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FIRST ANALYSIS
Institute Alert

News or events that may affect your investments April 7, 2022

Austin Pickle, CFA
Investment Strategy Analyst

Ian Mikkelsen, CFA
Equity Sector Analyst
Wells Fargo Advisors

Will oil producers produce more as prices rise?

Key takeaways

- We believe oil prices alone aren't likely to put the U.S. economy into recession, but both the oil price level and its rate of change are indicators that suggest to us that the economy has entered a late stage of growth in 2022.
- Oil production is likely to remain largely unresponsive to current high prices, in our view. As a result, the U.S. administration has announced a record release of strategic oil reserves, yet we expect high oil and gasoline prices to be sticky.

What it may mean for investors

- For investors with longer- or shorter-term investment horizons, we favor holding a full allocation to the Energy stock sector, as well as a broad-based exposure to Commodities. Both of these investments have the potential to hedge commodity pressures on inflation.

Oil prices have resided in the triple digits for much of the past month and reached nearly $140 per barrel in March. While we expect additional volatility in oil prices, we do not foresee producers ramping supply in response to the price surge. What does this mean to the economy, what would it take for producers to shift into high gear, and what are political powers doing about it?

Are oil price increases a strong headwind to the economic expansion?

The highest oil prices since 2014 are not, by themselves, likely to produce a U.S. recession. But we see them as one of several indicators that point to an economic recovery that is entering a late stage — only two years after it began. High oil prices have helped drive a surge in overall inflation, which takes a larger and larger chunk out of consumers' pocketbooks and, in turn, can lower consumption and economic growth. Second-order impacts include influencing the Federal Reserve to raise borrowing costs to fight persistent inflation. We cite oil and other commodity-led inflation as part of the rationale for lowering our 2022 U.S. gross domestic product (GDP) growth target from 3.1% to 2.6%.[1]

1. For more information, please see our report, "Revising equity, fixed-income exposure as cycle matures", March 30, 2022.

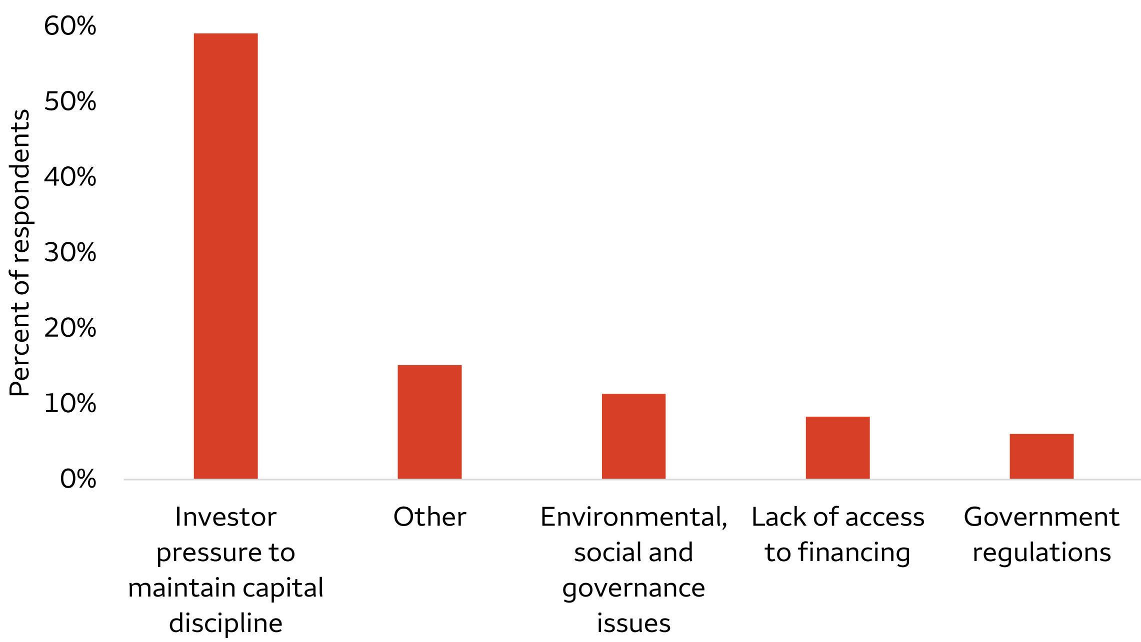
What would it take for U.S. oil producers to accelerate production?

We do not expect U.S. oil producers to open the spigots suddenly. This hesitant supply response is a primary rationale for our increased year-end 2022 oil price target ranges ($120-$140 for West Texas Intermediate crude and $125-$145 per barrel for Brent crude).[2] There are a number of reasons why U.S. producers are not rushing to increase production, and they include:

- Oil company budgets are already set at flat to low supply growth and 10% to 15% inflation in drilling costs. Any incremental drilling activity would likely see even higher cost inflation than what is already budgeted.
  - A recent Federal Reserve Bank of Dallas survey showed oilfield production costs rising at a record pace during the first quarter.
  - A significant portion of the labor force left the industry during the 2020 price downturn, and companies are finding it difficult to find qualified, experienced labor even at higher wages.
  - Unprecedented supply chain issues abound. For example, the cost of fracking sand has tripled, steel and cement prices have increased over 40%, delays have increased for tubular steel, and short-term flexible trucking capacity has evaporated. Even the semiconductor shortage is having an impact due to the high-tech equipment utilized in drilling.
- Investors have pressured oil companies to remain capital disciplined.

We have maintained that this last headwind has been the most significant in restraining U.S. oil supply growth. A recent Dallas Federal Reserve survey of more than 130 oil and gas firms revealed that nearly 60% listed “investor pressure to maintain capital discipline” as the main reason that producers are reining in output.[3] The next closest single reason — “Environmental, Social, and Governance (ESG) issues” — garnered only 11% of the responses.

Chart 1. Dallas Federal Reserve oil industry survey: Why are producers restraining growth despite high prices?

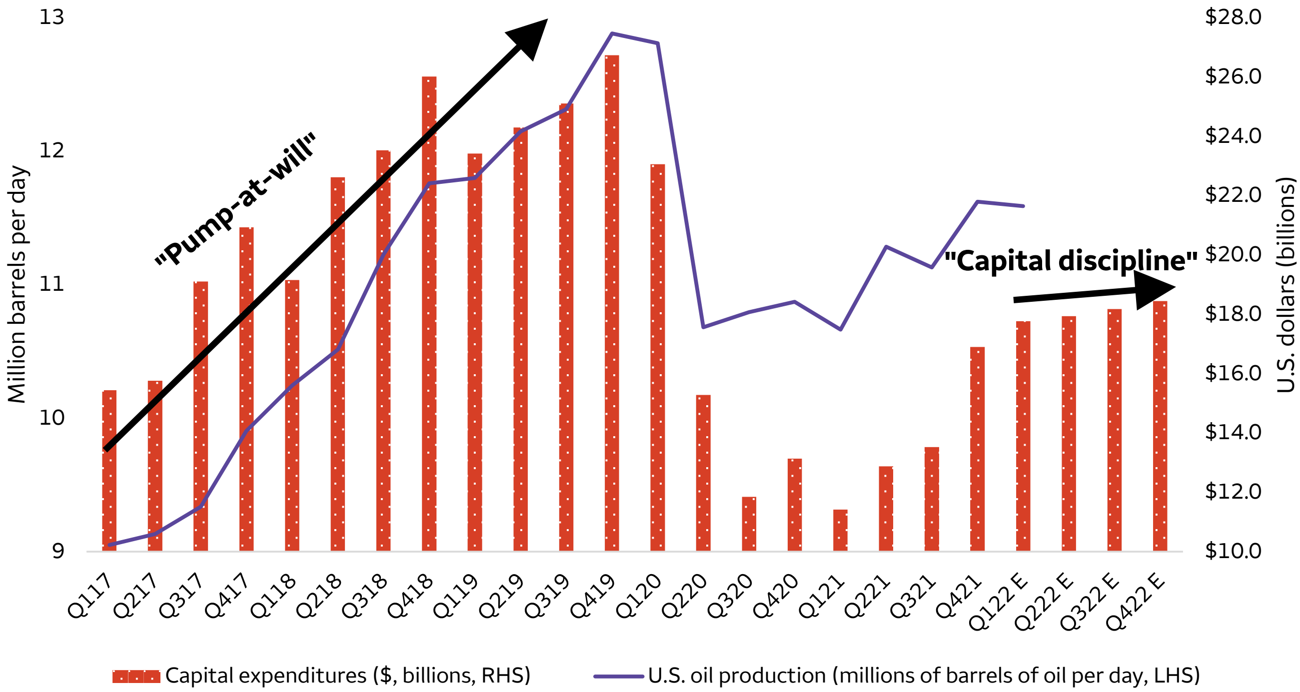


Sources: Federal Reserve Bank of Dallas and Wells Fargo Investment Institute. Executives from 132 oil and gas firms responded during the survey collection period, March 9–17, 2022.

2. Please see our report, “Revising our guidance and most 2022 year-end targets”, March 10, 2022.
3. Federal Reserve Bank of Dallas “Dallas Fed Energy Survey”, March 23, 2022.

Investors have demanded that the industry abandon the "pump at will" days to focus on cash generation and shareholder returns (see chart 2). Even without the cost-related impediments to accelerating oil production, we believe that U.S. oil producers will hesitate to accelerate production. In fact, a few times recently when companies have tried to test the waters with a production growth message, we have observed negative stock price reactions, which has discouraged other companies to reverse course and resume "pump at will."

Chart 2. S&P 500 Energy sector capex vs. U.S. oil production

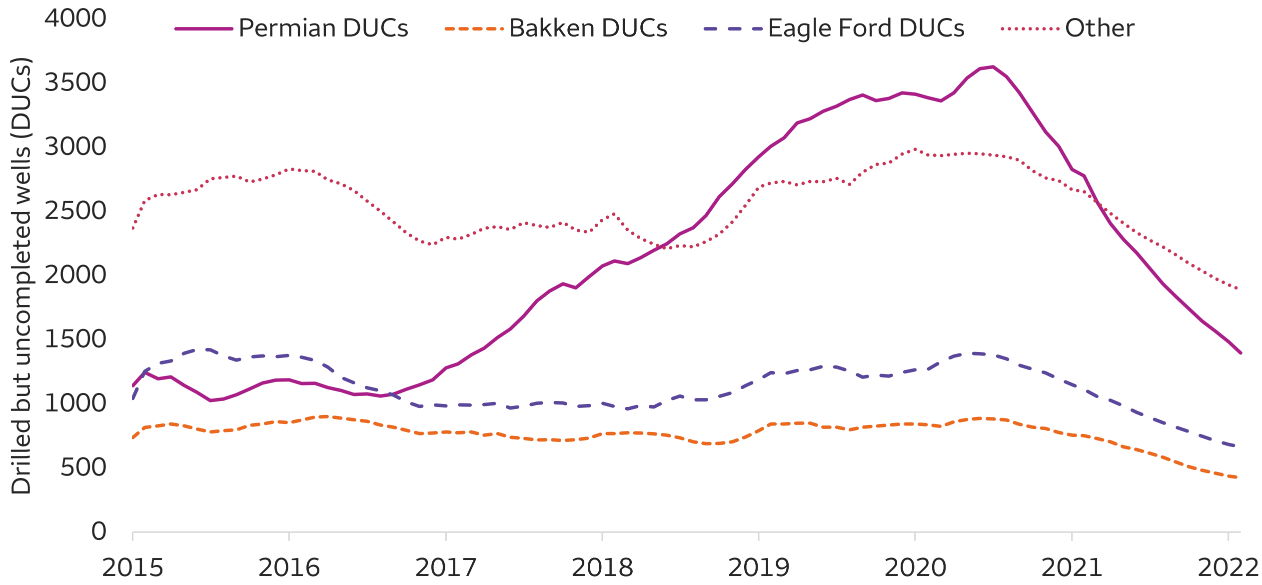


Sources: U.S. Energy Information Administration, FactSet, and Wells Fargo Investment Institute. Capex = capital expenditures. E = estimate. Estimates are based on FactSet consensus.

If investors suddenly shift priorities, are there technical limitations on how quickly production can come online?

Yes. Producers can access a hierarchy of assets to increase production efficiently. Drilled but uncompleted wells (DUCs) offer the quickest, easiest, and cheapest way to add production. The problem is that this cheap, easy option to increase production is essentially exhausted. The DUC inventory already has been nearly depleted to historically low levels in all major shale oil producing regions besides the Permian Basin, which is not far behind other major producing fields (see chart 3).

Chart 3. Drilled but uncompleted wells inventory is nearly depleted



Sources: Bloomberg, U.S. Energy Information Administration, Wells Fargo Investment Institute. Monthly data: January 31, 2015 – February 28, 2022.

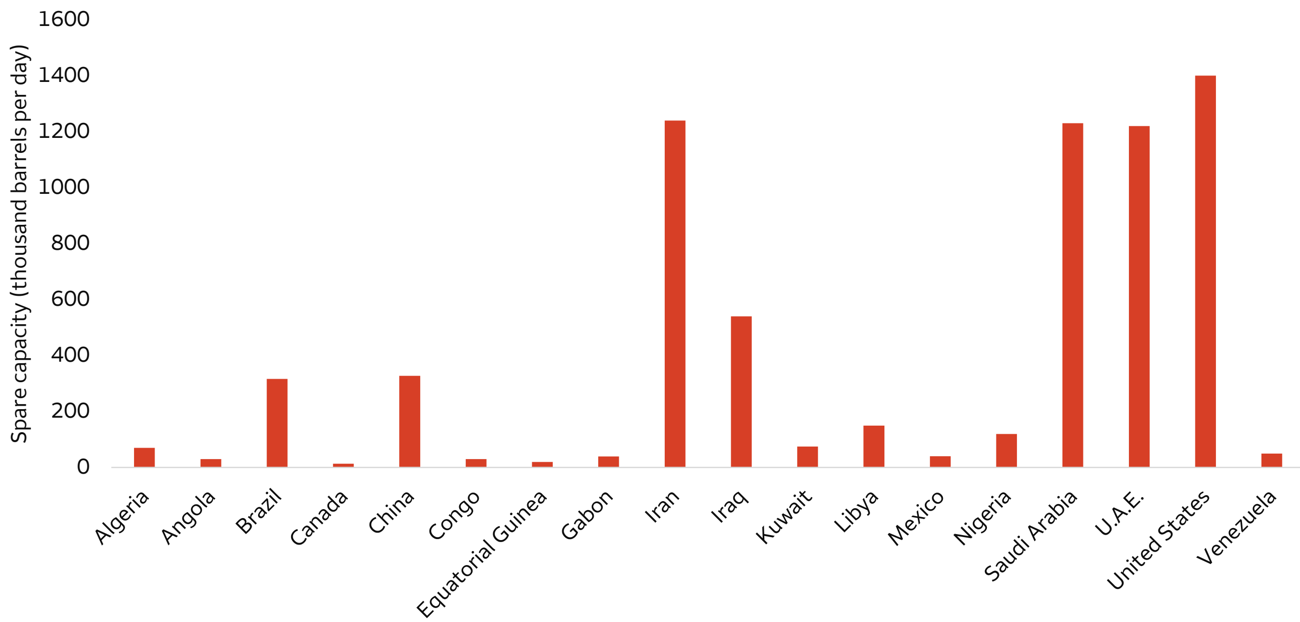
Shale oil well depletion rates (also known as "decline rates") imply that the driller has to accelerate extraction above the decline rate if the driller wants to increase production. This brings forward the date of the well inventory exhaustion and tends to trigger a negative reaction among the driller's investors if production consistently declines. Consequently, drilling companies now strongly prefer to add activity incrementally to preserve their inventory depth and attempt to mitigate the risk that future decline rates kick in more aggressively.

Even though shale oil has the quickest startup time for a new well, starting production requires a multi-month timetable, including decision, exploration, testing, and regulatory approvals, among other steps. A growing problem is that companies are reporting longer lead times for incremental activity, such as an extra six to nine months just to add incremental rigs versus a roughly two-month timeline previously. All in all, a meaningful acceleration in U.S. oil supply looks to be an unlikely scenario in 2022.

So, if U.S. producers won't accelerate oil supply, where can the market turn to for additional barrels?

Only a handful of countries outside the U.S. appear to have even the possibility to increase supply meaningfully. These include Iran, Iraq, Saudi Arabia, and the United Arab Emirates (see chart 4), but we do not believe that their limited spare capacity can cover the supply shortage. Iran is under sanctions that limit production, and removing the sanctions could increase global supply fairly quickly by potentially 1%-2% of daily demand, a significant amount but not enough to replace lost Russian production. What's more, all of these countries are Organization of the Petroleum Exporting Countries (OPEC) members, and OPEC has remained committed to modest monthly increases to its production quotas, despite the recent run-up in price and political pressure to do more. We believe OPEC does not want to risk a sharp decline in prices, given that the majority of its economies depend on oil and benefit from high prices.

Chart 4. Spare oil production capacity of select key producers



Sources: Bloomberg, Department of Energy, Wells Fargo Investment Institute. As of March 23, 2022. Spare capacity of Canada, China, Mexico, and the U.S. estimated by subtracting the maximum production achieved from just prior to the pandemic through March 23, 2022 from the most recent production value. Spare capacity of the other countries are Bloomberg estimates.

The realization that supply relief would be limited, and the political pressure of recent gasoline price increases, likely led to the Biden administration's recent decision for the largest release of strategic oil reserves in history — 1 million barrels per day (bpd) for six months, starting in May.

An extra 1 million bpd equates to roughly 1% of daily global oil consumption and 5% of daily U.S. oil consumption. While this is a sizable amount, it may not be the silver bullet for lowering gasoline prices that the policy seems to anticipate. Initial estimates from the International Energy Agency (IEA) suggest that about 3 million bpd of Russian oil will soon be lost to global markets. This could be problematic over the coming months as the U.S. summer driving season begins and global mobility restrictions ease. In other words, barring an unexpected demand collapse, we expect high oil and gasoline prices to hold despite the political maneuvering.

What are the implications for investors?

Oil prices are likely to remain at or above current levels and to aggravate consumer price inflation, particularly as the Russia-Ukraine war continues. For portfolios with both strategic longer-term (10 years) and tactical shorter-term (6 to 18 months) horizons, we favor holding full portfolio allocations to the Energy equity sector and to a broad-based position in Commodities. These preferences may offer potential hedges to both higher oil prices and higher consumer price inflation.

Risk Considerations

Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Investments in the **Energy sector** are subject to the adverse economic events within that industry. A downturn in the energy sector of the economy, adverse political, legislative or regulatory developments or other events could have a large impact on a portfolio's investments. The **commodities** markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value which may result in greater share price volatility.

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