TXOGA CHARTBOOK™

September 15, 2025

Key points – Week of September 15, 2025

- **U.S. economic signals softened.** The ADS Index points to little or no Q3 growth. The University of Michigan's preliminary September survey showed consumer sentiment falling further despite record stock market highs, hinting at slower household spending. Labor market weakness — nonfarm payrolls rose by only 22,000 and unemployment increased to 4.3% in August — fueled speculation of a Fed Funds rate cut of up to 50 basis points on September 17. Yet CPI accelerated for the fourth straight month, up 2.9% y/y in August, likely reinforcing expectations for a 25-basis-point cut.

- **Oil market fundamentals softened.** The Chart of the Week highlights EIA's September update, which raised global oil demand estimates to **102.9 million barrels per day (mb/d)** in 2024 (+0.2 mb/d vs. prior estimate), **103.8 mb/d** in 2025 (+0.1 mb/d), and **105.1 mb/d** in 2026 (+0.2 mb/d). Supply growth is projected to be led by non-OPEC producers, while Brent prices are forecast to average $68/bbl in 2025 before easing to $51/bbl in 2026. For the week ended September 5, EIA data showed U.S. petroleum demand fell 0.9 mb/d to 19.8 mb/d, net exports declined 0.8 mb/d to 1.5 mb/d, and crude inventories rose by 3.9 mb. Ordinarily, this mix would pressure prices lower, yet WTI crude rose 1.2% w/w to $62.64/bbl as of September 12, supported by geopolitical concerns and a weaker U.S. dollar.

- **Natural gas markets eased.** Henry Hub prices fell 3.1% w/w to $2.95 per million Btu for the week ended September 12, reflecting strong storage builds. Working gas inventories rose 2.2% w/w to 3.34 tcf as of September 5, within the 5-year range. Meanwhile, U.S. natural gas net exports increased 26.4% y/y to 15.8 bcf/d in August, while consumption seasonally declined 3.3% y/y to 84.9 bcf/d.

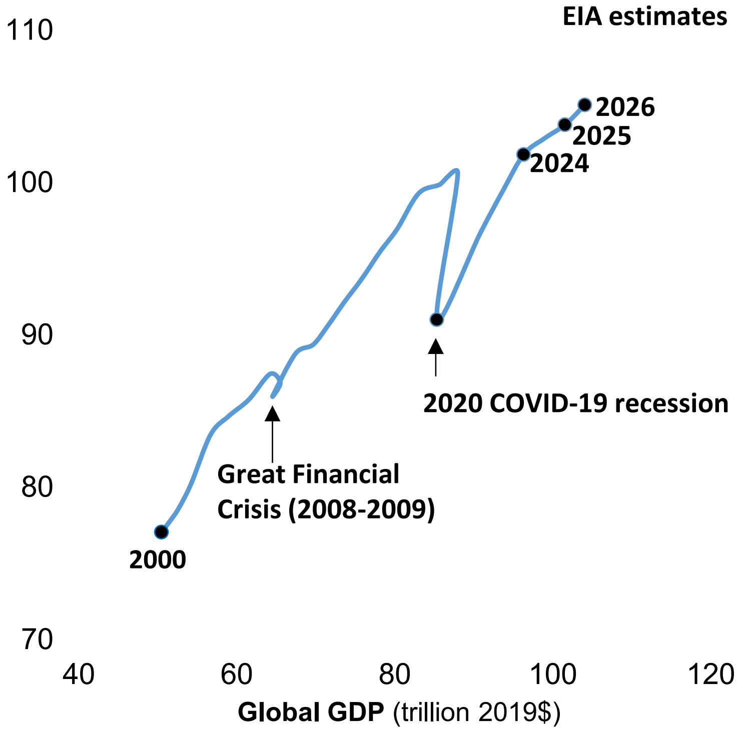
- **ERCOT – Dispatchable generation led morning hours.** On September 7, thermal and other **dispatchable resources supplied over 90% of ERCOT's power for nine straight hours**, including up to 63.2% from natural gas.

Chart of the Week – Global oil demand outlook upgraded

- In its September update, EIA raised its global oil demand estimates, still expecting a third consecutive record, but at higher levels: 102.9 mb/d in 2024 (+0.2 mb/d revision from the prior report), 103.8 mb/d in 2025 (+0.1 mb/d), and 105.1 mb/d in 2026 (+0.2 mb/d)
- EIA held its 2025 global supply growth steady but lifted its 2026 outlook by 0.2 mb/d, driven by higher non-OPEC supply
- Brent crude oil prices are now projected to average $68 per barrel in 2025 and $51 in 2026—compared with about $66 currently

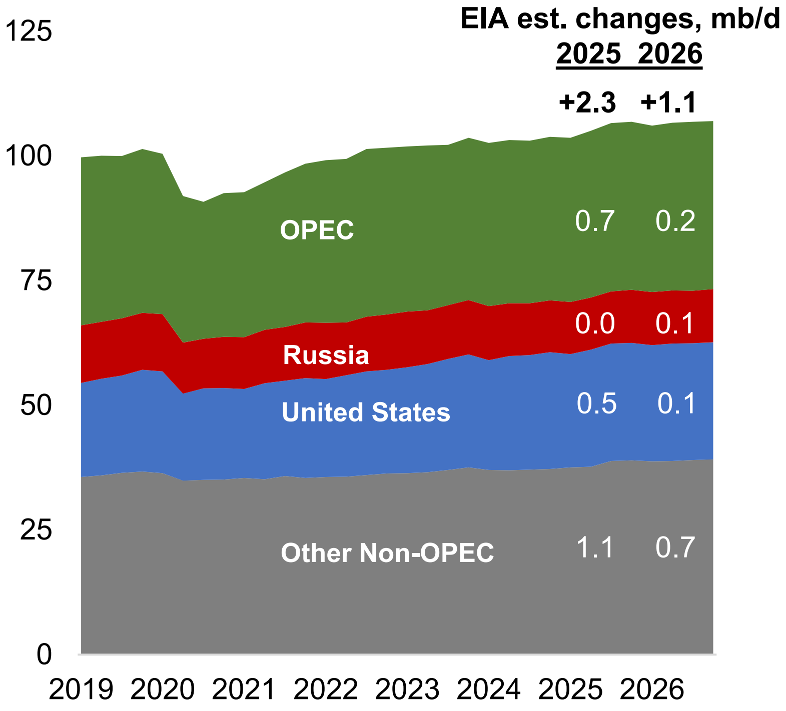
Global oil demand vs. GDP

Global oil demand (million barrels per day, mb/d)



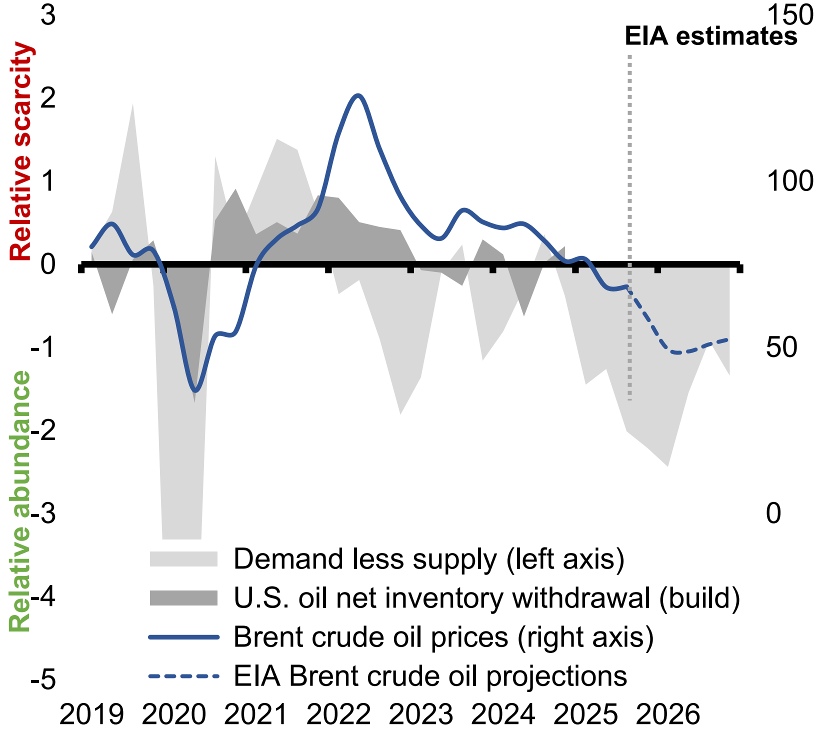
Oil production by country/region

Million barrels per day, mb/d



Global demand/supply & Brent prices

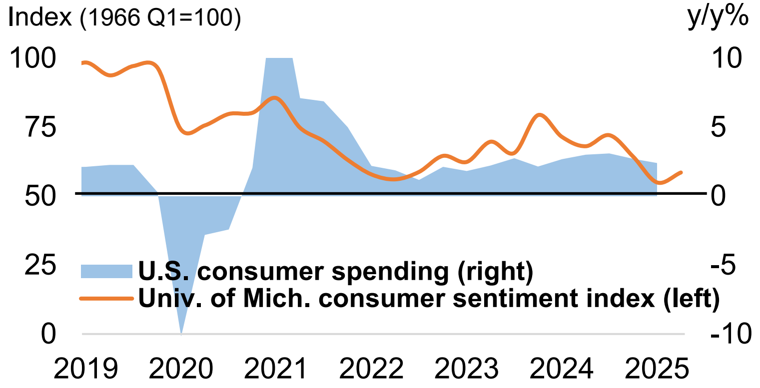
Million barrels per day (mb/d) 2025$/Bbl



sources: U.S. Energy Information Administration (Sept. 2025); TXOGA analysis

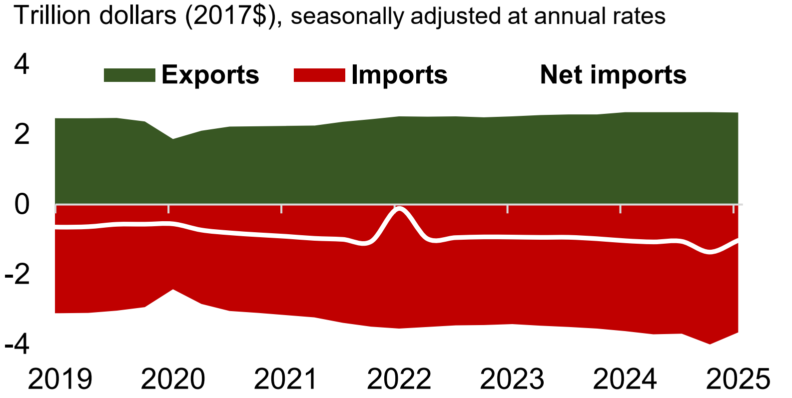
U.S. economic indicators

Consumer sentiment vs. spending



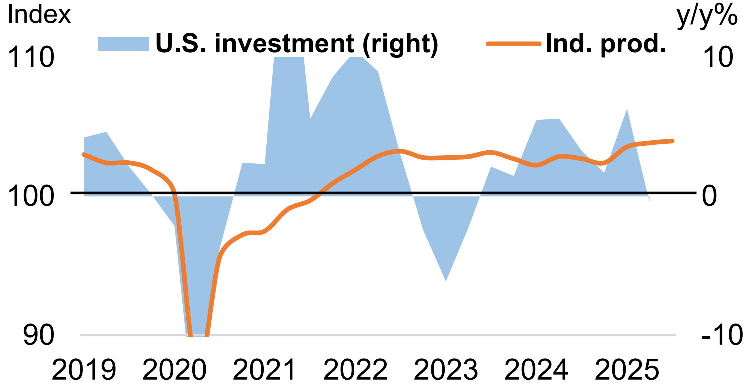
Consumer sentiment—a leading indicator of household spending—fell 5.5% month-over-month (m/m) in the University of Michigan's preliminary September reading, signaling a potential moderation in Q3 2025 spending growth. According to the BEA's estimate of Q2 2025 GDP, consumer spending rose 2.4% year-over-year (y/y), down 0.3 percentage points from Q1.

Real net exports of goods and services



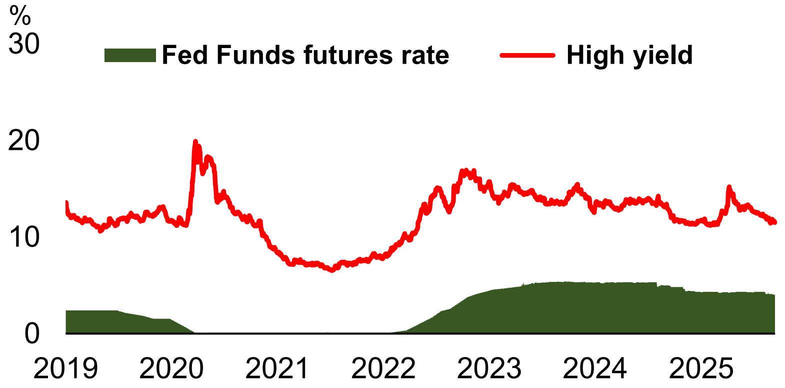
The BEA's initial Q2 2025 GDP report showed the U.S. trade deficit narrowed to an annualized $1.0 trillion (SAAR), down from a record $1.4 trillion in Q1, as imports declined more than exports. On a nominal basis, the petroleum trade surplus rose by an upward-revised $9.9 billion to $72.2 billion—more than double its level from a year ago.

Industrial production and investment growth



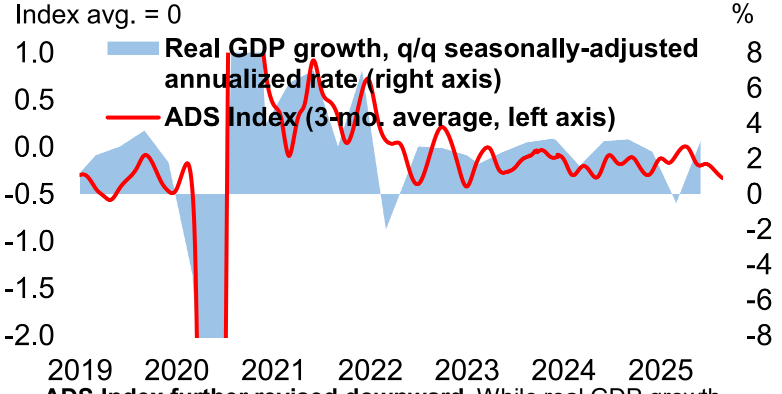
Macro uncertainties stalled investment in Q2 2025. According to the GDP report, economy-wide investment declined 0.4% y/y in BEA's August revision, diverging from industrial production, which typically leads investment trends. Industrial production fell 0.1% m/m in July, while capacity utilization fell 0.2 percentage points to 77.5%, per the Federal Reserve Board.

Fed Funds rate and CCC and lower corporate bond yields



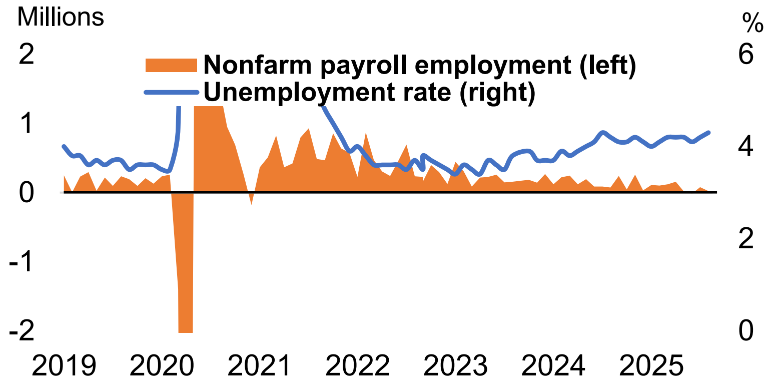
The bond premium for low-credit-quality issuers edged down. High-yield (HY) borrowing costs decreased by 7 basis points w/w to 11.55% for the week ended Sept. 12, while 30-day Fed Funds futures fell to 4.04%. The low-credit-quality premium fell to 7.51%.

Aruoba-Diebold-Scotti Business Conditions Index (qtr. avg.) vs. U.S. real GDP growth



ADS Index further revised downward. While real GDP growth posted a mixed rebound in Q2 2025, the ADS Business Conditions Index from the Philadelphia Fed—an early signal of economic momentum—currently points to little or no growth in Q3 2025.

Nonfarm payroll employment & unemployment rate

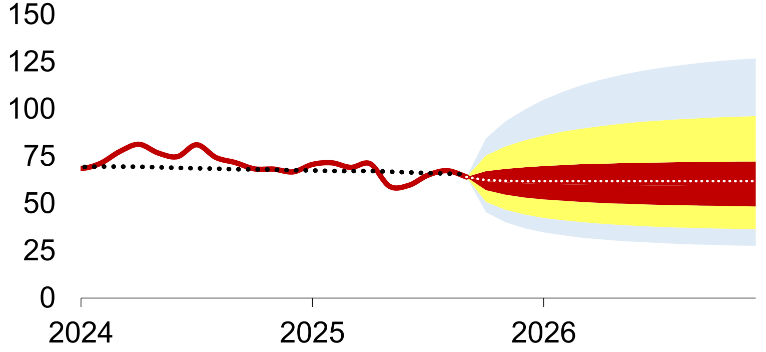


Labor market conditions weakened further. Employment is a lagging indicator of GDP growth. Nonfarm payrolls rose by 22,000 in August. The U.S. unemployment rate rose by 0.1 percentage points to 4.3% according to the BLS.

sources: FRED; Univ. of Michigan; BEA; CME Group; Federal Res. Board; Philadelphia Fed. Res.; Bureau of Labor Statistics

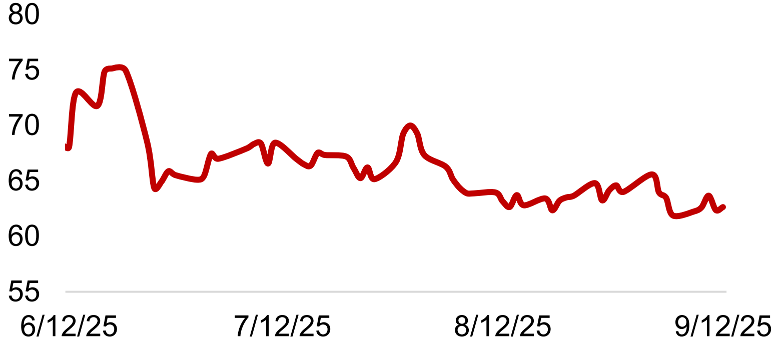
U.S. oil market indicators

WTI crude oil price mean reversion analysis
Dollars per barrel (2025$)



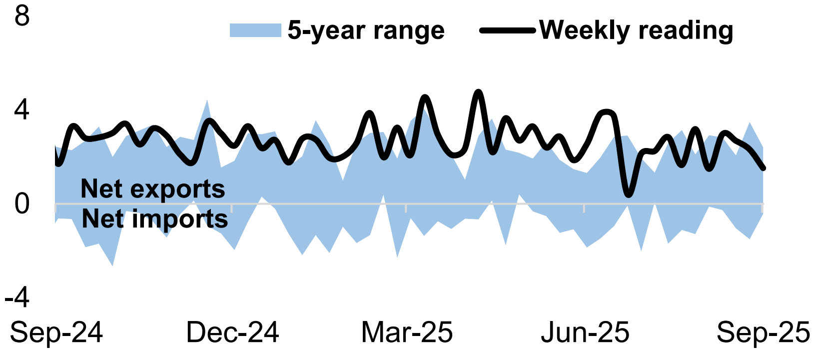
Near-term futures prices have aligned with their historical mean reversion threshold. The futures strip remains in backwardation (i.e., futures prices are below spot prices).

WTI crude prompt month futures prices
Dollars per barrel



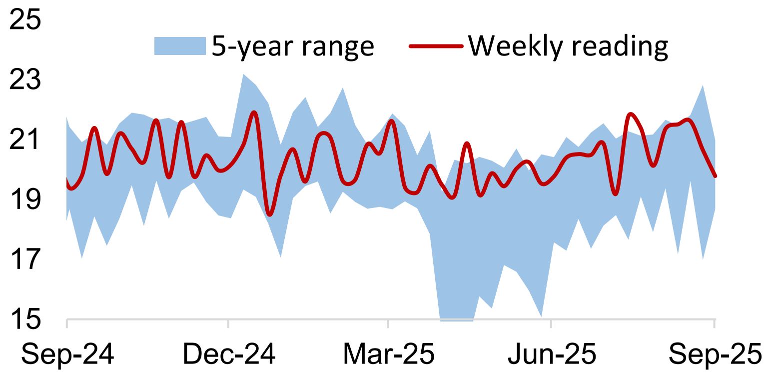
WTI crude oil prices rose 1.2% w/w to $62.64 per barrel as of September 12, supported by geopolitical uncertainties and U.S. dollar depreciation.

U.S. petroleum net exports (imports)
Million barrels per day, mb/d



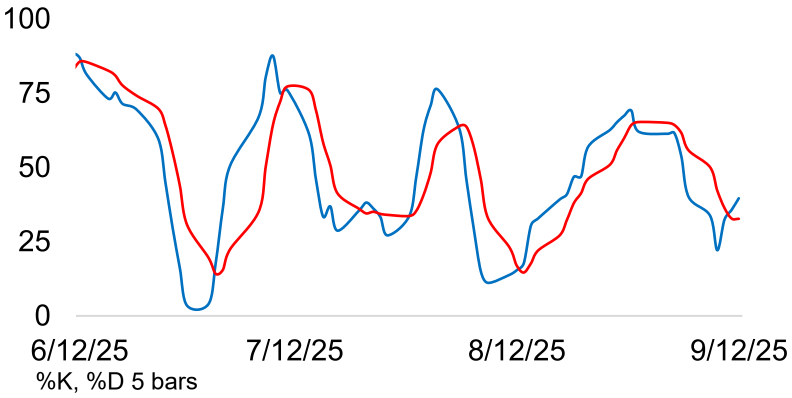
Petroleum net exports fell to 1.5 mb/d for the week ended September 5, a decrease of 0.8 mb/d from the prior week.

U.S. petroleum demand
Million barrels per day (mb/d)



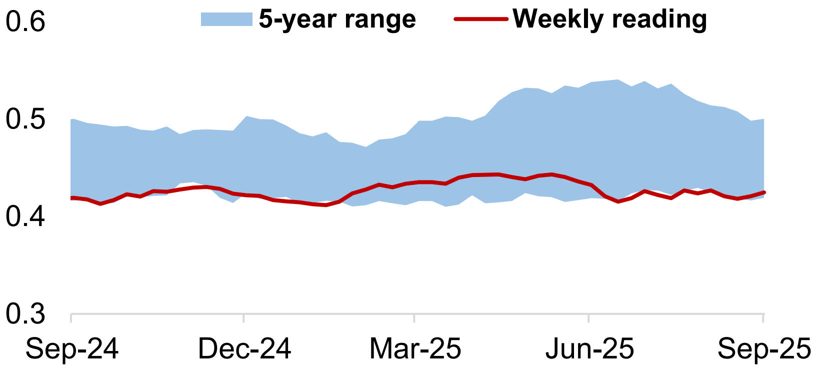
Petroleum demand decreased. U.S. petroleum demand as of September 5, as measured by deliveries, decreased by 0.9 mb/d from the prior week to 19.8 mb/d.

WTI crude prompt month futures slow stochastic
Index level



Price momentum weakened but appeared to turn positive for the week ended September 12.

U.S. ending stocks of crude oil (excluding the SPR)
Billion barrels



Inventories increased. U.S. ending stocks of crude oil excluding the Strategic Petroleum Reserve (SPR) increased by 3.9 million barrels (mb) for the week ended September 5 – but remained at the bottom of the 5-year range.

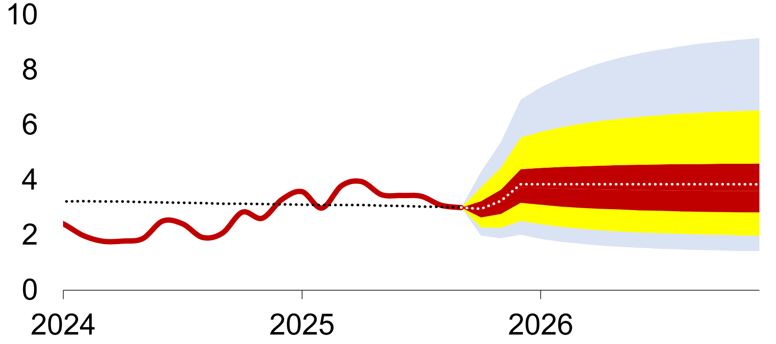
sources: U.S. Energy Information Administration; CME Group; Bureau of Labor Statistics; TXOGA analysis

U.S. natural gas market indicators

TXOGA CHARTBOOK

Natural gas price mean reversion analysis

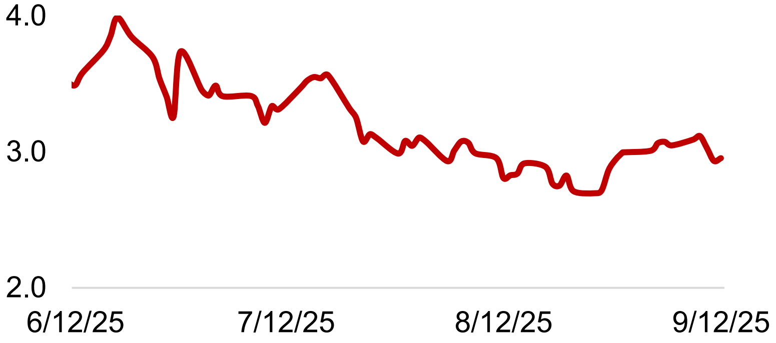
Dollars per mmBtu (2025$)



Near-term futures prices have aligned with their historical mean reversion threshold. The futures curve is in contango, with spot prices below forward prices. Historical confidence intervals suggest greater potential for upside price movement than downside risk.

Natural gas prompt month futures prices

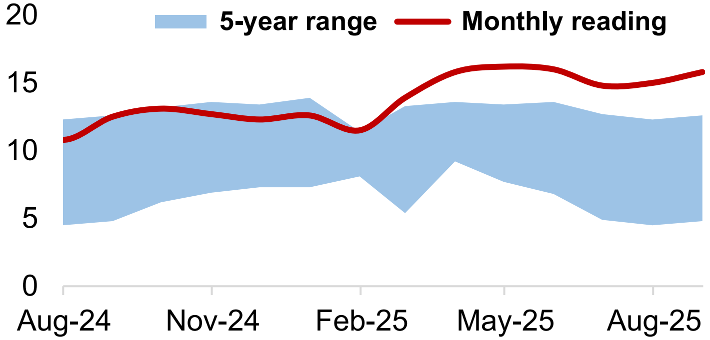
Dollars per million Btu



Henry Hub natural gas prices fell 3.1% w/w to $2.95 per million Btu for the week ended September 12, reflecting relatively strong working gas storage builds.

U.S. natural gas net exports

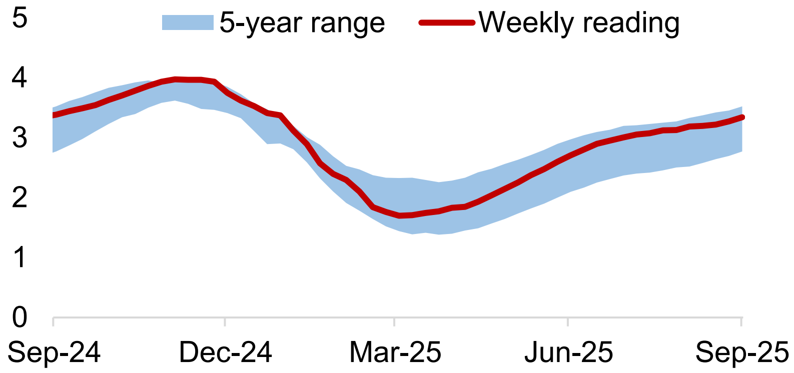
Billion cubic feet per day, bcf/d



According to the EIA estimates, U.S. natural gas net exports increased 26.4% y/y to 15.8 bcf/d in August.

U.S. weekly working gas storage

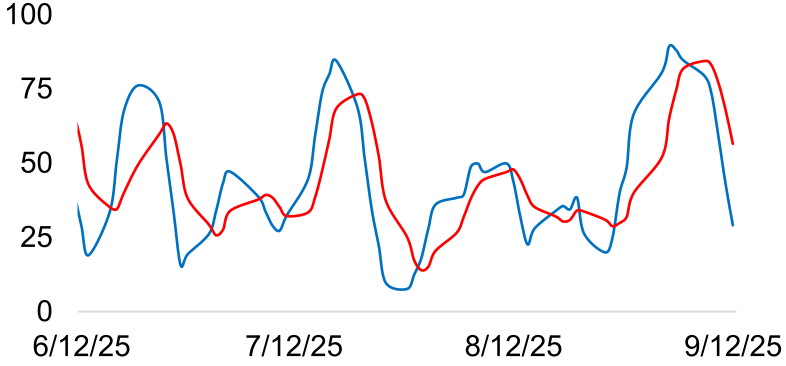
Trillion cubic feet (tcf)



Working natural gas storage increased. Underground storage rose by 2.2% w/w to 3.34 trillion cubic feet (tcf) as of September 5 – and climbed within the 5-year range.

Natural gas futures slow stochastic

Index level

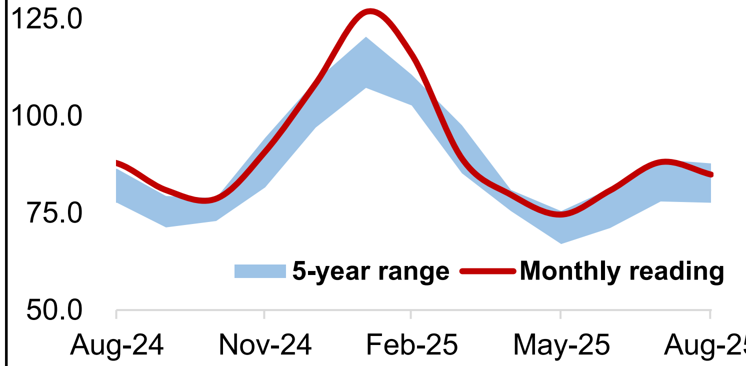


%K, %D 5 bars

Natural gas price momentum turned negative during the week ended September 12.

U.S. natural gas consumption

Billion cubic feet per day, bcf/d

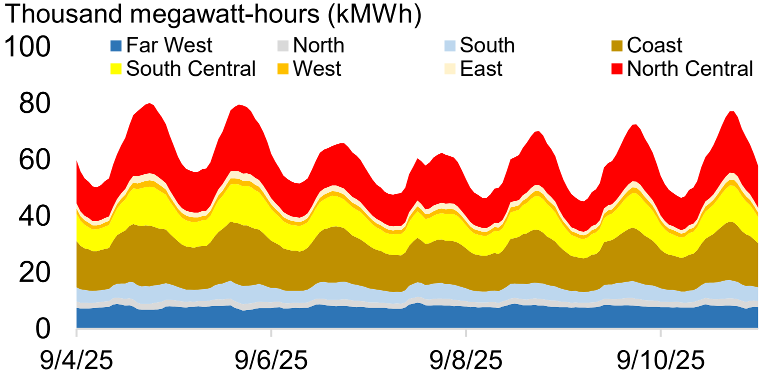


Natural gas consumption seasonally declined 3.3% y/y to 84.9 bcf/d in August, according to EIA estimates.

sources: U.S. Energy Information Administration; CME Group; Bureau of Labor Statistics; TXOGA analysis

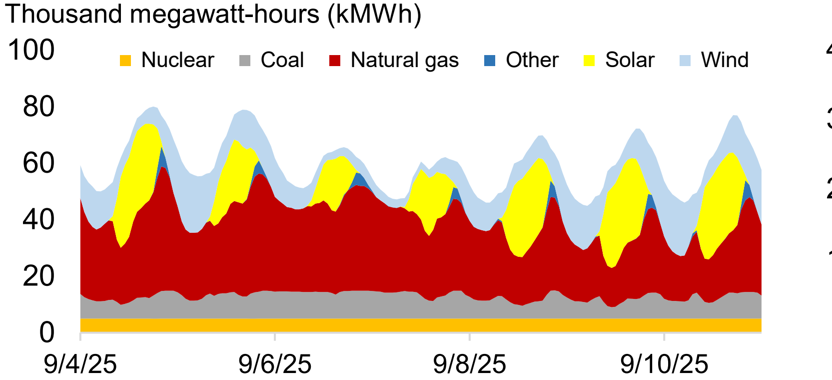
Texas electricity analysis

ERCOT electricity load by region



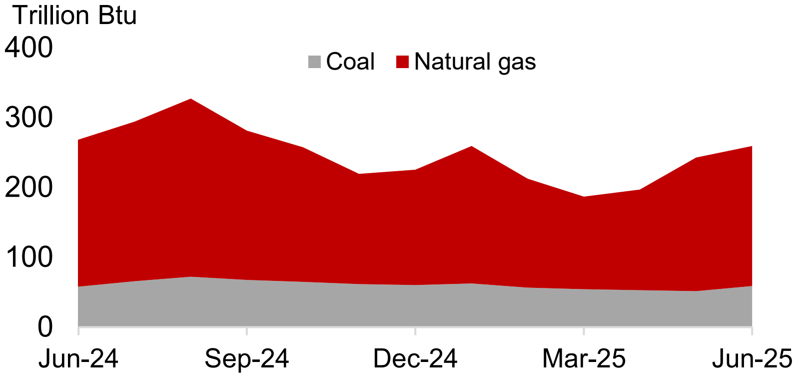
For Sep. 4-10, ERCOT's average hourly electricity load was 60.5 kMWh, down 5.1% w/w, while the maximum hourly load of 80.1 kMWh fell by 4.1% w/w. Variability was the highest in the North Central and South Central regions.

ERCOT hourly electricity generation by source



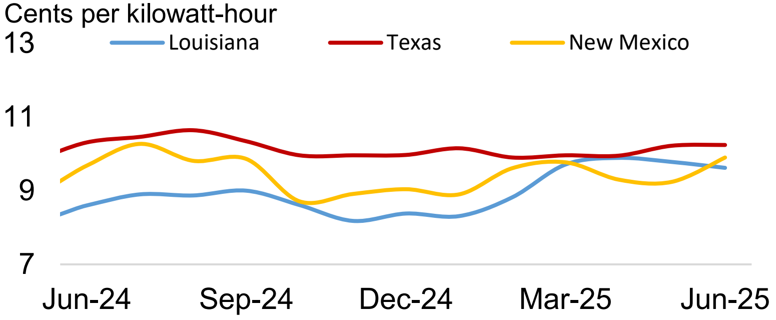
Thermal and other dispatchable resources supplied as much as 93.9% of ERCOT's electricity. From Sep. 4-10, hourly generation ranged between 45–80 kMWh, with a standard deviation of 9.4 kMWh. On the morning of Sep. 7, dispatchable sources met 93.9% of load—including 63.2% from natural gas—and sustained more than 90% of the grid's power for nine straight hours.

Texas electricity plant receipts of natural gas and coal



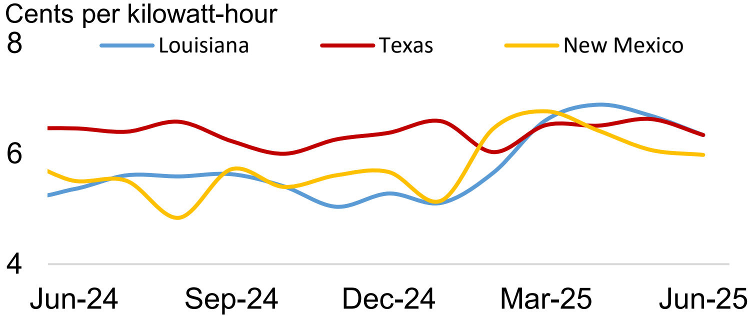
Natural gas receipts rose seasonally but remained below last year's level in June. Texas electricity plant receipts of natural gas increased 4.7% m/m but were 5.0% lower than in June 2024. Coal receipts climbed 14.1% m/m and 1.7% y/y.

Electricity prices – average across all end-use sectors



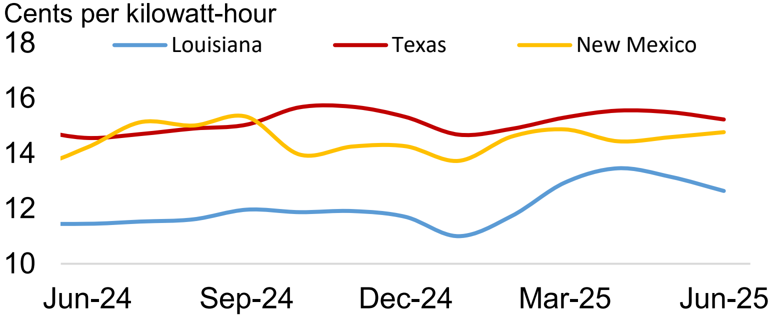
Texas electricity prices were steady in June 2025. The state average edged up 0.2% m/m but was down 0.7% y/y to 10.24 cents per kWh, compared with 9.62 in Louisiana and 9.90 in New Mexico.

Industrial electricity prices



Texas' industrial electricity prices fell by 4.4% m/m and 1.9% y/y to 5.98 cents per kWh in June, while those in neighboring Louisiana and New Mexico remained on par or lower than prices in Texas. Notably, Louisiana's average industrial electricity price escalated by 18.3% y/y in June and by 8.0% y/y over the first half of 2025.

Residential electricity prices



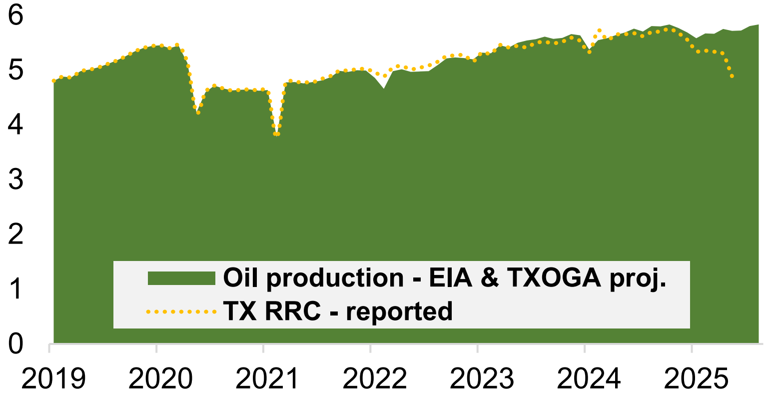
Texas' residential electricity prices fell 1.7% m/m in June but were still up 4.6% y/y at 15.23 cents per kWh — above rates in Louisiana (12.64) and New Mexico (14.77).

sources: ERCOT; EIA; TXOGA analysis

Texas oil and natural gas production

Texas crude oil production, Jan. 2019 – August 2025

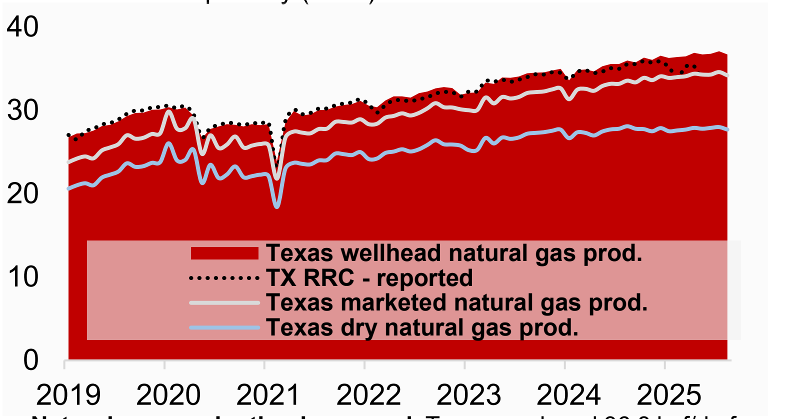
Million barrels per day (mb/d)



Record-high estimated oil production. Texas' oil production averaged 5.72 mb/d in June, according to the EIA . TXOGA estimates that production eclipsed 5.8 mb/d in July and August -- and likely reached a new record high.

Texas natural gas production, Jan. 2019 – August 2025

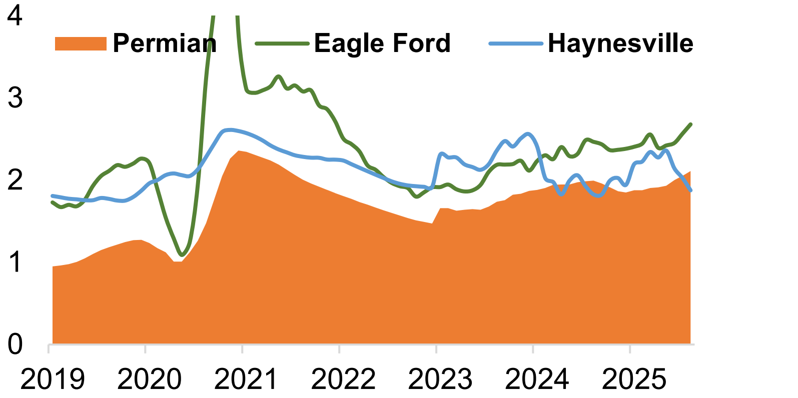
Billion cubic feet per day (bcf/d)



Natural gas production increased. Texas produced 36.8 bcf/d of natural gas gross withdrawals and 34.3 bcf/d of marketed production in June, per EIA. TXOGA estimates that Texas' marketed production slipped to 34.2 bcf/d in August.

Texas rig productivity by basin – new monthly prod. per rig

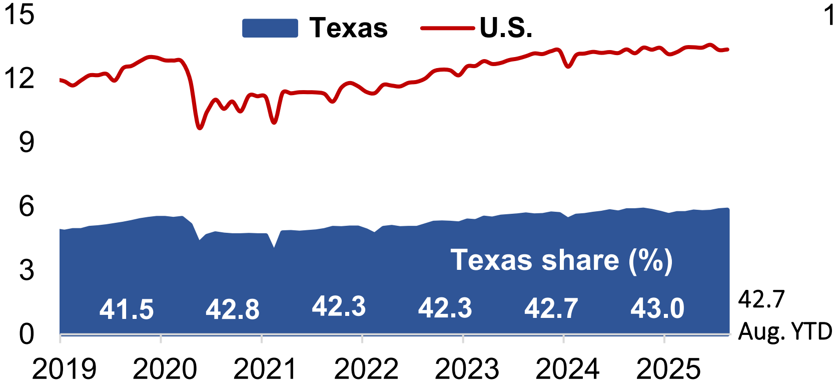
Thousand barrels per day oil-equivalent, kb/doe



Rig productivity rose in August. EIA estimates of rig productivity for August 2025 rose by 5.8% y/y in the Permian Basin, 8.6% y/y in the Eagle Ford, and 2.7% y/y in the Haynesville.

U.S. and Texas crude oil production, Jan. 2019 – August 2025

Million barrels per day (mb/d)

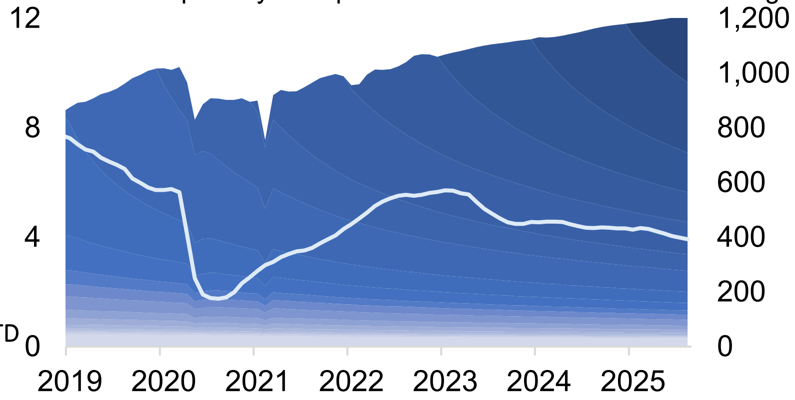


In the first eight months of 2025, Texas accounted for 42.7% of total U.S. crude oil production.

Texas shale basin wellhead oil & natural gas production

Million barrels per day oil-equivalent

Rigs

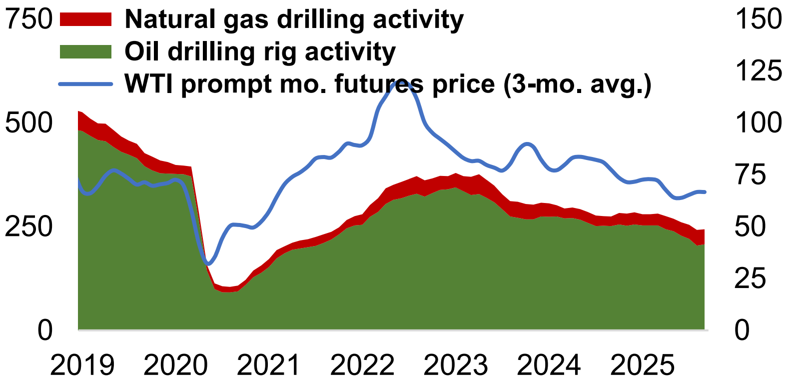


EIA estimates show oil and natural gas production growth across Texas shale basins in August 2025, including the Permian (+3.4% y/y), Eagle Ford (+1.0% y/y), and Haynesville (+10.3% y/y).

Texas drilling activity and WTI crude oil futures prices

Rigs

Dollars per barrel (2025$)



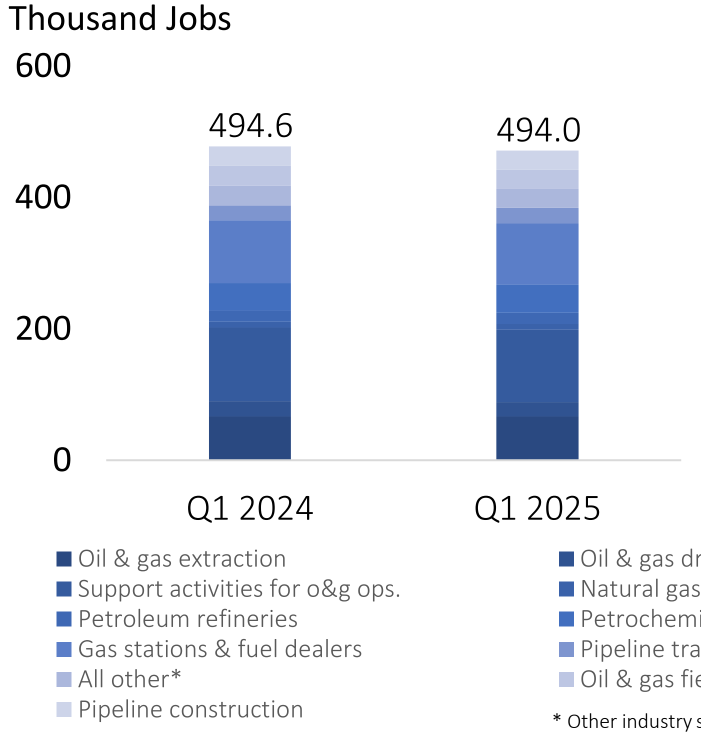
As of September 12, Texas' total rigs increased, according to Baker Hughes, with 208 oil-directed rigs (up 2 rigs w/w) and 36 natural gas-directed rigs (down 1 rig w/w).

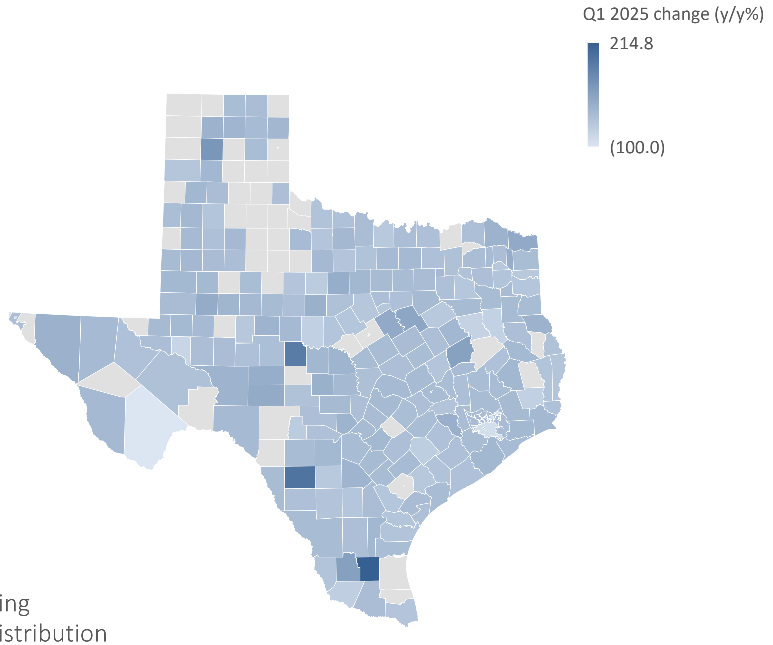
sources: U.S. Energy Information Administration; Texas Railroad Commission; Baker Hughes; CME Group; TXOGA analysis

Texas Oil & Gas Jobs Dipped, Wages Reached Record High in Q1 2025

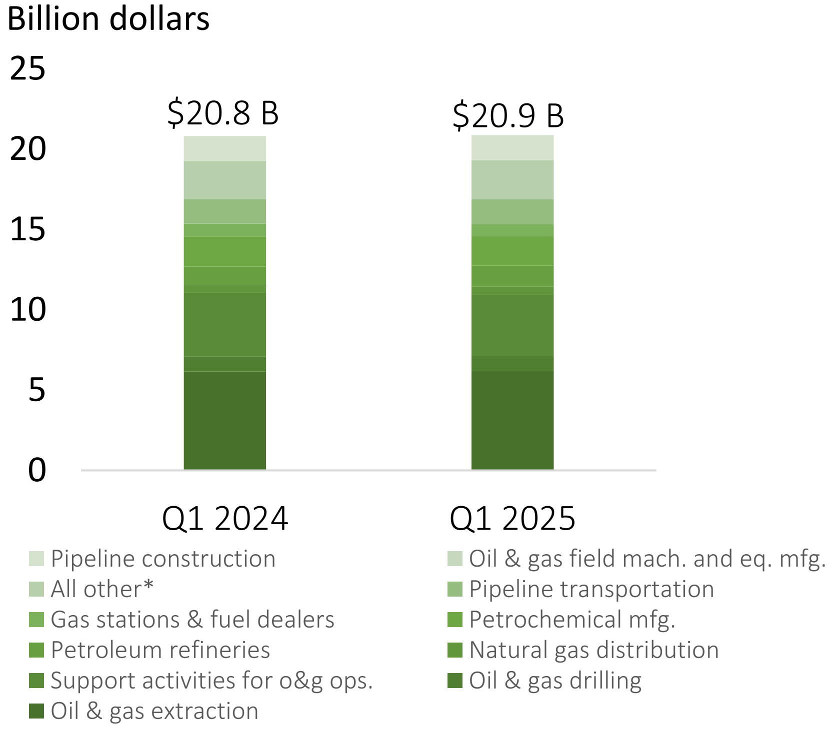
- Texas oil and natural gas industry employment slipped by 0.1% year-over-year (y/y) in Q1 2025 to 493,958 jobs, while industry wages edged up 0.2% y/y to $20.9 billion—the highest on record.
- Although overall employment held steady, several industry segments posted notable changes. Petroleum refinery employment rose 10.8% y/y to 51,732 jobs; petrochemical manufacturing expanded 4.0% y/y to 18,279 jobs; nitrogenous fertilizer manufacturing jumped 15.6% y/y to 578 jobs; and industrial sand mining fell 26.4% y/y to 3,789 jobs, according to data from the U.S. Census Bureau and the Texas Workforce Commission.

Texas oil and natural gas industry direct employment fell by +0.1% y/y in Q1 2025





Texas oil and natural gas industry direct wages rose by +0.2% y/y in Q1 2025



* Other industry segments include petroleum and pet. product wholesalers, lubricant mfg., asphalt mfg., industrial sand mining, nitrogenous fertilizer mfg., basic organic chem. mfg., plastics and resin mfg.

sources: U.S. Census Bureau; Texas Workforce Commission

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