



January 17, 2024

## THE LONG PULL: Updating Current Themes (Copper, Uranium, & Oil)

This week, we examine developments in our Commodity Thematics: Copper, Uranium, and Oil. A lot is happening in these spaces, so expect more Long Pull Reports like this going forward.

Let's start with copper.

### Copper: Supply Disappointments & Continued Green Investments

I feel like a broken record saying mining companies miss production guidance. But they did, again. Teck (TECK) is the latest example.

This year, the company produced [56,200 tons of copper from its flagship copper mine, Quebrada Blanca \(or QB\)](#). Which was ~30% **below** their initial 80,000-ton guidance.

QB is the poster child for all the challenges miners face in the coming years. Lower production, higher operating costs, and delayed mine expansions. All of these increase a miner's cost structure, making it *much harder to profitably mine lower grades*.

For instance, Teck has hiked QB expansion (called QB2) build-out costs *three times* since 2021 (emphasis added):

*“The Vancouver-based miner in October hiked the cost of its expansion project at QB, known as QB2, **for at least the third time since it began its construction.** The project is now expected to **require \$8.6 billion-\$8.8 billion to be completed.**”*

I think it was my [podcast with Lobo Tiggre](#) where he said, “Whatever cost you see in a Preliminary Feasibility Study (PFS), add 20-30% and that's your true number.”

But Teck isn't the only major producer lowering guidance and mining less copper.

I recently wrote about [Anglo American's \(AAL\) 2024 production guidance cut](#) (emphasis added from the original article):

*“Anglo has reduced its copper production target for next year **by about 200,000 tons**, essentially **removing the equivalent of a large copper mine from global supply**. Production will fall even further in 2025.”*

Barrick Gold (GOLD) also [mined less copper in 2023 than in '22](#). The gold/copper miner produced 420Mlbs in 2023 versus 440Mlbs in 2022.

And you can't forget about First Quantum shutting down its Cobre mine in Panama.

In other words, two major producers account for ~900Kt in **lost copper production for 2024**.

Mining companies have *some* degree of scaled economics. The larger the mine, the more you produce, which gives you more money to invest in new technology to mine even more rock, etc.

Yet even large companies, with all their resources, technology, and workforce, struggle to maintain production. Like Codelco.

Codelco is the world's largest copper producer, accounting for ~7% of global and 16% of the western supplies. Yet [current production is at a 25-year low](#) (emphasis mine):

*“Codelco indicated **copper output declined last quarter from a year earlier**, as the world's biggest producer of the metal strives to recover from **mining mishaps and project delays**.*

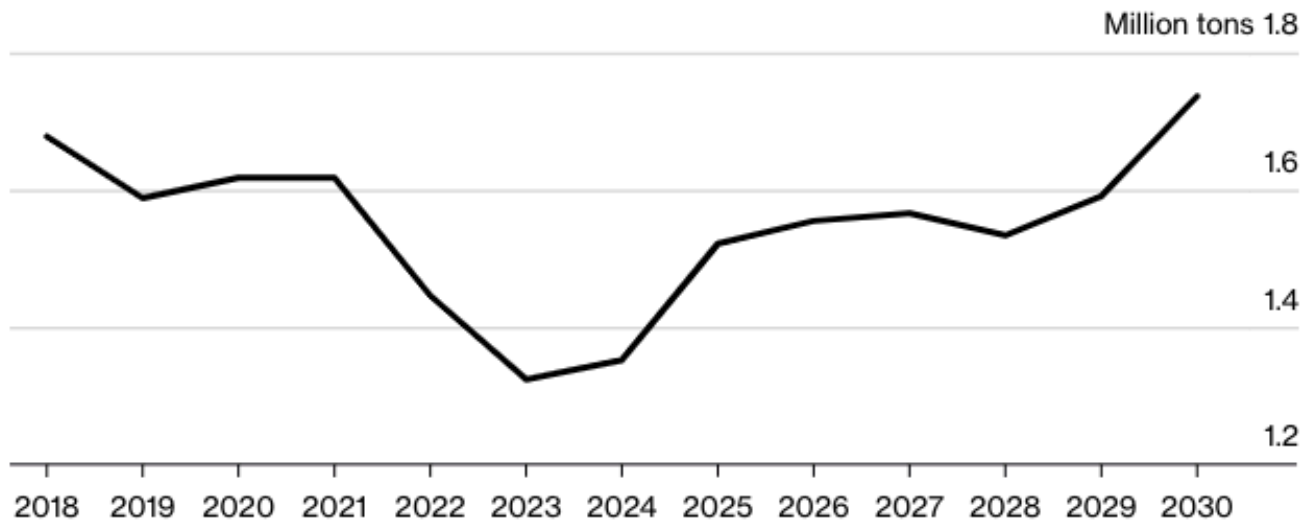
*Production for the last three months of the year was 358,000 metric tons, compared with about 384,000 tons in the fourth quarter of 2022. That's based on calculations using full-year output disclosed by the Chilean state-owned behemoth in a session of a congressional commission this week. Codelco is scheduled to report its official results for last year in March.*

*Production is running at **the lowest level in a quarter century** following a series of **setbacks at projects** and mines that exacerbated the **impact of declining ore quality after decades of underinvestment**.”*

The graph below captures all my concerns about future copper production.

## Codelco at Rock Bottom?

Chilean state copper miner predicts slow recovery



Source: Codelco reported results and presentation

Codelco estimates it will take **six years** to reach its prior production high of 1.7Mt from 2018. That's assuming no more project delays, labor issues, cost overruns, and a supportive copper price for continued exploration/investment. I'll take the under.

Another way to gauge copper supply health is via the Smelter Rate Market. Smelters charge copper producers a fee to turn ore into cathode (which turns into bars and wires).

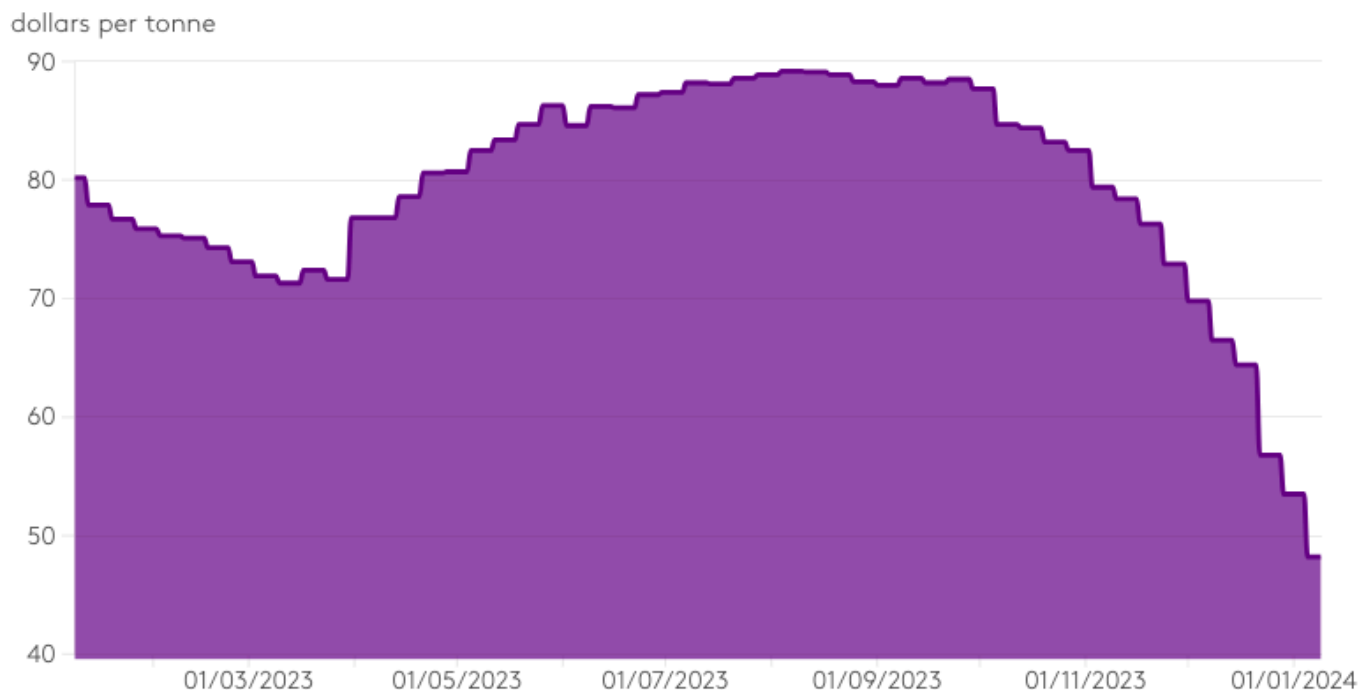
Smelters have high fixed costs. More ore means lower unit costs and higher profit margins. So when there's tons of supply, smelters charge higher prices because they know they'll get enough copper through the machine.

It's the inverse in supply-constrained environments. Without enough supply, smelters lower their rate to a) entice producers to choose their smelter and b) ensure they have enough throughput to cover fixed costs.

Anyways, here's a chart of copper smelter rates over the past year.

## The weekly copper concentrates treatment charge was calculated at its lowest level since December 2021

January 2023 - January 2024



Source: [Fastmarkets](#), [Copper concentrates TC index, cif Asia Pacific, \\$/tonne](#)

I like how [Bloomberg News](#) explains the relationship between smelters, producers, and global supply (emphasis added):

*“Smelters are a vital cog in the supply chain, **converting concentrated ore into metal that’s used in everything from home wiring to solar equipment**, with China having the biggest processing industry by far.*

***The drop in fees indicates the market for copper ore, known as concentrate, is tightening.***

*The tighter copper concentrate market doesn’t automatically imply a tighter market for refined metal, since it is partly driven by an expansion in copper smelter capacity, which could lead to higher production of metal and so lower prices.*

*But over time, **the lower processing fees could force some smelters out of business, ultimately reducing supply of refined metal** just as many observers anticipate a rapid increase in demand due to the energy transition.”*

That last part is critical. Imagine the price of copper if smelters started going bankrupt *right when* grid electrification/EVs/offshore wind/India demand kicks off.

Let’s talk about demand for a second.

## **Copper Demand: China Stimmy + EV Adoption By Force**

I’ve written before about how I’m skeptical/bearish on EVs as a means towards a copper supply/demand imbalance. Here’s [how I framed it in October](#) (emphasis added):

*“The truth is that copper’s “Green Energy” demand sources will undershoot Net Zero 2050’s estimates, potentially by a lot.*

*Here’s how I’m forecasting copper demand growth going forward.*

***First, I start with the foundation of copper demand: Electrical wiring, building construction, transportation, industrial machinery, and transmission and generation.***

*These sources will account for ~22Mt of demand by 2025.*

*From there, I add 2021’s Transmission and Distribution and Auto and Charging demand from our “Green Energy” projections. **Remember, I don’t trust offshore wind and EV adoption growth estimates. I’d rather be surprised on the upside than disappointed on the downside.***

That said, if the government wants something bad enough, then damnit, they’ll spend whatever is necessary to make it happen.

At least [that’s the Department of Transportation’s \(DoT\) plan](#):

*“The Department of Transportation has announced **\$623 million in grants to support electric vehicle (EV) charging infrastructure across the country.***

*The grants will support 47 projects in 22 states and Puerto Rico, with an emphasis on rural areas and underserved communities. **The funding will also lead to the construction of about 7,500 EV charging ports.***

*The decision comes as the **Biden administration is setting a goal of installing 500,000 chargers nationwide by 2030.** Sales of EVs have been rising but at a slower rate than past years, with consumers citing high vehicle prices and poor charging infrastructure for the lukewarm response to electric vehicles.”*

Will this fix all the [frozen Teslas in Chicago](#)? No. But will this increase copper demand? Yes.

*Guidehouse Insights* claims that [each EV charging station requires 0.7kg of copper.](#) Faster charging stations need up to 8kg.

Let’s do some math. 500,000 charging stations at 3.5kg per station (assuming some are fast-charging) equals ~3.85Mlbs of added copper demand.

Lastly, let’s talk China.

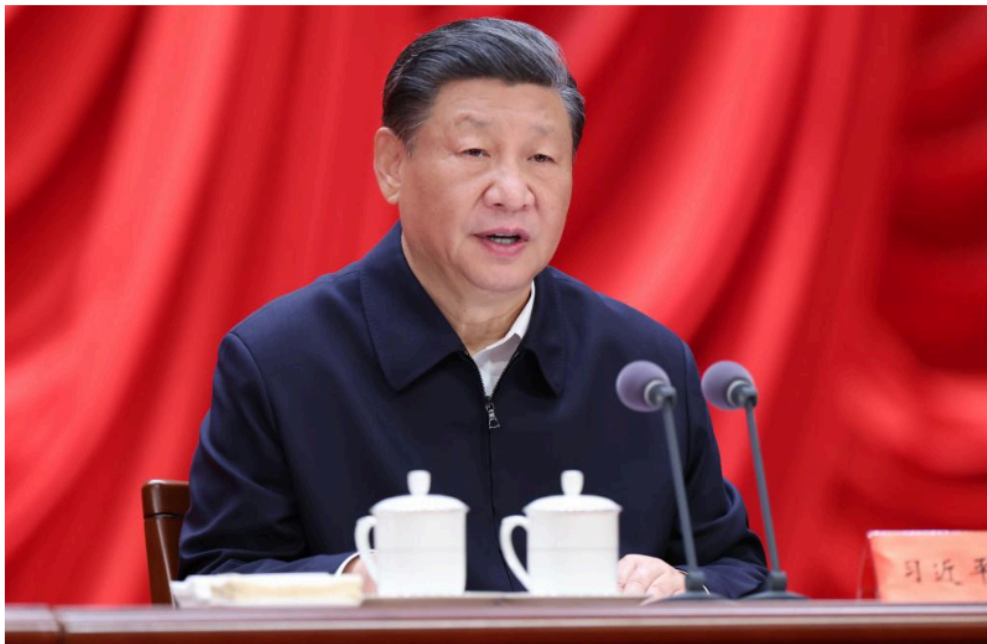
My base case for China for 2024 has been *“there’s no way Xi Jinping will let his economy collapse in the Year of The Dragon.”* That thesis is working so far.

## **Xi Focus: Xi stresses boosting high-quality development of China's financial sector**

The path adheres to the centralized and unified leadership of the CPC Central Committee over the financial work and adopts a people-centered approach, according to Xi.



**It sticks to the fundamental purpose of serving the real economy,** and takes preventing and controlling risks as the eternal theme of financial work, Xi said.



Yesterday, [Bloomberg announced that China's SOE utility company](#) – State Grid Corp. – will invest ~\$70B to expand infrastructure and “clean energy” build-outs (emphasis added):

*“Beijing’s buildout of its power network has accelerated since 2021 **as the nation connects giant renewable energy bases in remote regions to eastern megacities.***

*The expansion will help avoid curtailments in areas where new wind and solar generation is outpacing capacity on local grids. **The program has also driven up demand for materials linked to power transmission and the energy transition, including copper.***

*State Grid has started construction on a 14.5 billion yuan ultra-high voltage transmission line in drought-affected Sichuan province, the epicenter of massive power cuts two years ago that triggered a nationwide campaign to put energy security at the top of the political agenda.*

*It’s also building a 20 billion yuan UHV line stretching from the desert renewables hub of Gansu province to the eastern industrial powerhouse of Shandong, which is scheduled to begin operating in the middle of next year.”*




Copper will trade over \$5/lb if Xi Jinping even remotely stimulates the Chinese economy. Which is good for our copper explore-co Foran Mining (FOM).

## **Uranium: “Two Producers Walk Into A Bar...”**

Let’s run through some uranium updates.

[Kazatomprom cut guidance for 2024](#) and probably 2025 due to issues sourcing sulfuric acid (note: is there a trade here buying a sulfuric acid producer?).

Our friend Kuppy has another explanation for the production shortfall (see below).

Let's explain what we think really happened with Kazatomprom, as they've basically been lying to you. If the issue was a few barrels of acid, they could just fly them in from a place with plenty of acid. The issue is that they've been forced to over-inject acid into their older assets in order to keep production from collapsing. However, there's a parabola here as well. In order to keep production going, you need more and more and more acid. At some point, you need more acid than exists on this earth. We're at that point. They are blaming some supply chain issues, when they should be blaming the fact that they over-produced the assets. They're fully depleted. Terminal decline. Done. 


How big is the miss? We're hearing it's 10m+ lbs in 2024, but could be 20m or more in 2025. This is a function of not seeding assets with acid in 2023, along with free-falling production from legacy assets. It's baaaaaad.

It's worse because they pre-sold those lbs and we've heard they're in the spot market, desperately buying physical. Which is the logical thing to do, but that pushes up the price and makes the loss cost even more. At least KAP is being proactive, as opposed to most utilities who are still oblivious...

Then there's CCJ. We are hearing that there are production issues at Cigar Lake (still) and that Q1 will miss. We have to assume that they're also in the spot market to cover their production shortfall??

For that matter, how insane is it that the world's two largest producers (half of global production) are buying in the spot market? This isn't how commodity production is supposed to work (lol). Imagine if OPEC got into an "Offer Wanted" situation for oil?? Yet OPEC is only a third of global production. This is worse...

Anyway, we think that moving past \$100 per pound puts us firmly into the parabola?? How crazy will it get??

We think it becomes an insanity bubble, especially now that SPUT is once again ATMinG. 

The trick with insanity bubbles, is not selling too soon—or too late...

Anyway, if you're been reading KEDM for any length of time, you know that uranium is our favorite idea since we launched this publication. After two years, it sure feels good to get some price validation.

Maybe that's true, maybe it's not. That's not the point. The point is that the world's two largest uranium producers – Cameco and Kazatomprom – are in the spot market buying pounds.



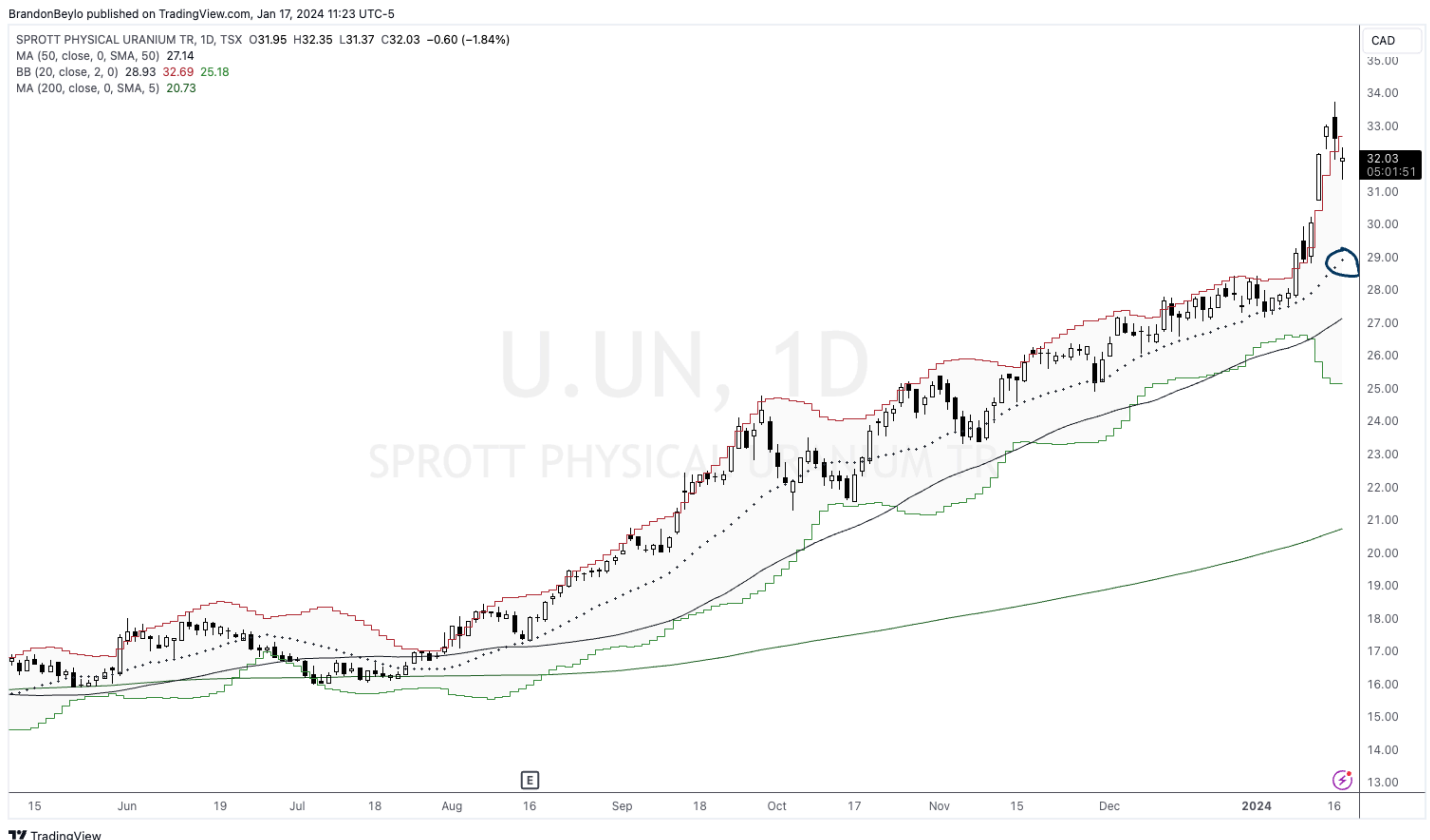
Why? CCJ and KAP often sign contracts with customers to supply a specific number of pounds at a specific date. They buy the difference on the spot market when they can't produce enough pounds to satisfy the contract.

So when the two largest producers miss guidance, they must make up the gap by buying in the market. The only problem is that the market is *very tight* on pounds. So anything they do buy, they have to pay up for. This is why you're seeing spot uranium +\$100/lb.

Imagine if BHP, Codelco, AAL, and FCX had to buy copper on the spot market. That's what's happening here. But as Kuppy says, it's worse because CCJ and KAP account for ~50% of global supply.

We're still long U.UN, now a 19% notional position. We haven't taken profits and will let the market tell us when to reduce exposure. For now, the long-term bull trend remains in tact.

My base case is that U.UN retraces to its midline before making new highs.

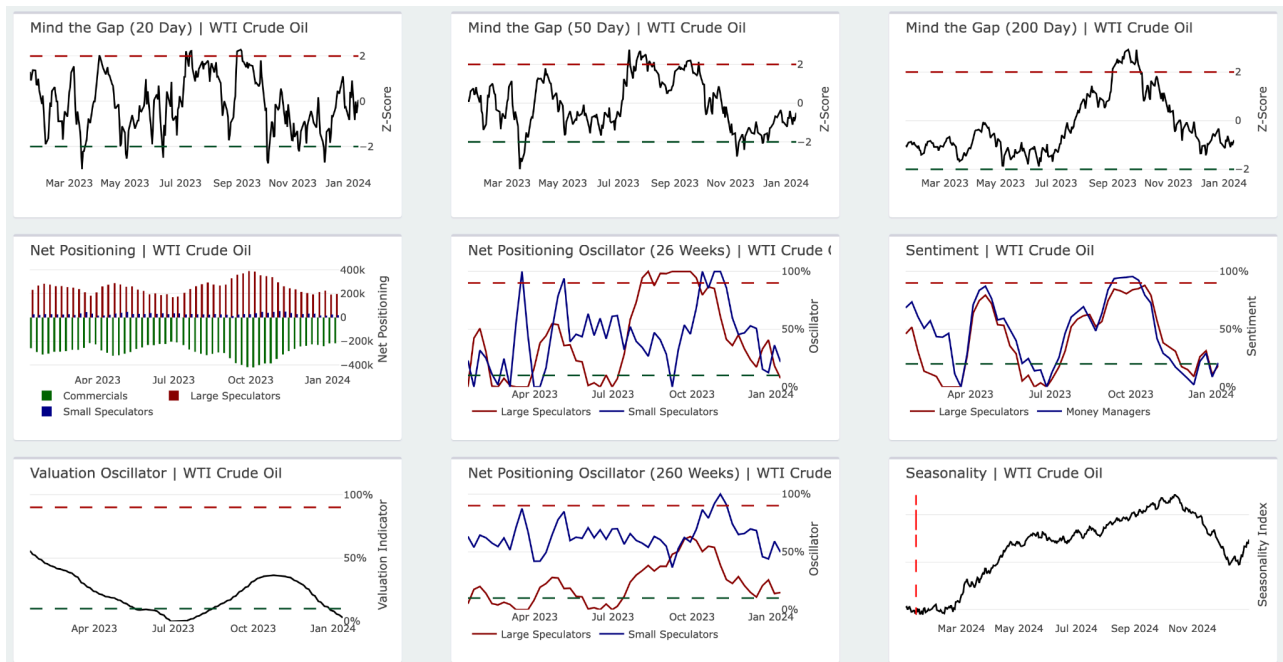


Onto oil.

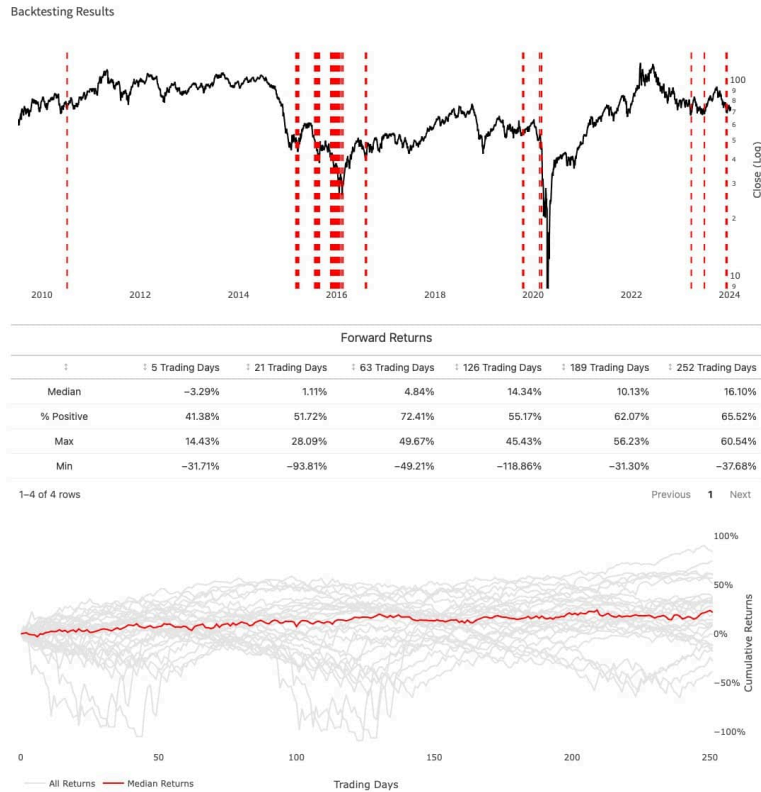
## Oil: Fade The Bears To New Highs?

Alex did a great job outlining the bullish oil trade in [this week's Dirty Dozen](#). The thesis is basically:

- Sentix's Strategic Bias for crude oil is positive and rising
- Both large and small specs are nearing crowded bearish levels. While oil's relative valuation is at its 0th percentile



- Our HUD Backtester shows that when Money Manager Sentiment is below the 10% Percentile, like it is now, the median return 252 trading days later is +16%



I think oil bounces between \$68 and \$100/bbl this year. Which is good for our offshore energy bets like TDW and BORR. These companies benefit from long-duration investment cycles if oil stays above \$40-50/bbl.

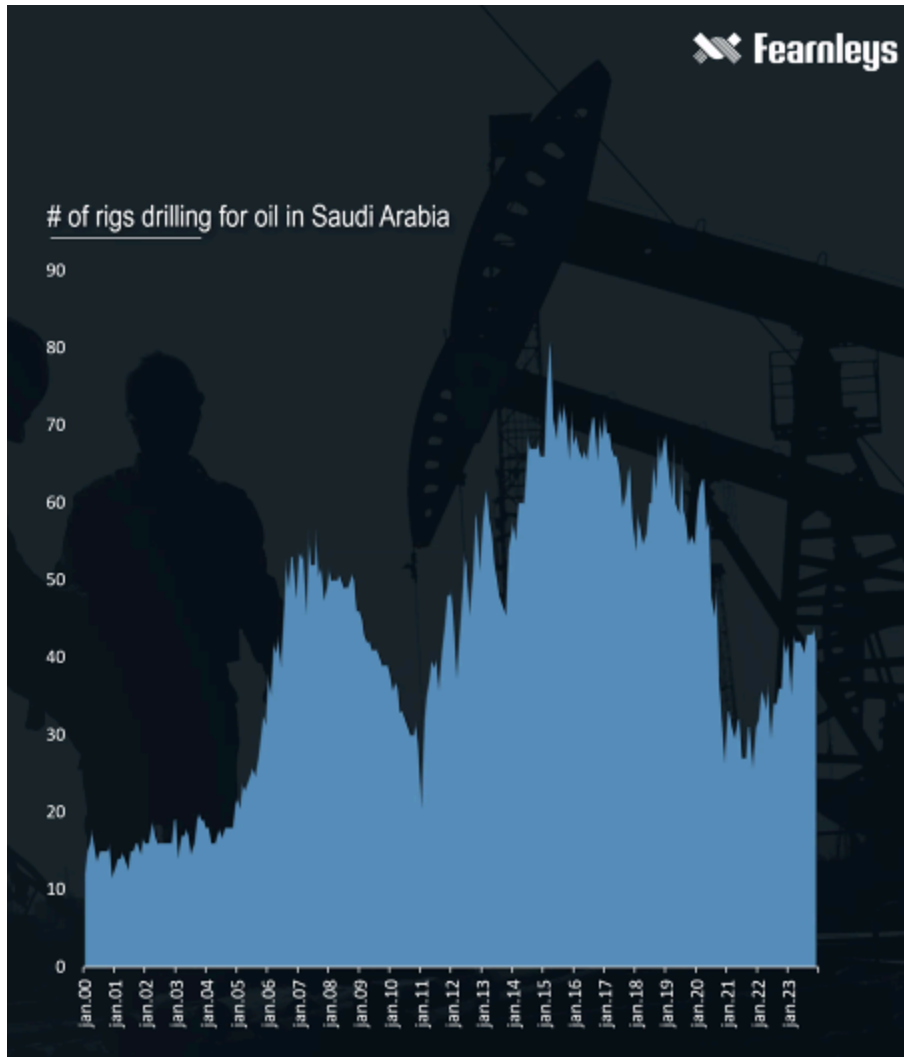
According to [Offshore-Mag.com](https://www.offshore-mag.com), offshore E&P investment is expected to hit \$200B in 2024 (emphasis added):

***“Offshore E&P capex is expected to exceed \$200 billion in 2024 and reach \$234 billion by the end of 2027, says Evercore. “We believe [that] highly attractive deepwater economics will be a major catalyst for the broader group of oilfield services companies levered to offshore,” the firm wrote in the report.***

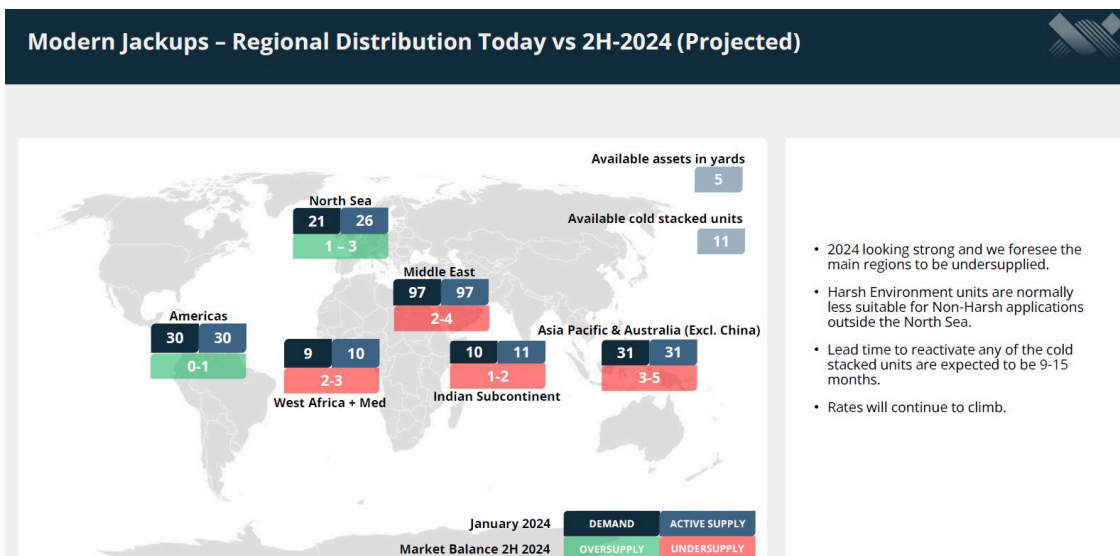
***According to Spears & Associates (as cited by Evercore), offshore contract drilling will increase by 14% year-over-year, while petroleum aviation, offshore construction services, and subsea equipment are anticipated to grow annually by 12%, 10%, and 9%, respectively.***

***“The increasing pace of FID announcements gives us confidence in the long-duration of this upcycle.”***

Shipping/offshore data service company Fearnley also reported increased drilling rigs in Saudi Arabia (see below).



And as we mentioned in [the BORR write-up](#), E&Ps favor modern rigs because they provide faster turnaround times and higher ROIs. Which is what we’re seeing globally. For instance, The Americas are the only area with an oversupply of modern rights.

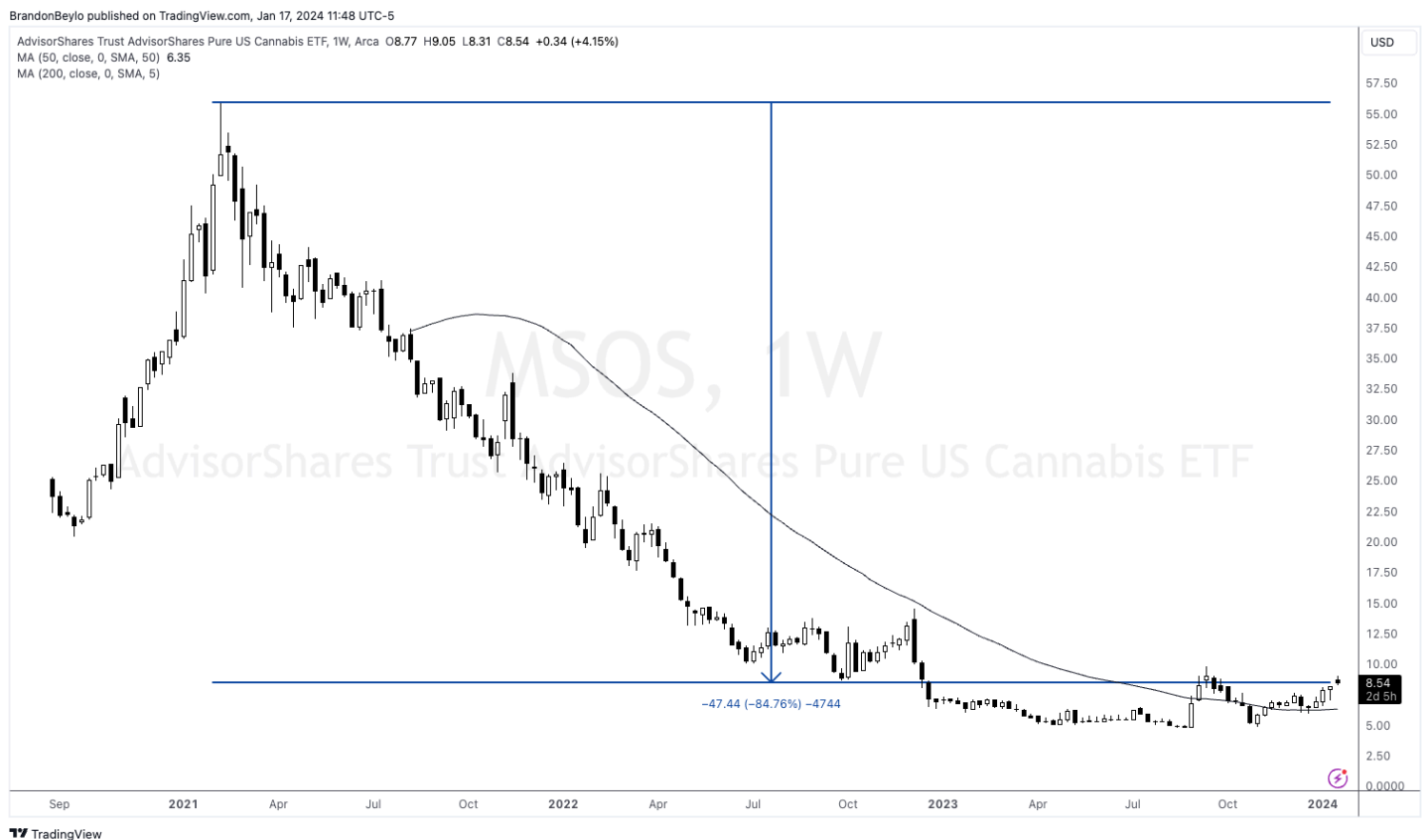


All of which support higher dayrates and increased profits for companies like BORR, TDW, etc.

## Conclusion: Hold What's Working

I like our book and will use pullbacks to add to our long-term thematic bets. However, I'm constantly searching for new, hated corners of the market for new ideas.

One of those corners is cannabis. Cannabis is probably the most hated sector in financial markets. It's done nothing but destroy capital since 2021, with MSOS down 84% from its 2021 high.



That said, there are tons of interesting left-for-dead companies in the space. I'm digging through all of them this week and will report what I find in next week's *Long Pull Report*.

Until then, have a great week and keep those heads on a swivel!