Key points for the week of July 10, 2023

- **Positive economic news prevailed this week**, with a U.S. jobs report that showed continued payroll employment gains and a lower unemployment rate in June, detailed in the Chart of the Week. However, financial markets interpreted this report as bringing a higher likelihood of further Fed Funds’ rate increases and consequently lower expectations for growth and the prices for oil and other commodities. Texas’ employment gains equaled nearly a fifth of U.S. nonfarm payroll employment growth so far this year, and the state’s workforce has grown even faster.

- **Oil market fundamentals tightened further.** U.S. oil demand of 21.2 million barrels per day (mb/d) remained near the top of its five-year historical range, and U.S. ending stocks of crude oil fell by 3.0 mb for the week ended June 30 and were down by 41.8 mb (5.0%) in Q2 2023 to their lowest level since January 1986.

- **Natural gas markets appear to be waiting to see how the summer plays out.** Always a seasonal market, natural gas prices rose by 22.7% in June but receded by over 6% in the first week of July, apparently awaiting data showing the net impact of strong production, lower new drilling activity, and a hot start to the summer weather that increased the weekly use of natural gas in U.S. power generation in July 1-7 per the U.S. Energy Information Administration (EIA).
Since 2022, monetary policy has a material impact on broad expectations for prospective economic growth and, consequently, the prices of oil and other commodities. As interest rates have risen, expectations have been for less spending and growth as well as lower oil prices.

Although the employment situation is a lagging indicator of economic growth, financial markets interpreted the June U.S. jobs report (released in the first week of July by the Bureau of Labor Statistics) as showing tight labor markets that could support further interest rate hikes by the Federal Reserve.

In fact, that U.S. unemployment rate fell by 0.1% to 3.6% in June. Yet, payroll unemployment rose by 209,000, which for months in which payrolls have risen since the pandemic was the lowest increase since Dec. 2019, despite summer seasonal variation.

Texas’ employment has showed subtle differences from the national pattern. The state added nearly a quarter million jobs in the first five months of the year; that’s equivalent to nearly one fifth of U.S. nonfarm payroll employment gains over the same period. While the U.S. unemployment rate remains unchanged from a year ago, Texas’ unemployment rate rose by 0.3% to 4.1% as of May because the state’s labor force grew year-on-year by more than its employment. In this case, higher unemployment appears to be good news that workers are available, which ultimately could help alleviate upward price inflation.

sources: U.S. Bureau of Labor Statistics; Texas Workforce Commission; TXOGA analysis
As of mid-June, consumer sentiment rebounded to its strongest level in four months. The Univ. of Michigan survey of consumers has historically corresponded with the changes in U.S. consumer spending, which represents 68% of GDP. Sentiment has remained historically weak, but consumer spending has continued to grow slowly.

The large U.S. trade deficit has dragged on growth. The U.S. real trade deficit continued in Q1 2023 at an annualized rate of $1.24 trillion, which if sustained would represent the second largest annual deficit in 94 years on record.

Investment has decreased despite along with weak industrial production growth. Industrial production growth (0.3% y/y in Q2) and capacity utilization (79.6% in May) historically correspond with U.S. investment changes. Weak pub positive production growth could enable some recovery in investment.

The premium for low credit quality fell by nearly 1.0% between the first weeks of June and July. High yield (HY) rates reflect debt costs for firms with below-investment grade credit quality. HY rates fell to 13.9% as of Jul. 7 from 14.6% on Jun. 1, while Fed Funds futures rose in expectation of another rate hike.

Anemic (but improved) conditions for growth. The ADS business conditions index, published by the Philadelphia Fed. Res. Bank, is a leading indicator of GDP growth. A quarterly average of the ADS index has risen from negative readings so far in 2023, which historically corresponds with slow but improved growth conditions.

The unemployment fell, but payroll growth slowed. The employment situation is a lagging indicator of GDP growth. The U.S. unemployment rate fell to 3.6% in June per BLS, while non-farm payrolls rose by 209,000, which was the lowest monthly increase since Dec. 2019.
Global oil market balance at-a-glance

Led by resurgent emerging markets, global oil demand is expected to reach a record 102.7 mb/d in 2024 per EIA.

EIA's oil production estimates of 1.5 mb/d in 2023 and 1.3 mb/d in 2024 are volumes needed to balance global markets in their view. U.S. assumed to be largest single contributor this year, but could be impeded by activity and productivity levels.

Under these assumptions, EIA projects a balanced global oil market in Q3 2023 and Brent crude oil prices over $80 per barrel.

Global oil demand and GDP

Oil production by country/region

Global demand/supply & Brent prices (June 2023)
WTI crude oil price mean reversion analysis
Dollars per barrel (2023$)

Mean reversion analysis can be useful in to assess short-term market actions. The historical mean reversion target rose and aligned with futures prices as of early July. Futures prices remain slightly backwardated, and confidence intervals based on past prices show the potential for greater upside than downside.

WTI crude prompt month futures prices
Dollars per barrel

Oil prices overcame concerns for economic uncertainties and rose to nearly $72 per barrel as of July 6.

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

Global demand for U.S. oil eased. Petroleum net exports were 0.6 million barrels per day (mb/d) for the week ended June 30. In 2023 so far, there has only been one week (Feb. 3) with petroleum net imports, so 2023 has remained on track to set a U.S. exports’ record.

U.S. ending stocks of crude oil (commercial & SPR)
Million barrels (mb)

Lowest inventories since Jan. 1986. Crude oil ending stocks fell by 3.0 mb for the week ended June 30 and were down by 41.8 mb (5.0%) in Q2 2023 to their lowest since Jan. 1986.

Summer driving is back. U.S. petroleum demand of 21.2 mb/d for the week ended June 30 rose by 3.8% y/y to nearly the top of its five-year range.

As oil prices rose in the first week of July, oil price momentum slowed but did not break.

sources: EIA; BLS; TXOGA analysis
Natural gas futures prices of $2.68 per mmBtu for Aug. 2023 delivery rising to $3.77 per mmBtu for Jan. 2024 delivery exceed their mean reversion target. Historical variation has continued to show more potential upside than downside.

After rising by 22.7% m/m in June, natural gas prices at Henry Hub receded by 6.2% to $2.62 per mmBtu as of July 7. Natural gas prompt month futures prices have reached a record-high level of 14.0 bcf/d in June 2023 per EIA.

Natural gas futures slow stochastic

Working gas in underground storage (2.8 tcf as of June 30) was at the top of its five-year range but showed minimal stock building over the past three weeks.

Natural gas price momentum paused as of July 3. Although consumption through last winter was unseasonably low natural gas consumption has recently topped its five-year range
Lower prices have recently corresponded with less drilling activity in Texas, 306 oil-directed rigs and 39 gas-directed rigs as of June 23.

Following record high 5.86 mb/d of Texas crude oil production in Jan, production apparently slipped to 5.40 mb/d in March per EIA. Based on weekly Texas drilling activity and U.S. production, TXOGA estimates that Texas crude oil production has remained at 5.4 mb/d in June.

Texas natural gas production has remained near its record high levels. EIA reported Texas' production at 33.0 bcf/d of gross withdrawals and 30.5 bcf/d of marketed production. TXOGA estimates gross withdrawals rose to 33.1 bcf/d in June.

EIA's drilling productivity report estimates that production across Texas shale basins -- Eagle Ford and parts of the Permian, Hayessville, and Anadarko -- have set a record high in Q2 2023.

Sources: EIA; TX RRC; Baker Hughes; CME Group; TXOGA analysis.
Texas’ oil and natural gas industry employment and wages have risen solidly.

**Texas Oil & Gas Industry Employment Rose by +8.3% y/y**

- Q4 2021: 440,738 jobs
- Q4 2022: 477,327 jobs

**Texas Oil & Gas Industry Wages Rose by +11.0% y/y**

- Q4 2021: $12.4 B
- Q4 2022: $13.8 B

*Other industry segments include petroleum and pet. product wholesalers, fuel dealers, lubricant mfg., asphalt mfg., industrial sand mining, nitrogenous fertilizer mfg., basic organic chem. mfg., plastics and resin mfg.*
Texas' energy consumption hinges on oil and natural gas

- **Oil & Gas Are Essential to Texas.** Since 2018, oil & natural gas supplied over 80% of the energy that powers Texas’ economy and enables Texans’ lives.
- **Texas Is The Heart of American Industry.** Nearly half of the primary energy consumed in Texas serves its industrial sector, which requires more than four times as much energy as California's industrial sector.
- **The Largest Electricity Generating State.** Texas generates the most electricity of any U.S. state – and more than twice as much as Florida.

The Texas State Comptroller estimates GDP growth of 1.4% in 2023, which could correspond with record-high state consumption of oil and natural gas in 2023.

**Texas oil and natural gas consumption vs. GDP, 2010-2023e**

Texas’ energy needs have continued to grow with its economy. Since 2010, Texans have increased their consumption of petroleum and natural gas each by about 30%, supporting consumers, industry including electricity generation, and transportation.

Although Texas’ economy and petroleum consumption decreased during the 2020 pandemic, the state’s natural gas consumption rose and offset 90% of the decrease, which underscores the essentiality of oil and natural gas to the state’s economy.

The Texas State Comptroller estimates GDP growth of 1.4% in 2023, which could correspond with record-high state consumption of oil and natural gas in 2023.

**Texas Energy Consumption in 2019: 14165 Trillion BTU**

**Sources:** EIA; BEA; LLNL
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