

Outlook for the Texas Economy



LUIS TORRES
RESEARCH ECONOMIST

WESLEY MILLER
RESEARCH ASSISTANT

BAILEY CUADRA
RESEARCH ASSISTANT



REAL ESTATE CENTER
TEXAS A&M UNIVERSITY

TECHNICAL REPORT
2046
OCTOBER 2017

TR

Contents

About this Report	3
August 2017 Summary	4
Economic Activity	8
Texas Business Cycle Index and Leading Index	8
Major Metros Business Cycle Index	8
Border Metros Business Cycle Index	9
Gross Metropolitan Product	9
Consumer Confidence Index	10
Financial Activity	10
30-Year Mortgage Rate and 10-Year Bond Yield	10
Housing	11
Housing Sales	11
Residential Construction Coincident and Leading Indicator	11
Texas Construction Values	12
Major Metros Total Construction Values	12
Energy	13
Texas Production of Crude Oil and Rig Count	13
Crude Oil and Natural Gas Prices	13
Manufacturing	14
Manufacturing Outlook Survey	14
Services	14
Services Sector Outlook Survey	14
Texas Retail Sector	15
Personal Income Growth Per Capita	15
Employment	16
Employment Growth Rate	16
Major Metros Employment Growth Rate	16
Unemployment Rate	17
Major Metros Unemployment Rate	17
Unemployment Insurance Claims: Initial Applications	18



Labor Force Participation Rate	18
Manufacturing Employment.....	19
Major Metros Manufacturing Employment	19
Construction Employment.....	20
Total Private Employee Hourly Earnings.....	20
Major Metros Total Private Employee Hourly Earnings	21
Manufacturing Employee Hourly Earnings	21
Major Metros Manufacturing Employee Hourly Earnings.....	22
CPI Inflation Rates.....	22
CPI Inflation Rates (Houston Components)	23
Trade	23
Exports (All Commodities)	23
Manufacturing Exports	24
Crude Oil Exports	24
Real Trade Weighted Value of U.S. Dollar	25
Texas Exports by Country.....	25

About this Report

Real Estate Center economists continuously monitor many facets of the global, national, and Texas economies. *Outlook for the Texas Economy* summarizes significant state economic activity and trends. All monthly measurements are calculated using seasonally adjusted data, and percentage changes are calculated month-over-month, unless stated otherwise.

This publication is designed to be a one-stop resource for economic indicators. We hope you find them as useful as we do. Your feedback is always appreciated. Send comments and suggestions to info@recenter.tamu.edu.

Dr. Luis Torres, Wesley Miller, and Bailey Cuadra

Data current as of October 5, 2017

© 2017, Real Estate Center. All rights reserved.

August 2017 Summary¹

The impact of Hurricane Harvey and the subsequent flooding is not fully captured in the August data. The short- and long-run effects of the disaster and recovery process are considered and may result in some data revisions in future reports.

The Texas economy moved forward but displayed some noteworthy obstacles. The statewide unemployment rate fell to 4.2 percent at the expense of record-low labor force participation. Stagnant wages challenged most of the state, hindering growth in Texas per capita income. Hurricane Harvey disrupted the Houston economy, driving up initial unemployment insurance claims and stalling trade activity along the Gulf Coast. The declining value of the dollar and strong global economy should boost economic performance and assist in the hurricane recovery process. In addition, the prospect of tax reform may provide an avenue for improved growth. Potential headwinds to the Texas economy include energy price volatility and trade uncertainty, especially with Mexico.

Texas sustained positive economic growth as the **Texas Business Cycle Index** (a measure of *current* economic activity in the state) increased at a quarterly annualized rate of 5.4 percent, the largest increase since 2014. Falling unemployment drove the **major metro Business Cycle Indices**, albeit at a slower rate than last month. The Austin index led the pack at an annualized rate of 4.1 percent quarter-over-quarter (QOQ), despite falling to its lowest point since 2010. Dallas and Fort Worth posted 3.7 and 3.3 percent growth, respectively, while the San Antonio index ticked up to 3.8 percent. Weak job growth decelerated the Houston index for the third consecutive month to under 0.5 percent after peaking at 5.1 percent in May. Rebuilding efforts in Houston should provide a short-term economic stimulus before reverting to positive, yet modest growth until market fundamentals adjust to weak energy prospects.

Recently released **2016 gross metropolitan product (GMP)** data revealed a 3.0 percent contraction in the Houston economy as the energy sector lagged. Energy industry activity stabilized in 4Q16 and into this year but has since slowed again. The less energy-dependent economies fared much better in 2016 as San Antonio and Dallas surpassed 3.1 and 3.0 percent positive growth, respectively. Furthermore, Austin GMP increased 4.8 percent, slightly above its 15-year average, led by gains in the professional and business services industry.

The **Texas Leading Economic Index** (a measure of *future* directional changes in the business cycle) flattened as a jump in initial unemployment insurance claims offset declines in the Texas value of the dollar. Consumer sentiment was positive as the **Texas Consumer Confidence Index** jumped to a record 147.5. Labor shortages boosted consumer sentiment as hiring and job openings remained high.

¹ All monthly measurements are calculated using seasonally adjusted data, and percentage changes are calculated month-over-month, unless stated otherwise.

After stabilizing last month, interest rates returned to their downward trend amid weak inflation expectations. Waning confidence in tax and regulatory reform in Washington, combined with domestic and international political uncertainty, pulled the **ten-year U.S. Treasury bond yield** to a year-to-date (YTD) low of 2.21 percent. The **Federal Home Loan Mortgage Corporation 30-year fixed-rate** fell for the fourth time in five months, settling at 3.9 percent. Relatively strict lending standards and regulations continued to offset the impact of the historically low interest rates.

Texas housing sales fell 5.9 percent year-over-year (YOY) as Harvey shut down the Houston economy for nearly a week. Current residential construction activity, measured by the **Residential Construction Cycle (Coincident) Index**, decelerated due to slowing multifamily construction values. The **Residential Construction Leading Index (RCLI)** declined amid rising real interest rates, signaling a slowdown in the residential construction business cycle. (For additional housing commentary and statistics, see [Texas Housing Insight](http://recenter.tamu.edu) at recenter.tamu.edu.)

The average **West Texas intermediate crude oil spot price** increased to \$48.04² despite nearly 20 percent of the nation's refining capacity shutting down in the wake of the hurricane. Concerns regarding the global glut eased as U.S. stockpiles shrunk. The number of **active rigs** in Texas fell to 460² and **crude oil production** slowed to under 1 percent growth³. Decreased demand for natural gas in Houston outweighed Gulf Coast production disruptions, holding the **Henry Hub spot price** below \$3.00 per million BTU² (British thermal unit).

Texas **monthly nonfarm employment** increased by 5,500 jobs, pushing the year's total increase above 196,000. The statewide **unemployment rate** fell to 4.2 percent, its lowest since 2007, amid stark declines in labor force participation. In Houston, the unemployment rate increased from 4.6 to 4.8 percent, while the rate was below 4 percent in the other major metros. The **Texas labor force participation rate** sunk to a record low 62.9 percent, balancing at the national rate for the first time since 2009.

Not all of the declines in unemployment were attributed to a contracting labor force. The number of **initial unemployment insurance claims** in Texas reached a nine-year low last month as the labor market tightened. While the underlying fundamentals remained healthy, initial unemployment insurance claims spiked 57.2 percent after Hurricane Harvey. The surge is expected to spill over into the early weeks of September and apply upward pressure to the unemployment rate. However, claims should normalize by the end of the year and reverse from the ensuing rebuilding process.

San Antonio led Texas employment growth with 7,800 new jobs, primarily in retail trade and professional and business services. In contrast, the Austin and Fort Worth labor markets posted net losses of 100 and 300 jobs, respectively, as local retail industries struggled. Dallas added 2,400 jobs,

² Nonseasonally adjusted.

³ Crude oil production data lag this report by one month.

primarily in mining and manufacturing, while Houston posted slight employment growth, adding just 800 jobs.

The goods producing sector advanced, adding over 2,000 jobs in both manufacturing and construction. Texas manufacturing employment grew 5.9 percent annualized QOQ, well above the national rate of 1.7 percent. Growth rates were even higher in Fort Worth and Houston at 8.5 and 7.8 percent, respectively. Austin's manufacturing growth rate remained positive at 0.8 percent but slowed substantially since May when annualized growth approached 10 percent. In Dallas and San Antonio, manufacturing growth rates accelerated from less than 1 percent last month to 2.7 and 3.4 percent, respectively.

The **Texas Manufacturing Outlook Survey** indicated increased activity and demand. The production index extended its positive trend to 14 months, and over 26 percent of respondents reported improved business activity. Producer prices elevated as the raw materials and labor cost indices increased. Manufacturers highlighted skilled-labor shortages and increased competition to attract workers.

The **total value of Texas** construction was flat on a three-month moving average after five months of decline. A stabilization in nonresidential construction activity boosted overall values. Recent upticks in hospital construction helped stimulate 2,600 construction jobs, pushing the annualized construction employment growth rate from 0.1 to 0.7 percent.

The Texas service sector lost 300 jobs after adding a combined 48,100 in June and July. Waste management and remediation services employment contracted by 6,100 jobs but should benefit from the disaster cleanup efforts around the Gulf Coast. The FIRE (finance, insurance, and real estate) industries flattened after a five-month expansion but maintained an upward trend.

The **Texas Service Sector Outlook Survey** reflected continued expansion as the revenue and business activity indices remained comfortably positive. Similar to the manufacturing survey, respondents noted general labor shortages driving up input prices. Consequently, both the full- and part-time employment indices decelerated, while the hours worked index inched up.

Retail employment posted positive growth for the second consecutive month, recovering 3,800 of the 22,000 jobs lost between February and June. The **Texas Retail Outlook Survey** reported a strong increase in sales after a negative reading last month. The employment index contracted for the second straight month, but part-time employment, hours worked, and earnings were positive. The general outlook for retailers improved as back-to-school sales and tax-free weekend promotions boosted retail business.

Second quarter **personal income per capita growth** was negative for the seventh straight quarter in Texas. Per capita income lagged the national average by about \$3,000, a spread that widened after the 2014 oil bust. Texas **total private employee hourly earnings** fell 1.9 percent and declined in every major metro. In Dallas and San Antonio, hourly earnings fell 3.1 and 0.3 percent, respectively but remained positive YTD. Austin and Houston continued to struggle with stagnant

wages as hourly earnings decreased 0.1 and 0.6 percent this year, respectively. Wages also declined in Fort Worth but were relatively flat on the year.

Texas manufacturing jobs paid a 10.6 percent premium in hourly earnings relative to the national average but declined 0.3 percent YTD. Fort Worth had the highest manufacturing wages, paying 47.7 percent more than the statewide average but was down 1.4 percent YTD. Manufacturing earnings fell 0.2 percent in Houston as durable goods employment contracted for the first time this year. San Antonio was the outlier for wage growth, rising 12.7 percent YTD while remaining 20.2 percent below the Texas average.

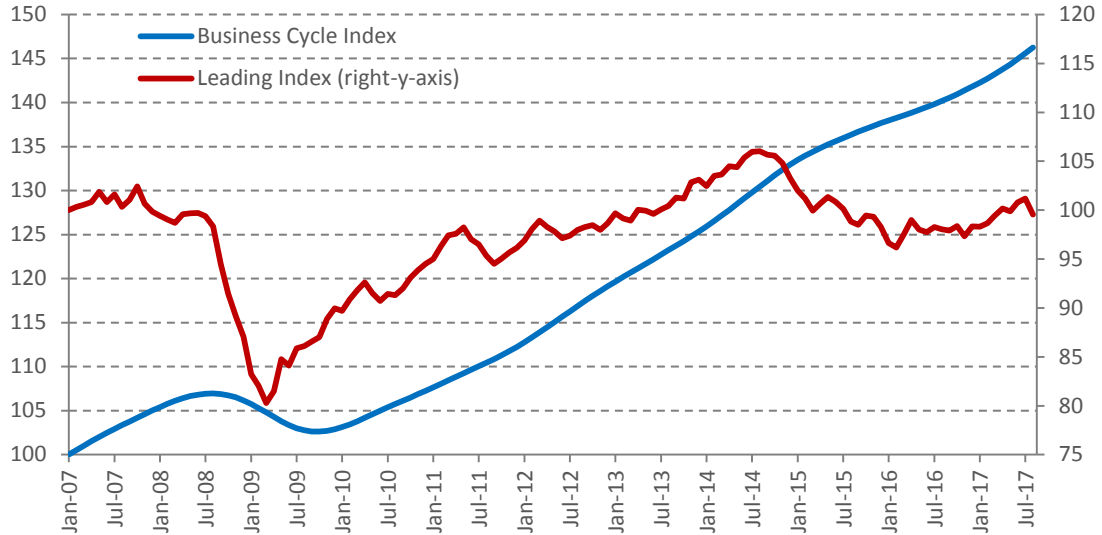
The **U.S. Consumer Price Index (CPI)** ticked up 1.9 percent amid spikes in gasoline prices following Hurricane Harvey. The core inflation rate, which excludes the often-volatile energy and food sectors, increased 0.2 percent, its largest gain since February. Unsurprisingly, Houston observed even greater price pressures as the Houston CPI jumped from 1.9 to 2.2 percent. Price pressures for gasoline, food, and beverages accounted for most of the Houston price increases.

The U.S. real goods trade deficit inched down 1.4 percent to \$61.8 billion as a decline in commodity imports outpaced that of exports. **Total Texas commodity** and **manufacturing exports** decreased 7.5 and 1.3 percent, respectively, after the Port of Houston's temporary shutdown during the hurricane. The combination of production disruptions and shipping obstacles pulled petroleum exports down 4.1 percent. **Texas crude oil exports** only fell 2.3 percent, compared to a 9.7 percent drop in national crude oil exports, remaining 2.5 times greater than prior to the 2015 lifting of the oil export ban. Strong global economic growth and the falling value of the dollar will likely support upward trending export growth throughout the next two quarters. The **Texas trade-weighted value of the dollar**⁴ has declined every month in 2017, falling 8.1 percent YTD. Mexico, Texas' largest consumer, received more than a third of July exports and continued to prosper among strong economic growth. NAFTA renegotiations continued to present a potential headwind to Texas-Mexico trade activity.

⁴ The Texas trade-weighted value of the dollar is generated by the Federal Reserve Bank of Dallas. Its release typically lags the Outlook for the Texas Economy by one month.

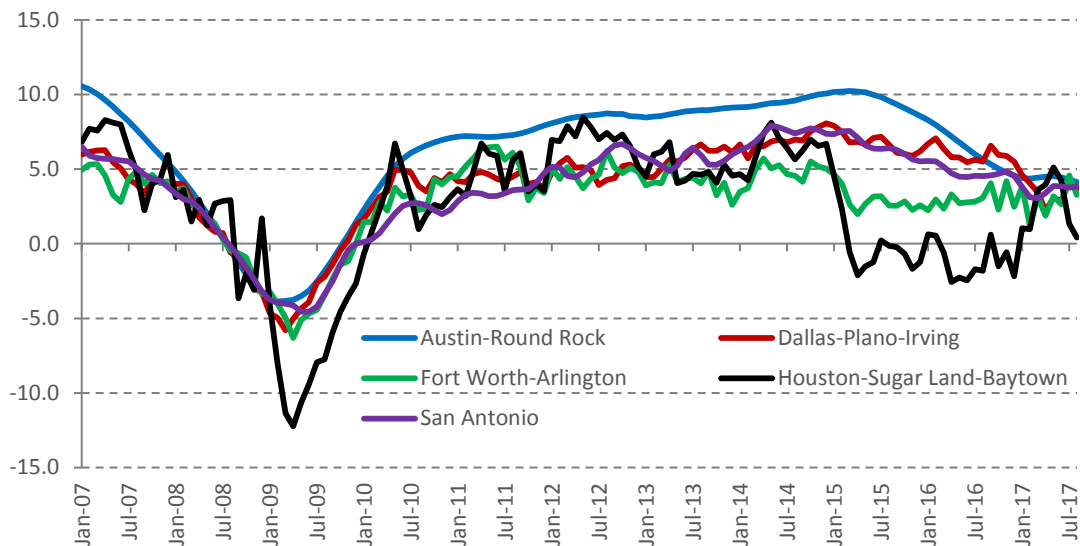
Economic Activity

Texas Business Cycle Index and Leading Index
(Index Jan 2007 = 100)



Note: Seasonally adjusted. For more information, see [Texas Business Cycle Index](#).
Source: Federal Reserve Bank of Dallas

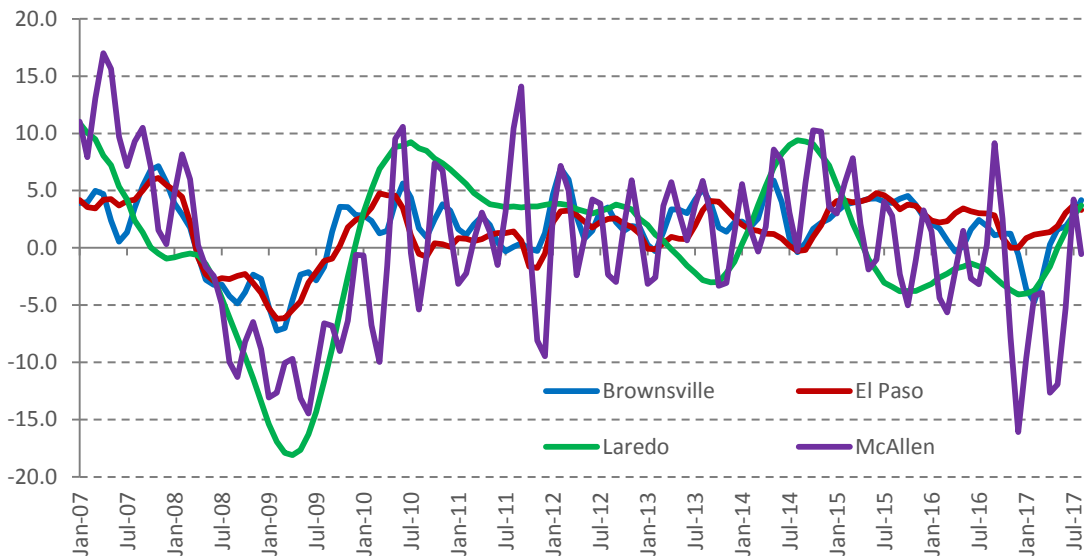
Major Metros Business Cycle Index
(Quarter-over-Quarter Percent Change)



Note: Seasonally adjusted. For more information, see [Texas Business Cycle Index](#).
Source: Federal Reserve Bank of Dallas

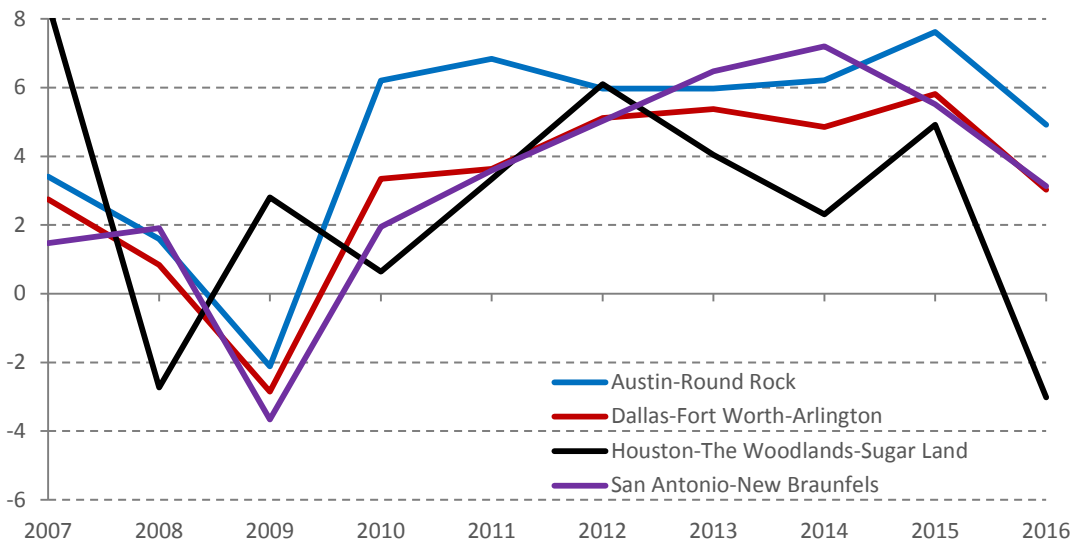


Border Metros Business Cycle Index (Quarter-over-Quarter Percent Change)



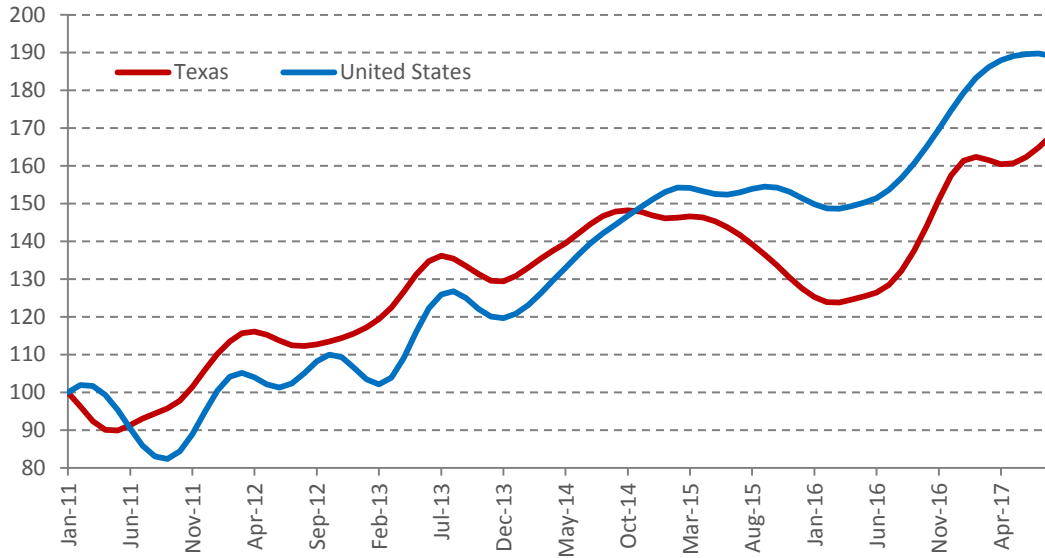
Note: Seasonally adjusted. For more information, see [Texas Business Cycle Index](#).
Source: Federal Reserve Bank of Dallas

Gross Metropolitan Product (Year-over-Year Percent Change)



Note: Seasonally adjusted annual rate.
Source: Bureau of Economic Analysis

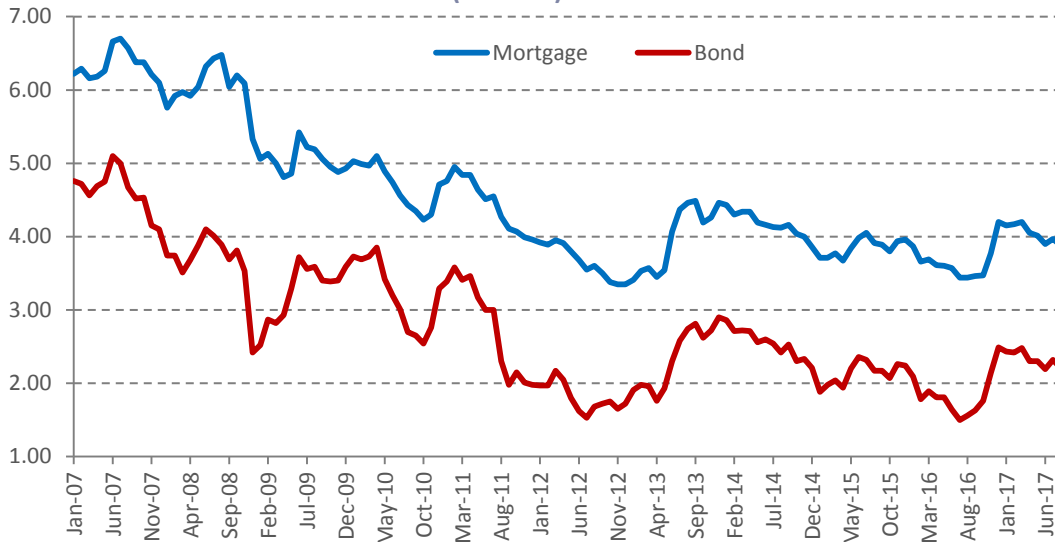
Consumer Confidence Index
(Index Jan 2011 = 100)



Note: Seasonally adjusted and detrended.
Source: Conference Board

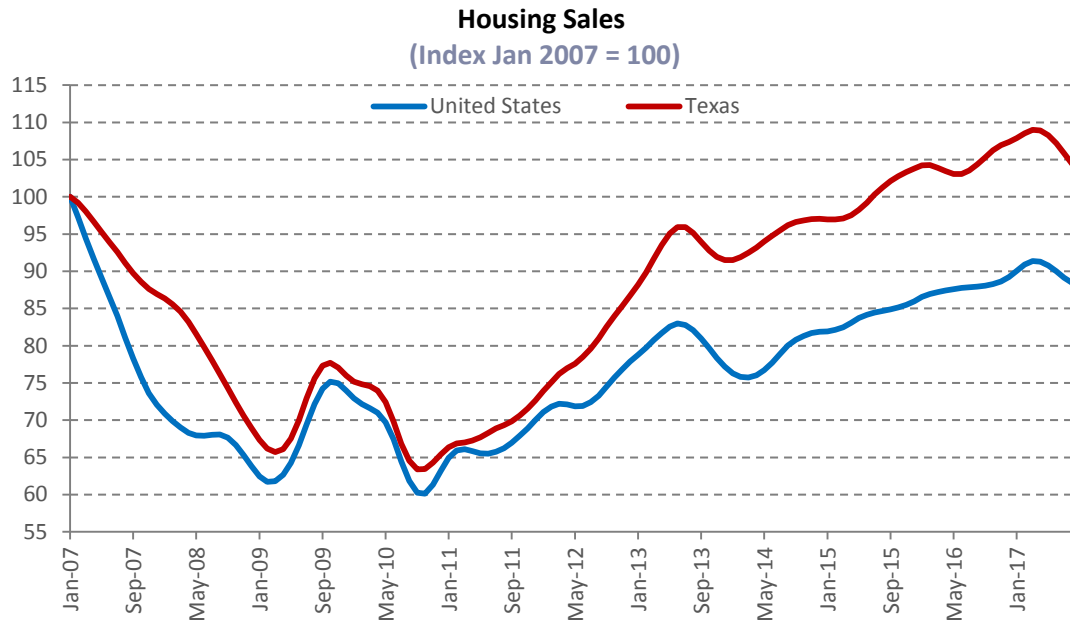
Financial Activity

30-Year Mortgage Rate and 10-Year Bond Yield
(Percent)



Note: Seasonally adjusted.
Sources: Federal Home Loan Mortgage Corporation and Federal Reserve Board

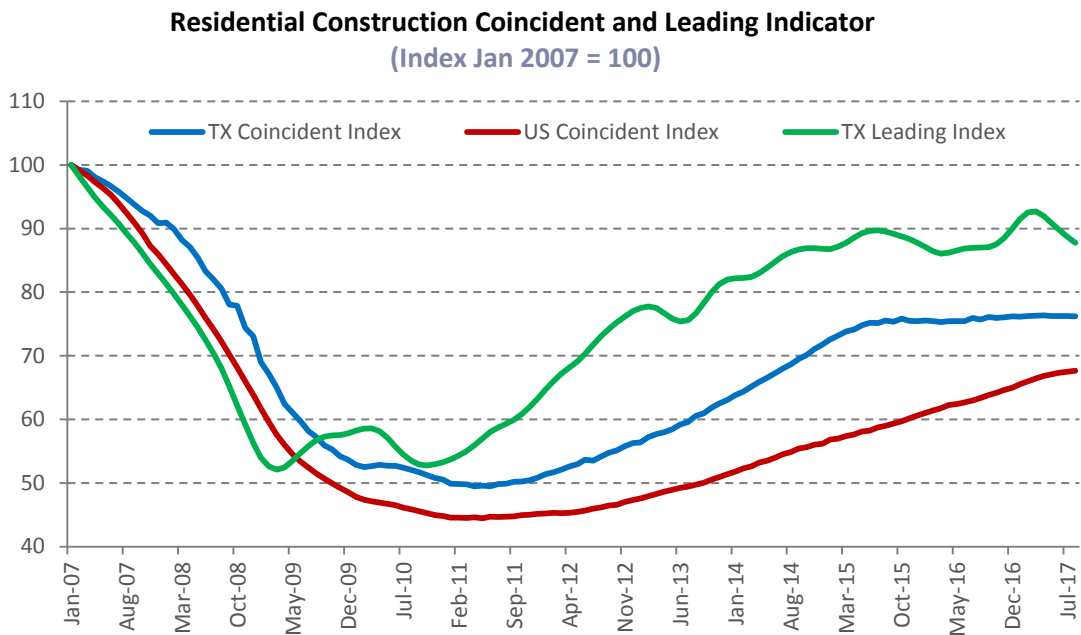
Housing



Note: Seasonally adjusted and detrended. Sales for the United States include all existing homes and new single-family homes; new non-single-family homes are not included. Texas includes all existing and new homes.

For more information, see [Housing Sales](#).

Sources: U.S. Census Bureau, National Association of Realtors, and Real Estate Center at Texas A&M University

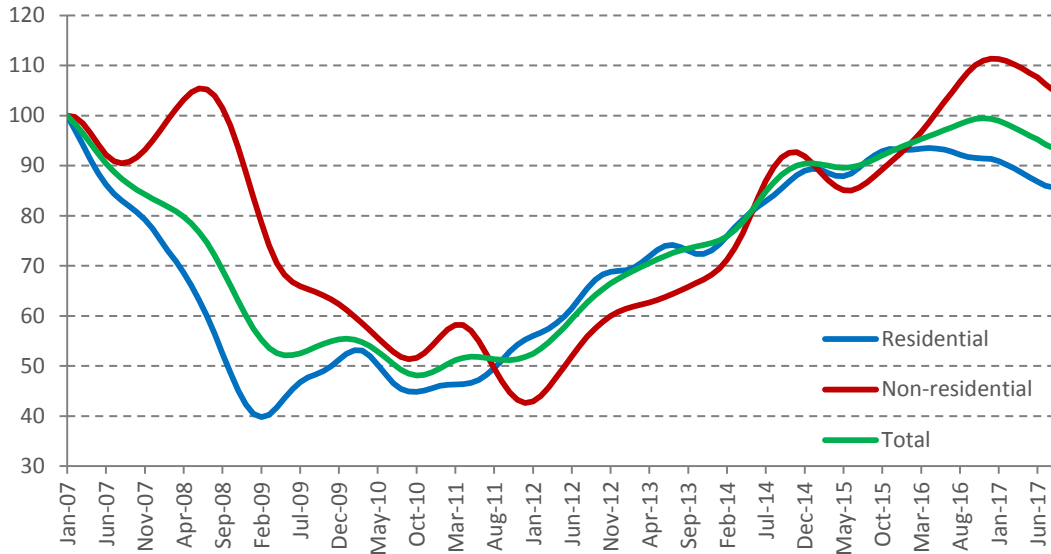


Note: Seasonally adjusted and detrended.

Sources: Real Estate Center at Texas A&M University and Federal Reserve Bank of Dallas

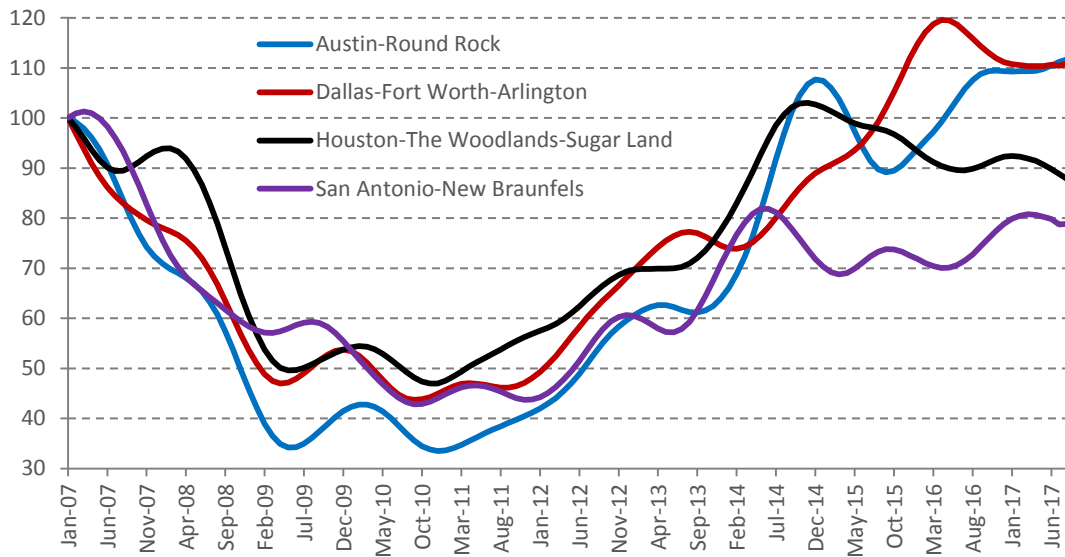


Texas Construction Values
(Index Jan 2007 = 100)



Note: Real values are seasonally adjusted and detrended.
Source: Dodge Analytics

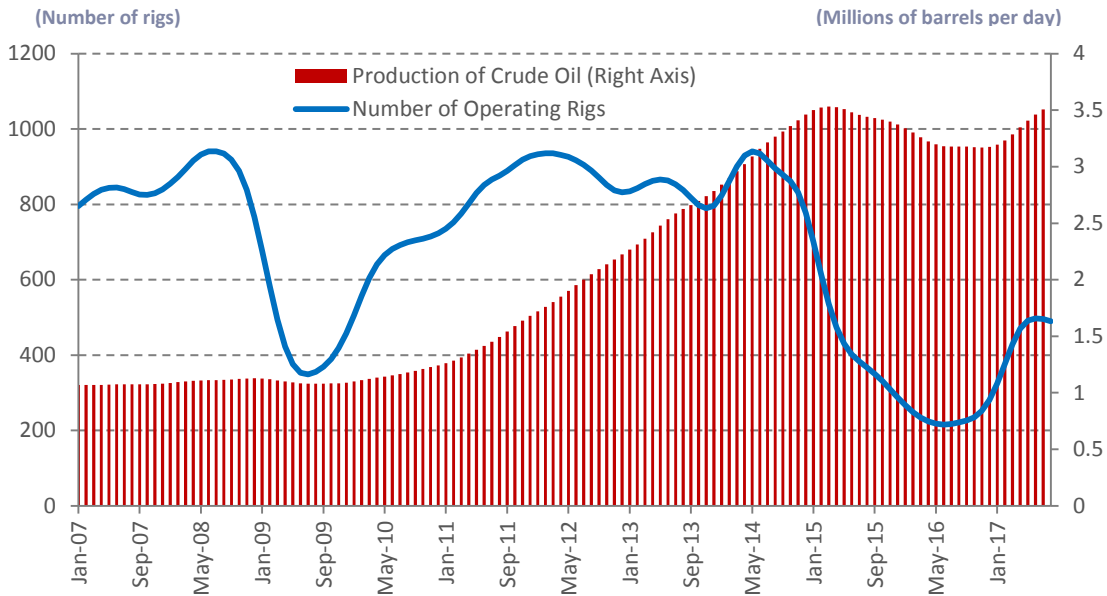
Major Metros Total Construction Values
(Index Jan 2007 = 100)



Note: Real values are seasonally adjusted and detrended.
Source: Dodge Analytics

Energy

Texas Production of Crude Oil and Rig Count (Count)

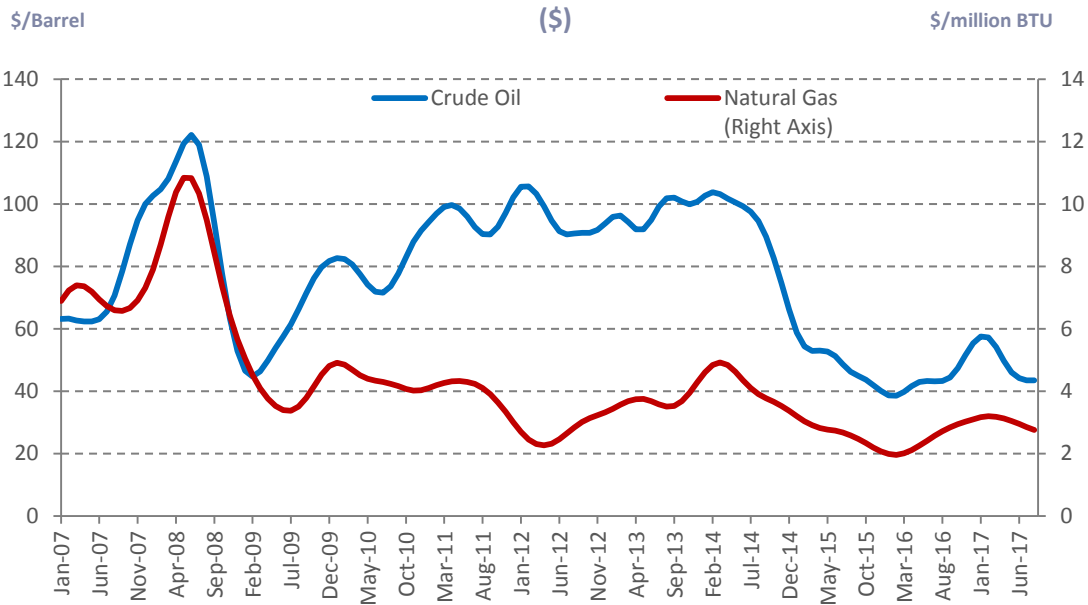


Note: Seasonally adjusted and detrended.

For more information, see [Texas Production of Crude Oil and Rig Count](#).

Sources: Baker Hughes and U.S. Energy Information Administration

Crude Oil and Natural Gas Prices



Note: Seasonally adjusted and detrended.

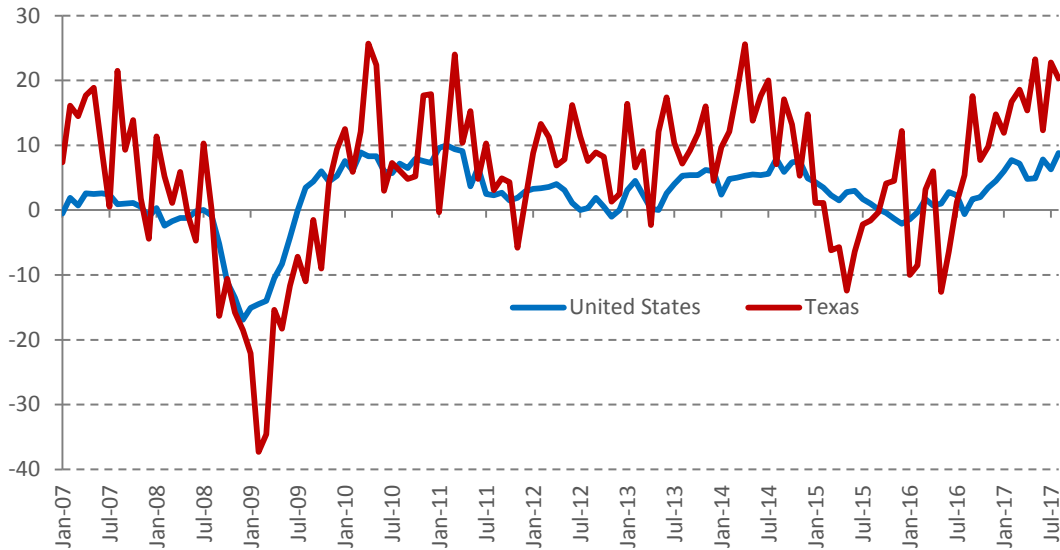
For more information, see [Crude Oil and Natural Gas Prices](#).

Source: U.S. Energy Information Administration received from Thomson Reuters



Manufacturing

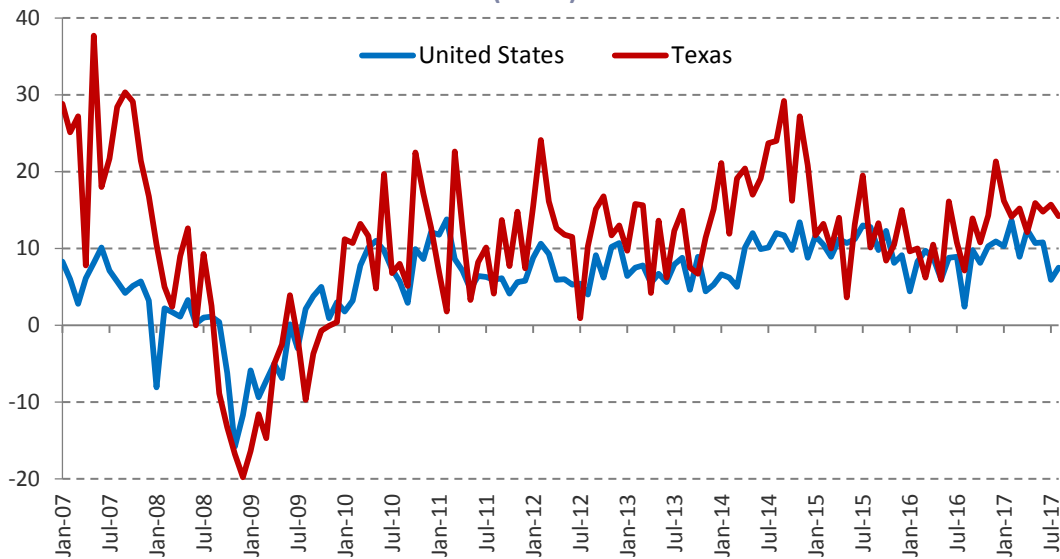
**Manufacturing Outlook Survey
(Index)**



Note: Seasonally adjusted. For more information, see [Manufacturing Outlook Survey](#).
Sources: Federal Reserve Bank of Dallas and Institute for Supply Management. United States index is adjusted -50 to be on scale with Texas index.

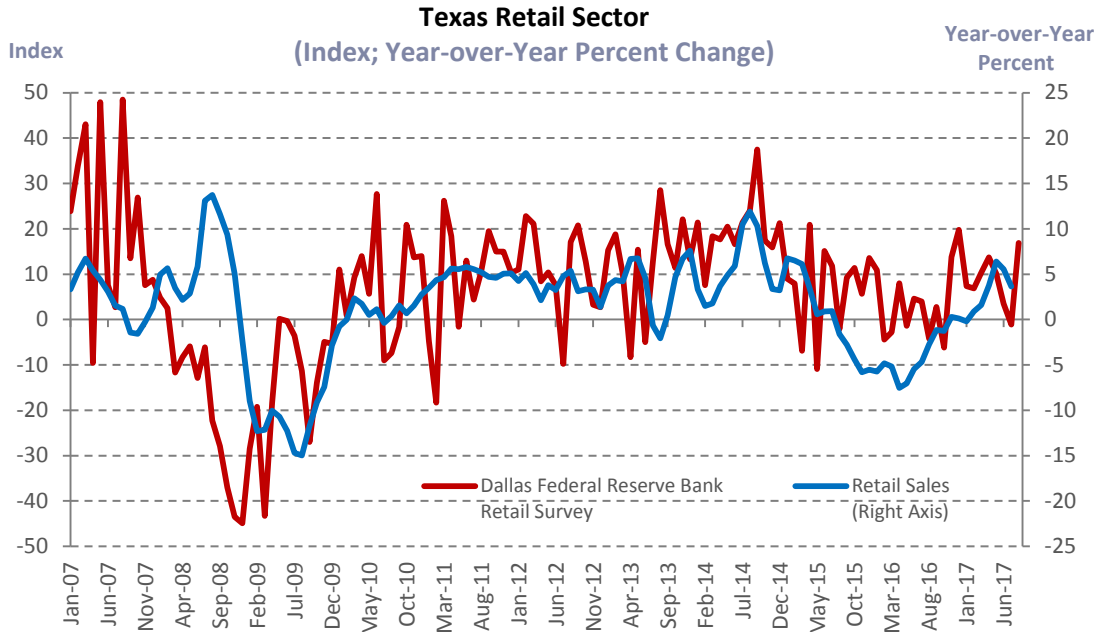
Services

**Services Sector Outlook Survey
(Index)**

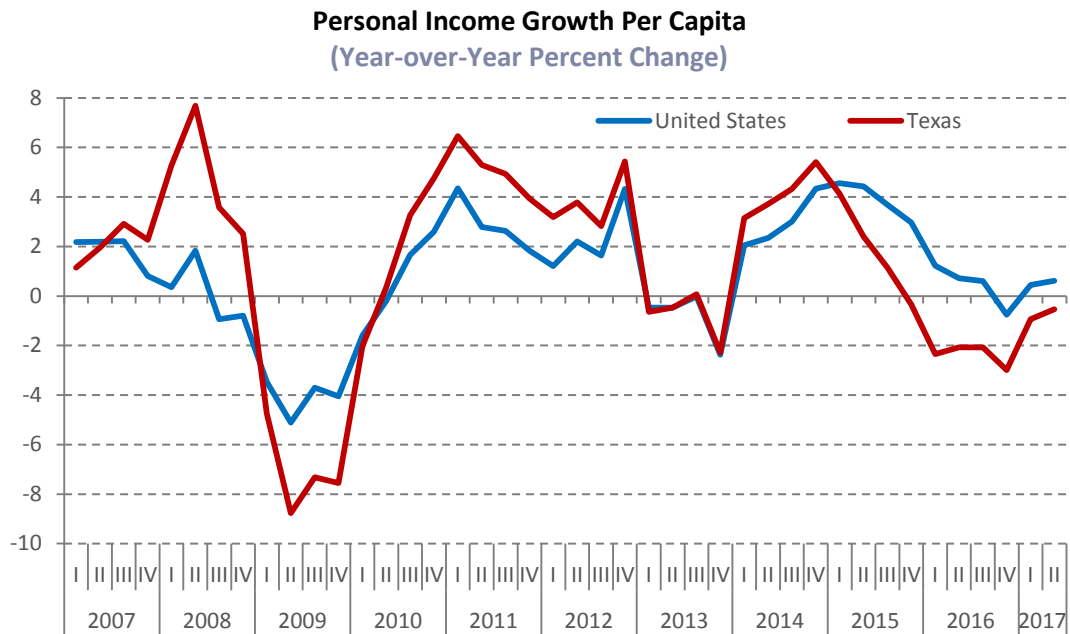


Note: Seasonally adjusted. For more information, see [Services Sector Outlook Survey](#).
Sources: Federal Reserve Bank of Dallas and Institute for Supply Management. United States index is adjusted -50 to be on scale with Texas index.





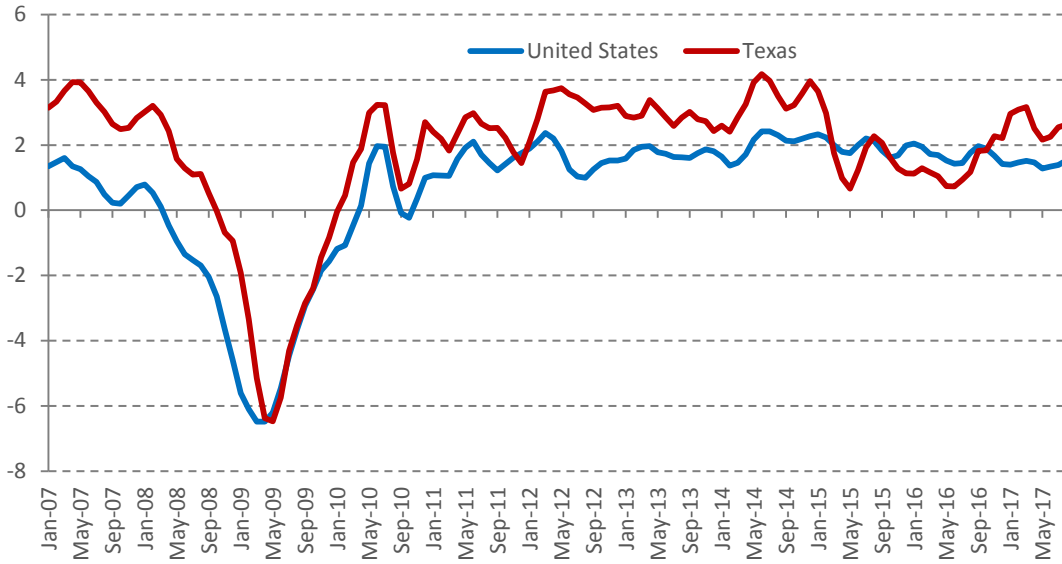
Note: Seasonally adjusted and inflation adjusted. For more information, see [Texas Retail Sector](#).
 Sources: Retail Sector Outlook Survey from the Federal Reserve Bank of Dallas, Retail Sales from Texas Comptroller of Public Accounts



Note: Seasonally adjusted annualized rate
 Source: Bureau of Economic Analysis

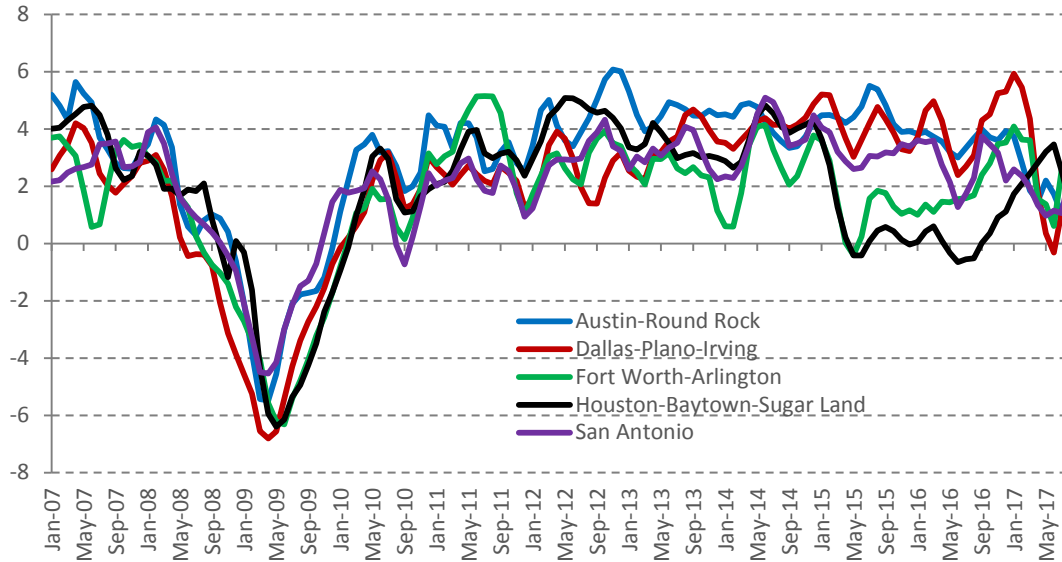
Employment

Employment Growth Rate
(Quarter-over-Quarter Annualized Percent Change)



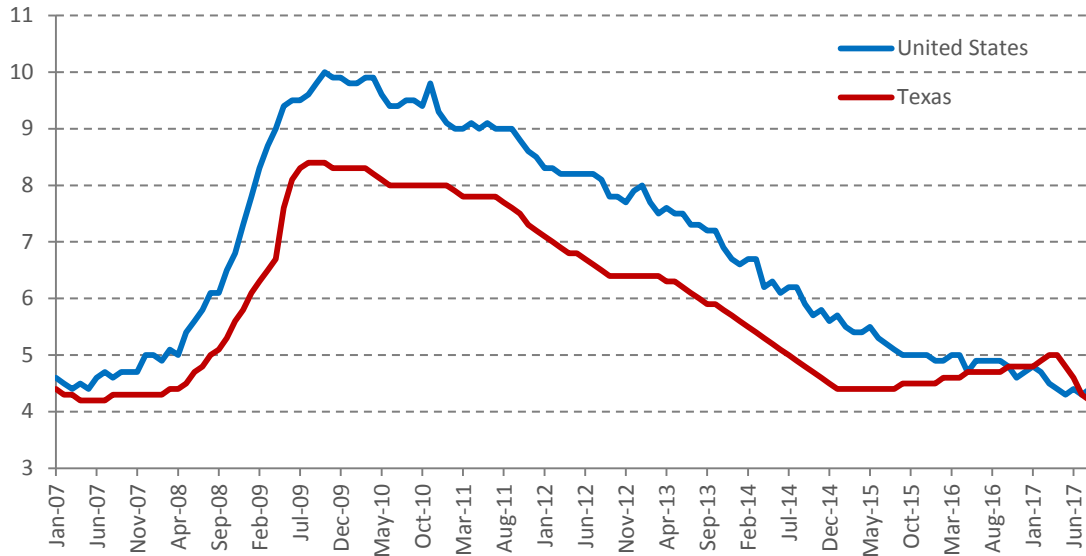
Note: Seasonally adjusted, 3-month moving average. August 2017 is preliminary.
For more information, see [Employment Growth Rate](#).
Source: Bureau of Labor Statistics

Major Metros Employment Growth Rate
(Quarter-over-Quarter Annualized Percent Change)



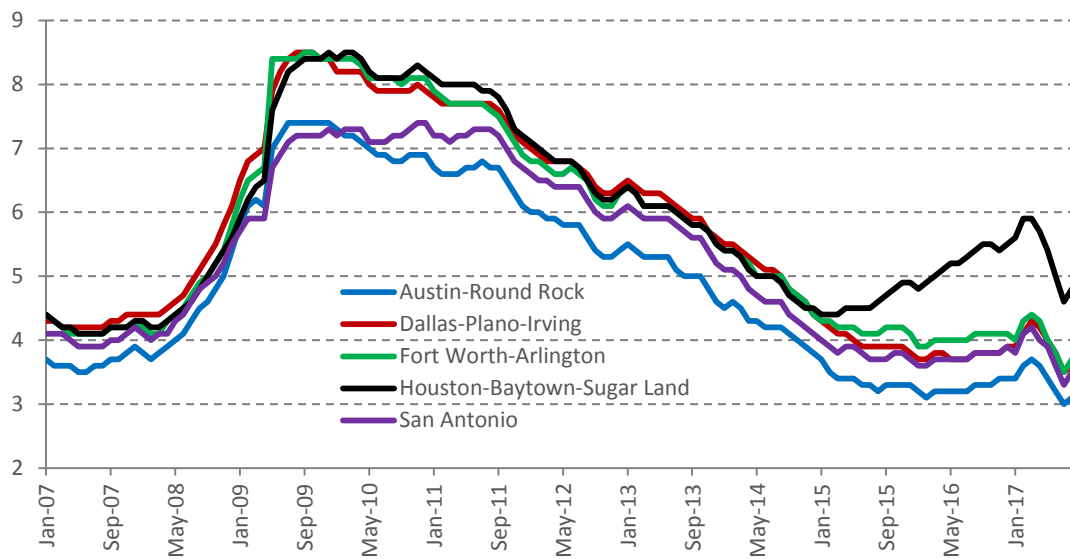
Note: Seasonally adjusted, 3-month moving average. August 2017 is preliminary.
For more information, see [Employment Growth Rate](#).
Source: Bureau of Labor Statistics

Unemployment Rate (Percent)



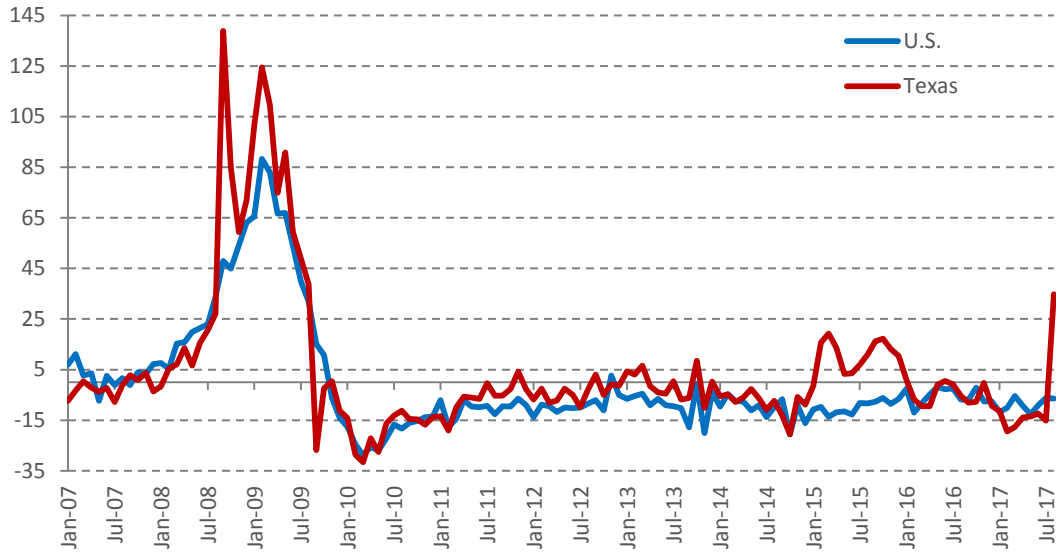
Note: Seasonally adjusted. August 2017 is preliminary. For more information, see [Unemployment Rate](#).
Source: Bureau of Labor Statistics

Major Metros Unemployment Rate (Percent)



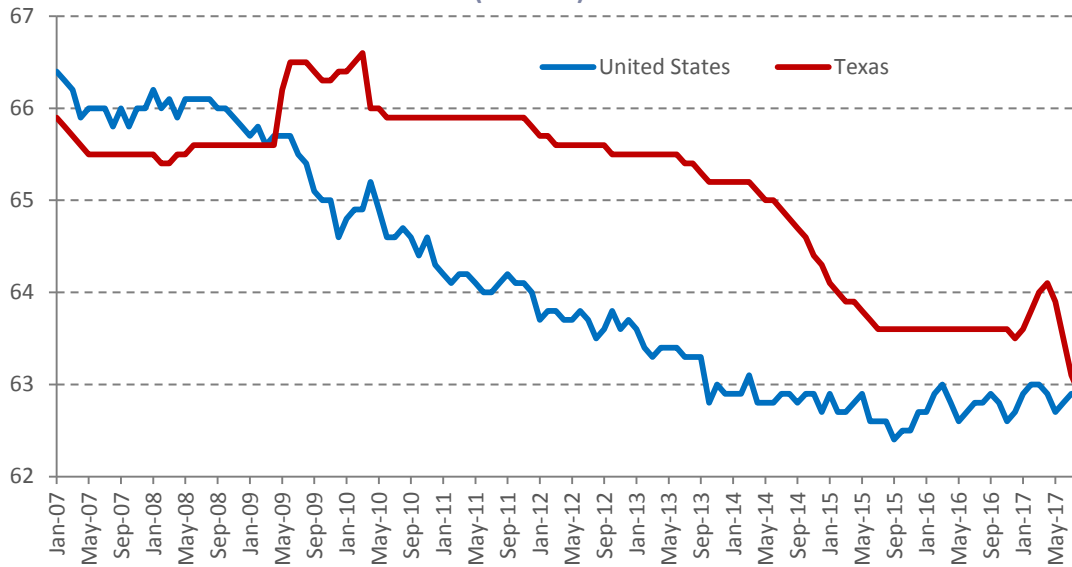
Note: Seasonally adjusted. August 2017 is preliminary. For more information, see [Unemployment Rate](#).
Sources: Bureau of Labor Statistics and Real Estate Center at Texas A&M University

Unemployment Insurance Claims: Initial Applications (Year-over-Year Percentage Change)



Note: Seasonally adjusted. For more information, see [Unemployment Insurance Claims: Initial Applications](#).
Source: Department of Labor

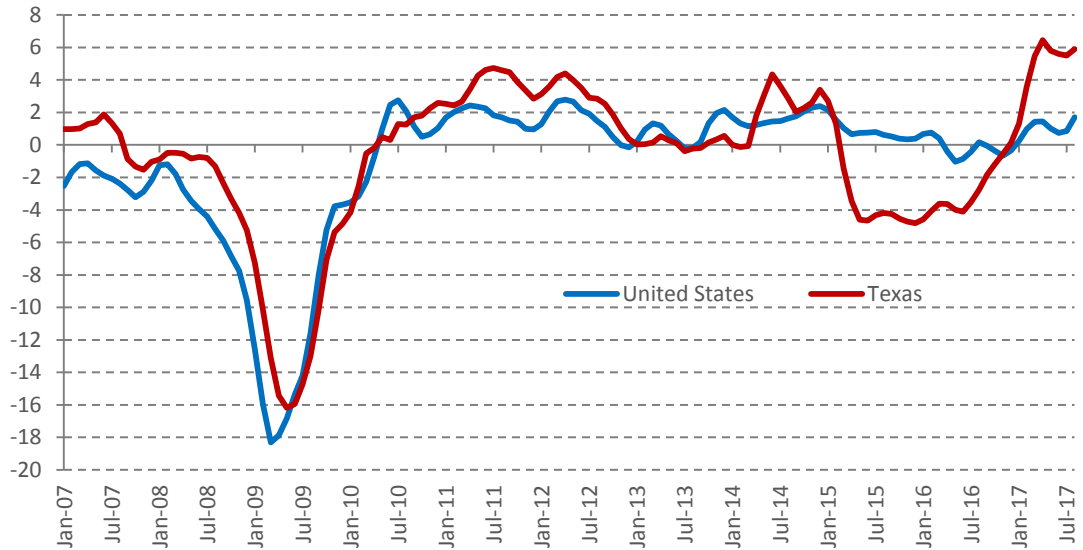
Labor Force Participation Rate (Percent)



Note: Seasonally adjusted. For more information, see [Unemployment Rate](#).
Source: Bureau of Labor Statistics

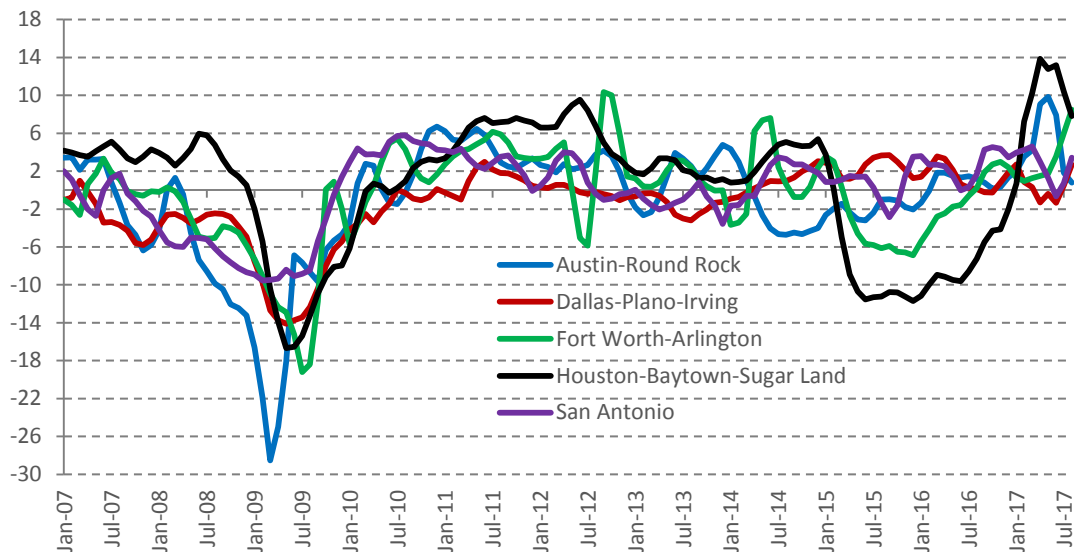


Manufacturing Employment (Quarter-over-Quarter Percent Change)



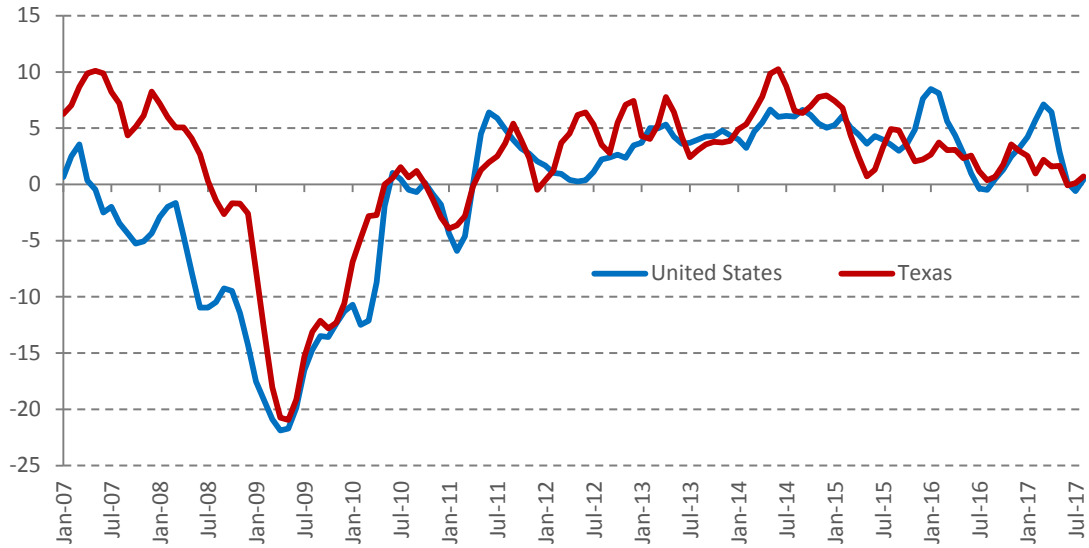
Note: Seasonally adjusted, 3-month moving average. August 2017 is preliminary.
 For more information, see [Employment Growth Rate](#).
 Source: Bureau of Labor Statistics

Major Metros Manufacturing Employment (Quarter-over-Quarter Percent Change)



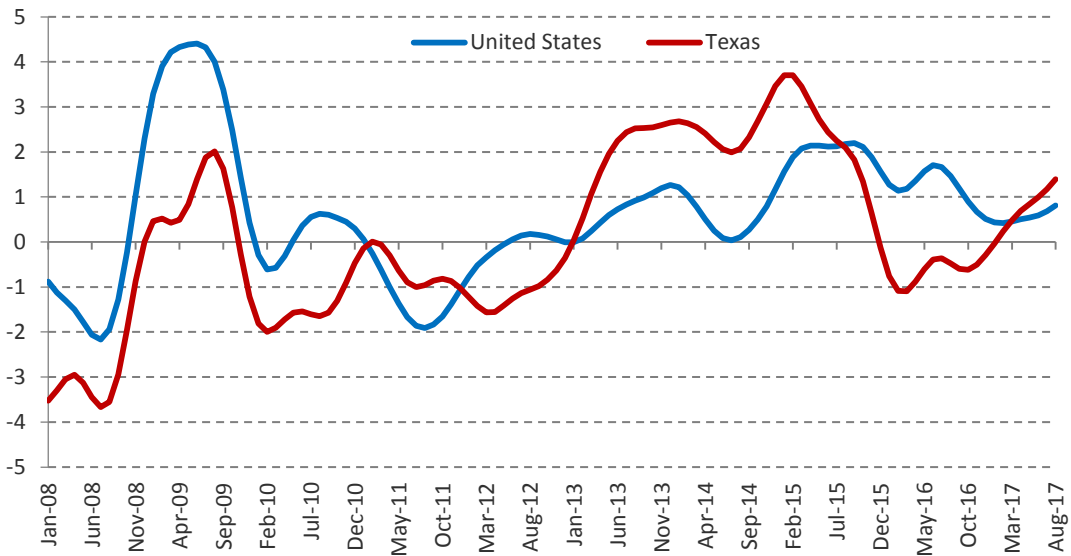
Note: Seasonally adjusted, 3-month moving average. August 2017 is preliminary.
 For more information, see [Employment Growth Rate](#).
 Source: Bureau of Labor Statistics

Construction Employment (Quarter-over-Quarter Percent Change)



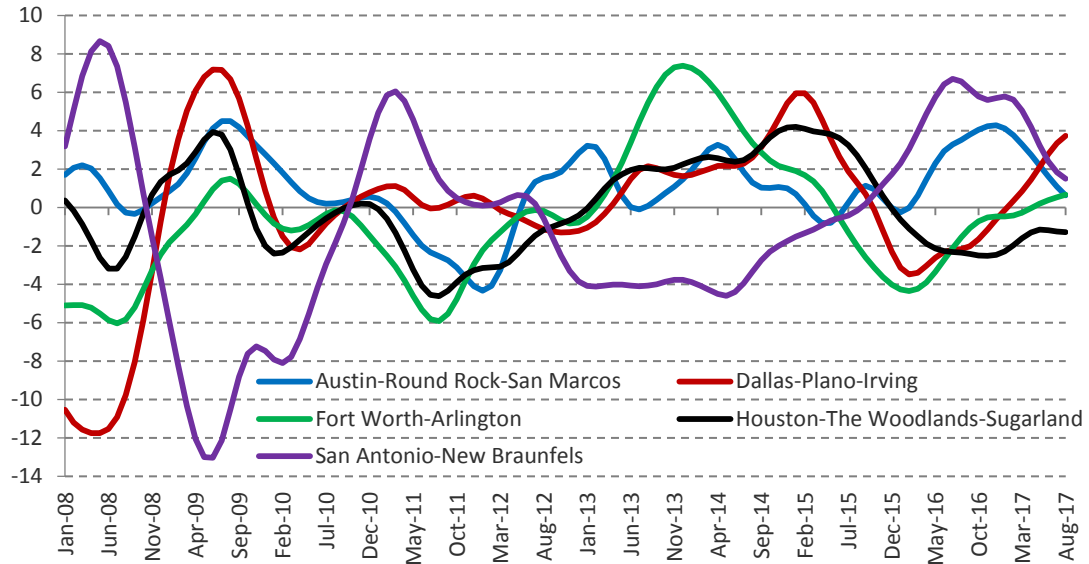
Note: Seasonally adjusted, 3-month moving average. August 2017 is preliminary.
 For more information, see [Employment Growth Rate](#).
 Source: Bureau of Labor Statistics

Total Private Employee Hourly Earnings (Year-over-Year Percent Change)



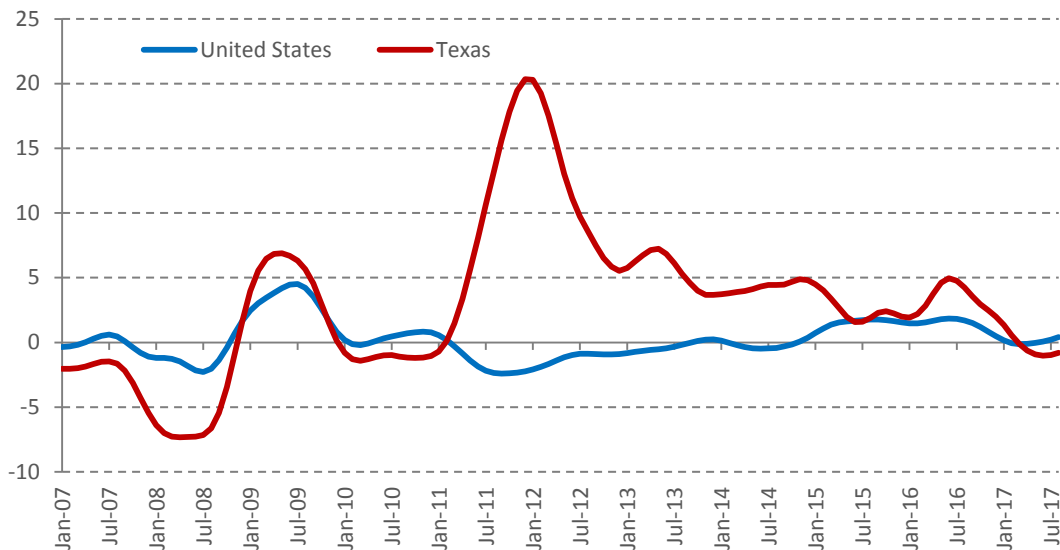
Notes: Inflation adjusted, seasonally adjusted and detrended. August 2017 is preliminary.
 For more information, see [Total Private Employee Hourly Earnings](#).
 Source: Bureau of Labor Statistics

Major Metros Total Private Employee Hourly Earnings (Year-over-Year Percent Change)



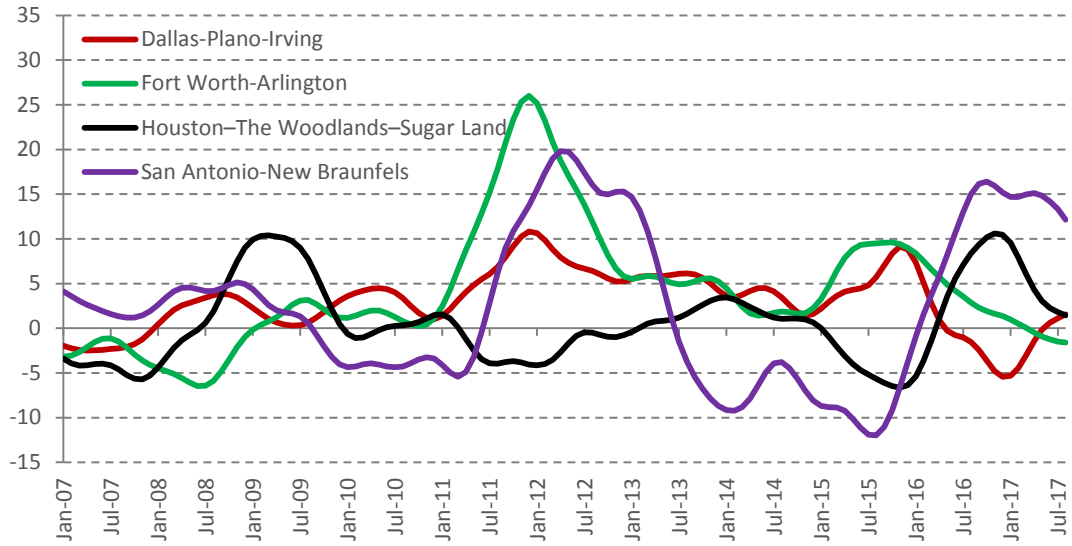
Notes: Inflation adjusted, seasonally adjusted and detrended. August 2017 is preliminary.
For more information, see [Total Private Employee Hourly Earnings](#).
Source: Bureau of Labor Statistics

Manufacturing Employee Hourly Earnings (Year-over-Year Percent Change)



Notes: Seasonally adjusted and detrended. Inflation adjusted. August 2017 is preliminary.
For more information, see [Total Private Employee Hourly Earnings](#).
Source: Bureau of Labor Statistics

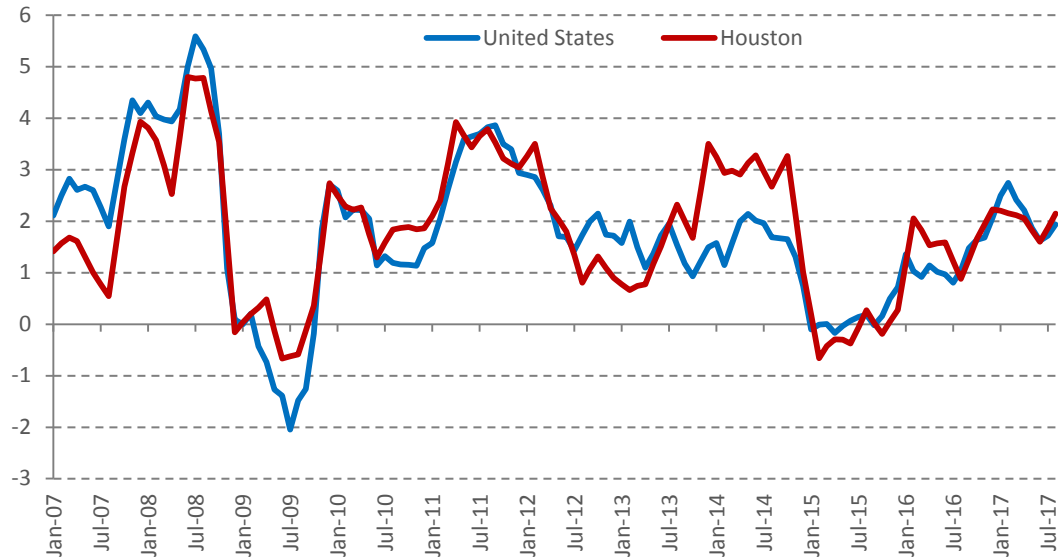
Major Metros Manufacturing Employee Hourly Earnings (Year-over-Year Percent Change)



Notes: Seasonally adjusted and detrended. Inflation adjusted. August 2017 is preliminary.
 For more information, see [Total Private Employee Hourly Earnings](#).
 Source: Bureau of Labor Statistic

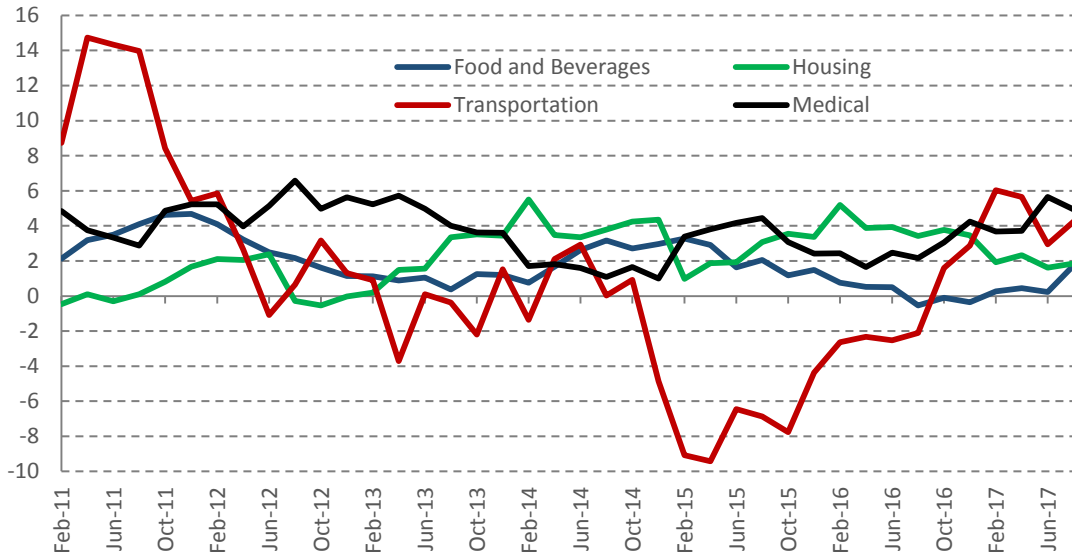
Prices

CPI Inflation Rates (Year-over-Year Percent Change)



Note: Seasonally adjusted. For more information, see [CPI Inflation Rates](#).
 Source: Bureau of Labor Statistics

CPI Inflation Rates (Houston Components) (Year-over-Year Percent Change)

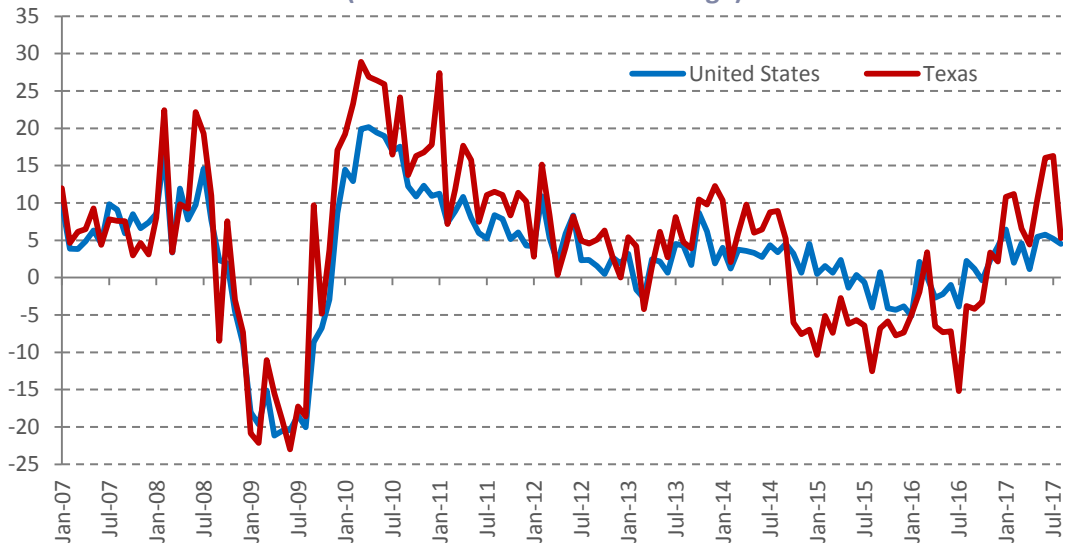


Note: The Dallas CPI is composed of the following major groups: Food and Beverages, Housing, Apparel, Transportation, Medical Care, Recreation, Education and Communication, and Other Goods and Services. The four major components are included in the graph above.

Source: Bureau of Labor Statistics

Trade

Exports (All Commodities) (Year-over-Year Percent Change)

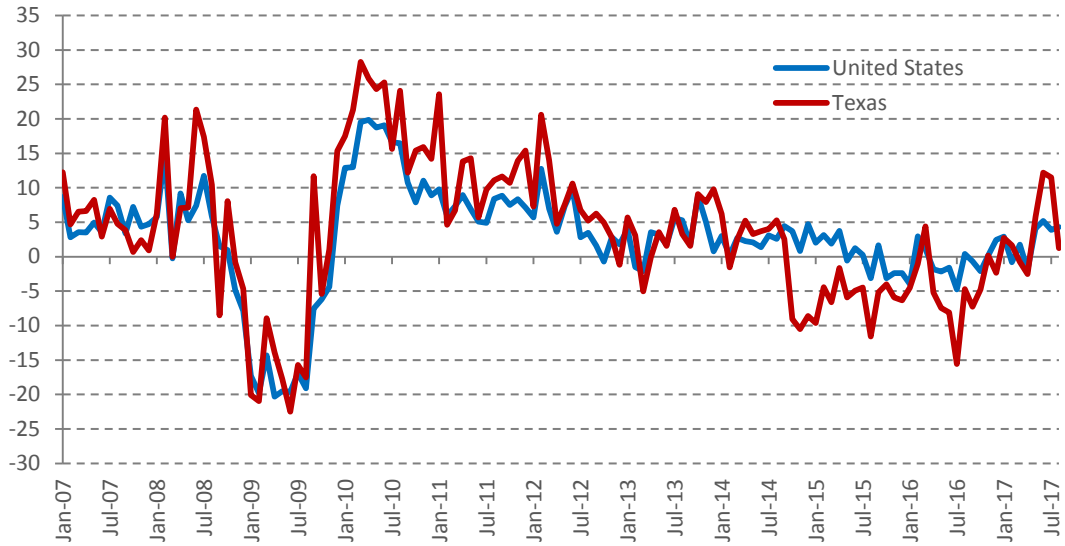


Note: Inflation adjusted with Bureau of Labor Statistics export indices. For more information, see [Exports](#).

Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau

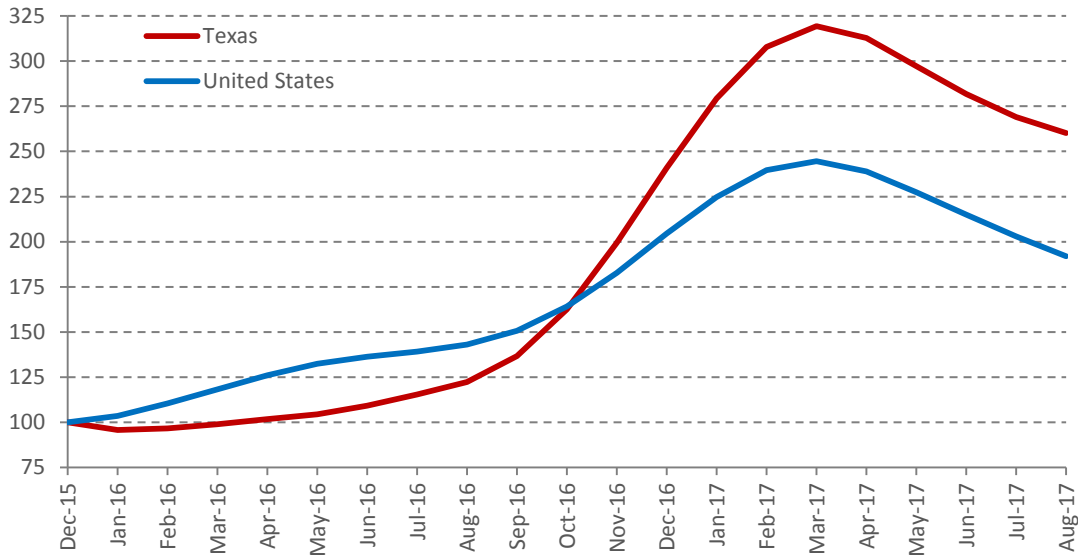


Manufacturing Exports (Year-over-Year Percent Change)



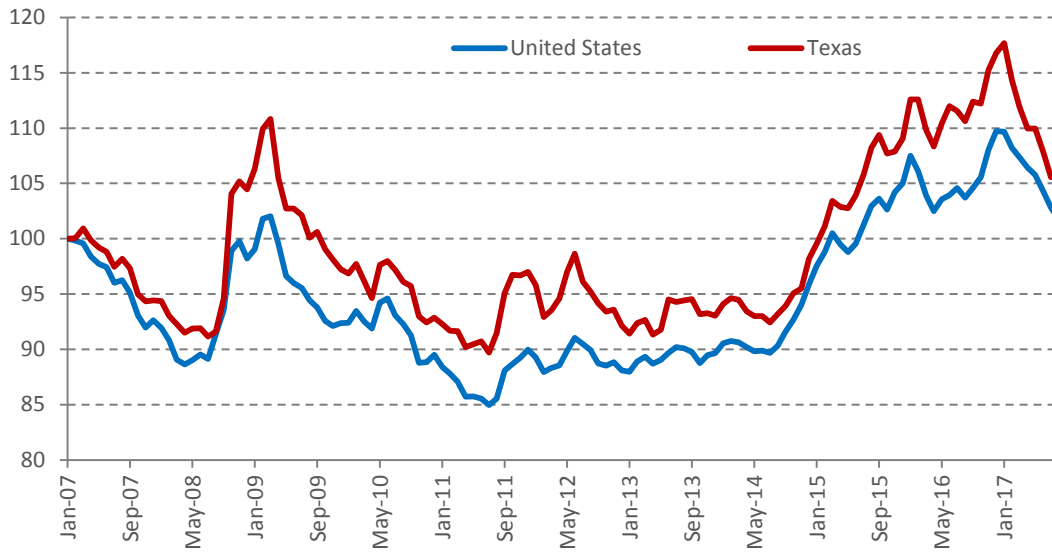
Note: Inflation adjusted with Bureau of Labor Statistics export indices. For more information, see [Manufacturing Exports](#).
Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau

Crude Oil Exports (Index Dec 2015 = 100)



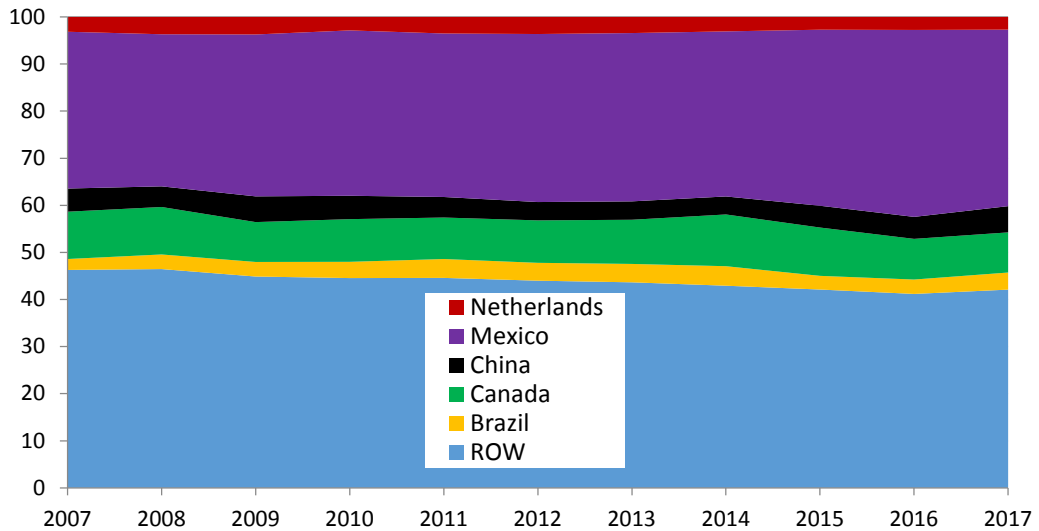
Note: Inflation adjusted and detrended with Bureau of Labor Statistics export indices. For more information, see [Crude Oil Exports](#).
Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau

Real Trade Weighted Value of U.S. Dollar (Index January 2007 = 100)



Note: For more information, see [Real Trade Weighted Value of U.S. Dollar](#).
Sources: Federal Reserve Bank of Dallas and Federal Reserve Bank of St. Louis

Texas Exports by Country (Percent)



Note: For more information, see [Exports](#).
Sources: International Trade Administration, Foreign Trade Division, and U.S. Census Bureau



MAYS BUSINESS SCHOOL

Texas A&M University
2115 TAMU
College Station, TX 77843-2115

<http://recenter.tamu.edu>
979-845-2031

DIRECTOR

GARY W. MALER

ADVISORY COMMITTEE

DOUG ROBERTS, CHAIRMAN Austin	DOUG JENNINGS, VICE CHAIRMAN Fort Worth
MARIO A. ARRIAGA Conroe	BESA MARTIN Boerne
RUSSELL CAIN Port Lavaca	TED NELSON Houston
ALVIN COLLINS Andrews	C. CLARK WELDER San Antonio
JACQUELYN K. HAWKINS Austin	BILL JONES, EX-OFFICIO Temple