TXOGA’s chartbook provides a vital reference for our members as well as those who are interested in understanding data which tell the story of what’s happening with the economy, oil and gas markets at the global, U.S. and Texas levels.

Key points for the week of August 7, 2023

- **Solid economic news.** U.S. economic indicators for July showed continued labor market tightness, a rebound in consumer sentiment, and steady business growth conditions.

- **Oil market fundamentals tightened.** As discussed in the Chart of the Week, a record decrease of 17.0 million barrels (mb) in U.S. ending stocks of crude oil was reported by the U.S. Energy Information Administration (EIA) for the week ended July 28. This coincided with domestic crude oil production of 12.2 million barrels per day (mb/d) – tied with its lowest level so far in 2023 – and U.S. petroleum net exports of 3.1 mb/d, their highest since March.

Consequently, the combination of solid economic news, tightened market fundamentals, and Saudi Arabia’s announced supply cut extension to September, drove oil prices for the week ended August 4 to their highest level since April.

- **Natural gas prices slipped.** Natural gas futures prices at Henry Hub for September delivery were $2.56 per million Btu (mmBtu) as of August 4 and showed no momentum in either direction as the market digested information about high storage levels despite increased exports, hot seasonal weather (strong demand), and weaker drilling activity.
Financial markets in which oil prices are established generally look to the crude oil stocks levels as a summary statistic of how supply and demand have changed in relation to one another. Consider recent crude oil stock levels excluding and including the U.S. Strategic Petroleum Reserve (SPR).

For the week ended July 28, the U.S. Energy Information Administration (EIA) reported ending stocks excluding the SPR of 439.8 million barrels (mb). This reflected a drop of 17.0 mb from the prior week, marking:

- The largest weekly decrease on record since 1982 (the next largest was a 15.0 mb drawdown in January 1999);
- Stocks at the 28th lowest percentile within the 5-year historical range; and
- 26.6 days of supply, the lowest level so far this year, in EIA’s estimation.

Although SPR stocks were unchanged for the week, they remained down by 6.9% year-to-date through July 28, after having decreased by 41.6% y/y with unprecedented releases in 2022.

Consequently, U.S. ending stocks of crude oil including the SPR stood at 786.4 mb as of July 28, which was the lowest for any month on record since April 1985.
Consistent with improved consumer sentiment, initial Q2 GDP estimates showed 2.3% y/y growth in consumer spending. The Univ. of Michigan’s survey of consumers has historically corresponded with changes in U.S. consumer spending, which represents 68% of GDP, and the index’s final reading for July rose to 71.6, its highest since Oct. 2021.

The U.S. trade deficit widened in Q2 2023. The U.S. real trade deficit ran at an annualized rate of $1.21 trillion, up from a revised $1.20 trillion in Q1. If sustained for the year, this represents the third straight year of trade deficits exceeding $1.2 trillion.

The unemployment fell in July, even as payroll growth slowed. The employment situation is a lagging indicator of GDP growth. The U.S. unemployment rate fell to 3.5% in July per BLS, while non-farm payrolls rose by 187,000, which was the lowest monthly increase since Dec. 2019.

Consistent with increased industrial production, initial Q2 GDP estimates showed 3.1% y/y growth in investment. Industrial production growth was flat y/y in Q2 and capacity utilization (78.9% in June) have historically corresponded with weak U.S. investment growth.

The premium for low credit quality rose by 50 bps. High yield (HY) rates reflect debt costs for firms with below-investment grade credit quality. HY rates rose by 0.4 percentage points w/w to 13.9% on Aug. 3, while the Fed Funds futures rate also edged up. The premium for low credit quality increased to 8.5%, its highest since July 12.

The ADS business conditions index, published by the Philadelphia Fed. Res. Bank, is a leading indicator of GDP growth. A rolling 3-month average of the ADS index has risen from negative readings so far in 2023 to near zero, which historically corresponds with slow but stable growth conditions.

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With solid economic news, the largest U.S. weekly crude inventory drop on record, plus Saudi Arabia’s reiterated commitment to extend production cuts, WTI crude oil prices eclipsed $83 per barrel as of August 4.

Middle of the 5-year range. U.S. petroleum demand, as measured by deliveries, 20.3 mb/d for the week ended July 28 – 63rd percentile towards the top of its 5-year range.

Oil price momentum held strong as futures prices rose above $83 per barrel for the first time since April.

A historic weekly drop in inventories. Crude oil ending stocks fell by 17.0 mb for the week ended July 28, 2023, to their lowest since Nov. 1985. The 17.0 mb decrease was the single largest weekly drop on record since 1982.
Natural gas price mean reversion analysis

Natural gas futures prices of $2.56 per mmBtu for September 2023 delivery (rising to $3.72 per mmBtu for Jan. 2024 delivery were in line with their mean reversion target. Historical variation has continued to show more potential upside than downside.

Natural gas prompt month futures prices

Natural gas futures prices at Henry Hub for September delivery were $2.56 per mmBtu as of August 4, which decreased by 2.8% w/w, as storage levels exceeded their 5-year range despite strong consumption and exports.

Natural gas total consumption has exceeded its five-year historical range each month since March 2023.

Natural gas futures slow stochastic

Natural gas price momentum showed no definitive direction over the past week.

U.S. natural gas net exports

Natural gas net exports have reached a record high of 13.9 bcf/d in July per EIA.

U.S. weekly working gas storage

Working gas in underground storage (3.0 tcf as of July 21) remained at the top of its five-year range.

U.S. natural gas consumption

Natural gas total consumption has exceeded its five-year historical range each month since March 2023.
Texas averaged 287 oil-directed rigs (down 5.6% m/m from the end of June) and 35 gas-directed rigs (-5.4% m/m) as of July 28.

Through the first seven months of the year, Texas accounted for 43.4% of U.S. crude oil production. Based on TXOGA’s projection that Texas production grew to 5.5 mb/d in July, the state may have accounted for all U.S. crude oil production growth so far in 2023.

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

EIA-estimated rig productivity has steadied (decreased of 0.8% y/y in July 2023) across oil-producing basins at levels that are 18% higher above pre-pandemic productivity from Dec. 2019.
Texas’ oil and natural gas industry employment and wages have risen solidly

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

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

Heatmap of employment changes by county

* 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.
Led by resurgent emerging markets, global oil demand is expected by EIA to reach a record 101.2 mb/d in 2023 and 102.8 mb/d in 2024.

EIA reduced its oil production 2023 projection by 0.2 mb/d to 1.3 mb/d but raised its 2024 estimate by the same amount to 1.5 mb/d. These are volumes needed to balance global markets in their view. The U.S. is assumed to be largest single contributor this year.

For global oil inventories, EIA's shifted from projecting a balanced market in Q3 2023 to net stock draws of 1.0 mb/d, corresponding with Brent crude oil prices nearly $80 per barrel in Q3 rising to $85 per barrel in 2024 per their view.