Texas Economy Shifting into Second Gear in 2017

By Keith R. Phillips and Christopher Slijk

ABSTRACT: Amid an energy sector recovery in the second half of 2016, the Texas economy is positioned to return to its long-term pace of growth this year. However, a significant change in oil prices or further weaknesses in manufacturing remain risks to the outlook.

Despite unexceptional activity for all of 2016, the Texas economy accelerated moderately in the second half of the year. This momentum is likely to continue into 2017, shifting the state economy into second gear.

Texas jobs are expected to increase between 1.5 and 2.5 percent, as the energy sector improves and the service sector grows at a moderate pace.

The largest risk to the outlook is a sharp change in oil prices. A continued appreciation of the U.S. dollar, making Texas goods more expensive abroad, also poses a significant risk to Texas exporters.

The Texas economy maintained restrained growth in 2016, despite continued declines in the energy and manufacturing sectors. Low oil and natural gas prices and a strong dollar led to weakness in the two, particularly during the first half of the year.

Growth in service-producing sectors such as retail and leisure and hospitality slowed from a strongly expansionary mode in 2015. Growth was uneven across the major metropolitan areas, as Houston continued to be weak, but Dallas, San Antonio and Austin remained relatively unscathed by sharp declines in the energy sector.

The state unemployment rate ended the year where it began—4.6 percent—after dipping to as low as 4.3 percent and rising to 4.8 percent during the 12 months. Over the last two years, the jobless rate has remained steady following a persistent decline from October 2009 through January 2015.

Even as job growth slowed in the past two years, many businesses reported difficulties finding workers. In some regions such as Austin where labor markets are extremely tight, difficulty finding qualified workers has likely significantly hindered job expansion.

Continued Mild Growth

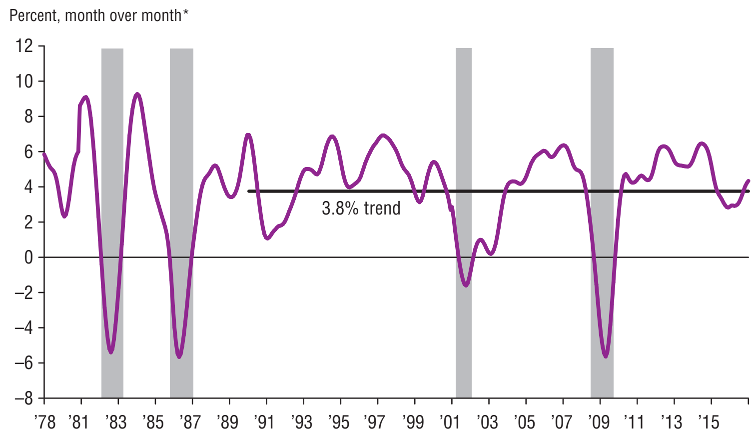
Texas employment grew 1.4 percent in 2016—toward the upper end of the 0–1.5 percent range forecast last year.[1] This compared with 1.3 percent growth in 2015 but was below the national average for a second consecutive year following 13 years of stronger growth. U.S. job expansion was 1.9 percent in 2015 and 1.6 percent in 2016. Texas employment growth was stronger than other energy states. North Dakota, Oklahoma, Louisiana and Alaska each experienced job losses.

Despite this comparative performance, the Texas economy failed to match growth levels achieved since the end of the recession in 2009. This can be seen in the Texas Business-Cycle Index, a broad measure of economic performance based on changes in employment, the state unemployment rate and inflation-adjusted state gross domestic product. It shows that while economic growth was below trend much of the year, the economy continued expanding (*Chart 1*).

Energy sector declines drove state weakness during the first half of 2016. The price of West Texas Intermediate (WTI) crude oil fell sharply from a monthly average of $46 per barrel in October 2015 to $30 by February 2016 (reaching a daily low of $26 in mid-February). The state's drilling rig count fell to its lowest level since 1999, triggering broader concerns that energy prices would remain very low or fall further in the second half of 2016. Energy sector

> Toward the end of the year, expectations of fewer regulatory burdens under the new presidential administration and an OPEC agreement to cut production further boosted the energy sector.

Chart 1 Business-Cycle Index Shows Texas Economy Returned to Trend Growth by Year-End 2016



*Seasonally adjusted.
NOTE: Shaded areas represent Texas recessions.
SOURCE: Federal Reserve Bank of Dallas.

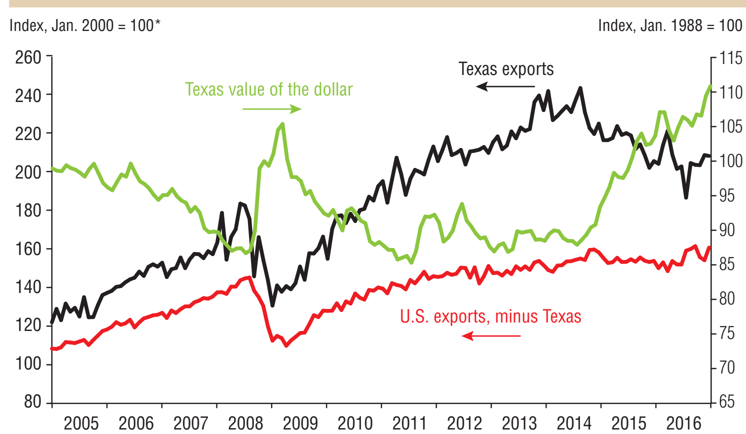
employment followed suit, declining an annualized 19 percent in the first half of 2016. This weakness spilled over into manufacturing sectors that support energy, such as fabricated metals and oilfield machinery.

At the same time, the value of the dollar continued its rise, appreciating nearly 7 percent in 2016—26 percent since mid-2014 (*Chart 2*). A significant share of Texas' manufacturing output is exported and, as of 2015, the state had the third-highest share of jobs tied to exports among all the states.[2] As a result, the rise of the dollar has been an ongoing drag on the manufacturing sector.

Manufacturing output continued trending lower in the first half of 2016, the Federal Reserve Bank of Dallas' Texas Manufacturing Outlook Survey (TMOS) shows (*Chart 3*).

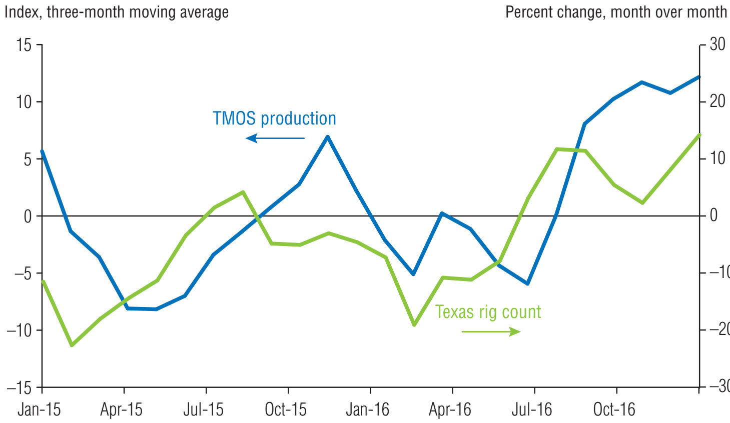
By comparison, growth in the second half of 2016 was relatively robust. The price of WTI picked up, holding steady above $44 per barrel beginning in May and providing a greater sense of stability in energy markets. Toward

Chart 2 Dollar Appreciation Continues to Pressure Texas Exports



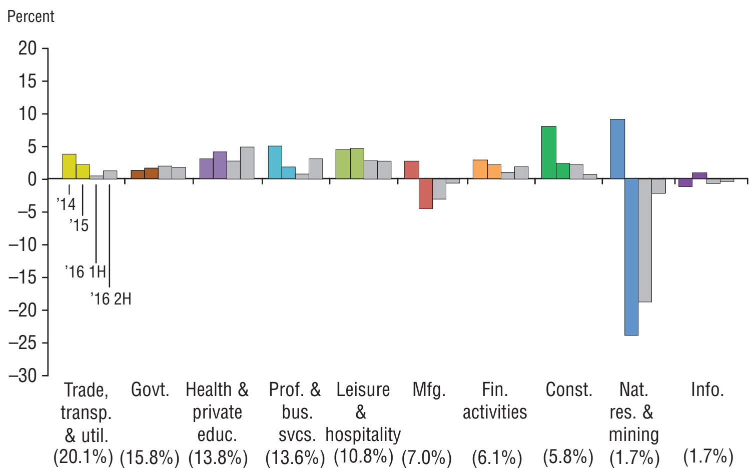
*Seasonally adjusted, real.
SOURCES: Census Bureau; Bureau of Labor Statistics; WISERtrade; Federal Reserve Bank of Dallas.

Chart 3 Texas Energy, Manufacturing Sectors Turn Around in Second Half 2016



SOURCES: Federal Reserve Bank of Dallas' Texas Manufacturing Outlook Survey (TMOS); Baker Hughes.

Chart 4 Job Growth Weak in First Half 2016, Strengthens in Second Half (Job growth, 2014–16)



NOTES: Nongray bars represent December over December growth; gray bars represent annualized growth in the first and second halves of 2016. Figures in parentheses represent shares of total nonfarm employment as of December 2016.

SOURCES: Bureau of Labor Statistics, adjustments by the Federal Reserve Bank of Dallas.

the end of the year, expectations of fewer regulatory burdens under the new presidential administration and an OPEC agreement to cut production further boosted the energy sector.

Prices picked up more in December, averaging $52 a barrel, the highest since mid-2015. Declines in energy employment slowed significantly in the second half of the year, with 2,300 jobs shed compared with 22,800 jobs in the first half. The rig count turned around near mid-year, steadily rising from 179 rigs in May to 336 in January 2017.

Manufacturing output also improved in the second half of the year with employment losses declining to just 2,600 jobs from 13,300 in the first half. The TMOS production index increased for six consecutive months, the longest such streak since the end of 2014.

Service sector jobs experienced a similar pattern of growth—relatively weak growth in the first half of the year and improvement in the second half (*Chart 4*).

Trade, transportation and utilities, in particular, experienced a sharp first-half slowdown as retail and wholesale trade employment growth softened considerably. Administrative services (the largest component of professional and business services) declined slightly, while health care employment slowed due to easing of the pass-through of stimulative effects derived from rising Medicaid enrollments during the prior two years. Only government employment accelerated, rising an annualized 2.0 percent in the first half after a weak 1.4 percent in 2015.

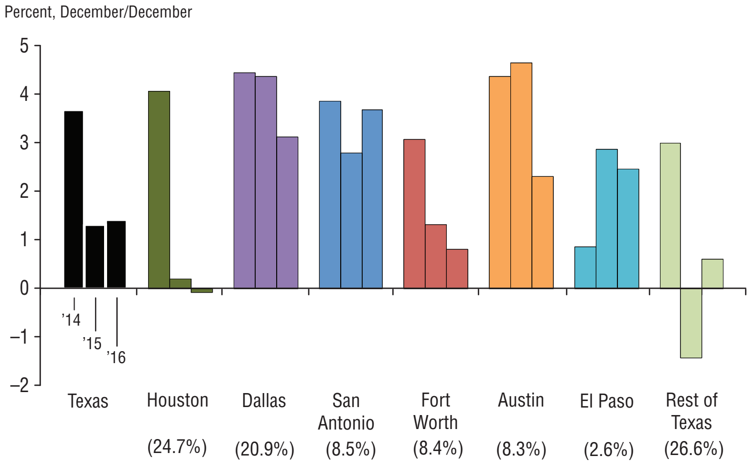
Mixed Metro Performance

Growth since the energy bust has been very uneven across Texas' major metropolitan areas. Performance has been defined in large part by regional exposure to the energy industry, with oil-and-gas-intensive regions such as Midland–Odessa continuing to shed jobs at a more rapid pace than diversified energy areas such as Houston. Meanwhile, locations with a relatively small share of energy jobs grew strongly (*Chart 5*).

Houston, a global energy hub, has continued to demonstrate resilience despite softness in its core industry. Diversification into downstream energy—evidenced in a petrochemical plant construction boom—has helped offset some sector weakness. Additionally, due to continued growth in other large sectors such as health care and retail, total Houston employment declined only 0.3 percent from its most recent peak of 2,993,000 jobs in January 2016.

The Dallas metropolitan area, a region with a large finance industry and stronger ties to the U.S. economy than other large Texas metros, slowed slightly in 2016 compared with 2015 but continued to be unfazed by the issues affecting overall state growth.[3] While neighboring Fort Worth slowed due to weakness in its large manufacturing base, the DFW metroplex added 84,600 of the net 168,100 jobs gained in the state last year and

Chart 5 Metro Job Growth Remained Mixed in 2016
(Job growth, 2014–16)



NOTES: Figures in parentheses represent shares of total state employment.
SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

added more jobs than any metro area in the country except New York City.

San Antonio was one of the few areas where job growth accelerated last year, making it the fastest-growing metro in Texas. Despite its proximity to the Eagle Ford Shale, the metro has little reliance on energy. Employment in health care, leisure and hospitality, and government—the core sectors of the metro economy—grew at its fastest pace since 1994.

Austin slowed, as several sectors including construction and leisure and hospitality decelerated from very strong growth rates in 2015. These sectors likely had difficulty finding workers, and online help-wanted advertising shows most service sectors and construction labor demand holding near highs reached in 2014 and 2015. Austin's unemployment rate was 3.2 percent in December 2016, well below its long-term average and indicative of very little slack.

2017 Forecast

Leading economic indicators suggest that job growth will shift into a higher gear in 2017. The components of the Texas Leading Index increased in fourth quarter 2016, pushing the index moderately higher (*Chart 6*). A sharp rebound in permits for drilling new wells (610 permits in September, 909 in December) was the largest positive contributor to the index. A modest increase in oil prices also added to the gain.

Appreciation in the Texas trade-weighted value of the dollar was the largest negative contributor. The U.S. dollar strengthened against the currencies of Texas' trading partners in the fourth quarter, particularly Mexico—Texas' largest trading partner—weakening the outlook for export-sensitive industries.

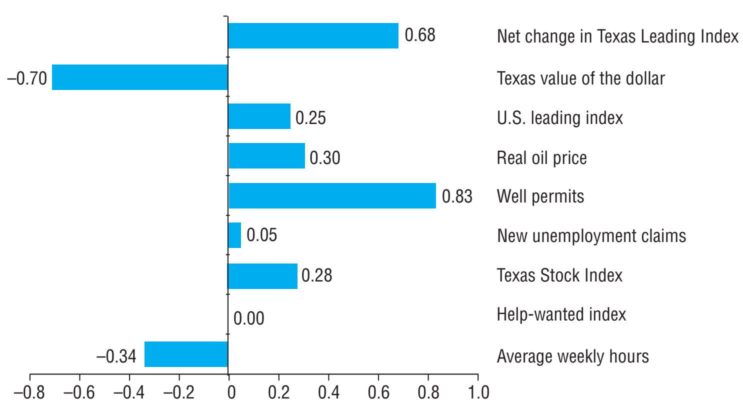
Broad indicators of labor market conditions were somewhat mixed. New claims for unemployment insurance in the state fell slightly (a positive contributor to the index). Help-wanted advertising, meanwhile, held flat. Average weekly hours worked in manufacturing declined, reflecting the ongoing stresses in the manufacturing sector.

Share prices of companies with a major Texas presence were also a moderately positive contributor to the leading index. The Texas stock index is a measure of the share prices of 100 companies across many industries that are headquartered or have large operations in the state. In the fourth quarter, the index rose 5.9 percent, outperforming a broader measure of national equities such as the Standard & Poor's 500, which rose 4.1 percent. Gains in the U.S. leading index suggest that the national economy should continue growing—increasing the demand for goods and services produced in the state.

The Dallas Fed's forecasting model, which uses the changes in the Texas Leading Index along with recent momentum in job growth, predicts that Texas employment growth will be between 1.5 and 2.5 percent in 2017 (approximately 181,000 to 302,000 jobs).

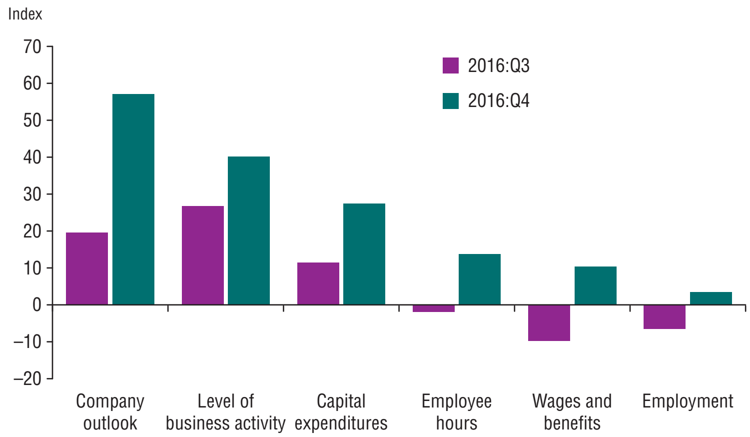
Although energy prices are not expected to rise significantly in 2017, optimism among energy company executives has surged, and drilling activity is expected to pick up. The Dallas Fed's Energy Survey shows a much higher share of respondents reporting

Chart 6 Leading Index Components Mostly Positive at Year-end 2016



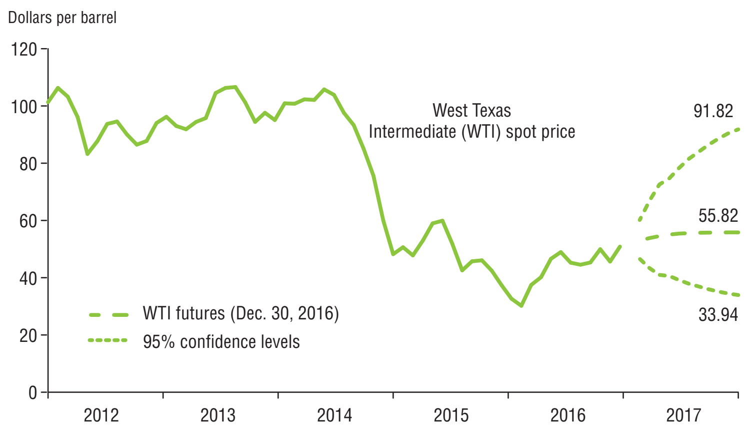
NOTE: Three-month percent change October–December 2016, seasonally adjusted.
SOURCE: Federal Reserve Bank of Dallas.

Chart 7 Energy Survey Shows Increasing Optimism Moving into 2017



SOURCE: Federal Reserve Bank of Dallas.

Chart 8 Oil Price Futures Suggest Uncertain Outlook



NOTE: Confidence bands are calculated based on implied volatility of underlying contracts. For more information, see the Energy Information Administration Short-Term Energy Outlook Supplement documentation at www.eia.gov/outlooks/steo/special/pdf/2009_sp_05.pdf.

SOURCES: Bloomberg; Energy Information Administration; Federal Reserve Bank of Dallas calculations.

a positive outlook in exploration and production firms as well as support services companies in fourth quarter 2016 (*Chart 7*). Given this optimism, a more robust recovery is likely this year as capital expenditures rise and oil and gas employment stabilizes.

Risks to the Outlook

The outlook for the coming year is contingent on relative stability in energy markets, particularly in the price of oil. Futures markets early in the year suggest a slightly higher WTI price of about $56 per barrel by year end. However, this estimate is highly uncertain: the 95 percent confidence interval indicates a possible price range of $34 to $92 (*Chart 8*). Just as the steep decline in oil prices between mid-2014 and mid-2015 was not anticipated based on information available in mid-2014—which suggested a gradual decline to around $90—unforeseen events could cause sharply higher or lower prices. This uncertainty, in turn, complicates an employment outlook that could respond with a similar swing.

The manufacturing outlook continues to be mixed. Greater energy activity will boost manufacturers serving that sector, particularly oilfield machinery production and fabricated metals. However, these represent less than 30 percent of total manufacturing employment. Export-related manufacturing, which comprises over 50 percent of employment in the industry (some of which overlaps with energy manufacturing), remains soft. Without some weakening of the persistently strong dollar in 2017, these sectors are unlikely to see significant growth.

Still, optimism among TMOS respondents has increased sharply since fourth quarter 2016. Key indicators such as new orders began the year at their highest levels since 2014, while broader indicators such as the company outlook and general business activity indexes rose to their highest level since 2010. This suggests that producers have become much more optimistic about their industries and the economy as a whole in 2017.

Meanwhile, the outlook for the service sector remains steady, with moderate but slightly stronger growth expected in 2017. Indicators in the Texas Service Sector Outlook Survey picked up toward the end of last year. The headline revenue index rose moderately, while the company outlook and business activity indexes rose to highs last seen during the energy boom in 2014.

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Notes

[1] "Texas Economy Remains Resilient, but Low Oil Prices Loom as Future Risk," by Keith R. Phillips and Christopher Slijk, Federal Reserve Bank of Dallas *Southwest Economy*, First Quarter, 2016, www.dallasfed.org/research/swe.

[2] "Jobs Supported by State Exports 2015," by Jeffrey Hall and Chris Rasmussen, Office of Trade and Economic Analysis, International Trade Administration, www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_005503.pdf.

[3] "Dallas Booms Through Texas Oil Bust," by Michael Weiss, Pia Orrenius and Laila Assanie, Federal Reserve Bank of Dallas *Southwest Economy*, First Quarter, 2017, www.dallasfed.org/research/swe.