly high tech (*Chart 2*). TXBCI growth slowed during the summer, but the most recent data point shows an up-tick at year-end.

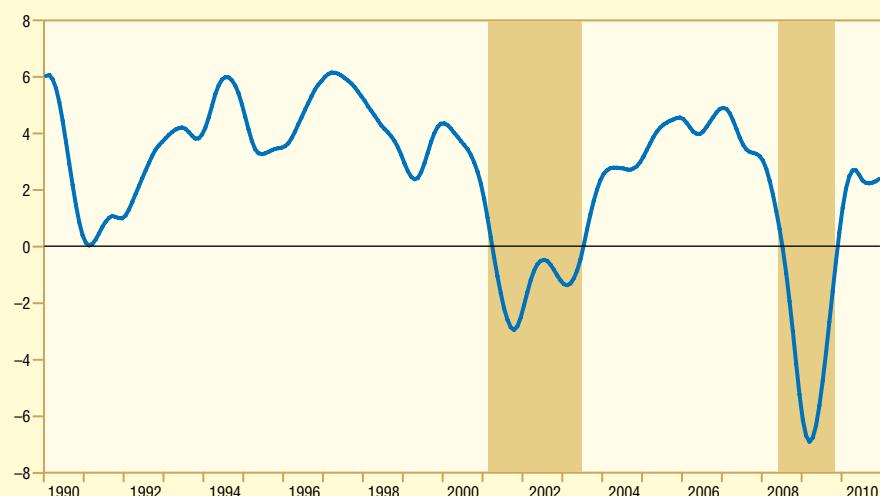
Early-year strength and the midyear slowing are somewhat exaggerated by the hiring and release of temporary census workers.¹ However, other indicators and anecdotal evidence confirm that activity slowed over the summer and picked up slightly near year-end. Elimination of the most recent homebuyer tax credit and its impact on new home construction contributed to weakness.

Builders of low- to moderate-priced homes, who are among contacts for the Dallas Fed's Beige Book economic report, noted a significant sales drop in May and June. Existing-home sales continued declining into the summer and began stabilizing in the fall. The value of single-family construction contracts and the number of permits issued to build single-family homes increased mildly after bottoming in early 2009, but fell again beginning around April 2010 when the tax credit expired. Home construction affects a number of jobs directly and indirectly through service industries such as real estate and home finance and through manufacturing such as production of building materials.

The Dallas Fed's Texas Manufacturing Outlook Survey, which gauges the overall health of factory activity, also indicated a

Chart 2 Texas Business-Cycle Index Suggests Moderate Expansion in 2010

Percent (month/month annual rate, seasonally adjusted)

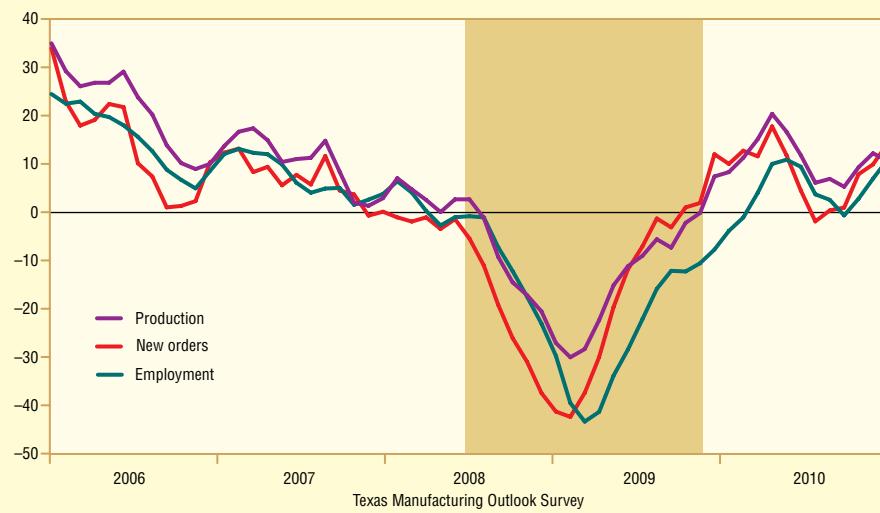


NOTES: The index is an aggregate measure of the state's current economic activity. Shaded areas represent Texas recessions.

SOURCE: Federal Reserve Bank of Dallas.

Chart 3 Texas Manufacturing Strengthens at Year-End 2010

Index (three-month moving average)



NOTE: Shaded area represents Texas recession.

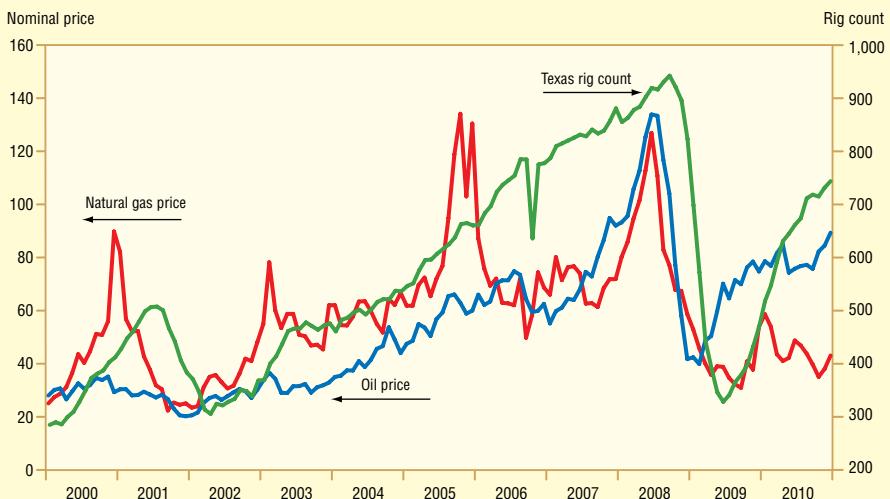
SOURCE: Federal Reserve Bank of Dallas.

slow patch over the summer, followed by a pickup toward year-end (*Chart 3*).² The production index, the survey's key measure of manufacturing in Texas, appears to track the state economy quite well.³ Movements within the manufacturing sector are highly correlated with the general economy, and the production index closely mirrored turning points in the business cycle during the

most recent Texas recession. After reaching high levels in the spring, the index fell substantially in June and remained at relatively low levels into early fall. Respondents' comments suggested the weakness largely came from outside the state in the form of financial market uncertainty and declining federal government stimulus money, as well as from slumping construction activity,

Chart 4

High and Steady Oil Prices Boost Texas' Energy Sector



NOTES: Oil price is dollars per barrel. Natural gas price is dollars per million Btu, multiplied by 10.

SOURCES: *Wall Street Journal*; Henry Hub; Baker Hughes.

reported that Texas high-tech manufacturing output grew at a rapid pace in the first half of 2010 as customers rebuilt inventories from very low levels. This production growth subsided over the summer, with the sector expanding at a slower but still healthy pace. Jobs in Austin—the Texas metropolitan area with the largest share of its economy tied to high tech—grew about 2.2 percent last year, making Austin one of the nation's fastest-growing regions.

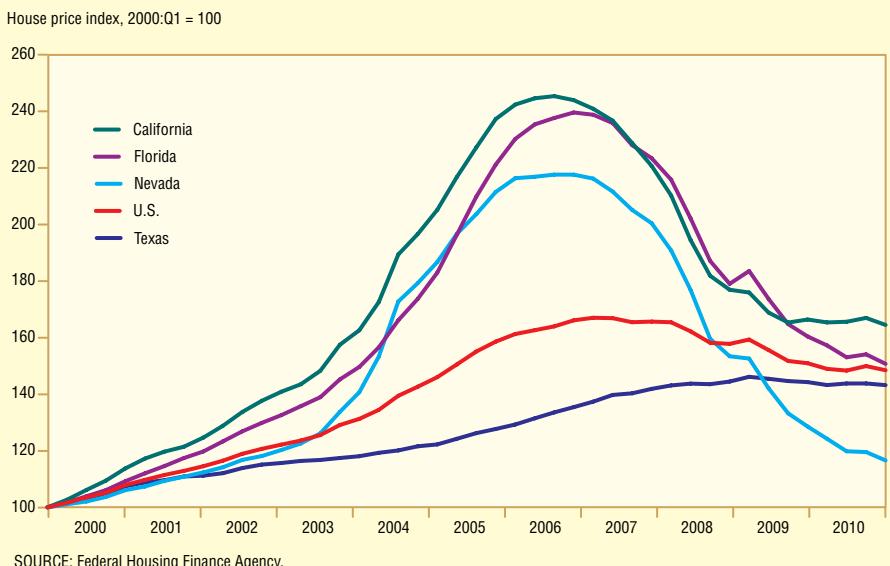
The value of computer and electronics exports, which come under the high-tech umbrella and account for 20 percent of total Texas exports, expanded 11.0 percent in 2010. Other fast-growing export industries during this period were oil and gas (up 121.5 percent), mining (up 112.3 percent) and petroleum and coal products (up 50.6 percent). These sectors collectively make up one-fifth of total Texas exports and reflect the importance of the energy sector to the state's recovery.

Energy was vital to growth in the Texas economy last year. Oil prices were generally high and stable, fluctuating between \$75 and \$80 per barrel (*Chart 4*). The share of rigs drilling for oil relative to natural gas increased as natural gas prices generally fell. Although Texas rig count data are not broken down by oil and gas deployment, the overall number of U.S. oil rigs rose 13.6 percent in the fourth quarter, while the number of U.S. gas rigs slipped 3.8 percent. Early last year, some Dallas Fed Beige Book respondents were concerned about natural gas drilling falling off in the second half of 2010 due to declining prices, but in July they noted that activity remained surprisingly steady. By the fall, however, contacts began seeing a slowdown in gas-directed drilling, although increases in land-based oil drilling offset those declines. Overall, the rig count for Texas increased 59 percent last year and mining employment gained 10 percent.

Relatively stable Texas home prices in 2010 also helped the state economy outpace the nation, where declines continued (*Chart 5*). During the national housing boom, a relatively ample supply of undeveloped land around Texas metro areas and few development regulations allowed additional housing stock without increasing home prices. Absent big price gains, Texas housing markets were less vulnerable to lax lending standards that existed in other areas of the country. In markets such as Florida and California, risky lending practices grew; in Texas, unconventional loans were not as prevalent.

Chart 5

Texas House Prices a Stabilizing Force



SOURCE: Federal Housing Finance Agency.

related to the end of the homebuyer tax credit. The survey indicated that manufacturing growth picked up again in November and December.

Key Factors in Texas' Relative Strength

Despite the summer slowdown, Texas' growth in 2010 exceeded most other states' performance. High tech plays a significant role in the state's economy, and a recent Milken Institute study concluded that Texas

has three of the top 25 U.S. high-tech centers—Dallas, Austin and Houston.⁴ While high-tech manufacturers were hit hard in the first half of 2009, the sector has grown rapidly since then. For example, U.S. computer and peripheral equipment output declined year-over-year by more than 34 percent in May 2009, but by last May it was up about 17 percent.

Although regional high-tech measures are scarce, Dallas Fed Beige Book contacts

The home foreclosure rate in Texas rose last year, but only to about 60 percent of the national average. While foreclosures in the state remain elevated and will continue to suppress building activity well into the year, the magnitude of the problem is less than in many other parts of the country.

Many consumers took on added debt amid the national home-price escalation from 2003 to 2006. While Texas consumers' obligations increased during the period, a less significant home-price rise helped keep debt levels from rising as rapidly as elsewhere. Texas continued to have a lower ratio of personal debt to personal income than the national average—largely reflecting Texas households' lower concentration of mortgage debt (*Chart 6*). Less leverage means that Texas consumers on average will use not as much of their income to pay down debt and may be in better financial shape. Still, debt burdens are high relative to where they were at the start of the decade and likely will continue restraining expenditures. Consumer spending, while not robust, picked up somewhat last year. In particular, the three-month moving average of real, seasonally adjusted retail sales in Texas increased 5.8 percent in the first 11 months of 2010 but remained about 4.1 percent below the peak reached in November 2008.

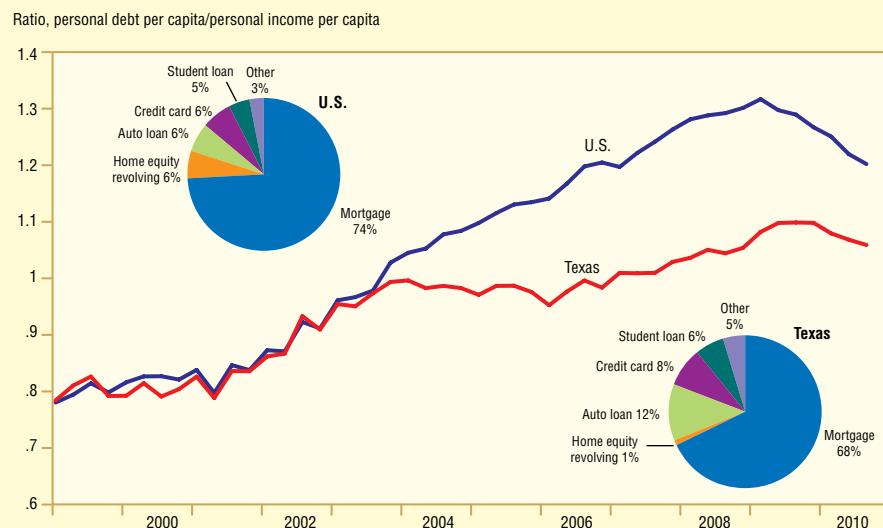
Leading Indicators Suggest Improvement

On the heels of modest growth at the close of last year, several Texas leading indicators suggest continued improvement going into 2011. One such measure is the Texas Leading Index, which uses eight key measures to forecast future economic activity (*Chart 7*).⁵ With the exception of average weekly hours—an average of weekly hours worked by manufacturing industry production workers—all of the components of the Texas Leading Index were either flat or increased during the three months ended in December.

The Texas Value of the Dollar uses weights based on Texas' export trade volumes with various countries. Declines in this measure, representing positive contributions to the Leading Index, should provide stimulus for Texas exports by making goods produced in Texas less expensive to foreign buyers.

The increase in stock prices of Texas-based companies is a reflection of earnings growth and a positive outlook for businesses. New unemployment claims filings, a leading indicator of both job growth and future

Chart 6 Texas Households Less Burdened With Debt Than U.S.



SOURCES: Bureau of Economic Analysis; Census Bureau; Federal Reserve Bank of New York Consumer Credit Panel.

changes in the unemployment rate, have also fallen, signaling labor market improvement. Recent changes in energy indicators have generally been positive, and help-wanted newspaper advertising volumes have held steady.

Other leading indicators have also increased. Because firms often hire temporary employees before they add permanent workers—and terminate those interim personnel first when the economy weakens—employment agency jobs are a good leading indicator of overall hiring. Jobs in this sector grew at a 15.7 percent rate in 2010. Beige Book respondents in the staffing services industry recently reported an increase in direct hires, or positions offered on a permanent basis, a good sign that businesses are becoming more confident that demand will be sustained.

The Texas Manufacturing Outlook Survey also suggests continued expansion. With the production index and the new orders index ending the year with positive readings, Texas can hope to see sustained growth in manufacturing output in coming months. The survey's labor market indicators picked up toward the end of 2010, and in December, 98 percent of manufacturing firms expected employment to increase or remain unchanged over the next six months. Manufacturers' expectations for production, new orders and capacity utilization continued improving, as these six-month-ahead indexes rose to their highest levels since January 2010.

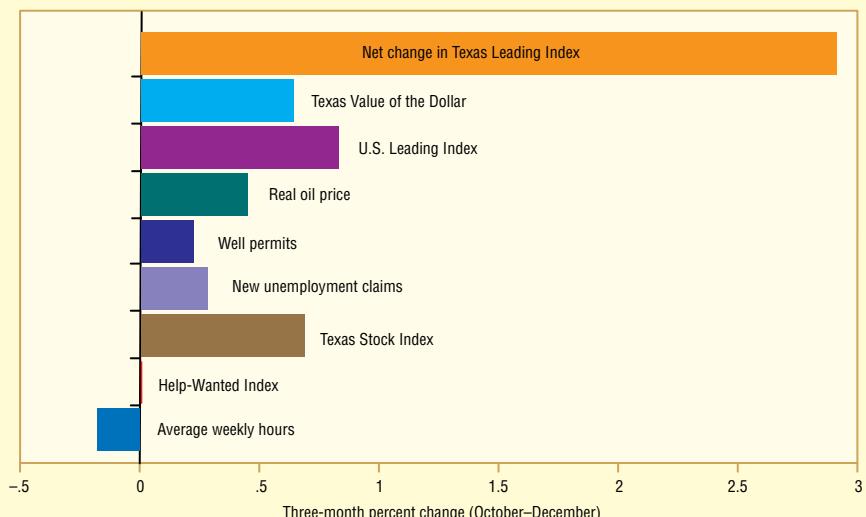
Factors Restraining Growth

Two factors likely to restrain Texas economic growth this year are persistent weakness in construction and the state budget shortfall's downward pressure on public spending. Building activity in Texas hit a bottom in 2009 and increased slightly last year. Overall construction is likely to increase only modestly in 2011, remaining at subdued levels. On the residential side, Dallas Fed Beige Book contacts still report sluggish sales and weak homebuilding and retain a cautious outlook. Foreclosures and high inventories will continue depressing building activity. Commercial construction remains weak and won't likely improve much this year. For instance, the Dallas Fed's aggregate metro-adjusted office vacancy rate in Texas was 18.3 percent in the third quarter. In the past, new office construction did not grow significantly until that rate fell below 16 percent. This is unlikely to happen in 2011. Retail construction will probably remain weak since much new activity tends to follow the growth of new homebuilding.

The state budget shortfall poses another restraint to economic growth. Due in part to increased Medicaid and other social welfare expenditures, less-than-expected business tax revenue and the expiration of stimulus funding, Texas faces a shortfall estimated at more than 10 percent of the state's budget for the 2012–13 biennium.⁶ To close the gap, lawmakers may need to cut spending or

Chart 7

Leading Indicators Giving Positive Signals for Growth for 2011



NOTE: The index is a composite of eight leading indicators that can predict movements in the state economy.

SOURCE: Federal Reserve Bank of Dallas.

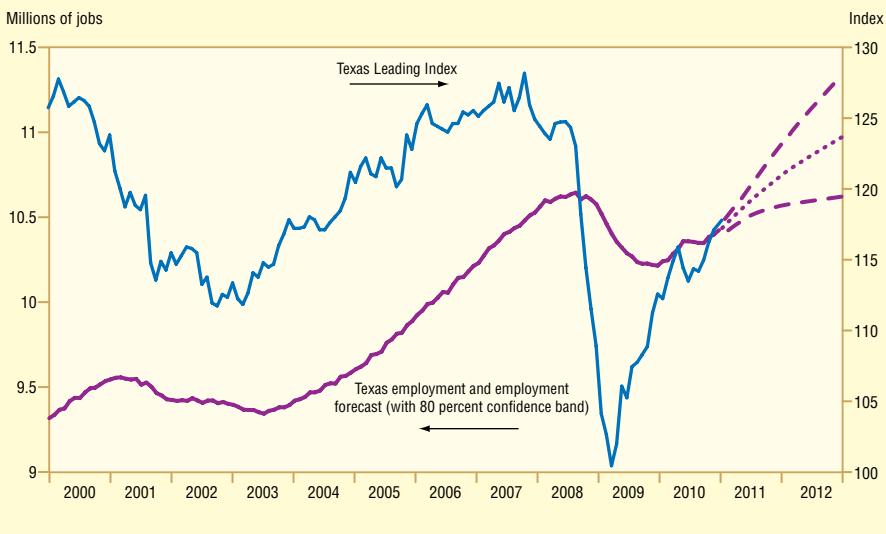
government could become a negative force.

The pace of job expansion is expected to pick up in 2011 (*Chart 8*). This forecast is based on data adjusted to exclude temporary census workers. Overall, movements in the Texas Leading Index suggest that 261,000 to 374,000 jobs will be added. This would cause employment growth to surpass the 30-year average Texas rate of roughly 2 percent. According to the forecast, Texas will surpass its prerecession employment peak sometime around December. This pace of growth is consistent with the Texas unemployment rate falling to about 7 percent by the end of 2011, from 8.3 percent in December. Even with the expected decline, Texas will likely conclude the year with unemployment well above the state's average rate since 1990 of 6 percent.

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Chart 8

Texas Jobs Forecasted to Increase 2.5 to 3.5 Percent in 2011



SOURCES: Federal Reserve Bank of Dallas; Haver Analytics.

Notes

¹ Using a deviation from a linear trend in federal civilian workers, we estimate that the number of temporary census workers in Texas averaged 7,761 from July 2009 to September 2010. The largest numbers of workers occurred from March 2010 to July 2010, and the peak level was 39,130 jobs in May 2010.

² The Texas Manufacturing Outlook Survey can be found online at www.dallasfed.org/data/outlook.

³ See "Texas Manufacturing Survey Offers Advance Look at State and National Economies," by Franklin D. Berger, Federal Reserve Bank of Dallas *Southwest Economy*, Third Quarter, 2010.

⁴ "North America's High-Tech Economy: The Geography of Knowledge-Based Industries," by Ross C. DeVol, Kevin Klodden, Armen Bedroussian and Benjamin Yeo, Milken Institute, June 2009, www.milkeninstitute.org/nahightech/nahightech.taf.

⁵ A description of the Texas Leading Index and its components can be found online at www.dallasfed.org/data/basics/definitions.html#leading.

⁶ See "Poor State Finances Deepen Recessionary Hole," by Jason Saving, Federal Reserve Bank of Dallas *Southwest Economy*, Fourth Quarter, 2010.

raise taxes or both, which in turn will slow demand growth in the recovering economy. Additionally, the state could decide to tap its rainy day fund to meet some of its obligations.

Looking Ahead at 2011

In 2011, many of the same factors that influenced Texas' growth last year will continue playing a role in the state's rebound.

Exports and manufacturing, particularly high-tech, should continue moderate growth, slower than in early 2010 but faster than in the second half of last year. Consumer spending should increase at a slightly quicker pace as consumers grow more positive about the recovery's sustainability and face lower debt-to-income levels. Energy will likely continue to be a positive, while construction will add only slightly to growth, and state and local