

**Midstream/Energy:** many investors see energy's 2022 rally as a detour in a longer-term trend of growth/tech outperformance. Indeed, money continues to [flow out of energy](#) into tech, despite energy's low valuation and multi-year underperformance. Core to the bull thesis for tech is the idea that tech is "capital efficient," generating huge cash flows on small capex. But the facts are starting to get in the way of a good story. Tech capex is ballooning to \$1 trillion in a fight against structurally slowing growth. Meanwhile, energy capex is 50% below peak. This tectonic shift in capital allocation means that energy capital efficiency is improving (even as Wall Street forecasts falling oil prices) and tech capital efficiency is falling (even as Wall Street expects significant revenue growth). One probable result is that energy capital efficiency will exceed tech in the next 2-3 years.

**Natural Resources:** during the last decade, US Shale producers developed a reputation for spending every available dollar on drilling new wells. Below, we show that after a decade of reinvesting ~90% of EBITDA on CAPEX, US Shale companies are now reinvesting <30%. Today, rig count is ~60% lower than the historical relationship between oil price and rig count. While some observers have suggested that the current era of "capital discipline" era will be fleeting, we would argue that discipline is a necessary outcome of investors demanding 1) very low net debt and 2) well-defined plans for cash back to shareholders. If investors continue to demand no debt and double-digit dividend/buyback yields, this significantly reduces cash available for drilling, and explains the post-COVID "break" in the multi-decade relationship between oil price and rig count.

[Click here for the latest white paper on the long-term relationship between inflation and capex](#)

## MLP & Infrastructure

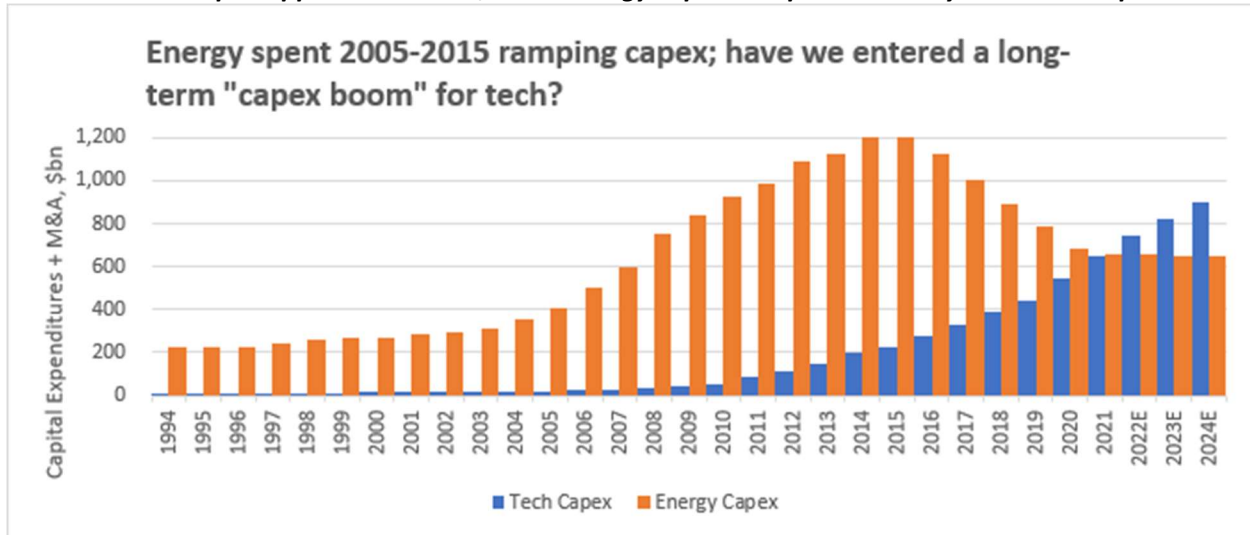
### Performance review

During the month of September 2022, the Recurrent MLP & Infrastructure Strategy generated net returns of -9.70%, lagging the Alerian MLP Index's (AMZ) -7.62% return by -2.08%. Since the strategy's July 2017 inception, Recurrent's MLP & Infrastructure Strategy has outperformed the AMZ by +4.38% (annualized, net of fees). Please see the performance section at bottom for more detail.

**The facts are getting in the way of a good story... contrary to consensus narratives, tech is becoming meaningfully more capital-intensive, as energy's capital intensity falls**

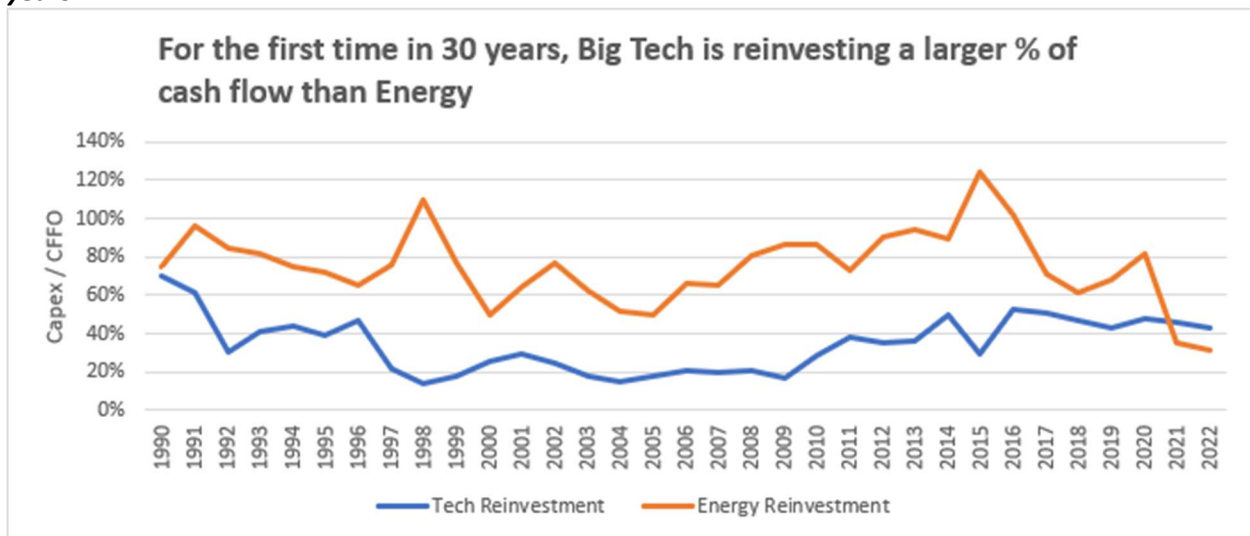
The popularity of investing in "Big Tech" has been largely driven by a narrative that tech companies are inherently "growthy" and capital- and asset-light. And it's certainly true that for the last ~15 years, several key innovations – smartphones, cloud computing, social media – have generated highly efficient growth - massive recurring cash flow on relatively small capex and R&D budgets. But it's also true that this incredible capital efficiency has already begun to stagnate as these products have saturated the market and Tech broadly has become more competitive. In a move reminiscent of the energy sector circa 2014, the tech sector is compensating for slowing growth by spending **more on capex, not less.** The desire to "keep growth going" is leading to soaring capex budgets across the tech sector, with "Big Tech" expected to spend more than the "Big Energy" for the first time ever in 2022 – a trend that is almost certain to persist for years to come.

**Exhibit 1: Tech capex approaches \$1trn, while Energy capex is expected to stay ~50% below peak**



Note: Tech includes GOOG, AMZN, AAPL, MSFT, TSLA, META, NVDA, PYPL, ADBE, AVGO, CSCO, TXN; Energy includes XOM, OXY/APC, CVX/NBL, COP, BP, SHEL, HES, EQNR, CNQ, SU, CTRA, MRO, RRC, EQT, OVV, FANG, CLR, CXO, PXD, EOG, AR, CHK, PE  
Source: Recurrent research, Bloomberg data

**Exhibit 2: Energy is expected to reinvest a smaller % of cash flow than Tech for the first time in ~30 years**

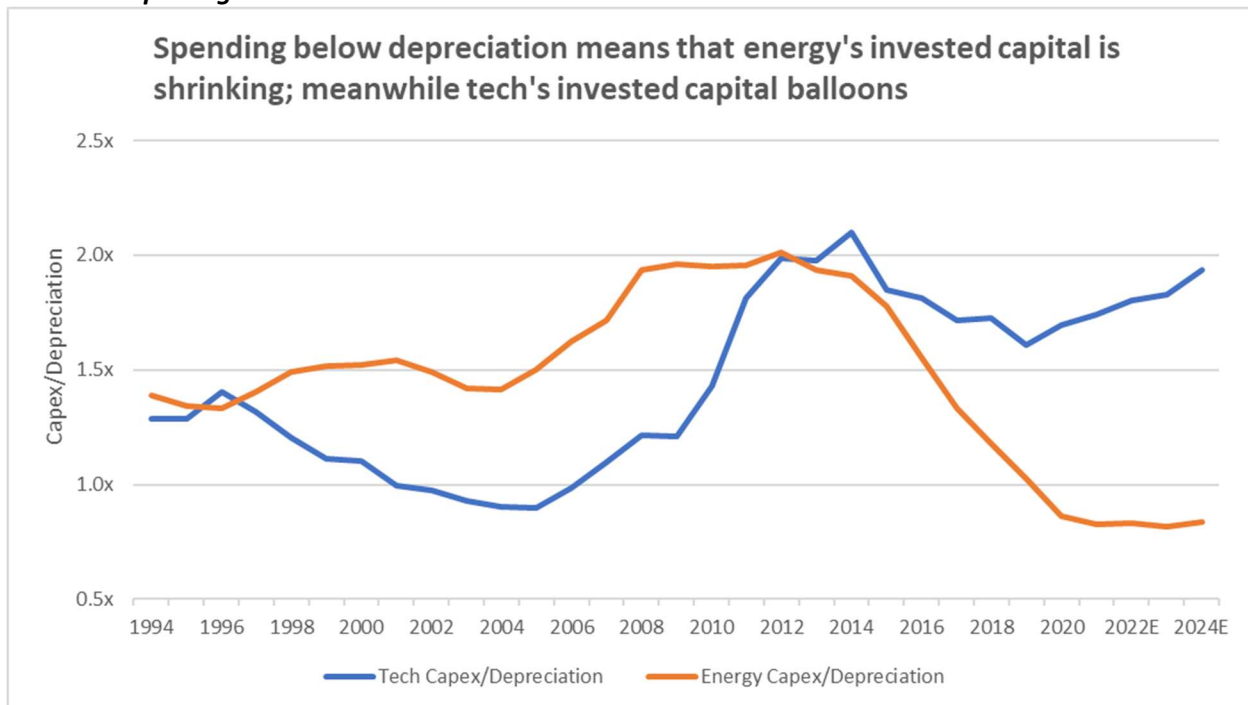


Note: Tech includes GOOG, AMZN, AAPL, MSFT, TSLA, META, NVDA, PYPL, ADBE, AVGO, CSCO, TXN; Energy includes XOM, OXY/APC, CVX/NBL, COP, BP, SHEL, HES, EQNR, CNQ, SU, CTRA, MRO, RRC, EQT, OVV, FANG, CLR, CXO, PXD, EOG, AR, CHK, PE  
Source: Recurrent research, Bloomberg data

Tech is profitable, but is already seeing less capital efficient growth compared to the incredible 2005-2020 era... meanwhile energy capital efficiency is soaring on restricted reinvestment. For the first time in history, Tech capex now exceeds Energy sector capex and is headed to \$1trn annually. This is a trend we expect to continue well into the next decade. As the energy industry learned (painfully) following its 2005-2015 capex boom, \$1trn is much harder to allocate efficiently than \$400bn; while it remains to be seen what kind of cash flow Tech's first \$1trn capex year will produce, it is highly unlikely to generate the >40% cash returns that made Tech the dominant sector of the market in the past decade.

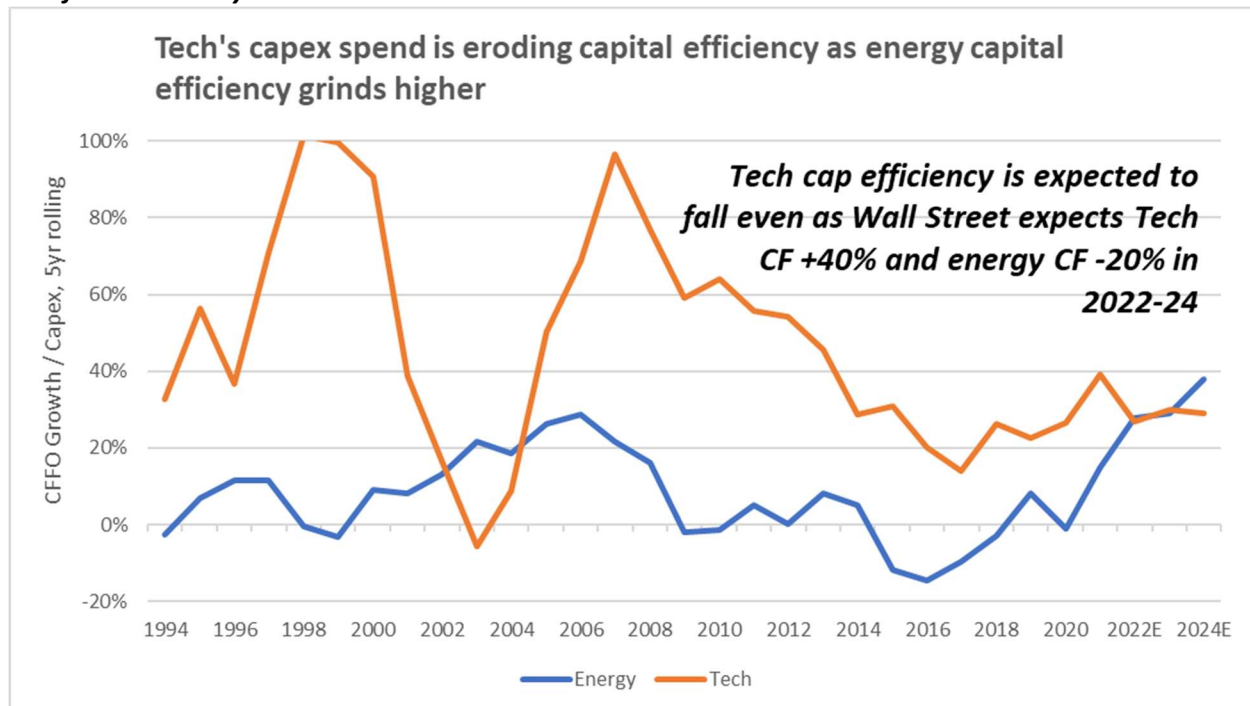
On the other hand, the Energy sector is a fraction of its previous market cap (and of Tech's current market cap). Despite being de-valued by the public market, Energy is approaching a 40% cash return on capex, as regulatory/NIMBY hurdles, ESG concerns, and investor apathy mean that underinvestment is driving tighter supply-demand dynamics and reducing the risk around reinvestment. The result has been a reinvestment rate that is below the rate of book depreciation (exhibit 3 below). Notably, with tech capex surging higher, the tech sector's cash returns on capital are expected to fall below that of the energy sector, despite Wall Street expectations for meaningful (+40%) growth in Tech's cash flow from operations (CFFO) by 2024. Meanwhile, Energy capital efficiency is rising even as Wall Street expects Energy CFFO to shrink -20% over the same timeframe (exhibit 4 below).

**Exhibit 3: Tech reinvestment is expected to remain at all-time highs as a % of depreciation; energy is not even replacing book value**



Note: Tech includes GOOG, AMZN, AAPL, MSFT, TSLA, META, NVDA, PYPL, ADBE, AVGO, CSCO, TXN; Energy includes XOM, OXY/APC, CVX/NBL, COP, BP, SHEL, HES, EQNR, CNQ, SU, CTRA, MRO, RRC, EQT, OVV, FANG, CLR, CXO, PXD, EOG, AR, CHK, PE  
Source: Recurrent research, Bloomberg data

**Exhibit 4: Tech's pursuit of growth is almost certain to reduce capital efficiency compared to the unique 2006-2020 period; meanwhile, Wall Street estimates for energy reflect an expected 20% cashflow decline by 2024**



Note: Tech includes GOOG, AMZN, AAPL, MSFT, TSLA, META, NVDA, PYPL, ADBE, AVGO, CSCO, TXN; Energy includes XOM, OXY/APC, CVX/NBL, COP, BP, SHL, HES, EQNR, CNQ, SU, CTRA, MRO, RRC, EQT, OVV, FANG, CLR, CXO, PXD, EOG, AR, CHK, PE  
Source: Recurrent research, Bloomberg data

The next 5 years may draw a sharp contrast between different types of “growth” investments – revenue and capex growth in tech, and profit and return growth in energy – we prefer the latter. As an asset-intensive commodity business, it’s fair to say that energy is not an ideal “capital-light growth” business. Even when the energy sector is highly profitable, asset growth can entail significant risk, as technical challenges, regulatory hurdles, multi-year timelines, reliance on 3<sup>rd</sup> party infrastructure, and a constantly-changing commodity backdrop make growth-oriented capital allocation very difficult.

But asset growth is not the only kind of growth – we believe that growth in value per share, or growth in returns on invested capital (ROIC) is what really drives shareholder value. In a market full of increasingly expensive and capital inefficient growth, we think a well-run portfolio of energy companies, executing on a lower-risk (and lower-growth) model of increasing value per share via buybacks, dividends and debt reduction - instead of solely focusing on top-line revenue/cash flow growth – will look increasingly appealing to generalist investors in the years ahead.

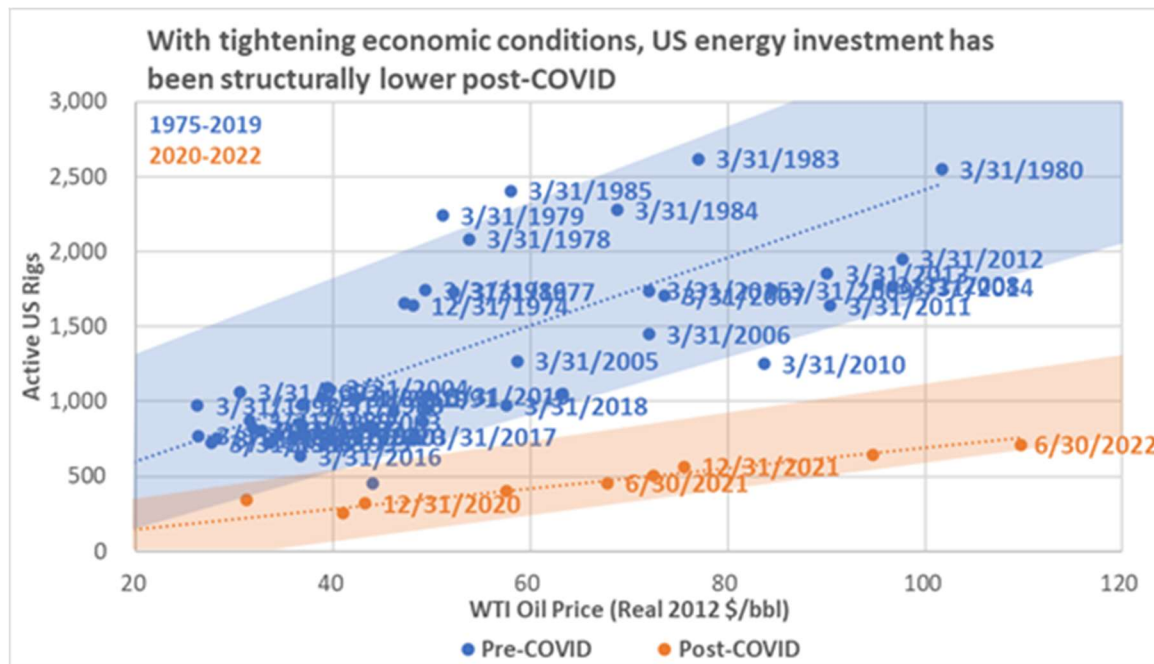
## Natural Resources

### Performance Review

During the month of September 2022, the Recurrent Global Natural Resources fell -9.92% net of fees, compared to the -8.52% performance of the benchmark S&P Global Natural Resources Index. Since its June 2018 inception, the strategy has risen 6.05% on an annualized basis net of fees, outperforming the benchmark's 3.11% return. During the month, more economically sensitive sectors underperformed the broader index, highlighted by the aluminum, chemicals, and steel sectors. From a stock selection perspective, International Paper (IP) and Westrock Corp (WRK) underperformed, as falling containerboard prices impacted shares.

### Investment Discussion

As energy and natural resources investors, we are regularly asked why US oil production remains well below pre-COVID levels, despite WTI oil prices averaging \$98.45/barrel in the first 3 quarters of 2022. In our recent white paper titled "The Great Inflation Misdiagnosis", we identified that in the post-COVID period, companies were investing significantly less in CAPEX at given oil prices.



Source: Recurrent Investment Advisors, Bloomberg, Company filings

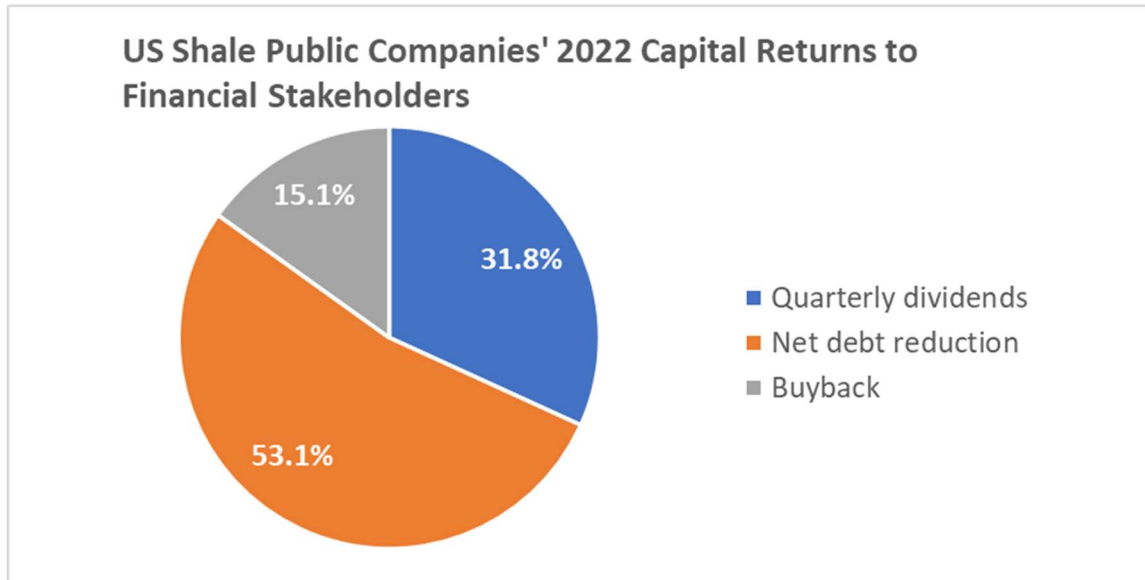
After months of strong cash flows, the fundamental questions of "Why would companies be investing less?", and if so, "What are they doing with the excess cash flow?" remain. Our analysis looks at how public US shale companies have spent cash flows in 2022 vs. in the past. When investors characterize the historical capital allocation of public US shale companies, the broad characterization is that they "spend every dollar they earn, and then some." This statement has historically proved true; industry-wide, the average CAPEX/EBITDA ratio was 91% from 2011-2019. Companies' elevated CAPEX, unsurprisingly, caused debt levels grew by 80% during that time.

Post COVID, US Shale companies' have only plowed back **29%** percent of EBITDA on CAPEX, causing US oil production to remain approximately 1 million barrels/day lower than pre-COVID levels. Oil prices and company profits remain elevated, causing investors to question the sustainability of restrained CAPEX.



A study of the difference between pre- and post-COVID CAPEX levels highlights new corporate spending priorities. In the first half of 2022, the upstream sector's EBITDA was \$73Bn, assuming the historical 91% redeployment rate, CAPEX would have been \$66Bn. However, in the first half of 2022, actual CAPEX was \$21 Bln, for a difference of \$45 Bln in CAPEX in the first 6 months of 2022.

As long-term energy investors have advocated, the additional free cash flow has (finally) returned to both equity and debt holders. Compared to year end 2021, in 1H 2022, net debt has fallen by >\$12 Bln, and share buybacks have been \$3.5 Bln. Equally important, quarterly dividends have increased by \$3.7 Bln compared to the 2021 average.

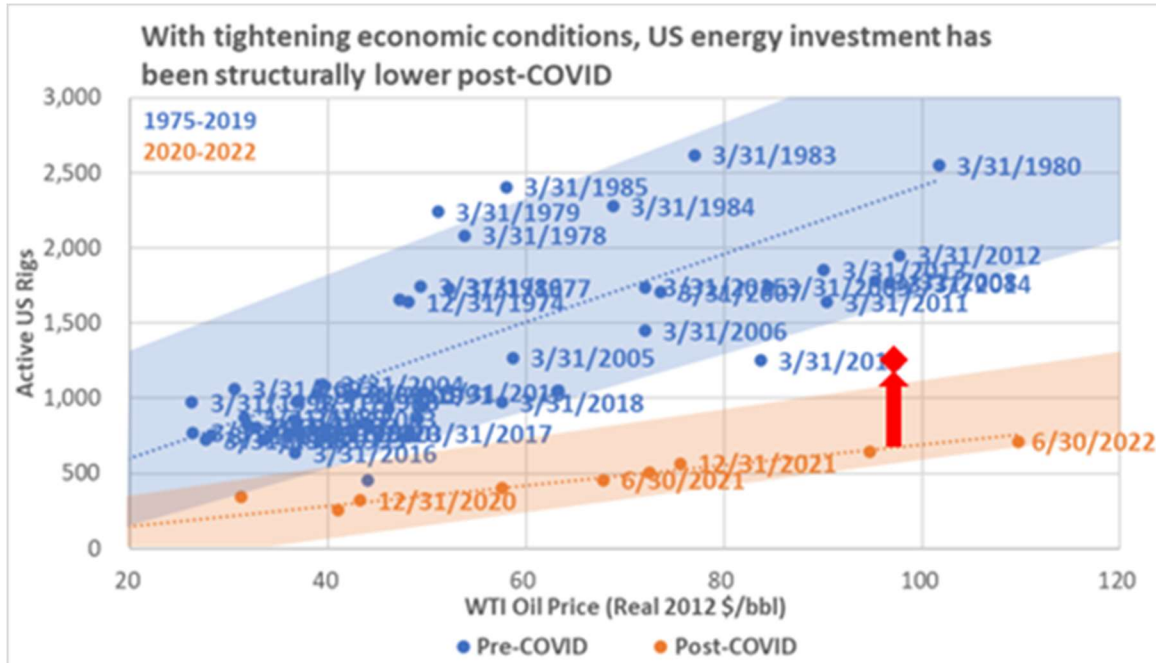


Source: Recurrent Research, Bloomberg, Company Filings. Data through June 30, 2022. US Shale Companies include: Apache Corp (APA), Murphy Oil (MUR), Pioneer Natural Resources (PXD), Matador Resources (MTDR), Occidental Petroleum OXY), Ovintiv (OVV), Callon Petroleum (CPE), Marathon Oil (MRO), ConocoPhillips (COP), Diamondback Energy (FANG), EOG Resources (EOG), Laredo Petroleum (LPI), CNX Resources (CNX), Continental Resources (CLR), SM Energy (SM), Conterra Energy (CTRA), Comstock Resources (CRK), EQT Corp (EQT), Range Resources (RRC), Antero Resources (AR)

If we consider the post-COVID capital discipline and use the pre-COVID EBITDA/CAPEX ratio to think about rig levels in the US, we can see how improved capital discipline is impacting activity levels

In a pre-COVID environment, with oil prices approximating \$90/barrel, we would have expected the rig count to exceed 1,500, as seen in Exhibit 1. However, recent data shows the rig count to be ~600.

Of the 600 rigs running in the US, about half are from public US Shale companies. Taking today's 29% CAPEX/EBITDA level and returning it to the pre-COVID 91% would equate to a 3.14x increase ( $3.14x = 91\%/29\%$ ). At pre-COVID CAPEX/EBITDA levels, 2022 EBITDA levels would have caused 942 public company rigs to be active ( $3.14 \times 300$ ). The additional 642 public company rigs would move the rig count out of the post-COVID range, but would remain far below pre-COVID ranges, as seen by the red arrow/dot in the chart below. If we assume similar capital restraint in the private markets, then a return to a 91% reinvestment rate (as a % of EBITDA) would imply nearly 1,900 rigs ( $3.14 \times 600$ ), a level consistent with the historical relationship between rig count and oil prices.



Source: Recurrent Investment Advisors, Bloomberg, Company filings

For a variety of factors, US Shale companies' heightened capital discipline makes sense. Earlier this year, capital markets access grew more uncertain, particularly from a credit perspective. Similarly, equity valuations remain depressed, meaning funding CAPEX via equity is more expensive, and buybacks are more attractive as a use of capital. As a result, companies are executing more focused capital programs, and preserving more of their capital in order to return cash to debt and equity holders, and to retain financial flexibility in cyclical environments.

Recurrent Investment Advisors LLC  
3801 Kirby Dr, Ste 654  
Houston, Texas 77098  
d: 832.241.6400

**RECURRENT**  
INVESTMENT ADVISORS

**Disclosures:** This email may contain forward-looking statements. These statements are not guarantees of future performance and undue reliance should not be placed on them. This email also contains references to several indices. Such references are for comparison purposes only and should not be understood to mean that there will be a correlation between the Fund's returns and any index. All investing involves risk.