



Peak Shale Amid Maximum Pessimism

07/02/2025



Peak Shale Amid Maximum Pessimism



32:36

The article below is an excerpt from our Q1 2025 commentary.

“In just 15 years, shale companies have increased U.S. oil production by about 8 million barrels of oil a day. The boom reduced the country’s reliance on foreign oil and saved American consumers billions of dollars via lower gasoline prices. But in recent years, signs that the era of shale dominance is coming to an end have multiplied.”

~ Benoit Morenne, Wall Street Journal, May 17, 2025

“We don’t have a crystal ball on the rest of the world, but we have a very good view of what the U.S. looks like, and right now, that’s a business that’s slowing dramatically

The end of shale growth may well be the most consequential shift in global oil markets in a generation. For years now, we have outlined with what we hoped was clarity, and what we now submit was prescience, the view that U.S. shale oil, that great source of modern supply, could not grow forever. It would mature, crest, and begin its long descent. That moment, by our models and measures, has arrived: shale has plateaued, and 2024 appears to be its high-water mark. And yet, investor sentiment has scarcely been more downbeat.

Investor pessimism today rests largely on two factors: first, the economic uncertainty stirred by the Trump administration's tariff policies; and second, the recent OPEC+ decision to begin unwinding its voluntary production cuts, which date back to the early pandemic period. Taken together, these developments have revived an old anxiety—that supply will once again exceed demand, inventories will rise, and prices will weaken.

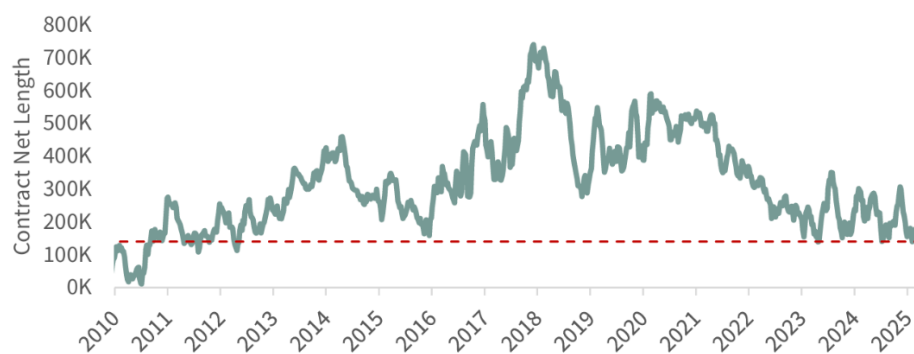
We do not share this view.

As of April 8th, the Commitment of Traders report showed that speculative net long positions in WTI crude stood at just 139,000 contracts—near the lowest levels seen since 2012. It is a posture of caution, not conviction, and suggests that much of the market has already priced in the prevailing fears.

declined by 52%. The longer view tells a similar story: since October 2020, the number of shares has fallen by 68%, even as the fund has delivered annualized returns of 30%—twice the pace of the S&P 500. And yet, despite this standout performance, total fund assets in the XOP have barely budged over the past five years. Few other corners of the equity market have produced so much and received so little in return.

This lingering caution has not remained confined to the equities. Investor reluctance has weighed heavily on crude itself. Adjusted for inflation, West Texas Intermediate (WTI) ended April below the depths of the Global Financial Crisis and at parity with the February 2016 trough. Since 2002, only once—April 2020, in the nadir of the COVID collapse— have real oil prices been meaningfully lower. These levels have often marked key turning points over the last two decades, with prices typically finding their footing and moving higher thereafter.

FIGURE 3 Commitment of Traders - Speculator WTI Net Length



Source: Bloomberg

the second-highest reading on record. For context, over the past 35 years, the gold-to-oil ratio has averaged 17 barrels per ounce and has remained below 25 nearly 85% of the time. Even during the market chaos of March 2020, when COVID lockdowns brought demand to a standstill, the ratio only just crossed 40 barrels. It would briefly surge to 90 the following month, but that spike, like the moment itself, was fleeting.

FIGURE 4 Real WTI Oil Price (Year 2020 USD)



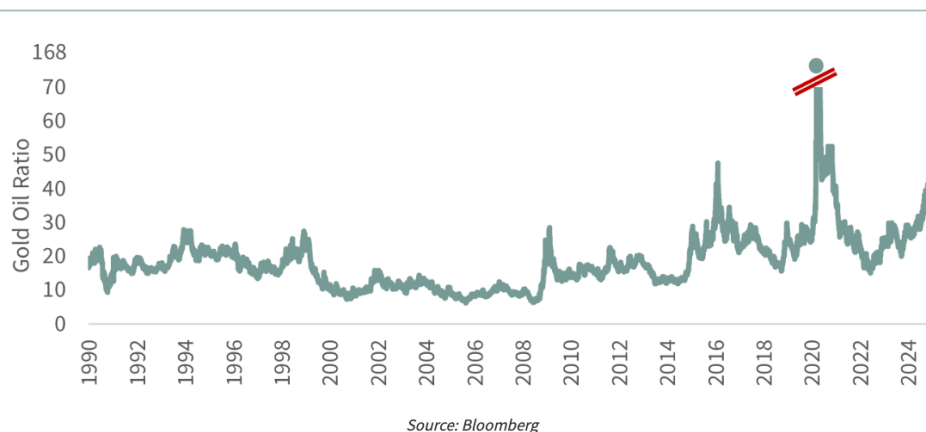
Source: Bloomberg & St. Louis Fed.

The implications are more than academic. Since 1990, the median forward 12-month return for spot WTI crude has been about 4%. But when oil has traded at these kinds of relative discounts—when an ounce of gold buys more than 25 barrels—that median return has jumped to 30%. Conversely, when the ratio has dipped below 20, WTI's forward performance has tended to be negative. In other words, when oil is this cheap, history suggests it rarely stays that way for long.

Historically, such steep discounts in oil—whether

higher in the gold-oil ratio have tended to coincide with rising OECD petroleum inventories, the industry's clearest signal of oversupply. Sell-offs, too, have typically occurred when inventories were not just rising but already flush, providing a comfortable cushion should demand return.

FIGURE 5 Gold - Oil Ratio



None of that applies today.

Since bottoming in June 2022, the gold-oil ratio has climbed from 15 to 58—nearly a fourfold increase. And yet, rather than swelling, inventories have steadily declined. Petroleum stocks across OECD countries are now at their lowest levels in more than two decades. If this market is in surplus, it is hiding it unusually well. More likely, the deficit persists, quietly but persistently, even as prices and sentiment suggest otherwise.

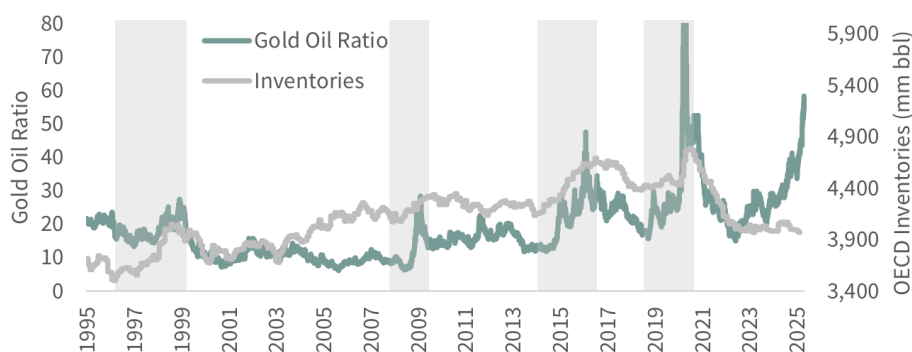
Unlike in previous sell-offs, today's oil price appears to have skipped past uncertainty and gone straight to conviction—pricing in, with unnerving resolve, the worst-

it would be among the rare instances when the consensus—so often late, so frequently wrong—is proved entirely correct.

We would not count on it.

More likely, the recent retreat in prices reflects not foresight, but fatigue—a market grown weary, not wise. And if history is any guide, such periods of deep pessimism have often preceded handsome returns for those with the temerity to doubt received wisdom.

FIGURE 6 Gold - Oil Ratio & OECD Inventories



Source: Bloomberg & IEA.

What makes this moment especially striking is that, just as sentiment has reached its lowest ebb in years, the most consequential bullish development in over a decade has quietly taken root: U.S. shale oil production, after years of relentless ascent, appears at last to have turned.

The scale of shale's contribution is difficult to overstate. Since 2010, nine out of every ten barrels added to global liquids consumption have been met from U.S. shale fields

a shale barrel, drilled and fracked somewhere between the Permian, Bakken or Eagle Ford. That era, it seems, is drawing to a close.

History offers only two precedents for what may now be unfolding—and both came with consequences as spectacular as they were enduring. On each occasion, the engine of global production growth began to sputter, and in each case, oil prices responded not with modest recalibration, but with a near tenfold surge from their lows.

The first such episode came in the 1970s, when U.S. conventional oil production—after decades of dependable expansion—finally crested and began to decline. It happened, uncannily, just as Shell geologist M. King Hubbert had forecast in 1956. Production peaked at just over 11 million barrels per day in 1970, a figure that, at the time, represented nearly 45% of all non-OPEC supply. The effects were immediate and far-reaching. Non-OPEC output growth, which had averaged 1.5 million barrels per day annually between 1965 and 1970, slowed to under 900,000 barrels a year over the next half-decade.

Into the gap stepped OPEC. With greater market share came greater leverage, and the cartel exercised it twice in the 1970s by cutting off supply to the West. Prices responded in kind. Crude, which had traded at \$1.80 per barrel in 1970, reached \$11.53 by 1975, before ultimately

of exploration and development across non-OPEC frontiers, unleashing a capital flood that would ultimately bring forth the great offshore provinces of the North Sea and Mexico's Cantarell field. These new giants shifted the balance once again. Supply flooded in, and with it came the inevitable consequence: prices sagged. Over the next two decades, as production from these new basins ramped higher, oil prices sank lower, until by 1998, WTI bottomed out at a modest \$10.72 per barrel.

But the cycle, once again, turned.

By the early 2000s, both the North Sea and Cantarell—those great sources of non-OPEC supply growth—began to falter. By 2003, both fields had reached peak output, and once again, the pace of non-OPEC production growth slackened. Prices, which had been quietly recovering since the late 1990s, began to stir with more purpose. From their 1998 lows, WTI crept up to \$25 by 2003. But it was the years that followed that truly captured the arc of history: as non-OPEC growth slowed, OPEC's share and pricing power rose once again, until, by 2008, WTI touched \$145—a 13-fold increase over a single decade.

It was neither widely anticipated nor, even now, widely remembered for what it was: a supply story, plain and simple. But we took notice. In 2003, Barron's published an interview in which we laid out just this view—that the disappointment brewing in non-OPEC supply would prove far more meaningful than investors then

earnest—first as a curiosity, then as a juggernaut. Once again, non-OPEC production surged, and once again, the narrative of boundless supply took hold. But for all its novelty and technological sheen, the shale boom shares more than a passing resemblance to prior episodes in the oil market's long history. It echoes, in its shape and trajectory, U.S. conventional production in the 1970s and the offshore giants of the 2000s. And if history is any guide—and in the oil patch, it so often is—the result is likely to be familiar as well: a sharp turn upward in prices in the years ahead.

We came to shale early, and stayed close. Over the past 15 years, we have studied the industry not just broadly, but intimately—well by well, basin by basin. In 2019, with much of the investment community still treating shale as inexhaustible, we began to warn that the boom was likely to crest by 2024—far earlier than conventional wisdom allowed.

FIGURE 7 Pumped Up



Our view was not built on hunches or heuristics, but on the back of proprietary neural networks we developed specifically to track changes in drilling productivity. The results were striking. They suggested that what had been heralded as relentless technological advancement was, in fact, something more fragile: high-grading. A familiar term in the mining business, high-grading refers to the tendency to focus on the richest portions of a deposit first—yielding strong initial gains, followed by inevitable and often irreversible declines. Shale, it seemed, was again following the same script.

At our investor day last October, we presented a fresh cut of our data. It suggested that U.S. shale production was on the cusp of its long-anticipated peak. That moment, it now appears, has arrived.

According to the latest figures from the Energy Information Agency (EIA), shale oil production reached its sequential high in November 2024, at 9.17 million barrels per day. Since then, the trend has flattened, and the pace of growth has begun to falter. While output remains modestly higher than a year ago, the gain—just 250,000 barrels per day as of April 2025—is the weakest annual increase outside of two exceptional events: the COVID-19 lockdowns, and the Saudi-led price collapse of 2014–2016.

inexorable decline.

Until quite recently, ours was a lonely view. In its 2023 Short Term Energy Outlook, the Energy Information Administration projected that U.S. oil production wouldn't crest until 2030—and even then, the plateau would be long and uneventful. From the summit of 2030 to the horizon of 2050, the EIA foresaw production declining by a mere 100,000 barrels per day—a rounding error, really, in a market that reaches well over one hundred million barrels per day.

But the mood, and the math, are beginning to shift.

In its most recent update, the EIA has quietly but meaningfully revised its outlook. The projected peak has moved up three years to 2027, and the descent that follows is no longer a gentle slope but a marked decline: by 2050, production is now expected to be 20% below the projected peak. The change in tone is as striking as the numbers themselves.

The International Energy Agency, for its part, has also moved. In its latest Oil Market Report, the IEA now calls for U.S. production to top out in 2026—a notable pivot from years of forecasts built on the assumption of near-continuous growth.

Our own models agree with the direction of travel, though we believe the inflection point is not some future

this year's CERAWeek—long the industry's premier gathering of minds and money—some of the most senior voices in U.S. energy said the quiet part out loud. Scott Sheffield, the former CEO of Pioneer Natural Resources, made no effort to conceal the logic behind last year's \$70 billion sale to ExxonMobil: the company was running out of high-quality drilling inventory. Vicki Hollub, CEO of Occidental Petroleum, echoed the concern. And in his most recent quarterly remarks, Travis Stice of Diamondback Energy said plainly what the numbers already suggest—that U.S. production has likely rolled over and is headed lower from here.

The press, traditionally slow to challenge the consensus in oil, is beginning to catch up. Benoît Morenne of the Wall Street Journal, one of the few reporters who has consistently dug into the underlying shifts in the shale patch, published a piece on May 17th with a headline that needs little elaboration: "U.S. Drillers Say Peak Shale Has Arrived." We've spoken with him often over the years, and the story he tells is a sober – but, we believe, accurate -- one.

Investors would be wise to listen.

Some have tried to pin the blame for declining U.S. production on low oil prices—a familiar refrain in a cyclical industry. But in our view, the cause runs far deeper. What we are witnessing is not a temporary slowdown driven by market signals, but something more

before it was fashionable—or comfortable—to do so. They suggested that, at prevailing drilling rates, the most productive parts of America’s shale basins would be largely exhausted by 2025, if not sooner. The data have since borne that out. Shortly after our initial warning, well productivity—measured by initial production per lateral foot—peaked and began to decline. Nowhere is this more evident than in the Permian Basin, which has quietly shouldered the burden of nearly all shale growth in recent years.

But even the Permian has its limits. Since June 2021, initial production per foot has fallen by more than 15%, and the trend shows no signs of abating. As the core acreage grows ever more drilled out, productivity will almost certainly fall further. And as any long-time student of the oil patch knows, when a field begins to decline for geological reasons, no amount of capital or technology can restore it to growth.

Based on current rig counts, our models suggest that Permian production could fall by as much as 400,000 barrels per day by year-end. That’s not a small dip, but rather a meaningful shift in the global supply picture.

It is also, we would note, no accident that the current administration, once a vocal proponent of energy independence, now finds itself urging OPEC+ to open the taps. “Drill, baby, drill” may have made for an effective slogan—but geology, stubborn as ever, has had the final

when supply-side developments— by any rational metric —ought to be stirring optimism? The answer, as we’ve suggested, lies in a familiar brew of macroeconomic anxiety and more oil from OPEC+ than markets had penciled in.

At the heart of the unease is the Trump administration’s latest attempt at global economic theater: the so-called “Liberation Day” tariffs, announced on April 2nd. Bold in branding, uncertain in execution, the policy has introduced no small measure of confusion into markets already struggling to make sense of their surroundings. Matters were hardly helped when the White House, with characteristic suddenness, reversed course and announced a ninety-day reprieve on April 11th. Rather than clarify the landscape, the move deepened the fog, leaving investors more perplexed about the future than before the announcement.

To be sure, the range of plausible demand outcomes has widened—no quarrel there. But we would gently suggest that oil market participants have veered too far into gloom. The reason is deceptively simple: the starting point for demand today is far higher than most believe. Which means that any future decline—should one materialize—will be falling from a height, not a trough. That altitude, often overlooked, is what could make all the difference.

Consider, by way of illustration, the chain of events that

day—a tidy figure and one that sent prices tumbling in predictable fashion. But buried in the same April dispatch was something rather more curious: nearly three years’ worth of so-called “missing oil,” averaging a comparable 400,000 barrels per day.

Seasoned readers will recognize our long-standing fascination with these “missing” barrels—quantities that, according to the IEA’s own numbers, have been produced yet have neither been consumed nor sequestered in inventory. For us, they have always been more than an accounting oddity. They are signals suggesting that prior estimates of global demand have been understated and need revision.

Sure enough, one month later, the IEA issued its May report, and with it came a sweeping reconciliation. Most of the mysterious “missing” barrels were accounted for—not by lowering production, mind you, but by lifting past demand. Their estimates for 2022, 2023, and 2024 were revised up by 300,000 barrels per day. And as if to close the loop with mathematical elegance, their projection for this year’s demand was also bumped higher—by 400,000 barrels per day, the same number that had earlier sent markets into a tizzy.

The upshot? Expectations for 2025 oil demand are now precisely where they stood at the year’s outset. The feared drop due to trade tremors was neatly counterbalanced by

from the market's reaction.

Still, we find ourselves suspecting that even now, the IEA has not gone far enough. Their revisions, however welcome, appear only to scratch the surface. Take the first quarter of 2025: the balancing item ran at an eye-catching 1 mm barrels per day, among the highest on record. If, as we've long contended, these "missing" barrels are merely the shadow cast by uncounted demand, then global consumption during the first three months of the year clocked in at a robust 103.5 million barrels per day. That's nearly 2 million barrels per day higher than the same stretch last year—a rate of growth that stands as one of the most vigorous in recent memory.

Of course, we are not blind to the potential consequences of tariff-induced hesitation or the ambient uncertainty now clouding boardrooms and trading desks. But what seems to elude the consensus view is just how much strength was already baked into the system before the first tremors of trade anxiety began to ripple outward. This momentum, we believe, offers a considerable cushion—an economic buttress—against demand shocks that may lie ahead.

Yet curiously, and somewhat disconcertingly, a prevailing narrative has taken hold suggesting that oil demand is currently anemic. We search for the data to support such claims and find ourselves coming up short. The numbers,

The other matter preoccupying the investor mind these days concerns OPEC, which— never one to be left out of the global spotlight—delivered a surprise of its own. In March, the cartel announced it would begin unwinding its voluntary production cuts, raising targets by 138,000 barrels per day beginning in April. That, in itself, might have been absorbed with relative calm. But what followed bore all the hallmarks of a coordinated performance. Just as the Trump administration was rolling out its tariff policy with suitable fanfare, OPEC declared yet another production bump—this time to the tune of 411,000 barrels per day for May. Then, in early May, another increase came through for June, roughly matching the last in size and in strategic timing.

Some analysts interpreted the moves as evidence of internal discord—a breakdown in the notoriously delicate consensus that binds the OPEC+ alliance. We, however, suspect a simpler explanation. The clue lies, as it often does, in the choreography. The revisions arrived hand-in-glove with Washington's tariff theatrics. We would wager that OPEC's apparent magnanimity had more to do with domestic American politics than cartel squabbling. Lower gasoline prices, after all, remain a cherished promise of the current administration, and it's no great leap to imagine that a few well-timed gestures from Riyadh were designed to help keep that promise alive—just in time for the next news cycle.

April's levels, the actual barrels that make their way to market may tell a more modest story. Here's why: of the countries bound by the bloc's quota system—eight in total—several have been playing fast and loose with the numbers. Though the group's official April target stood at 30.3 million barrels per day, actual production clocked in at a more generous 31.8 million. The usual suspects—namely Iraq, the UAE, Russia, and Kazakhstan—accounted for most of the overage.

Now, with quotas being formally raised by 825,000 barrels, the question becomes: are we witnessing an actual increase in supply, or merely a formalization of what was already happening? In our view, the answer is likely a blend of both. Yes, production may rise—but not by nearly as much as the revised targets might suggest. And thus far, the early data seem to support this hypothesis. April output from the eight quota-bound countries was actually 100,000 barrels per day lower than in March—this despite the first step-up in targets.

Add to that a few additional wrinkles. Pressure from the White House for Chevron and others to wind down operations in Venezuela threatens to undercut production there. And after three years of restricted access to Western oilfield expertise, Russia's ability to sustain, let alone grow, its production remains decidedly uncertain. In short, the market may not be getting all the barrels it thinks it is—and certainly not all at once.

perhaps beyond. The International Energy Agency, ever dutiful in its forecasting, currently envisions a market surplus of 700,000 barrels per day for the remainder of the year. We are less convinced. Our reading of the tea leaves—and, more to the point, of the numbers—suggests the market is in fact balanced, and may already be tipping toward a mild deficit.

It's worth remembering that the IEA had previously characterized the first quarter as oversupplied by 800,000 barrels per day. Their tally: demand averaging 102.5 million barrels per day against a supply of 103.4 million. But with the OECD's inventory data now fully in, that supposed surplus has vanished. Inventories, as it turns out, drew down by 200,000 barrels per day—perfectly in line with seasonal norms. In other words, the quarter was not awash in oil. It was, by all indications, perfectly balanced.

Looking ahead, the IEA expects non-OPEC+ production to expand by 1.3 million barrels per day in 2025—a notable shift, as most of that growth is finally projected to come from outside the United States. Even so, the U.S. is still expected to add 400,000 barrels per day. Overlaying OPEC+ growth of another 500,000 barrels, the global supply ledger would rise by 1.8 million barrels per day to reach 104.8 million. Demand, by comparison, is expected to increase by just 700,000 barrels, landing at 103.9 million.

real consumption could be as high as 104.9 million barrels per day—leaving the market in outright deficit.

And even this may be optimistic. Our own models suggest that U.S. production growth may not reach the projected 400,000 barrels, but instead come in closer to 200,000. Non-OPEC+ production elsewhere may also fall short. In such a case, even if the balancing item dwindles to half its recent average, the global market would still come out flat, if not outright tight.

Investors, it seems, are bracing for the worst. In their collective imagination, the oil market stands on the verge of collapse, its future dimmed by trade tensions, economic uncertainty, and the ghost of recessions past. And yet, the actual fundamentals—those stubborn, unglamorous facts—tell a far less dramatic story. If anything, the road ahead appears balanced, even precariously tight, with every likelihood of slipping into deficit as the year unfolds.

To be clear, we do not dismiss the rising economic anxieties of recent weeks. But it is essential to remember that any weakening of demand will be unfolding from a far more robust starting point than most appreciate. And while the headlines flutter with speculation and policy drama, a more momentous shift has quietly taken hold: the great boom of U.S. shale—the engine that has defined a decade of global oil dynamics—is now in

price of oil, when adjusted for inflation, deserve to languish near levels last seen at the nadir of the Global Financial Crisis? Or, expressed in gold, does it make sense that crude is now trading at its second-lowest reading on record? We think not.

Rather, we suspect that oil may emerge—unexpectedly and unceremoniously—as one of 2025’s most surprising victors.

Curious to learn more? Read more in our Q1 2025 research newsletter, available for download below.

2025 Q1 Research from Goehring & Rozencwajg: The Hidden Revival of Platinum and Palladium

Registration with the SEC should not be construed as an endorsement or an indicator of investment skill, acumen or experience. Investments in securities are not insured, protected or guaranteed and may result in loss of income and/or principal. Historical performance is not indicative of any specific investment or future results. Investment process, strategies, philosophies, portfolio composition and allocations, security selection criteria and other parameters are current as of the date indicated and are subject to change without prior notice. This communication is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services. Nothing in this communication is intended to be or should be construed as individualized investment advice. All content is of a general nature and solely for educational, informational and illustrative

Although we believe that the beliefs and expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such beliefs and expectations will prove to be correct. Various factors could cause actual results or performance to differ materially from those discussed in such forward-looking statements. All expressions of opinion are subject to change. You are cautioned not to place undue reliance on these forward-looking statements. Any dated information is published as of its date only. Dated and forward-looking statements speak only as of the date on which they are made. We undertake no obligation to update publicly or revise any dated or forward-looking statements. Any references to outside data, opinions or content are listed for informational purposes only and have not been independently verified for accuracy by the Adviser. Third-party views, opinions or forecasts do not necessarily reflect those of the Adviser or its employees. Unless stated otherwise, any mention of specific securities or investments is for illustrative purposes only. Adviser's clients may or may not hold the securities discussed in their portfolios. Adviser makes no representations that any of the securities discussed have been or will be profitable. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio.


[Back](#)

Stay informed with Natural Resource Market Insights

First Name*

Last Name

Categorize Yourself*

Please Select 

Subscribe

RECENT POSTS

- Peak Shale Amid Maximum Pessimism
- (Podcast) Market Outlook: Gold, Silver, Uranium — and Why We're Bullish on Platinum
- Positioning for the Next Commodity Surge: Insights from Adam Rozencwajg
- How China, Tariffs, and Nuclear Power Are Reshaping Global Commodities
- Has the Great Commodity Bull Market Quietly Begun?

Gochring & Rozencwajg Associates, LLC. The information provided on this website is intended to provide the investor with an introduction to Gochring & Rozencwajg Associates, LLC. Nothing on this website should be construed as a solicitation offer, or recommendation to buy or sell any security or as an offer to provide advisory services. Information on this website is intended only for United States citizens and residents. Nothing contained on this website constitutes investment, legal, tax, or other advice nor should be relied upon in making an investment or other decision. Investors should always obtain and read an up-to-date investment services description or prospectus before deciding whether to appoint an investment advisor or to invest in a fund.

*This material may include estimates, outlooks, projections and other "forward-looking statements." Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Investments concentrated in natural resources involve a higher degree of risk than more diversified strategies. **Past performance is no guarantee of future results.***



Neither rankings nor recognitions by unaffiliated rating services, publications, media, or other organizations, nor the achievement of any professional designation, certification, degree, or license, membership in any professional organization, or any amount of prior experience or success, should be construed by a client or prospective client as a guarantee that the client will experience a certain level of results if the investment professional or the investment professional's firm is engaged, or continues to be engaged, to provide investment advisory services. A fee was not paid by either the investment professional or the investment professional's firm to receive the ranking. The ranking is based upon specific criteria and methodology (see ranking criteria/methodology to the extent applicable). No ranking or recognition should be construed as an endorsement by any past or current client of the investment professional or the investment professional's firm.

Certain links may let you leave the Adviser's website. The linked websites are not under the control of the Adviser, and we are not responsible for the content of any linked website, or any link contained in a linked website, or any changes or updates to such websites. Adviser is providing these links to you only as a convenience, and the inclusion of any link does not imply endorsement, investigation, verification or monitoring by us of such third-party website. Any references to outside data, opinions or content are listed for informational purposes only and have not been verified for accuracy by the Adviser. Third-party views, opinions or forecasts do not necessarily reflect those of the Adviser or its employees.

Unless stated otherwise, any mention of specific securities or investments is for illustrative purposes only. Adviser's clients may or may not hold the securities discussed in their portfolios. Adviser makes no representations that any of the securities discussed have been or will be profitable.

[ADV Part 3 - Form CRS](#)

[Cookie Policy](#)

[Privacy Policy](#)

Goehring & Rozencwajg Associates LLC © 2023

