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INVESTMENT CHRONICLES

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PORTER & CO. INVESTMENT CHRONICLES

Welcome to *Porter & Co. Investment Chronicles*, our guide to the most important and interesting stories from the worlds of investing, finance, and economics that's available exclusively to Partners and *Big Secret* Elite members.

Each month, my team and I share the most valuable insights we come across from the hundreds of sources we regularly read and review – hedge-fund letters, annual reports, Securities and Exchange Commission ("SEC") filings, investment newsletters, newspapers, X (Twitter) threads, conferences, podcasts, and more – and digest them into one carefully curated, easy-to-read resource.

With *Investment Chronicles*, you'll have your finger on the pulse of the markets without having to spend hours scouring the internet each day.

You can navigate each issue using the hyperlinked Table of Contents below. All content also includes links back to the original source when possible, so you can easily dig in for more details, to see a larger version of a chart or image, or to learn more about accessing paid content.

We hope you'll come to think of *Investment Chronicles* as a highlight of your subscription with Porter & Co. We think it is the most comprehensive expression of our goal as a business: to give you the information we'd most want if our roles were reversed.

Porter Stansberry Stevenson, MD
February 2024

Note: Quotes, transcripts, and excerpts are generally reproduced as they appear in the original.

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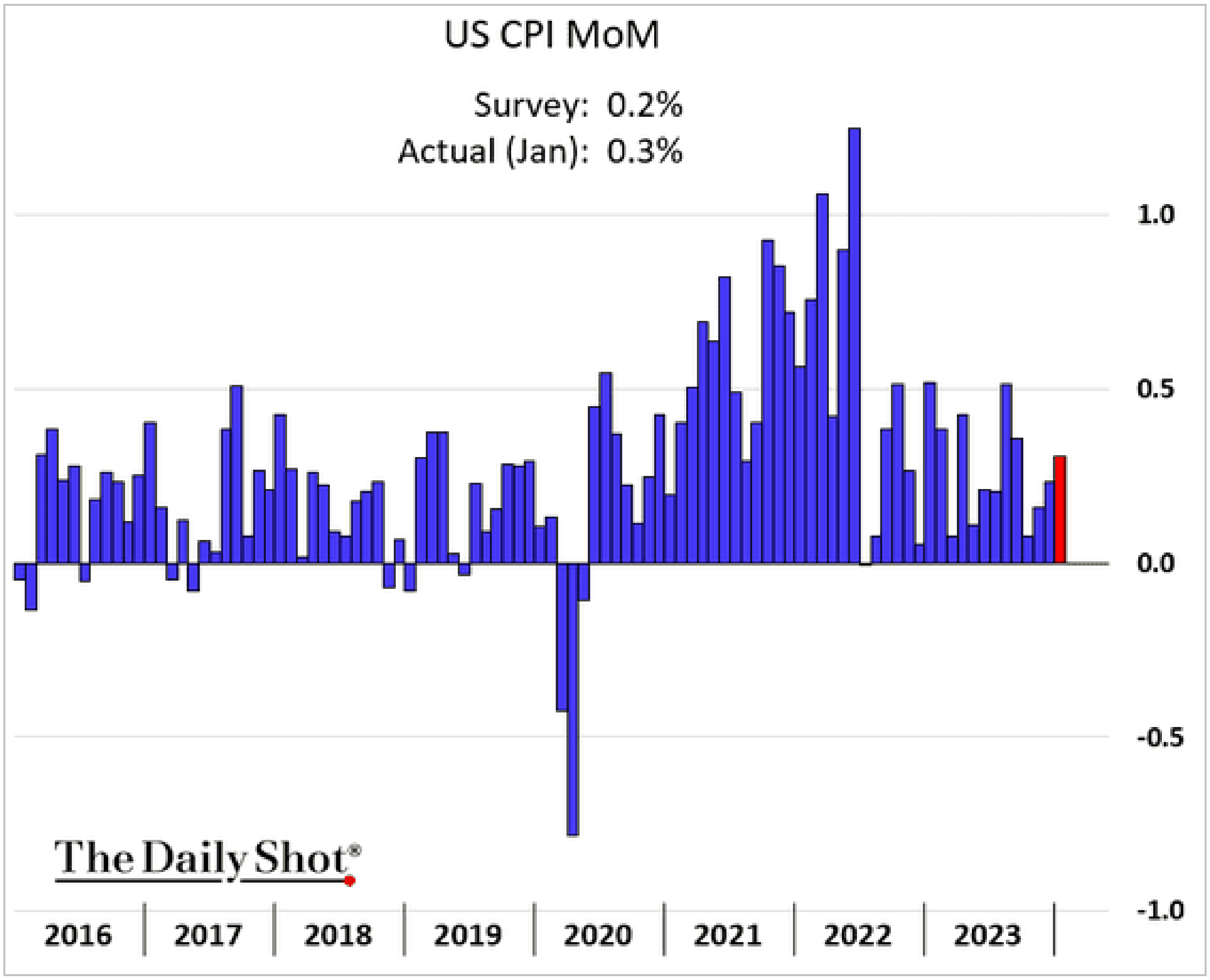
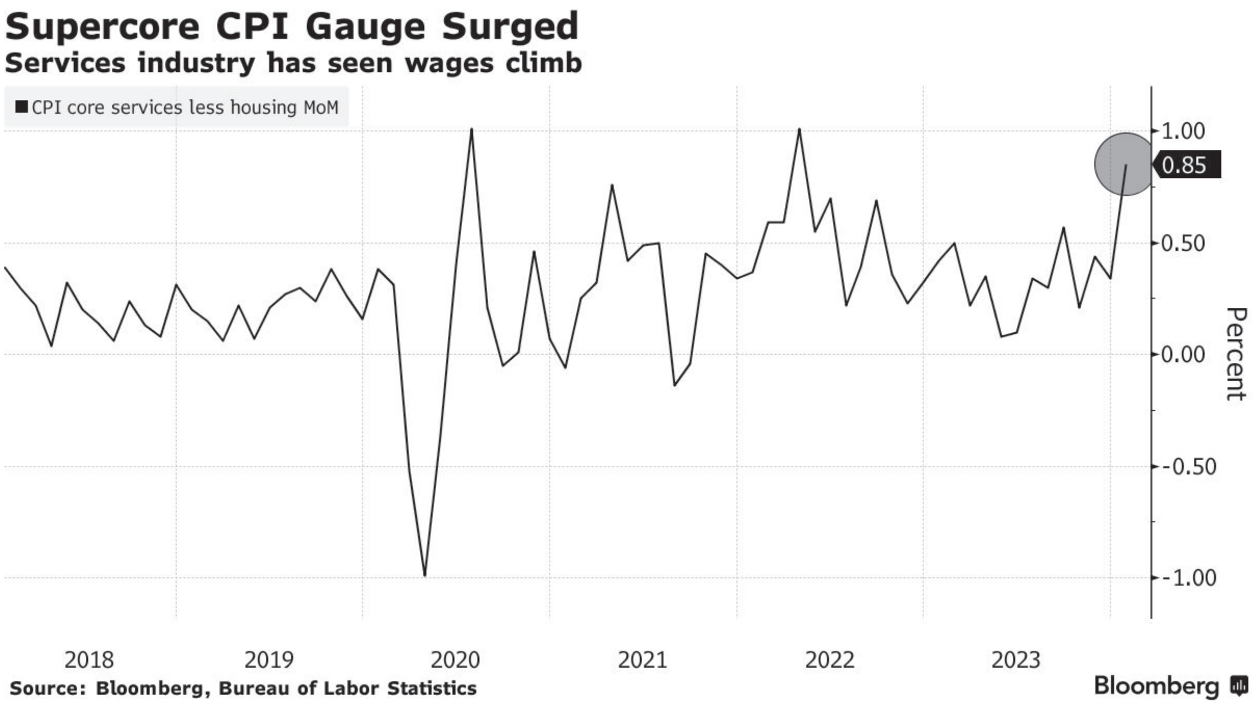
THE FIVE

The Most Important Charts We're Watching This Month

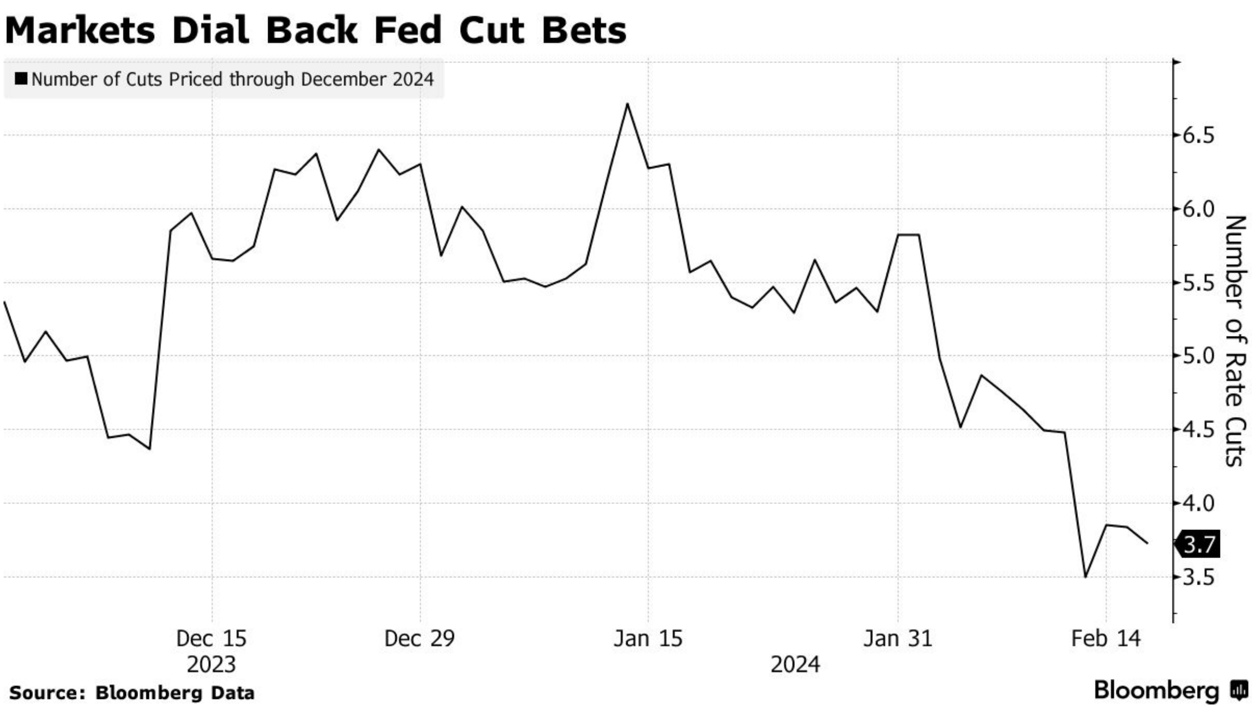
The big story this month was inflation. The January consumer price index ("CPI") showed both headline and "core" inflation (which excludes food and energy prices) were significantly higher than expected for the first time in months (from The Daily Shot)...



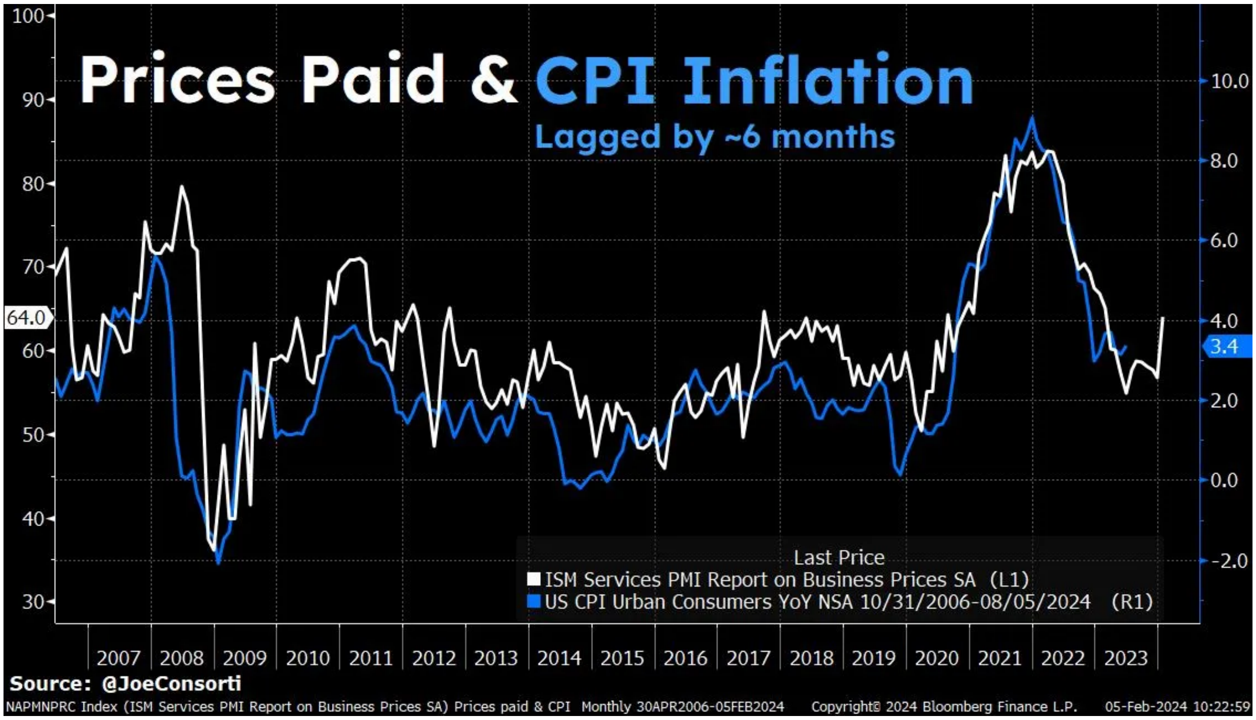
Most notably, so-called "supercore" CPI – a measure of core-services inflation excluding housing costs that the Fed has been particularly concerned about – its highest level in well over a year. This 0.85% month-over-month increase represents a 10.67% annualized rate ([from *Bloomberg*])...



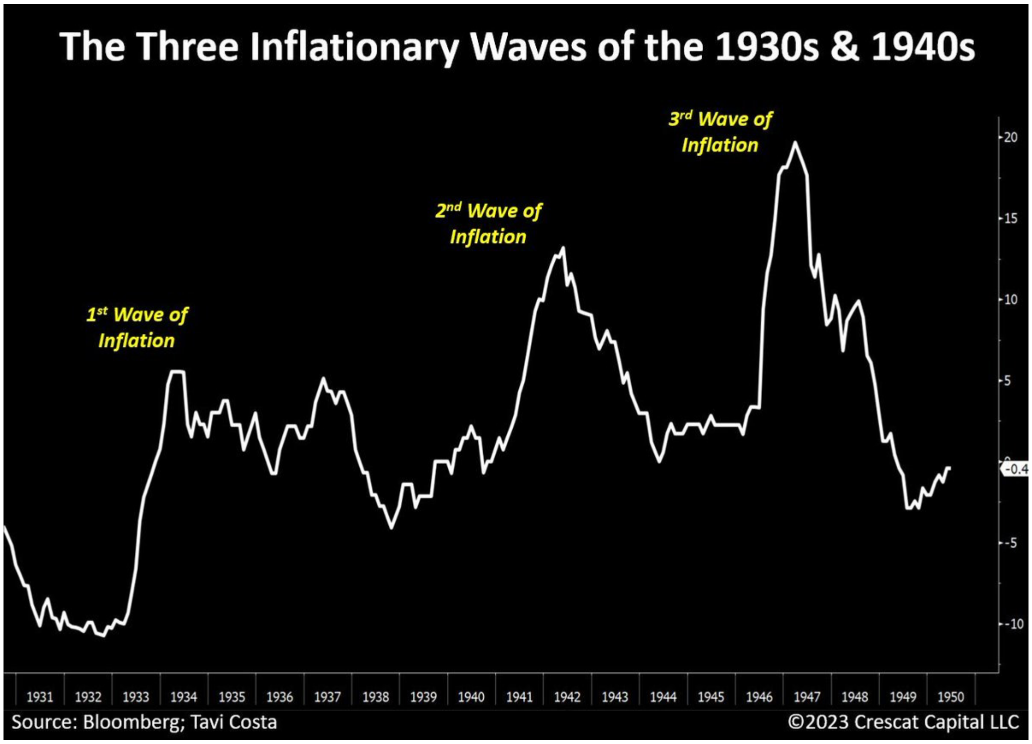
These higher inflation figures caused Fed rate-cut expectations to move significantly lower. The market now expects just three quarter-point rate cuts this year (with a chance of a fourth) versus the expectation of as many as seven as recently as mid January ([from Markets & Mayhem via X])...

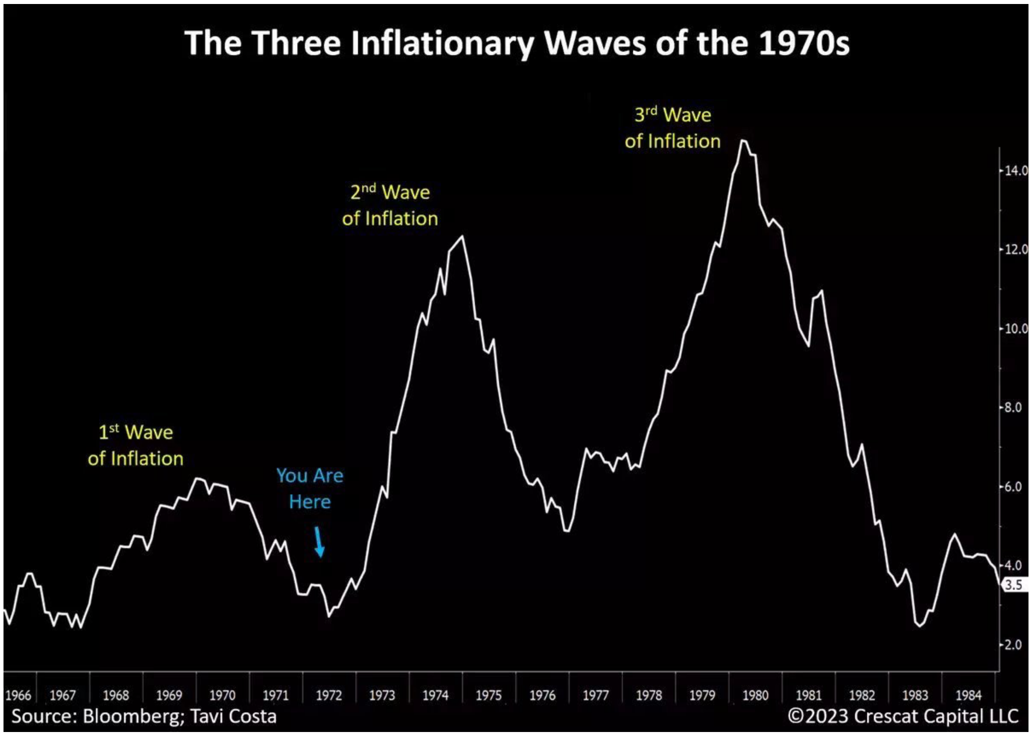


However, even these muted rate-cut expectations may ultimately prove too optimistic. Leading indicators of CPI inflation – such as the ISM Services PMI Report on Business Prices Paid – have been moving higher again, suggesting consumer prices are likely to follow in the months ahead ([from The Bitcoin Layer](#))...



And both prior periods of surging U.S. consumer prices in the 20th century – in the 1930s/'40s and the 1970s – suggest inflation tends to move through multiple waves before finally peaking ([from Otavio (Tavi) Costa via X]())...





ECONOMICS AND MARKETS

Top quant investor: There is a "big market delusion" in artificial-intelligence ("AI") stocks (from *The Financial Times*)...

Rob Arnott, whose quant-focused shop Research Affiliates runs $130bn, is perhaps best known as the doyen of "smart beta," low-cost strategies that try to beat the market a little bit. Below, he speaks with Unhedged about active investing, value's tough run relative to growth, market efficiency and why he thinks Nvidia's lofty valuation represents a "big market delusion." The interview has been edited for clarity and brevity.

Unhedged: Are markets more efficient today than when you started in the business?

Rob Arnott: I don't think so. In fact, I think the irrational swings in price have gotten slowly but surely bigger. Now that means that the opportunities to do well and to add value are larger, but take longer to play out.

We wrote a paper in 2021 called "Big Market Delusion: Electric Vehicles". Basically, a big market delusion is when something important is happening with just a handful of companies that are pioneers in the field. So a narrative emerges: "This industry is going to be huge. It's going to change the world. The companies in it are dominant players. They're going to remain dominant players. So you can't value them based on conventional valuation metrics, because this is going to be big."

Narratives have the advantage of being largely true and the disadvantage of being entirely reflected in current share prices. So betting on a narrative is a useless way to invest. One error made in big market delusions is assuming the dominant players today will still be the dominant players 10 years from now. But often, new disrupters come along and disrupt the old disrupters. Another error is valuations getting out of hand, based on speculation that the market will grow big faster than it actually does.

The dotcom bubble is a beautiful example. You had an array of companies priced at 100-plus times earnings. Those companies were the dominant players, and some still are. But it was already in the price. So in order to do well with those investments, those companies had to do better than the narrative suggested.

Take Qualcomm. Back in 1999, it had risen more than any stock in the world. It was up over 27-fold. It makes Nvidia look like a value stock by comparison! Since then, it has remained a dominant player in the plumbing of the internet. How's it done as a stock? You would have been twice as wealthy today investing in the S&P 500 as investing in Qualcomm back at the start of 2000. Furthermore, you had to wait 18 years to be consistently in the black, to have any [capital gain] at all. How's Qualcomm done as a business? Profits have risen 60-fold! So the narrative was correct. But the market bet that narrative would play out a lot faster than it ultimately did.

I think the same thing is happening now with AI. The narrative with dotcom is this is going to change everything — how we buy goods and services, communicate, research, socially interact, run businesses. All true, but all have happened more gradually than initially expected. Substitute AI for internet, and you have exactly the same narrative today. It's a classic example of a big market delusion. Not because it's wrong, but because it will happen more gradually than people expect.

Unhedged: One difference, as you alluded to, is that Nvidia is posting strong earnings growth right now, making its multiple less extreme than Qualcomm at the peak of the dotcom bubble. Given that distinction, what makes you look at AI as a market delusion?

Arnott: I don't doubt that Nvidia is going to be massively successful in the decade ahead. But the narrative with Nvidia is that they have a moat to produce the fast chips that are needed in AI, that it's expensive to design and build new, even faster chips. Well, AMD announced in December that they were coming out with a chip 50 per cent faster than Nvidia's. So competition is already happening in an area with a supposed moat.

There was a leaked internal email to top management at Google. It said we have no moat, nor does Microsoft, nor does anyone else in this business. I think the purpose of that email was Google, which was perceived as a laggard in AI, wanting to remind the marketplace that being in the lead in mile one of a marathon doesn't mean much.

Continue reading here (subscription may be required).

However, AI "disappointment" could set in soon (from *Wired*)...

In the decades to come, 2023 may be remembered as the year of generative AI hype, where ChatGPT became arguably the fastest-spreading new technology in human history and expectations of AI-powered riches became commonplace. The year 2024 will be the time for recalibrating expectations.

Of course, generative AI is an impressive technology, and it provides tremendous opportunities for improving productivity in a number of tasks. But because the hype has gone so far ahead of reality, the setbacks of the technology in 2024 will be more memorable.

More and more evidence will emerge that generative AI and large language models provide false information and are prone to hallucination—where an AI simply makes stuff up, and gets it wrong. Hopes of a quick fix to the hallucination problem via supervised learning, where these models are taught to stay away from questionable sources or statements, will prove optimistic at best. Because the architecture of these models is based on predicting the next word or words in a sequence, it will prove exceedingly difficult to have the predictions be anchored to known truths.

Anticipation that there will be exponential improvements in productivity across the economy, or the much-vaunted first steps towards "artificial general intelligence", or AGI, will fare no better. The tune on productivity improvements will shift to blaming failures on faulty implementation of generative AI by businesses. We may start moving towards the (much more meaningful) conclusion that one needs to know which human tasks can be augmented by these models, and what types of additional training workers need to make this a reality.

Some people will start recognizing that it was always a pipe dream to reach anything resembling complex human cognition on the basis of predicting words. Others will say that intelligence is just around the corner. Many more, I fear, will continue to talk of the "existential risks" of AI, missing what is going wrong, as well as the much more mundane (and consequential) risks that its uncontrolled rollout is posing for jobs, inequality, and democracy.

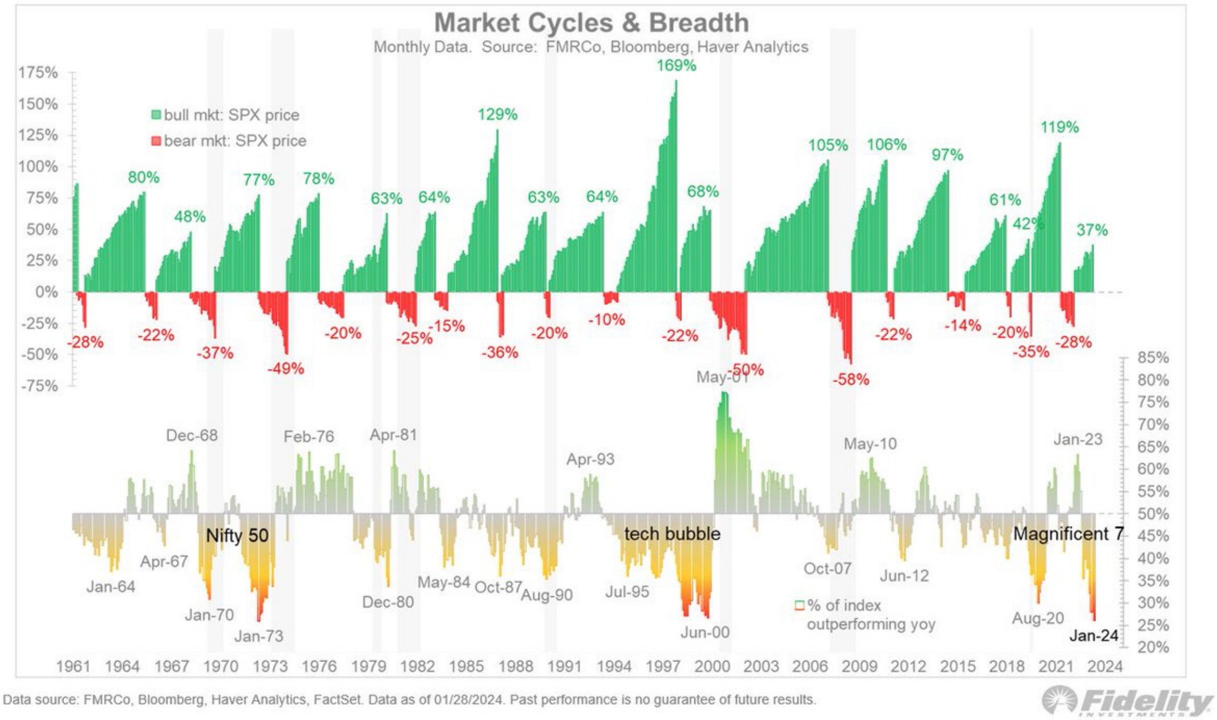
We will witness these costs more clearly in 2024. Generative AI will have been adopted by many companies, but it will prove to be just "so-so automation" of the type that displaces workers but fails to deliver huge productivity improvements.

The biggest use of ChatGPT and other large language models will be in social media and online search. Platforms will continue to monetize the information they collect via individualized digital ads, while competition for user attention will intensify. The amount of manipulation and misinformation online will grow. Generative AI will then increase the amount of time people spend using screens (and the inevitable mental health problems associated with it).

Continue reading here.

We have very rarely seen stock market leadership narrow to such a degree as it has recently, and the precedents didn't end well ([from Jurrien Timmer via X])...

Even if the broader market catches up to the mega caps, that doesn't tell us whether they will outperform. We are living in one of the narrowest markets in history, with only 26% of stocks outperforming the index. The last time this happened (1998-2000) it all ended in tears (down 53%), and the previous period (1970-73) led to a regime of valuation destruction (with the P/E ratio declining from 20x to 7x). These are not happy analogs to fish from.



Meta Platforms (META) now holds the record for the largest daily gain and loss in history ([from The Kobeissi Letter via X](#))...

We are witnessing history today:

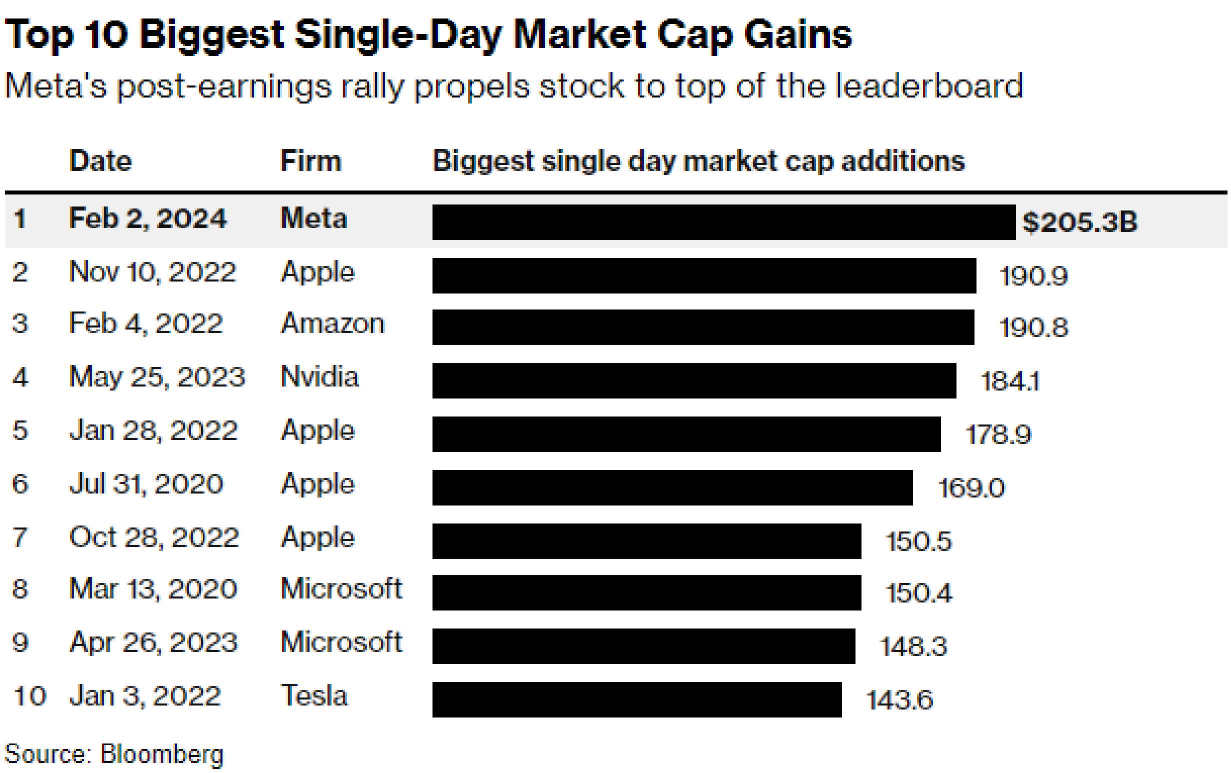
Meta, $META, has added $205 billion in market cap today making it the biggest single day gain in history.

This breaks Apple's previous record of a $191 billion gain on November 10th, 2022.

Just a couple of years ago, Meta suffered the single biggest market value loss in a day in stock market history.

Meta will hold the record for the biggest daily gain and loss in a single day.

Truly incredible.



"Bubble whisperer" Jeremy Grantham: Stay away from U.S. stocks, expect the AI bubble to burst, and brace for a recession (from *Business Insider*)...

Stocks are absurdly expensive and likely to struggle, artificial intelligence is a bubble destined to burst, and the economy will suffer a minor recession or worse, Jeremy Grantham has warned.

The cofounder and long-term strategist of fund manager GMO recommended avoiding US stocks in a recent ThinkAdvisor interview. "They're almost ridiculously higher priced than the rest of the world," he said.

"The stock market will have a tough year," he continued. American companies' profit margins are at historic highs relative to foreign rivals, creating a "double jeopardy" situation for stocks where both earnings and multiples could fall, he added.

Grantham, a market historian who rang the alarm on a multi-asset "superbubble" at the start of 2022, said it burst that year when the S&P 500 tumbled 19% and the tech-heavy Nasdaq Composite plunged 33%.

Stocks would have slumped another 20% or 30%, he said, but the sell-off was "rudely interrupted" by the AI frenzy in early 2023 that "changed the flight path of the entire stock market."

The veteran investor said that "AI isn't a hoax"... but predicted the "incredible euphoria" around it wouldn't last. Still, he suggested it could prove to be as revolutionary as the internet over the next few decades.

Grantham also issued a grim forecast for the US economy, despite solid GDP growth of 3.3% in the fourth quarter, unemployment and annualized inflation below 4% in December, and the prospect of several cuts to interest rates this year. On the other hand, the inverted yield curve and prolonged declines in leading economic indicators point to trouble ahead.

"The economy will get weaker," he said. "We'll have, at least, a mild recession."

Continue reading here.

This little-understood phenomenon has been a major driver of asset returns in recent years (from PauloMacro's Substack)...

Summary of today's note:

- In our financialized US economy with increasingly indexed securities markets, capital appreciation and alpha require a forcing function: *the price-insensitive buyer*.
- This is true not just for Value/Small Cap equities, but all assets.

I recently went back and listened to one of my favorite podcast episodes of the past year: David Einhorn on Patrick O'Shaughnessy's *Invest Like the Best* in March 2023 (link). I had originally expected the traditional HF manager mea culpa for several years of weak performance. Instead, I found David's interview to be a thoughtful introspection of how his value approach which had worked so well in the 1990s and 2000s not only stopped working with the advent of ZIRP/QE, but instead punished him for not recognizing and adapting to the mechanics of relentless inflows to Passive participants whose price-insensitive buying reflexively compounded Size and Momentum factors dressed up as alpha.

Since COVID, I believed an inflationary, higher-vol environment in rates — with a rise in term premium, cost of carry for assets, and cost of funding for balance sheets — would serve as the rock against which Passive's trend would break, and the pendulum would start to swing back to the sort of Active management that rewarded in the inflationary 1960s and 70s... an environment where the return profile of buy-and-hold flattened as economic and market cycle wavelengths shortened while amplitudes expanded... a time when you would cut exposure in half if a position doubled in a few months despite every internal voice screaming "let your sitting do the work"...and then when the same security later halved you would triple the size...an era when portfolio management and sizing added far more alpha than security selection in performance attribution.

Despite the changing inflation regime since COVID, the Value factor still seems unable to generate significant outperformance (chart per @JayKaeppel on Twitter):

The thought finally crossed my mind: regulators and policymakers set out to turn the banking system into a utility after 2008, and they succeeded. More recently they have set out to turn asset management into a utility — and they are succeeding. They want this. This works for them. Because when everybody earns a similar mediocre portfolio return with no catastrophic down years like 2008, then nobody complains, so no policymaker or regulator's job is at risk.

The result is an oligopoly on the sellside among investment banks, and a growing oligopsony on the buyside among asset managers. I remember 15 years ago thinking the 80/20 rule applied for allocations to hedge fund managers, where 80c of every dollar went to funds running over $5 billion. Today it's more like 95/5, and the threshold is $10+ billion. Oligopsony indeed.

Covid and the subsequent fiscal and monetary responses seem to have only accelerated these trends rather than reversing them. Scary thought: what if these trends persist for another few years? What if we need to see Passive own 60% or 70% of market caps before the trend exhausts itself? Why not 80%? What if all of US banking consolidates into 4 giants like Canada, Australia, and Brazil? What if HF pods consolidate into a handful of managers each running $200+ billion in capital? What if the Top 15 buyside long only accounts become Big 3? Perhaps we assume "no way, this can't possibly continue" because deep down we know a financial system concentrated in the hands of so few means many angry plebes (isn't this what Bidenomics and 7% deficits are supposed to be all about addressing? Fiscal = plebe inflation vs Monetary = asset inflation as my friend Le Shrub likes to say).

But what is actually going to reverse such trends? What "mean" do value purists really think we are going to magically revert to when all that matters is investment flow on the margin (and the central bank liquidity which propels that flow)? What active value manager will have any capital left to buy cheap securities when Passive finally flips from inflow to outflow as Boomer sales weigh on assets? Worse: what if Boomer selling results in outflows from BOTH Passive and Active managers, resulting in both styles hitting the offer? Nearly everyone seems to assume that because the rise of Passive resulted in the decline of Active, then the decline of Passive will result in a recovery for Active... but what if both suffer net redemptions? Given the financialization of the economy, if a stock market decline finally pushes CEOs to fire a few million people, and that unemployment crushes 401k/Target Date passive inflows, this does not conversely generate inflows for Value and Small! Both Passive & Active lose!

With this backdrop, it is simply not enough for active managers to buy woefully cheap public equities in the cyclical value / smallcap / commodity / EM space and wait for Mr Market to magically come to his senses about valuation. Nobody is coming to save you. Everyone is just trying to survive and stay in business.

There is really only one solution to the Value/Small problem — one which Mag7 Tech Bros inadvertently stumbled upon in the aftermath of 2008: you need a price insensitive bid. Credit to the Tech Bros…their magic formula of cheapening labor costs by paying less salary while issuing enormous stock-based compensation on the backs of shareholders who didn't appreciate the dilution also resulted in optically outsized operating margins (ex-SBC of course), which kept investors from selling (look at the margins and growth! **High quality!!**). Cashflows were then deployed into enormous buybacks to neutralize the SBC dilution. So long as cash flow grew, shareholders seemed to benefit from a tax-efficient return of capital. Little cash flow? Raise debt to buy back equity. Hell, raise debt despite growing cash flow and buy back even more. Debt was basically free for a decade anyway.

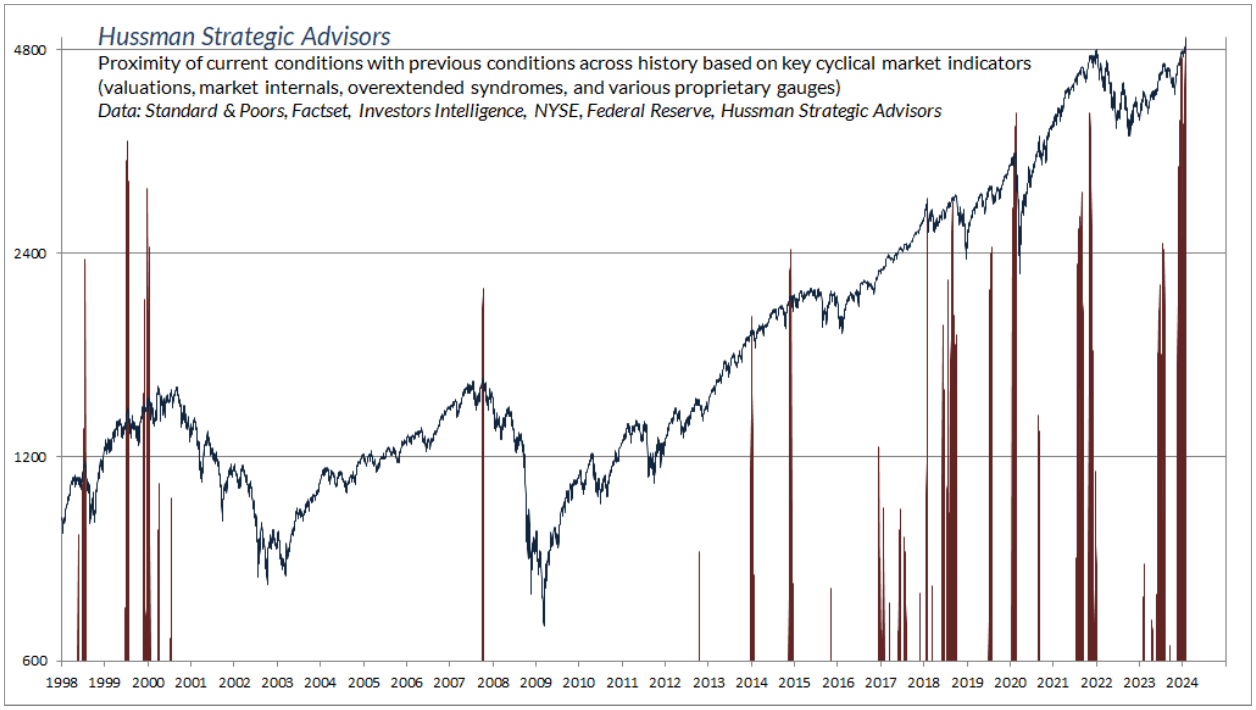
The stock buyback created a price-insensitive bid which competed with price-insensitive Passive to propel Momentum and Size into the grotesque Mag7 = 30% of S&P situation we have today. But this is not your dad's 1999 mania-driven market concentration — this is something else entirely.

It was the price-insensitive nature of these buyback and passive flows that served as the forcing function for capital appreciation and excess returns… your decade-long alpha laid bare in 2023 for all to see.

Continue reading here.

Market conditions similar to those of the past few months have historically been followed soon after by significant declines (from Jesse Felder/John P. Hussman, Ph.D. via X)...

"We estimate that current market conditions now 'cluster' among the worst 0.1% instances in history, typically followed by abrupt market losses of 10%-30% over the next 6-10 weeks."



Top hedge-fund manager David Einhorn: Markets are "fundamentally broken" (from *Bloomberg*)...

Greenlight Capital was forced to shift its strategy as the growth of passive investing and algorithmic trading transformed markets, founder David Einhorn said.

"I view the markets as fundamentally broken," Einhorn, 55, said on Barry Ritholtz's Masters in Business podcast. "Passive investors have no opinion about value. They're going to assume everybody else has done the work."

Investors have increasingly looked beyond active money managers, instead opting for passive strategies with lower fees. By late 2019, passive vehicles such as index funds accounted for more than half of publicly traded assets in US equity funds.

That means fewer people are paying attention to individual stocks, posing a problem for funds looking to invest in undervalued companies, according to Einhorn. Value strategies pay off when others notice a company's potential, driving up its stock.

At the same time, Einhorn said that quants base their trades on short-term price moves rather than a company's actual worth. Algorithmic investing "has an opinion about price," he said. "Like, what is the price going to be in 15 minutes?"

Greenlight, which is known for value investing, gained 36.6% in 2022 — recouping losses that began in 2015. Greenlight gained 22.1% last year.

The fund changed course after Einhorn realized the problem: As money flowed out of value-investing strategies and into index funds, investment managers were selling companies the fund owned and buying equities in which Greenlight held short positions.

Greenlight still bets on undervalued companies, but it looks for even lower market capitalizations relative to earnings than before, as well as strong cash flows that can fund share buybacks.

"We can't count on other long-only investors to buy our things after us," Einhorn said. "We're going to have to get paid by the company."

Continue reading here (subscription may be required).

Asset managers are "really, really, really long" this market (from Markets & Mayhem via X)...

The Federal Reserve's lifeline for banks is about to go away (from *Barron's*)...

New trouble for New York Community Bancorp and America's top regional banks feels right around the corner—just as the Federal Reserve is getting ready to shut the emergency lending window it opened nearly a year ago.

The Fed launched the Bank Term Funding Program (BTFP) after the collapse of Silicon Valley Bank and other institutions in mid-March. The rescue program, aimed at calming depositors and investors, let banks and other financial institutions take out up to a year-long term loan from the Fed using beaten-down bonds as collateral. The Fed's willingness to accept those bonds at par, or face value, made BTFP an attractive source of liquidity.

BTFP, though, is closing down on March 11, as scheduled, the Fed said last month. That made sense when it appeared that banks had made it through the worst of last year's turmoil, brought on by the steep decline in the value of Treasuries and mortgage-backed securities. Now, the timing appears inconvenient at best given the problems that have shown up at New York Community Bancorp.

NYCB caught investors by surprise on Jan. 31 when it released its quarterly earnings report. It identified $185 million in loan losses related to an office and co-op property, placed an additional half a billion dollars in reserves for future losses, and was even forced to cut its dividend. The stock has fallen 60% since then and closed at its lowest value since April 30, 1997, on Thursday.

If the problem was limited to NYCB, the expiration of BTFP wouldn't be a big deal. But market participants, worried about a repeat of last spring's bank crisis, are now sifting through the haystack to find other troubled lenders. The SPDR S&P Regional Bank exchange-traded fund has dropped 11% since NYCB's bombshell. The end of the emergency lending program, then, could become a "psychological issue, " says William English, a Yale professor and former Fed official. "It could encourage more folks to withdraw funds if they become worried about the Fed's willingness to lend to support banks."

That'll be a misunderstanding on investors' part. The Fed has long served as the lender of last resort for U.S. financial institutions, swooping in to control the damage to the economy and public before a crisis spreads. Emergency funds were made available, by invoking Section 13(3), during the 1930s Great Depression, the financial crisis of 2008, and during the turmoil that accompanied Covid-19.

Banks also have other options. Funds are otherwise continually available to banks—small or big—through the traditional lending program called the primary discount window. It currently offers loans at an interest of 5.50% for up to 90 days versus the BTFP's 5.4% for as long as a year.

The Fed raised the rate on new BTFP loans late last month. Banks had been availing themselves of loans at 4.5% earlier this year, and then putting the cash at the Fed's reserve facility where they could earn 5.4%, pocketing the difference. The arbitrage took place as BTFP rates had been based on investors' expectations of short-term interest rates over the next year.

Even that increase creates the potential for a mishap. The BTFP rate hike increases "funding costs for individual banks that might continue to experience liquidity needs moving forward," writes Morgan Stanley strategist Matthew Hornbach. "Given this backdrop, we remain closely attentive to bank funding needs."

Continue reading here (subscription may be required).

Penny-stock trading has made a big comeback this year (from *The Financial Times*)...

Activity in so-called "penny stocks," whose shares are worth less than $1 each, rose to nearly 20 per cent of overall stock market volumes in December and was still 14 per cent in January, up from around 6 per cent in prior years, according to Cboe Global Markets.

Much of the activity has been driven by retail traders who got hooked on the stock market during the 2021 meme stock craze, when buying by small investors sent retailer GameStop skyrocketing.

But this time it is trading volumes, rather than share prices, that are soaring. That is due not only to the greater number of retail investors trading the stocks, but also to the growing popularity of sometimes-controversial equity fundraisings that can flood the market with new shares. The bloated share counts push up trading volumes but can weigh heavily on stock prices, particularly for lossmaking groups.

"Retail tends to like these low-price stocks because they think that 'Hey, if it only goes up a penny [then] I've doubled my money'," said Larry Tabb, head of market structure research at Bloomberg Intelligence. "More than likely they buy it and it continues to go down. It's a very dicey game."

Heavily-dilutive fundraisings, and the resulting share price falls, have helped swell the number of US-listed companies trading below $1 to 517 as of Thursday's close, according to S&P Global Market Intelligence data, compared with 77 a year ago. Almost one-third of the stocks currently in this bracket have seen their share count rise by at least 50 per cent over the past year.

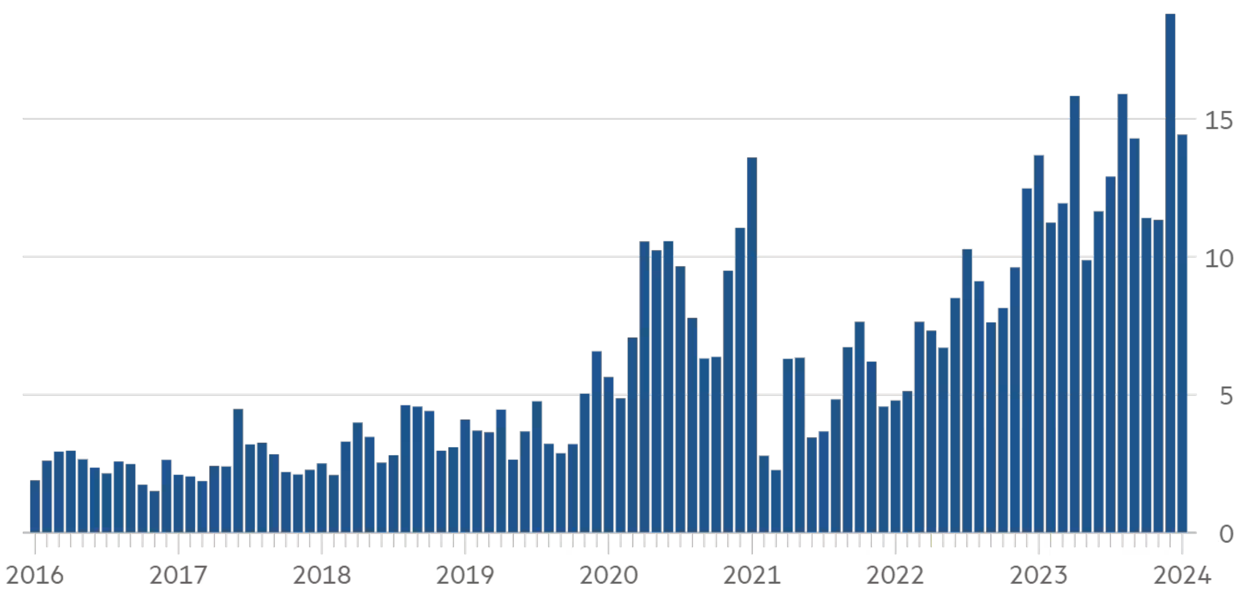
The result is a very different market environment from the meme stock craze of three years ago, when some retail investors made huge gains from soaring share prices as hedge fund short sellers were squeezed out of their positions.

"The retail investor just sees that 'Oh, you got $40mn of funding and you're going to be able to increase product lines, and better revenues mean the company fundamentals will go up'," said Mark Basile, a lawyer at The Basile Law Firm, who has used New York state usury laws to void several small-company financing deals.

"The next thing you know the company is putting out good news, but the price keeps going down, and the volume of the shares being traded goes up," he added.

Penny stock trading soars

Trading of sub-dollar stocks as % of total volume



Volume = number of shares traded
Source: Cboe Global Markets
© FT

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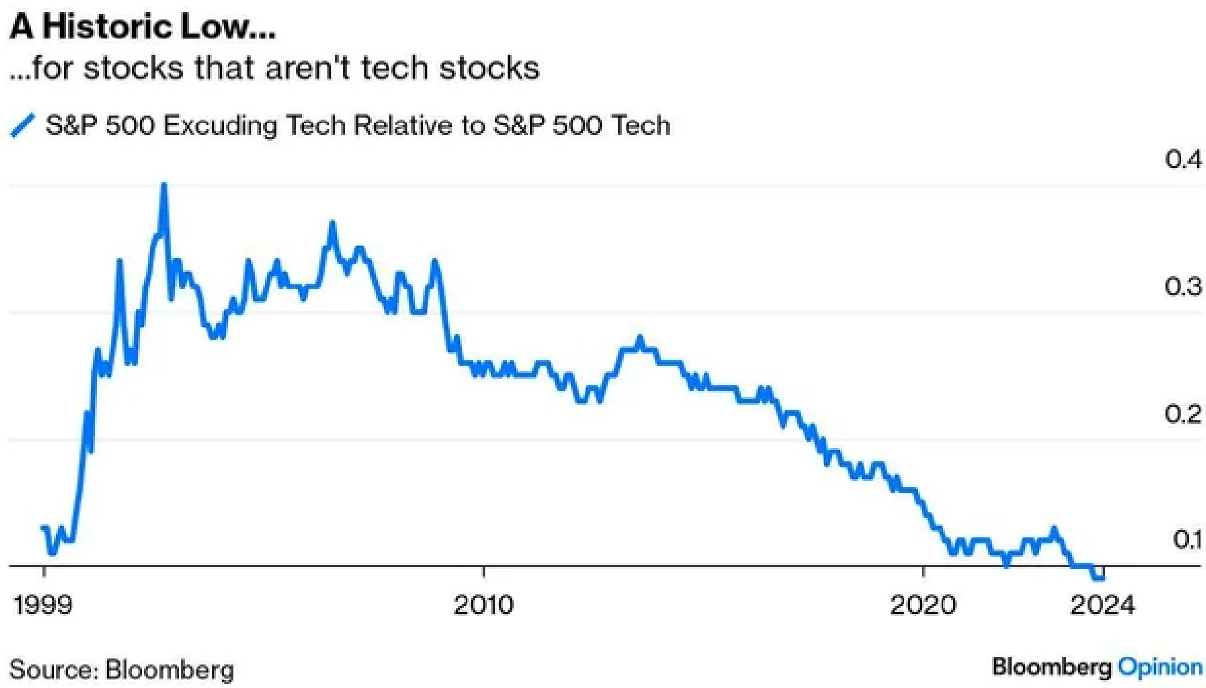
S&P 500 ex-tech vs tech is at historic lows, even surpassing the dot-com-bubble extreme (from Markets & Mayhem via X)...



History suggests this extreme will reverse eventually ([from John Authers via *Bloomberg Opinion*])...

Richard Bernstein of Richard Bernstein Associates (unconnected to Alliance Bernstein) points to a series of long-running trends that seemed unstoppable at the time, but reversed completely. Imbalances like this seldom last:

Viewing the latest ramp-up in context, he suggests that the US outperformance of the rest of the developed world looks unsustainable. On previous occasions when it's gone this far, it has been aided by over-concentration and a bubble in a relatively small group of stocks: the "Nifty 50" in the late 1960s, and the tech stocks in the 1990s. This latest round of outperformance has gone much further, but that might be thanks to passive investors. There were no index funds in the 1960s, and the concept was far less powerful in the 1990s than it is now:

Source: Richard Bernstein Advisors LLC, Bloomberg, MSCI, S&P
Note: International developed market stock performance prior to 1970 is based on local currency monthly price returns weighted as follows: UK FTSE All-Share Index (40%); Germany DAX Index (15%); Japan Topix Index (15%); Australia ASX All Ordinaries Index (15%); Canada S&P/Toronto Stock Exchange Composite Index (15%). For comparability, we also use S&P 500® price returns prior to 1970. From 1970, all returns are based on total returns in USD, with international developed market returns based on the MSCI EAFE index.

Bernstein argues that the current juncture could be "a once-in-a-generation opportunity to rebalance portfolios" and sees bigger opportunities in international, small cap and value stocks and the beneficiaries of inflation:

> *Just as in the wake of the Internet bubble, what part of the market you own could mean the difference between another lost decade of returns for crowded and expensive assets or very attractive returns on assets where capital is truly scarce.*

Continue reading here (subscription may be required).

However, the Big Tech bubble could have further to run before it ends (from *Bloomberg*)...

A host of similarities between tech stocks now and previous bubbles suggest the Magnificent 7 is nearing — but not yet at — levels that may lead it to pop, according to Bank of America Corp. strategists.

They cite a handful of indicators, such as bond yields, valuations and price action, that suggest there are further gains ahead of the group that includes Apple Inc. and Amazon.com Inc.

Bond yields adjusted for inflation, seen as a proxy for tight financial conditions, are a common way for stock-market bubbles to burst, wrote the team led by Michael Hartnett. By their math, given all of the debt sloshing around the global financial system, the real yield, which subtracts inflation from the Treasury 10-year yield, would have to reach 2.5% or 3% to end the investor craze for artificial intelligence and megacap tech. It's currently about 2%.

Real Yields Aren't There Yet

To break tech rally, BofA says 10-year real yields need to rise above 2.5%

Source: Bloomberg

Valuations are another reason. With a price-earning ratio of 45, the Magnificent Seven group is expensive by any stretch. But Hartnett's research shows that past rallies reached even more extreme levels before hitting a peak, with multiples of 67 for Japanese stocks in 1989 and 65 for the Nasdaq Composite in 2000.

"It ain't cheap," Hartnett wrote, "but true that bubble highs have seen dafter valuations."

Another metric that Hartnett's team's mention is that the gains are smaller than other bubbles measured trough-to-peak. Since a low in December 2022, the Magnificent 7 has jumped about 140%. It's not quite the 190% surge seen during the Internet bubble for the Nasdaq Composite or the 230% rally of FAANG stocks from Covid lows, the strategists said.

History Shows Tech Bubble Has a Little More to Run, BofA Says

"Bubble"	Index	Trough-to-Peak Rise	Peak Valuation (P/E)
Japanese stocks, 1986-1989	Nikkei 225	149%	67
Dotcom bubble, 1998-2000	Nasdaq Composite	192	65
FAANG stocks, 2020-2021	NYSE FANG+ Index	229	60
Magnificent 7, December 2022-	**Magnificent 7**	**139**	**45**

Source: Bank of America, Bloomberg

A skeptical reading of the data might be that these are still warning signs for investors hoping to keep riding the rally. And indeed, Hartnett points out that there are "no two bubbles alike."

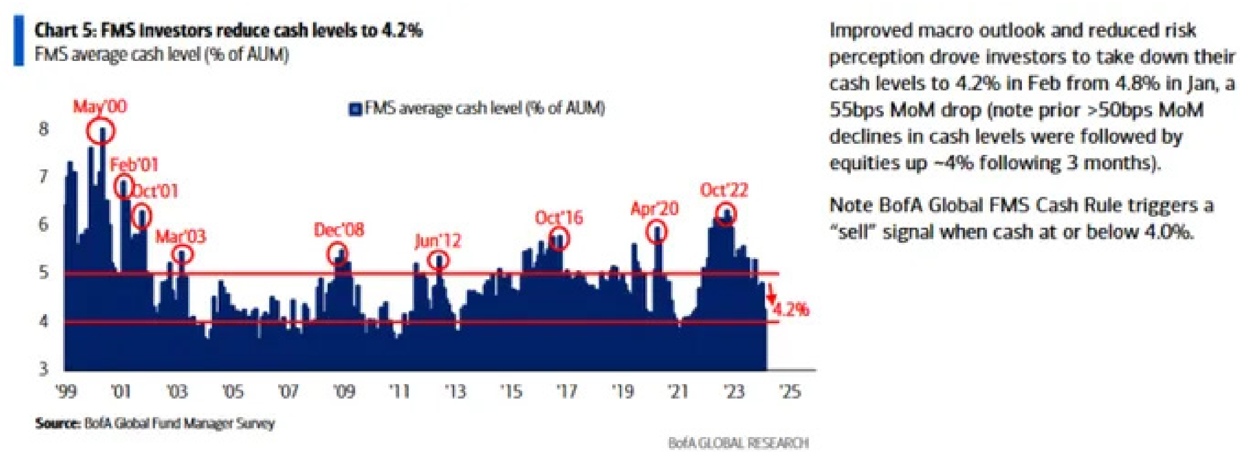
Continue reading here (subscription may be required).

No one expects a hard landing anymore (from Ayesha Tariq, CFA via X)...

BofA's Fund Manager Survey shows Global Recession Expectations have fallen significantly.

Institutional cash levels are near their lowest in decades (from Fallacy Alarm)...

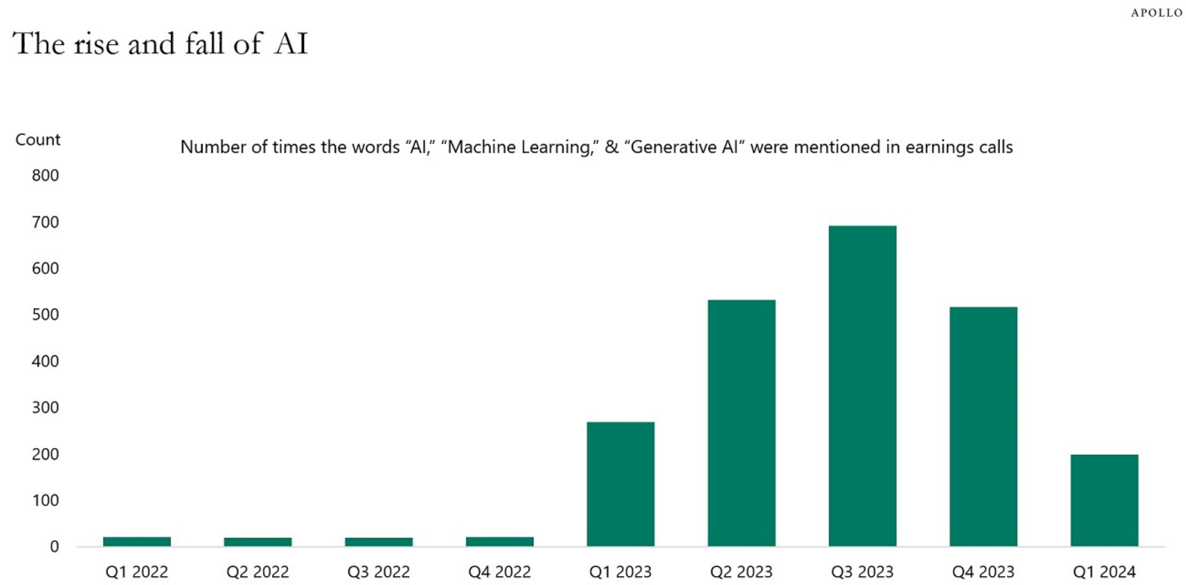
As a result of the duration bid, cash levels have come down even further. They are now close to the lowest levels on record. I cannot overemphasize how much this irritates me. After all, investors are currently enjoying the highest cash yields in decades. They are shunning them because their conviction in falling interest rates is so high that they want to lock current yields for as long as possible.



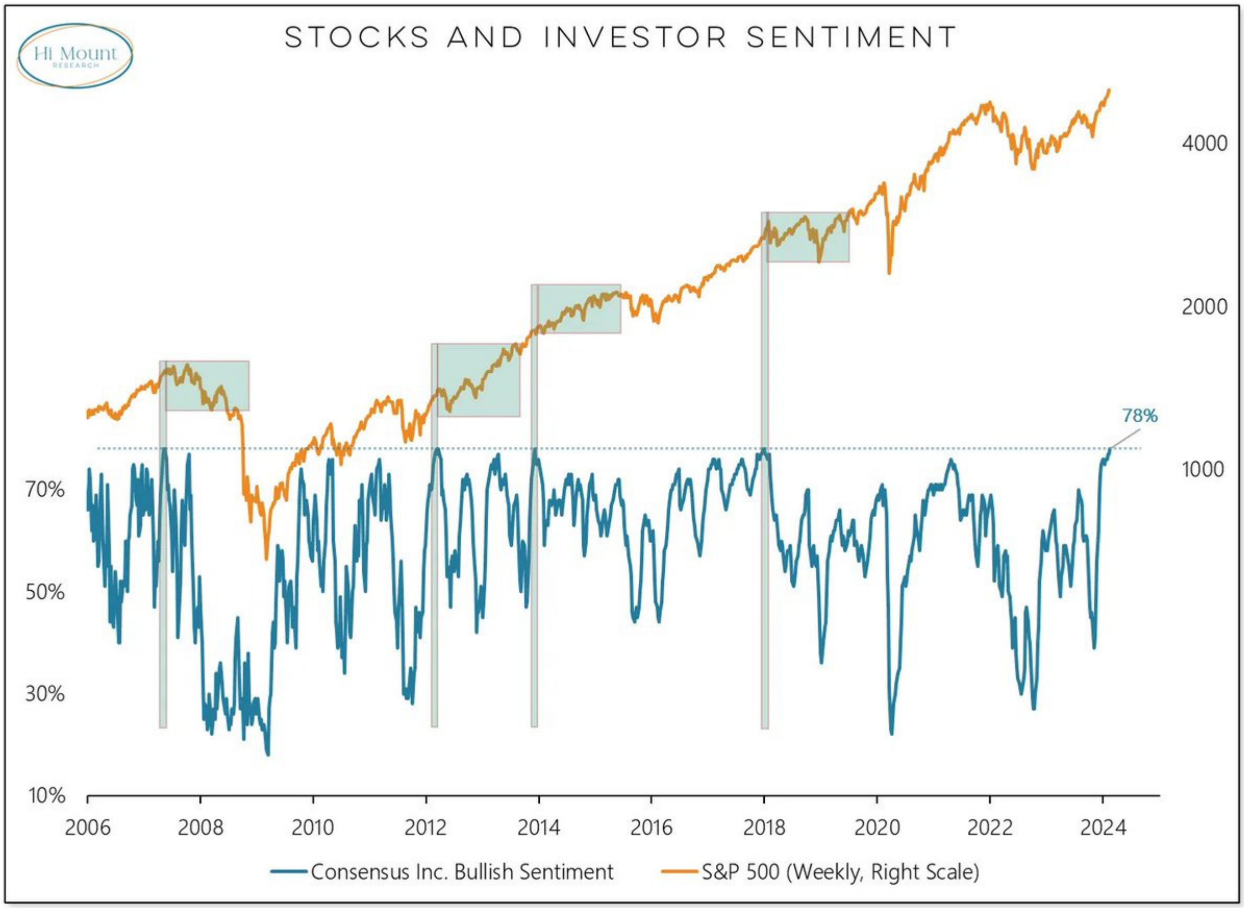
I find that delusional. The 10-Year is trading at 4%, 2% lower than deficit spending and nominal economic growth which is accelerating. This spread is unsustainable.

Continue reading here.

The hype around AI may be starting to fade (from The Daily Spark)...

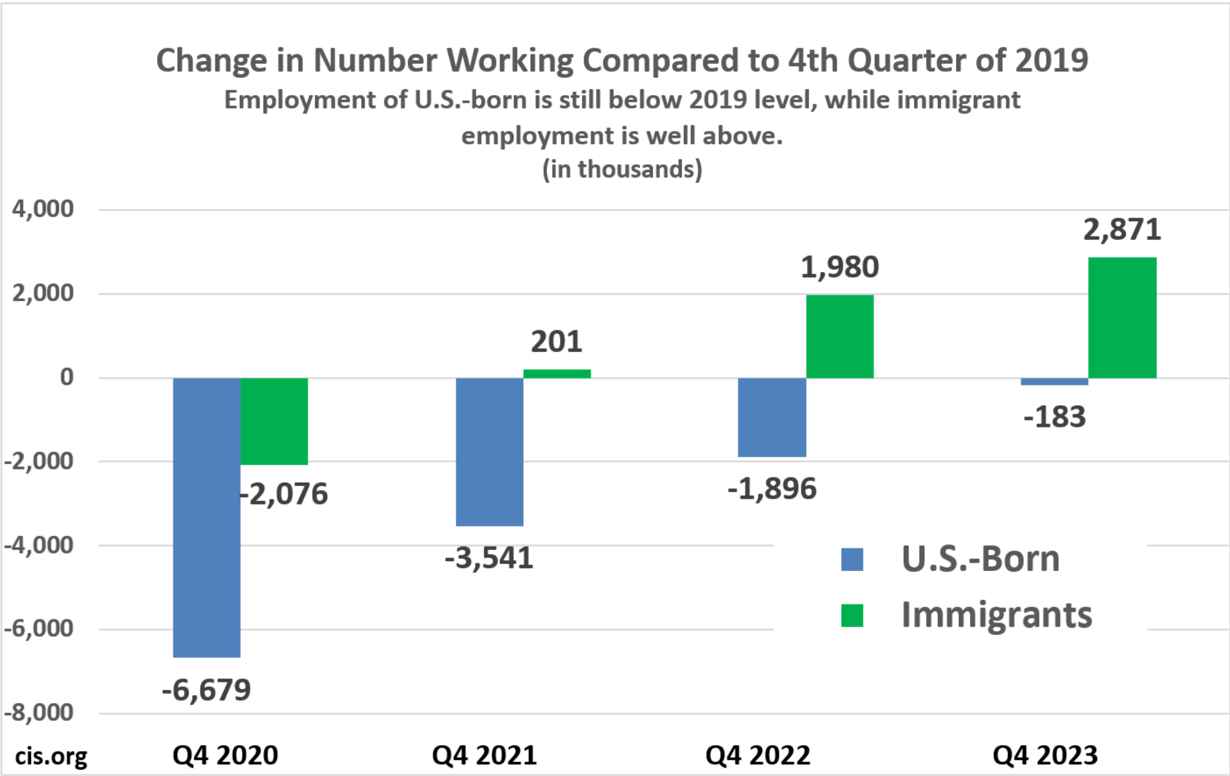


Bullish investor sentiment has risen to multi-decade extremes (from Jesse Felder/Daily Chartbook via X)...



Foreign-born workers make up over 100% of the increase in employment since 2020 (from Mish Talk)...

US-born employment is lower now than it was in January of 2020. Foreign-born workers make up over 100 percent of the employment gains.



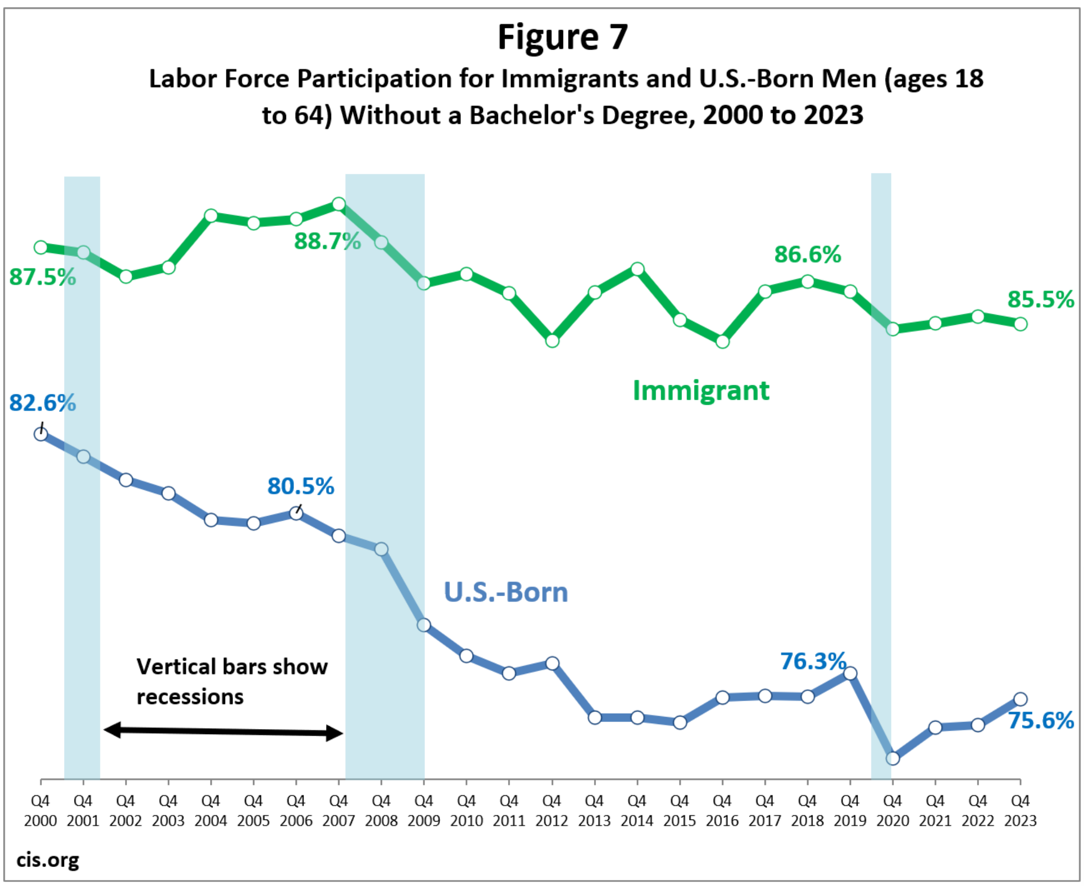
MishTalk

The Center for Immigration Studies reports Compared to 2019, All Employment Growth Has Gone to the Foreign-Born:

> Comparing the fourth quarter of 2019 to the fourth quarter of 2023 shows 2.7 million more people working in the United States — 2.9 million more immigrants (legal and illegal) and 183,000 fewer U.S.-born Americans. Since the depths of the Covid Recession in 2020 employment has increased for both groups. But the number of U.S.-born workers has not made it back to the 2019 pre-Covid level. Equally important, the share of working-age, U.S.-born men without a bachelor's not in the labor force deteriorated in the decades prior to 2019, and the rate in the fourth quarter of 2023 was lower still. These individuals do not show up as unemployed because they have not looked for a job in the four weeks prior to the survey. The long-term decline in the labor force participation rate of less-educated men is linked to serious social problems, from suicide and crime to drug overdoses and social isolation.

> This analysis by the Center for Immigration Studies is based on the Current Population Survey (CPS), collected by the Census Bureau for the Bureau of Labor Statistics. We focus on the peak years of prior economic expansions (2000, 2006, and 2019) as well as 2023 because it is the most recent quarterly data available. Immigrants (legal and illegal together) in the CPS are often referred to as the "foreign-born" and include all persons who were not U.S. citizens at birth — primarily naturalized citizens, lawful permanent residents, long-term temporary visitors (e.g. guestworkers), and illegal immigrants.

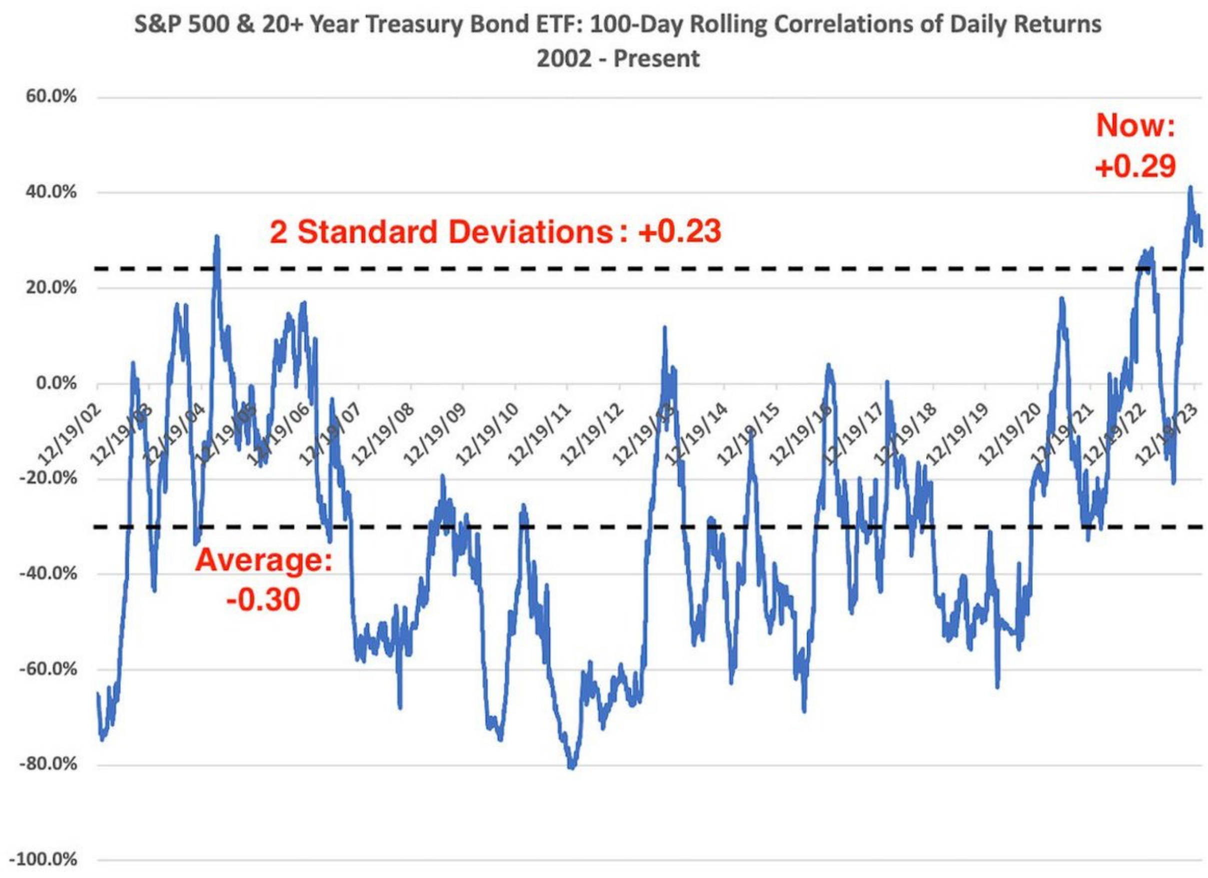
Labor Force Participation Rate



The participation rate is the percentage of the population that is either working or actively looking for work.

[Continue reading here](#).

The direction of yields continues to matter more to equity valuations now than at any point over the last two-plus decades ([from Daily Chartbook via X])...



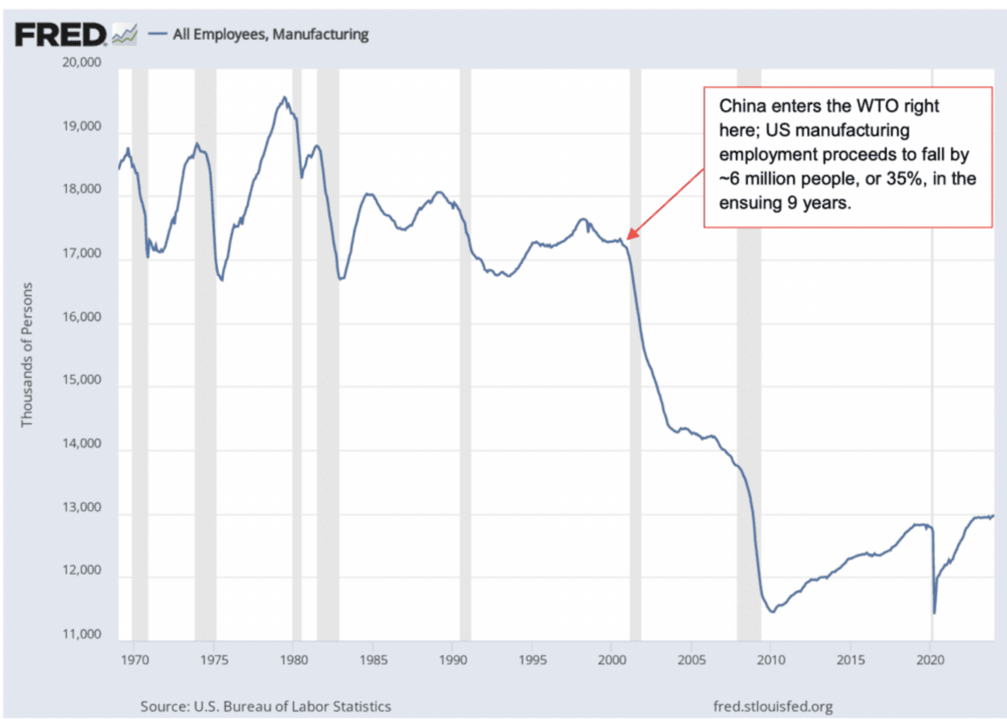
"The U.S. already lost 'WW3.' Recognition of this just has not been evenly distributed yet." (from FFTT Tree Rings)...

What would America look like if it lost World War III? By Niall Ferguson – 2/11/24
What Would America Look Like If It Lost World War III? – Bloomberg

This [month], Niall Ferguson wrote the provocative Bloomberg op-ed above that amounted to a lengthy call to arms to the American public not to lose its appetite to continue to support the wars in Ukraine and Gaza, and the persistent tensions around Taiwan.

In our view, **wisdom is seeing things for what they are, rather than for what they are called**. With that in mind, we decided we would take a crack at answering Ferguson's provocative question.

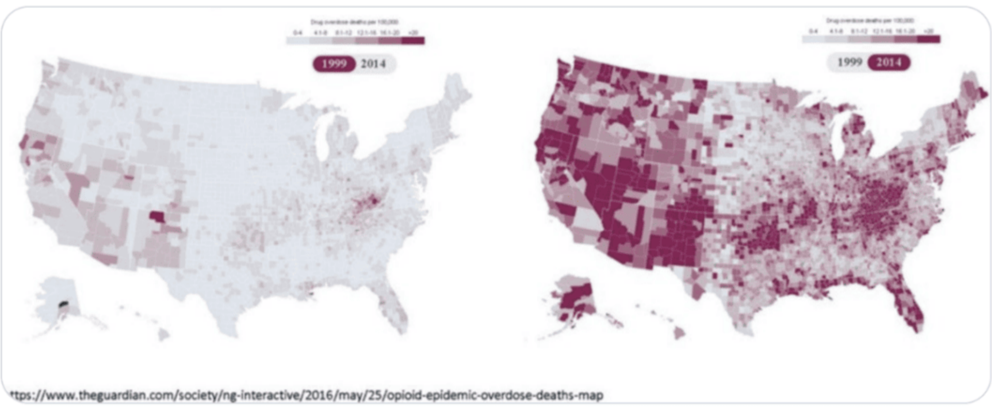
Given that a nation's industrial base tends to be ravaged in a losing war, one symptom of America losing WW3 would likely be the destruction of a substantial portion of the US industrial base, which would then drive a collapse in manufacturing and manufacturing employment in America:



With US manufacturing workers suddenly finding themselves out of jobs that often provided meaning, and with the loss of US factories hollowing out small towns across the US, the US losing WW3 might easily result in an epidemic of "deaths of economic despair" *(as the WSJ, quoting Angus & Deaton would later call them circa 2015)* rippling across the US.

Luke Gromen
@LukeGromen

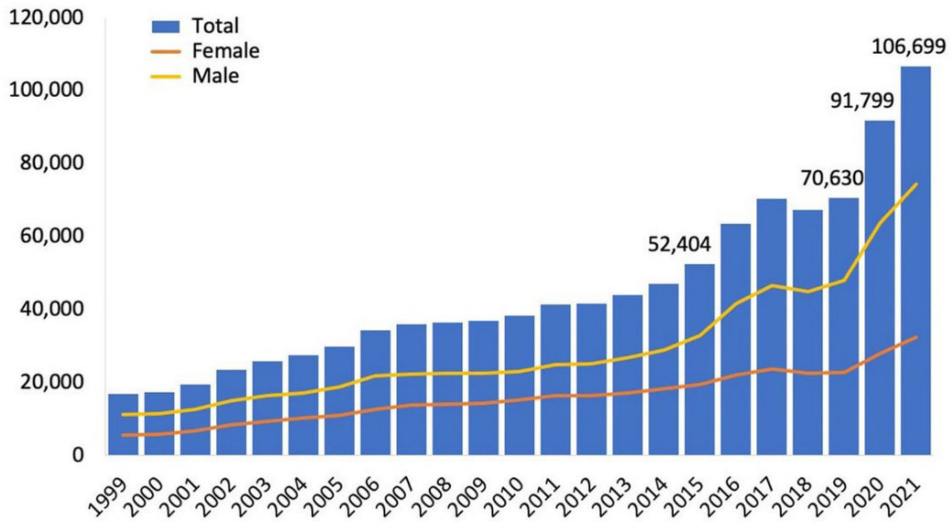
2/ Left, US drug overdose deaths per capital in 1999; right, drug overdose deaths per capita in 2014.



11:35 AM · Feb 7, 2024 · **5,130** Views

These deaths of economic despair turned wide swaths of the US map above of per capita drug overdose deaths blood red from 1999 (left map) to 2014 (right)... and then from 2014 to 2021, the annual number of drug OD deaths in the US more than doubled again. **In all, ~750,000 Americans died of drug OD's from 2010-2021, more than died in all US wars in the 20th Century**... something we might expect to see if America lost WW3:

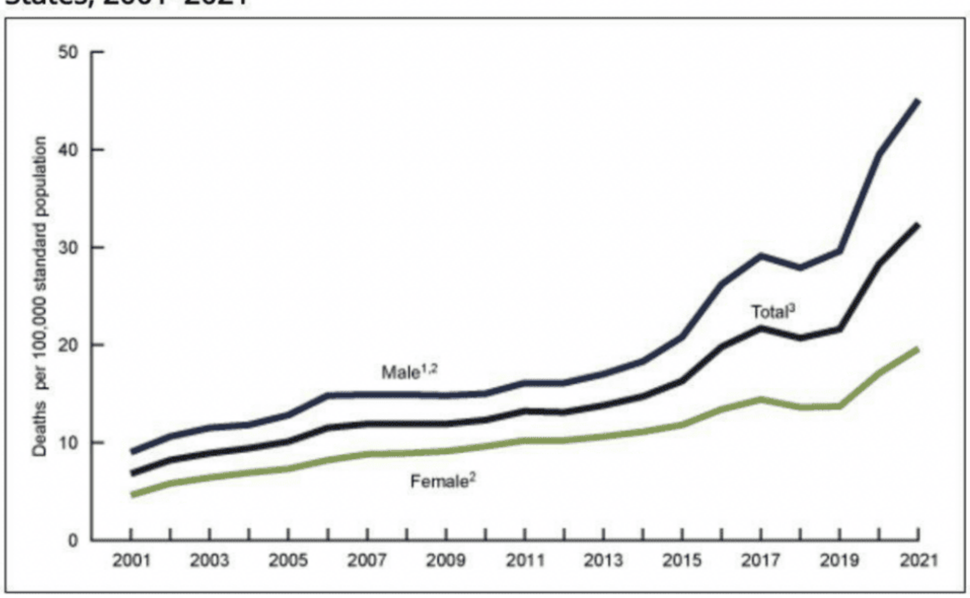
Figure 1. National Drug-Involved Overdose Deaths*, Number Among All Ages, by Gender, 1999-2021



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision.
Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

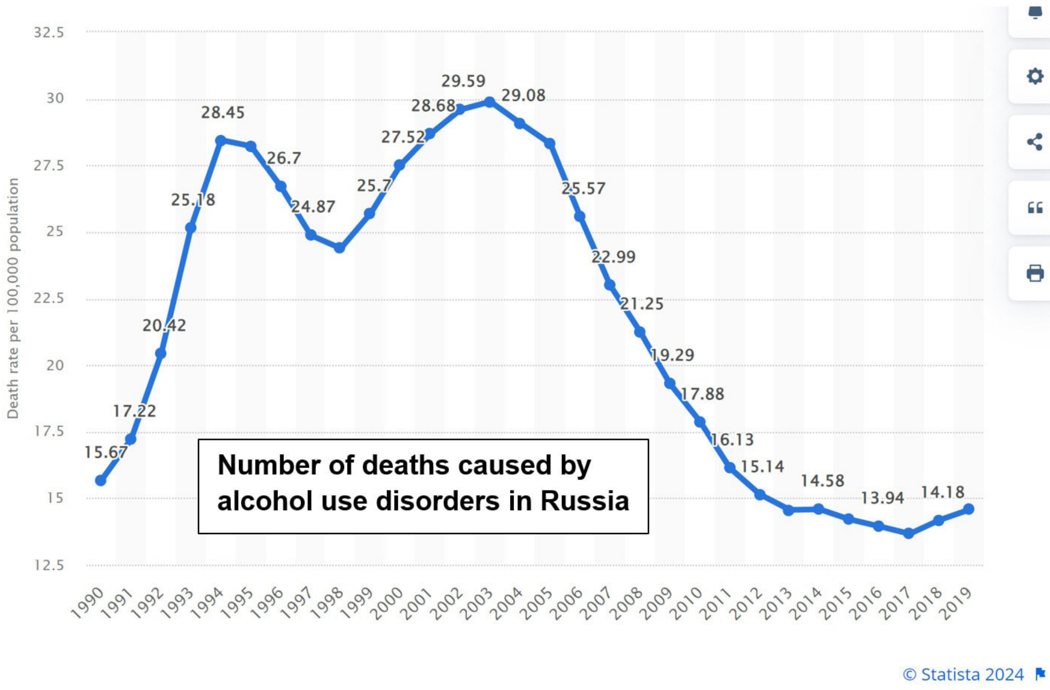
Per capita US drug OD deaths are now growing exponentially, and in particular, among US men (highly relevant in any discussion of WW3):

Figure 1. Age-adjusted rate of drug overdose deaths, by sex: United States, 2001–2021



Source: CDC

By way of comparison, **by the time Russian alcohol use disorder deaths hit the per capita rates that US drug OD deaths are now at, the USSR had already lost the Cold War:**



Just as the loss of one's industrial base and a large number of their young men are symptoms of a nation losing a World War, so too is that nation having the inability to manufacture weapons without permission or supplies from a potential or actual adversary:

"We can de-risk but not de-couple" from China, says Raytheon chief – 6/19/23
'We can de-risk but not decouple' from China, says Raytheon chief | Financial Times (ft.com)

Western manufacturers will be able to de-risk their operations in China but will find it impossible to cut ties completely with the country, according to the head of one of the US's largest aerospace and defence companies.

Greg Hayes, chief executive of Raytheon, said the company had "several thousand suppliers in China and decoupling…is impossible". "We can de-risk but not decouple," Hayes told the Financial Times in an interview, adding that he believed this to be the case "for everybody".

"Think about the $500bn of trade that goes from China to the US every year. More than 95 per cent of rare earth materials or metals come from, or are processed in, China. There is no alternative," said Hayes. "If we had to pull out of China, it would take us many many years to re-establish that capability either domestically or in other friendly countries."

Hayes' comments underline the difficulties facing western manufacturers amid growing friction between China and the US and its allies. Beijing in February imposed new sanctions on both Raytheon and US defence peer Lockheed Martin for supplying weapons to Taiwan.

"We are looking at de-risking, to take some of the most critical components and have second sources but we are not in a position to pull out of China the way we did out of Russia," said Hayes.

60-year Washington DC insider and Cold War veteran Harald Malmgren asks the obvious question: ***How did DoD officials and the Raytheon board let this happen?***


Harald Malmgren
@Halsrethink

How did DOD Aquisitions officials let that happen? -- or permit Raytheon to continue China sourcing -- or not request Raytheon Board to terminate its CEO?

Matt Stoller @matthewstoller · 3h
Greg Hayes, chief executive of Raytheon, said the company had "several thousand suppliers in China and decoupling…is impossible".

Insanity. Basically the outcome of a war with China will rest on whether China decides to supply us with ammunition.
ft.com/content/d0b949...
Show this thread

2:53 PM · Jun 20, 2023 · **2,489** Views

Another symptom of the US losing WW3 would likely be popular opinion turning against the war, even among the warrior class (as the US saw in Vietnam):

THE WALL STREET JOURNAL.

The Military Recruiting Crisis: Even Veterans Don't Want Their Families to Join

Pentagon scrambles to retain the main pipeline for new service members as disillusioned families steer young people away

raining at the Marine Corps Recruit Depot in Parris Island, S.C., in 2019. VICTOR J.

By Ben Kesling Follow

June 30, 2023 12:01 am ET

After 20 years of "forever war" in the Middle East, and after watching their colleagues bleed in Afghanistan for 20 years to take Afghanistan from the Taliban only to hand it back to the Taliban 20 years later, and after bleeding in Iraq to seemingly secure Iraq's oil for China…

China replaces western energy firms in Iraq's supergiant oil field 1/8/24
China Replaces Western Energy Firms in Iraq's Supergiant Oil Field (yahoo.com)

… all while watching US defense and manufacturing execs get wealthy by offshoring US manufacturing capacity and jobs to China (per the prior pages), the US military recruiting crisis above amounts to "life imitating art":

Why shouldn't I work for the N.S.A.? That's a tough one, but I'll take a shot. Say I'm working at N.S.A. Somebody puts a code on my desk, something nobody else can break. Maybe I take a shot at it and maybe I break it. And I'm real happy with myself, 'cause I did my job well.

But maybe that code was the location of some rebel army in North Africa or the Middle East. Once they have that location, they bomb the village where the rebels were hiding and fifteen hundred people I never met, never had no problem with, get killed.

*Now the politicians are sayin', "Oh, send in the Marines to secure the area" 'cause they don't give a sh*t. It won't be their kid over there, gettin' shot. Just like it wasn't them when their number got called, 'cause they were pullin' a tour in the National Guard.*

It'll be some kid from Southie takin' shrapnel in the a$$. And he comes back to find that the plant he used to work at got exported to the country he just got back from. And the guy who put the shrapnel in his a$$ got his old job, 'cause he'll work for fifteen cents a day and no bathroom breaks.

Meanwhile, he realizes the only reason he was over there in the first place was so we could install a government that would sell us oil at a good price. And, of course, the oil companies used the skirmish over there to scare up domestic oil prices. A cute little ancillary benefit for them, but it ain't helping my buddy at two-fifty a gallon.

*And they're takin' their sweet time bringin' the oil back, of course, and maybe even took the liberty of hiring an alcoholic skipper who likes to drink martinis and f*cking play slalom with the icebergs, and it ain't too long 'til he hits one, spills the oil and kills all the sea life in the North Atlantic.*

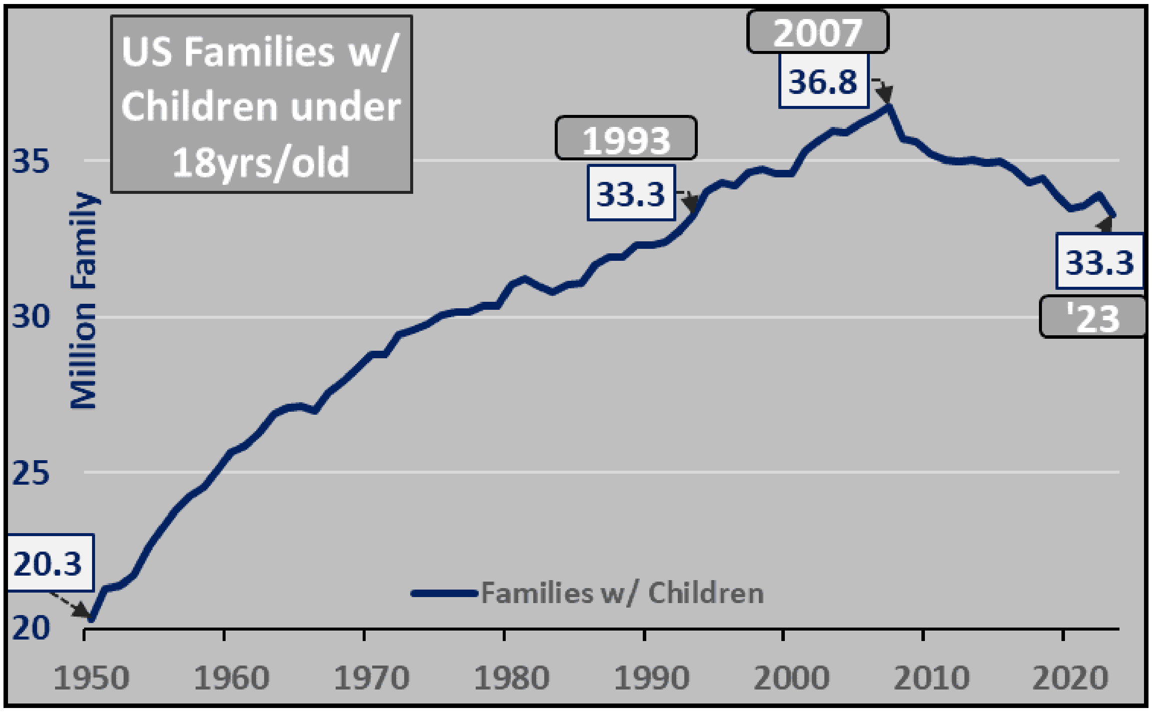
*So now my buddy's out of work and he can't afford to drive, so he's got to walk to the f*cking job interviews, which sucks 'cause the shrapnel in his a$$ is givin' him chronic hemorrhoids.*

And meanwhile he's starvin', 'cause every time he tries to get a bite to eat, the only blue plate special they're servin' is North Atlantic scrod with Quaker State.

*So what did I think? I'm holdin' out for somethin' better. I figure f*ck it, while I'm at it why not just shoot my buddy, take his job, give it to his sworn enemy, hike up gas prices, bomb a village, club a baby seal, hit the hash pipe and join the National Guard? I could be elected president.*

- Matt Damon as Will Hunting in the 1997 movie "Good Will Hunting"

If the US lost WW3, one might see a rising sense of hopelessness among young US families, leading to an unprecedented drop in the number of US families with children under 18 years old *(Chart source: Chris Hamilton at Econimica)*.



In our view, Ferguson's provocative op-ed reveals a huge blind spot in many global elites' understanding of what has happened to the US over the past 20 years.

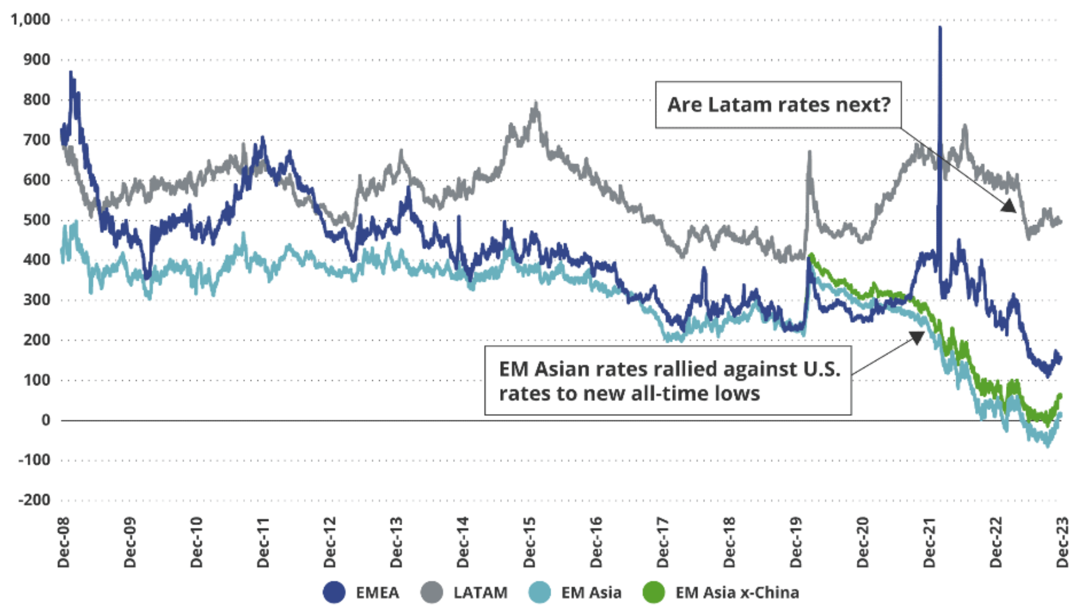
Many global elites do not understand this because they generally spend most of their time in the US in Washington DC, NYC, San Francisco, etc., rather than the Rust Belt or US "flyover country."

What many global elites do not seem to realize is that the economic, political, and social unwinding now happening in "Tier 1" US cities (to many of their surprise) occurred in US "flyover country" 10-20 years ago. Living through this process in the US Rust Belt allows us an underappreciated macro lens – the economic and political instability in US Tier 1 cities is a process we have already lived through in "flyover country." Once it starts, it is VERY hard to stop and reverse.

"What if the US loses WW3?" ***In a very real sense, the US already lost "WW3." Recognition of this just has not been evenly distributed yet…***

Exhibit 3 – EM Asia Rates Rallied During Tumultuous 2020s

EM Regions - GBI-EM/5Y UST Yield Differentials, bps



Source: VanEck Research; Bloomberg LP, as of 31 December, 2023.

…even as debt markets have already been discounting it, as EM Asian rates have rallied massively v. USTs over the past 4 years *(above)*, ***while gold has been communicating the same message*** *(by completely separating from US real rates since late 2022, and outperforming TLT since 2014).*

The US already lost "WW3" – the war was economic, and by the time the US realized it was in one, it was too late.

In our view, this is now a fully investable theme – this can be seen by GLD/TLT, SPX/TLT, the EM Asia rates outperformance relative to USTs… and it is likely to manifest in secularly higher US government borrowing rates ***(that the US government cannot afford without periodic USD liquidity injections from the Fed and/or Treasury)*****, and as such, implies we are in the early days of either a long period of secularly high inflation, or of a short period of VERY high inflation.**

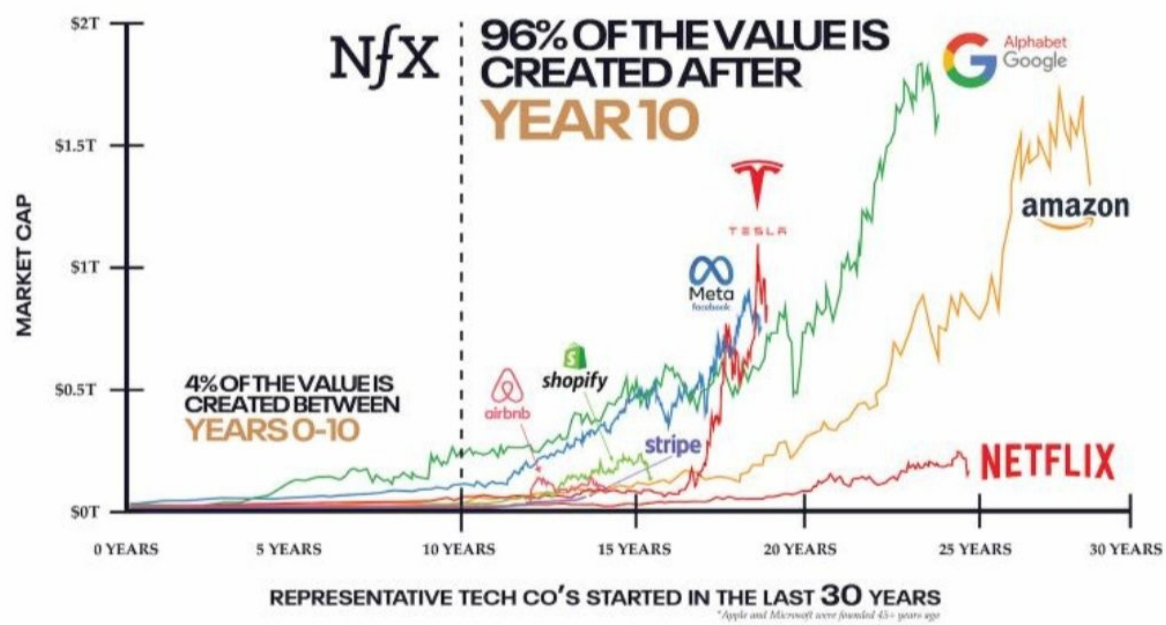
The US lost the Vietnam War, and the inflation of the 1970s restored the US fiscal situation by de-levering the US government's balance sheet and thereby preparing the US for Reagan's "Morning in America."

The preponderance of the evidence suggests the US lost the first round of the economic war with China and the Global War on Terror… secular inflation and a much weaker USD are now needed to de-lever the US sovereign balance sheet, and ready us for "Morning in America", circa 2028-29. Prepare accordingly.

Continue reading here (subscription required).

Most of the value in many of today's Big Tech companies was created after year 10 (from The Future Investors via X)...

It's better to be right than to be early. Invest if it's clear who will be the winners.



This indicator says there's no need for the Fed to cut rates today (from Jim Bianco via X)...

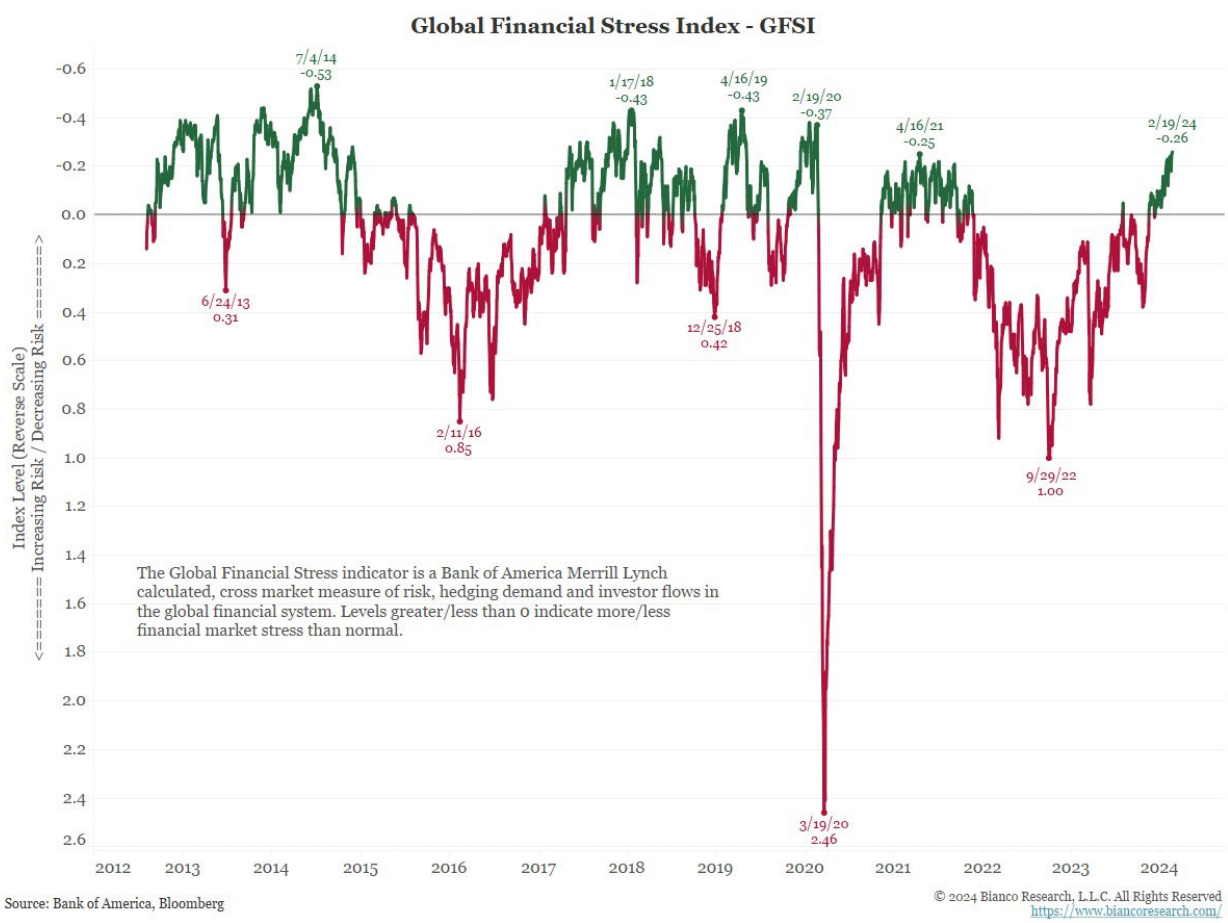
Below is the BofA Global Financial Stress Indicator. A description is on the chart.

It just exceeded its April 2021 extreme, showing the LEAST amount of financial stress since the Pandemic (February 2020).

If, as noted in the repost below, the Fed "has all but achieved its dual mandate of a full-employment economy and low and stable inflation" then the Fed did this with a 5.50% funds rate!

In other words, 5.50% is NOT a stressful rate. The Global Financial Stress Indicator above says markets are enjoying the least amount of stress at any time in the last four years.

Restated bluntly, a 5.5% funds rate is not restraining anything. So, cuts are not necessary.



Walmart warns of "sticky" inflation (from *The Financial Times*)...

Walmart said prices for some of its products did not decline as much as it had anticipated during the most recent quarter, reflecting the sticky inflationary environment in the US that is prompting investors to reassess when the central bank will start cutting interest rates.

Chief executive Doug McMillon said in November that the world's largest retailer could find itself "managing a period of deflation" in early 2024, in what may have been an encouraging sign for the broader economy given Walmart's reputation as a consumer bellwether.

McMillon said on Tuesday that Walmart's general merchandise category in its US operations was "there" in terms of a "deflationary position", but in the three months to January, "the slope of the decline softened".

General merchandise prices were lower than a year ago, he told analysts, "but not as much as the trend line would have suggested" at the end of the preceding quarter. Prices for food and consumables were "slightly higher than a year ago", he added.

McMillon's comments come a week after official data showed inflation in the US eased less than expected during January, prompting investors to scale back bets that the Federal Reserve would begin easing monetary policy as soon as May.

Continue reading here (subscription may be required).

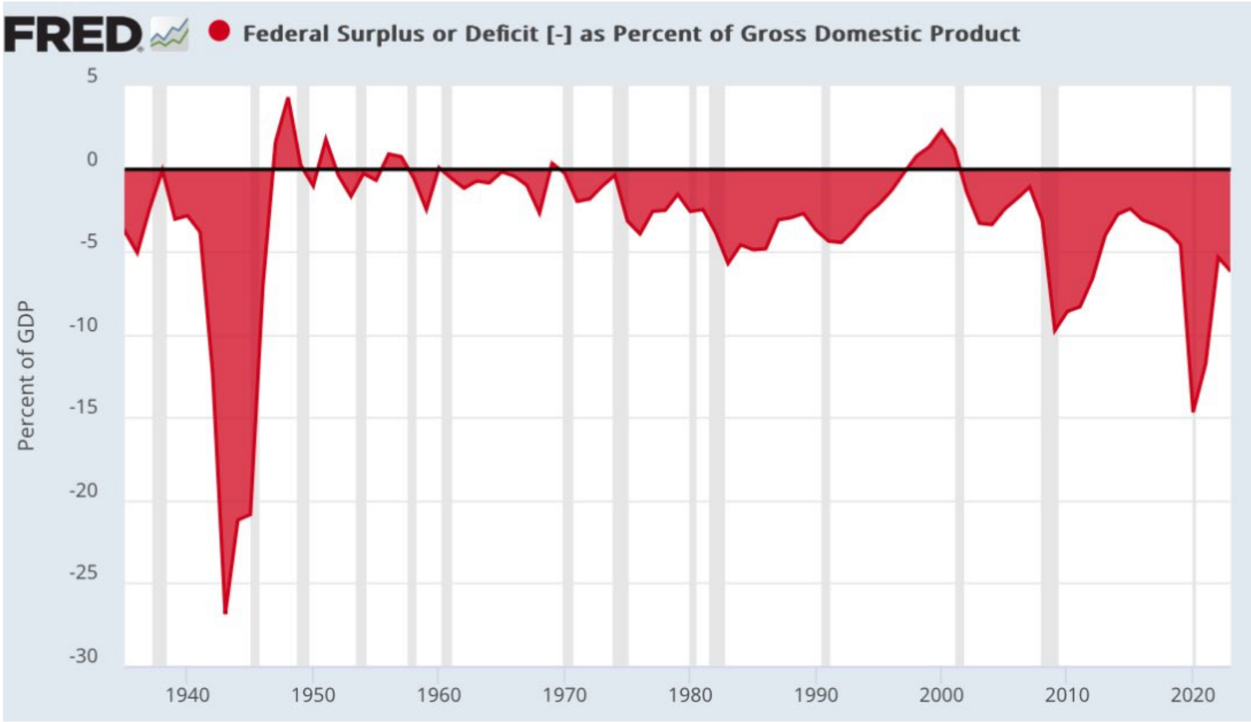
This is a big reason the economy has held up so well despite obvious obstacles against it (from Geiger Capital via X)...

When people say that the economy is super strong, please understand...

We are running a HISTORIC deficit.

6.2% of GDP. Never seen before outside of WW2, the GFC or Covid.

If we weren't running this deficit and balanced the budget, or even got close, GDP would collapse.

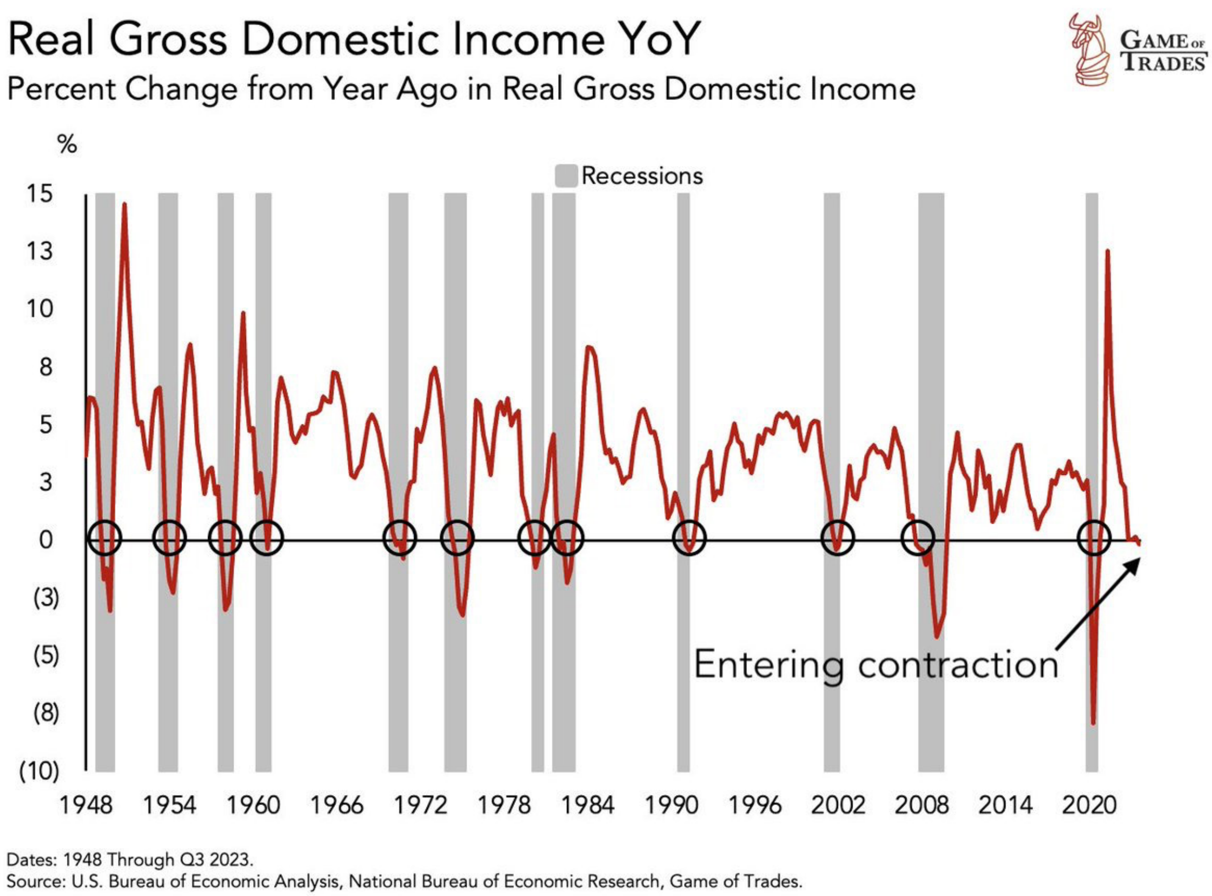


U.S. real gross domestic income is now officially contracting (from Game of Trades via X)...

Real gross domestic income has JUST entered contraction territory.

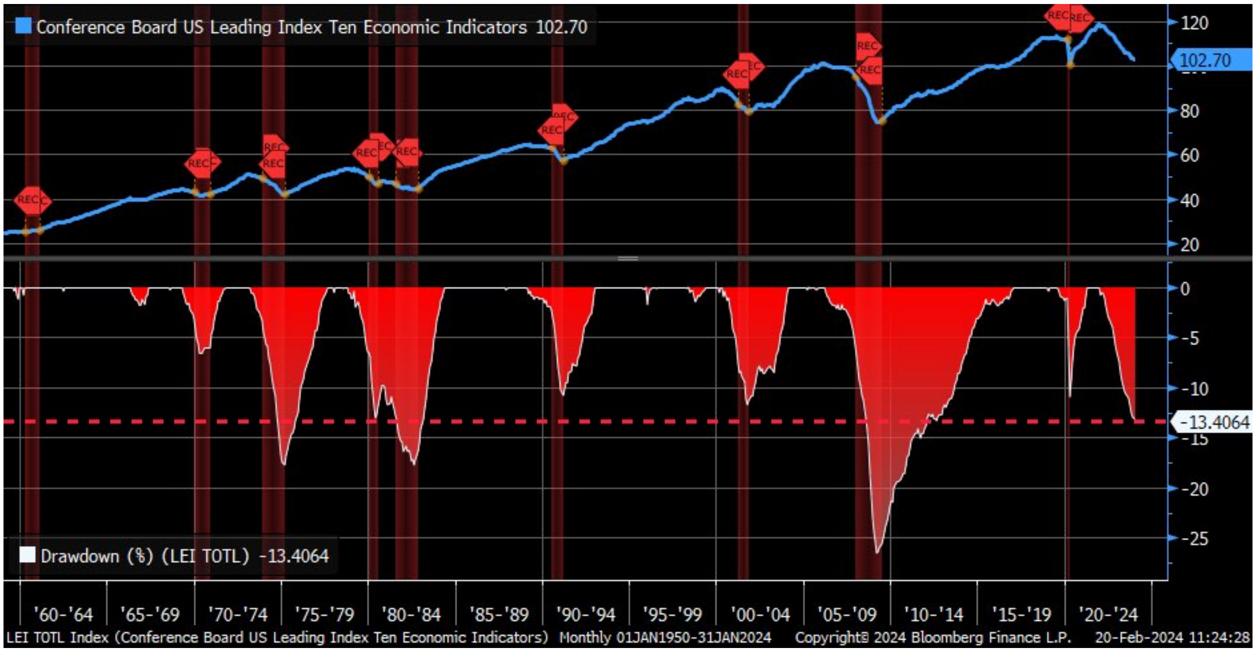
This has only happened 12 prior times since 1948.

Every single one of them occurred around a recession.



We've never seen this kind of a decline in leading economic indicators without already being in a recession ([from Liz Ann Sonders via X](#))...

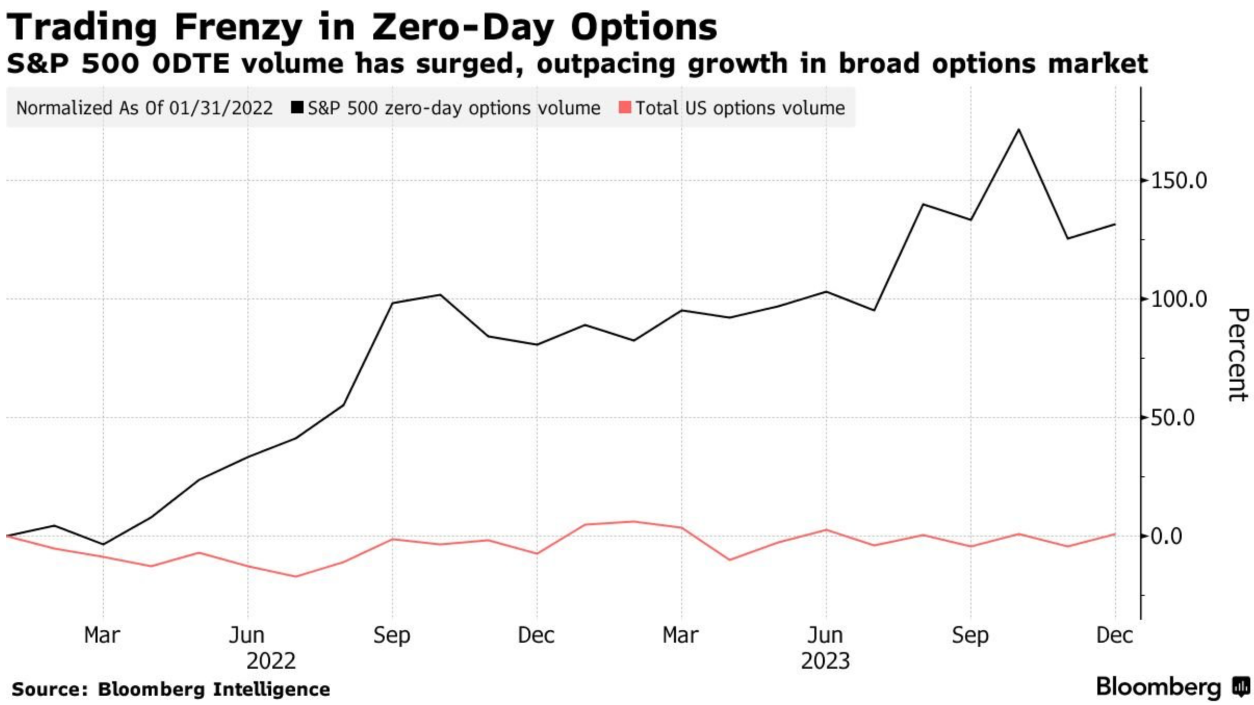
Leading Economic Index from @Conferenceboard now down by 13.4% from its recent all-time high... continues to be a unique cycle since we've never seen this kind of a decline without already being in a recession.



Zero-day options are now dominating the market (from Markets & Mayhem via X)...

S&P 500 0DTE options trading has surged, leaving the rest of the options market in the dust.

Just another reason it's rather important to watch the action there.



The stock market's fate could ride on the labor market (from Morgan Stanley Wealth Management)...

U.S. stocks have reached a series of new record highs in recent weeks, building on last year's double-digit gains. What is driving investors' optimism – and is it sustainable?

At the beginning of the year, investors mostly seemed bullish about the fact that the U.S. economy was slowing down, since that would likely generate interest-rate cuts by the Federal Reserve. But investors have stayed buoyant despite recent data pointing to strong economic growth, which suggests rate cuts may be delayed. Instead of retrenching, investors have simply shifted the narrative, indicating that potential strength in corporate earnings may justify higher stock prices.

However, with equity valuations already rich, can today's economic strength translate to positive surprises in company earnings? The answer likely hinges on what happens in the U.S. labor market.

Watch the Workers

If the labor market remains tight, with more jobs than available workers, companies may feel pressure to continue increasing wages – which could be good for consumer spending, but would likely weigh on company profits. With additional "slack" in the labor market (i.e., competition for jobs), companies could see productivity improve, with positive effects on profits – but there's a risk that a decline in jobs could also bring down consumer spending.

Can the economy strike a balance between the two sides of that scale?

On one hand, there is mounting evidence that the labor market remains tight and pressure on companies to increase wages will continue to grow:

- Companies keep adding jobs. January's non-farm payrolls blew past economists' estimates, registering 353,000 jobs created versus the expected 185,000. Notably, in January, the unemployment rate remained at 3.7%, against estimates of 3.8%, and wage growth re-accelerated to 4.5% year over year, well above the 4.1% forecast.
- The overall workforce isn't growing much. Recent metrics suggest less than 1% annual growth, compared with the 2% pace seen between January 2022 and December 2023. What's more, the labor force participation rate (i.e., the percentage of all people of working age who are employed or actively seeking work) may be topping out, as the rate for the prime-age cohort—those between 25 and 54—is now 83.2%, a full percentage point above the pre-COVID average.

INVESTMENT CHRONICLES

- More people are retiring. "Excess" retirements, or those above the predicted trend, hit a new record in the fourth quarter of last year, at over 2.5 million, or 1.5% of the labor force.

On the other hand, there are also signs of labor-market slack developing:

- Company management are discussing staff reductions. A Bloomberg analysis of corporate-earnings call transcripts showed that references to "job cuts" have hit the highest level since the beginning of the COVID shutdowns in early 2020.

- Continuing jobless claims are grinding higher. The number of U.S. residents filing for ongoing unemployment benefits has risen from 1.806 million in the first week of 2024, to 1.895 million the week ended Feb 3.

- Immigration could drive new growth in the labor force. Foreign-born workers accounted for 18.6% of the U.S. workforce in January, or 29.8 million jobs, up 4% from a year ago. This population has an unemployment rate of 4.5%, versus the aggregate 3.7%, providing a source of slack.

Implications for Investors

Today's labor-related data is difficult to parse but increasingly important to watch. Investors should pay attention to job creation, wages and layoffs.

Morgan Stanley's Global Investment Committee continues to emphasize building highly diversified portfolios, within which investors should consider favoring exposure to U.S. stocks through equal-weighted versions of equity indices, rather than market-cap-weighted indices.

We also encourage active stock picking, and believe that real estate investment trusts (REITs), gold, hedge funds, investments in Japan, emerging markets other than China, and select European companies are likely to be outperformers. Also consider allocating more of your portfolio to fixed income in order to help further diversify.

What "Dow Theory" is saying about the market today (from All Star Charts)...

Back in the late 1800s, Charlie Dow was a journalist in Springfield, Massachusetts.

His job was to write about the stock market. But when he would go knocking on doors asking companies questions, they would tell him, "Our business is none of your business".

So how could poor Charlie do his job then?

Well, he concluded that there was a better way to do this.

He recognized that there were a select group of stocks that, "Made the goods", and he called those the Industrials.

And then there was the group of companies that, "Delivered those goods". At the time, they were the Railroads.

If one of these groups of stocks were going up in price, and so was the other group, then things are moving in a positive direction together. Those were good signs for the market.

It was specifically when one of those groups were rising, but the other one wasn't, that something was likely wrong.

And boy was he right.

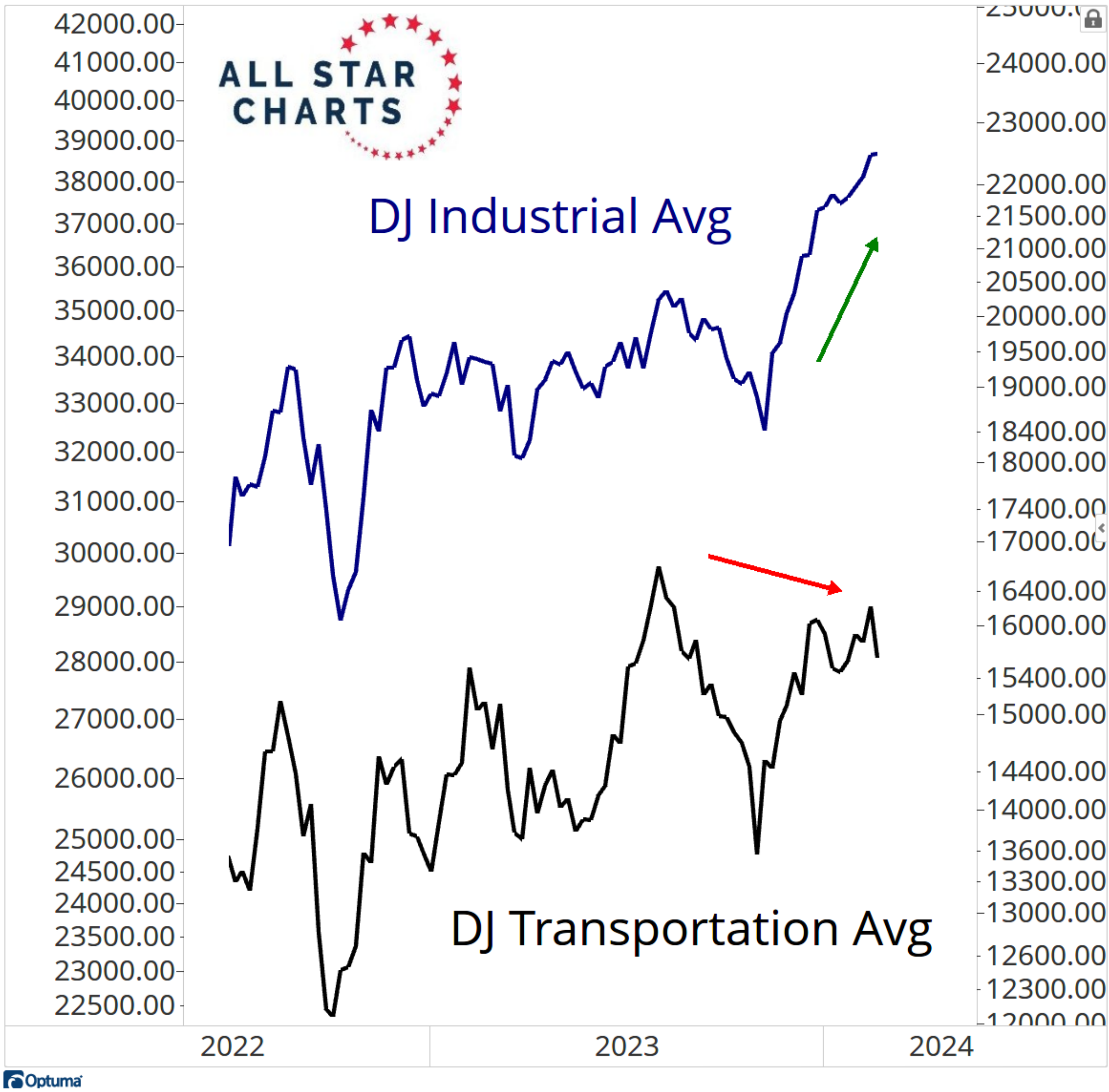
Decades after his death, these indexes were renamed the Dow Jones Industrial Average and Dow Jones Railroad Average. The latter was ultimately renamed again to the "Transportation" Average, as by then there were other methods of delivery outside of Railroads.

And so here we are today.

Charlie would be so proud of us.

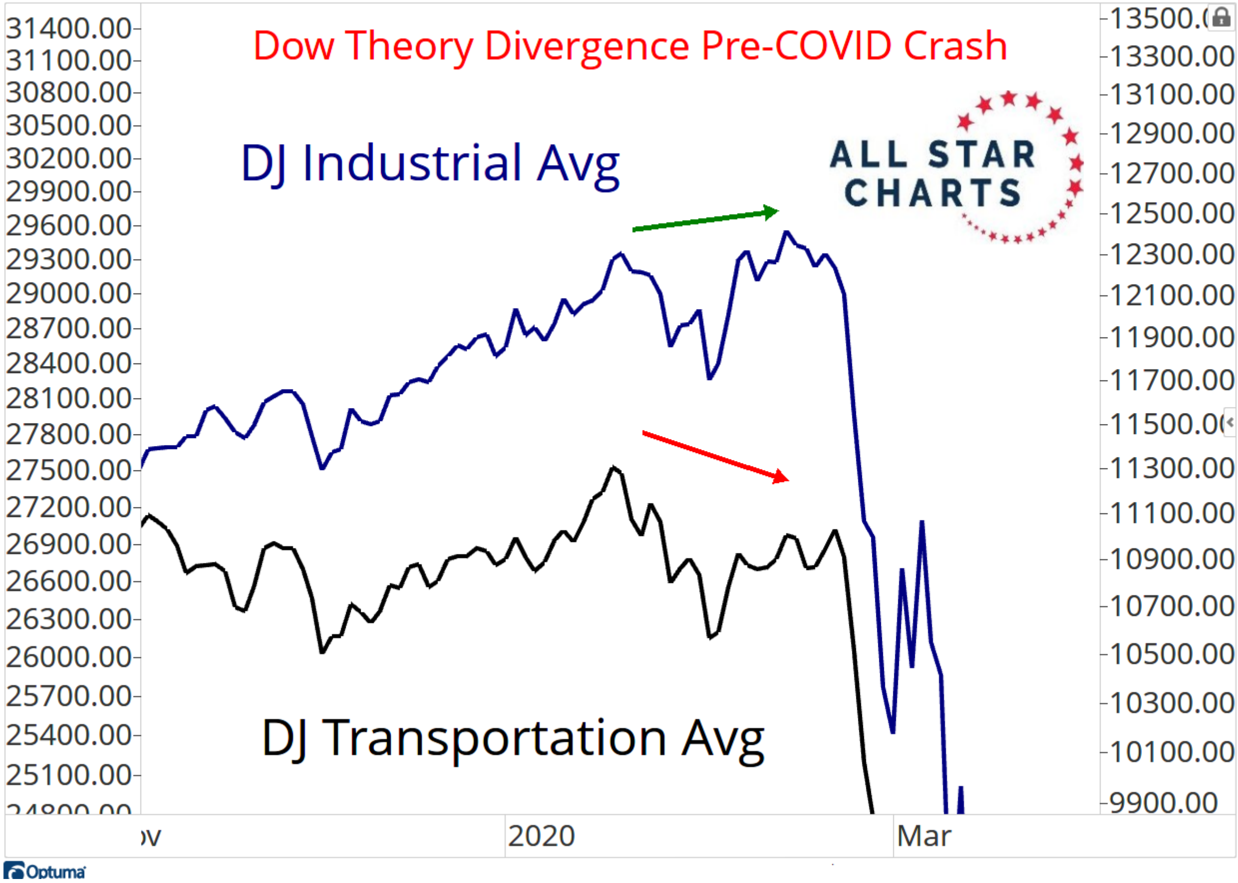
The chart below shows the Dow Jones Industrial Average making new highs, as recently as last week. But the Dow Jones Transportation Average has not been able to do that at all.

Here's the Dow Theory divergence in real time that Charlie Dow was writing about almost 140 years ago:



If you've gone back and studied major turning points in markets over the years, you'll notice how often this divergence is front and center.

You saw it right before the Great Financial Crisis in 2008. You saw it right before the Tech bubble peaked in 2000. You even saw it before the COVID crash in 2020.



And now you're seeing it again.

So if it was just one divergence among an ocean of bullish characteristics, then that would be one thing.

But it's not.

The key here is to put this information above within the context of everything else that's happening in the market.

And if you've been paying attention, the weight-of-the-evidence has already suggested that a period of lower stock prices and spiking volatility is upon us.

The market is acting accordingly and many of the most important stocks and indexes have been making lower highs and lower lows for months.

You're only now starting to see the deterioration at the index level, particularly over the past couple of weeks.

Dow Futures, for example, are down every week this month. And for perspective, we'll be in March next week.

The Nasdaq100 looks even worse.

This analysis above is what we refer to now as "Dow Theory".

It's the first thing you want to learn when you start investing in markets, whether you're a short-term trader or long-term investor.

Continue reading here.

Federal Reserve meeting minutes suggest officials are more worried about cutting rates *too soon* rather than *too late* (from *Barron's*)...

Federal Reserve officials need to see more evidence that inflation is trending lower before they move to reduce interest rates, minutes from the central bank's latest meeting state. Policymakers don't expect rates to go higher in this economic cycle, but nor are they ready to cut.

Stock indexes dipped after the minutes were published at 2 p.m. ET on Wednesday, with the S&P 500 down 0.5%. Bond yields rose slightly: The two-year U.S. Treasury note yield was up 0.04 percentage point, to 4.66%.

The minutes reflect the proceedings of the Jan. 30-31 Federal Open Market Committee meeting. Subsequently, inflation data for January came in higher than expected, after decelerating for most of the past year.

"Participants judged that the policy rate was likely at its peak for this tightening cycle," the minutes read. "Participants generally noted that they did not expect it would be appropriate to reduce the target range for the federal funds rate until they had gained greater confidence that inflation was moving sustainably toward 2 percent."

Officials held the federal-funds-rate target range steady at 5.25% to 5.50%.

Continue reading here (subscription may be required).

Big mergers-and-acquisitions (M&A) deals are back (from *Business Insider*)...

Corporate deal making is staging an epic comeback this year.

This week alone, Capital One agreed to acquire Discover for $35 billion, Truist Financial announced a $15.5 billion sale of its insurance arm, and Walmart shook hands to buy TV maker Vizio for $2.3 billion.

The trio of transactions, worth a combined $53 billion, have lifted the value of deals announced worldwide this year to $425 billion — a 55% increase from the same period in 2023, Bloomberg estimates.

That's a stark contrast from the past two years. Global deal values tumbled from more than $5 trillion in 2021 to less than $3 trillion in 2023, and volumes slid 17% to 55,000 deals, per the London Stock Exchange Group.

Megadeals were hit especially hard. Transactions worth more than $5 billion plunged 60%, from nearly 150 deals in 2021 to fewer than 60 last year, LSE Group found.

Mergers and acquisitions, initial public offerings (IPOs), and other types of deals slumped in 2022 and 2023 because central banks' inflation-fighting increases to interest rates made financing more costly.

A muted first half for stocks, recession fears, increased regulatory scrutiny, concerns of a US debt default, and the breakout of a second war also fueled uncertainty and flattened valuations.

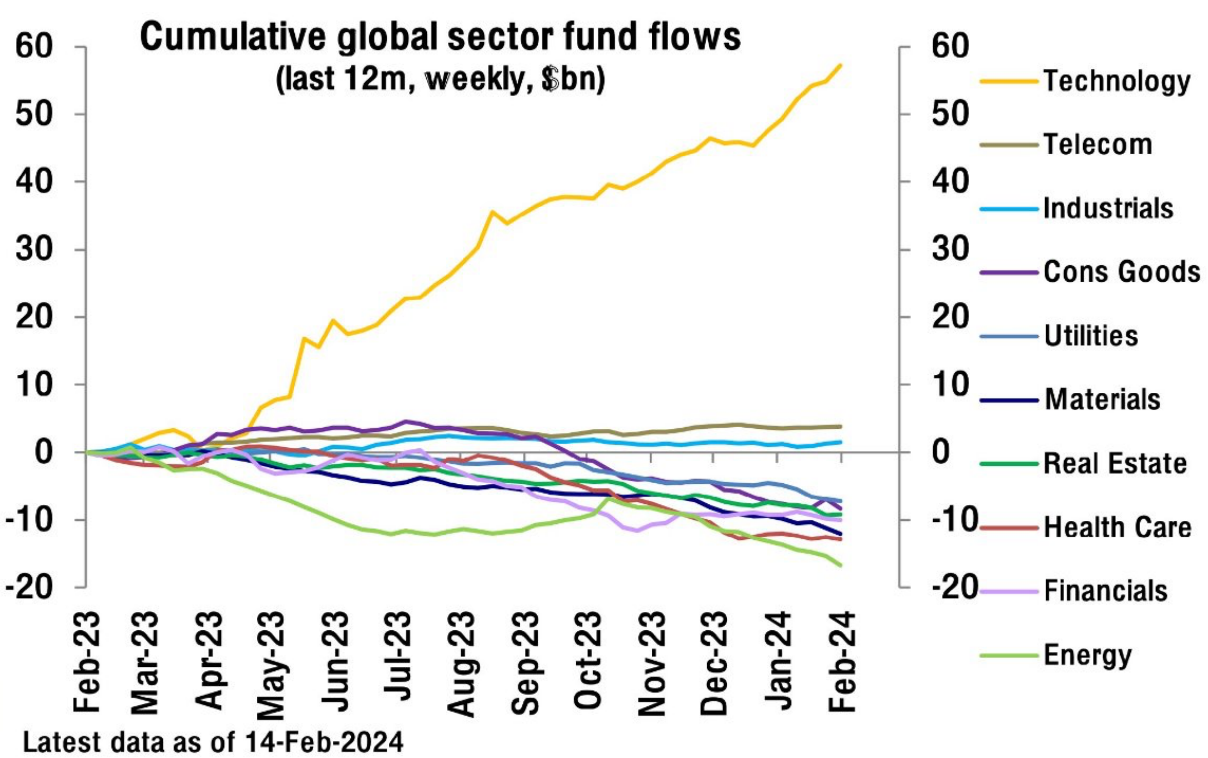
Lofty valuations

This year's deal bonanza reflects a sunnier market and economic outlook. Stocks are trading near-record highs, giving companies a powerful currency for dealmaking.

Continue reading here.

The technology sector has seen the vast majority of investment inflows over the last year ([from Tracy (Chi) via X])...

Figure 2: Tech funds also continue to see massive inflows



Source : EPFR Global, Haver Analytics, Deutsche Bank Asset Allocation

Market concentration has reached an unsettling extreme (from The Kobeissi Letter via X)...

The top 10% of stocks in the US now reflect ~75% of the entire market.

This is, by far, the most concentrated stock market since the Great Depression in 1931.

In the Dot-com bubble of 2001, concentration of the top 10% of stocks peaked at ~72%.

Even prior to the 2008 Financial Crisis, concentration of the top 10% of stocks peaked at ~66%.

On average, the top 10% of stocks reflect 64% of the entire stock market.

Is a correction overdue?

Big Tech insiders have been selling like there's no tomorrow ([from Insider Tracker via X](#))...

In 2021, Bezos, Musk, and Zuckerberg unloaded $42.9 billion worth of stock in December.

They top ticked the market.

Now they're selling heavily again, with Bezos and Zuckerberg offloading $10 billion in the past month.

What do you think will happen this time?

It's been 30 years since food "ate up" this much of your income (from *The Wall Street Journal*)...

Eating continues to cost more, even as overall inflation has eased from the blistering pace consumers endured throughout much of 2022 and 2023. Prices at restaurants and other eateries were up 5.1% last month compared with January 2023, while grocery costs increased 1.2% during the same period, Labor Department data show.

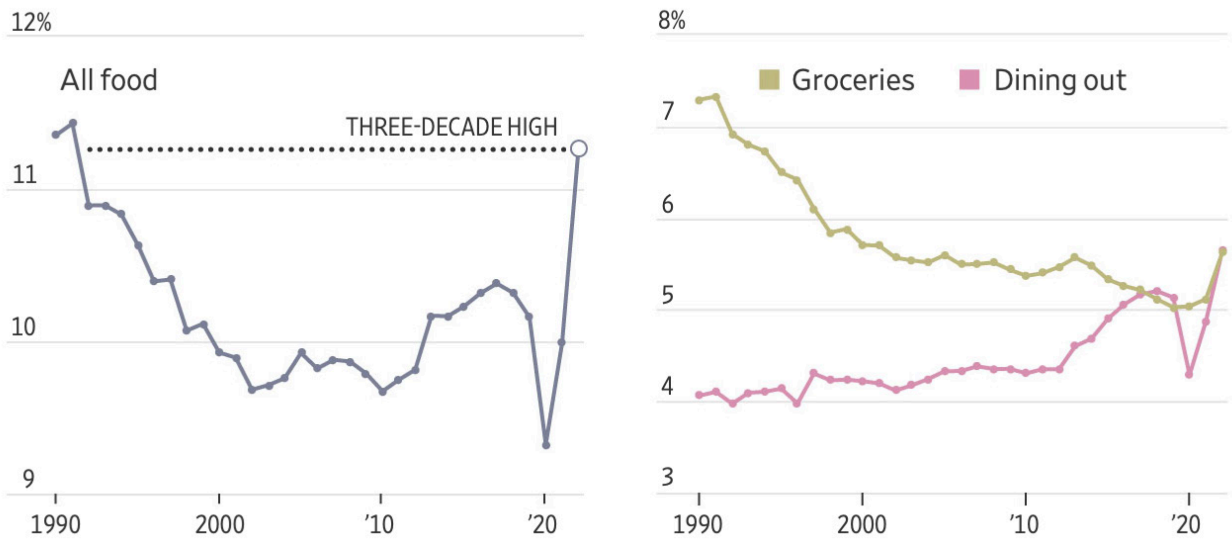
Relief isn't likely to arrive soon. Restaurant and food company executives said they are still grappling with rising labor costs and some ingredients, such as cocoa, that are only getting more expensive. Consumers, they said, will find ways to cope.

"If you look historically after periods of inflation, there's really no period you could point to where [food] prices go back down," said Steve Cahillane, chief executive of snack giant Kellanova, in an interview. "They tend to be sticky."

In 1991, U.S. consumers spent 11.4% of their disposable personal income on food, according to data from the U.S. Agriculture Department. At the time, households were still dealing with steep food-price increases following an inflationary period during the 1970s.

More than three decades later, food spending has reattained that level, USDA data shows...

Food spending's share of disposable income



Source: Agriculture Department

[Continue reading here (subscription may be required)].

Boeing executive in charge of troubled 737 MAX "resigns," but the company crisis isn't over (from Inc.)...

Previous expressions of contrition and vows to tighten safety inspections of its aircraft were clearly not enough for aviation giant Boeing to quell the ongoing controversy surrounding its accident-plagued 737 MAX airliners. The company on Wednesday announced the departure of the executive responsible for the troubled aircraft program--further fallout from the January 5 incident in which a door panel blew out of an Alaska Airlines flight. Observers wonder if this might clear the way for future upper-echelon dismissals.

An internal Boeing memo revealed the departure of Ed Clark, the 737 MAX program vice president and general manager of the company's Renton, Washington plant, where the ill-fated Alaska AIrlines craft was produced. Clark was tapped for the facility's management position in 2021 to assist Boeing move beyond crashes of earlier models of the 737 MAX in Indonesia and Ethiopia in 2018 and 2019 respectively. The accidents killed 346 people. Subsequent investigations revealed the company's shockingly cavalier attitude toward safety concerns, as well as its overly chummy relationship with regulators tasked with ensuring security compliance.

Now Clark exits as the executive responsible for the Renton plant that made the Alaska Airlines plane. The aircraft's door plug panel blew out mid-flight at 16,000 feet, forcing it to turn back to Portland International Airport, where it landed without any passenger injuries. His departure, accompanied by the creation of a new senior position to oversee quality control, was described in a company memo from commercial aircraft chief Stan Deal as an "enhanced focus on ensuring that every airplane we deliver meets or exceeds all quality and safety requirements."

"Our customers demand, and deserve, nothing less," Deal added.

Continue reading here.

To save Social Security, the government may come for your 401(k) (from *MarketWatch*)...

It looks like we had better ramp up our 401(k) and IRA contributions to the absolute max while we still can, folks.

That means a full $30,000 this year, and more if you're 50 or older: The 401(k) maximum for 2024 is $23,000 and the IRA maximum is $7,000, and savers who are 50 or older can make additional contributions. It may also mean converting your traditional pretax IRA to a post-tax Roth IRA in order to maximize the after-tax amount in your shelters.

The reason? There is talk in policy circles of getting rid of these plans entirely — or at least ending the tax breaks, which pretty much amounts to the same thing. That would be a political shock and a financial earthquake, especially for the middle class.

Policy wonks argue that these accounts mainly benefit very high earners while doing little to increase savings. They want to use those extra taxes to bail out Social Security, which is hurtling toward a crisis.

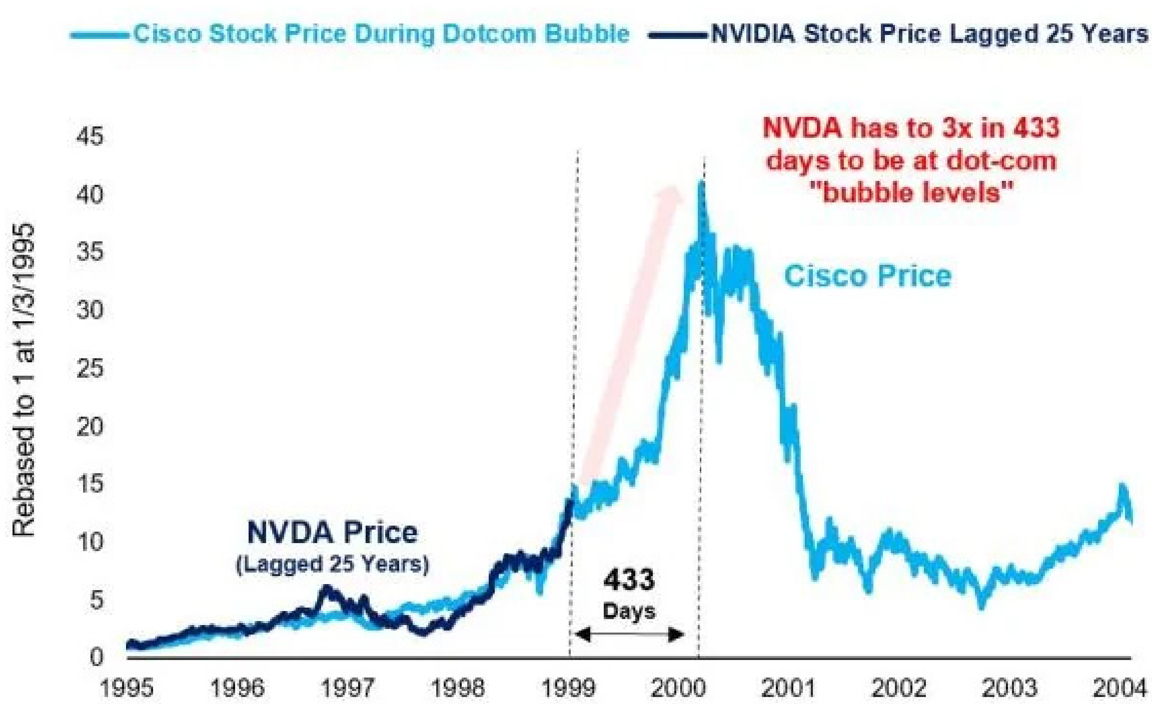
Allison Shrager of the Manhattan Institute has just written about this idea. Boston College's Center for Retirement Studies wrote about it last month. University of Virginia law professor Michael Doran helped get the ball rolling a few years ago, calling these middle-class tax shelters a "fraud" that mainly benefit the rich.

At the moment nobody is talking about anything retroactive: They wouldn't start imposing taxes on money that's already been contributed into these accounts. Rather, the idea would be to end the tax deductions in the future, replacing them with some other system that doesn't feature the same deductions.

How serious is this? Nobody knows. At the moment it's just talk. But Social Security is in crisis. Eventually they'll either have to cut benefits or raise taxes.

Continue reading here (subscription may be required).

Nvidia (NVDA) still has nothing on Cisco's dot-com-era price performance ([from r/wallstreetbets](https://www.reddit.com/r/wallstreetbets))...



Warren Buffett's investment in Japanese stocks is looking prescient (from *Barron's*)...

Japan's Nikkei stock index finished at a record high on Thursday. The last time that happened, the Cold War was just ending and Band Aid was topping the charts with "Do They Know It's Christmas?"

With a 2.2% gain for the day, the Nikkei closed higher than the last record set on Dec. 29, 1989. Given the optimism about Japan's economy, its emergence from decades of deflation, the signs that the central bank will provide plenty of stimulus, stocks are poised to keep going higher.

In the early 1990s, Japan suffered a nasty real estate crash that tanked the wider economy and sent it into an extended period of falling consumer prices. An aging population made matters worse. Things finally turned around as the Covid-19 pandemic ended, injecting inflation into the system and forcing companies to become more productive and profitable.

Billionaire investor Warren Buffett noticed the growing strength of Japanese companies and bought up big stakes in the country's trading houses, which are conglomerates that play an influential role.

NIKKEI 225 Index

Source: FactSet

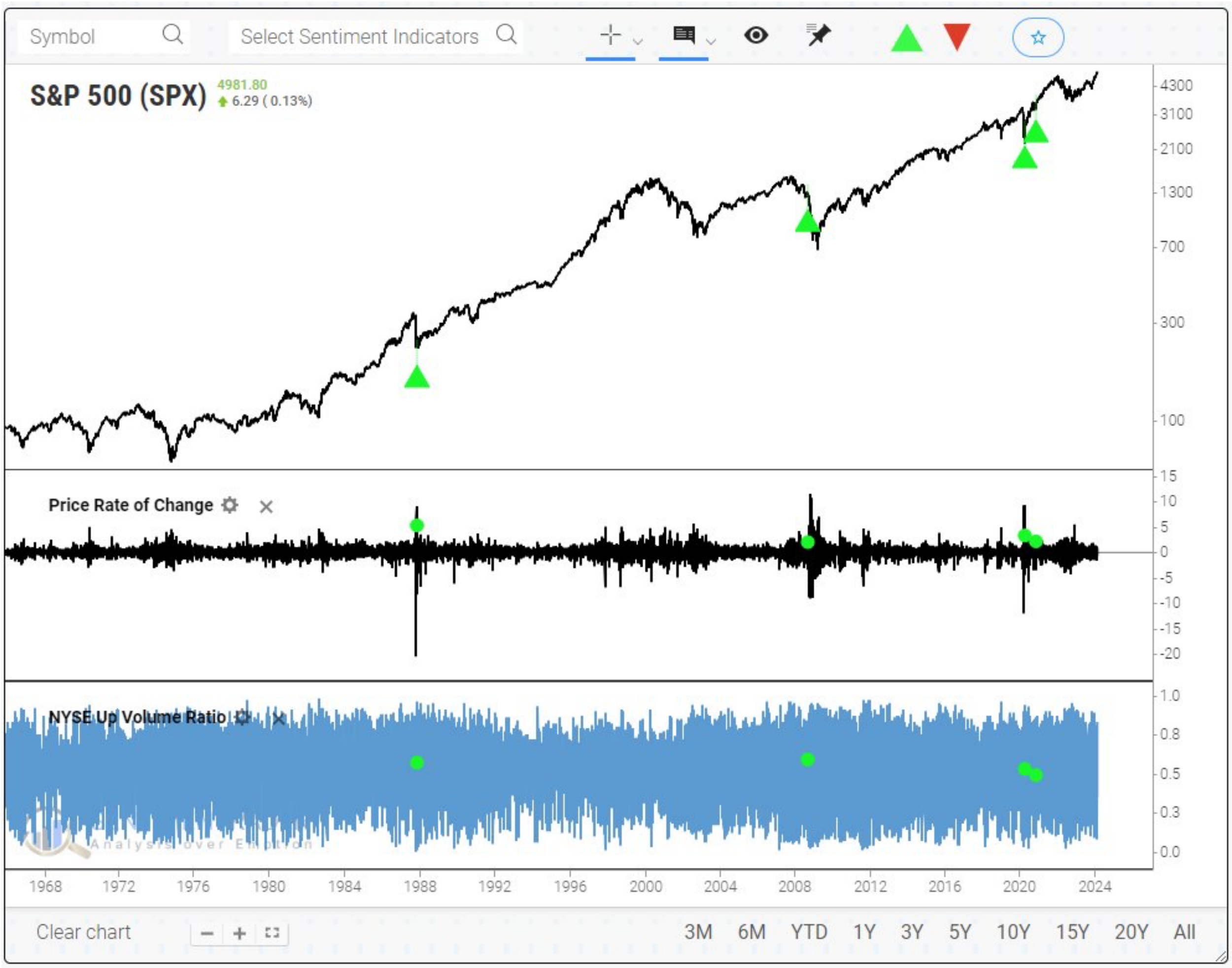
Continue reading here (subscription may be required).

The stock market's recent behavior is rather unusual (from Jason Goepfert via X)...

This is just super weird. Not necessarily in a bad way, just... weird.

The only times in 60+ years the S&P 500 rose 2% or more with less than 60% of volume flowing into rising issues on the NYSE were in the midst or aftermath of the worst crashes.

1987, 2008, 2020. And today.

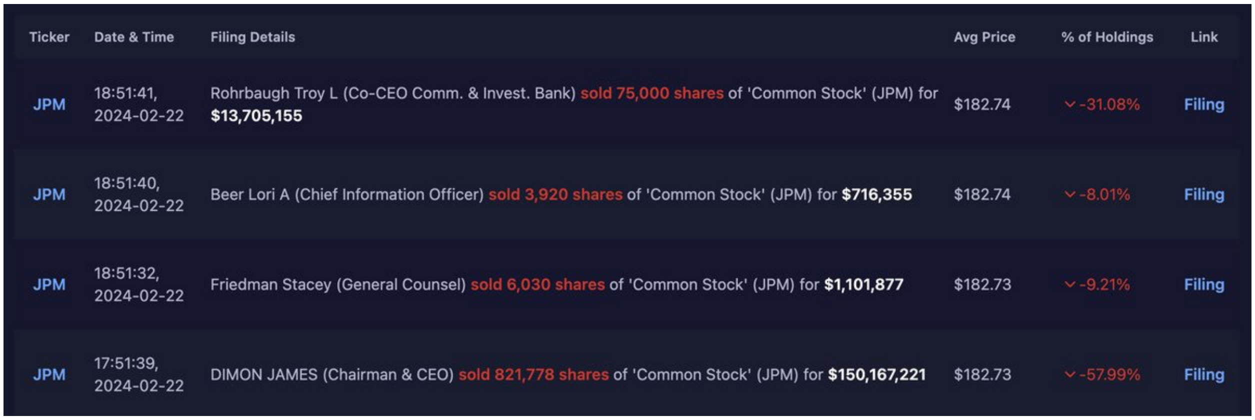


JPMorgan Chase Chairman and CEO Jamie Dimon just sold a lot of stock for the first time (from Insider Tracker via X)...

MAJOR INSIDER TRADE ALERT

Chairman & CEO Jamie Dimon just sold $150 million worth of $JPM shares yesterday.

He's been CEO since 2006, this is his first ever sale of company shares.



Ticker	Date & Time	Filing Details	Avg Price	% of Holdings	Link
JPM	18:51:41, 2024-02-22	Rohrbaugh Troy L (Co-CEO Comm. & Invest. Bank) sold 75,000 shares of 'Common Stock' (JPM) for **$13,705,155**	$182.74	-31.08%	Filing
JPM	18:51:40, 2024-02-22	Beer Lori A (Chief Information Officer) sold 3,920 shares of 'Common Stock' (JPM) for **$716,355**	$182.74	-8.01%	Filing
JPM	18:51:32, 2024-02-22	Friedman Stacey (General Counsel) sold 6,030 shares of 'Common Stock' (JPM) for **$1,101,877**	$182.73	-9.21%	Filing
JPM	17:51:39, 2024-02-22	DIMON JAMES (Chairman & CEO) sold 821,778 shares of 'Common Stock' (JPM) for **$150,167,221**	$182.73	-57.99%	Filing

THE LEGENDS SPEAK

Wisdom and Insight from the World's Greatest Investors

Insight from an early Berkshire Hathaway annual meeting that most investors have never seen (from Kingswell)...

CNBC's invaluable archive of Berkshire Hathaway annual meeting videos and transcripts only dates back to 1994. Meaning that decades' worth of Q&A sessions with Warren Buffett and Charlie Munger remain shrouded in the mists of time.

You will occasionally stumble upon a fragmentary account about one of the early Berkshire meetings, whether it's in the pages of the *Omaha World-Herald*, *Outstanding Investor Digest*, or *University of Berkshire Hathaway* (by Daniel Pecaut and Corey Wrenn). These typically include a few partial quotes and other highlights from Buffett's remarks — but nothing like the comprehensive records of the post-1993 meetings.

So, today, I'll do my best to piece together various accounts — from the three aforementioned sources — about Berkshire's annual meeting in 1986. I've compared several different reports from the meeting and organized the commentary by topic.

This cannot claim to be the definitive study of Berkshire's 1986 meeting — there are, no doubt, holes big enough to drive a truck through — but it's my best effort to compile all of the available information about the wit and wisdom on display that day.

On May 20, 1986, approximately 500 shareholders filed into the Witherspoon Concert Hall at Omaha's Joslyn Art Museum for the Berkshire Hathaway annual meeting.

That Tuesday morning, Warren Buffett and Charlie Munger sped through the formal proceedings in a matter of minutes — before opening the floor to questions from shareholders for the next two-and-a-half hours.

Below is everything that I could find from this (very) early episode of the Warren & Charlie Show...

On inflation:

1. *"[Inflation] is a political phenomenon, not an economic one. If you print lots of tickets, ticket prices decline. If you print lots of dollars, the value of each dollar goes down. Eventually, that has to happen. I see no evidence of any great self-restraint that will change our propensity to print money."*

2. *"I expect a lot of inflation in the long run. Unfortunately, I can't define 'a lot' and I can't define 'the long run'. But I expect worse inflation than we have ever seen before. Fortunately, I've been wrong [about inflation] quite often."*

- Buffett added ominously, "Most people in this room will see inflation that they have never seen before." Happily, that did not turn out to be the case.

On Berkshire's acquisition strategy:

3. *"You can have a wonderful business without it being a wonderful stock. But it's quite another story to have a wonderful stock without having a wonderful business."*

4. *"We have no equations. Ben Graham used to say that it's a lot like selecting a wife. You can thoughtfully establish certain qualities you'd like her to have — and then, all of a sudden, you meet someone and you do it."*

- If Berkshire found a company that it wished to "marry" — at a fair valuation — Buffett assured shareholders that he would not be put off by a high price tag. "Don't hold back on showing us a [potential] deal because we don't have the money. We have yet to not do a deal because of not having enough money."

On investing in Capital Cities/ABC:

5. *"Capital Cities is not a stock holding, but a 10-20 year relationship."*

- In 1985, Berkshire helped finance the media company's merger with ABC by purchasing 3 million shares of Cap Cities at $172.50 a piece. This $517 million investment made Berkshire the largest shareholder of Cap Cities/ABC.

6. *"They have strong management at Cap Cities — the best management of any public company in the country. I have enormous confidence in Cap Cities."*

- This was no idle flattery. Buffett had complete faith in the management duo of Tom Murphy and Dan Burke — even agreeing to sales restrictions on Berkshire's stake and to vote his shares in accordance with Murphy and Burke.

7. *"The near-term outlook [for Cap Cities/ABC] is not good. The value of ABC's franchise has deteriorated in the last 6-12 months. However, the networks did $6.5 billion of business last year. It will be there — like radio. Despite inroads from television, [radio] is still quite profitable. ABC will be around forever."*

- "If people ever take up reading," Buffett joked, "that will cut into [our] business."

8. *"I have repressed the memory of the sale of Capital Cities [a few years earlier]."*

- Berkshire had previously owned shares of Cap Cities, but sold out of this position in 1978-1980 at just $43 per share. And while Buffett claimed to have repressed any memory of this blunder, Munger was quick to point out: "I kept my personal holdings [in Cap Cities]."
    - Interestingly enough, *OID* reported that Berkshire's equity portfolio (which, presumably, the Cap Cities proceeds were reinvested into) actually outperformed the Cap Cities stock price between 1980 and 1985. So, ultimately, Buffett out-compounded his own mistake.

On speculative excess in media stocks:

9. *"The underlying business has deteriorated substantially from competition, cable, the VCR, etc. — all adding up to more consumer alternatives. At the same time, media prices have skyrocketed. Prices don't make sense to me."*

10. *"You don't care what channel the football game comes in on. You don't have loyalty to any [one] channel."*

11. *"I try not to get caught up in the current mania, but it's hard to avoid."*

12. *"During tulip mania, single tulip bulbs were exchanged for houses and businesses. If you could buy a company that owned twelve tulip bulbs for a 20% discount to the value of those tulip bulbs, would that be a bargain?"*

- Buffett's point is that a 20% discount from an irrationally high price does not necessarily equal good value.
- The *Omaha World-Herald* gives a slightly different version of this quote (or maybe it's a subsequent remark that's just very similar to this one). Like I said, piecing this all together is a bit of a guessing game. The *OWH* quote is below as #14.

13. *"[Tulip mania] was mass delusion. People traded homes for a single tulip bulb. If you owned twelve tulips, is that [the same thing as] a sound company?"*

14. *"Buyers are most silly when they're most happy."*

15. *"We're not interested in the hula hoop."*

- The hula hoop catches a stray here as a fad that Berkshire would try to avoid. In 1958, an estimated 80-100 million hula hoops were sold — but then quickly went out of fashion. "It was born in January and dead as a doornail by October," said Rich Knerr of WHAM-O. By 1985, sales had stabilized in the 1-2 million range.
- Buffett added that the inventors of Trivial Pursuit had recently sold their company, but should have done so sooner before the game's popularity "hit the skids". He apparently had the toy/game industry on his mind that day.

On shorting stocks:

16. *"The mathematics [of shorting] are very unattractive. You can go broke very quickly. If you had shorted tulip bulbs long after the prices had become silly, the prices would have kept going up for a long time. It's a tough way to make a living. I've tried it."*

17. *"[It's] quite a contrast to buying bargain stocks. So long as you buy without debt, you can keep buying by the bushel basket as prices decline."*

On macroeconomic forecasting:

18. *"Economic forecasts have a small role in any decisions we make. We pay no attention to what anyone thinks the Gross National Product or interest rates will do."*

19. *"[It] plays a very small role in our securities and business acquisitions. We haven't found any reliably consistent forecasters anywhere. We don't subscribe to any economic forecasting letters."*

20. *"If there were one future variable that I wish I had the answer to, it would be future interest rates."*

On refusing to sell a subsidiary — even a mediocre one:

21. *"You may quit having children if you keep having clunkers, but you don't just cast them out."*

- Munger jumped in to add that whatever this policy lacks in terms of bottom-line sense, it's more than made up for by burnishing Berkshire's reputation among sellers. "It allows [us] to see businesses for sale that [we] might not otherwise see."

On the lack of international investments:

22. *"We don't understand overseas businesses."*

23. *"If you can't make money in a $2 trillion pool [in the United States], you're not likely to make it elsewhere. Anyway, we only understand maybe 10-15% of U.S. companies. There are many complexities of investing overseas."*

On Berkshire's stock price:

24. *"The current market price [around $2,690 per share] is near the high end of intrinsic value — give or take 15%. But it's not a crazy price, by any means.*

- Munger was also asked about Wesco Financial's future performance. "[We] still haven't come up with an acceptable strategy that we're satisfied with. I don't think it's a good bet that Wesco will outgrow Berkshire Hathaway."

On insurance:

25. *"Currently, it's an outstanding market for insurance companies to write new business. I wouldn't want to bet on [what it will be like in] 1988."*

26. *"When insurance companies get money in their pockets, there's a great eagerness to write business. The easy business will disappear very fast."*

27. *"We sell insurance. We don't buy it."*

- In response to a question about "key man" insurance on Buffett and Munger.

On Berkshire's investment philosophy:

28. *"Value investing and growth investing are one and the same. Growth is a part of value. [They are both] part of the same equation. Returns on incremental capital are the key. Despite that, I still can't find any bargains in today's market. We don't currently own any equities to speak of."*

- When Buffett says that Berkshire doesn't "own any equities to speak of", he wasn't talking about his core holdings of Cap Cities/ABC, Washington Post, and GEICO. He reiterated that those would continue to "be held indefinitely".

29. *"Our core holdings don't keep us busy. However, they give us something to do and keep us out of bars."*

30. *"We're going to be there every day. We'll run on a fast or sloppy track."*

31. *"We see nothing in marketable securities that interests us in the least."*

- As previously mentioned, both the insurance and media sectors — two of Buffett's longtime faves — appeared to be overpriced in 1986. This, no doubt, contributed to Berkshire's inability to find bargains on the open market.

On the post-Buffett era:

32. *"In the event of the proverbial truck [running me over], Berkshire's structure, holdings, and policies would continue intact for a long, long time. There would be no surprises for operating or portfolio managements. In the short run, Charlie Munger would take over."*

- Munger added: "In the long run, we'd look for someone as much like a young Warren Buffett as possible."
- Funny moment from the *OID* report: Buffett mentioned how the stock price of Resorts doubled in the immediate aftermath of its CEO's death — and predicted that the price of Berkshire would rise, too. "However, I'd be upset if it increased more than 25% or 50%," he laughed. Munger scoffed: "The hell you would! You'd love it!"
- In a later interview with the *Omaha World-Herald*, Munger said that operating companies had nothing to fear if Buffett passed away. "People have sold [their businesses] to us expecting to operate in a certain kind of culture — and that would continue."

On whether or not social issues affect Berkshire's investment choices:

33. *"We like to buy in with people we like. We don't get in where we are uncomfortable."*

- This specific question was in relation to investing in apartheid-era South Africa. Buffett explained that while Berkshire did not own any South African companies, such social concerns would not stop any potential investment decision.

On institutional interest in Berkshire (or the lack thereof):

34. *"They look in the house, but they don't want to enter. We don't attract much institutional interest. We have smarter, more rational, and a stabler group of shareholders than if the institutions bought our stock."*

On the savings-and-loan industry:

35. *"[We] don't like the business, as such. [It's] not a very good business, given the risks involved. In a world where all liabilities are guaranteed by the government, the least credit-worthy can issue paper just the same as the most credit-worthy. [There's] just too much pressure for the participants to do the wrong thing."*

36. *"A lot of people aren't properly reserved for the risks they're taking. Like an earthquake insurer in a year where there are no earthquakes."*

On the Bowery Savings Bank:

37. *"It's a good gamble. This is as low-tech as you can get."*

- Munger fielded this question about one of Berkshire's more obscure investments. In 1985, Berkshire banded together with Richard Ravitch (Metropolitan Transit Authority) and Laurence Tisch (Loews) to purchase the beleaguered Bowery Savings Bank of New York. Berkshire invested $20 million for 20% of the bank, which had gotten into trouble when interest rates spiked in the late 1970s. The group sold Bowery two years later for $200 million — a tidy profit for all involved.

38. *"[It's] basically a venture capital deal."*

And a couple other meeting-related details:

- Warren Buffett's annual letters were already a cult hit in investment circles by 1986. That year's letter needed a second printing after the initial supply of 15,500 got snapped up. An extra 2,500 were hurriedly printed and sent out.
    - Just ten years earlier, Berkshire printed only 2,000 total copies of the letter.
- Buffett sipped on Cherry Coke throughout the meeting, leading one shareholder from Atlanta to compliment him on his soft drink selection.

Continue reading here.

The best investors in the world are dead (from Dividend Growth Investor)...

A few years ago, I read about a study conducted by Fidelity on its client brokerage accounts. The study tried to identify the best performing investors at the brokerage, by reviewing account returns.

They came to a stark discovery – the best investors were either dead or had forgotten to log on to their accounts for a long period of time. Perhaps they forgot their passwords, and got locked out of their accounts, but didn't bother resetting them.

It makes intuitive sense that accounts where investors do little trading would do better than accounts that are more active.

There are several reasons why that would make sense:

1) When you buy and sell stocks often, you incur costs.

Back in the day, you had to pay a commission to buy and to sell a stock. If you do that enough times, you can be out of some serious cash. Even if you lose 1% of your portfolio value to commissions and fees each year, that could eat away a sizable chunk of returns over time. Costs compound over time, but unfortunately not in your favor. Plus, when you buy and sell stock, you end up losing a little bit on the buying and selling, because you buy at the ask price and sell at the bid price. The difference varies from company to company, but it also adds up over time. We are not even going to discuss taxes, which can eat up a portion of returns, especially if you invest in a taxable account.

2) When you buy and sell stocks too, you often pay an opportunity cost as well.

I have read some academic research that showed how companies that investors have sold tended to do much better than the companies the investor replaced them with. For example, if you sold Johnson & Johnson (JNJ) in the year 2000, you missed out on a stock that returned several times its original cost.

If you replaced it with a tech flyer like Nokia for example, you ended up losing money, and missing out on Johnson & Johnson. If you had simply sat tight, you would have actually made money. That difference between what you could have achieved by patiently holding on to Johnson & Johnson and the actual result from buying Nokia in 2000 is your opportunity cost. Some may call this behavioral cost as well. Chasing what is hot, which is what following Nokia or other red hot tech darlings were in 1999 – 2000 was a big cost to investors.

3) Behavior costs are costly.

I have personally fallen for behavioral costs. I have seen companies that seem to suffer through some issues, and I would sell them. Then these companies would miraculously recover and returns would revert to the mean. The companies I replaced them with either turned out ok, or they didn't do as well.

I have also ended up selling companies because I thought they were too high, and replaced them with something else. You live and you learn.

At the end of the day, a lot of investors fall for the idea that you won't go broke taking a profit. The problem is that you won't get rich either. That's because if you look at the Paretto principle, 80% of results would be concentrated in the top 20% of companies. In other words, if you sell too early from these 20% of companies that generate most capital gains and dividends, you are shooting yourself in the foot. And if you replace these companies with bad ones, you are compounding your mistakes.

Peter Lynch describes it as "cutting the flowers and watering the weeds".

Investors tend to trade a lot in general, chasing what is hot, and selling what is not. At the end of the day, they end up consistently buying high and selling low, which turns out to be costly for long-term returns.

Continue reading here.

Revisiting risk with renowned distressed-debt investor Howard Marks (from Wall St Gunslinger)...

Howard Marks is one of the best writers to come out of the financial industry.

His calm prose has always been something I return to when I seek to deepen an understanding of a concept. His book, The Most Important Thing Illuminated, includes 20 chapters on these "concepts'.' All 20 being "The Most Important Thing."

I make it a goal to reread the book once a year as a way to remind myself of the principles I need to beat into my head if I want to be a solid investor.

Over the past two years, I have taken a keen interest in his chapters on risk.

You could say I was primed for the information. During this time frame there has been a few mistakes that have caused me to comb over my process and work to improve it.

This work has translated into taking a more humble approach to my "conviction" and a deeper appreciation for risk and all it entails.

I went back through his chapters on the concept and thought I'd share the big points for two reasons:

1. It will only ingrain the lessons into myself further.
2. Serve a reminder for those who have read the book and an introduction for those who have not (Thought it should be a must-read for all investors).

I hope it's helpful.

Risk

> "Investing consists of exactly one thing: dealing with the future. And because none of us can know the future with certainty, risk is inescapable." – Howard Marks

As an investor, your success in the short term will be determined by the winners you pick but your long-term success will be determined by your ability to deal with risk.

Before we can learn to deal with it we must be able to:

- Understand it
- Recognize it
- Control it

Most level-headed individuals, especially investors, want to do their best to avoid it or minimize it. It can never be extinguished completely as it works in tandem with its better-known brother, returns.

You can't have one without the other. This is why a deep understanding of the concept of risk is imperative for investment success.

Understanding Risk

If we were to ask the Academics for their definition of risk their response would land in the range of the word volatility. Howard takes great issue with this because it doesn't represent the actual desires of the investor.

> "I think people decline to make investments primarily because they're worried about a loss of capital or an unacceptably low return. To me, 'I need more upside potential because I'm afraid I could lose money' makes an awful lot more sense than 'I need more upside potential because I'm afraid the price may fluctuate.'

For an investor, the only definition is the possibility of permanent capital loss.

How do we measure it?

The short answer: You can't.

There is no mathematical formula. The hidden, subjective, and unquantifiable nature of risk is what makes it so elusive and thus, hard to deal with.

You might not be able to put a number on it but it can be judged.

> "A skillful investor has the ability to get a sense of the amount of risk in a given situation by looking at two factors:
>
> 1. The stability and dependability of value
> 2. The relationship between price and value"

These won't give an exact amount, but they will tell you if the water is hot or cold.

Keep in mind the difference between probability and outcomes.

As much as we would like to hope, we do not live in a world that fits under a "normal" bell curve of probability.

There will be people who unknowingly subject themselves to a real risk, have it never show up, and look like a genius. Nassim Taleb calls these people "Lucky Idiots." The other side will also be true, you can take every measure to protect your portfolio from 99% of all "worst-case scenarios" but the 1% left over can happen.

Even though the investor was extremely cautious, they can still look like a loser.

> "The key to understanding risk: It's largely a matter of opinion. It's hard to be definitive about risk even after the fact" – Howard Marks

Returns alone tell you little about the quality of the decision made. The other side must be given attention. It can not be measured, but it can be judged based on the probable outcomes at a given point in time.

There will be those who run through a dynamite factory with a match and survive. But this doesn't mean you should do it again.

Recognizing it

Now that we understand what risk is and what it isn't. To get to the final step of controlling it, we first have to learn how to recognize it.

It's our job to defend against permanent capital loss.

The largest amounts of this risk tend to show up where it is perceived to be the lowest by the masses. The problem is the crowd is as often wrong about risk as it is about return and we tend to:

- Overestimate our ability to recognize when risk is at its greatest. (When everything is going great and we don't want the party to end)
- Underestimate what it takes to avoid it. (Leaving the party early and looking like a loser)

Thus we should do our best to work contrary to the crowd, stay away from environments that lend themselves to higher risk, and dive in head first when the opposite is true.

To give you an idea of what a risky environment looks like, here is an excerpt from Howard's memo, It's All Good, in July of 2007.

> "Where do we stand today [mid-2007]?
>
> "In my opinion, there's little mystery. I see low levels of skepticism, fear and risk aversion. Most people are willing to undertake risky investments, often because the promised returns from traditional, safe investments seem so meager. This is true even though the lack of interest in safe investments and the acceptance of risky investments have rendered the slope of the risk/return line quite flat. Risk premiums are generally the skimpiest I've ever seen, but few people are responding by refusing to accept incremental risk..."

Another helpful guide is a checklist Howard prepared in another chapter that I have reproduced here:

Howard Mark's Poor Man's Guide To Market Assessment

Economy	Vibrant	Sluggish
Outlook	Positive	Negative
Lenders	Eager	Reticent
Capital Markets	Loose	Tight
Capital	Plentiful	Scarce
Terms	Easy	Restrictive
Interest Rate	Low	High
Spreads	Narrow	Wide
Investors	Optimistic	Pessimistic
	Saguine	Distressed
	Eager to buy	Uninterested in buying
Asset Owners	Happy to hold	Rushing for exits
Sellers	Few	Many
Markets	Crowded	Starved for attention
Funds	Hard to gain entry	Open to anyone
	New ones daily	Only the best can raise money
	General Partners hold all the cards	Limited Partners have bargaining power
Recent Performance	Strong	Weak
Asset Price	High	Low
Prospective Returns	Low	High
Risk	High	Low
Popular Qualities	Aggressiveness	Caution and discipline
	Broad reach	Selectivity

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Staying away from permanent capital loss means staying away from situations where everyone thinks there is no chance of it.

Controlling Risk

> “Outstanding investors, in my opinion, are distinguished at least as much for their ability to control risk as they are for generating return.
>
> “High absolute return is much more recognizable and titillating than superior risk adjusted performance. That's why it's high-returning investors who get their pictures in the papers.” – Howard Marks

There are two ways to be an above-average investor: 1) achieve returns that are higher than average, or 2) achieve average returns but take less risk to do so.

Most shoot for the first but forget about the second.

Why?

Because risk control is one of the least sexy things an investor can do.

The fruits are losses that do not materialize and when you take prudent steps to control your risk it means you are likely to underperform in bull markets.

Nobody likes to be that guy. But the greats are that *guy*.

The impressive thing about individuals like Buffett and Klarman is their long track record of success that comes with no huge blow-ups. Yes, they have had a bad year or two but they have been able to produce a tremendous amount of outperformance by staying away from disasters rather than working to shoot the lights out.

The alpha comes during downturns because they focus on risk control, not return optimization.

We should work to do the same.

Investing is bearing risk for profit. But to do so intelligently means to work hard to ensure the risk you bear is controlled. To do this we need to do 4 things well:

1. Be aware of the risk we are taking: What is going to lead me to a permanent capital loss?
2. Be able to analyze it: Can I analyze these variables that lead me down this potential path?
3. Diversify away from it: How can I size this position to make sure if I am wrong I’m not dead?
4. Be compensated for it: How much return am I going to demand to bear this risk?

Mastering these 4 is what separates the best from the best.

Continue reading here.

How Warren Buffett and Charlie Munger set incentives (from George Mack via X)...

Everyone has heard: "Show me the incentives – and I'll show you the outcome"

But what do good incentives actually look like?

Here's the incentive system Buffett and Munger used for GEICO:

1. Principal-Agent Problem

Principal = Shareholders of the business

Agent = Employees of the business.

The agents (employees) are acting on behalf of the principals (shareholders).

The principal-agent problem is the conflict of interests between these 2 groups.

Buffett & Munger looked to create an incentive model so that every agent in the business was rewarded for thinking like the principal.

2. Inversion

"You get what you reward for. If you have a dumb incentive, you get dumb outcomes" - Munger

Having a dumb incentive scheme is worse than having no incentive scheme.

The worst incentive schemes are ones that create a greater principal-agent problem.

The best example of this is FedEx, which paid people by the hour rather than by when the job was done – and could never deliver anything on time.

Buffett & Munger outlined ways that would make the principal-agent problem worse -- and avoided that.

3. Simplicity

For 20,000+ employees at Geico (One of Buffett & Mungers companies) - there are 2 simple variables that incentives are based on:

A. New business (Number of policies)

B. Profit growth

This is the midwit meme in play.

It's so simple that everyone in the company can repeat it back to themselves.

4. Pairing metrics

If the only metric was new business, the principal-agent problem would lead to employees focusing on growth at all costs.

If the only metric was profitability - the principal-agent problem could result in them turning off all advertising, which would maximize profit but harm the business in the long run.

The balance of business growth and profitability aligns the employees goals with the shareholder's goals -- and prevents a perverse incentive problem.

5. Long term thinking

The incentive system at GEICO only kicks in after a year of being there.

And it increases as a % each year after.

The beauty of this system is that the most valuable employees are the ones with the most experience in the business -- but they are also more likely to hit motivation entropy with time and leave the business.

The incentive system is set up like a video game designed to reward long term thinking and combat fatigue.

6. Win-Win alignment

The very top people, CEO and shareholders, (Principals) are getting paid on the same variables as everyone else in the company (agents).

The knock on effect on culture is that everyone is swimming in the same direction.

Details on the Berkshire Hathaway "playbook" (from The Rational Walk)...

Introduction

On February 24, Warren Buffett will publish his letter to shareholders reporting on the fifty-ninth year of his tenure. A few days after the annual meeting in May, Mr. Buffett will begin his sixtieth year in control of Berkshire Hathaway. To say that he has had a remarkable run is clearly an understatement. Warren Buffett's record will be studied in business schools for decades to come and his place in American history is secure, both as a business leader and as one of history's greatest philanthropists.

I have had the good fortune of being a shareholder of Berkshire Hathaway over the past twenty-four years which accounts for over 40% of Mr. Buffett's leadership of the company. As I look at my very first purchase of Berkshire shares made on February 15, 2000, I am amazed at how $9,200 was transformed into over $119,000 which represents an annual compound return of "only" 11.3%. That initial purchase was followed by many more. While it would have been far better to have been a shareholder during Mr. Buffett's *first 24 years* at the helm, I can hardly complain about my experience.

To say that I did not expect Warren Buffett to manage my capital for nearly a quarter century is another understatement. He was nearly seventy years old at the time and the age issue was discussed constantly. Yet here we are in early 2024 with Mr. Buffett still showing up for work every day at the age of ninety-three. While he has delegated day-to-day operational control of Berkshire subsidiaries to Vice Chairmen Greg Abel and Ajit Jain since 2018, Mr. Buffett remains very much at the helm when it comes to capital allocation which has long been Berkshire's main competitive advantage.

Charlie Munger's death last year at the age of ninety-nine was a sobering reminder that no human being has yet to discover the elusive keys to immortality. But the fact is that Berkshire has been preparing for life without Warren Buffett for at least the past quarter century, ever since I became a shareholder. Under Greg Abel's leadership, Berkshire is likely to endure in its current configuration once he takes over as CEO, although the more distant future is murky due to likely shifts in voting control driven by the changing composition of Class A shareholders.

In the weeks and months following Charlie Munger's passing, a great deal was written about his many contributions to Berkshire Hathaway but I do not recall a discussion of Mr. Munger's letter to shareholders to commemorate the fiftieth year of Warren Buffett's leadership. *Vice Chairman's Thoughts — Past and Future* was published on February 27, 2015 along with Berkshire Hathaway's 2014 annual report. At the time, Mr. Munger was ninety-one years old and he had no way of knowing that he would live many more years. In some ways, the letter seemed to me like a farewell.

In just over four pages, Mr. Munger explains how Berkshire's unique system produced such extraordinary results, predicts whether the system will continue producing such results after he and Mr. Buffett leave the scene, and considers whether the lessons of Berkshire's success can be applied elsewhere. I'll explore each of these areas in more detail in this article with a focus on the future rather than the past which has been extensively documented, both on my website and in many other places over the years.

The Playbook

Charlie Munger wrote that the Berkshire system was "fixed early" in Warren Buffett's tenure. Thanks to a vast amount of publicly available information, we can see how this unfolded on a year-to-year basis. Jacob McDonough's book, *Capital Allocation: The Financials of a New England Textile Mill*, which I reviewed in 2020, does an excellent job of describing the highlights in a concise format.

Berkshire Hathaway was not *initially* intended to become Warren Buffett's primary investment vehicle. In fact, he has called purchasing control of Berkshire a mistake on several occasions. However, a period of profitability shortly after he took control in 1965 provided the funds needed to purchase National Indemnity in 1967 and launch Berkshire's insurance business. From that point, Berkshire's policy was to retain its earnings and to seek investments in non-insurance subsidiaries, with the first massive success coming in 1972 with the purchase of See's Candies via Blue Chip Stamps.

The CEOs of subsidiaries were permitted to run with nearly complete autonomy, with Mr. Buffett making himself available but not exerting policy influence aside from matters of capital allocation. Excess capital from subsidiaries was recycled into new subsidiaries and securities in a tax efficient manner over many decades. This was well communicated to shareholders in long annual letters followed by a shareholder meeting in which Mr. Buffett made himself available for hours of questioning, acting as an exemplar for subsidiary managers, shareholders, and others.

Mr. Munger emphasized many points which are often glossed over. It is insufficient to simply purchase businesses and allow CEOs free rein. Much effort was made to select subsidiaries that not only had solid economics but *already had capable and honest management in place*. Berkshire would offer a fair price for these subsidiaries without the drama typical in acquisition activity. Since only Mr. Buffett and a few others even knew about potential deals, total confidentiality was assured. CEOs of subsidiaries, while almost always already securely rich, would stay on board because they loved the business and drew energy from it, with compensation tied to subsidiary performance rather than options tied to Berkshire's overall performance or stock price.

Those who have read Warren Buffett's letters to shareholders during the 1970s will recall that the progress of Berkshire's insurance business was hardly smooth sailing. As the company expanded its primary lines into new regions, there were material setbacks and course corrections. The average insurance company is not a great business, but insurance ultimately worked out "marvelously well" for Berkshire:

> *"… In the early decades of the Buffett era, common stocks within Berkshire's insurance subsidiaries greatly outperformed the index, exactly as Buffett expected. And, later, when both the large size of Berkshire's stockholdings and income tax considerations caused the index-beating part of returns to fade to insignificance (perhaps not forever), other and better advantage came. Ajit Jain created out of nothing an immense reinsurance business that produced both a huge 'float' and a large underwriting gain. And all of GEICO came into Berkshire, followed by a quadrupling of GEICO's market share. And the rest of Berkshire's insurance operations hugely improved, largely by dint of reputational advantage, underwriting discipline, finding and staying within good niches, and recruiting and holding outstanding people."*

Would the Berkshire playbook have worked as well without Ajit Jain's arrival on the scene in 1986? Certainly not. Charlie Munger's reference to Mr. Jain's abilities in his letter was similar to many other comments over the years. Mr. Buffett once joked that if he, Mr. Munger, and Mr. Jain were aboard a sinking boat, it would make sense to "save Ajit first", or something to that effect. He was only partly joking.

Purchasing control of GEICO was another key watershed moment. As Mr. Munger notes, under Berkshire's ownership, GEICO massively increased its market share moving from a small player to trading places with Progressive for second place behind State Farm. GEICO could achieve this result due to its secure place within Berkshire and Mr. Buffett's willingness to spend heavily on advertising, while being able to underwrite at a profit despite low premiums due to a highly efficient cost structure.

Berkshire After Buffett

Both Warren Buffett and Charlie Munger have been urging shareholders to trim their expectations for decades. There is obviously no way that Berkshire's future results will come anywhere close to the results posted over Warren Buffett's entire tenure. The law of large numbers and simple mathematics assures that this is true. But Charlie Munger was still optimistic about Berkshire's future compared to the results that are likely from other large corporations:

> *"Provided that most of the Berkshire system remains in place, the combined momentum and opportunity now present is so great that Berkshire would almost surely remain a better-than-normal company for a very long time even if (1) Buffett left tomorrow, (2) his successors were persons of only moderate ability, and (3) Berkshire never again purchased a large business."*

Mr. Munger did not think that Warren Buffett would "leave tomorrow" nor did he think that Ajit Jain and Greg Abel are merely men of "moderate ability" and he was often more optimistic than Mr. Buffett regarding the possibility of large acquisitions. He had good reasons for his beliefs and, nine years after the letter, that optimism has proven to be warranted. Mr. Munger noted that both the railroad and the utility businesses have opportunities to deploy a great deal of capital internally, and he did not think that Mr. Jain or Mr. Abel would "leave Berkshire, no matter what someone else offered" or that they would "desire much change in the Berkshire system."

It is often said that Berkshire's acquisitions will end with Warren Buffett's departure, but Charlie Munger did not agree with this assessment. Given Berkshire's perennially high levels of cash, he felt that desirable opportunities would arise. Again, I think this boils down to culture. If it is true that Greg Abel will keep the culture intact, then opportunities for acquisitions deriving from the culture should still exist. In my opinion, the opportunities will be fewer since the prestige of the "Buffett seal of approval" will no longer exist, but this will not extinguish opportunities entirely.

Mr. Munger's letter was written three years before Berkshire amended its repurchase program in 2018 to make it far easier to return capital to shareholders who wish to sell their shares. Since that change, Berkshire has used $72.9 billion to repurchase shares. The share count was reduced from 1,645,074 Class A equivalents on June 30, 2018 to 1,445,546 Class A equivalents on September 30, 2023. Opportunistic repurchases will almost certainly continue, if not accelerate, in the future.

Continue reading here.

Research confirms the Buffett Indicator is an excellent forecasting tool (from Market Sentiment)...

From 1964 to 1981, the Dow Jones Industrial Average (DJIA) only grew 0.1% compared to the 373% growth in GDP. However, over the next 17 years (1981 to 1998), DJIA increased 497% vs. a 177% growth in GDP.

This mismatch led Warren Buffett to create the market value of equity (MVE) to the gross domestic product (GDP) ratio. Buffett claimed this to be *"probably the best single measure of where valuations stand at any given moment".*

MVE/GDP is exceptionally intuitive. When the price of equities *(the total value of free cash flow the company can generate in the future)* goes up without a proportional increase in economic output (GDP), equities become overvalued, and vice versa.

Based on this ratio, the best time to invest would be when the MVE/GDP ratio is at its lowest. To test this theory, researchers used data from 14 countries going back to 1973.

They found that the *Buffett Indicator* possessed excellent forecast ability over long time periods. A simple strategy of investing in countries with low MVE/GDP ratios yielded statistically significant alpha over the corresponding buy-and-hold strategy while reducing risk and drawdowns.

> *Our backtest over the period... shows that a simple strategy based on investing in countries with the highest model-predicted returns would have yielded statistically and economically signicant alpha of 1% per annum over a corresponding buy-and-hold benchmark.*
>
> *At the same time, the strategy has lower risk, signifcantly increasing the Sharpe ratio from 0.49 to 0.57 and reducing the maximum drawdown by 4 percentage points.*

The data also showed a statistically significant inverse relationship between starting valuations and ten-year forward returns. For both U.S. and international markets, the higher the starting MVE/GDP ratio, the lower the future returns.

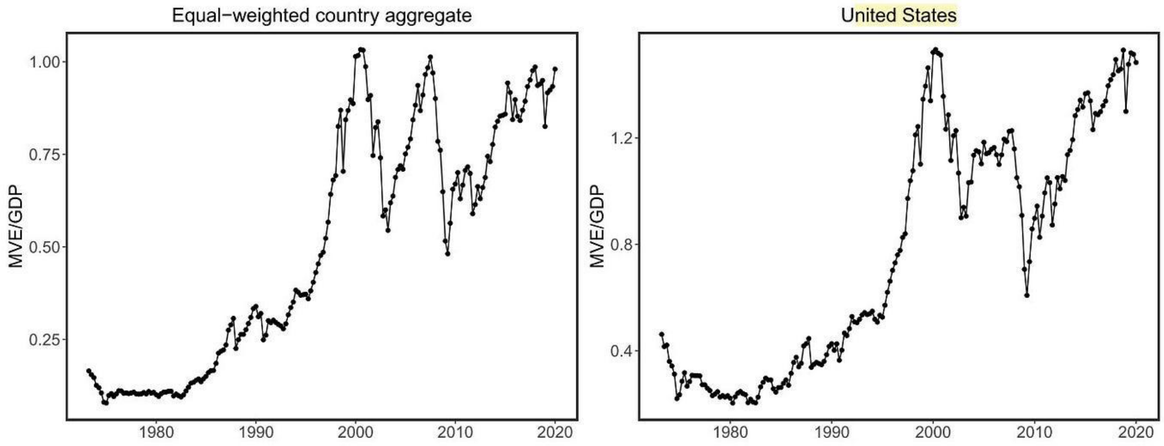


Figure 2: Market value of equity-to-gross domestic product, 1973-2019

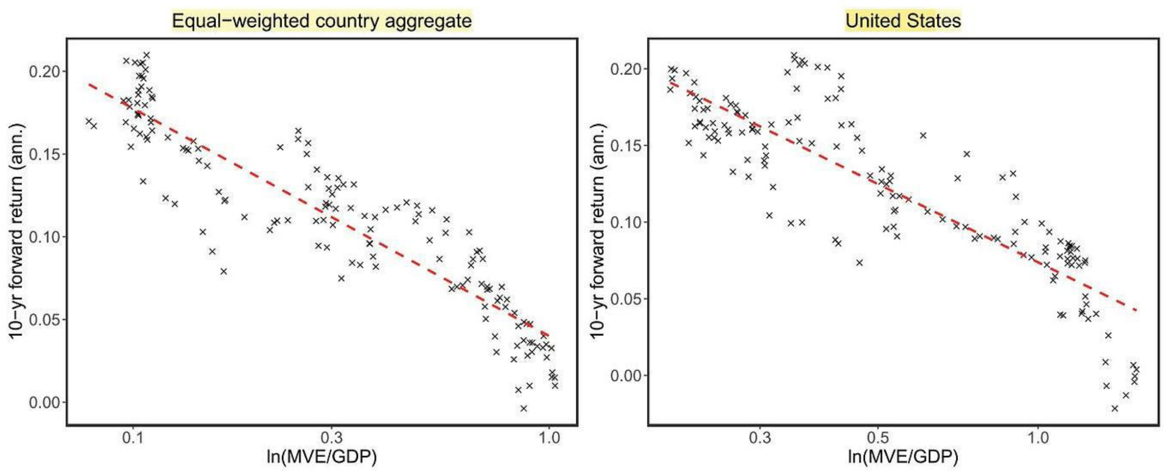


Figure 3: MVE/GDP and 10-year forward returns, 1973-2019

The authors conclude by highlighting the high likelihood of subdued returns over the next ten years based on the current elevated MVE/GDP ratio *(As shown in the above chart)*.

Continue reading here.

How stock buybacks increase long-term investment returns (from The Value Investor)...

Introduction to Dividends and Stock Repurchases

When companies make a profit, they have a couple of ways to share the wealth with their investors. Two of the main methods are through dividends and stock repurchases. Think of dividends as a share of the profits handed directly to shareholders, typically in cash, paid regularly - it's like getting a paycheck for owning a piece of the company. On the other hand, stock repurchases, often called buybacks, happen when a company buys its own shares off the market. This might sound less direct than getting a cash payout, but it has its own set of benefits, especially when looking at the long game of investing.

The Tax Advantages of Stock Repurchases

Let's dive into why stock repurchases can be a win-win, especially from a tax perspective. When you receive dividends, you get taxed in that same year, and depending on your tax bracket, this can take a significant bite out of your returns. However, with stock repurchases, the benefit comes in a bit more of a roundabout way but stays in your pocket longer. The company buying back shares often leads to the stock's price going up since there are fewer shares available on the market but the same demand. You don't pay taxes on this increase until you sell your shares, and if you've held them for over a year, you benefit from lower long-term capital gains tax rates. This deferral and reduction in tax can significantly increase the amount you get to keep.

Compounding Effect of Share Repurchases

Now, onto the magic of compounding with stock repurchases. Imagine you own a slice of your favorite pizza, and with buybacks, it's as if the pizza gets divided into fewer slices without your slice getting any smaller. Over time, your piece of the pie becomes a larger portion of the pizza, giving you a bigger share of the company's future earnings without having to buy more. This increase in your ownership stake means that as the company grows and becomes more valuable, so does your investment. It's a way for your wealth to build upon itself, getting bigger over time as the company reinvests in itself, making each share, including yours, more valuable. This compounding effect is a powerful tool for long-term growth, making stock repurchases an attractive strategy for those looking to increase their stake in a company's future without additional investment from their end.

Enhancing Earnings Per Share through Repurchases

Imagine a pie divided into slices, where each slice represents a share of a company. When a company buys back its own slices, fewer slices remain. This doesn't change the size of the pie (the company's net income), but each remaining slice (share) now represents a larger portion of that pie. This is essentially how earnings per share (EPS) increases through stock repurchases. By reducing the total number of shares, a company's EPS can rise even without an increase in net income, because the earnings are divided among fewer shares. This increase in EPS is attractive to investors because it often leads to a higher stock price. Investors see a company with a growing EPS as more profitable and potentially a better investment.

The Strategic Timing of Stock Repurchases

Timing is everything, especially when it comes to stock repurchases. Smart management teams wait for moments when their company's stock price is low to buy back shares. This strategy makes every dollar spent on buybacks go further, allowing the company to reduce its share count more significantly than when share prices are high. This is a sharp contrast to dividend payments, which are typically fixed amounts paid out regularly, regardless of the company's current share price. Dividends don't offer the same flexibility; they're expected to be stable or increasing, creating a potential strain on the company's cash flow if the timing isn't ideal. In contrast, the timing flexibility of stock repurchases can enhance shareholder value more efficiently and is often seen as a more strategic use of a company's excess cash.

Stock Repurchases as a Signal of Confidence

When a company decides to buy back its shares, it's often interpreted as a sign that the company's leadership believes the stock is undervalued. This act can serve as a powerful signal to the market, boosting investor confidence in the company's future prospects. The rationale is simple: management wouldn't spend precious capital buying back shares unless they believed that the company's future performance would justify a higher stock price. This vote of confidence from those who know the company best can attract more investors, driving up demand for the stock and potentially its price. In essence, stock repurchases can be a self-fulfilling prophecy, where the act of buying back shares contributes to the very appreciation in stock value that the company's management anticipates.

The Role of Dividends in High-Valuation Scenarios

In the investment world, not all cash is created equal, especially for companies sitting on large piles of it in high-valuation scenarios. When a company's stock price is high, and the opportunities for reinvesting in the business at attractive returns diminish, dividends can shine as a method of returning value to shareholders. This scenario typically unfolds when companies, due to their size or market saturation, find it challenging to deploy capital in ways that generate high returns. Distributing excess cash as dividends can then serve as a signal to investors that the company prioritizes shareholder returns, maintaining investor interest and potentially supporting the stock price. Dividends are particularly appealing to a certain segment of investors who value steady income, such as retirees.

The Limitations of Stock Repurchases

While stock repurchases can offer compelling benefits, they're not without their limitations and potential pitfalls. A significant risk is the tendency of some companies to buy back shares at inflated prices, which can destroy shareholder value instead of enhancing it. This misallocation of capital can be particularly detrimental in scenarios where the funds could have been better spent on high-return investments or saved for future opportunities. Additionally, an overemphasis on stock repurchases can sometimes signal to the market that a company lacks creative and profitable ways to reinvest in its core business, potentially undermining investor confidence in long-term growth prospects. Hence, a balanced approach, one that judiciously employs both dividends and stock repurchases in alignment with the company's strategic goals and market conditions, is crucial for sustainable value creation.

Case Studies: Successful Repurchase Strategies

Several companies have become textbook examples of how to execute stock repurchase strategies effectively. Apple Inc. is a standout, having launched one of the largest buyback programs in corporate history. The tech giant has systematically bought back shares over the years, significantly reducing its share count and boosting EPS, which in turn has contributed to the stock's appreciation. Another example is Berkshire Hathaway, led by Warren Buffett, known for its strategic share repurchases. Buffett has often emphasized buying back shares only when he believes the stock is trading below its intrinsic value, ensuring that remaining shareholders see an increase in their ownership value. These case studies highlight the importance of timing, scale, and strategic intent behind repurchases, illustrating how well-executed buyback programs can enhance shareholder value and support stock performance over the long term.

Continue reading here.

"Fly the Airplane": Investing wisdom for turbulent times (from Special Situation Investing)...

Pilots comprise only two tenths of one percent of the American population.

It's therefore likely most people's view of pilots and piloting is crafted by cinema and is something between the glamor of *Top Gun* and the horror of *Sully*. I can tell you, it's all of the above. Flying is hours of bliss interrupted by moments of sheer terror. It is also ripe with lessons for the rest of life.

In the spring of 2001, the famed investor, Anthony Deden, himself a pilot, gave a talk titled Fly The Airplane in which he highlighted similarities between piloting and investing. Deden wove this theme into a fascinating script of advice on how to avoid the fate experienced by so many in the recent Dot-com Crash. Early in the talk, he asked the question: "How can so many who are paid so much have blown it so spectacularly for their investor customers?" Deden believed the answer is a lack of humility and judgment—two traits business schools fail to teach.

His answer is worth internalizing and is as instructive today as it was twenty-three years ago.

Humility

Despite the ego pilots display in real life, and in Hollywood, at a deeper level there's always at least a hint of humility. This is because they know flying is dangerous.

Every time a pilot straps on an aircraft a lot can go wrong, and fast. Any one of thousands of mechanical parts could fail causing a host of aircraft emergencies. Weather could shift unexpectedly, requiring an on-the-fly change of plans. Incorrect GPS coordinates could lead to flying to the wrong location. Failing to adjust for even a light wind could lead to flying off course or running out of fuel. Every flight defies physics, gravity and nature, and being alone in the clouds against those forces is sometimes very humbling.

Deden kicks off his talk with two stories that illustrate the investor's need for humility. The first tells how the accidental discovery of Valium was leveraged by the Hoffmann La Roche company into other fruitful ventures. The second story highlights how the explosive growth of Xerox was squandered in misadventures.

Deden follows up by say:

> The history of business and money is replete with stories like these. It tells us that some luck and hard work often pay off. But business history also speaks loudly of the need to view the financial process with some humility. For unless you inherit it or win the lottery, creating great wealth is quite difficult and, keeping it, is substantially harder.

Regardless of what gurus say or what an individual investor might tell themselves, beating the market over the long term is difficult. In this pursuit, investors face a host of challenges on the daily.

On good days, investors need to resist over exuberance and ego. On bad days, the enemy is fear and despair. Investors must tune out the crowd and resist FOMO but also listen for the signal within the noise. Investors must resist the temptation to wander outside their circle of competence and simultaneously work hard to expand it. Investors need to decide when to act aggressively and when to sit on their hands. In the face of such an onslaught of internal and external forces, investors too should be humble.

But humility by itself isn't enough. It must be reinforced with hard work, hard work that leads to good judgment.

Judgment

Humility correctly applied leads to the second characteristic—judgment. As Deden correctly asserts, judgment can't be taught, it can only be learned. This is true for investors and pilots alike.

No matter how good a pilot may be at flying "by the seat of their pants" or "doing it live," the best pilots know that sound judgment in the air is a result of work and preparation put in on the ground. Deden says:

> Before each take-off, no matter how many flawless take-offs and landings have taken place before, a pilot needs to know: 1) about himself - his limitations, levels of comfort and his skills relative to what is to be expected; 2) about his aircraft: the design limitations, the operating envelope, every system and every instrument; and finally, 3) everything there is to know or as much as he possibly can about his flight plan, the weather to be encountered, the terrain, the navigation problems, the airport he is to land to, and the regulations governing such flight.

The same can be said about investors. Deden explains:

> So, now, if a pilot must deal with self, machine and the elements, what is our investor analogy? Well, it is exactly the same: 1) we must know ourselves, our limitations, our skills, our needs, our tolerance for risk, our needs for security, income, etc. 2) we must know as much as possible about every type of investment instrument in our reach and how they are related to each other, and 3) we must be aware of the weather, and our route...We must learn to recognize trends that may have an impact on our capital. We must be eager to listen and make a distinction between what is useful and meaningful and what is just noise.

But as it is in any area of life, the best laid plans can't prepare one for everything. At those points, it's imperative investors and pilots to revert back to the basics.

Just Fly the Airplane

Deden says, and it's true:

> A pilot learns, from the very beginning, that when things get really itchy, uncertain, difficult, or start going wrong, there is only one thing to do. He's been told this over and over: 'Fly the airplane.'

If you read the reports on aircraft accidents, it's painful to realize that most are caused by pilot error. There's always other causal factors, but it is usually the failure of the pilot to properly fly the aircraft that is ultimately fatal. This is why the first step to all emergency procedures is to 'maintain aircraft control.' In times of chaos, unexpected challenges, or even extreme boredom, pilots are taught to refocus on what is basic and critically important. Focus on that and they can get through the rest. The same is true for investors.

Investors experience extreme swings of emotion. When things are going great and performance is through the roof, they can start to believe this should and will last and it's all because of their own alpha. When things are going nowhere, and particularly when others are experiencing great success, investors can convince themselves to change their style and chase what's working for others. When everything is crashing, and the whole world appears to be ending, they may be tempted to run for the hills and hide. No matter what the circumstances are, the best bet is to keep flying the airplane. In other words, to stay within one's circle of competence and keep investing the way one knows best. Of course, make changes as growth and maturity occur, but stick with the fundamentals and the rest will take care of itself.

Continue reading here.

Three lessons from famed UK investor Anthony Bolton (from A Letter a Day)...

Today's letter is the combined transcript of three short videos produced by Fidelity UK where Anthony Bolton shares three important investing lessons. In these videos, Anthony talks about the markets and market sentiment, companies and the dynamics of businesses, and knowing yourself as an investor.

Anthony Bolton managed the Fidelity Special Situations fund for 28 years, generating an annualized return of 19.5% and outperforming the market by 6% per annum. During his tenure, funds under management grew from ~£2mn to ~£6.5bn.

Anthony started his career in 1971 at the investment department of Keyser Ullman, a small British merchant bank that mainly managed investment trusts. After seeing weekly visits to the Bank of England penciled in on the CEO's chauffeurs schedule, he decided to leave. Shortly after he left, Keyser Ullman collapsed. He then joined Schlesinger, a South African bank, where he first helped run a special situations fund. In 1979, at 29 years old, Anthony was recruited by Fidelity just as the firm was establishing a London base. At the time, there were just two fund managers.

From 1979 to 2009, Anthony started and ran the Fidelity Special Situations fund, which outperformed the market by 6% per annum. He also managed the Fidelity European Fund from 1985 to 2002, the Fidelity European Growth Fund from 1990-2003, the Fidelity European Values Trust from 1991-2001, and the Fidelity Special Values Trust from 1994 to 2007. By 2006 the Special Situations Fund had grown into the UK's largest open ended fund and fears that it was becoming too big to manage successfully led to it being split into UK and Global Special Situations Funds. Anthony managed the UK fund until the end of 2007, when he retired.

Just two years later, in 2009, Anthony announced his return to fund management, and in 2010, moved to Hong Kong to start and manage the Fidelity China Special Situations Trust. The fund attracted high levels of investment and was fully subscribed on issue. After a strong start, it lost 34% of its value and was ranked 5 out of 6 trusts in its sector in 2011. But by the time Anthony retired again and handed over management of the trust, the share price had recovered and outperformed the index over his four year tenure.

Transcript

I'd like to share with you today some of the lessons I've learned about investing that I think could be helpful to a private investor. And there are three areas particularly that I'd like to talk about. Firstly, I'd like to talk a little bit about markets. Then I'd like to talk about companies and what I look for in companies and I think private investors should look for. And then thirdly, I'd like to talk a bit about you, yourself as an investor and the attributes that I think make a good investor. So let me start off talking a little bit about markets.

Lesson #1: The Markets & the sentiment factor

First of all, there's an aspect of markets that has really interested me in my career. And I think people don't pay enough attention to that. And it's what I call the sentiment factor of markets or the perception factor of markets.

In Warren Buffett's words, he said, The stock market is both a weighing machine and a voting machine. And so what did he mean by that? He said, It's a weighing machine, in the sense, what you are trying to do, you're looking at companies and trying to decide what they or the market, what is the right valuation for a market? What's the right yield it should be on? With the company, what's the intrinsic value of that?

But it's also a place where a lot of investors are meeting and doing different things. And at times, if they're all voting the same way, either positively or negatively, the market can be carried way above its intrinsic value, the right value for it, or at times when people are very pessimistic, it can be carried well below.

And you need to know that cycle and be aware when things are overvalued and the sentiment is too positive, and the perception is too good. And vice versa. Well, that's a time to be more cautious. And when investors are very--the things are depressed and the voting has all been against the stock market and it's low, that might be a time of opportunity. It's not so much about what the future looks like, but it's about what future is already discounted in the stock market at that time.

So the stock market will be discounting a certain view of the future. And the opportunity is when you might have a different view of the future to that which is discounted in the stock market.

Lesson #2: Companies & the dynamics of businesses

When looking at companies, there are a few things that I think that you have to focus in on.

The first one is what is the quality of the franchise of that company? And here, you want to know how sustainable it is, how it's impacted by competition, and some financial things like what is the return on capital, and the balance sheet. In my experience, some of the worst mistakes I made was investing in companies with weak balance sheets. And that was because if the economic environment deteriorated or something went wrong at the company, it's often, you can get the stocks that do well, but if you can stop--not own the stocks that do badly, then that will really help your portfolio.

The second area is management. And I think if you can, try and find management you can trust and who run the business as owners, they act as owners of the business. Although actually, probably at the end of the day, the business franchise is the most important, and Warren Buffett said he would rather have a great business run by average management than try and pick a bad business run by great management. So the dynamics of the business is as important or more important, maybe, than the quality of the management

Lesson #3: The Investor: know yourself

The last area I'd like to talk a bit about is knowing about yourself as an investor.

When you invest in companies, you really need to understand the business that you're investing in. And if you have an information advantage, that there's some area of business that you know better than others, then I would recommend that you try and use that in investing and look at those areas, because that can really help you invest.

You also need an investment thesis to what--you need to understand why you think such and such a company is a good opportunity. And I think it's helpful at times even to write down what that thesis is. You also, I think, need an element of contrarianism if you're going to be a good investor. And that means you have to be prepared at times to do things that feel slightly uncomfortable. The dangerous thing, I think, is to do what everyone else is doing. And often, if it feels too comfortable, and you are doing something that is very popular, you must realize that that carries some extra risks with it. The popularity in itself carries a risk.

But behind this, I think, really, you have to know yourself. You have to know your strengths and weaknesses. I think to be a good investor, you need to be somewhat unemotional and detached from the stock market. And you need to be honest with yourself. Just knowing what your strengths and weaknesses are really important. In my career, I think it's really helped. I've had a contrarian approach, but I've known that that's something that works for me, and I think you need to be able to work out what sort of approach works for you as an investor and stick to it.

Continue reading here.

Legendary hedge-fund manager Stanley Druckenmiller on short selling (from MastersInvest.com via X)...

"I'm constantly fighting my bearishness about the world. One of the great hedge fund managers of all time, Bob Wilson, greatest short seller ever, said he made 90% of his money on the long side.

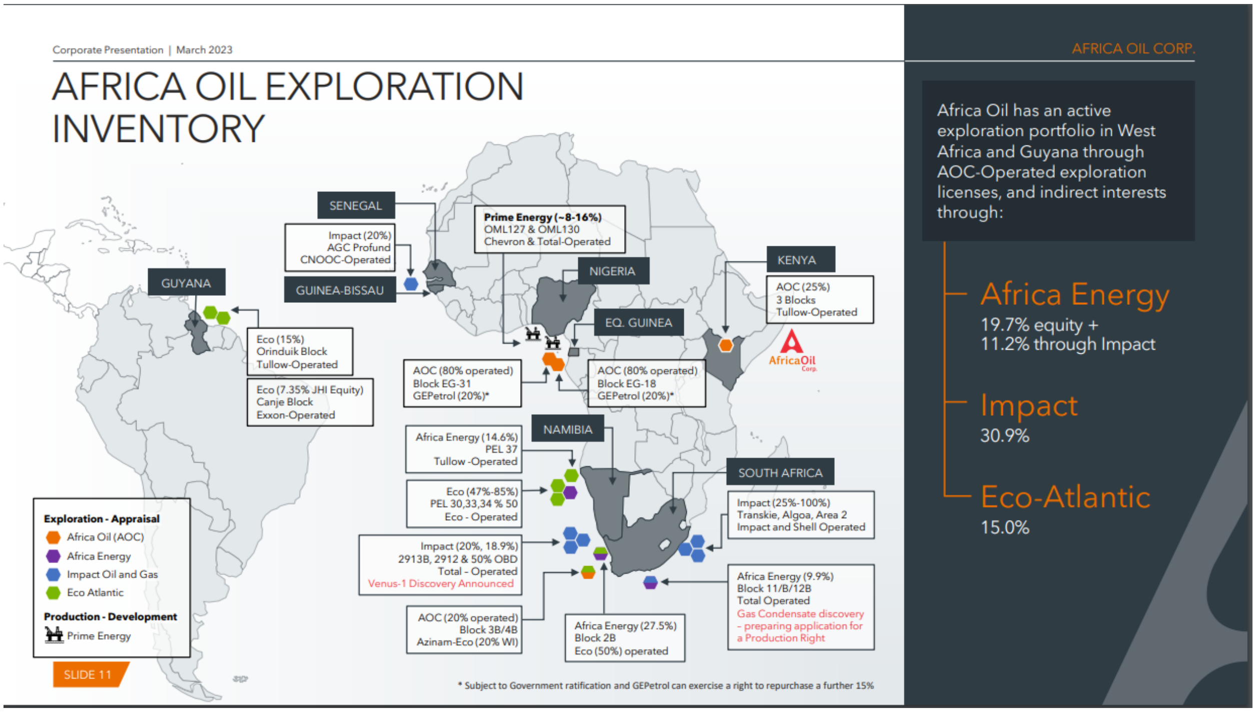
“The math just works against you. If you're perfect on a short, you can double your money. But if you're wrong on a short, you can lose 10 times your money. If you're dead wrong on a long, you lose your money. But if you're right, you can make 10 times your money. It's a mathematical inverse of that with shorting.

“You don't have to be a rocket scientist. I know, therefore, that if you have a bearish bias, you have to be very aware of it. You have to work around it. And I always have." – Stanley Druckenmiller

INVESTMENT IDEAS

"The cheapest oil stock I know" (from AlmostMongolian)...

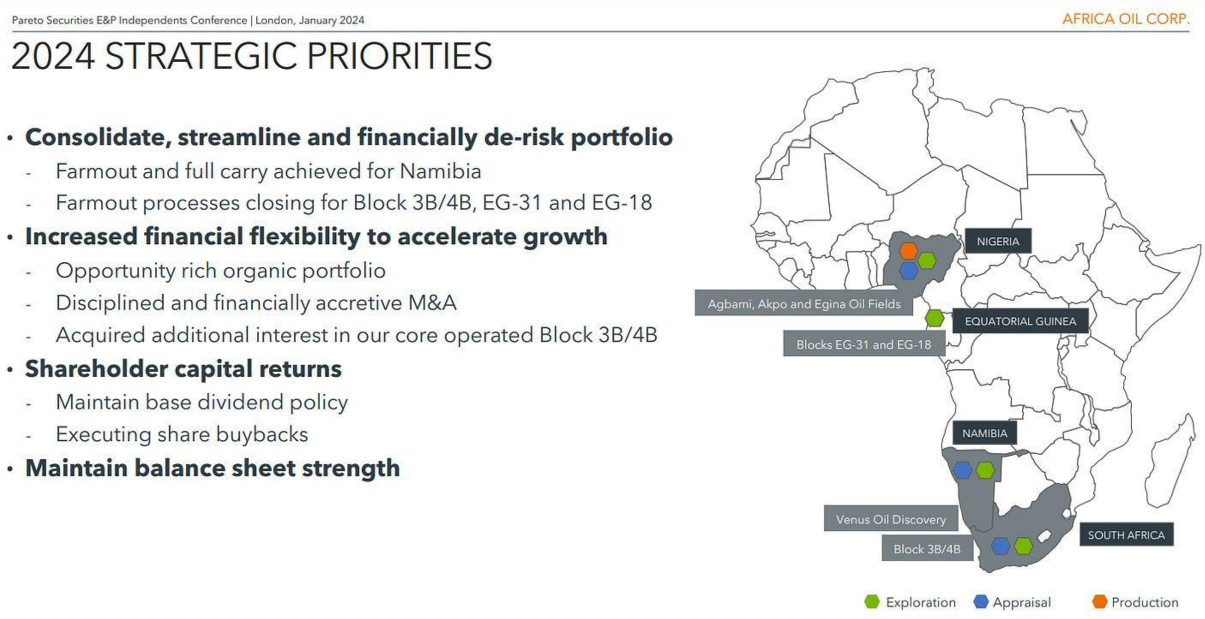
Africa Oil has been cheap for a while, but it has also been confusing, and directionless, but in recent months there has been a shift within the company, because of management changes. A new direction that I like. Maybe some of you have looked into this company in the past and you have seen this monstrosity.



Source: Africa Oil corporate presentation March 2023

This was the corporate presentation during the previous management. Most of what you see above is pretty inconsequential. There are only about 4 assets that are important in that picture. 4 assets that make this company an amazing risk/reward.

This is from the latest presentation from the company.



Source: Africa Oil presentation January 2024

It's much cleaner and now it shows the relevant assets.

I'm going over the basics before I try to evaluate these assets based on available information.

Africa oil has a market cap of 907m USD and EV of 705,5m USD (at 2,64 CAD stock price). No debt. Cash and Cash Equivalents of 201,5m USD.

They own positions in 2 public companies (Africa Energy, Eco Atlantic) and 2 private companies(Prime, Impact).

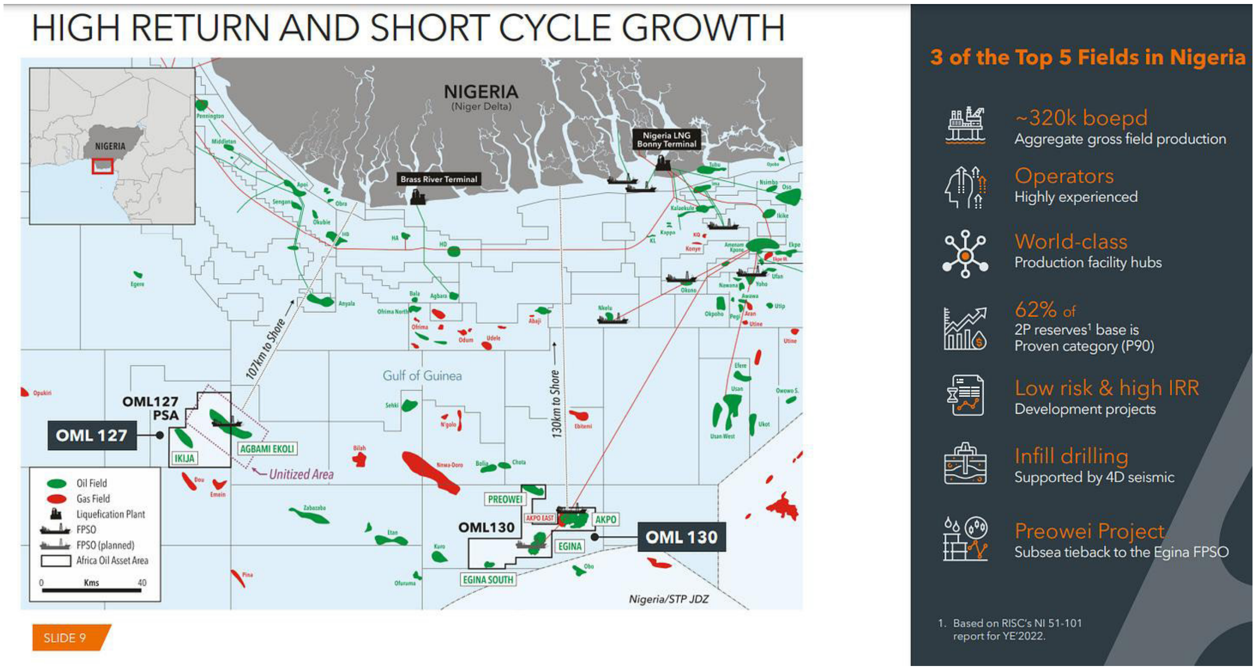
Their Africa Energy position is worth around 32m USD at market prices and their Eco position is worth around 6.9m USD atm.

These positions are pretty irrelevant even if ECO goes up 10x the profit will be around the same as what they earn every quarter.

I hope they sell these positions at a good moment and they have indicated this in the last call. If I want to invest in these companies I will invest in them directly. I would rather have this cash given to shareholders or invested in their assets.

Now to the 4 important assets.

Prime, Nigeria



Source: Africa Oil Corporate presentation October 2023

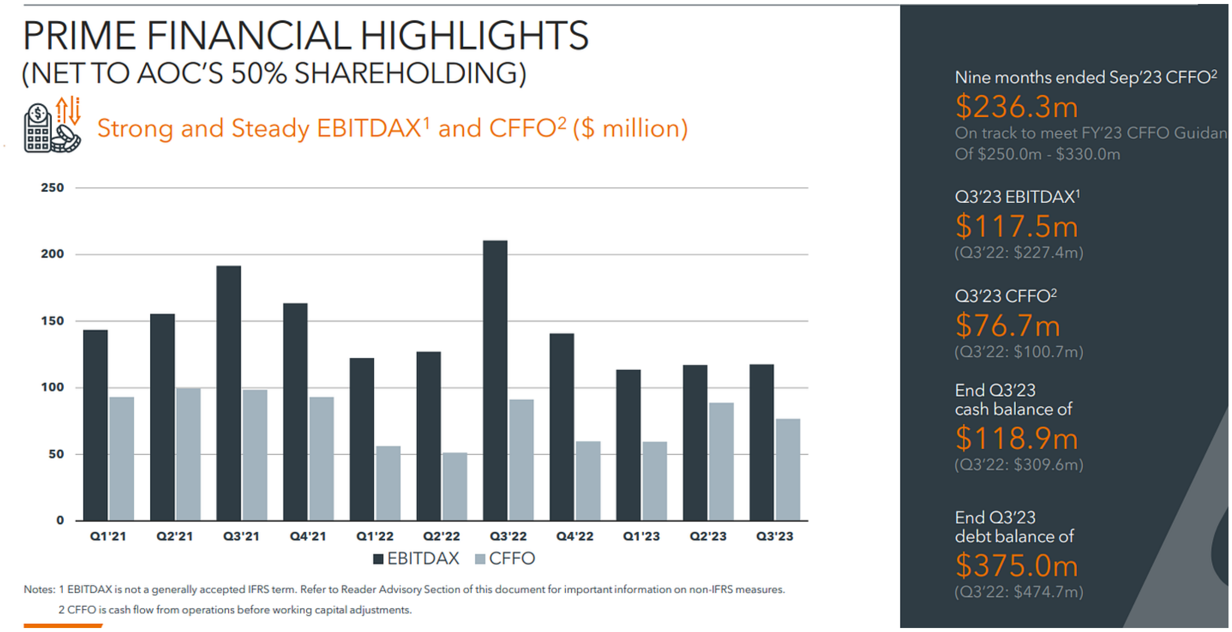
The lion's share of the market value of African oil comes from their Nigerian assets. This is their cash cow. Or maybe I should say Cash Buffalo or Cash Wildebeest.

Anyway, this is the only producing asset Africa Oil has.

It is owned through Prime. Africa Oil owns 50% of Prime which owns stakes in huge offshore oilfields operated by major oil companies. Prime owns 8% of OML 127 and 16% of OML 30. These fields are operated by Chevron and Total.

Because Africa Oil owns such a small portion of these fields and they are operated and majority owned by the majors it reduces the risk of operating in Nigeria. And risks of Africa Oil screwing up something operationally because they can't.

But even a small stake in these fields is huge for Africa Oil. BTW everything below is net to Africa Oil's share of Prime. No need to halve the numbers they have already been halved.

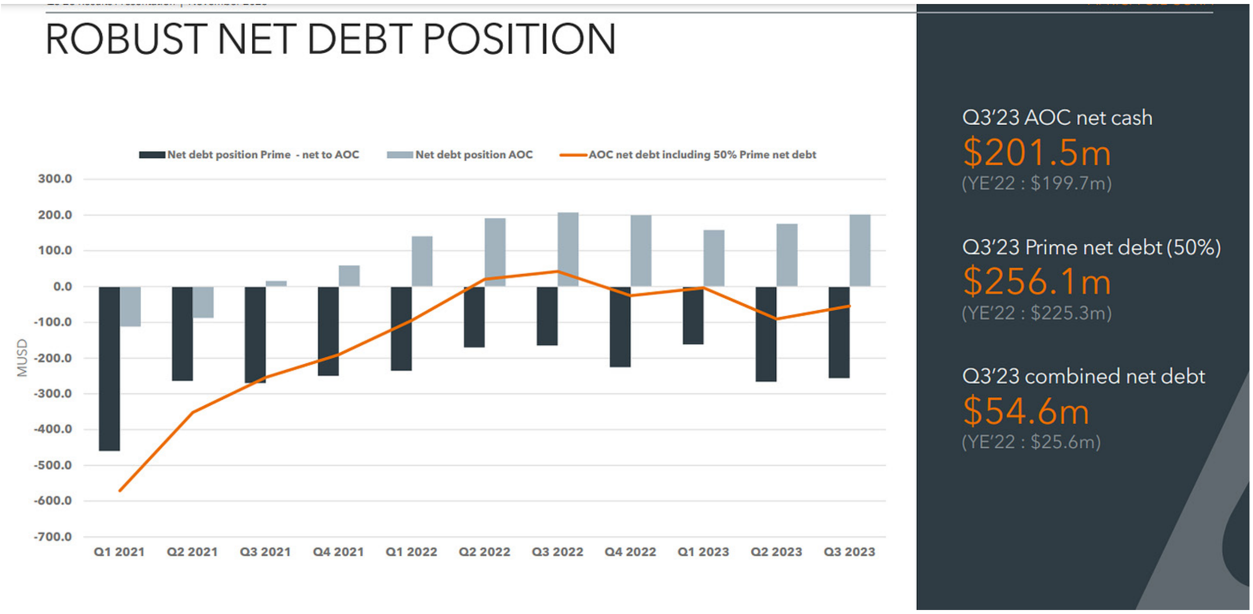


Source: Africa Oil presentation November 2023

This is the operational performance net to Africa Oil's share of the company. You might notice surprisingly strong 2021 and 2023 compared to 2022. This is because Africa Oil was hedged through the Covid period so they did not experience the highs and lows of Oil price fluctuations. But at the end of 2022, they changed their hedging strategy and now they are more in the mercy of oil prices for better or worse. I think for better because I am bullish on oil. Not as bullish as I was before. I am cautiously bullish nowadays. Aware of the difficulty of predicting commodity prices.

In the picture above there are these operational numbers for Prime, but we care is what Prime distributes to Africa Oil. Prime pays dividends to Africa oil from their earnings. In 2022 Prime distributed 250m USD and during 2023 distributions have been Q1=0 USD, Q2=62.5m USD, and Q3=62.5m USD.

This is quite significant considering the 705,5m USD EV.



I said earlier that Africa Oil has no debt. This is true. But Prime has debt. Some people like to include this in the EV. I do not. Well, it doesn't matter if do or not as long as you're aware of it. The debt of Prime is handled within Prime and what matters to Africa Oil is what Prime spews out. Prime has no issues dealing with the debt they have low breakevens, a lot of cash(118,9m USD), and a large amount of undrawn credit available within their credit facilities(250m USD)

AFRICA OIL RESERVES STATEMENT DECEMBER 31, 2021

This disclosure is based on an independent reserves evaluation, effective 31 December 2021, prepared by RISC (UK) Limited ("RISC") for Africa Oil in accordance with Canadian National Instrument 51-101 – Standards for Oil and Gas Activities ("NI 51-101") and the Canadian Oil and Gas Evaluation Handbook ("COGE Handbook"). Africa Oil's statement of reserves is based on the Company's 50% ownership interest in Prime Oil & Gas Coöperatief U.A ("Prime").

Highlights[1]

- YE'21 working interest (W.I.) and net entitlement[2] Proved ("1P") reserves of 48.6 MMboe (YE'20: 45.5 MMboe) and 55.0 MMboe (YE'20: 54.5 MMboe), respectively.
- YE'21 (W.I.) and net entitlement Proved plus Probable reserves ("2P") of 72.8 MMboe (YE'20: 72.6 MMboe) and 82.1 MMboe (YE'20: 85.8 MMboe), respectively.
- W.I. 2P reserves replacement ratio of 102% (YE'20: of 114%) is the result of strong reservoir performances with positive technical revisions, improvements in the oil price forecast and resource transfers of 4.1 MMboe from 2C to 2P, compared with a production of 10.0 MMboe net to the Company's 50% shareholding.
- After-tax 1P NPV (10) valuation $996 million (YE'20: $1,004 million) and 2P NPV (10) valuation of $1,444 million (YE'20: $1,356 million)[3].

Source: Africa Oil

According to these 1P NPV, 2P NPV etc. The value of the Nigerian assets alone exceeds the market value of Africa Oil. But who cares about these NPVs? The market doesn't. I have seen it over and over again in companies trading at 10-20% of NPV.

What matters is this. At normal oil prices, Africa Oil owns an entity that gives them around 150-300m USD annually to use for whatever. What is that worth? More than their EV? Most likely. More than their Market cap? Probably.

But of course, you have to take into account the jurisdiction. Nigeria, but there are some things that make Africa Oils' position in Nigeria not as risky.

First of all the majors are operating the assets. The assets are mostly owned by the majors and the majors have a lot of power in Nigeria. You know this if you have seen some documentaries.

There are also problems in Nigeria like Oil stealing. People are stealing oil straight from pipes. But Africa Oil's assets are offshore and are not impacted by this or any other BS that happens inland.

The tax rate for Nigerian operations was also reduced from 50% to 30% in 2023. And OML 130 got a 20-year license renewal. OML 127 has its license renewal this year and I expect them to get that quite easily. So the signals from the government have been good.

Nigeria is also relatively stable compared to its neighbors. I know that is like saying the tallest midget when there is a coup wave going on in Africa, but it's something. The jurisdictional and operational risks are not significant in my opinion. Of course, relatively speaking.

It's not Texas, but it's not Venezuela either.

They also sell their oil at a few dollars premium to Brent.

The way I see it. This asset alone is worth more than the market cap. But that alone would not make me invest.

There are a lot of companies out there that can make a case that they are undervalued. If Africa Oil only had Prime I would say it looks cheap, but I can understand the valuation if this was their only asset and I would not see a big upside from there.

The next assets are what gives Africa Oil the upside potential. Prime enables them to pay dividends, do buybacks, and put more capital into these following assets.

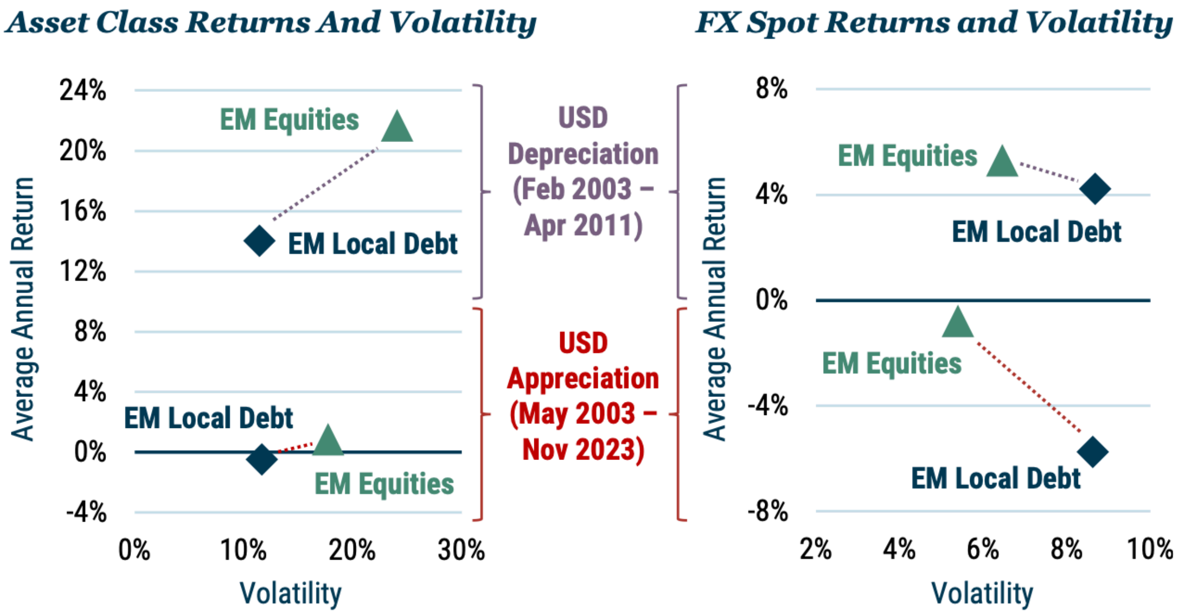
Continue reading here.

A possible once-in-a-generation opportunity in emerging-market, local-currency debt (from GMO Emerging Debt Insights)...

In this piece we compare two ways to take advantage of the USD's richness versus emerging market currencies: EM equities and EM local currency debt. We believe that for relative value, diversification, and potential alpha reasons, EM local currency debt deserves a prominent place in portfolios today.

The USD takes roughly decade-long swings relative to global currencies, wielding a significant impact on returns to USD-based assets relative to non-USD assets. When the dollar is cheap, as it was around 2011, its rise drained returns to foreign stocks and bonds. But, when it's rich, as it is now, its decline portends a boost.

EXHIBIT 1: IMPACT OF DEPRECIATING/APPRECIATING USD ON EMERGING ASSETS



As of 11/30/2023 | Sources: J.P. Morgan, Bloomberg, GMO, MSCI

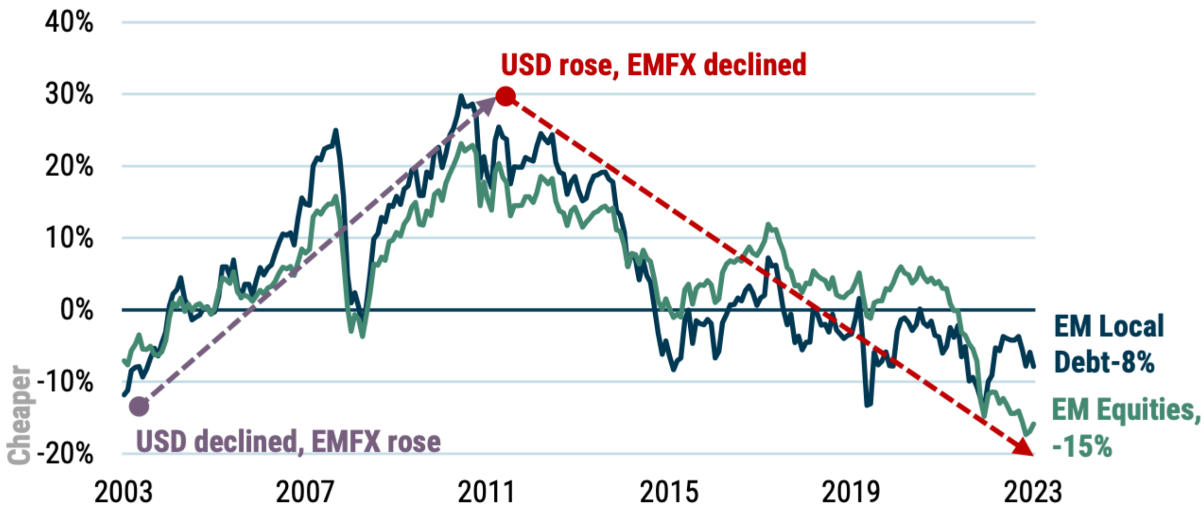
Exhibit 1 looks at non-USD asset class returns in the left chart and isolates FX spot returns of those same asset classes on the right chart during two periods in history: the 2003-2011 period, when the USD's decline from expensive levels boosted returns to foreign equities and bonds; and the more recent 2011-present period, when a cheap USD's rise did the opposite. Comparing the two periods, the USD's recent rise cut the Sharpe ratio of local debt from 1.0 to -0.1 and emerging equities from 0.8 to 0.

The second chart highlights how different the baskets of EMFX are among EM equities and EM local currency debt. EM equities (MSCI EM) are made up predominantly of Asian currencies that over history have been either pegged or managed relative to the USD. This has resulted in lower USD-relative volatility of the MSCI-EM basket. The local currency debt basket (GBI-EMGD) has been the most volatile, comprising over its history Latin American currencies as well as CEEMEA, of which many of the latter are more tethered to the euro. Until China joined GBI-EMGD in 2020, Asia was only about 30% of GBI-EMGD. In both cases, the return/volatility ratios fell sharply during the USD rise period relative to the USD decline period: from 0.5 to -0.7 for local debt and from 0.8 to -0.1 for EM equities.

Going forward, we see many factors currently in place that are bullish for EM local debt – arguably the best set of conditions we have seen in twenty years, based on valuations, diversification considerations, and alpha potential.

For EM currencies, current valuations are reminiscent of the 2003-2011 period

EXHIBIT 2: EMERGING ASSETS CURRENCY VALUATION VS. USD

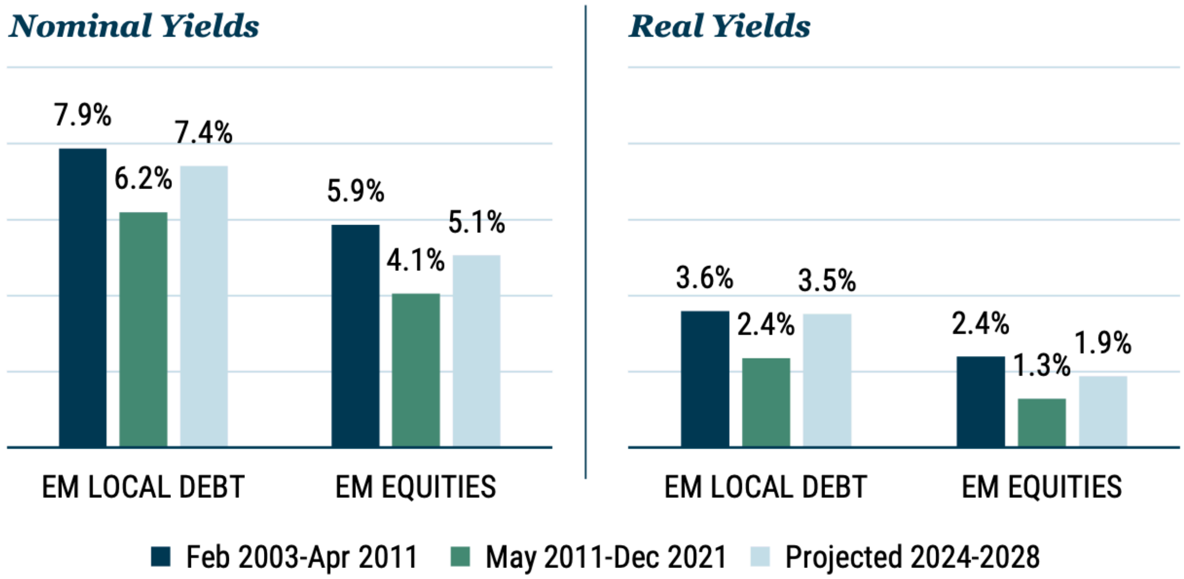


As of 11/30/2023 | Source: J.P. Morgan, MSCI, Haver, Bloomberg, GMO
The most recent Emerging Local Debt valuation estimate is based on projected country weights after including India in the index universe.

Exhibit 2 shows the USD's expensiveness in general on a Behavioral Equilibrium Exchange Rate, both against EM equities (MSCI EM) and EM local currency debt (GBI-EMGD). This valuation metric adjusts the real exchange rate for structural changes in the underlying fundamentals over time (rising per-capita GDP, terms of trade, productivity, and inequality, among others). After all, these countries are emerging, so the expectation of mean reversion on an unadjusted PPP (real exchange rate) model can sometimes be unrealistic; the Behavioral Equilibrium Exchange Rate is more useful in that respect.

After valuation, we identify two other factors that are generally supportive of returns to EM currencies: interest rates and growth differentials.

EXHIBIT 3: AVERAGE NOMINAL AND REAL YIELDS



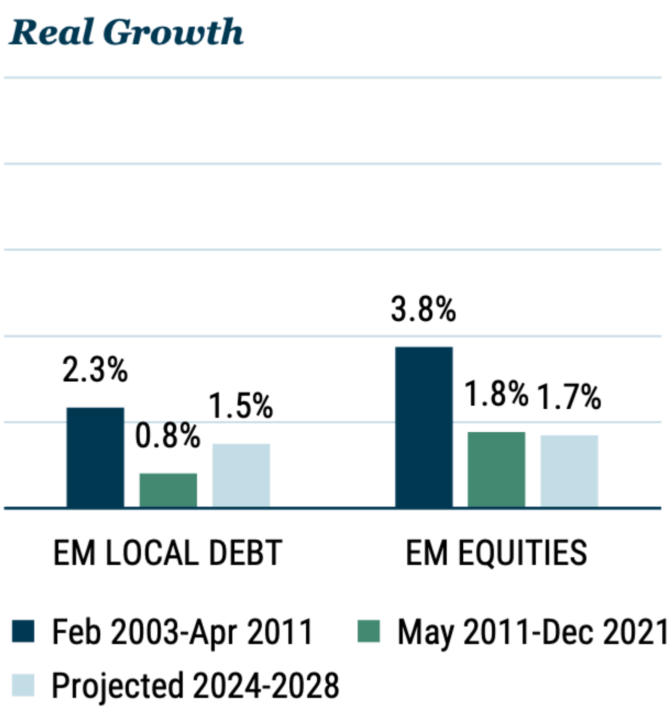
Sources: Bloomberg, Consensus Economics, J.P. Morgan, MSCI, GMO

On interest rates, Exhibit 3 shows average nominal and real interest rates by the local debt and EM equities baskets. In both cases, current interest rates are essentially back to the 2004-2011 average, offering high total return potential above spot FX appreciation. ***It's extremely rare to get this combination of cheap currencies with high rates – and it doesn't generally last long***.

As an aside, we observe that local debt rates are always higher than EM equity rates, again due to compositional differences given that Asian currencies are typically lower yielding than those in Latin America or CEEMEA. This latter fact relates to the relative stage of development of local capital markets. An increasing number of GBI-EMGD countries have become more and more comfortable with conventional inflation-targeting policy regimes.

It goes hand-in-hand with the development of their local capital markets, which provided reliable funding sources in the Covid-shock era and beyond. Seeing the benefits, we believe countries will continue on the path of market communication, transparency, and orthodox monetary policy, which is likely a very positive relative structural backdrop for the local debt countries relative to the EM equity countries.

EXHIBIT 4: EM/U.S. REAL GROWTH DIFFERENTIALS



Sources: IMF WEO, J.P. Morgan, MSCI, GMO

On growth differentials (Exhibit 4 displays the two EMFX baskets versus the U.S.) we are a little less confident. The 2003-2011 period saw a very high EM-DM GDP growth differential, which may have been supportive of capital flows to emerging countries, which in turn bolstered their currencies. It was a relatively unique period in which China was at maximum velocity in terms of investment spending, driving up commodity prices and pulling a lot of countries up in its wake. The period we are embarking on now is likely to feature lower overall global growth rates, and perhaps lower EM-DM growth differentials, suggestive of less support for EMFX versus the USD relative to the 2003-2011 period. Interestingly, the growth gap the MSCI EM countries enjoyed relative to

GBI-EMGD countries in earlier periods is projected to disappear in the future (more on this below).

Diversification Considerations

On whether to choose the MSCI-EM or the GBI-EMGD basket to capture EM-DM growth differentials, we'd advocate allocating to both. First, given the different country compositions and index construction methods (GBI-EMGD caps weights of larger countries at 10%), allocating to both results in a more diversified country composition than owning either one alone. Second, we believe the regional growth drivers may be different in the future than they've been in the past.

Exhibit 5 shows the evolution of the growth differential between the basket of MSCI EM countries and the GBI-EMGD countries over time. Historically, this growth differential has favored the Asia-heavy MSCI EM countries, particularly China, which had both a high weight and high growth. However, going forward, using the IMF WEO forecasts and taking into consideration the upcoming addition of India to GBI-EMGD at a maximum 10% weight, this differential is projected to drop to zero. Indonesia is also another important diversifying country (10% GBI-EMGD vs. about 2% In MSCI EM) given its high growth, good fundamentals, and ongoing good policy management. Indonesia is the second biggest contributor to growth (about 15%) in the GBI-EMGD.

EXHIBIT 5: REAL GDP GROWTH (%) OF MSCI-EM LESS GBI-EMGD

Source: J.P. Morgan, Bloomberg, MSCI, IMF

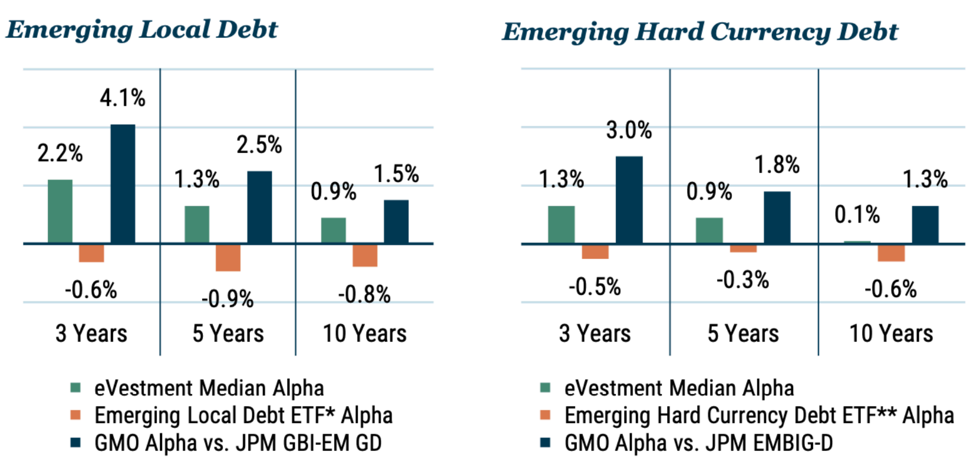
A final point in support of local debt is the availability of investing in more "frontier" EM local debt markets; among them are Jamaica, Dominican Republic, Costa Rica, and Uruguay. If we look at the average growth of frontier/emerging countries that have accessible local debt markets from 2024 to 2028, the IMF estimates such growth at 4.5%, much higher than the current growth prospects of the MSCI EM basket countries (3.6% on average). Investing in these frontier opportunities via EM equities is not a meaningful prospect.

Alpha Potential

Here's where we at GMO get most excited. Emerging debt markets are inefficient. Across EM hard currency debt and local currency debt, eVestment data shows that the median manager beats the benchmarks and the respective ETFs of both asset classes consistently over time. We at GMO are proud to report that our hard and local currency emerging debt strategies have also done so, with top quartile/decile results. It's a reason our Asset Allocation division has retained its emerging debt allocations even when valuations have been on the skinny side – alpha has been reliable.

In local debt in particular, we've invested significant resources in recent years to upgrade our EMFX and local rates alpha programs, and it has been paying off. When combined with our trademark security selection alpha focus, which draws from the full blended hard currency/local currency/corporate investment universe, we are quite confident in our prospective alpha potential.

EXHIBIT 6: EM DEBT PERFORMANCE OVER TIME



As of 9/30/2023 | eVestment, iShares by BlackRock
* iShares J.P. Morgan Emerging Local Government Bond UCITS ETF USD
** iShares J.P. Morgan USD Emerging Markets Bond ETF
Performance data quoted represents past performance and is not predictive of future performance.

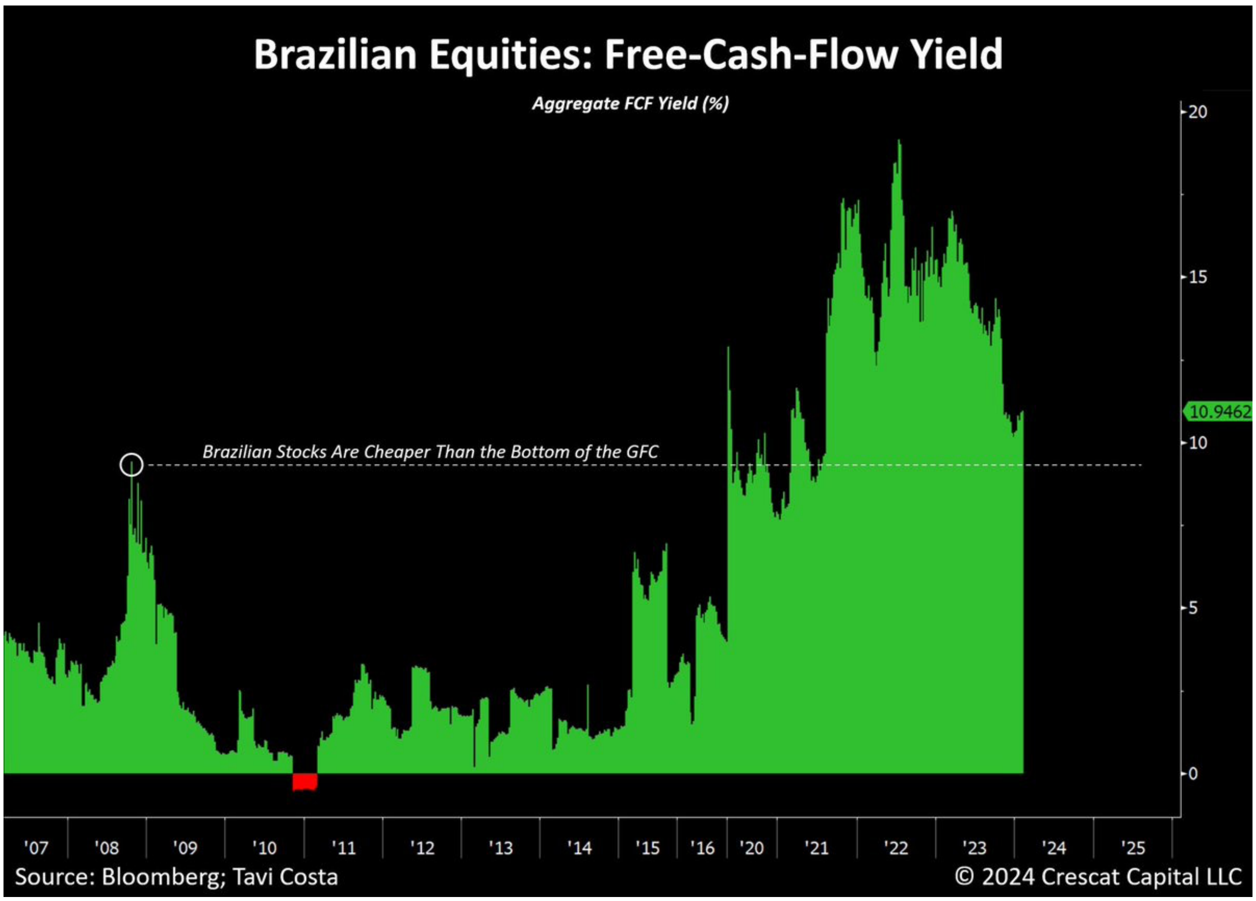
Conclusion

Based on our reading of valuations in particular, we anticipate looking back on this current period as a generationally attractive entry point for EM local debt. The USD overvaluation is at relatively extreme levels, likely to provide a strong ongoing tailwind for non-dollar assets in general. We believe EM local debt can be a powerful way to capitalize on this, as a supplement to both EM equities and other asset classes.

By this measure, Brazilian stocks are even cheaper than they were during the Great Financial Crisis (from Otavio (Tavi) Costa via X)...

Brazilian equities are trading at 5.5 times forward cash flows in one of the most compelling macro and technical setups I've seen.

In fact, on a free-cash-flow yield basis, these stocks are even more undervalued than they were during the depths of the Global Financial Crisis.



An “undiscovered” microcap stock trading for one-third its cash reserves (from Small Cap Value Investing with Phil)...

Why Tianjin Development?

I believe the stock is currently mostly undiscovered because of the following reasons:

- Small-Cap with around $193m in market cap
- No Seeking Alpha articles, No Twitter threads
- Operates within the Chinese market, an arena that remains relatively underexamined by international analysts (The stock is listed on the Hong Kong Stock Exchange) and within a market that experienced significant decline in stock prices over the past years.

And now let me tell you why I believe that this stock will at least double in the near future:

- Diversified revenue streams with promising growth prospects.
- Anticipated full-year net profit after taxes exceeds 64% of the current total market capitalization.
- Cash and cash equivalents amount to three times the current market capitalization.
- Loan obligations are well-supported by ample cash reserves, with three times more cash on hand than outstanding loans.
- The Chinese market continues to exhibit robust growth at a macro level.

What does the company do?

The company operates in various sectors, including:

- Utilities (Tianjin TEDA Tsinlien Water Supply Co., Ltd, Tianjin TEDA Tsinlien Heat & Power Co., Ltd., Tanjin TEDA Electric Power Co., Ltd.)
- Pharmaceuticals (Tianjin Yiyao Printing Co., Ltd., Tianjin Lisheng Pharmaceutical Co., Ltd., Tianjin Institute of Pharmaceutical Research Co., Ltd.)
- Hospitality (Tsinlien Realty Limited which operates the Courtyard by Marriott Hong Kong)
- Electrical and Mechanical (Tianjin Tianfa Heavy Machinery & Hydro Power Equipment Manufacture Co., Ltd.)

It engages in strategic investments in entities like Tianjin Port Development Holdings Limited and Otis Elevator (China) Investment Company Limited.

Bullish reasons

In the subsequent section, I will articulate the reasons for my conviction that the company is currently significantly undervalued:

Good numbers

It's important to evaluate all figures in the context of the current market capitalization of US$193 million.

During the initial half of the present fiscal year, the company recorded total **revenues** of $234 million, indicating a decline of 6% compared to the $260 million reported for the corresponding period in 2022. This can be attributed predominantly to the overarching economic conditions prevailing in China.

However, **Profit after tax** for the first six months concluding on June 30, 2023, stood at $62 million, marking an increase of 31% compared to the $47 million reported for the corresponding period in 2022. This can be primarily attributed to a reduction in the cost of sales and an increased proportion of net profit derived from associates and joint ventures.

Solid balance sheet

Additionally, the balance sheet showcases impressive figures relative to the current market capitalization. At the conclusion of the first half (H1), the aggregate assets stood at US$2.7 billion, representing nearly 14 times the market capitalization. Within this total, approximately $640 million is held in cash and time deposits with a maturity exceeding three months. The overall liabilities amounted to $632 million, encompassing around $232 million in both short-term and long-term loans.

Diversified revenue streams

The company benefits from diverse revenue streams across multiple sectors, mitigating the risk of significant setbacks in any single sector. Each sector in which the company has investments holds promising potential:

Utilities Sector Growth

Considering the anticipated substantial growth in the global utilities market propelled by advancements such as AI and electric cars, the company's dedication to high-quality development within this sector strategically situates it to leverage the opportunities presented by this expanding market.

Pharmaceutical Sector Expansion

The pharmaceutical divisions of the company appear to be experiencing heightened demand. For example, the company has recently disclosed that Lisheng Pharmaceutical, in which Tianjin holds a 34% interest, has revised its projected full-year earnings upwards, anticipating a surge of 260 to 303%.

With the global pharmaceuticals market forecasted to reach $1.57 trillion by 2023, the company's solid R&D capabilities, product quality and its subsidiaries position it for growth.

Hospitality Sector Recovery

Courtyard by Marriott Hong Kong's improved earnings and increased room prices with a 64.1% occupancy rate suggest a positive trend in the hospitality sector. The global hotel industry is projected to recover with a CAGR of 8.1% from 2021 to 2028, presenting growth opportunities for the company.

Consideration of Electrical and Mechanical Business Restructuring

Despite a 23% decrease in annual revenue to $36 million, the company's consideration of restructuring indicates adaptability. As the global electromechanical industry is expected to grow at a CAGR of 6.6% from 2021 to 2028, a strategic restructuring could position the company for future growth.

Stable Throughput in Strategic Investments

Strategic investments in companies like Tianjin Port Development Holdings Limited and Otis Elevator (China) Investment Company Limited have maintained stability. Notably, the net profit of associates and joint ventures witnessed a noteworthy 18% year-over-year increase.

Valuation

The current stock price is: $0.18 (February 7, 2024). Here are my evaluations of the equitable stock price under three different growth scenarios:

Margin of Safety

My Margin of Safety Stock Price is: $0.17

Normal case

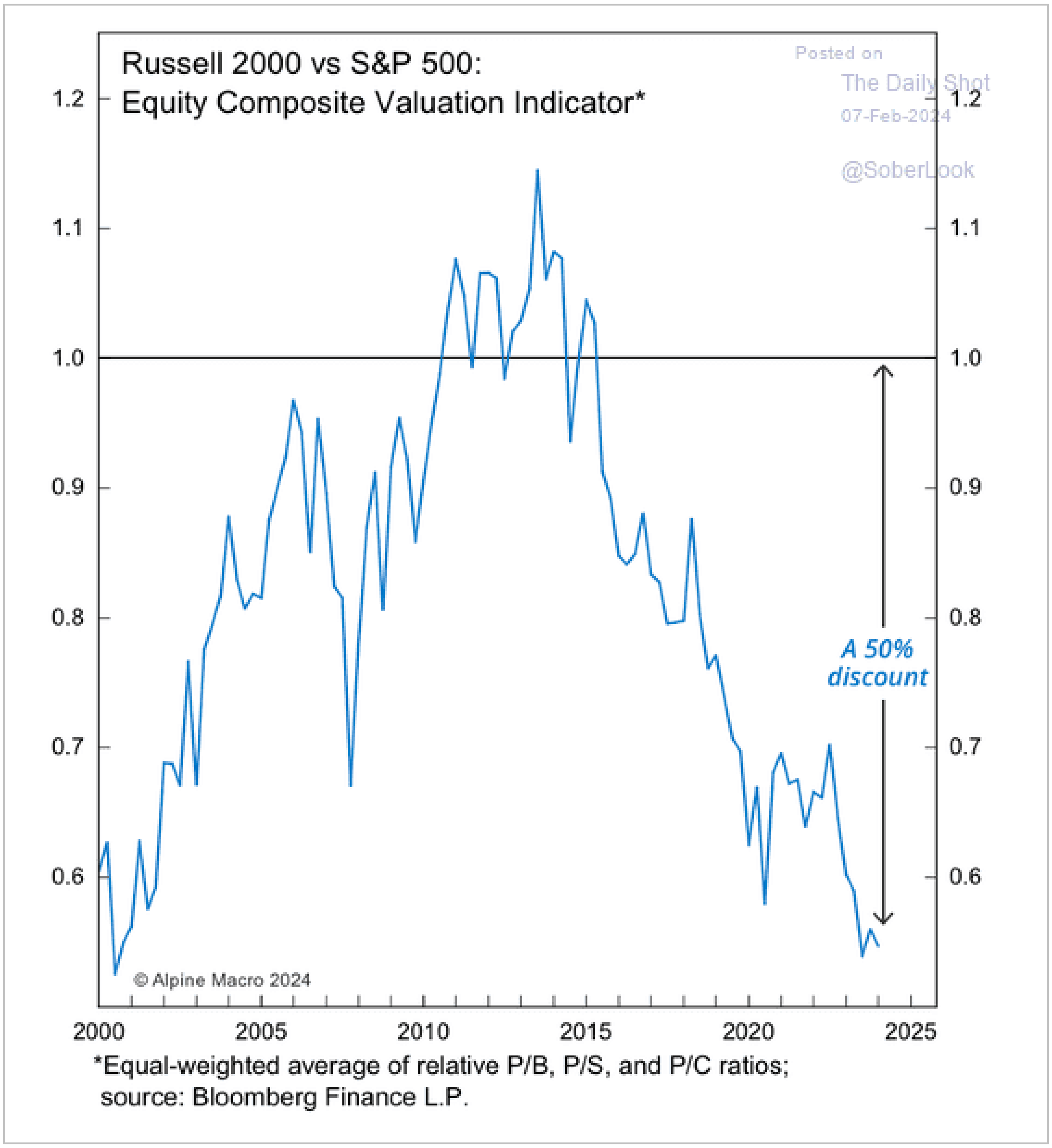
I expect the following stock price in a normal growth scenario: $0.33

Best case

My best case scenario calculation gives the following stock price: >$0.54

Continue reading here.

U.S. small-cap stocks are historically undervalued relative to large caps ([from The Daily Shot]())...



Yum China (YUMC) is aggressively buying back shares (from KEDM Monday Monitor)...

We noted a few weeks back that buybacks have been the key factor in outperformance over the past few years. C-suites aren't dumb and are leaning in (their comp depends on it...), realizing that active fund managers will no longer find their cheap stock and bid it to intrinsic [value]. Market structure has shifted and cheap stocks will continue to get cheaper as active gets replaced with passive flows...

The Economist may have just marked the bottom in China [with their super-bearish magazine cover], so let's see who in China is doing the market's favorite thing... buying back shares!

Yum China, $YUMC, stepped up aggressively in the Q with 8m shares (~$335m) and about 3% of SO in the TTM. They have $1.25B authorized going into 2024 (~8% of mkt cap)...


KUPPY'S EVENT DRIVEN MONITOR
Yum China Holdings, Inc. ($YUMC)
75.00
70.00
65.00
60.00
55.00
50.00
45.00
41.50
40.00
35.00
Jul 2019
Jan 2020
Jul 2020
Jan 2021
Jul 2021
Jan 2022
Jul 2022
Jan 2023
Jul 2023
Jan 2024
koyfin

The investment case for Brookfield Corporation (BN) (from Silver Beech Capital)...

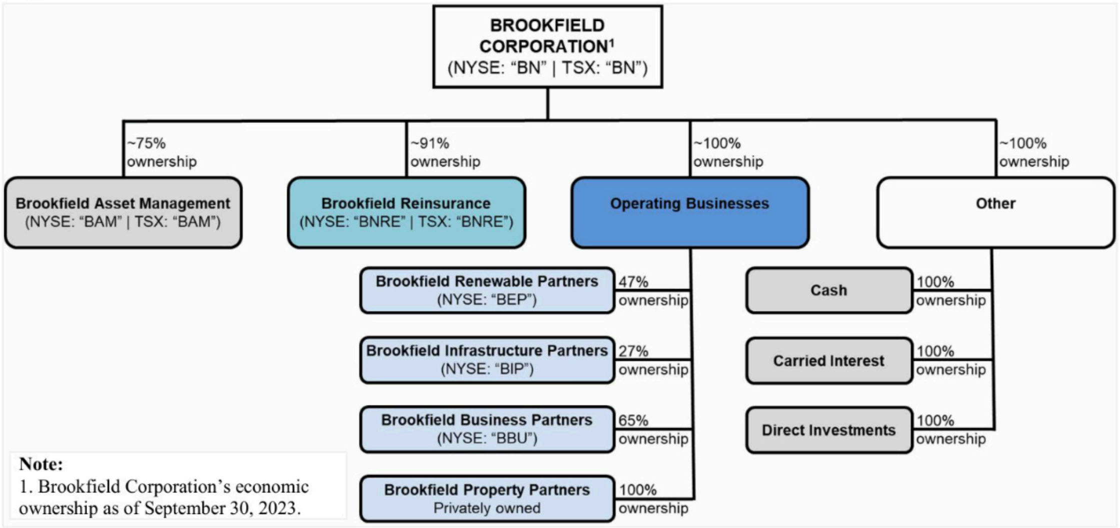
Brookfield Corporation is a high-quality business with an excellent investing track record that has amassed one of the world's largest discretionary pools of capital focused on managing and owning investments in infrastructure, renewables, real estate, insurance, private equity, and credit. Brookfield Corporation offers investment products and services focused on these verticals to institutional and retail clients through its asset-light investment management business named Brookfield Asset Management.

Brookfield Corporation owns a controlling 75% stake in Brookfield Asset Management and both companies are led by Bruce Flatt. Bruce has been at Brookfield virtually his entire career, having joined the company at 25 years old. Bruce was made CEO in 2002 when he was 37 years old. Bruce and other insiders are aligned with shareholders as they own over $10 billion of Brookfield Corporation stock.

Brookfield Asset Management is a scaled and high-growth business that has attracted hundreds of billions of capital in recent years due to its strong-performing investment funds. Brookfield's fee- bearing funds have grown from $138B in 2018 to $457B in 2023; this equates to a 27% compounded annual growth rate. Approximately half of Brookfield's fee-bearing capital is also carry-eligible (an even more profitable fee stream that pays out when Brookfield meets investment performance criteria). Brookfield's carry-eligible capital has grown at an even more impressive 31% compounded annual growth rate since 2018.

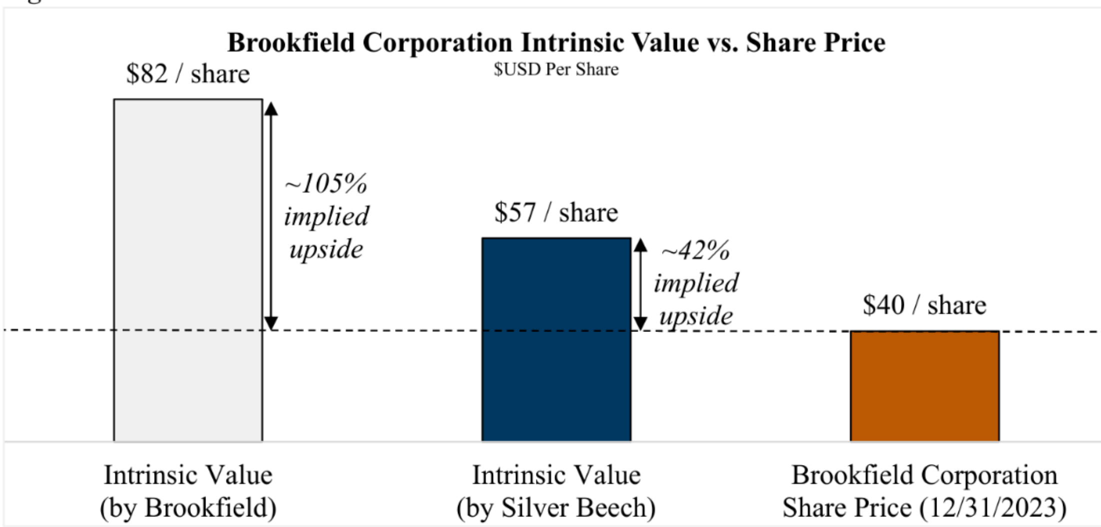
Brookfield Corporation's other holdings are numerous, more asset-intensive than the asset manager, and relatively complex by public markets standards. We believe this surface-level complexity is partly responsible for Brookfield Corporation's substantial undervaluation. We graphically depict a high-level overview of Brookfield Corporation's holdings in Figure 1 below.

Figure 1



As you can see, Brookfield Corporation has economic interests in several subsidiaries. Many of these holdings are also publicly traded. For example, Brookfield Corporation has a 75% economic interest in Brookfield Asset Management, which is listed on the New York Stock Exchange and Toronto Stock Exchange under the "BAM" ticker. In Figure 2, we show that our estimate of Brookfield Corporation's intrinsic value is substantially above the company's share price. We construct a "look-through" estimate of the company's intrinsic value using public market valuations of Brookfield Corporation's public subsidiaries and modest valuation assumptions for holdings that are not publicly traded.' Brookfield Corporation's own intrinsic value estimate is $82, a 105% premium to the company's December 31 share price. As shown in Figure 2, Brookfield Corporation' shares sell at a substantial discount to management's estimate of intrinsic value and Silver Beech's estimate of intrinsic value.

Figure 2



We would not be interested in Brookfield Corporation if it were simply selling at a discount to that implied by its public subsidiaries - we also believe that the company's public subsidiaries are undervalued with embedded upside and are poised to outperform due to their high quality and constructive financial leverage. As interest rates rose in 2023, highly leveraged public company valuations were penalized. However, we believe Brookfield's public subsidiaries' high leverage is well managed, and, going forward, expect strong subsidiary operating performance combined with this leverage will result in increases to levered cash flows and accretions to equity value.

We believe Brookfield Corporation is an attractive investment because:

- **Leading investment track record:** Brookfield's funds in infrastructure, private equity, real estate, and credit, have leading track records across multiple vintages spanning decades of investing in different market environments. Since Bruce Flatt became CEO in 2002, Brookfield's stock has compounded at ~ 19% annually despite recent underperformance.
- **High growth:** Due to Brookfield's leading investment track record across multiple asset classes, fee-bearing AUM has grown at a 27% CAGR over the last five years. Carry-eligible capital has grown at an even more impressive 31% CAGR over the same period. In addition to strong AUM growth at Brookfield Asset Management, we believe Brookfield Corporation should be able to compound its intrinsic value at 15%+ returns over the next five years by investing effectively across its unique global opportunity set and opportunistically repurchasing shares.

- **Misunderstood high-quality company:**
    - Holding company complexity: Brookfield has direct and indirect economic interests in several public subsidiaries and often exercises disproportionate control and governance rights over them. In the past, Brookfield has also used its ownership of public subsidiary stock as a tax-advantaged currency for M&A. The public market's distaste for such holding company complexity results in an unreasonably large trading discount for Brookfield stock. If this discount persists, we expect management to address the complexity by further simplifying the business and repurchasing shares as they have done in the past.
    - Real estate & leverage misperception: when we speak with other investors about Brookfield, we usually hear concerns regarding the company's large commercial real estate portfolio of offices and malls. It is true that Brookfield owns a large portfolio of commercial real estate. This real estate is out of favor and the market's perception is that Brookfield's continued ownership will hamper the broader company's operating performance for years to come. Furthermore, a simple quantitative screen of Brookfield on Bloomberg shows an overleveraged company saddled with $220+ billion of consolidated debt. Digging just one inch deeper, it is easy to get comfortable with Brookfield's real estate exposure and leverage: easily less than 20% of the company's enterprise value can be attributed to the real estate portfolio, and over $200 billion of Brookfield's consolidated debt represents asset-level financings that are non-recourse to the holding company.
- **Attractive valuation:** Brookfield trades at an unreasonably large discount to a look-through estimate of its intrinsic value using valuations of its public holdings; we also believe Brookfield's publicly traded subsidiaries are undervalued. We think Brookfield's intrinsic value is more than 40% greater than its December 31 share price.

Continue reading here.

This out-of-favor industry offers durable high return-on-invested-capital ("RoIC") opportunities with "multi-bagger potential" (from Bonhoeffer Capital Management)...

In searching for durable high RoIC opportunities with multi-bagger potential, some industries that are currently out of favor have some interesting opportunities. Specifically, the distribution industry has interesting candidates including electronics, building products and electrical, plumbing and HVAC distributors. Some distributors are world-wide, such as in electronics but others are more regionally based, such as building products and electrical, plumbing and HVAC products. An example of a high RoIC building products distributor is included as this quarter's case study, Builder's First Source.

A common characteristic of distributors is their capital light nature with typical net income to free cash flow conversion ratios in the 90%'s. Another favorable characteristic is a service component (such as installation and design) in addition to the base distribution service provided.

A key performance indicator ("KPI") for distribution types of businesses is return on working capital. If we look at electronics distribution, we see a clear leader in return on working capital of 30% in Arrow Electronics ("Arrow") versus Avnet, Inc. ("Avnet"), Arrow's closest competitor, at 12%. Arrow and Avnet are the two largest electronics distributors in the world.

Another way for distributors to add value is to provide services in addition to distributing the product itself. Again, in Arrow's case they provide design services for their suppliers based upon customer's needs and outsourced supply chain management services. This allows Arrow to generate higher net income margins than Avnet of 3.9% vs. 2.9%, respectively. These advantages also show up in the 10-year EPS growth rates (13% per year for Arrow versus 7% per year for Avnet) and returns on net working capital and invested capital.

Continue reading here.

A short thesis on weight-loss pharmaceutical firm Altimmune (ALT) (from Kerrisdale Capital)...

We are short shares of Altimmune Inc, a pharmaceutical company developing a GLP-1 agonist, hoping to field a drug that might grab a slice of the booming weight-loss market.

In December, Altimmune reported that patients on 2.4mg/week of its pemvidutide lost 15.6% of their weight at the end of 48 weeks. Since that release, Altimmune's stock has more than tripled on the hopes that a big-pharma partnership, or even acquisition, will follow.

But investors are in for a rude awakening: a deeper examination of Altimmune's data reveals a drug with little chance of competing against either the approved incumbents or the other GLP-1 agonists progressing through clinical trials. We don't think legitimate prospective partners want to spend hundreds of millions of dollars and years of trials pursuing an obvious dead end.

Even if pemvidutide did result in 15.6% weight-loss, that's not good enough. Both semaglutide and tirzepatide (Ozempic and Mounjaro) have demonstrated superior weight-loss on a comparable basis, with the added benefit of controlling blood-sugar (which pemvidutide does not). Given the mountain of clinical studies and physician experience with these two drugs, that alone would be enough to dash the pemvidutide hope.

But it gets worse: pemvidutide's tolerability is atrocious. Despite conducting a trial that offered free and unfettered weight-loss medication amidst the Ozempic social frenzy, a third of pemvidutide trial participants – and 42% of patients taking the 2.4mg dose – discontinued treatment. That bodes ill for the drug's commercial prospects, but it also has dire implications for the drug's looming phase-3 trial.

The FDA requires phase-3 weight-loss results to include patients who discontinue treatment. For semaglutide and tirzepatide, the 15% of patients who stopped the drug in phase-3 impacted the headline weight-loss result by about 2%. If pemvidutide trial participants discontinue at the rate they did in phase-2 – and we see no reason why they won't – that 15.6% will end up closer to a 10% headline weight-loss number. At that level of effectiveness, the drug is toast.

Meanwhile, the pharmaceutical industry has dramatically geared up its R&D effort. Over two dozen weight-loss drugs are in the pipeline, including oral formulations of the currently approved drugs as well as novel multi-mechanism compounds that have demonstrated unique characteristics such as better tolerability, improved weight-loss durability, and substantially greater weight-loss. The drugs are being developed by large pharmaceuticals with the vision and capital necessary to secure a piece of the highly competitive market. Against them, Altimmune's inferior compound stands no chance.

The company is headed by CEO Vipin Garg, who spent two decades raising $500 million for two small-cap biotech companies that ran into the ground under his watch before coming to Altimmune and exploiting the COVID pandemic to raise $200 million in equity under the guise of a vaccine program that never made it out of phase-1. Joining him in the C-suite are CFO Rich Eisenstadt, who's been with Garg at his two prior failures, and CMO Scott Harris, who has an entertainingly checkered past raising capital for drugs that already failed. The odds of this crew getting an edge over Novo Nordisk or Eli Lilly – with an inferior and intolerable drug – are slim.

Continue reading here.

Here's a list of Japanese companies with significant share-buyback programs ([from Jamie Halse via X](#))...

				Buyback Details				
Ticker	Name	TSE Sector	TSE Sector	Amount to be repurchased shares	% of outstanding	Amount to be repurchased JPY	Start date	End date schedule
2138	Crooz	5250	Info/Comm.	3,640,000	28.1%	2,000,000,000	20240214	20250213
7972	Itoki	3800	Other Prod.	9,000,000	19.7%	15,900,000,000	20240214	20240229
4212	Sekisui Jushi	3200	Chemicals	8,500,000	19.6%	20,400,000,000	20230501	20240329
9101	Nippon Yusen	5100	Marine Trans	85,000,000	16.7%	200,000,000,000	20230804	20240430
6925	Ushio	3650	Elec. App.	20,000,000	16.2%	30,000,000,000	20230529	20240510
1518	Mitsui Matsushima HD	1050	Mining	2,000,000	15.3%	3,000,000,000	20230516	20240331
6136	OSG	3600	Machinery	15,000,000	15.1%	22,000,000,000	20231206	20241129
8358	Suruga Bank	7050	Banks	35,000,000	15.1%	22,000,000,000	20230704	20240331
6417	SANKYO	3600	Machinery	10,000,000	15.1%	70,000,000,000	20231108	20240430
3416	Pixta	6100	Retail	320,000	13.9%	230,000,000	20240228	20250131
9099	C&F Logistics HD	5050	Land Trans.	3,400,000	13.2%	4,559,400,000	20231117	20240930
8007	Takashima	6050	Wholesale	2,300,000	12.9%	800,000,000	20240201	20240930
7912	Dai Nippon Printing	3800	Other Prod.	40,000,000	12.6%	100,000,000,000	20230310	20240308
2796	Pharmarise HD	6100	Retail	1,416,800	11.7%	1,032,000,000	20240115	20250114
1815	Tekken	2050	Construction	1,700,000	10.8%	3,000,000,000	20240215	20241230
8252	Marui G	6100	Retail	22,000,000	10.5%	40,000,000,000	20230601	20240331
6178	Japan Post HD	9050	Services	346,000,000	10.0%	300,000,000,000	20230815	20240331
8058	Mitsubishi Corp	6050	Wholesale	417,000,000	10.0%	500,000,000,000	20240207	20240930
7646	PLANT	6100	Retail	750,000	9.3%	1,000,000,000	20231101	20240920
8750	Dai-Ichi Life HD	7150	Insurance	90,000,000	9.1%	120,000,000,000	20230516	20240331
3106	Kurabo Industries	3100	Text/Apparel	1,700,000	8.5%	4,000,000,000	20231220	20241219
6727	Wacom	3650	Elec. App.	13,000,000	8.2%	6,500,000,000	20231101	20240329
4287	Justplanning	5250	Info/Comm.	1,000,000	7.9%	300,000,000	20231116	20241031
3608	TSI HD	3100	Text/Apparel	7,000,000	7.8%	5,000,000,000	20231016	20240329
8418	Yamaguchi FG	7050	Banks	20,000,000	7.6%	10,000,000,000	20230515	20240322
8795	T&D HD	7150	Insurance	40,000,000	6.8%	40,000,000,000	20230516	20240515
2790	Nafco	6100	Retail	2,000,000	6.7%	4,000,000,000	20240129	20240331
4549	Eiken Chemical	3250	Pharma	2,700,000	6.6%	5,400,000,000	20240131	20240630
9066	Nissin	5200	Warehouse/T	1,300,000	6.4%	2,000,000,000	20230510	20240430
5142	Achilles	3200	Chemicals	1,000,000	6.3%	1,800,000,000	20230301	20240227
7128	Maruka Furusato	6050	Wholesale	1,600,000	6.3%	4,000,000,000	20230822	20240821
5187	Create Medic	3750	Prec. Inst.	600,000	6.2%	500,000,000	20240215	20250214
7199	Premium G	7200	Other Financi	2,500,000	6.2%	3,000,000,000	20231030	20240329
6134	FUJI	3600	Machinery	6,000,000	6.1%	10,000,000,000	20230512	20240511
9065	Sankyu	5050	Land Trans.	3,750,000	6.1%	15,000,000,000	20230511	20240510
7911	TOPPAN HD	3800	Other Prod.	21,000,000	6.0%	40,000,000,000	20230515	20240514
9795	Step	9050	Services	1,000,000	6.0%	1,900,000,000	20231101	20240930
6151	Nitto Kohki	3600	Machinery	1,300,000	6.0%	2,100,000,000	20240206	20241031
7752	Ricoh	3650	Elec. App.	36,000,000	5.9%	30,000,000,000	20240207	20240830
3591	Wacoal HD	3100	Text/Apparel	3,800,000	5.9%	10,000,000,000	20230522	20240322
1866	Kitano Construction	2050	Construction	400,000	5.9%	1,200,000,000	20230403	20240329
7610	Tay Two	6100	Retail	4,000,000	5.8%	500,000,000	20231026	20240229
6702	Fujitsu	3650	Elec. App.	12,000,000	5.8%	150,000,000,000	20230501	20240329
7097	Sakurasaku Plus	9050	Services	250,000	5.5%	200,000,000	20240110	20240430
1662	Japan Petroleum Exploration	1050	Mining	3,000,000	5.5%	20,000,000,000	20231113	20240830
9470	Gakken HD	5250	Info/Comm.	2,400,000	5.4%	2,000,000,000	20231113	20240531
5011	Nichireki	3300	Oil/Coal Proc	1,700,000	5.4%	3,000,000,000	20230301	20240229
2424	Brass	9050	Services	300,000	5.3%	200,000,000	20231116	20240422
5019	Idemitsu Kosan	3300	Oil/Coal Proc	15,000,000	5.0%	35,000,000,000	20231115	20240814
6113	Amada	3600	Machinery	18,000,000	5.0%	20,000,000,000	20230601	20240331
3925	Double Standard	5250	Info/Comm.	680,000	5.0%	1,020,000,000	20231001	20240331

Four under-the-radar microcaps to put on your watchlist (from Bargain Stocks Radar)...

Over the past few weeks I have been reading many letters from both fund managers and private investors who have been reporting on their 2023 performance. It's great to see so many produce outstanding returns.

As we go deeper into the roaring 20's perhaps a small/microcap active strategy could finally have its day in the sun, like a phoenix rising from the flames flying high above the passive Percy's.

So for the 3rd edition of Bargain Stocks Radar I would like to highlight a small selection of 'under-the-radar' companies that could be worthy of further investigation.

Pearls are a girls best friend

It's amazing what you find in the public markets when you go off the beaten path. One such stock which peaked my interest last year was **Atlas Pearls**, an ASX listed company with a market cap of $67 million AUD.

Over the past 29 years the company has become one of the world's largest producers of the highly sought-after, white and silver South Sea pearls.

Operating across 7 farming locations throughout the South Seas the company harvests more than 550,000 pearls each year.

It takes over 4 years, from hatchery to harvest to produce these sparkling pearls. Once ready the pearls are sold mainly via auction in Japan, as well as in their own retail stores.

To produce pearls at this scale requires much effort which is why they employ over 1,200 people. You need divers, analysts, vessels to transport seeded shell from hatcheries to designated grow-out sites... the list goes on.

Most importantly you need governmental and administrative approvals to be navigated. It's not easy to set-up an operation like this overnight.

The company was formerly known as Atlas Pearls and Perfumes Limited but in 2017 changed its name to Atlas Pearls Ltd. Since 2020 there has been a remarkable turnaround in the company's fortunes, from operating at a loss to becoming a highly profitable venture.

The outstanding debt of $1.125M has been repaid and they concluded 2023 in a strong financial position, with cash in the bank of $7.8m AUD.

Operating margins hover around 35%, with returns on capital employed averaging 26%, and return on equity averaging 31%. Dividends are now being paid to shareholders, and future growth plans are in place.

Tim Martin, Non-Executive Director, owns 18%.

The management have a long term mindset and are re-investing into the business for future success. Construction of a steel vessel that will replace some of the aging fleet will commence soon.

Once approvals are received they will also be launching an 8th farm but will not see harvested pearls from this operation until 2026.

The share price has run-up tremendously over the past twelve months and is now fairly valued. I still hold and am looking forward to seeing what they can achieve over the next few years.

From Oysters to Gold

From constant debasement of currencies, to countries burdened with the cost of legacy welfare states designed in a bygone age, to a rising middle class in India - there are many reasons to be bullish on gold.

All of this and more has been reflected in the gold price rising to record highs against all fiat currencies including the ~~mighty~~ US dollar.

However, gold producers and miners have not kept up with the increase in the gold price. If the gold price keeps increasing this divergence can't last forever.

Last year I came across two interesting gold companies...

Dynacor (DNG) is a Canada-based industrial gold ore processor listed on the Toronto Stock Exchange. DNG purchase gold ore from the local Peruvian miners, which is then processed at its plant in Chala, Peru.

Its Anta property is a silver/gold/copper exploration project that is located in the heart of a regionally important epithermal gold-silver belt.

Its Tumipampa property is located near the city of Abancay, roughly 500 km southeast of Lima. Dynacor also holds interests in mineral properties in Peru but these are in the exploration stage.

Management runs a very lean operation with a healthy balance sheet, and have paid a rising dividend every year since 2018. The key metrics are impressive too with return on capital employed averaging around 30%

For the nine months ended 30 September 2023, revenues increased 23% to $184.6M. Net income increased 35% to $11.5M.

As long as there is no sudden crash in the gold price the valuation looks good, trading on a forward P/E of 8.5, and PEG of 0.7.

Another company that popped onto the radar is **Kingsgate Consolidated (KCN)** an ASX listed gold and silver mining company.

The company's main asset is the Chatree Gold Mine in central Thailand located 280 kilometers north of Bangkok.

Due to environmental accusations and the subsequent government action the Chatree mine was closed for seven years. However, after no evidence was provided to back up the allegations the mine was finally re-opened in March 2023.

Recently KCN announced that operations at the Chatree Gold Mine continue to exceed expectations with approximately 9,512 ounces of gold and 112,191 ounces of silver produced during the quarter to 31 December 2023.

The focus is now squarely on completing the Plant #1 Overhaul Project as quickly as possible and getting the operation back up to a steady state production of 100,000 to 120,000 ounces per annum.

This would produce revenues of $220–$260, and cash flow of $80–$115 million per year. If this was to materialise the stock would seem extremely cheap with a current market cap of $200 million. An interesting situation worth keeping an eye on.

From the heat of Thailand to the windy British Isles

Last month it was announced that **The Property Franchise Group (TPFG)** and **Belvoir (BLV)** would finally merge. Investors have been predicting such an event would happen for many years now. No cash is being paid, only a share swap.

Both these companies are really well managed and the merger will produce many benefits.

The combined group will have more than 930 locations, managing approximately 152,000 tenanted properties across the UK and will be expected to sell more than 28,000 properties per annum.

TPFG Management state...

> *As a result of the Merger, the geographic spread of the Combined Group would be enhanced and diversified, which the TPFG Board expects will provide more opportunities for franchisees to serve customers showing an interest in the Combined Group's services via the various platforms.*

There will be cost savings such as listing fees and various synergies. Belvoir has an established financial services division in partnership with **Mortgage Advice Bureau (MAB1)** which will be strategically valuable to TPFG.

Both companies have returns on capital above 20% and operating margins above 30% with little debt, and dividend yield of 4%.

The merger will create a business with a market cap over £200m which should increase the chances of attracting larger institutional money. I remain bullish.

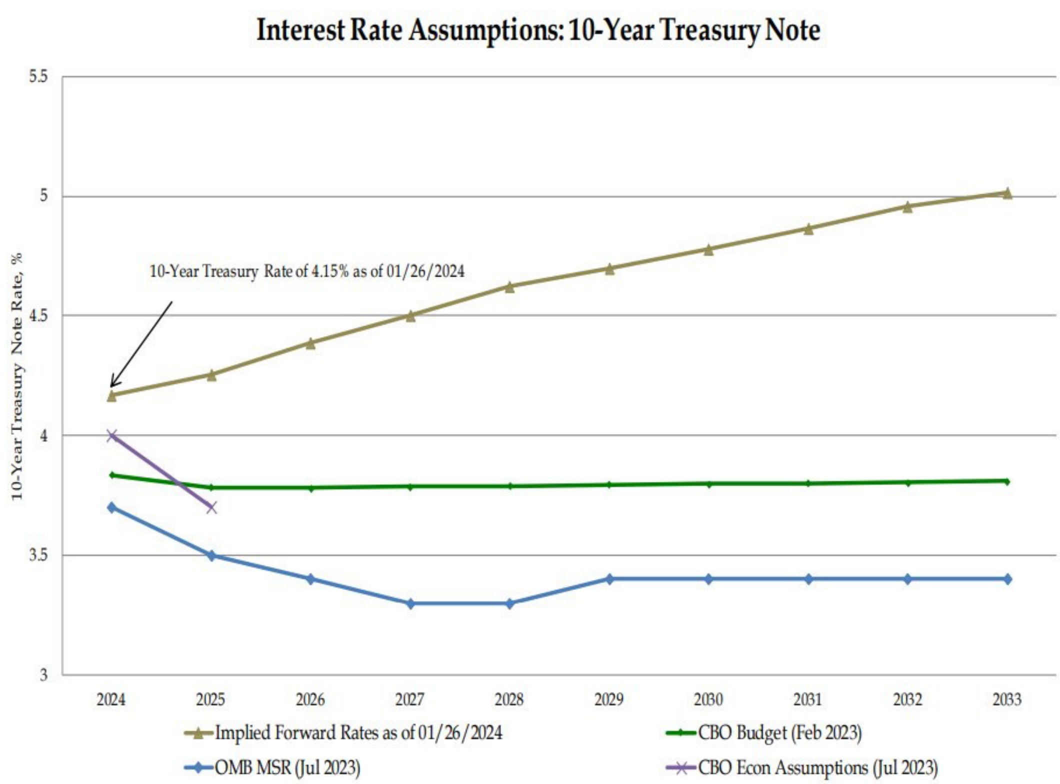
Continue reading here.

SOVEREIGN/GOVERNMENT BONDS AND CREDIT

U.S. government debt is projected to soar over the next decade. Yet the actual growth will be dramatically higher if Treasury yields remain high (from Stephen Miran via X)...

Budget projections are totally ludicrous if market rates stay at these levels.

Federal finances are in enormous danger.



The U.S. Treasury is going to need to sell *a lot* of debt this year (from The Kobeissi Letter via X)...

A record $8.9 trillion of government debt will mature over the next year.

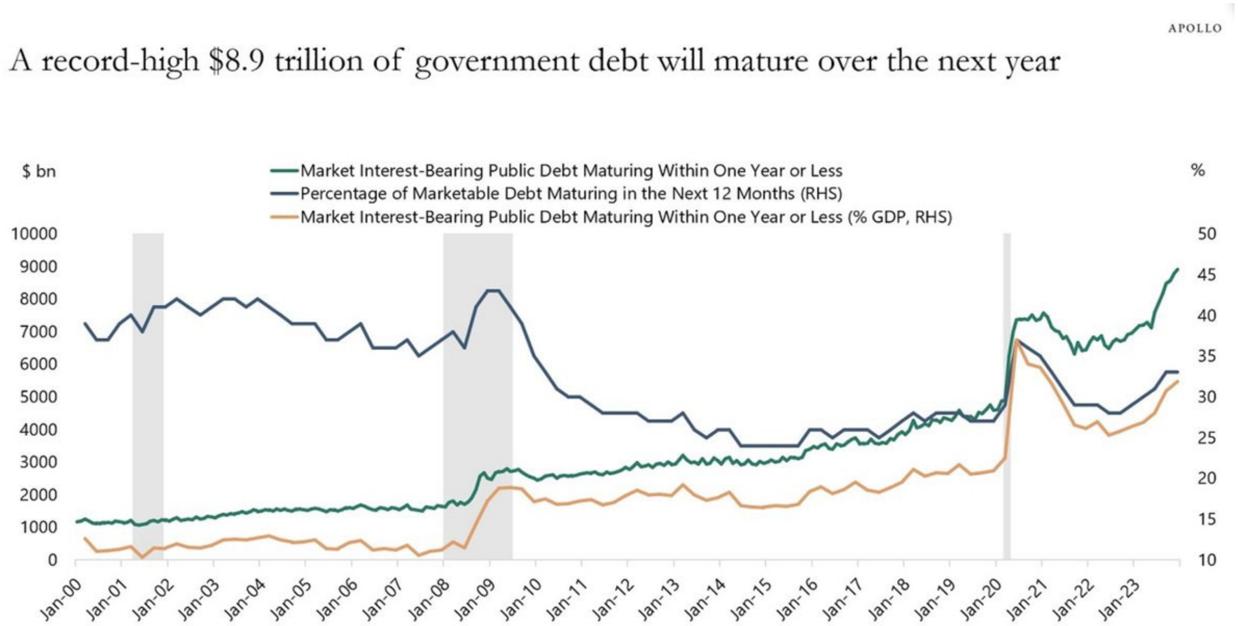
Meanwhile, the government deficit in 2024 is projected to be $1.4 trillion.

This means that someone will need to buy more than $10 trillion in US government bonds in 2024.

That's nearly ONE THIRD of all outstanding US federal debt right now.

All while the Fed is expected to start cutting rates, making buying these bonds less attractive.

Who's going to fund all of this debt?



More quantitative easing ("QE") is "a lock" (from The Bitcoin Layer)...

Last night, while teaching the monetary history and plumbing portion of my fixed income course at USC, I brought up the classic example of the Roman Empire devaluing its currency by replacing a coin containing 98% silver with one containing only 5% silver over the course of centuries. Through this process, the state is stealing money from its lenders because when it pays back debt in coinage, each coin is worth less than each coin borrowed (due to the reduced precious metal content). "Isn't this what the Fed does when it creates currency during QE?", a student asked. An insightful question without a straightforward answer. It inspired me to write more about today's QT period and why, mathematically speaking, I don't see an alternative to eventual QE...

QE is an asset swap

First things first, let's address if QE can be described as "printing money."

As a balance sheet operation, the Fed increases the size of its Treasury portfolio by purchasing securities from primary dealers (not the Treasury itself). It does this by crediting reserve balances at the banks from which it made the purchases. This is called open market operations.

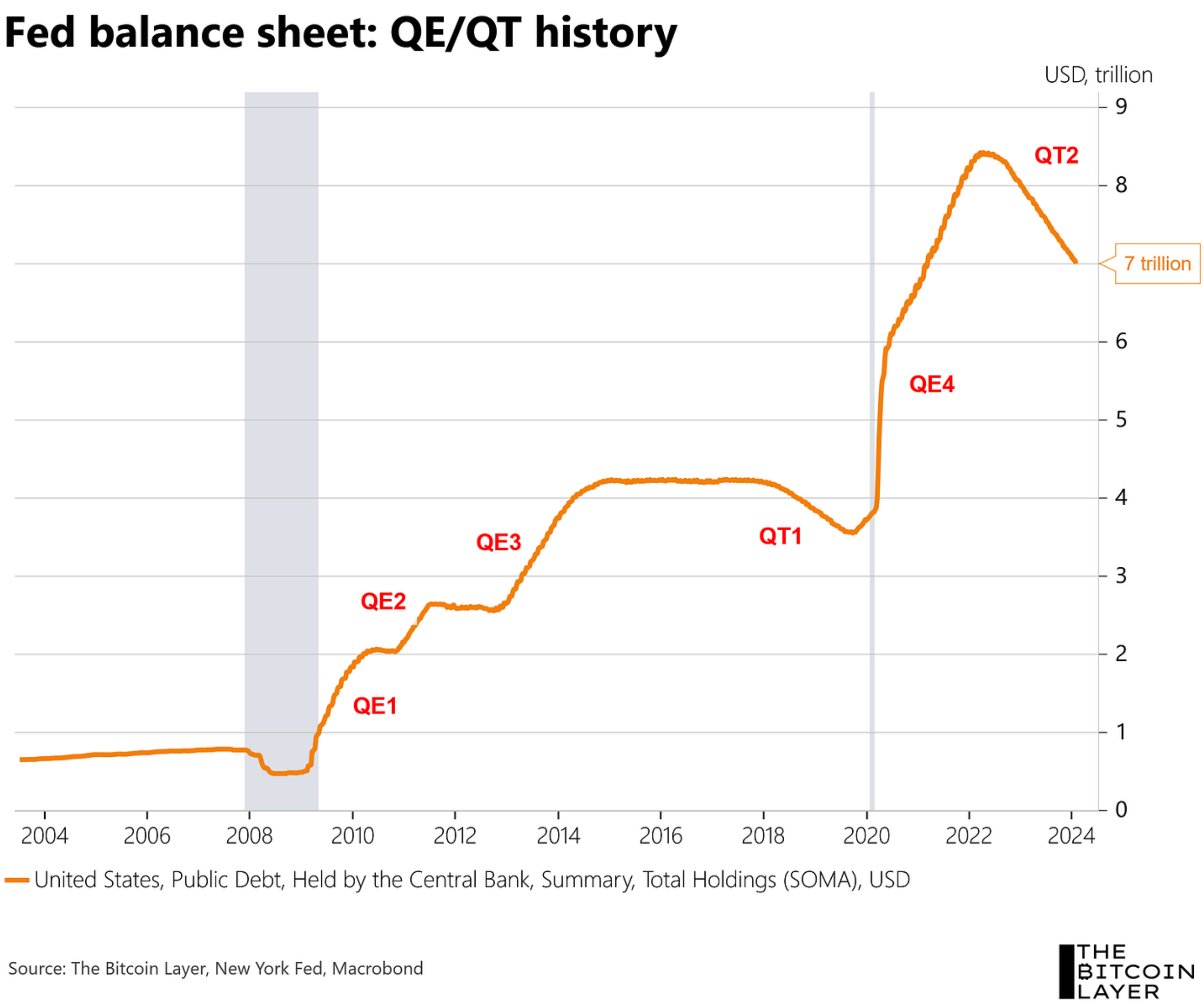
From the bank's perspective, QE is an asset swap. The bank owned the Treasury, and now has reserves in its place. Both Treasuries and reserves are assets to banks, therefore QE to them is simply replacing one asset (Treasuries) with another (reserves). So QE does not create new money for banks—the Fed is not creating money and giving it to banks.

But the Fed is certainly *creating* the money. Those reserves that it credited to banks did not exist prior to that balance sheet operation. In that way, the Fed has expanded its balance sheet, creating liabilities out of nowhere in order to increase its asset base.

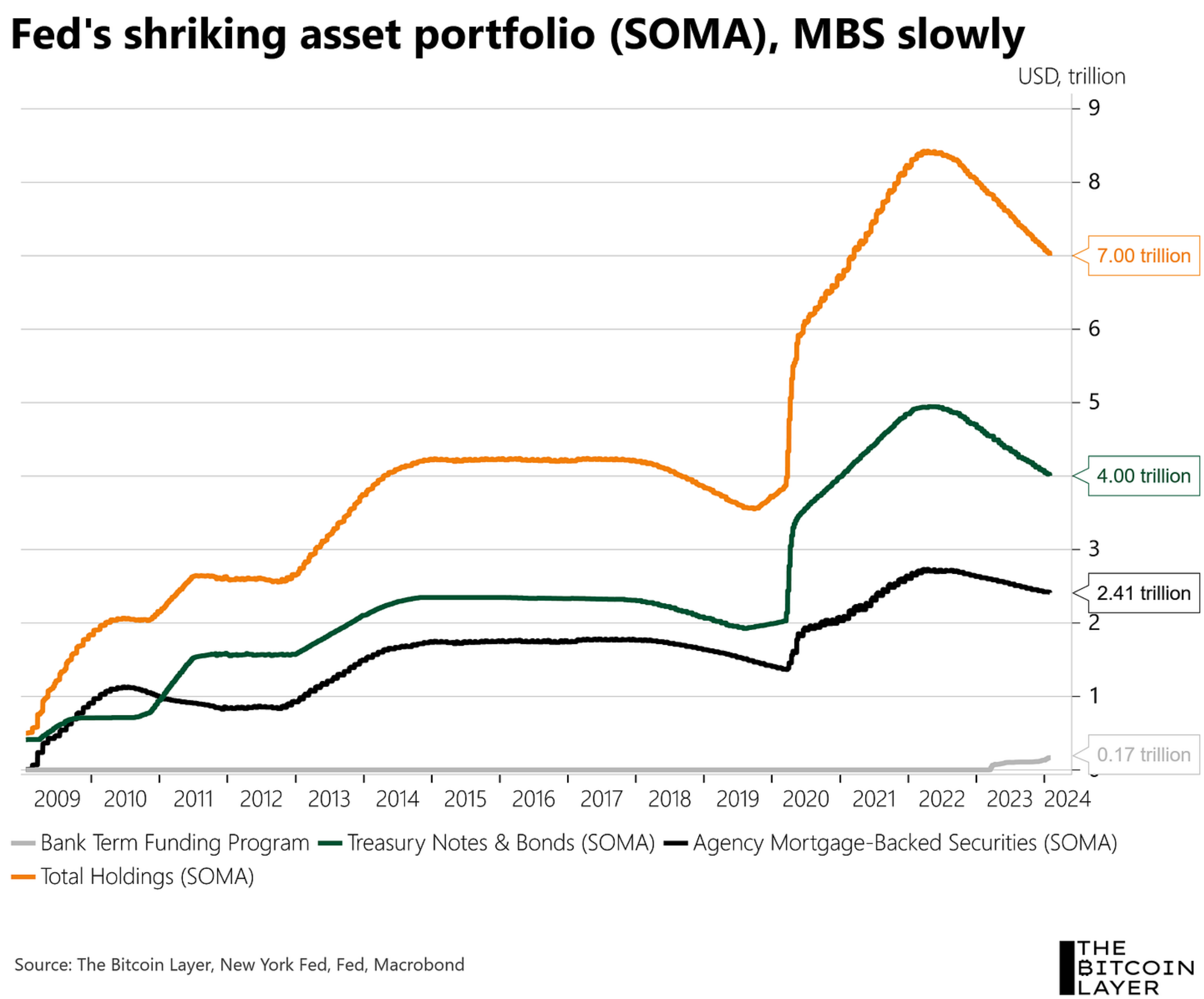
So is this printing money? No, because for banks the reserves are not a new asset where one didn't exist before (it was a swap). But yes, because the Treasuries that the Fed owns allow the Treasury department (the US government) to spend money that it might not have had, assuming that QE allows an increase of Treasury issuance previously unavailable. The correct answer to "is QE devaluing the currency?" is complicated, but because there are aspects to the response that can clearly be framed as "yes," we must then consider how the devaluation occurs downstream.

QE is now QT

Currently, QT is the order of the day. In an effort to reverse QE, the Fed is letting Treasuries mature without replacing them, leading to a decline in the asset side of its balance sheet, and we should note the largest decline of all time:



Now, take a look at the components of this decline—Treasuries in green and MBS in black:



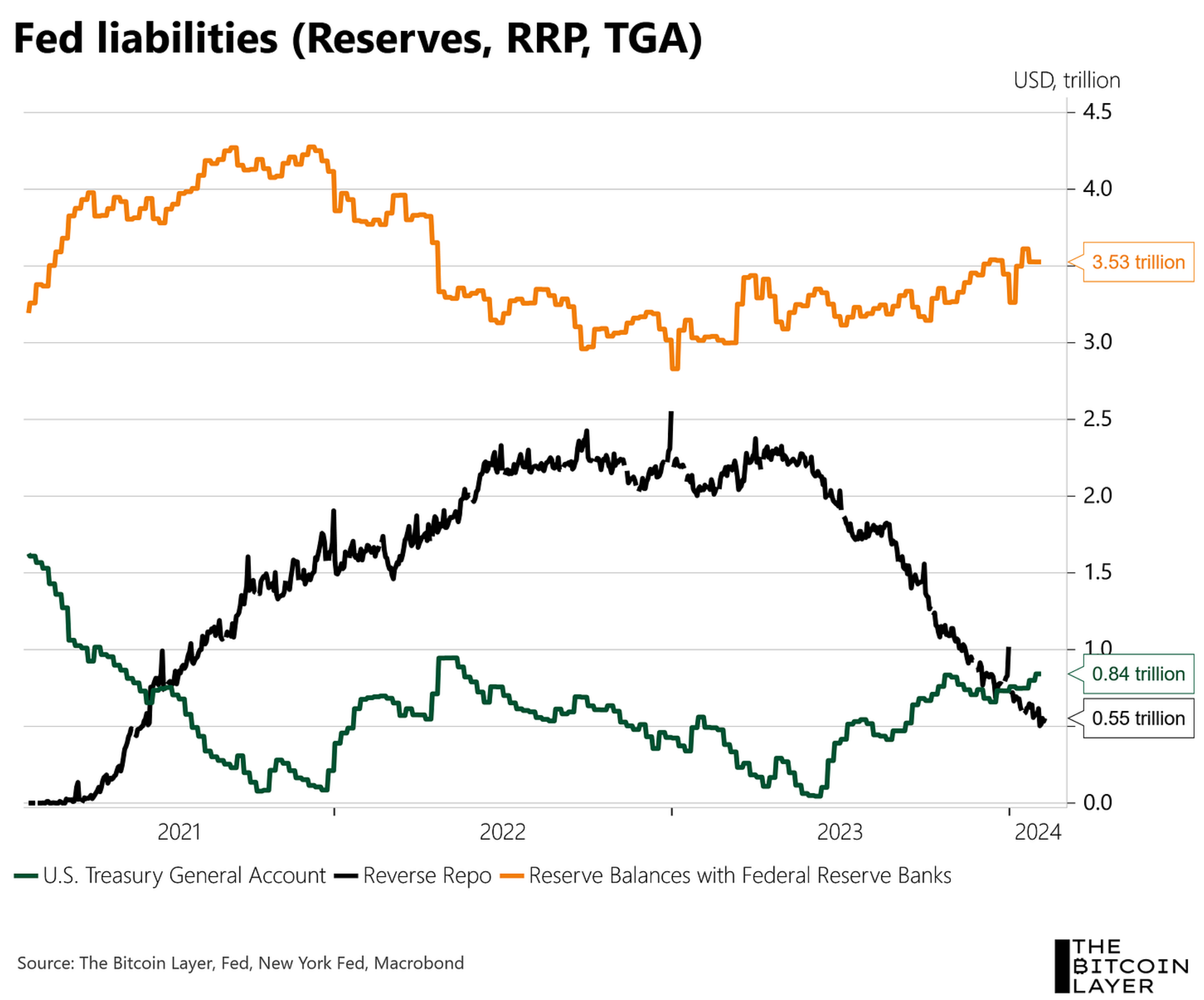
When QE removes Treasuries from bank balance sheets and replaces them with reserves, the bank must find other things to do with that money. Oftentimes, the money ends up in risk-taking endeavors, such as buying credit instruments or stocks. When QT forces banks to purchase Treasuries previously owned by the Fed (this happens at maturity), somebody must pay for that Treasury. That money comes out of somebody's reserve balance or reverse repo balance, as the asset swap is reversed.

So what does QT really do? Does it vacuum up money in the opposite way that QE prints money? Well, it's more about risk-taking, and as we'll discuss, more about *who will buy all the Treasuries in the Fed's absence?*

What happens in QT?

When the Treasuries mature from the Fed's balance sheet, one of three things must happen. If the Treasury is paying down debt (this essentially doesn't happen anymore as the Treasury perpetually remains in deficit spending), the TGA (green line) declines. So, a decline in Treasury assets and a decline in the deposit account of the government (TGA is a Fed liability).

If the Treasury isn't paying down, that means it issues another bond to replace the one that matured at the Fed. Somebody must pay for that bond, so reserves or RRP will get spent, because the money can't come from anywhere else. So as Treasuries mature and are reissued, the Fed's liabilities issued to the banking system decline, shrinking the balance sheet:

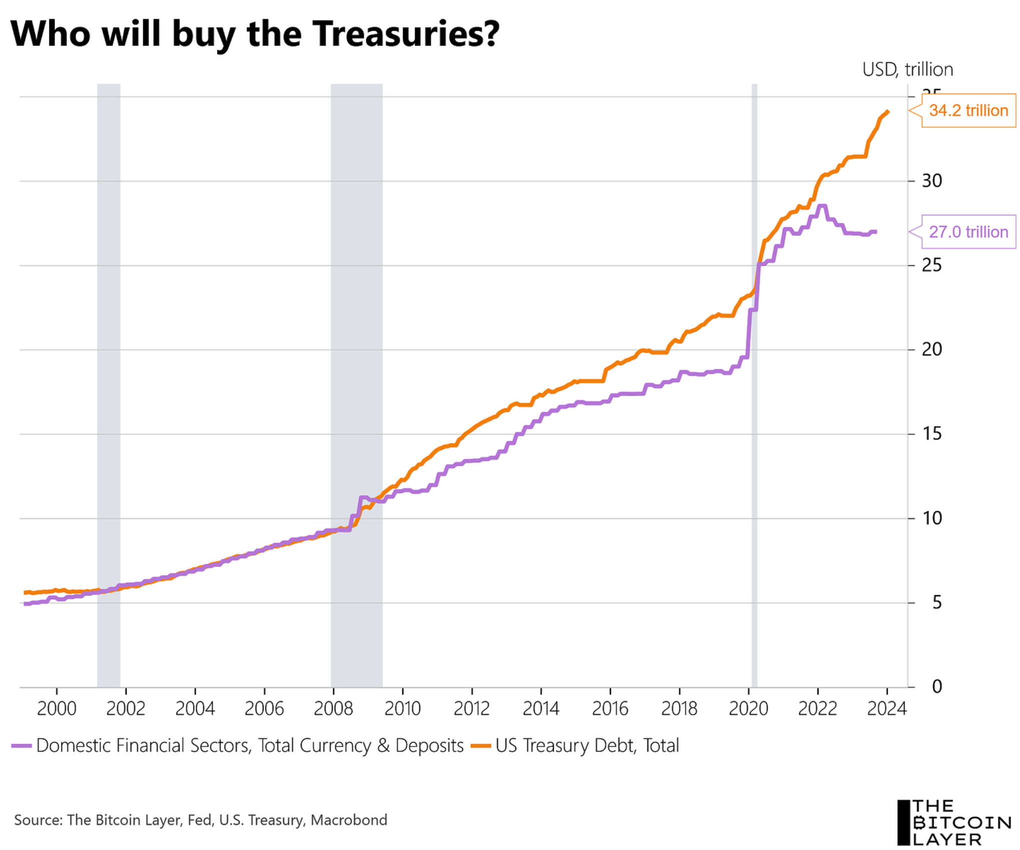


Now, let's look forward to when RRP declines to near-zero, and reserves are the only place from which Treasuries can be paid for. We know that the Fed is targeting about $3 trillion in reserves + RRP, meaning that we have well over $1 trillion in room to run down the balance sheet. So that means a bunch of asset swap reversals are still to come. Forcing banks to purchase Treasuries from their reserve balances is fine, but what if the supply of Treasuries outstrips their ability?

Banks will need to go to the repo market to finance these purchases. In the repo market, money market funds will stand reading to finance primary dealers. The sheer supply of Treasuries purchased by dealers forces repo lines to expand, creating a shortage of funding eventually.

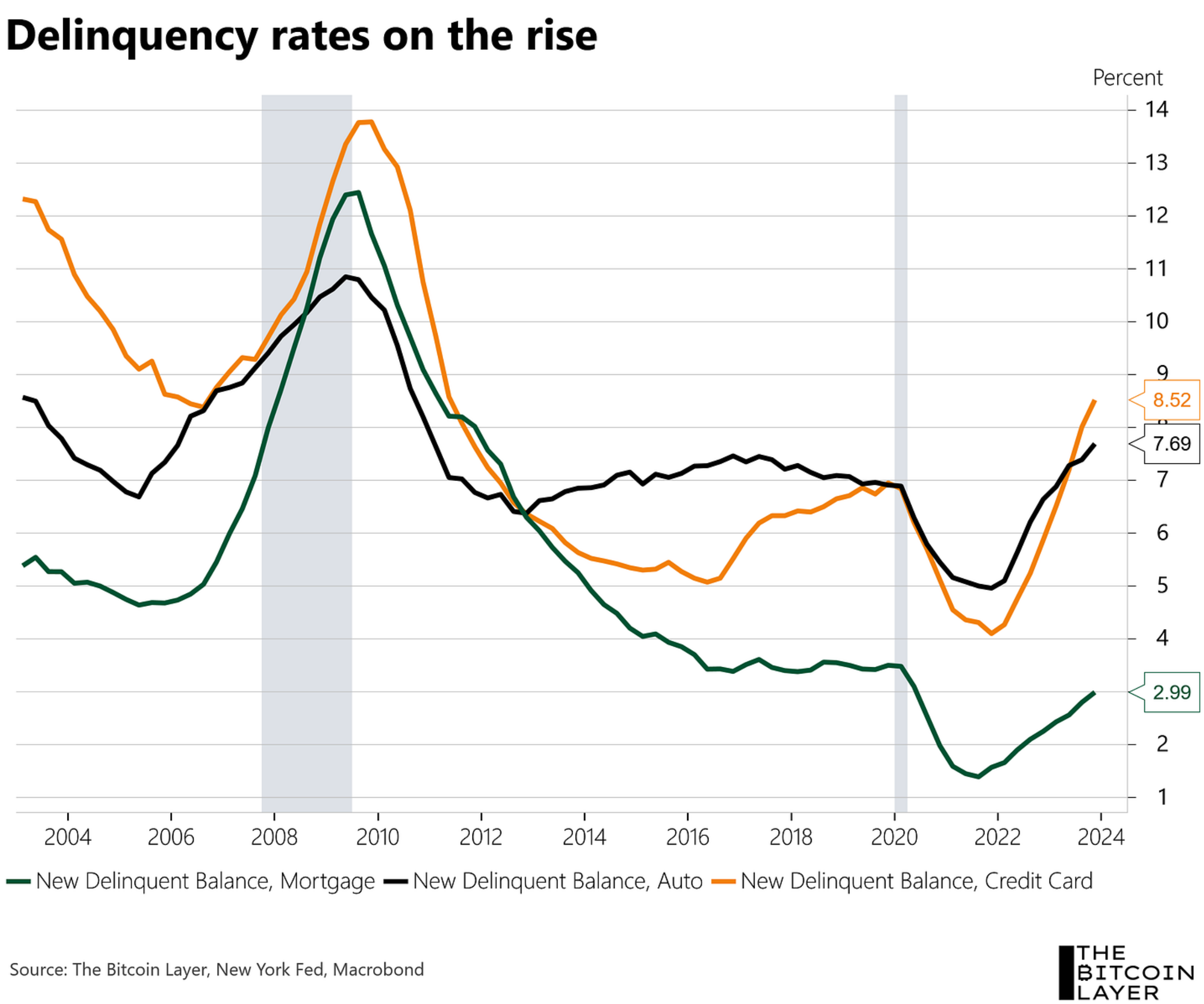
Banks won't be able to buy all the Treasuries

We are really worried about what will happen to banks this year. With QT set to continue, the Fed won't be engaging in asset swaps to help along the Treasury market, so banks will have to do all the heavy lifting. But how can they with Treasury debt rising at its current pace? Deposits aren't keeping up, and banks are now faced with more scrutiny than ever on repo leverage.



The gap on the above chart—the divergence between deposits in the system and Treasuries for it to absorb—will fall on banks to fill. Banks will need financing for those purchases, leading to a constraint in the system. The only way out of this is for the US government to materially slow the pace of its deficit spending. I'm not sure that is likely.

To add fuel to the fire, delinquency rates are suggesting a wave of defaults. Defaults will deleverage banks, causing the overall ability for banks to engage in Treasury financing to decline:



While we wait out Fed cuts, banks are about to experience conditions unlike ever before: 5% benchmark rates at the highest in decades, Treasury deficits at records and continuing, the Fed running down its Treasury financing at the quickest pace ever, one of the Fed's main tools about to disappear in RRP, and a default wave on the horizon.

You must understand that balance sheet expansion is practically guaranteed, even if the timing is impossible to predict. We started by asking whether QE is money printing, but when calling it Treasury financing instead of parsing language over what constitutes printing, we allow ourselves to skip the initial question and proceed to whether it will happen again.

First will come an announcement to slow QT. Then a pause to QT. The dynamics that force the slowdown and pause will also move the balance sheet back up again...

Continue reading here (subscription may be required).

This chart suggests the Fed is *not* in charge of short-term interest rates (from EWI Global Rates and Money Flows)...

There's a story about Jack Nicklaus, the GOAT, the greatest golfer of all time. Speaking at a conference once he said, "You know, I have never three-putted the last hole in a major championship."

This is simply not true and a couple of people in the audience cited occasions when he did. But no, he refused to give in, and kept on with his mantra that he never three-putted the last hole.

The point, of course, is that he was displaying the type of psychology that winners in sports have. Always focus on the positives and block out the negatives. It's maybe not so beneficial in other endeavors.

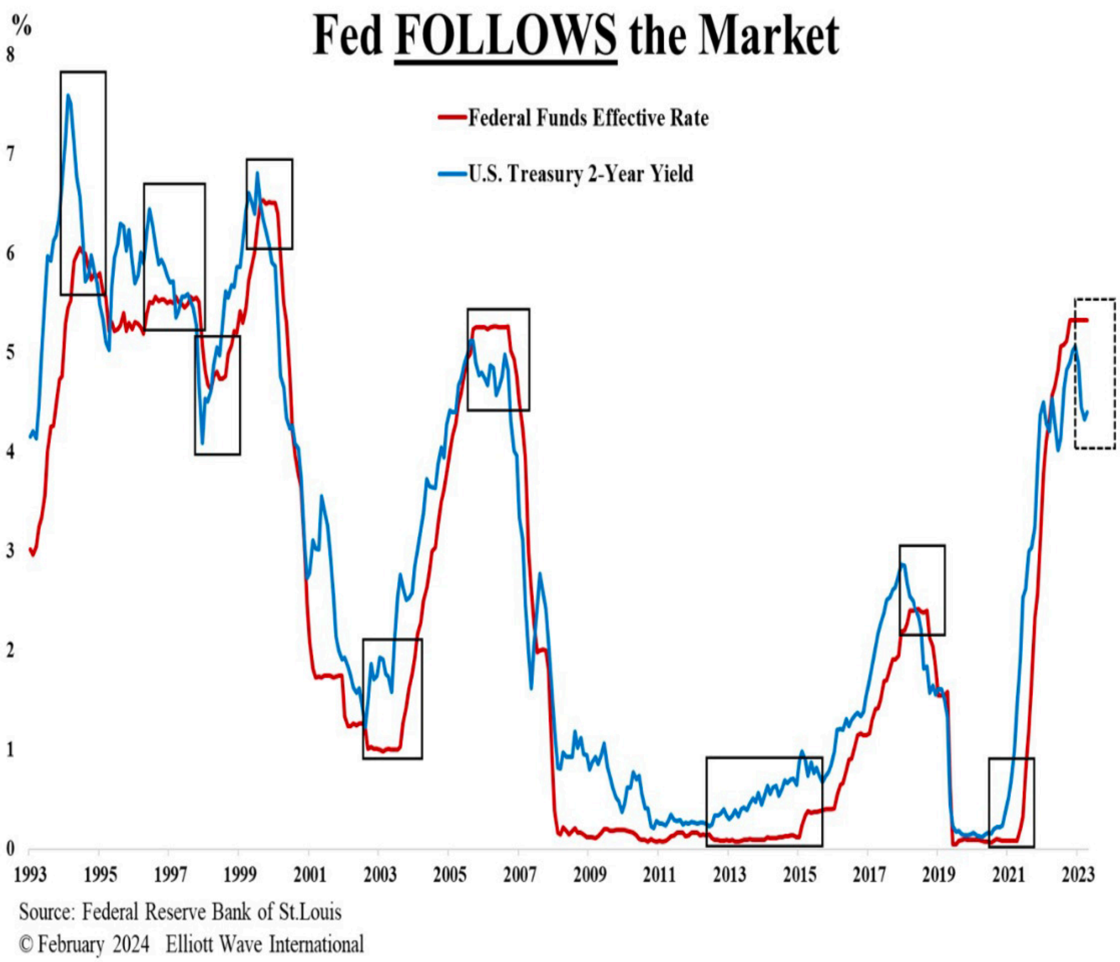
Even after being presented with facts, people in financial markets continue to believe what they want. Take the case of central banks and the ludicrous pedestal that society has put them on.

The omnipotence with which they are held beggars belief. Most people actually do think that they control the economy! And when it comes to setting interest rate policy, well, most of the world waits with bated breath when the like of the Federal Reserve is making decisions.

But check out the chart below. It's clearly evident that market rates (in this case the 2-year bond yield) move first, telling the Fed what to do, and then the Fed follows by adjusting the Fed Funds rate.

Yet most people still think that the Fed tells the market which way to go!

Note that the 2-year yield was declining from October, before "Fed-speak" became dovish in December. If you want to know what the Fed is going to do, ignore the noise and focus on short-term market rates.


Fed FOLLOWS the Market
%
8
7
6
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4
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1
0
Federal Funds Effective Rate
U.S. Treasury 2-Year Yield
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
Source: Federal Reserve Bank of St.Louis
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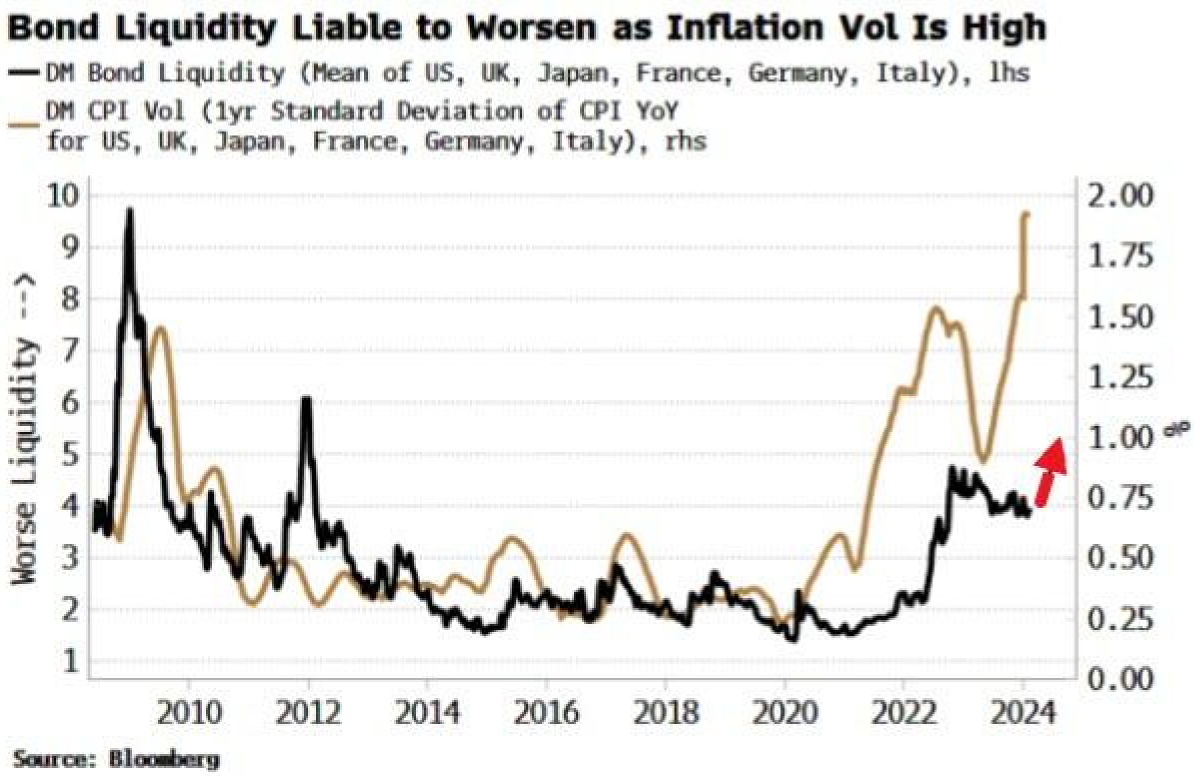
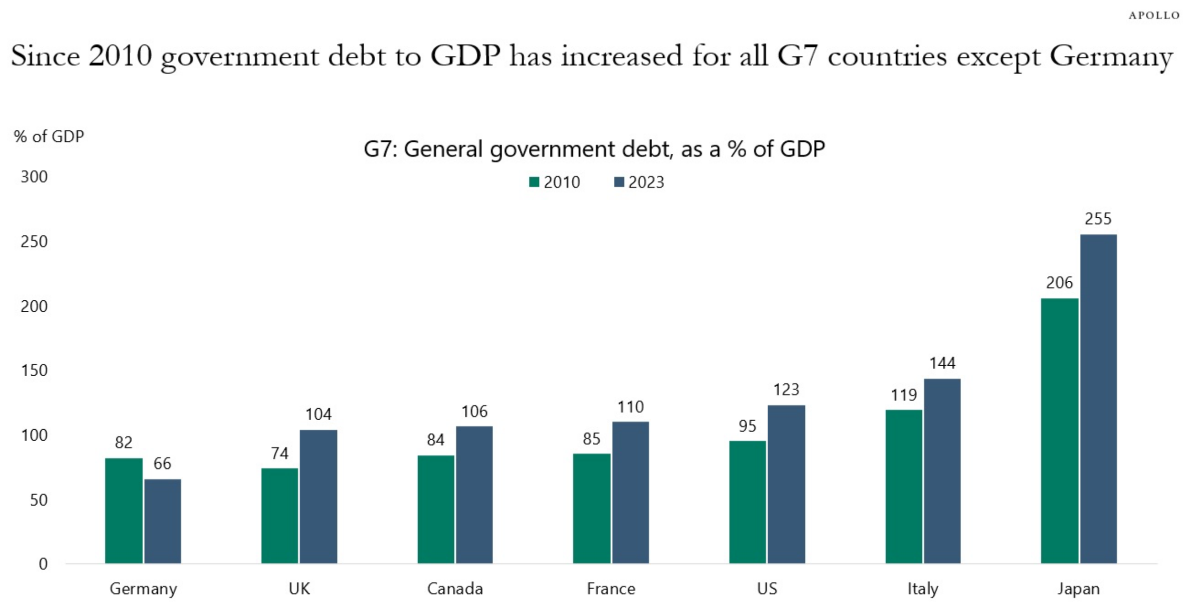
Volatile inflation suggests bond-market liquidity is likely to worsen again this year (from Markets & Mayhem via X)...



The probability of a "fiscal accident" is rising (from The Daily Spark)...

Government debt levels continue to increase in all G7 countries except Germany, and your finance textbook will tell you that when the stock of risk-free assets grows, it will attract dollars, euros, and yen from other asset classes, including credit and equities, see chart below.

The rapid growth in the stock of risk-free assets outstanding has consequences not only for risky assets. The probability is rising of a fiscal accident with significant implications for markets. Such a crisis could start with a sovereign downgrade, a bond auction with weak demand, or a significant increase in the term premium.



The U.S. government is now spending more on debt interest than on defense (from the Committee for a Responsible Federal Budget)...

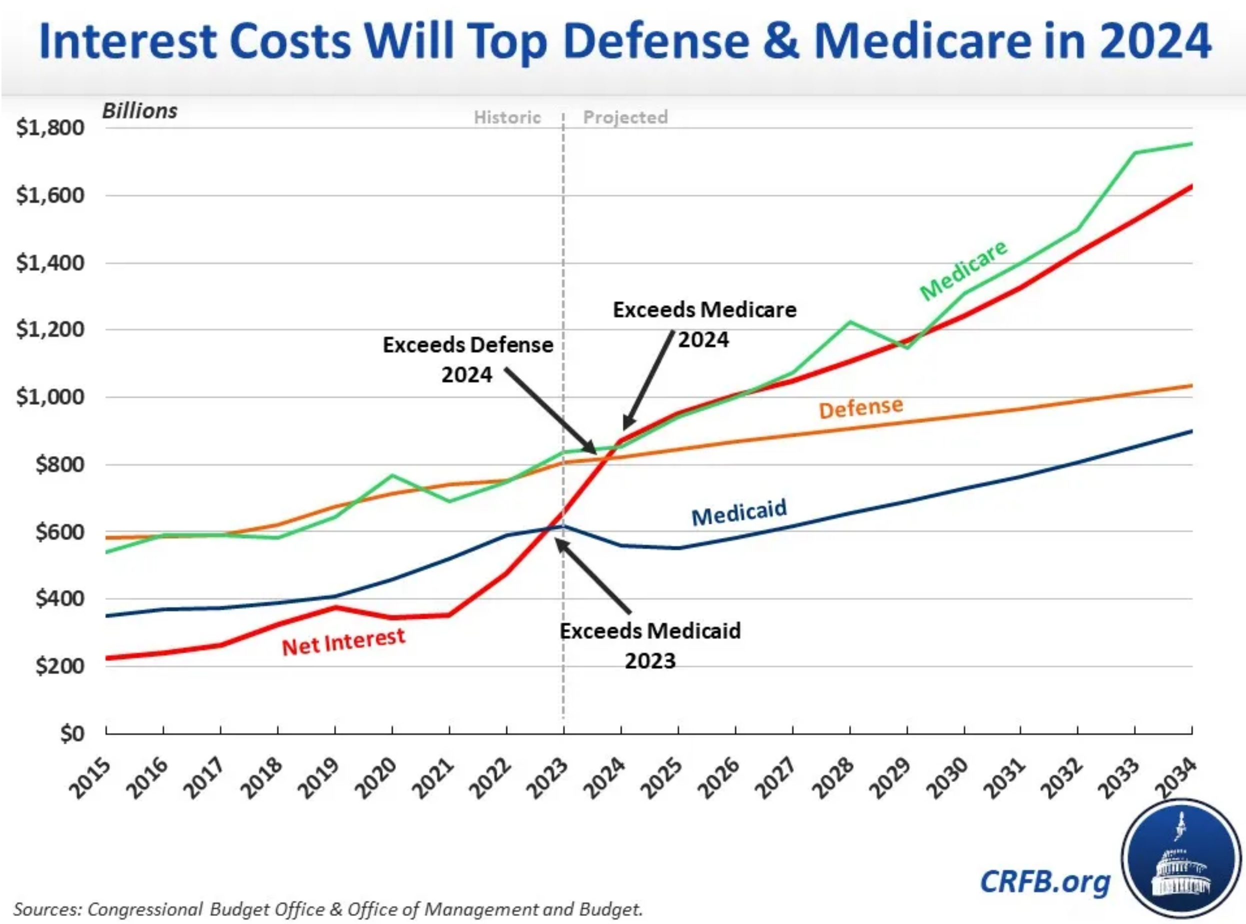
During a recent town hall, former United Nations Ambassador and current Presidential candidate Nikki Haley claimed, "for the first time we're paying more in interest payments than we are on our defense budget."

This statement is true.

According to the Congressional Budget Office's latest baseline, in Fiscal Year (FY) 2024, spending on interest is projected to total $870 billion, while spending on national defense will total $822 billion.

This has never been the case before, going back to at least 1940.

Net interest spending nearly doubled from FY 2020 to 2023, rising from $345 billion to $659 billion. As a share of the economy, interest grew from 1.6 percent of GDP in 2020 to 2.4 percent in 2023. This year, interest is projected to rise to 3.1 percent of GDP and will exceed its record – 3.2 percent set in 1991 – in 2025.



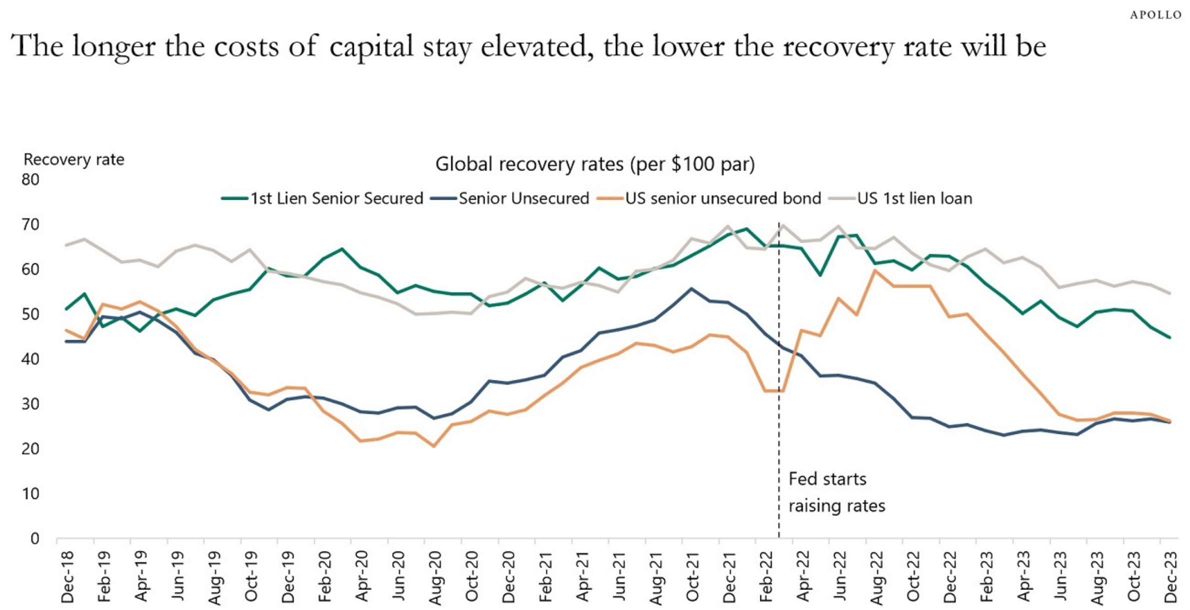
In addition to breaching defense spending, interest costs are expected to exceed Medicare spending this year, making interest on the national debt the second largest line item in the FY 2024 federal budget, behind only Social Security.

Continue reading here.

CORPORATE BONDS AND CREDIT

Corporate-default recovery rates are declining (from The Daily Spark)...

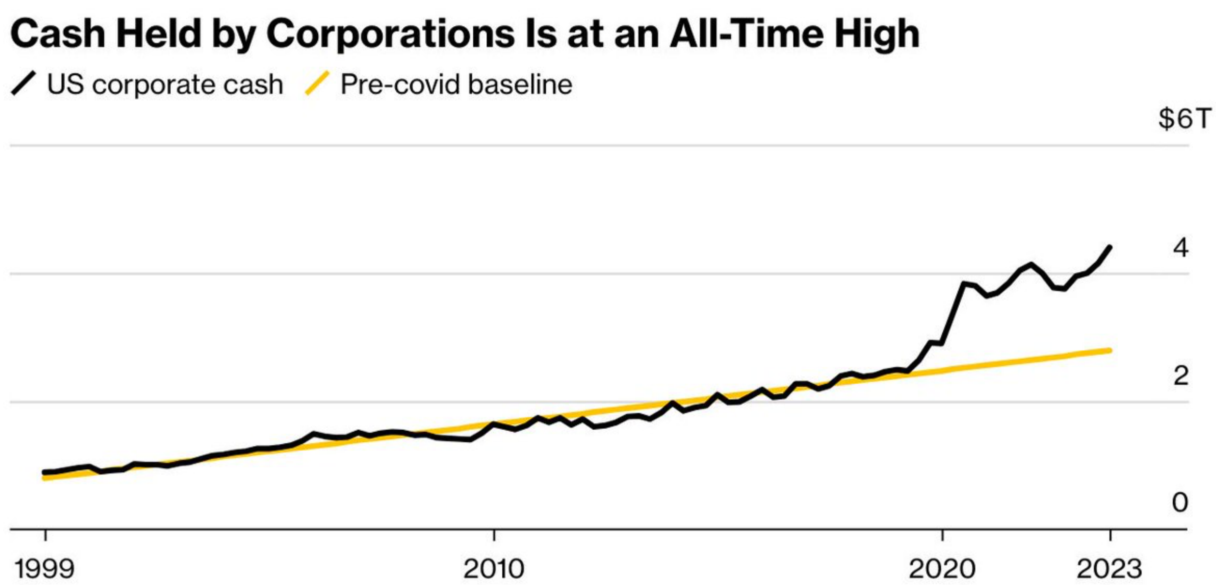
Recovery rates decline when the costs of capital stay higher for longer, see chart below. This dynamic argues for wider credit spreads when rates stay higher for longer.



This is one of the big reasons why rising rates have caused little pain for corporations to date (from Markets & Mayhem via X)...

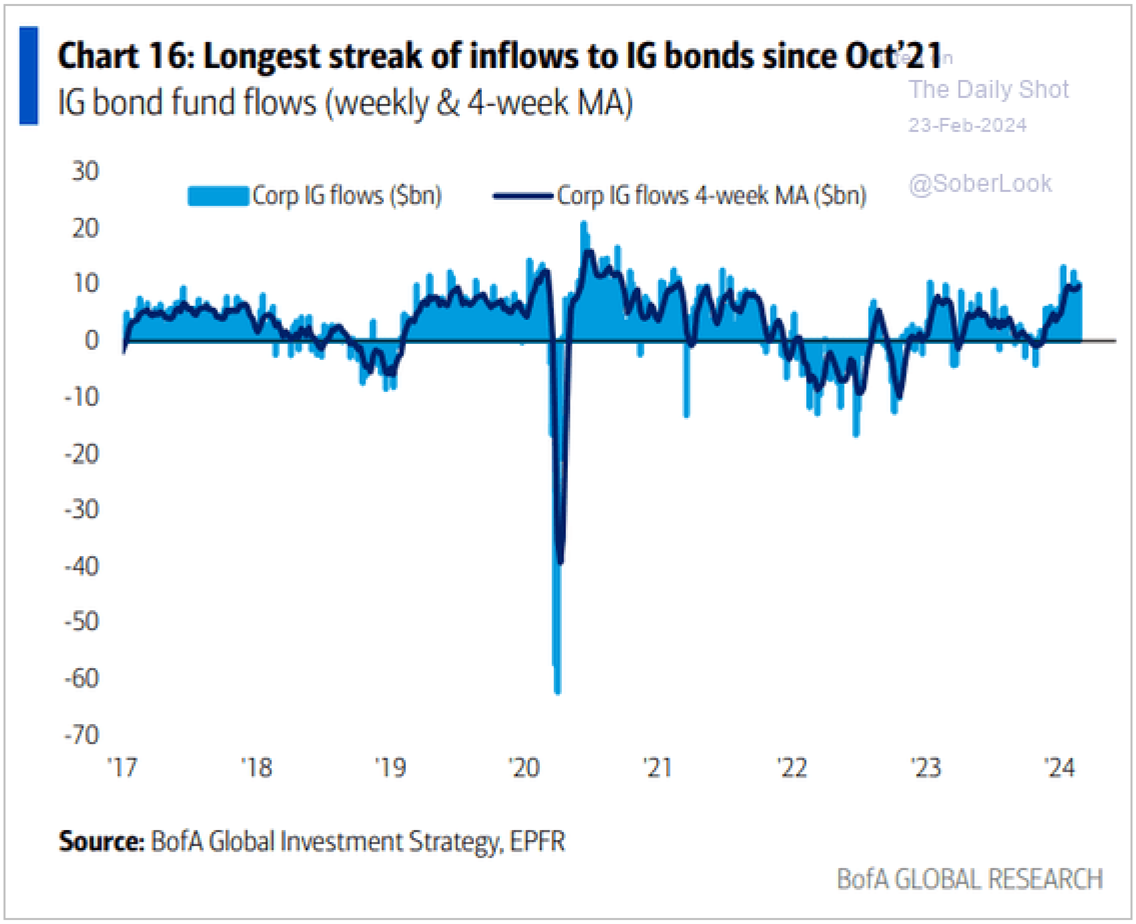
Cash held by corporations is at an all-time high, which is one reason that rising rates haven't caused as much pain, particularly for larger companies.

Some are even earning net interest income, having refinanced their debt at lower rates and capturing higher rates on cash.

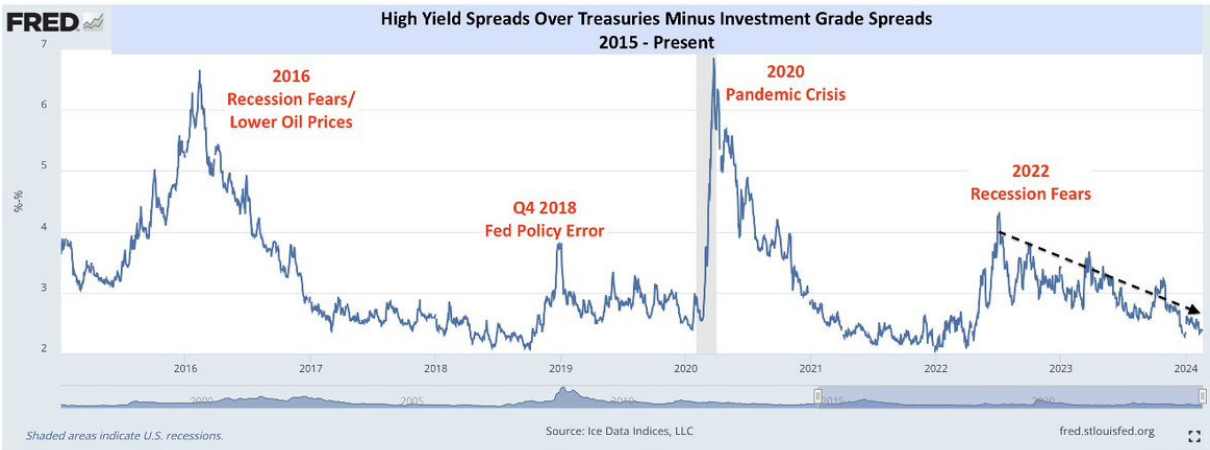


Source: The Carfang Group

Investment-grade bond funds continue to see healthy inflows (from The Daily Shot)...



The U.S. corporate bond market continues to signal a high degree of confidence in the U.S. economy (from Daily Chartbook via X)...



CONSUMER CREDIT

Welcome to the "doom" economy (from Collapse Life)...

There's doom scrolling. Doom porn. And now, doom spending.

A recent study conducted by Qualtrics on behalf of Intuit Credit Karma, defines "doom spending" as making purchases to cope with stress despite concerns about the economy and foreign affairs.

Not surprisingly, this phenomenon is most common among younger generations: 35% of Gen Z and 43% of millennials engage in mindless shopping as a way to soothe woes outside their control.

Worse, in a rather disconnected paradox, it seems doom spending has gone up at the same time Americans' concerns about the economy have gone up. One would expect, given the financial bloodbath that looks to be imminent for the U.S., that people would be saving more, paying down debt, and otherwise working to stabilize their financial future.

But we live in bizarro world, and the study backs that up.

> According to the study, nearly one third (32%) of Americans' debt level has increased over the last six months with millennials and Gen X being the most likely to report increased debt levels, 38% and 35% respectively. Of those with debt (74%), a quarter estimate they currently hold more than $10,000 in debt...

The untenable personal debt situation and reckless spending habit is perfectly mirrored by the financial ethos of the U.S. government. To quote the elder statesman of gold, Egon von Greyerz, we have reached the endgame:

> The total mismanagement of the U.S. financial system has led to the dollar losing 98% of its value since Nixon closed the gold window in 1971. Most other currencies have followed the dollar down at varying speeds.
>
> But now comes the really exciting phase of this race to the bottom. We have only 2% left for the dollar-based currency system to go to ZERO.
>
> As Voltaire said in 1728, "Paper money always returns to its intrinsic value – ZERO.

Von Greyerz doesn't talk about this inevitability to scare people, but to encourage them to use the last 2% ride to zero as time to put their finances in order.

Even as the Titanic was sinking, the band played and the champagne flowed. Many were oblivious to the inky blackness of the cold North Atlantic that would soon swallow them.

The antidote to doom spending is doom saving — in a sense, preparing your personal financial lifeboat so when the unsinkable ship slips quickly below the water, you've got a chance to make it to shore.

It's unlikely young people — so thoroughly disillusioned and disconnected by several generations from the desperation of the Great Depression — will heed such advice. But hey, at least puppies will get to live their best lives!

As Yale-educated TikToker and Gen Z financial coach Maria Melchor explains, "When older people ask me how younger people are affording nice things... I tell them it's because we can't afford anything else. Homeownership or starting a family is so out of reach, that we're using that down-payment money or kid money... to give our dogs the most enriched puppyhood they can have."

The comments on her video give an interesting insight into the bleak mindset of Gen Z:

- "Future is not guaranteed, is crumbling before our eyes. Enjoying what we have while we can is the way to go."
- "I am taking that trip to Europe baby."
- "I'm increasingly certain the future holds a stark decrease in quality of life, I'm enjoying what I can now."
- "I just tell myself I deserve to enjoy life [right now] since it's gonna go to hell pretty soon anyway. might as well have everything my heart desires before society takes that away too."

Continue reading here.

Credit-card delinquencies surged 50% last year (from CNBC)...

Credit card delinquencies surged more than 50% in 2023 as total consumer debt swelled to $17.5 trillion, the New York Federal Reserve reported Tuesday.

Debt that has transitioned into "serious delinquency," or 90 days or more past due, increased across multiple categories during the year, but none more so than credit cards.

With a total of $1.13 trillion in debt, credit card debt that moved into serious delinquency amounted to 6.4% in the fourth quarter, a 59% jump from just over 4% at the end of 2022, the New York Fed reported. The quarterly increase at an annualized pace was around 8.5%, New York Fed researchers said.

Delinquencies also rose in mortgages, auto loans and the "other" category. Student loan delinquencies moved lower as did home equity lines of credit. Overall, 1.42% of debt was 90 days or more past due, up from just over 1% at the end of 2022.

"Credit card and auto loan transitions into delinquency are still rising above pre-pandemic levels," said Wilbert van der Klaauw, economic research advisor at the New York Fed. "This signals increased financial stress, especially among younger and lower-income households."

While delinquency levels are rising, the New York Fed researchers said total debt is moving higher about in line with the pace before the Covid-19 pandemic began in March 2020.

Household debt rose by $212 billion in the quarter, a 1.2% increase quarterly and about 3.6% from a year ago. Credit card debt, however, jumped 14.5% from the same period in 2022. Auto debt climbed to $1.61 trillion, up $12 billion on a quarterly basis and $55 billion annually, or 3.5%.

Borrowers have been hit by higher interest rates. In a tightening cycle that ran from March 2022 to July 2023, the Federal Reserve hiked its short-term borrowing rate by 5.25 percentage points, taking the fed funds rate to its highest level in about 23 years. The benchmark rate feeds into most adjustable-rate consumer debt products.

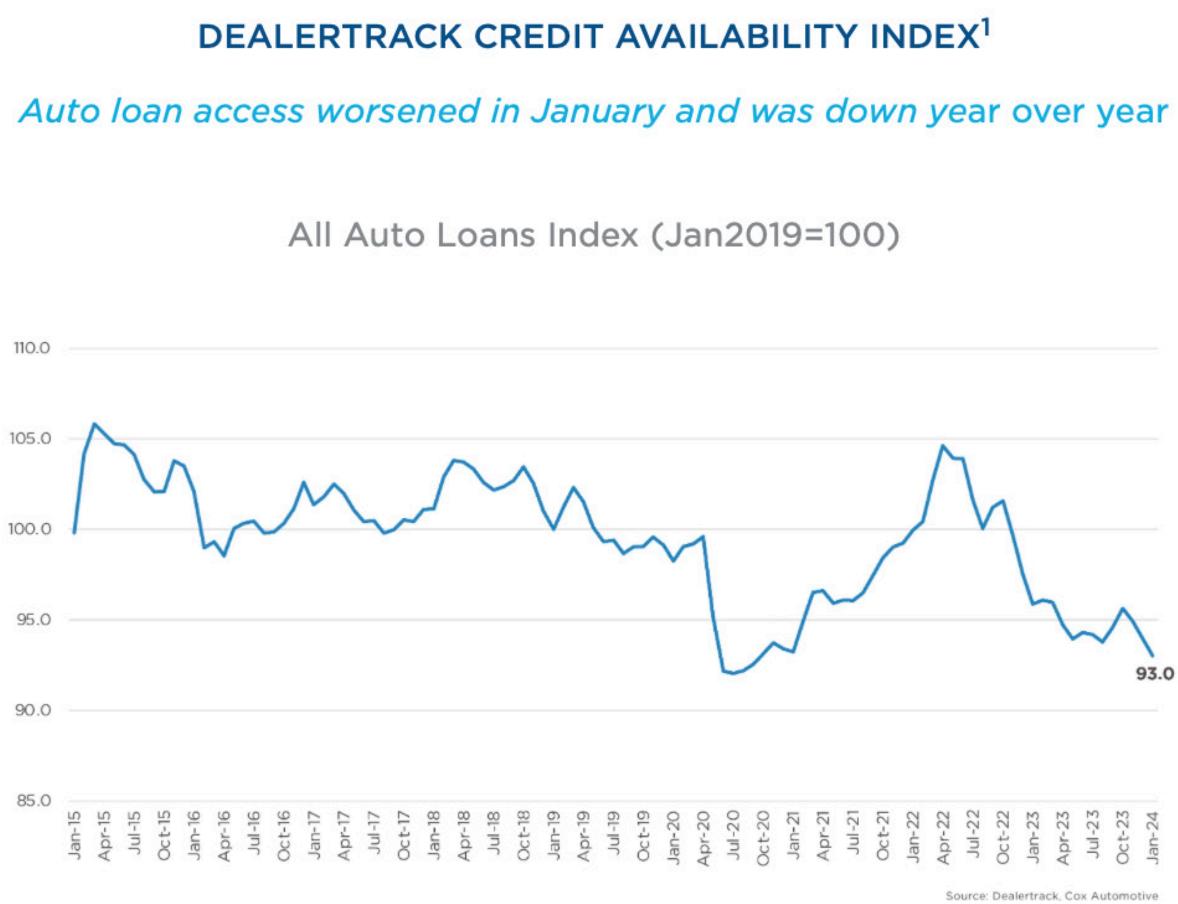
Since the central bank began its tightening, the typical rate on credit cards leaped from about 14.5% to 21.5%, according to Fed data. Credit card debt as a share of income is still below pre-pandemic levels.

Continue reading here.

Auto-credit availability worsened again in January (from Cox Automotive)...

Access to auto credit declined in January as credit tightened across all channels and across most lender types compared to December, according to the Dealertrack Credit Availability Index. The All-Loans Index declined to 93.0 in January, down 3% year over year.

The Dealertrack Auto Credit Total Loan Index had shown some improvements during the summer and fall of last year, but those gains have been wiped out by the declines seen over the past three months. In fact, the index dropped by 1% in January, marking the lowest level since August 2020. Credit access was tighter than a year ago in all channels and all lender types. Compared to February 2020, credit access was tighter in all channels except for used sales through independent dealers and loans from auto finance companies.



Most January Credit Availability Factors Moves Against Consumers

Credit availability factors mostly moved against consumers in January. Yield spreads widened, term length, approval rate, and subprime share all declined, and those moves reduced credit access for consumers. An increase in the negative equity share represented the only improvement for consumers. The down payment share was unchanged but at the highest level in the history of the data series. By channel, new-vehicle loans saw the most tightening, while used-vehicle loans through independent used dealers saw the least amount of tightening. On a year-over-year basis, all channels were tighter, with used-vehicle loans through franchised dealers having seen the most tightening. Banks tightened the most among lenders in January, but credit unions were the tightest year over year.

The average yield spread on auto loans in January widened by 15 Basis Points (BPs), so rates consumers saw on auto loans were less attractive in January relative to bond yields. The average auto loan rate increased by 13 BPs in January compared to December, while the 5-year U.S. Treasury decreased by 2 BPs, resulting in a wider average observed yield spread.

The approval rate decreased by 8 BPs in January and was down 1.6 percentage points year over year. The subprime share decreased to 11.2% in January from 11.4% in December and was up 0.6 percentage points year over year.

Continue reading here.

Credit union net charge-off ratio surges to decade high (from S&P Global Market Intelligence)...

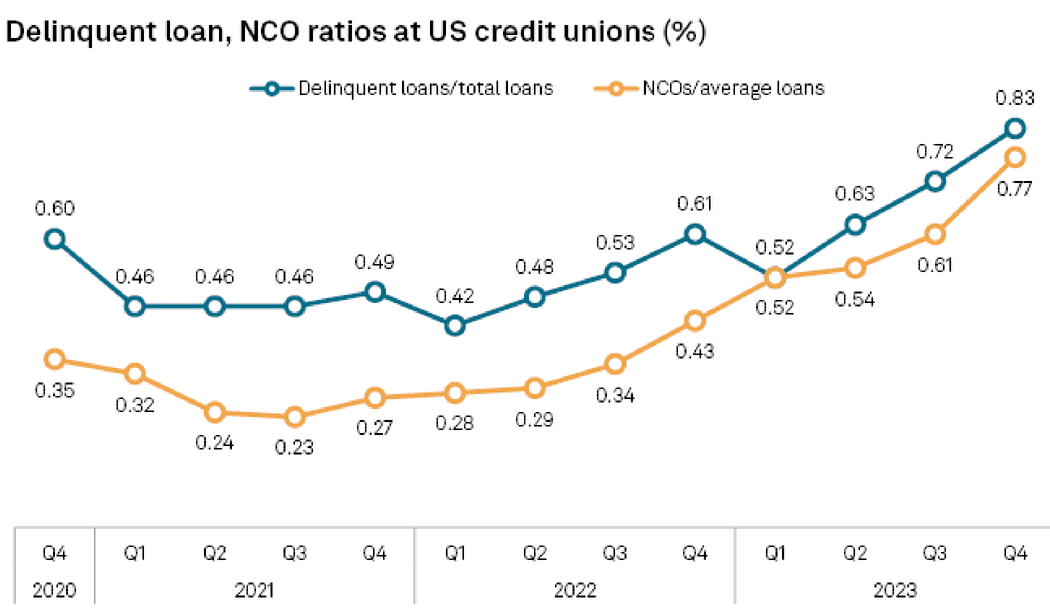
US credit unions are grappling with a rapidly rising level of problem loans, in a similar fashion to their banking brethren.

In contrast to banks, however, the credit union industry reported slower loan growth in the fourth quarter of 2023, according to S&P Global Market Intelligence data.

Credit quality trends

The net charge-off (NCO) ratio for credit unions was 0.77% in the fourth quarter of 2023, 16 basis points higher sequentially and representing the peak since the first quarter of 2012. The majority of the $670.9 million quarterly jump in NCOs was from used vehicles and unsecured credit cards. NCOs for used vehicles were up 36.1%, or $219.4 million. Unsecured credit card NCOs increased 30.5%, or $222.7 million.

Among the 20 largest credit unions by total assets at year-end 2023, Tysons, Va.-based Pentagon FCU had the highest ratio of NCOs to average loans of 3.19%, as well as the highest quarter-over-quarter increase of 72 basis points. The used vehicle segment fueled the increase.



Data compiled Feb. 10, 2024.
NCOs = net charge-offs; delinquent loans = total delinquent loans greater than or equal to 60 days.
Analysis includes all US credit unions except corporate credit unions.
Data based on regulatory filings.
Source: S&P Global Market Intelligence.
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Even with escalating NCOs, credit unions reported a spike in loans that are delinquent for at least 60 days. The delinquent loan ratio was 0.83%, as of Dec. 31, 2023, up 11 basis points from the previous quarter and representing a tie for the highest ratio in the last nine years. Used vehicle loans comprised 27.2% of total delinquent loans and were responsible for 23.4% of the quarterly increase.

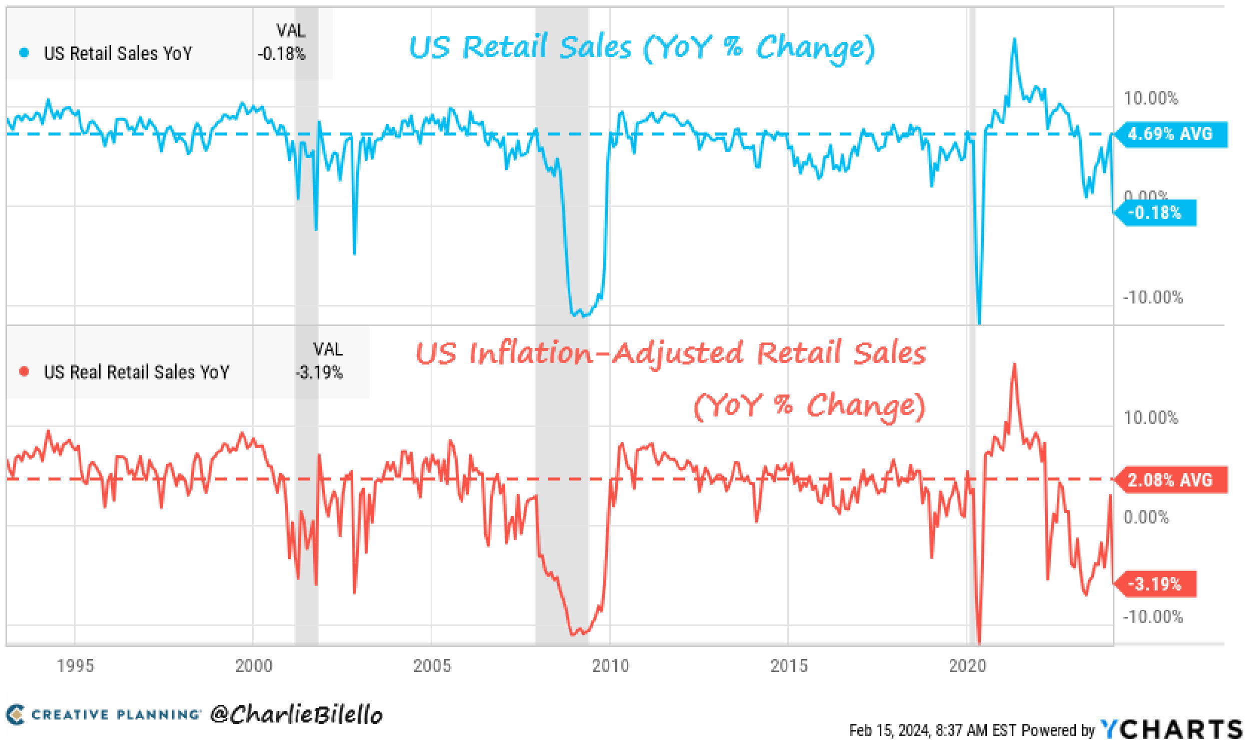
In the top-20 group, Raleigh, NC-based State Employees CU had the highest delinquency ratio at 2.25%. North Liberty, Iowa-based GreenState CU experienced the most dramatic increase, at 55 basis points.

Another metric to monitor is loans that are delinquent for one to two months, which is not part of the delinquency ratio calculation. That balance ramped up 42.8% quarter over quarter to $17.63 billion at the end of 2023. Used vehicle loans represented about one-third of those earliest-stage delinquencies.

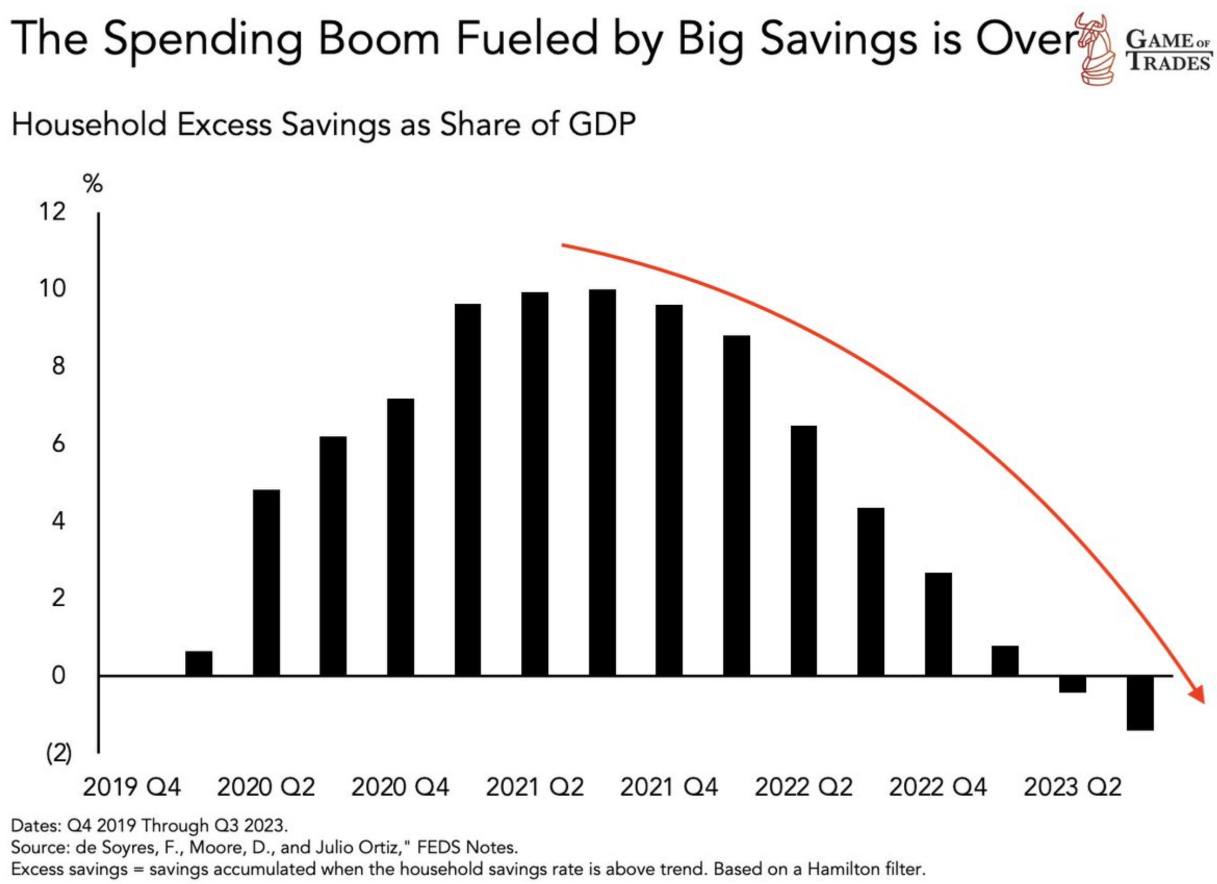
Continue reading here.

Retail sales unexpectedly plunged in January (from The Week in Charts)...

US Retail Sales fell 0.2% over the last year, the first YoY decline since May 2020. On an inflation-adjusted basis sales were down 3.2%.



Consumers are officially out of excess savings (from Game of Trades via X)...



The Biden administration approved another $1.2 billion in student-loan "cancellations" (from Timothy Peterson, CFA CAIA via X)...

$138 billion in total so far. There is no such thing as 'canceled' #debt, it is paid for with #taxes and #inflation. To date, every US taxpayer has paid $900 to someone who went to college but did not pay back their loan. What might you have done with that $900?

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News | Student Loan Debt Student Loan Forgiveness Joe Biden

Student Loan Cancellation Update as Biden Approves $1.2 Billion Relief

Published Feb 21, 2024 at 5:37 AM EST

REAL ESTATE

Billionaire real estate investor Barry Sternlicht sees more than $1 trillion in office-value losses (from *Bloomberg*)...

Barry Sternlicht sees more than $1 trillion of losses for office real estate, calling the properties "one asset class that never recovered" from the pandemic.

"The office market has an existential crisis right now," which is largely a US phenomenon because workers haven't gone back to their desks, Sternlicht said Tuesday at the iConnections Global Alts conference in Miami Beach.

Once a $3 trillion asset class, offices now are "probably worth $1.8 trillion," said Sternlicht, chief executive officer of Starwood Capital Group. "There's $1.2 trillion of losses spread somewhere, and nobody knows exactly where it all is."

Property owners have struggled to refinance loans as building values declined and the Federal Reserve increased interest rates rapidly over the past two years. Where regional banks have previously been a source of funds for real estate owners, they have disappeared from the market, he said.

Continue reading here (subscription may be required).

New York Community Bancorp is stirring fears of a wider financial mess (from *The New York Times*)...

As the one-year anniversary approaches of a crisis that brought down several midsize banks, trouble at another lender is putting unwelcome attention on the industry again.

New York Community Bancorp has been trying to bat down concerns about its financial health, releasing statements and hosting a last-minute call with investors on Wednesday morning as its share price spiraled.

The bank's stock has nose-dived since it released an ugly earnings report last week that included unexpected losses on real estate loans tied to both office and apartment buildings. Its shares have lost about two-thirds of their value over the past week, after a series of relentless declines.

"We have obviously been dealing with a very serious situation since our fourth quarter earnings release," Alessandro DiNello, the bank's newly named executive chairman told investors at the start of the bank's call on Wednesday. The lender's leaders wanted to "instill some confidence that this bank remains strong and will get itself back on the right track," he said.

The bank, which operates 420 branches nationwide under brands such as Flagstar Bank and Ohio Savings Bank, ballooned in size over the past year, to more than $100 billion in assets, after taking over the fallen Signature Bank last spring in an auction that federal regulators organized.

Shares of other lenders with portfolios of commercial real estate have dropped — although not by nearly as much — a reminder that what afflicts one lender can affect others, as when fears about concentrated customer bases and low-rate bond portfolios took down a group of lenders last spring.

Here's what you need to know.

What is behind the latest banking worries?

The principal shock for New York Community Bancorp came from its admission that the value of its real estate loans had dropped steeply, which spurred it to slash its dividend and sock away half a billion dollars to protect against future losses. In its earnings report last week, the bank identified a pair of loans — one related to an office complex and another for a co-op residential building — that were responsible for as much as $185 million in losses.

Bank representatives, who did not respond to requests for comment, fueled further angst by deflecting analysts' questions about their expectations for future profits. The bank's stock plummeted nearly 40 percent after the earnings report and has continued to lose ground, dropping 11 percent on Monday and more than 20 percent on Tuesday.

Moody's downgraded the bank's credit rating late on Tuesday, citing "multifaceted financial, risk-management and governance challenges" facing the lender. On Wednesday, the bank's share price initially sank, before recovering in a volatile trade.

A large swath of other lenders, including community banks and private lenders, could also face losses linked to commercial real estate loans, many of which were made before the move to remote and hybrid work during and after the pandemic put pressure on office landlords and caused the value of their buildings to drop. The rise in interest rates over the past few years has also made it more expensive to refinance such loans.

Which other banks are in the spotlight?

M&T Bank is similar in size and has comparable exposure to commercial real estate, according to Wolfe Research. In its latest earnings report, the bank reported a rise in troubled real estate loans, but analysts said the exposure was "manageable."

The average regional bank stock has lost more than 10 percent over the past week.

What about larger banks?

The biggest banks in the United States, such as JPMorgan Chase and Citigroup, have for months been setting aside money to gird for potential real estate losses. They are generally considered better able to withstand a downturn because of their diversified base of lending and depositors. Share prices for the largest banks have recently held up better than those for smaller lenders, and Chase said on Tuesday that it would open an additional 500 branches in the next three years.

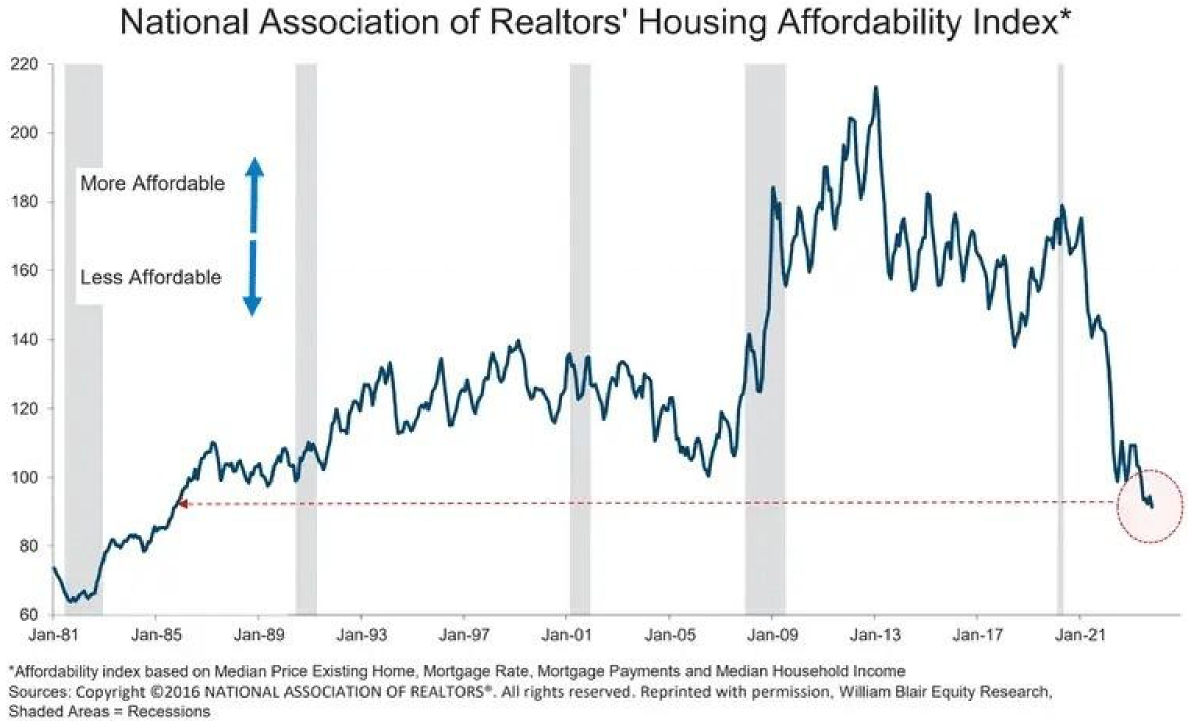
What do regulators say?

Jerome H. Powell, the chair of the Federal Reserve, said during a "60 Minutes" interview that aired Sunday that he viewed a real estate-led banking crisis as unlikely. He said that some smaller and regional banks were "challenged," but that the U.S. central bank was working with them. Mr. Powell described the situation as a "sizable problem" that the Fed had been aware of for "a long time."

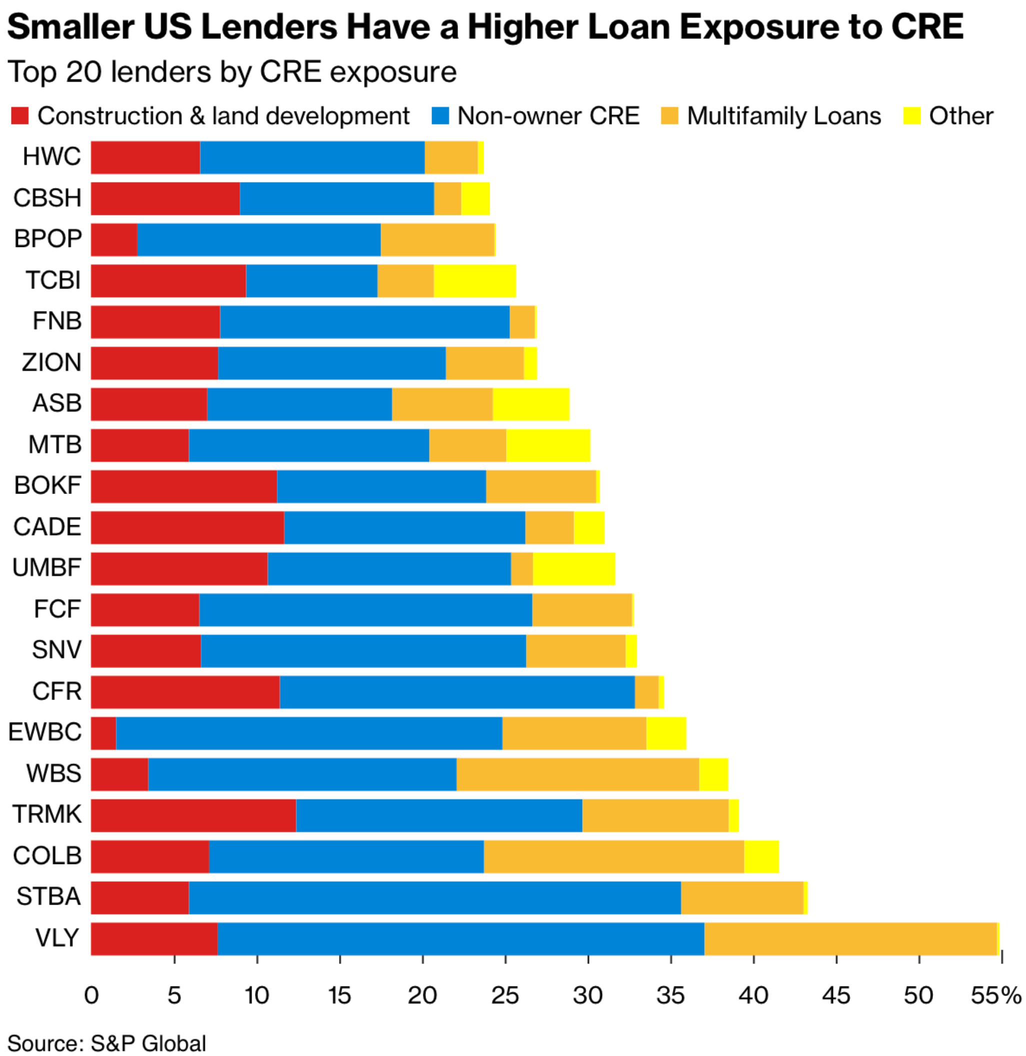
In testimony on Tuesday for the House Financial Services Committee, Janet Yellen, the Treasury secretary, said she was monitoring current banking stresses but declined to weigh in specifically on New York Community Bancorp. "I don't want to get ahead of where we should be, given what's happening," she said.

Continue reading here (subscription may be required).

Buying a house in the U.S. is the most unaffordable it's been in almost 40 years (from Markets & Mayhem via X)...

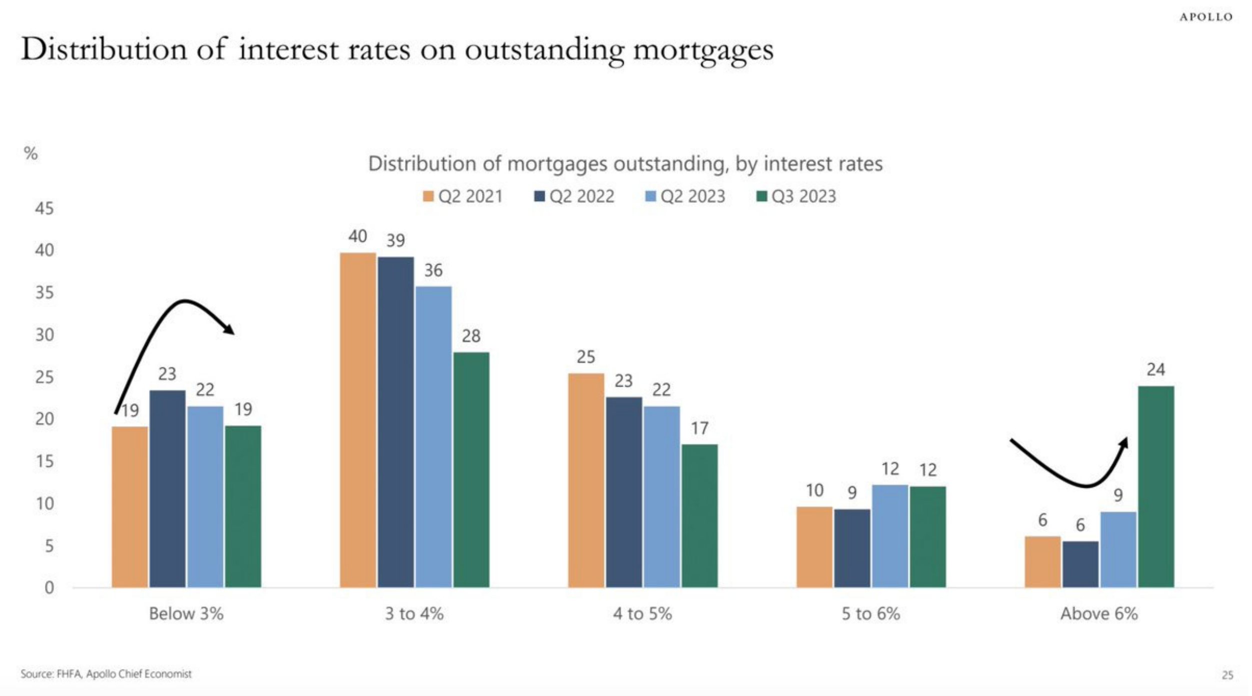


These banks have the highest exposure to commercial-real-estate ("CRE") loans (*from Bloomberg*)...



Continue reading here (subscription may be required).

Most homeowners have a mortgage rate at 5% or below, which is why few want to sell and why home supply remains tight ([from Ayesha Tariq, CFA via X](#))...



Nearly $1 trillion in CRE mortgages will mature this year (from the Mortgage Bankers Association)...

Twenty percent ($929 billion) of the $4.7 trillion of outstanding commercial mortgages held by lenders and investors will mature in 2024, a 28 percent increase from the $729 billion that matured in 2023, according to the Mortgage Bankers Association's 2023 Commercial Real Estate Survey of Loan Maturity Volumes, released today at the 2024 Commercial/Multifamily Finance Convention and Expo.

"The lack of transactions and other activity last year, coupled with built-in extension options and lender and servicer flexibility, has meant that many loans that were set to mature in 2023 have been extended or otherwise modified and will now mature in 2024, 2026, 2028 or in other coming years," said Jamie Woodwell, Head of Commercial Real Estate Research at MBA. "These extensions and modifications have pushed the amount of CRE mortgages maturing this year from $659 billion to $929 billion."

Woodwell continued, "Commercial mortgages tend to be relatively long-lived, spreading maturities out over several years. Volatility and uncertainty around interest rates, a lack of clarity on property values, and questions about some property fundamentals have suppressed sales and financing transactions. This year's maturities, coupled with greater clarity in those and other areas, should begin to break the logjam in the markets."

The loan maturities vary significantly by investor and property type groups. Just $28 billion (3 percent) of the outstanding balance of multifamily and health care mortgages held or guaranteed by Fannie Mae, Freddie Mac, FHA and Ginnie Mae will mature in 2024. Life insurance companies will see $59 billion (8 percent) of their outstanding mortgage balances mature in 2024. By contrast, $441 billion (25 percent) of the outstanding balance of mortgages held by depositories, $234 billion (31 percent) in CMBS, CLOs or other ABS and $168 billion (36 percent) of the mortgages held by credit companies, in warehouse or by other lenders will mature in 2024.

By property type, 12 percent of mortgages backed by multifamily properties will mature in 2024, as will 17 percent of those backed by retail and 18 percent for healthcare properties. Among loans backed by office properties, 25 percent will come due in 2024, as will 27 percent of industrial loans and 38 percent of hotel/motel loans.

Continue reading here.

Almost one-third of San Francisco office space is now vacant (from Trepp)...

San Francisco's office market reported a 32.5% overall vacancy rate in the fourth quarter of 2023, up from 24.1% a year earlier, according to Cushman & Wakefield.

The direct vacancy rate, which does not include available sublease space, was 24% in the fourth quarter.

Vacancy Trends

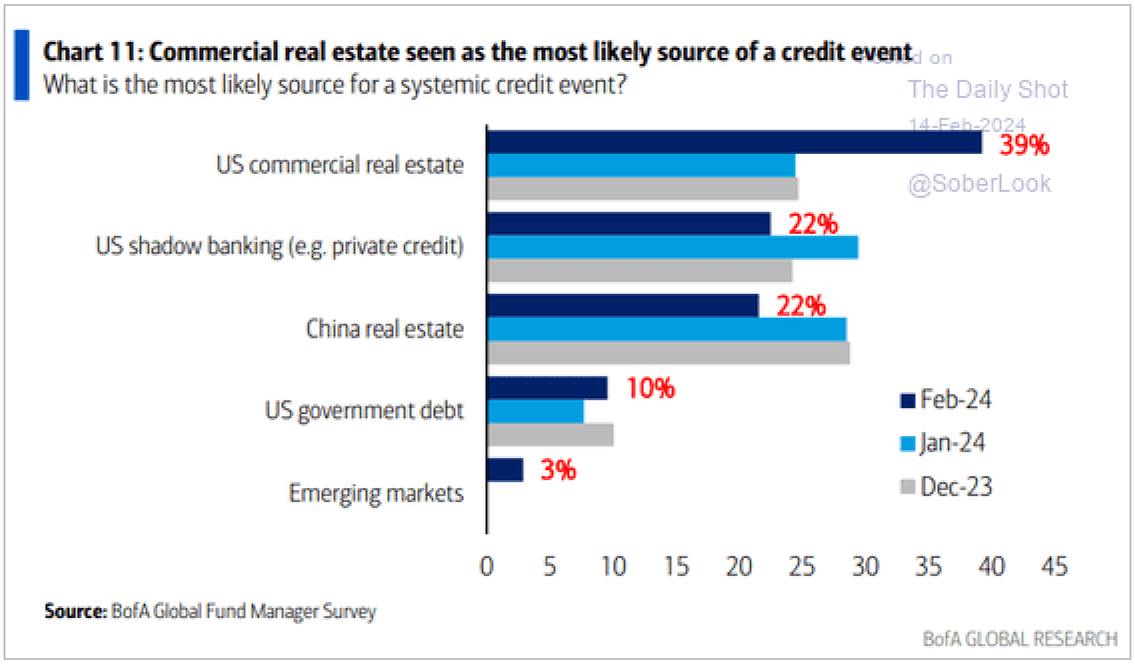
The overall vacancy rate is the highest out of the 92 office markets tracked by Cushman, while the direct rate is the second highest behind Los Angeles' central business district, which has a 24.1% rate.

San Francisco's office market is dominated by tenants in the technology sector, which through last September had laid off 7,900 in the city. Of the 1 million square feet of space that became available for sublease in the fourth quarter, the largest offerings came from tech companies. Microsoft listed 130,000 square feet of space at 1355 Market St., while Adobe listed 156,000 square feet at 100 Hooper St.

Available sublease space now totals 7.3 million square feet, and it is only expected to increase in 2024.

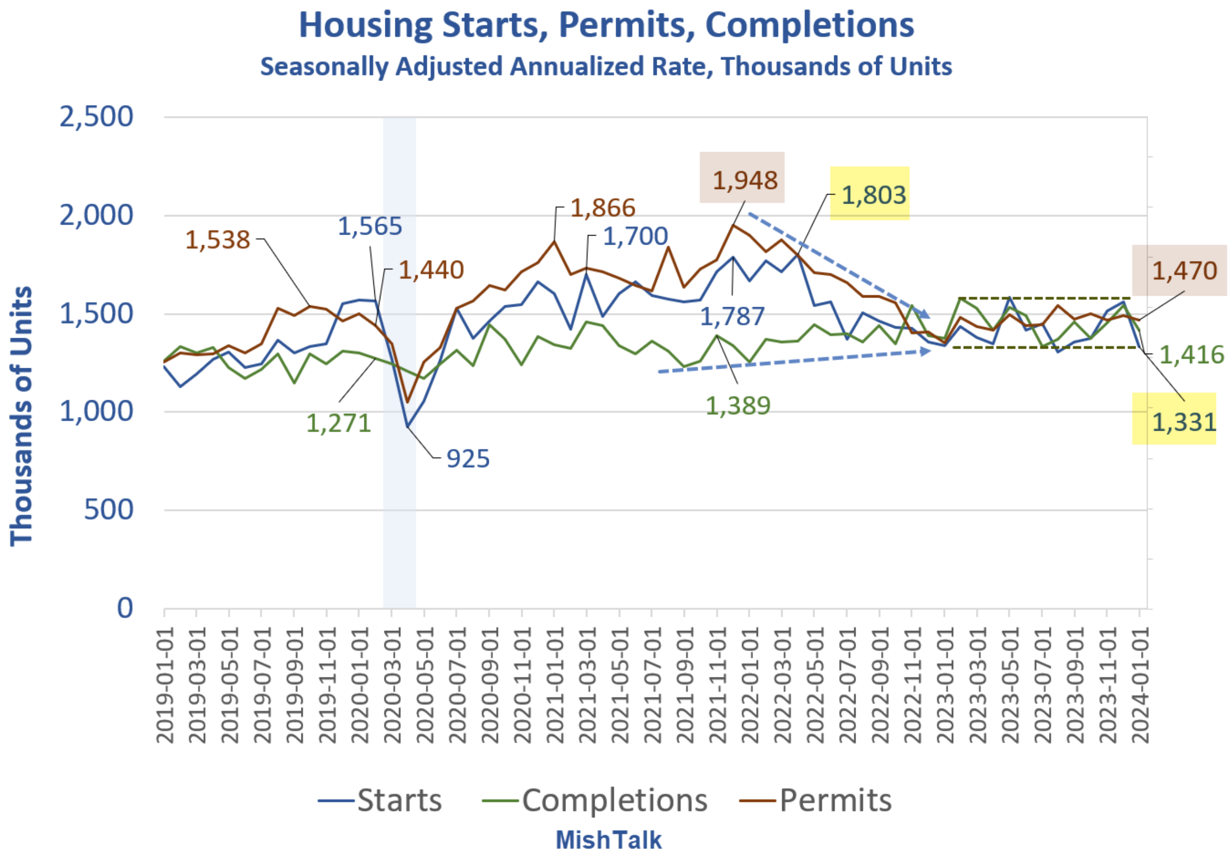
Continue reading here.

CRE exposure is viewed as the most likely source of a credit event by global fund managers (from The Daily Shot)...



U.S. housing starts plunged 14.8% in January (from Mish Talk)...

Following an infrequent upward revision, housing starts fell 14.8 percent. Ignoring revisions, housing starts still would have declined 8.8 percent. It's a bad start to 2024.



Housing starts dropped 14.8 percent in January according to the Census Bureau's New Residential Construction Report.

Building Permits

- Privately-owned housing units authorized by building permits in January were at a seasonally adjusted annual rate of 1,470,000.
- This is 1.5 percent below the revised December rate of 1,493,000, but is 8.6 percent above the January 2023 rate of 1,354,000.
- Single-family authorizations in January were at a rate of 1,015,000; this is 1.6 percent above the revised December figure of 999,000.
- Authorizations of units in buildings with five units or more were at a rate of 405,000 in January.

Housing Starts

- Privately-owned housing starts in January were at a seasonally adjusted annual rate of 1,331,000.
- This is 14.8 percent (±10.2 percent) below the revised December estimate of 1,562,000 and is 0.7 percent (±11.7 percent) below the January 2023 rate of 1,340,000.
- Single-family housing starts in January were at a rate of 1,004,000; this is 4.7 percent (±11.6 percent) below the revised December figure of 1,054,000.
- The January rate for units in buildings with five units or more was 314,000.

Continue reading here.

Bad property debt exceeds reserves at the largest U.S. banks (*from The Financial Times*)...

Bad commercial real estate loans have overtaken loss reserves at the biggest US banks after a sharp increase in late payments linked to offices, shopping centers, and other properties.

The average reserves at JPMorgan Chase, Bank of America, Wells Fargo, Citigroup, Goldman Sachs and Morgan Stanley have fallen from $1.60 to 90 cents for every dollar of commercial real estate debt on which a borrower is at least 30 days late, according to filings to the Federal Deposit Insurance Corporation.

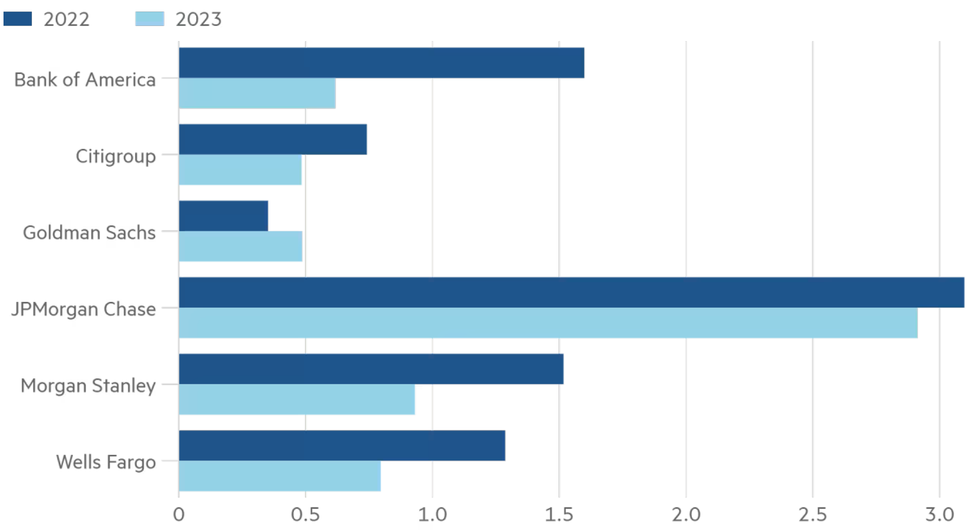
The sharp deterioration took place in the last year after delinquent commercial property debt for the six big banks nearly tripled to $9.3bn...

Across the wider US banking sector the value of delinquent loans tied to offices, malls, apartments and other commercial properties more than doubled last year to $24.3bn, up from $11.2bn the year before....

US banks now hold $1.40 in reserves for every dollar of delinquent commercial real estate loans, down from $2.20 a year ago, according to the FDIC data, and the lowest cover banks have had to absorb potential commercial real estate loan losses in more than seven years.

CRE coverage ratio

Loss reserves to delinquent loans



Source: FDIC, Financial Times
© FT

Continue reading here (subscription may be required).

SPECIAL SITUATIONS

Activist Investing, Spinoffs, Arbitrage, Mergers & Acquisitions (M&A), and More

A strategic review opportunity in Talis Biomedical (TLIS) (from Special Situation Investments)...

There are a number of companies in the biopharma space that are currently undergoing a strategic review and are trading at large discounts to net cash. However, this particular case stands out due to an unusually deep discount and a roster of prominent shareholders involved.

Talis Biomedical is a molecular testing equipment developer that has recently laid off 90% of its workforce and launched a strategic review. With only 10 employees remaining, TLIS is essentially a cash shell trading at an unusually large 60%+ discount to its current net cash. The company will explore various options under the strategic review, but the extent of the reorganization suggests that a reverse merger or liquidation may be among the likely outcomes.

What gives some confidence in a favorable strategic review outcome is the fact that TLIS's shareholder base includes Baker Brothers, one of the most successful biotech investors (owns 66%), as well as David Einhorn's Greenlight Capital (10%).

The key risk here is that TLIS has an ongoing litigation with several shareholders. I'm not a legal expert in any way, however, the lawsuit looks quite generic and the claimant's case seems very hard to prove.

TLIS was highlighted to SSI subscribers on November 25. While the stock has already gone up 13% since the initial pitch, the setup is still attractive as TLIS continues to trade at a wide discount to the net cash position.

Continue reading here.

Activist short seller Hindenburg Research is targeting Renovaro BioSciences (RENB) (from Hindenburg Research)...

- Renovaro is a biotech company with several preclinical drug candidates that is "committed to curing people with cancers and infectious diseases". Weeks ago, it voted to merge with "AI Health" company GEDi Cube, giving the company a pro-forma fully diluted market cap of ~$567 million.
- Current CEO Dr. Mark Dybul has a prestigious background (i) serving under Anthony Fauci at the National Institute of Health (NIH) (ii) as Executive Director of the Global Fund to Fight AIDS, Tuberculosis, and Malaria and (iii) as a tenured professor at Georgetown University.
- Dybul has been involved with the company since 2017, before it went public. The company went public in early 2018 under a predecessor name, Enochian BioSciences. Dybul stepped into the CEO role in 2021, where he remains today.
- Then known as Enochian, the company's co-founder, "scientific founder", "inventor", and largest shareholder was an individual named Dr. Serhat Gumrukcu.
- CEO Dybul praised Gumrukcu as a "rare genius", saying he could be "the most impactful scientist in generations". In a now-deleted company video, Dybul praised Gumrukcu's "brilliance" and said he created "some of the most innovative approaches to HIV and oncology" that he knew of.
- In May 2022, Gumrukcu, was charged by the Department of Justice over allegations that he conspired to hire a hitman to murder one of the victims of his many scams, a Vermont father of 6 who was taken from his home and executed in a snowbank.
- A week after the charges, we published a report on the company titled "Miracle Cures and Murder For Hire: How A Spoon-Bending Turkish Magician Built A $600 Million Nasdaq-Listed Scam Based On A Lifetime Of Lies", which largely profiled the now-imprisoned Gumrukcu.
- In that report, we revealed Gumrukcu had faked his entire academic history, including forging his Russian medical degrees, and that he was a magician who had fled authorities in Turkey after being charged over allegations he faked being a doctor to steal money from a terminally ill cancer patient.
- We also revealed that as a fugitive in the United States, Gumrukcu continued his crime spree, culminating in 14 felony charges in 2017 relating to the fraudulent sale of a home he didn't own, writing bad checks, and defrauding a businessman through a fake energy trading deal.

- The day after we published our report, CEO Dybul called it "misleading propaganda", claiming the magician's study results were still valid. "The science is the science, and the data are the data".
- One month after the murder charges and our report, in July 2022, the company announced that Gumrukcu had faked clinical data relating to the company's HBV and COVID-19 therapies. In October 2022, the company sued Gumrukcu, saying his conduct amounted to "brazen fraud". The data was apparently not the data.
- The company claimed it had "no reason" to doubt Gumrukcu's data. Dybul later admitted he and the company knew Gumrukcu had been arrested on 14 felony counts relating to fraud at the time they began working with him, but kept working with him anyway.
- Dybul ignored other obvious red flags including (i) in 2018 when the company's CFO raised concerns of "serious financial improprieties" related to Gumrukcu (ii) when analysts in 2019 pointed out Gumrukcu's suspicious medical credentials and criminal history and (iii) when Dybul was questioned in 2020 regarding a U.S. lawsuit alleging Gumrukcu practiced sham medicine on a terminally ill child and absconded with the parent's $253,000.
- Enochian Chairman Rene Sindlev also knew of and ignored Gumrukcu's felony fraud charges and previously compared Gumrukcu to Leonardo Da Vinci and Albert Einstein. No board members or key executives resigned despite their inexcusable governance failures.
- In late 2022, 6 months after the murder charges and 2 months after the company sued Gumrukcu for "brazen fraud", the board of Renovaro elected to pay Dybul a $100,000 cash performance bonus on top of his $850,000 annual salary.
- In March and April 2023, with Enochian almost out of cash and its stock near lows, Chairman Sindlev "conducted multiple calls and in-person meetings" with representatives of GEDi Cube, an entity which didn't even exist at the time, later company disclosures revealed.

- Also on the same day of the LOI and the name change, insiders including Chairman Sindlev quietly acquired millions of shares and warrants at effective prices ranging from $0.65 to $0.713 per share. Renovaro was trading at ~$0.65 at the time.
- 8 days later, Renovaro publicly announced the merger, calling GEDi Cube an "AI Company" using "cutting edge AI/machine learning technology". Renovaro stock spiked 83% on the day, trading 78.5x its preceding 30-day average volume.
- At the time of the announcement, GEDi Cube was a 2-month-old entity with "no operational history", no product, no revenue and virtually no assets, according to disclosures made months later. GEDi basically consisted of only a term sheet to acquire an entity called Grace Systems, which it claimed had AI technology.
- Grace Systems was a nearly insolvent tiny startup with no revenue and no commercial ready product after 10 years. It reported having $1,583 in cash on hand with ~$376,000 in liabilities at year end 2022. In April 2023, a Grace subsidiary filed for bankruptcy in the Netherlands.
- GEDi needed €1 million to own 51% of Grace, implying a ~$2.2 million valuation for Grace. But the newly formed GEDi entity had next to nothing, so Renovaro lent it the needed $1.05 million to close the deal.
- During merger negotiations to merge with Renovaro, GEDi then proposed a valuation of $225 million, which Renovaro rejected because GEDi "generated no revenue and had no projections."
- Renovaro and CEO Dybul then apparently negotiated against themselves, relying on a valuation opinion from an unnamed "AI expert" that ultimately resulted in Renovaro agreeing to pay $275 million in exchange consideration for GEDi.
- In brief, Renovaro and CEO Dybul lent GEDi the cash to close the Grace deal at a ~$2.2 million implied valuation, then turned around and merged with GEDi for $275 million in consideration after a hard-fought negotiation against himself.
- Renovaro has repeatedly touted the importance of "visionary" former Intel/Nvidia executive Craig Rhodes as CEO of GEDi Cube. Shareholders likely voted for the deal in part due to Rhodes' background. Rhodes confirmed to us in an email that he resigned in December 2023, a month before the vote, with no apparent disclosure of the key resignation to shareholders.

- Renovaro also touted the appointment of Lester Russell, GEDi's Chief Medical Officer, in an August 2023 press release. Russell also resigned in December 2023, also without disclosure to shareholders.
- Renovaro and Dybul also repeatedly highlighted GEDi's "strategic partnership" with Nvidia as a key justification for the merger. But the Nvidia "partnership" is a free program that over 17,000 companies have joined.
- In the months leading up to the merger vote, Renovaro enlisted stock promoters, including one previously sanctioned by the SEC, to hype up the GEDi deal and pump shares to retail investors.
- Dybul now claims that GEDi can provide a "multiplier effect" that will enhance Renovaro's pipeline.
- However, the company's lead candidate remains Gumrukcu's cancer therapy. Dybul still touts the jailed magician's treatment, referring to it in January 2024 as "the holy grail of cancer research" and hopes to begin human trials later this year.
- In an ironic twist, Gumrukcu's husband sued Renovaro's key executives and financiers in January 2024, alleging a range of securities law violations by Dybul and Sindlev, among others. The complaint alleges Sindlev purchased significant Renovaro stock while in possession of material nonpublic information relating to the merger.
- The complaint also cites damning internal emails to allege Dybul is engaged in a "wink and nod scheme" with Renovaro's financier Lincoln Park Capital, whereby Renovaro provides them with non-public information ahead of key company news to help Lincoln Park trade against Renovaro's own shareholders.
- Gumrukcu and his husband are a key holder of Renovaro, with ~19 million shares, or ~28% of the company. The family of Gumrukcu's murder victim sued him for wrongful death and courts have frozen 12.8 million of his Enochian shares to cover potential damages.
- Gumrukcu's husband still owns 3.6 million free-trading shares which we expect will hit the market soon to cover litigation costs and defense costs for the upcoming murder conspiracy trial, slated for later this year.

- In conclusion, if your company co-founder and key inventor turns out to be a con artist magician who (allegedly) murdered someone and faked his scientific data, you can't just change your company name and pivot to AI and hope no one notices.
- CEO Mark Dybul appears set on trying to run the same shameless scam with a new name. We think he is in a league of his own as far as poor judgment and governance and see inevitable massive downside in shares of Renovaro.

Initial Disclosure: After extensive research, we have taken a short position in shares of Renovaro Biosciences, Inc. (NASDAQ:RENB). This report represents our opinion, and we encourage every reader to do their own due diligence. Please see our full disclaimer at the bottom of the report.

Continue reading here.

Top activist firm Trian Partners sends letter to fellow Disney shareholders who have been "starved of returns" (from Trian Partners)...

Disney has lost money for its shareholders over a long period of time.

A year ago, faced with a proxy contest that sought to bring accountability for these failures, Disney attempted to assure shareholders that a "significant transformation" was underway. In early 2023, Disney outlined a plan to "succeed at succession," reignite the Company's creative engine and achieve profitability in the streaming business.

A year later, however, Disney shareholders are no better off. It turns out, Disney's story was just a fairy tale. Disney's stock price is lower now than a year ago; its streaming business lost another $1.7 billion; 2024 earnings per share estimates are down nearly 20%; two of Disney's last five movies have failed to turn a profit; and the Board has still not identified a successor for Mr. Iger.

With the stock waning and Disney facing another proxy contest, Disney appears to again be trying to distract shareholders with what we see as a fanciful tale, claiming it has "turned the corner and entered a new era." And with that, Disney announced a slew of new promises and ideas — most still in the process of being developed — hoping that shareholders would just believe all was well and improving.

This time, Disney's spaghetti-against-the-wall "plan" includes a $1.5 billion-dollar strategic investment that, according to Disney's own Chief Financial Officer, lacks a product roadmap or expected return targets, and a sports streaming venture that likely confused consumers, surprised important content partners and competes with the Company's own services.

But frenetic activity, in the face of a proxy contest, is not a substitute for a well-considered corporate strategy. Nor is throwing spaghetti at the wall going to feed shareholders who have been starved of returns for so long.

Disney shareholders need the company to consistently perform under the watchful eye of a vigilant Board. That is the recipe for good eating.

To improve the focus, alignment and accountability of the Board, Disney needs new independent directors. Help us elect Nelson Peltz and Jay Rasulo, who pledge to ask hard questions, work with the rest of the Board and management to develop thoughtful strategies, align the interests of executives with shareholders and hold the leadership team accountable for performance. And to do so all the time, not just when the company faces a proxy contest...

Together, we can Restore the Magic at Disney!

Continue reading here.

Carl Icahn strikes a deal for JetBlue Airways board seats (*from The Wall Street Journal*)...

Activist investor Carl Icahn struck a deal for two JetBlue Airways board seats just days after he unveiled a nearly 10% stake in the struggling airline.

The billionaire, who turns 88 years old Friday, and the airline reached a settlement agreement in which two of Icahn's lieutenants, Jesse Lynn and Steven Miller, will join its board. The Wall Street Journal reported earlier Friday that the two sides were nearing a deal.

It is the second victory Icahn has notched in the span of a week—after American Electric Power AEP 0.55%increase; green up pointing triangle on Monday said it struck an agreement to give him two board seats—and a sign of his continued sway in corporate America, despite a short-seller attack last year that curtailed his ability to make big bets.

Icahn revealed his JetBlue stake Monday, saying in a filing he believed the shares were undervalued. That sent JetBlue's shares up 21% Tuesday, giving the company a market value of around $2.4 billion. The shares are still down sharply, having lost more than half their value in the past few years.

JetBlue has been losing money and is plotting a new course after its plan to acquire Spirit Airlines was blocked by a federal judge last month. The companies are appealing the ruling, though overturning it could be a long shot and JetBlue has warned Spirit it might have grounds to terminate the deal anyway.

JetBlue's Incoming Chief Executive, Joanna Geraghty, who took the helm the same day Icahn revealed his position, has pledged "aggressive action" to get the carrier back on track.

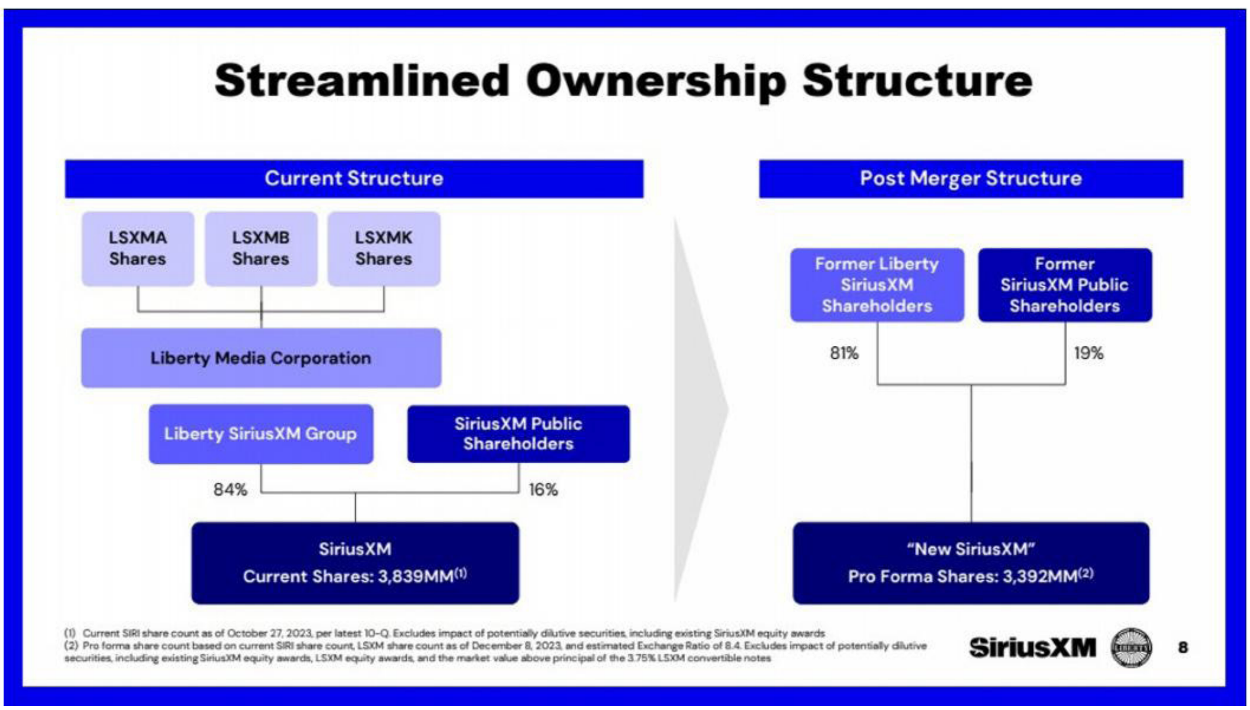
Continue reading here (subscription may be required).

A detailed look at the Liberty SiriusXM (LSXMK)/Sirius XM (SIRI) "arbitrage" opportunity (from Yet Another Value Blog)...

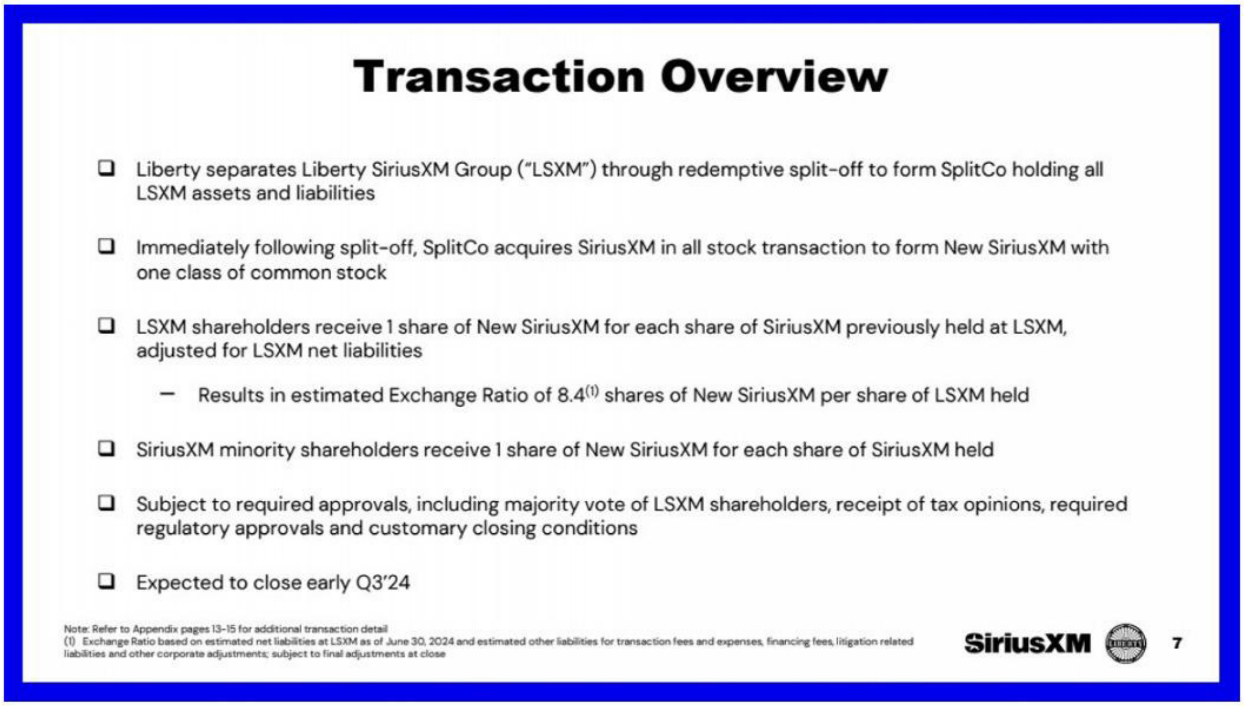
One thing I'm going to start doing monthly is a simple tweet asking for people's favorite event driven idea. I'll likely look at all of the ideas; I'll take the idea that seems the most popular or most interesting and do a quick write up on it (perhaps after I buy it if I particularly like the idea!).

Anyway, for the inaugural post in this series, there was really only one stock / situation I could pick: the Liberty Sirius (LSXMK) "arb" with SiriusXM (SIRI). It was, by far, the most popular response to that tweet, and it's also probably the arb I get the most inbounds on currently.

The situation and set up is simple. LSXMK owns ~84% of SIRI. For years, LSXMK has traded at a discount to the publicly traded share price of SIRI. In December, LSXMK and SIRI announced a merger where LSXMK will "collapse" into SIRI.



The deal is structured at NAV, so effectively LSXMK shareholders will get one SIRI share for each share of SIRI LSXMK owns (net of LSXMK liabilities). This works out to ~8.4 SIRI shares for every LSXMK share outstanding.



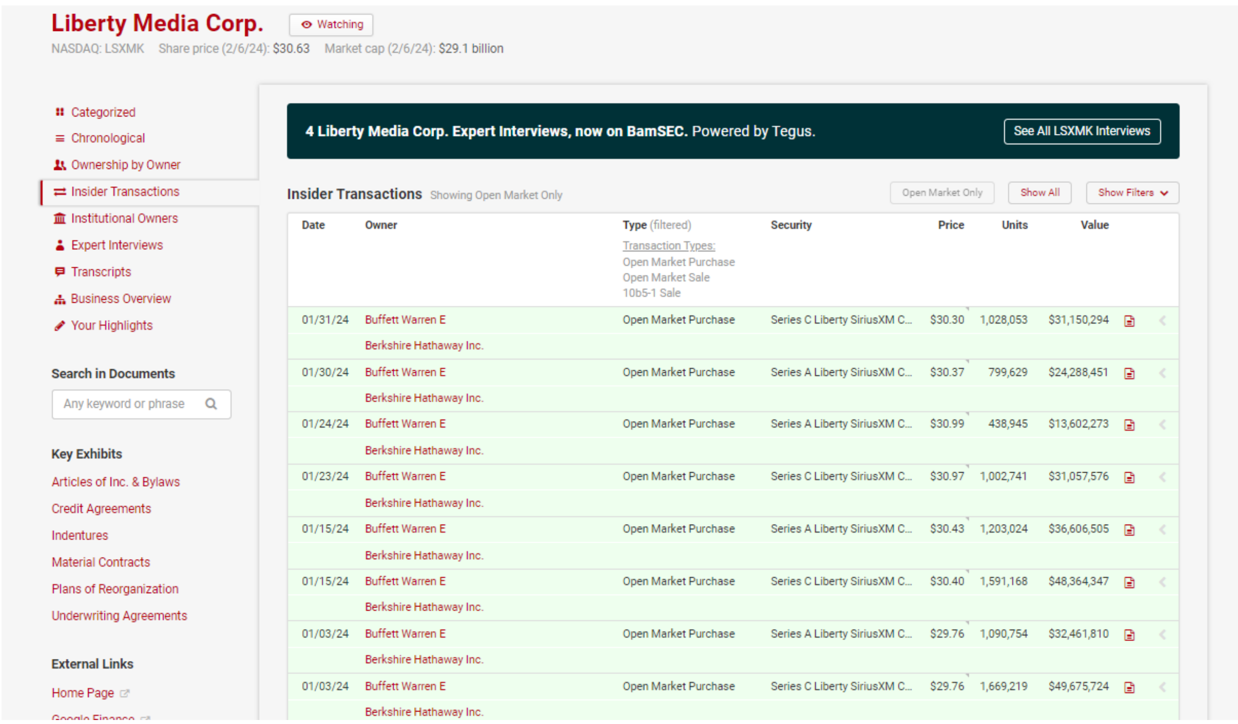
SIRI is a publicly traded stock, and the stock price currently hovers just below $5/share. That would come out to ~$41/LSXMK share, yet LSXMK is currently trading for ~$30/share.

LSXMK	$	30.31	A
SIRI	$	4.84	B
SIRI Shares / LSXMK		8.400	C
Divs	$	-	
Value ex-div		40.61	B * C
Spread		34.0%	(B*C)/A-1
LSXMK Implied SIRI Price	$	3.61	A / C

So the most frequent question I get about LSXMK is "what gives? Isn't this an opportunity? And not just an opportunity, but a 34% spread that will close inside of six months seems like the opportunity of a lifetime!"

It might be an opportunity... but I don't think it's an **arbitrage** opportunity, and I certainly don't think it's the opportunity of a lifetime.

If you think SIRI is fundamentally cheap at the price you're buying it through LSXMK, then yes... the current price is an opportunity. And you'd be in good company if you believed that; Berkshire Hathaway has been aggressively buying LSXMK stock (almost $300m so far this year).



Liberty Media Corp. Watching

NASDAQ: LSXMK Share price (2/6/24): $30.63 Market cap (2/6/24): $29.1 billion

Categorized
Chronological
Ownership by Owner
Insider Transactions
Institutional Owners
Expert Interviews
Transcripts
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Your Highlights

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Key Exhibits

Articles of Inc. & Bylaws
Credit Agreements
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Material Contracts
Plans of Reorganization
Underwriting Agreements

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4 Liberty Media Corp. Expert Interviews, now on BamSEC. Powered by Tegus. See All LSXMK Interviews

Insider Transactions Showing Open Market Only — Open Market Only | Show All | Show Filters

Date	Owner	Type (filtered) Transaction Types: Open Market Purchase Open Market Sale 10b5-1 Sale	Security	Price	Units	Value
01/31/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series C Liberty SiriusXM C...	$30.30	1,028,053	$31,150,294
01/30/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series A Liberty SiriusXM C...	$30.37	799,629	$24,288,451
01/24/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series A Liberty SiriusXM C...	$30.99	438,945	$13,602,273
01/23/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series C Liberty SiriusXM C...	$30.97	1,002,741	$31,057,576
01/15/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series A Liberty SiriusXM C...	$30.43	1,203,024	$36,606,505
01/15/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series C Liberty SiriusXM C...	$30.40	1,591,168	$48,364,347
01/03/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series A Liberty SiriusXM C...	$29.76	1,090,754	$32,461,810
01/03/24	Buffett Warren E Berkshire Hathaway Inc.	Open Market Purchase	Series C Liberty SiriusXM C...	$29.76	1,669,219	$49,675,724

So, on a fundamental basis, the LSXMK "discount" might be an opportunity. But I do not think this is an arbitrage opportunity.

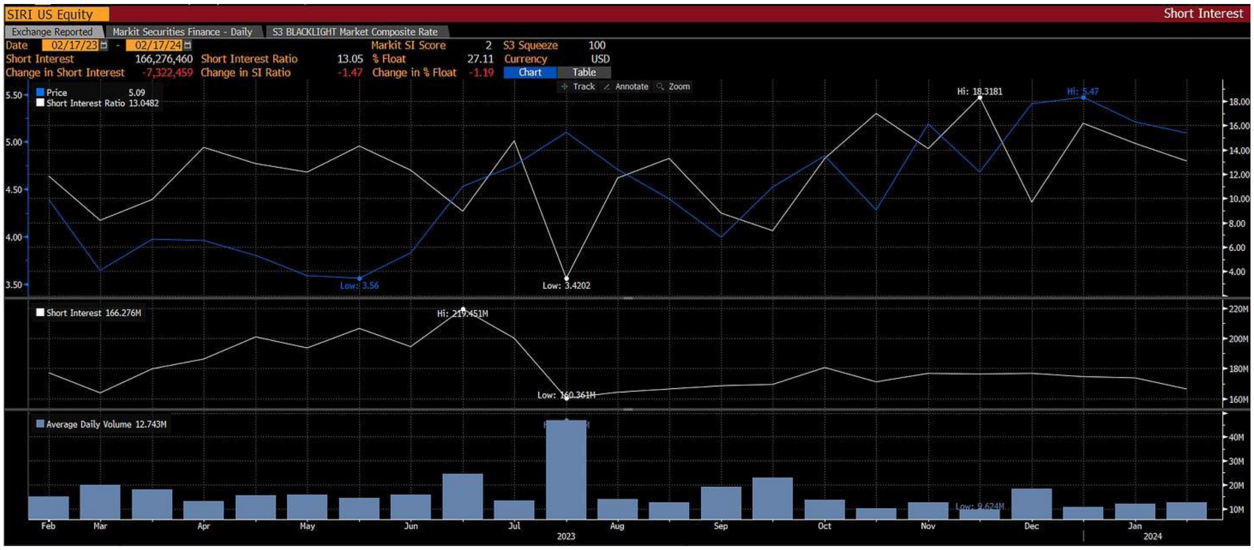
An LSXMK / SIRI arb is simple in theory: go long LSXMK, short SIRI, and wait for the deal to close and the discount to collapse, thus collecting the ~40% spread "risk free" (arbitrage, shorting, and hedging are risky, please remember that and consult our legal disclaimer!).

I think ten years ago I would have looked at that spread and thought "opportunity." It takes a certain combination of arrogance and naivety (which I definitely had ten years ago, and maybe still do today despite having a decent bit beat out of me!) to look at something so obvious and liquid and think "oh yeah, the market is missing this easy near perfect super liquid arb. Definite alpha!"

When you've been doing this long enough, you realize markets are never **that** easy. Particularly large cap near perfect arbitrages (which a SIRI / LSXMK trade with a definitive merger / exchange agreement is; there's no regulatory risk, no financing risk, the assets match each other perfectly, etc.) are never going to be that simple for that large a return.

So what's the catch?

SIRI has very little publicly traded float, and what is floating is largely short as people play the arb. Given the high short interest, the borrow costs on the stock are wild, and the stock is prone for short squeezes. SIRI has already had one big short squeeze (and several mini-ones) in the past year. Bloomberg has a squeeze estimator (the "S3 Squeeze" in the chart below) that rates stocks on likelihood of squeeze potential on a scale of 1-100 (with 100 being the most likely to get squeezed); I'll give you one guess to where SIRI currently scores (spoiler alert: it's 100).



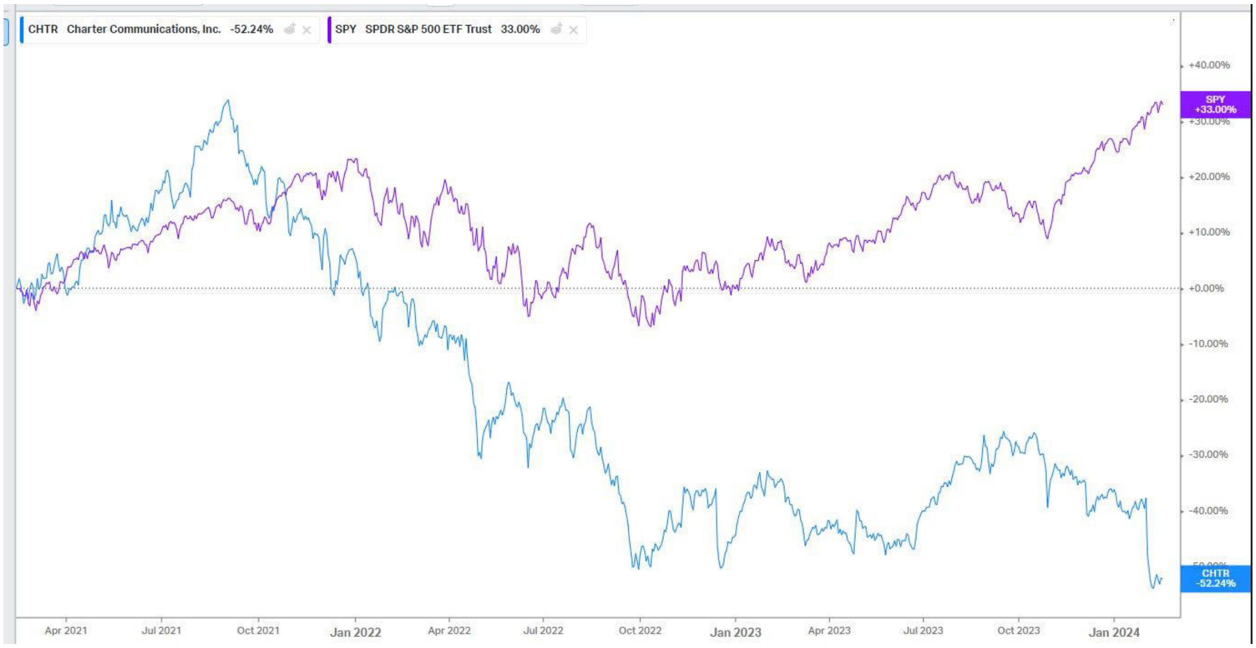
The huge spread between SIRI and LSXMK reflects the simple fact that the cost of carrying this trade is going to be huge given the large borrowing costs, and there's every chance SIRI stock gets squeezed between now and closing (which would increase your borrowing costs and could result in margin issues).

If you think SIRI is a fundamental value, then buying LSXMK is an obvious choice over SIRI. But, IMO, there's no (actionable) arbitrage to be had here.

One last bonus note while I'm here: I don't think there's an arb between SIRI and LSXMK... but I mentioned there might be fundamental value in LSXMK / SIRI, so I guess that begs the question: do I think there's a fundamental opportunity? Personally, my answer is no. While admitting I don't follow the company quite as closely as I used to, I'd point you to two different things:

1. The bear case on SIRI, for years, has been "won't people just listen to music on their phones." And, for years, the ease of use of SIRI (plus the exclusives) has proved the haters wrong. My suspicion (and, again, I am not an industry expert!) is that is starting to change; the integration between phone and cars is getting really seamless (whenever I rent a car, I'm impressed by how easy Apple/Spotify connect), and at some point I think the explosion of podcasts (which cuts into SIRI's exclusives value) plus that ease of integration starts to finally chip away at SIRI. We may be seeing some of that currently: self-pay subs had a minor decrease in 2023, and I believe this is the first time they've ever reported a decline in paying subs.

    a. Maybe you'll say "one year of sub losses doesn't make a trend." And it's true there's a lot of noise in SIRI's recent numbers (in particular, SIRI adds subs through new cars, and remember we've had big new car shortages since COVID), so perhaps you could excuse those numbers. Perhaps. But as recently as 2021 SIRI was bragging about consistently growing subs by ~1m/year ("2021 was an outstanding year across the board. We added more than one million net new SiriusXM self-pay subscribers for the tenth time in the past 11 years; this growth continues to be sustained by a fifth straight year of improving churn."), and I'd love to point you to the cable stocks for what happens to businesses that go from consistent growth in a monopoly market to ex-growth in an increasingly competitive market (even if you can argue for noise or some type of unique environment limiting growth).



Source: KoyFin (YAVB readers get a 20% discount on KoyFin memberships)

2. Liberty's history with getting out of satellite businesses doesn't suggest SIRI has a rosy future. Liberty split out their DirecTV stake back in 2009. A few years later, AT&T bought DirecTV… right before the business completely fell off a cliff.

    a. looking at Liberty getting out of DirecTV just before it collapsed and wondering "man, Liberty has held this SIRI stake for a **loooooong** time; they could have If you're going long SIRI today (either on its own or through LSXMK), I'd be collapsed the tracker and exited years ago. Why are they doing it now? Is there something on horizon that's making them want to get out now?"

    b. Now, the counter to this would be that DirecTV stock actually did quite well between Liberty exiting and T completing the acquisition, so perhaps they don't have a perfect crystal ball or there's lots of value to be unlocked in SIRI as the street comes to appreciate the standalone story as a fully free float company.

Again, I'll note I'm no expert. Any discussion of SIRI's fundamental value has to include something about their spectrum value (which will likely get unlocked eventually and seems primed for today's wireless world), and the business as a whole has been proving the doubters wrong for years. Plus, it's pretty cheap. LSXMK filed the SIRI proxy at the end of January; they included the projections for the business below.

expressed in millions.

Link Download

	2023E	2024E	2025E
Revenue	$8,954	$8,750	$9,044
Cost of Services	$4,167	$4,090	$4,115
Gross Profit Margin	53.5%	53.3%	54.5%
Operating Expenses(1)	$6,168	$6,035	$6,177
Adjusted EBITDA(2)	$2,787	$2,715	$2,868
Free Cash Flow(3)	$1,203	$1,183	$1,500
Net Debt	$9,018	$9,222	$8,227
Issued and Outstanding Shares	3,839	3,687	3,687

(1) Operating Expenses is defined as total operating expenses excluding (i) stock-based compensation expense; (ii) depreciation and amortization; (iii) impairment, restructuring, and acquisition costs; and (iv) the impact of other expense (income), loss on extinguishment of debt, other non-cash charges, and legal settlements and reserves (if applicable). Impairment, restructuring, and acquisition costs are primarily related to leased office space abandonment and severance charges related to optimization of workforce and processes, and legal settlements.

(2) Adjusted EBITDA is defined as revenue less operating expenses.

(3) Free Cash Flow is defined as cash flow provided by operating activities, net of additions to property and equipment and purchases of other investments and includes the impact of (i) transaction expenses of approximately $11 million in 2023E, tax effected and (ii) interest under the Bridge Financing and/or Alternative Financing of approximately $42 million in 2024E and approximately $46 million in 2025E, tax effected. Excluded in 2024E is the impact of estimated transaction expenses of approximately $33 million, tax effected.

The following pro forma numbers were calculated by the Sirius XM Holdings management team assuming consummation of the Proposed Transaction:

Link Download

	2023E	2024E	2025E
Net Debt(4)	$9,018	$10,188	$9,196
Issued and Outstanding Shares	3,839	3,387	3,387

(4) Pro forma net debt includes indebtedness with respect to Liberty Media's 3.75% Convertible Senior Notes due 2028 that would be assumed in connection with the Transaction and indebtedness under the Bridge Financing and/or Alternative Financing and accounts for payoff of certain portions of the indebtedness with excess cash.

With SIRI trading for ~$3.61/share through LSXMK, the stock is currently trading at ~8x EBITDA and maybe a 10x FCF yield (dropping to 8x in 2025, and perhaps further beyond that if you believe their current capex cycle is over... though I'd suggest there's always another capex cycle on the horizon when it comes to telecom in general and particularly anything that touches satellites!). Note that I'm just using their 2024E shares outstanding and debt below to properly account for the transaction (so I do give them credit for this year's FCF if you're a stickler!).

Shares		3,387
LSXMK Implied Price	$	3.61
Market Cap	$	12,221
Net Debt	$	10,188
EV	$	22,409

	2024	2025
Adj. EBITDA	$ 2,715	$ 2,868
FCFE	$ 1,183	$ 1,500
EV / EBITDA	8.3x	7.8x
P / FCFE	10.3x	8.1x

That's pretty cheap; you could easily paint a story of "unique scaled business on the back end of a bunch of capex that's a free cash flow monster with Berkshire buying" to talk yourself into a bull thesis here... but I just feel like this is a terminal asset where the competitive forces have finally caught up to them, and that Liberty finally decided to exit seems to indicate to me that they see the end coming and are positioning themselves accordingly. Plus, as I'm fond of saying, you need to weigh the opportunity cost of anything you purchase, and while SIRI at ~8-10x free cash flow looks cheap-ish, I'd suggest there are plenty of other businesses with much less terminal value risk that are trading for a similar multiple.

So LSXMK is a pass for me... but that's just me! If you've got a differentiated view of the business (like Berkshire seems to), LSXMK could very well be a screaming opportunity!

P.S. One interesting thing I did not mention because I don't think it's really part of the fundamental case but it could create some near term tailwinds: SIRI is currently ~84% owned by LSXMK. After this deal goes through, they'll suddenly be a ~$12B market cap company with 100% free float... I would not be surprised to see them get added to a bunch of indices soon after this deal closes, which could put a little bit of a tailwind into the stock.

Continue reading here.

Notable executive departures disclosed this month (from The Bear Cave)...

1. CEO of **Cannae Holdings** (NYSE: CNNE — $1.46 billion) resigned after four years and will be replaced by the company's Chairman, William P. Foley II.

2. Toan Huynh, board member of **New York Community Bancorp** (NYSE: NYCB — $3.54 billion), resigned after a little over one year because "she is pursuing other interests." Ms. Huynh also previously served on the board of Sunlight Financial Holdings for two years until the firm's October 2023 bankruptcy. New York Community Bancorp stock is down ~50% in the last month over loan loss and liquidity concerns.

3. President of **Funko** (NASDAQ: FNKO — $396 million), who also previously served as the company's CEO, resigned "for Good Reason" after a little over one year. The company has had four different CEOs and four different CFOs in the last four years.

4. Chief Operating Officer of **Anywhere Real Estate Inc** (NYSE: HOUS — $782 million) "stepped down" after two years.

5. General Counsel of **Emerald Holding Inc** (NYSE: EEX — $423 million) departed after two and a half years. The company's Chief Operating Officer also departed after five years.

6. Chief Operating Officer of **Instacart** (NASDAQ: CART — $7.50 billion) resigned after three years and the company "does not plan to hire or appoint a new Chief Operating Officer at this time." The company is down ~10% since its September 2023 IPO.

7. Chief Legal Officer of **International Money Express Inc** (NASDAQ: IMXI — $726 million) resigned "effective immediately" after three years. The company is up ~110% since its July 2018 SPAC merger. In September 2020, the company's CFO resigned "in order to accept a position as Chief Financial Officer of BlockFi."

8. Walter G. Lohr Jr., board member of **Danaher Corp** (NYSE: DHR — $185 billion), "decided not to stand for reelection" after 41 years of service. Danaher stock is up ~192,000% since Mr. Lohr Jr., a former assistant attorney general for the State of Maryland, joined the board in 1983.

Continue reading here.

Here's a list of event-driven trade ideas that are potentially actionable today (from ToffCap)...

SPIN-OFFS (and related)

- ***Maersk (MAERSKB Denmark)***. Will spin Svitzer Group in the near-term (effective spin date April 30). Very profitable unit (c. $250m ebitda in 2023 at almost 30% margins).
- ***Glatfelter (GLT US).*** Lots of action at GLT and Berry Global (BERY) given spin + assets movements. Some comments here on the situation.
- ***Grupo Televisa (TV US (ADR))***. Mexico's Grupo Televisa is set to launch the spin-off of its sports, gaming and some editorial operations in February, to focus on its core business. TV's share price is bobbling at multi-year lows.
  UPDATE: A reminder that the spin date is Feb. 20. This should be a relatively small spin (and thus interesting to keep an eye on).

STRATEGIC ALTERNATIVES (potential take-outs, asset sales, M&A, etc.)

- ***Talis Biomedical (TLIS US)***. Interesting set-up from @InvestSpecial. Talis is undergoing a strategic review and is now basically a cash shell trading at an unusually large discount (>50%) to its current net cash. Most of the workforce already laid off and liquidation seems imminent. Greenlight holds ~8%.
- ***DMC Global (BOOM US)***. Small diversified industrial company heavily levered to energy recently announced strategic alternatives for 2 of its 3 business lines, including DynaEnergetics, which many consider its crown jewel. Decent balance sheet, trades under book (though tangible book is negligible) and near 5-year low price. Recently refinanced. H/t @theotheraharon for the idea.
- ***Luxfer Holdings (LXFR US)***. Small industrial/materials conglomerate with several niche businesses of various attractiveness says it will update shareholders on "strategic review to unlock value" at its next earnings call in late February, if not before. OK balance sheet, trading right around all-time low. H/t @theotheraharon for the idea (yes - the third idea!).
- ***Premier (PINC US)***. Completed its strategic review. Premier announced a $1bn buyback (roughly 40% of market cap) of which $400m accelerated share repurchase. Trading at <6× 2024e ev/ebitda (though not much growth) and very cash flow generative.
- ***Green Plains (GPRE US).*** Announced it will evaluate strategic alternatives. Activist Ancora is pushing for a sale of the company.

- ***The Children's Place (PLCE US)***. Announced it will evaluate strategic alternatives (should new financing efforts fail). Mithaq Capital took >50% of equity and aid restructuring efforts.
- ***Frontier Communications Parent (FYBR US)***. Pursuing strategic alternatives.
- ***ContextLogic (WISH US)***. Exploring strategic alternatives. WISH has ~$440m net cash on the b/s for a market cap of $120m. Plus, activist shareholder involvement.
  UPDATE: Review completed. To sell all assets and liabilities for $137m (c. +33% since first mention in TMM).

LARGE BUYBACKS, INSIDER PURCHASES

- ***Chegg (CHGG US)***. Increased buyback authorization by $ 200m (to ~$ 290m) - on a c. $ 1.2bn market cap.
  UPDATE: Continues to buy back shares at a very high pace.
- ***ChampionX (CHX US).*** Announced a $750m buyback, roughly 13% of the market cap (16/02).
- ***Mattel (MAT US)***. Announced a $1bn buyback, roughly 15% of the market cap (16/02).
- ***Aurinia Pharma (AUPH US)***. Announced a $150m buyback, roughly 19% of the market cap (16/02). Aurinia recently dropped >30% after concluding its strateguc review without a sale. The company has a $250m net cash position and strongly growing revenues.
- ***AMTD Idea Group (AMTD US (ADR))***. Announced a $20m buyback, roughly 18% of the market cap (16/02). Didn't dive into this one, but shares got decimated over the past year while earnings increased a ton. Trading at <1x p/e according to BB(?!)
- ***Garrett Motion (GTX US)***. Announced a $350m buyback, roughly 16% of the market cap (16/02).
- ***Patterson UTI-Energy (PTEN US)***. Announced a $1bn buyback, roughly 20% of the market cap (16/02). Very cash flow generative company.

- ***Vishay Intertechnology (VSH US)***. Announced a $1bn buyback, roughly 20% of shares outstanding (16/02). VHS has a net cash b/s and is trading at roughly 7x 2024e ev/ebitda (16/02).

MISCELLANEOUS (liquidations, merger arb., out-of-bankruptcy, uplistings, etc.)

- ***OCI (OCI NA)***. One of the modest interesting opportunities on our screens for 2024 in the larger mid-cap space. OCI is trading at 2.5-3x ev/ebitda on a pro-forma basis after the announcement of two large division sales. Peers are trading at 5-7x (on what I would argue are low multiples). Our tweet.
- ***Aclaris Therapeutics (ACRS US)***. We highlight this write up on Aclaris from our friend Amadeus Value. An intriguing busted biotech situation ($1.15 share price, $81.53m market cap, >$1.5m USD ADTV). Upside estimate of +27-58%, or assuming a six-month resolution, IRR's of >70%. Some action over the past week to check out though.
- ***Pershing Square (PSHZF US)***. Interesting post from @marginofdanger on Pershing Square discussing the mechanics for a potential large reduction of the holding discount.
- ***ZimVie (ZIMV US)***. Valuation burdened by large debt and declining spine business (though healthy dental business). End of last year ZimVie announced to sell the a transaction entire spine business to HIG Capital ($375m, $315m cash and $60m PIK note). Sale eliminated both issues. Story now much simpler but market and analysts still need to catch up. Large rerating potential.
- ***Guerbet (GBT France)***. Family-controlled French maker of (primarily) contrast mediums for medical imagining with significant US operations. Stock at year highs (down ~50% in last 5 years), up 30% in the past month, at the recent death of founder's son, on presumed speculation that it will be acquired. Still quite cheap on various metrics. H/t @theotheraharon for the idea.
- ***William Penn Bancorporation (WMPN US)***. William Penn will come out of second step thrift conversion next month making it acquirable. Thrifts average P/B 1.2-1.3. Currently trading at .9. Has been buying back a lot of stock the last few years. H/t @BrockBriggs for the idea.
- ***SoftwareOne (SWON Switzerland)***. Once again reports that the company is for sale.

- ***Ayala Pharma (ADXS US)***. Ayala will sell assets related to its AL101 and AL102 programs (constituting basically all assets) to Immunome (IMNM) for $20m cash, 2,175,489 IMNM shares (worth c. 50m as at 16/02) and up to $37.5m in cash contingency. Ayala had $4m net cash as at Q4 23 (pro forma Biosight merger) and roughly 41.5m s/o after convert and warrant conversion. That implies a $1.7-2.6 p/s (excl wc movements). Current share price is $0.60 (16/02).

- ***QSAM Biosciences (QSAM US)***. Signed a merger agreement with Telix Pharma (TLX) for $33m (stock of cash) and contingent value rights of up $90m within 10 years of closing. Transaction expected to complete in H1 24.

- ***JetBlue Airways (JBLU US)***. We note that Carl Icahn announced to have taken 10% in JetBlue. Needless to say a lot going on here.

- ***DSM-Firmenich (DSFIR Netherlands)***. DSM-Firmenich announced it will separate (probably sell) its Animal Health Unit. Very interesting, as this unit has been the main culprit of the bad results. With ANH gone, the result of the company is much higher quality. To note that DSFIR trades at ~30% discount to Givaudan (GIVN).

- ***Sable Offshore (SOC US)***. SPAC Flame Acquisition is very near to close a deal with Sable Offshore. The details and valuations seem attractive (though will depend on the share redemption). Very strong pre-close spac share price action. H/t @CorneliaLake for more background (incl. a spaces on X).
  UPDATE: De-SPAC completed. Renamed Sable Offshore.

Continue reading here.

PRECIOUS METALS

Gold has been defying the sharp rise in interest rates. Here's why (from Goehring & Rozencwajg Natural Resource Market Insights)...

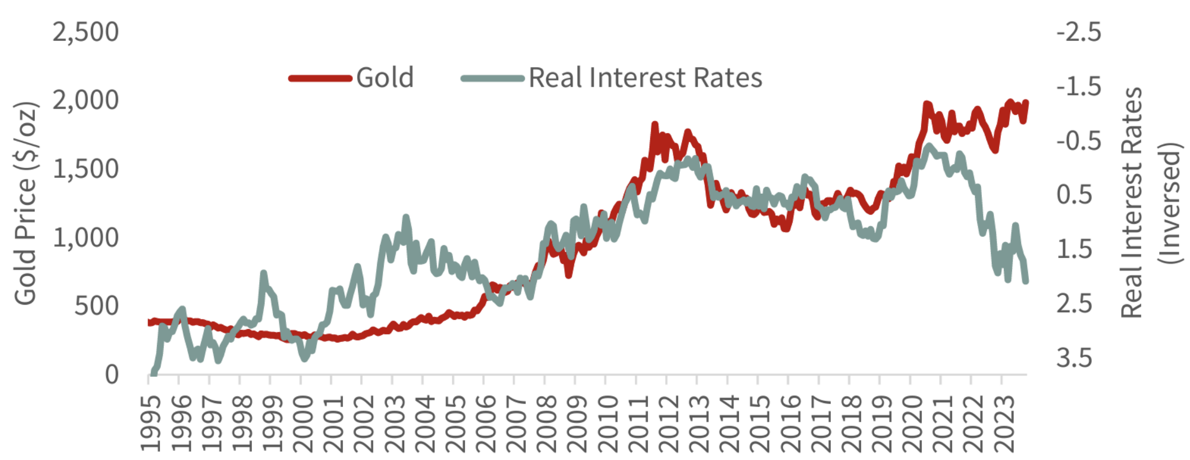
Real interest rates and gold have always moved in opposite directions. When real interest rates rise, gold falls, and when real rates fall, gold rises.

Over the last three years, this relationship broke down. Real interest rates bottomed at -2.3% in the summer of 2021 and surged to +2.9% by late 2023 – the highest rate in twenty-five years. Given the record surge in real rates, gold should have suffered a punishing bear market. Instead, gold is only 2% below its 2020 peak despite a 400 bps rise in real rates.

What does this divergence signal?

Western investors are behaving as they have in the past rising real rate cycles: they are selling gold. We track eighteen physical gold ETFs, and the relationship between real rates and gold accumulation is clear. The last time real interest rates rose was between 2012 and 2016, during which period Western investors liquidated over 1,000 tonnes from the physical ETFs, causing gold to fall 45%. Since the summer of 2020, real rates have again surged, and Western investors have predictably shed 760 tonnes of gold. Somehow, gold remains near its all-time high.

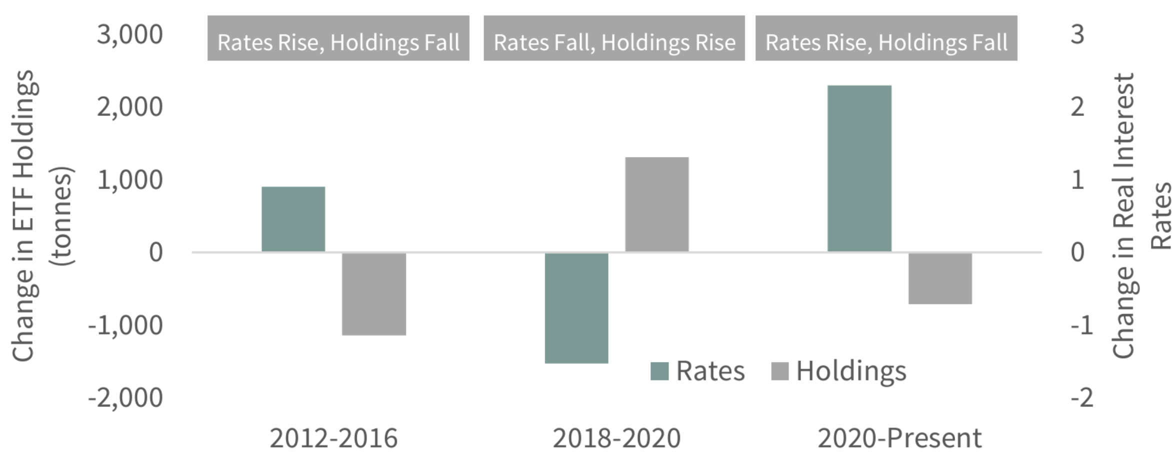
FIGURE 12 Real Interest Rates & Gold



Source: St. Louis Fed, Bloomberg.

The difference is central banks. Over the last several years, central banks have gone on a massive gold-buying spree. Last year, central banks accumulated 1,136 tonnes – a record as far back as our dataset goes. This year, they have continued to accumulate. For the first nine months of 2023, the World Gold Council (WGC) reports central banks purchased an additional 800 tonnes of gold, with 337 tonnes coming in the third quarter alone. Year-to-date, central bank gold purchases are up 14% compared to last year. China remained the most significant gold buyer, purchasing 78 tonnes in the third quarter. For the first nine months of 2023, the PBOC bought a massive 181 tonnes.

FIGURE 13 ETF Holdings & Real Rates



Source: St. Louis Fed, Bloomberg.

We believe strong central bank buying will continue. We commented on the relationship between radical commodity price under-valuations and monetary regime changes in past letters. Please refer to our 1Q23 essay, "The US Reserve Currency & Commodities," for an in-depth discussion. The last three periods of radical commodity undervaluation (late 1920s, late 1960s, and late 1990s) saw a significant change in the global monetary regime.

In 1930, Britain left the classical gold standard, which had been in place for almost 200 years. The shock caused the US to devalue the dollar by 60% in 1933 and later default by eliminating the gold convertibility clause embedded in all Treasury debt. In 1968, President Johnson removed the requirement that gold back 25% of each US dollar. By 1971, President Nixon closed the US gold window and ended the Bretton Wood's gold exchange regime entirely. The era of exchanging currencies into gold was over, and commodity prices spent the next decade soaring.

The 1997 Asian currency crisis ended the pegging of major Asian currencies to the US dollar. After their currencies collapsed, these countries (most conspicuously China) suppressed their exchange rates, turning current account deficits into substantial current account surpluses, ultimately leading to the great housing price bubble and the Global Financial Crisis.

Although few historians have documented the relationship between commodity bear markets and monetary regime shifts, we believe low commodity prices ultimately lead to changes in the global monetary order.

The 1920s experienced a considerable commodity bear market—prices from 1920 to 1930 fell by 70%. The result was a decade of deflation, particularly in agricultural commodities.

The lack of inflationary pressure allowed the Federal Reserve to experiment with the first attempts at what today we would call quantitative easing. First, in 1924 and again in 1927, the Fed lowered rates despite strong domestic economic growth to help support Britain's attempt to go back on gold at the pre-World War I rate.

Excessive US monetary growth destabilized the financial system, resulting in the 1929 stock market crash, a global banking crisis, and, ultimately, the Great Depression.

Throughout the 1960s, commodities (especially oil) drifted lower, again becoming radically undervalued. Like in the 1920s, the lack of inflation allowed the US to run simultaneous monetary and fiscal expansions to fund the Vietnam War and President Johnson's "Great Society" program. Expansionary monetary and fiscal policies again produced massive distortions. US dollar holdings by foreign countries soared, and equity markets exploded in a prolonged period of significant speculation. The result was the collapse of the Bretton Woods Gold Exchange Standard, once the US could no longer honor its commitment to exchange US dollars gold at the $35 per ounce rate.

Finally, in the 1990s, a severe commodity bear market allowed the US to put the "Greenspan Put" in place. The Federal Reserve could meet every consecutive financial crisis with low-interest rates and money printing, with minimal inflationary impact. Loose monetary policy again resulted in massive financial speculation, the eventual collapse of the Long-Term Capital Management hedge fund, the Asian currency crisis, Russia's default, and, ultimately, the dot-com bubble's collapse.

Our research tells us the necessary conditions for a monetary regime change are back in place. The huge bear market in commodities last decade allowed the Fed to experiment with three periods of quantitative easing, resulting in an unprecedented six-fold increase in its balance sheet, with minimal inflationary pressure.

However, with global tensions now straining a financial system already severely distorted by zero interest rates and the return of persistent inflation, we believe a monetary regime change is imminent.

The big question is what will emerge to replace today's fiat floating-exchange rate US dollar reserve currency system.

We believe a new monetary system will emerge in which countries can trade bilaterally in currencies other than the US dollar, settling their current account imbalances using gold.

Brazil has already agreed to settle its Chinese soybean and iron sales in renminbi, while Saudi Arabia is also considering settling its Chinese oil sales in renminbi. Total Energies has agreed to sell LNG to China, settled in renminbi.

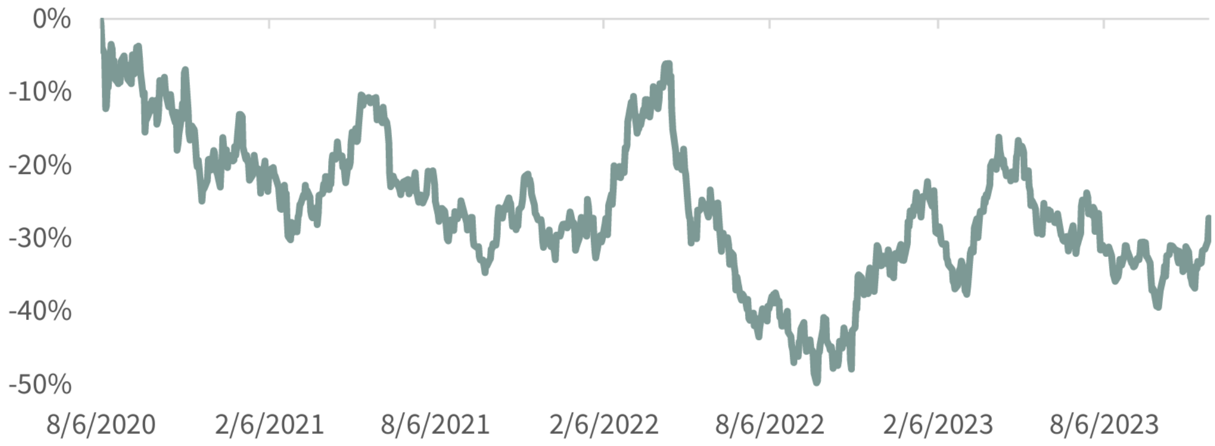
China's closed capital account makes it impossible to repatriate excess renminbi. However, if current account imbalances were settled by selling renminbi for gold at the Shanghai International Gold Exchange, then imbalances could be settled entirely outside China's closed capital account.

China's ultimate goal is to weaken the reserve currency status of the US dollar. Given its closed capital account, this goal is nearly impossible. However, if renminbi imbalances were settled in a liquid, easily convertible asset class, like gold, then China would be on its way to weakening the grip of the US dollar as a global reserve currency.

After decades of excessive monetary growth and globalization, trade imbalances now dwarf the size of the global gold market. If a new monetary system emerged in which gold was used to settle trade imbalances, central banks would have to continue accumulating gold, driving prices higher.

Although real interest rates continue to inch higher, and Westerners continue to sell gold, all this selling is being met by Central Bank purchasing. Once Western investors stop selling gold and begin accumulating, their buying will quickly bump up against Central Bank demand.

FIGURE 14 GDX Performance



Source: Bloomberg.

The next leg of the gold bull market is likely to begin at that moment. We are getting closer and closer, and we continue recommending investors maintain significant precious metals exposure. Physical gold has significantly outperformed precious metals equities, as Western investors have been selling both physical and equities.

Gold stocks (as measured by the GDX ETF) are down almost 30% from the 2020 peaks. Silver stocks, as measured by the SIL ETF, have pulled back even more—they have now pulled back 40%, and both represent excellent value.

Continue reading here.

Gold is "coiling" for a big move (from Markets & Mayhem via X)...

Not sure on the direction just yet, but I'd be more inclined to say higher vs lower.

The biggest catalyst for that would be a sustained move lower in rates, and the strong demand at Treasury auctions as well as geopolitical tensions rising could bring that upside move about.

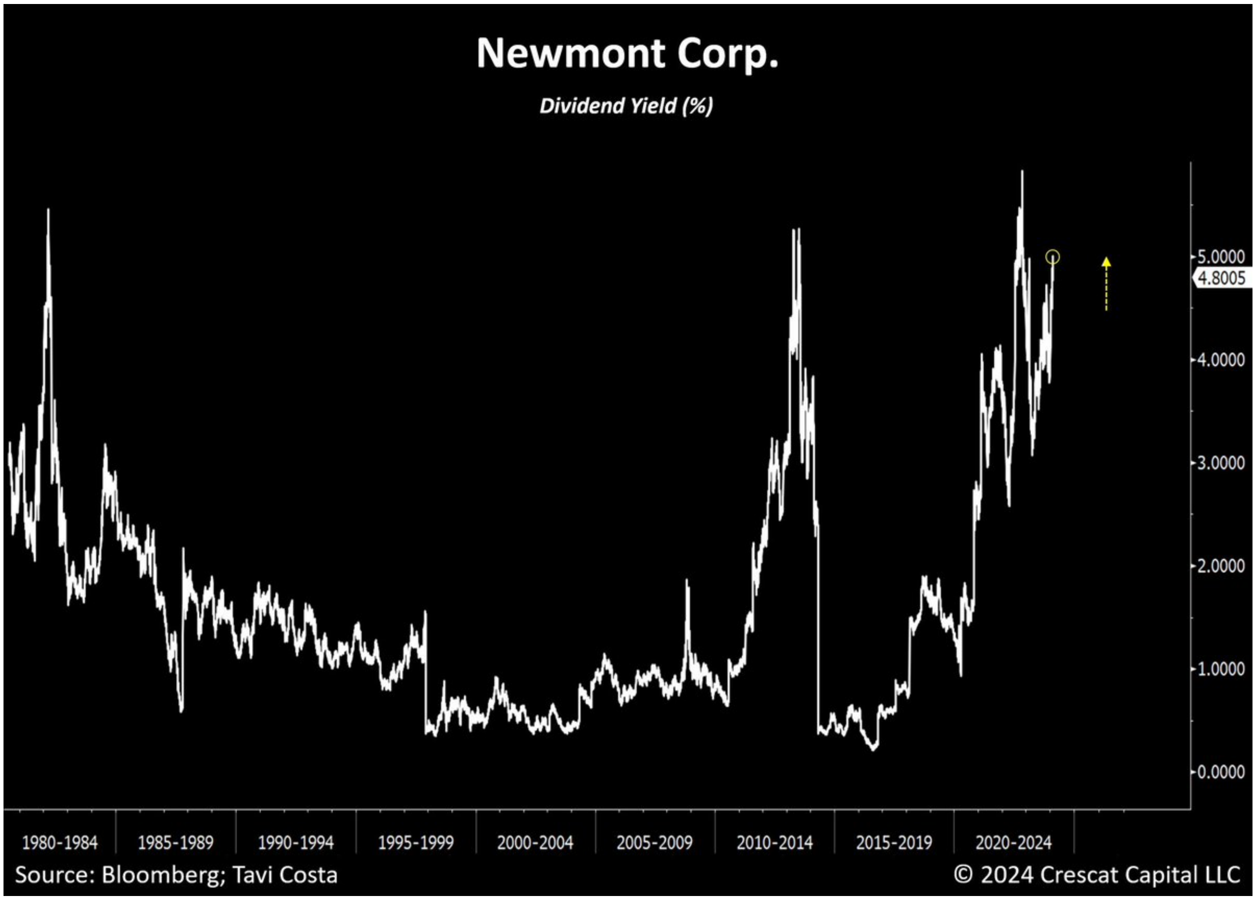
Gold miners are so undervalued that even their dividend yields are near their highest levels in history ([from Otavio (Tavi) Costa via X](#))...

While there may be more opportunistic ways to deploy capital in such a distressed environment, this reminds me of the energy sector in 2020 before having two years of exceptional performance.

Even precious metals' "experts" are throwing in the towel recently.

Now is not the time to lose sight.

This could be one of the greatest opportunities I've seen in my career.



The decline of the U.S. empire has profound implications for the value of the U.S. dollar (and gold) (from Myrmikan Research)...

A unipolar world is more stable than a multi-polar world but is also more fragile. As the U.S. sinks under the weight of taxes, bureaucracy and regulation, debasement, and unrestrained immigration—the same pathologies that doomed Rome—its ability to project power declines. We see this currently in the Red Sea.

The Red Sea is adjacent to the Suez Canal, through which 15% of global shipping passes. Since mid-November an Iranian-backed Yemeni rebel group called the Houthis (which controls a large portion of Yemen) has been hijacking and firing missiles at ships transiting the Red Sea.

Upholding its hegemonic role, the U.S. navy began accompanying ships transiting the Red Sea. In other words, maritime trade retreated from the open seas of imperial eras to the convoys of antiquity. And the convoys do not even work: on January 24, the U.S. government announced that a U.S. destroyer had intercepted two missiles aimed at a merchant ship "while another landed in the water." The press release did not mention that the one in the water narrowly missed the merchant ship (in other words, it got through the missile defense system), that the ship abandoned its transit, and that the ships owner, Maersk, one of the largest shipping companies in the world, announced that all of its ships would now travel around the horn of Africa instead of through the Red Sea.

Freightos reports that container rates from China to the U.S. East Coast have increased 174% since October; Asia to Northern Europe is up 333%. The Houthis are targeting only Western-aligned ships. Chinese ships may traverse the canal and the Red Sea unmolested, which greatly favors Chinese economic interests and demonstrates the neo-mercantilist nature of Chinese economic and political strategy: China is competitive with the West, not collaborative.

Turmoil in the Red Sea is a direct challenge to American interests in the Middle East. Local actors sense that the hegemon is weak after Biden's humiliating surrender in Afghanistan and the embarrassing defeat of American weaponry and tactics in the Ukraine. American bases are under constant attack, and American bombing campaigns have had little effect.

With America's military increasingly tied down in regional conflicts, other actors may become emboldened to challenge the Western order. *The Wall Street Journal* reports that Venezuela is "moving light tanks, missile-equipped patrol boats and armored carriers" to its border with Guyana, a small county with vast oil reserves that has attracted billions in U.S. investment. France can no longer control commodity-rich West Africa, and the U.S. must decide whether or not to expend resources opposing growing Russian influence. China is facing the overdue collapse of its financial system and may well choose to channel domestic fury into a conflict over Taiwan.

American power faces another threat beyond its decreasing ability to project power because of domestic decline: the navy is using missiles that cost $2 million each to shoot down Houthi drones that cost a few thousand dollars each. Similarly, $10+ million tanks in Ukraine are being destroyed by $3,000 Chinese drones.

This radical asymmetry in costs may bring profound changes to the foundations of the global political structure. It was the cannonball that enabled the nation state; before that invention the city wall enabled a small number of defenders to hold up a large army, which inhibited the amalgamation of dukedoms and principalities into Nations.

If swarms of $3,000 drones can overwhelm the enormously expensive fixed capital of the U.S. military, such as tanks and naval ships, the technological ability of the imperial force to maintain order comes into question. This story is not yet written— perhaps drone warfare will develop in such a way such that the ability to outlay large amounts of capital will still be decisive, bolstering a world order in which one or a few powers dominate; yet the Ukrainian adventure has demonstrated that a relatively weak Russia is more able than the West to concentrate its economic production towards an effective military without damaging its civilian economy.

Whether because of military technology or Western cultural decay, it is clear that the stability of trade routes enforced by American imperium is waning. Trading costs will increase and the global economy will suffer; less wealth will detract further from the ability to maintain trade routes, which will further detract from wealth. Meanwhile, China and Russia are expanding the trade routes under their influence through large investments in infrastructure and in their militaries.

America is in a relatively good position to withstand the ebb of globalism, being an enormous market with plentiful natural resources (though only if businesses are allowed to access them). But America is not self-sufficient. Commodities and goods that it now imports cheaply will cost a lot more, either because of much higher transaction costs or the added cost of domestic production. The virtuous cycle described by Hume begins to go into reverse.

As costs increase, the administration will turn increasingly to price controls. Biden tweeted on the eve of the Super Bowl: "While you were Super Bowl shopping, did you notice smaller-than-usual products where the price stays the same? Folks are calling it Shrinkflation and it means companies are giving you less for every dollar you spend. I'm calling on the big consumer brands to put a stop to it." He also told oil companies "we will not tolerate . . . profiteering or price gouging" after he cut Russian supply from the market. These are just threats for the moment, but the administration or the next will follow the examples of Obama, Carter, Nixon, FDR, Robespierre, and Diocletian when the second wave of inflation hits. We know this because price controls are one of the most pervasive features of government, as related in Bob Schuettinger's marvelous book *Forty Centuries of Wage and Price Controls*.

Prices, which Hayek called "a mechanism for communicating information," broadcast the precise balance of scarcity and marginal demand. The more static that is added to that information, the less traders can make rational decisions. The diminution of international trade thus leads to conditions that undermine individual trade, leaving society barely above tribal forms. Tribal societies organize wealth by identity, not merit, so it should be no surprise to see this primitive form of social organization reestablishing itself.

The retreat of American geopolitical dominance does not mean by itself that the dollar will lose its position as the reserve currency. The Byzantine nomisma, as an example, was the preferred currency in Europe after the fall of Rome even though the Byzantine Empire had little economic influence and no political or religious authority. A sixth-century ad trader noted: "Every nation conducts its commerce with their nomisma, which is acceptable in every place from one end of the earth to the other... In no other nation does such a thing exist."

But the nomisma was a gold coin minted to a standard that remained fixed for seven hundred years. It had solid economic value. The dollar began as a modern nomisma—in 1940, gold formed 85% of the Federal Reserve's assets—but it is now a unit of liability of an insolvent central bank. Its value is political, not economic. Its massive overvaluation compared to its true worth allows America to acquire foreign goods and commodities at much reduced cost, the "exorbitant privilege" that Jacques Rueff complained about. The world was willing to subsidize American purchases because of the enormous profits gleaned from the free flow of capital and goods that the American imperium provided. If the U.S. retreats from its role, the burden of supporting the dollar will bring less benefit and make countries question why they are paying the subsidy.

Instead of resisting the decline of the political project known as the dollar, the incompetent Biden administration is exacerbating it. When America was strong, even its enemies wanted to hold dollars, cementing U.S. power: In a strange twist of history, the Eurodollar market (which gives the dollar its international strength) began in the 1950s when the Soviet Union wanted to hold U.S. dollars outside of U.S. banks, and the European banks obliged, creating offshore dollar deposits and then debt. When the Biden administration froze and then proposed to confiscate Russian reserves, it undermined the dollar's political value. Putin was entirely correct when he told Tucker Carlson:

> The dollar is the cornerstone of the United States' power. I think everyone understands very well that, no matter how many dollars are printed, they are quickly dispersed all over the world. Inflation in the United States is minimal. It is about 3 or 3.4 per cent, which is, I think, totally acceptable for the U.S. But they won't stop printing. What does the debt of US$33 trillion tell us about? It is about the issuance.
>
> Nevertheless, it is the main weapon used by the United States to maintain its power across the world. As soon as the political leadership decided to use the U.S. dollar as a political instrument, a blow was dealt to this American power. I don't want to use any unliterary expressions, but this is stupidity and a huge mistake.
>
> Look at what is going on in the world. Even the United States' allies are now downsizing their dollar reserves. Seeing this, everyone starts looking for ways to protect themselves. But the fact that the United States applies restrictive measures to certain countries, such as placing restrictions on transactions, freezing assets, etc., causes grave concern and sends a signal to the whole world.

What did we have here? Until 2022, about 80 percent of Russia's foreign trade transactions were made in U.S. dollars and euros. US dollars accounted for approximately 50 percent of our transactions with third countries, while currently it is down to 13 per cent. It was not us who banned the use of the U.S. dollar, we had no such intention. It was the decision of the United States to restrict our transactions in U.S. dollars. I think it is a complete foolishness from the point of view of the interests of the United States itself and its taxpayers, as it damages the U.S. economy, undermines the power of the United States across the world.

By the way, our transactions in yuan accounted for about 3 per cent. Today, 34 percent of our transactions are made in rubles, and about as much, a little over 34 per cent, in yuan.

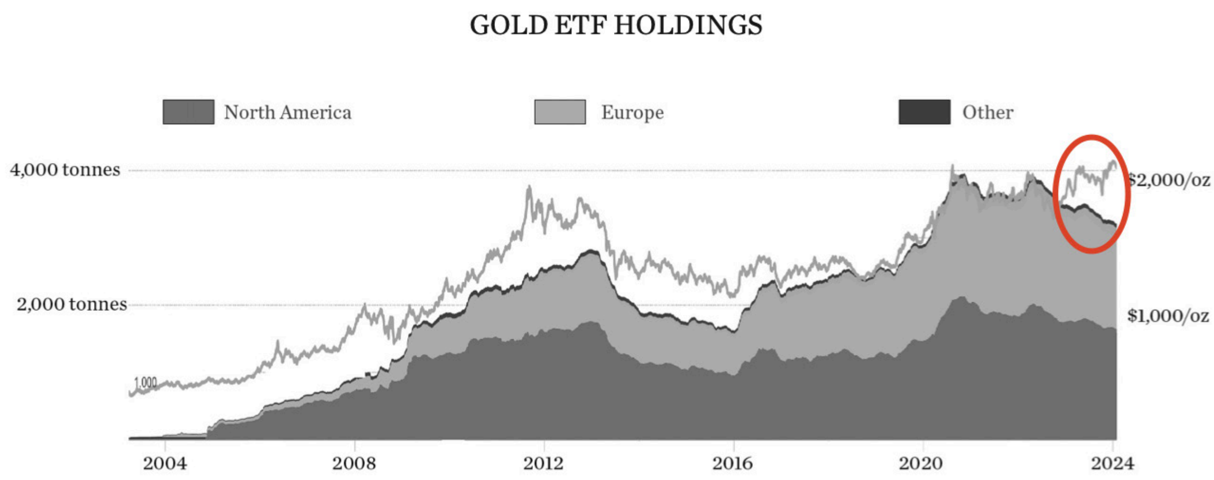
Why did the United States do this? My only guess is self-conceit. They probably thought it would lead to a full collapse, but nothing collapsed. Moreover, other countries, including oil producers, are thinking of and already accepting payments for oil in yuan. Do you even realize what is going on or not? Does anyone in the United States realize this? What are you doing? You are cutting yourself off... all experts say this. Ask any intelligent and thinking person in the United States what the dollar means for the U.S.? You are killing it with your own hands.

The embryonic movement away from the U.S. dollar can be seen not only in Russia's ability to sell oil in non-dollar terms and increasing international yuan-based debt (5.8% of global finance in September up from 3.9% a year earlier, a 49% increase in just twelve months), but also in the divergence of the gold price from Western speculation.

For many years, bank analysts argued that higher nominal rates send the gold price lower since gold has no income and higher rates increase the opportunity cost of holding it. This theory, though wrong, fit the data since 1980. As Myrmikan has pointed out many times, in the 1970s nominal rates correlated with gold because as rates increased, the interest rate-sensitive assets that the Fed holds lost value, and so the dollar (its liability) must lose value as well against gold, which is free-market money. What changed starting in the 1980s was the enormous increase in off-shore

U.S. dollar debt via the Eurodollar market, which meant that increasing rates required non-U.S. borrowers to demand more dollars to meet interest payments. Myrmikan has long argued that when that relationship reverts, when rising interest rates cause the market more concern about the Fed's asset value than the financing needs of foreign borrowers, the dollar's value will rapidly decline to its economic value. Gold will need to trade up to $10,000/oz at least to balance the Fed's balance sheet.

The chart below shows that the gold price in U.S. dollars has more or less tracked Western ETF flows, until a dramatic divergence began in 2022. Western investors are dishoarding gold with higher rates, yet the dollar price keeps increasing because of non-Western buying.



Barter is preferable to the use of money in that traders get the thing that they want immediately. But barter's inefficiency limits its use to primitive economies. Money is therefore used out of necessity. The U.S. dollar became the global standard as the gold-backed currency of a rising power because it had the most liquidity. The Biden administration is undermining the three main pillars of the dollar's value: enormous deficits detract from the dollar's economic value; the decreasing ability of America's military to maintain the safety of trade routes makes countries reluctant to subsidize the U.S. empire by buying its Treasury bonds, which decreases its political value; and Russian asset seizures increase the risk-adjusted costs of holding dollars, decreasing its liquidity.

"There is a great deal of ruin in a nation," Adam Smith advised. The still dominant position of the U.S. dollar across the enormity of the global economy may lull many into the comforting expectation that the effects of U.S. policy will be felt only over the long term. Note, however, that necessity allowed Russia to shift its economy from dollars to yuan and rubles in only a year. If Russia and China treat foreign traders fairly, and offer better protection for trade, large portions of the globe will shift their allegiances "to protect themselves." The uninformed will be shocked by the suddenness of the change when it manifests, even though the ruin of the U.S has been accelerating for decades. Gold is the only geopolitically neutral financial asset. It is the only sure safe haven for Western investors. How ironic that they are selling it fast when they need it most.

Continue reading here.

Platinum could dramatically outperform gold in the years ahead ([from Graddhy – Commodities TA+Cycles via X](#))...

That´s a 22-year, perfect, bullish falling wedge.

Even before I called the commodities bear market low back in 2020, I said platinum will outperform gold+silver in the coming bull ⇒ pioneering platinum case on #fintwit

If gold is x7 from here, imagine where #platinum will be.

Don't rule out a big rally in gold miners (from Gary Savage via X)...

Unsophisticated traders that have no understanding of history or how markets work now believe that because miners have been going down for years it means they can never go up.

Miners had been going down for 2 decades in 2000, did that mean they could never go up again? Keep in mind gold had been in a bear market at the time. Currently gold is in a secular bull market which makes the undervaluation in miners even more egregious.

In case your math is a little fuzzy, that was a 19X gain in the HUI during the last bull market when everyone was thinking the same thing as they are now; that mining is a dead business and every mining company is going to go bankrupt...

We are going to get the buy of the decade at this intermediate cycle low (probably in March, maybe after the FOMC meeting).

ENERGY

Here's a transcript of the great "peak cheap oil" debate between Doomberg and Adam Rozencwajg last month (from Adam Taggart's Thoughtful Money)...

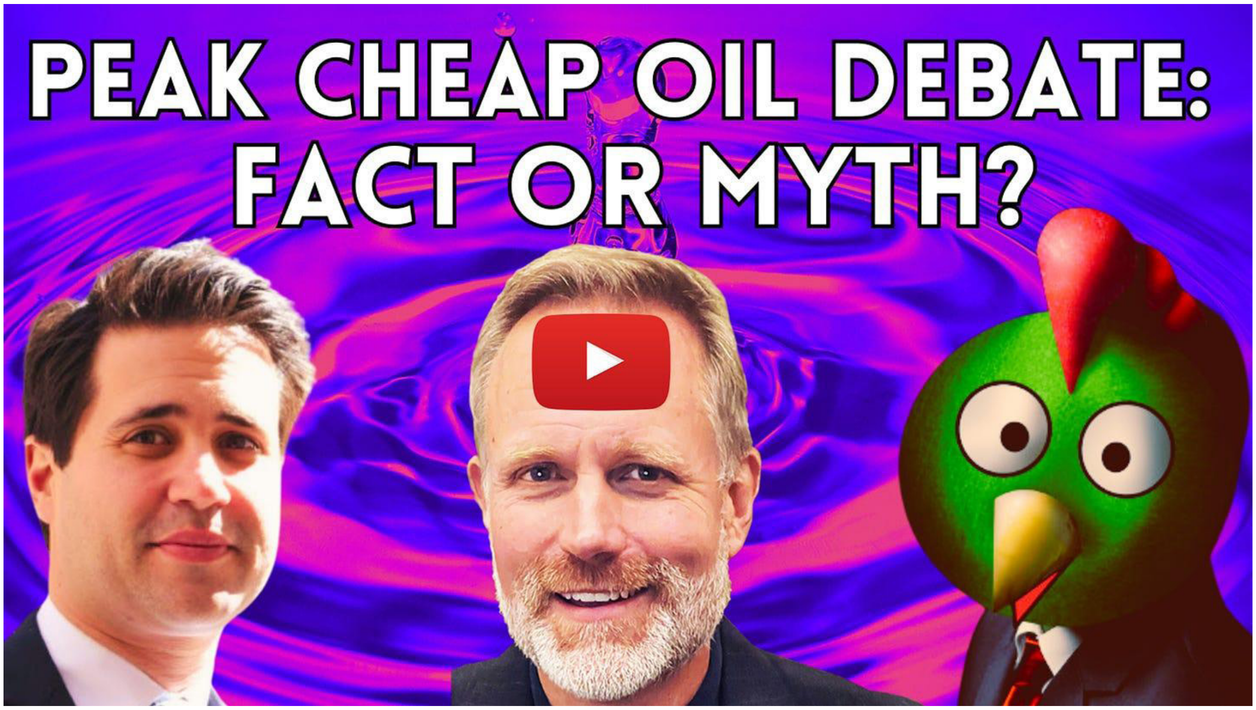
A month ago, energy analyst Doomberg published a report titled Peak Cheap Oil Is A Myth, and a few weeks back, I interviewed him about it.

To say it ruffled feathers would be a huge understatement.

Those in the Peak Cheap Oil camp have clamored for a chance to respond to Doomberg's claims, and that's exactly what we've arranged for here in today's video.

Today, **Adam Rozencwajg**, Managing Partner of Goering & Rozencwajg, natural resource investors, sits down for a discussion with **Doomberg** -- which will moderated by yours truly -- to debate, or better "co-explore", the question: ***Looking at the next 50 years, is the threat of Peak Cheap Oil fact or overblown fear?***

To watch this excellent, respectful debate on this very important topic, click here or on the image below:



Full Transcript: Doomberg vs Adam Rozencwajg (recorded 1.23.24)

Because the point of this debate is for the viewer to determine which points by each speaker they agree with most, I didn't want to color the process (directly or indirectly) with the summarization my standard Notes provide. Instead, I'll let the experts' own words speak for themselves by providing you with the full transcript of the discussion below.

Adam Taggart 0:02 A month ago, energy analyst Doomberg published a report titled Peak Cheap Oil is a Myth. And a few weeks back, I interviewed him about it. To say it ruffled feathers would be a huge understatement. Those in the Peak Cheap Oil camp have clamored for a chance to respond to Doomberg's claims. And that's exactly what we're going to do here in this video. Today Adam Rosensweig, managing partner of Goering and Rosenzweig, natural resource investors, sits down for a discussion with Doomberg, which will be moderated by yours truly, to debate — or better, "co-explore" the question: *Looking at the next 50 years is the threat of Peak Cheap Oil fact or overblown fear?* Gentlemen, thank you so much for joining us today.

Adam Rozencwajg 0:54 Well, thank you so much for having me. Really excited to be here.

Doomberg 0:57 Yeah, same here, I must say other than Corolla, I think I'm talking to two of my favorite Adams in the world. So it's gonna be a fantastic discussion.

Adam Taggart 1:05 All right, well, we'll have to get Adam Carolla on for the next one. Well, gentlemen, thank you so much for joining me today. As I mentioned in the intro, a lot of interest was stirred up by your recent report, Doomberg. When you and I had recorded our interview, we noted that there was probably going to be some response. And there certainly was! We also talked about the idea of bringing on somebody who could argue the other side of the story. At the time you said, your preference for that worthy opponent would be Adam Rosenzweig. And not three or four hours after we had that discussion Adam actually reached out to you to say, "I'd actually like to talk about this". So it seems like this discussion was written in the stars. A lot of people been following this topic over the past couple of weeks and I'm so glad that you both agreed to sit down with me today and hash through it. I've got a progression of questions I'd like to try to get through, but we'll let the conversation go where it will. My hope is at the end of it, the audience has a very clear understanding of the points upon which you both agree, and the areas in which you differ — and where you differ, *why* you differ. So gentlemen, without further ado, let's let's just jump right in. And maybe we can do that by just defining for the audience a few things. First off, what is Peak Cheap Oil? And why are those who are concerned about it worried? Adam, let's start with you to set the table.

Adam Rozencwajg 2:31 That sounds great. I'm very excited to be talking with both of you today. You know, Doomberg, we read all of your writings, we've spoken on a panel or two in the past as well. And we think that your work is very, very good. It's always easier to disagree with people when you don't admire their work than to have a different opinion when you do admire their work. But I think today, it'll be exciting to go through some of the things that we agree on, and some of the things that we have a little bit of a different approach on. Because ultimately, there's a lot of overlap. There's a lot of commonality. But I think our conclusions are dramatically different. So it should make for a really interesting discussion. When we talk about the end of Peak Cheap Oil, what we're really talking about are the work of M. King Hubbert. For those of you who are unaware, M. King Hubbert was a Shell geologist, who was very prolific in the 1950s. And he made some very controversial claims, and both in his lifetime and then even after his death, his views and his research have always been mired in controversy. So I think it's very fitting that here we are today talking and debating about the same issues that have been debated for quite some time. So I'm going to share my screen for a second here. In this chart, you'll see what was effectively the culmination of a lot of his work. And that was to tie together the concept of reserves and production. Makes sense. It's simple on the face: the idea that your total peak production rate of a field or of a given hydrocarbon basin would ultimately be determined by how much recoverable reserves are there. The bigger the field, the more it could produce, the higher the production rate, and the longer it could sustain that rate. One of his views was that once half the reserves of a field had been produced, the field would then "peak" in its production and rollover. And using these theories in these doctrines, M. King Hubbard got up in front of a meeting of the American Petroleum Institute in the late 1950s and made the prediction that by 1970, US production (which had to that point had been a big big growth driver and global non-OPEC oil production and global oil production, since this predates OPEC) would peak in 1970. Very controversial. So everyone waited with bated breath for the next 20 years or so, and sure enough, right on cue, in 1971 oil production in the United States peaked and began to roll over. It kept rolling over all the way until the late 2000s. By 2005, we saw another huge resurgence in the views in the research of M. King Hubbert and "peak oil" and "Hubbert's peak", made famous by Matt Simmons' who wrote *Twilight In The Desert*, made famous by TheOilDrum.com and things of that nature. It was becoming a Wall Street obsession and favorite topic, which should always make anybody a little bit nervous because no sooner than everyone had sort of internalized peak oil, then this happened: The United States' oil production all of a sudden started to grow. Not only did it grow, it surged. It went from about four and a half million barrels all the way up to the 13 million barrels that we have today, the most unbelievable turnaround in the history of hydrocarbons. And why? Well, of course, it's because of the shales. But what goes much less discussed is the idea that if you look only at conventional production in the United States, meaning not shale production, you take out the shales, you'll see that in fact, for the last 12 years post 2008/2009, US conventional production has continued to follow its Hubbert curve. It has continued to decline and decline and decline. And what we've done is we filled in the shales right on top of that now — there's no taking away the importance in the impacts of the shales. In the last 15 years, they have been absolutely everything for global oil markets. But the real question, I think before us today is — here on the left — you have the Hubbert peak for conventional US oil. And on the right, you have the shale production rising up until now. And the question is whether this will continue to grow, whether it will continue to provide ample growth, to meet global demand and to meet declines elsewhere? Or is what we're looking at here a secondary Hubbert curve, when you treat the shales in the conventional independently. That's what we're talking about when we talk about peak oil is the idea of whether or not the shales will ultimately follow a lot of the same geological constraints and considerations that the conventional oil production in the United States has. And if it does, does that mean that this major growth driver, in fact, the only growth driver over the last 15 years, is now potentially behind us? In that type of a world prices stay higher for longer, we end up in a very, very tight energy market. And I think you have a very, very strong bull run for commodities and for energy going forward. Now, one thing we don't think Peak Oil Peak Cheap Oil is, and I just want to be clear on this, you know, we're not inherently Malthusian, we're not Cassandras that think the world is going to end. And in fact, there have been Peak Oil scares in the past. Some have been right and some have been wrong. But ultimately, I do think we resolve out of these situations over a long enough time period, I don't think we're going to go back to living in a pre-industrialized age, although Germany is trying to do that as we speak now. But what I do think is that the era of abundant cheap energy that we've enjoyed for the last 15 years, where we brought on 13 million barrels a day effectively of unexpected production online, is not going to be repeated in the next 15 or 20 years. And I think that we're gonna have a very, very tight market because of that.

Adam Taggart 8:23 Doomberg, I'm gonna give you a chance to respond in just a second. A couple quick questions for you, Adam. First is, just to underscore the point you just made, you're not predicting in any sort of way a Mad Max or World Made By Hand kind of dystopian future here, where we run out of energy. You're just saying that for the reasons you just mentioned, supply is going to get increasingly marginally harder and more expensive to extract. And that, again, on the margin, oil will become more expensive as we go into the future, on average, correct? So we'll just have a little bit less available to us each year to drive our economy as time goes on.

Adam Rozencwajg 9:05 Yeah, that's right. And you know, I think if you want to take one step back, so yes, I think that's exactly right, Adam, I don't expect that we're going to go back to a Mad Max, post apocalyptic world. I don't think that that's where we're headed. I think that our best days lie ahead of us. And I think our most energy abundant days lie ahead of us. But there's going to be major major dislocations as we find ourselves in an energy-constrained and an energy-tight world. And I should point out, everything in energy markets is all set on the marginal unit of supply and demand. So when we talk about surpluses, we're talking about a market that's never more than 1% in surplus, and a deficit that sees prices rise 10-fold is never more than 1 or 2% in deficit. So everything's set on the margin. And I think on the margin, in the last 15 years, you can safely say you've been running into additional supply. It's been easier and easier and easier than anyone had expected in any given moment, to bring on new production. I think that's what's changing now — it's going to become more and more and more and more difficult. So yes, the the changes will feel subtle, they're not going to run into a wall apocalyptically. But for investors for consumers, the price action could be quite dramatic.

Adam Taggart 10:15 One last question. Before we get to Doomberg who I know you're chomping at the bit. You talked about M. King Hubbard's Peak Oil theory where conventional fields peak on a bell curve, right? Then you showed how production took off with the shale basins. Shale wells, they don't really decline on a on a gradual bell curve like conventional wells do, right? They tend to decline much more asymptotically. Is that accurate?

Adam Rozencwajg 10:41 So it is. And it isn't. So yes, Hang on one second. I'm just going to share one more slide that I think really, a picture says 1000 words here. Here you have some of the earliest shale fields, the Barnett which exhibits a very, very, very interesting bell shaped curve much more than I think anyone had expected from a tight oil, tight gas reserves, and the Fayetteville which is even more so. And I have a couple others in the EagleFord in the Bakken, which are a little bit noisier largely due to the effects of COVID. And here's the Permian. So the Permian is the big wildcard. Will this end up looking like a bell-shaped curve or not? And I think that's one of the most fascinating peculiarities and subtleties here with the shales. Given the fact that they're completely different geologically, the fact that you're fracturing, stimulating rock that effectively has no porosity and no permeability, and that you're introducing artificial stimulation, you have these huge flush productions, and then they've declined 90%. Yet the overall shale fields seem to exhibit exactly the same tendencies as a conventional oil field. Well, and I do think that that's one of the most interesting nuances that very, very few people appreciate. So yeah, the shale wells are completely different. They have completely different systems. They have different pathways and different matrix control contributions to production. And yet, there they are they, they seem to at least for the earliest ones that have now been in production for about 10 or 12 years to generate a lot of the similar depletion trends that the conventional fields do.

Adam Taggart 12:17 I appreciate you clarifying that, just because I know that some of the peak oil folks say, yeah, we're having this party in shale right now. But it's going to disappear a lot faster because of the asymptotic nature. You're saying that, so far at least, looking at the data, the shales seem to be following a similar deplation bell curve as the conventional fields. All right. Great. Thanks, Doomberg, you've been very patient. Let me give you a chance to respond to Adam's opening there.

Doomberg 12:41 You bet. And let me begin by reiterating what we said at the beginning. Very happy to be here. I really love Adam's work and the G&R team and I read everything they put out as well. My objective is not to be right; the objective is to learn where the differences in our views lie, and then let the audience decide in their own way of where they think the world is headed. So I would say that I agree with almost everything that Adam just said. But I would point out a few inconvenient facts for the Peak Cheap Oil crowd. And I would say that Adam's definition of Peak Cheap Oil is a little more reasonable than some of the hyperbole that we see out there, in the Twitter community in particular and on some of the more less balanced YouTube channels than your show, for example, Adam Taggart. Hubbard was largely correct about conventional oil production in the US, and it did peak in 1971. And I would point out that integrated across the world, the globe was producing 48 million barrels a day of oil in 1970. Now, the US peaking in its production had huge ramifications for the world. The US ultimately removed itself from the gold standard. I believe that the common belief in Washington DC that the US had, in fact, irreversibly confronted Peak Oil led to many of the disastrous foreign adventures that the country has embarked upon in the past 50 years. And another thing is the oil production of the world has basically doubled since then. So Hubbard was completely right about US conventional oil production. And yet, on the larger picture, the picture that mattered to the global economy, Peak Cheap Oil was nowhere in sight. It is always the case that certain fields that are currently being exploited that account for the totality, or a significant portion of marginal production, they will eventually roll over — no oil field is inexhaustible. But for the reasons we articulated on our last appearance on your show, Adam Taggart, I just think that folks jumped to the conclusion that an important contributor to today's energy mix is possibly going to rollover, that this signals a meaningful change in the long arc of oil production. and around the world is is an assumption that I think has proven wrong for the past 50 years, and we see nothing on the immediate horizon that would make us assume that would be the case today. One final data point, if you could pull up the inflation adjusted price of oil chart, as Adam Rozecwajg correctly mentioned, the last time that we had such a mania around Peak Cheap oil, and we reached the all time high price, both nominally and adjusted for inflation was in fact, at the beginning of the Global Financial Crisis. And since that time, we've added 20 million barrels a day of oil production and, and a huge amount of natural gas production around the world. Nobody would argue that the global financial crisis wasn't real wasn't substantial wasn't impactful, but measured over decades, it was essentially meaningless in the overall global production of primary energy units. And I would say that this chart that we've produced, is very difficult for people in the Peak Cheap Oil crowd to explain away. This is the inflation adjusted price of oil using the Bloomberg indices. And show me on the chart where Peak Cheap Oil is being called by the market? Oil today is priced at a reasonable balance. And I should say, the inflation numbers used to create this chart are the official US government CPI statistics, which I think many in the Peak Cheap Oil community would argue radically understate the inflation that we've all experienced. Both can't be true. Because if that's true, then oil is even cheaper on an inflation adjusted basis in this chart shows. If we were truly on the edge of a tectonic shift in the production of primary energy, I just don't think that we would be seeing the prices we're currently seeing.

Adam Rozencwajg 16:46 Well, I find that really fascinating point, a couple of things that I would be interested to respond to. If you look at that inflation-adjusted oil price chart again, the last time you had oil prices at these comparable levels was just as non-OPEC supply was slowing in 2005. And you did have that big run up to which would nominally make it $145 barrel oil. And you did have major major slowing in the non-OPEC oil supply base, which was saved really only by the completely unexpected ramp up of the shales. And so Doomberg, as you and I have talked about, when we were chatting in the lead up to this call, you know, I think always and forever in energy markets, the key is to be looking sort of trying your best to look around the next corner and see where the next potential source of new supply will be. Because clearly in our mind, we can talk all about the shales at great length, we've done a lot of work on the shales, I think the shales are and continue to be extremely misunderstood by many people in the market. And, and a good example of that is that most people now are talking about this surging supply in the fourth quarter of last year from the shales. It's just not in the data, I don't know where people are getting their numbers from, it's just frankly, not in any of the official or in the well by well or in the public company data. So the shales continue to be really misunderstood. But you go back to 1970. And you go back to 2005. There was a huge amount of ingenuity, there's a huge amount of engineering prowess being put to work in the oil patch. And yet that didn't stop oil prices from 1970, effectively going up 11-fold from $3 to $35 and in 2000 to 2005, going from $11 to $145. There was a huge amount of effort looking for the next field, there's a huge amount of effort trying to develop new production to, as you said, counteract the depletion of a major source of existing supply. But in 1970 it wasn't enough to overcome the slowing of the major source of western world oil supply, which was the United States, and nothing could really overcome that. And that's why prices ended up rallying 11-fold. And in 2005, as the non-OPEC bloc in general was beginning to slow prices again started to move up again on a factor of about 10. As OPEC began to gain pricing power and market share since 2010 there's been no such tensions at all, because as you rightly mentioned, the US has basically brought on — when you include NGLS, which I know is a whole other point in this conversation — you basically brought on 20 million barrels of oil from from the shale. So we have been running into oil for the last 15 years. And that's why prices have been weak. And that's why prices, as you rightly pointed out on an inflation adjusted-basis, remain weak. But if we start to get that first derivative inflection, where the rate of change of the growth begins to turn negative production peaks and rolls over in the shales, the only source of growth. I think that that begins to undo that OPEC begins to gain market share price losing power and you have a totally new regime until you bring on a new source of supply, which right now is unclear where it will come from.

Doomberg 20:06 And, Adam, if I may, I agree with almost everything you just said. And I think this is an important point to draw out the crises that followed the peaking of US production in the 1970s, or the crisis that led to the global financial crisis in the mid to mid to late 2000s, were not episodes of Peak Cheap Oil, they were precursors to a period of relative energy shortage that led to massive moves in the price of oil. And if that were to happen today, which we freely admit is entirely possible, our argument is that would not constitute Peak Cheap Oil. It would constitute a temporary crisis of energy shortage that would very quickly, as it has always done, be corrected, initially by destruction of demand and economic contraction. But eventually, by the deployment of new technology, the loosening of politics, the widening of the definition of oil, and so on, such that the long term price of oil will regress to the historical mean. And so I don't think we're actually disagreeing on the main point, I readily admit that we are currently in a period of relative energy excess driven predominantly by marginal production in the shale patch. And if that were to change in a timeframe that makes it difficult for the rest of the world to step up supply or to wipe away political constraints or to implement new technologies, we would certainly be in a multi-year energy bull market. But our view is that is very far away from calling the long term top of Peak Cheap Oil. And our prediction is by 2040, we will be producing meaningfully more oil than we are today — the path function from here to there might be rocky, some people might make a lot of money, some people might lose a lot of money. But the long arc of the human endeavor is we will grind out more primary energy every year, not less. And we see nothing on the horizon that would substantially change that. And final point, is if we were having this discussion in 2008, during the mania, the Simmons famous bet that we described in our piece, none of us would have any idea that shale was on the horizon and would have the impact that it did. Which basically just says we don't know what it will be that saves humanity from Peak Cheap Oil, but it'll be something we have some thoughts on, which we can get into. But I would say Sure that we could have a meaningful crisis. And I guess it comes down to a matter of degree. How big of a crisis would we need to see in the next, say, two to three years? For the Doomberg side to tip the hat and say, yep, you know, for practical purpose we were we were wrong in our analysis, or vice versa, like how small a crisis would the Peak Cheap Oil crowd have to see before production rebounded in a variety of ways before they would say yeah, okay, maybe we've still got 20,30, 40 or 50 years still to go on this incredible journey?

Adam Rozencwajg 23:00 Well, and I suppose you know, that's where ultimately we find our greatest point of overlap and our greatest point of divergence. I also believe that human ingenuity and engineers will find a way through this and our best days lie ahead of us from both an energy consumption perspective. And from a GDP and an economic development perspective. I suppose using the past cycles is a interesting point of reference in history. If you take out the -$40 print that we had in the heart of COVID, let's call $20 a reasonable low for this cycle. And $27 was the low made in 2016. You basically had a couple of months at that price and 20 bucks through COVID as well. So let's call it $20 The cycle low. And if you rose 11 fold off at 20 to $220 in this cycle, because of a supply issue and the inability to meaningfully bring on new production to be able to meet global demand growth and or a period of curtailment from OPEC, because of their feeling that they had retained pricing power and market share. I would consider that an "energy tight" market. I would consider that a market of which we are not awash in oil, in which we're not readily running into new supplies. Whether or not you ring the bell and call it the top of Peak Cheap Oil, I think with crude at $200 there's probably a little victory lap that comes from the folks that were calling for some type of Peak Oil and and this is where definitions can get confounded and mixed up and to some extent it makes all the difference is how you define these things. And to some extent it's a little bit like you know it when you see it. So I think if we get if we get a price spike, if we move forward, if there's a feeling that it's very difficult to bring on the marginal barrel of supply if inventories continue to trend lower than I do think that that the Peak Cheap Oil people could put a little feather in their cap. 50 years from now, I bet we're certainly producing more energy, of that I have absolutely no doubt. I tend to think we're probably going to be producing more oil as well, mostly because it's the most efficient form (absent nuclear of energy) that we can meaningfully harness and use. And so, yeah, I think that prices will send the right signal, I think that engineers will do their thing. And I think we'll probably will resolve in 30 years from now, with production, I would suspect a little bit higher than we are today.

Adam Taggart 25:37 Let me let me dig into that point you just made for a second, Adam. So if if we're talking about Peak Cheap Oil, but you're kind of agreeing that in 50 years or so, using that as the timeline here, that we're going to be producing more oil? And you've said our better days are ahead of us? So how worried are you about? I think a lot of people are gonna say, Well, wait a minute, I was kind of thinking we'd have less oil, or at least, you know, much more expensive oil. And that would be shrinking GDP, or at least preventing GDP from from rising much.

Adam Rozencwajg 26:12 Well, I do think it's going to be, but I do think it's going to be much more expensive. And I think if you look at right now with the resource and the reserve of the world as it is today, it doesn't immediately jump out at you where you're going to boost production above where we are today, 102 million barrels per day, maybe you get 103, 104,105. But absent major new discoveries of which we have had scant few over the last 10 or 15 years, and absent the exporting of the US shale technologies to the rest of the world, which is a wonderful point that I think we need to discuss at length, it doesn't really immediately jump out, you can't put your finger and say, "Okay, I see exactly here the pathway to where we're going to get to 120". Does that mean we can't get to 120 barrels a day? Absolutely not. However, it probably does mean that you need to use the price mechanism to incentivize new investment and a new price cycle coming. And in that environment, you know, particularly as investors in that environment, that's effectively what we're looking for. And I'm a total optimist, you I don't think you can be an investor in equities without being a long term optimist. Certainly history is not on your side, if you're not a long term optimist. And I think our best days are ahead of us, because we're going to continue, as Doomberg said, to grind out year after year, additional sources of energy. Whether they're cheap, whether they're expensive, remains to be seen. And I think it's going to be put towards productive economic output, because at the end of the day, GDP is effectively just a different way of talking about energy. And so do you think you're going to produce more energy going forward? Well, that asks, Do you think the world is going to grow?, and I think, of course, the world will continue to grow. It's just going to be harder and harder to find oil on the marginal barrel of supply versus demand. I think things are looking tough. What I am a little bit pessimistic about is that I do think, when I look at what's going to end a bull run in crude, which is something I think is very important to look at any commodity that we look at, I don't think it's going to be as of right now, new supply that comes on and overwhelms this market. I think it's going to be demand destruction, I think it's going to be high prices that squeeze out the incremental barrel of demand for this cycle. And so I think that there's a period of time here where we need to work through it, that there's a period of time where prices move a lot higher. And I think there's a period of time where investors are going to be rewarded amply and richly for being involved in energy stocks, and particularly oil stocks.

Adam Taggart 28:36 All right, great. And again, I'm just trying to zero in on where the points of difference are here. Because I believe both both of you think there are cycles here where over the next couple of decades, there's going to be price spikes, there's going to be lows in price as well. Doomberg, if I remember correctly from our previous interview, you basically said over the next 50 years, you expect oil supply to increase on average about 2% a year. And that it will, on average, remain in the inflation-adjusted price band that we currently are in right now, right? You don't see a secularly higher real price of oil as we head off into the future. Adam, I think that's where you disagree, right? It sounds like you think that that on a real inflation-adjusted basis, the price of oil is going to grind higher. How about to Doomberg's 2% per annum supply prediction? Do you think that's too aggressive?

Doomberg 29:30 Can I just give one point of reference? That 2% per annum is integrated across oil and natural gas. Natural gas has been growing at a 2.5% CAGR since 1998. Almost in a straight line. And oil is probably closer to between one and one and a half, but integrated over the hydrocarbons. We are grinding out about 2% a year. So before Adam jumps in, I just wanted to make sure that I clarified the numerical references I was making in my own head last time we talked to him.

Adam Taggart 29:53 Great, thanks. And in a second I want to make sure we agree on a definition of "What is oil?" because Doomberg I know you have a bit of a different definition for it than a lot of the Peak Cheap Oil folks do. But Adam, did I describe it correctly, where you differ on Doomberg's price direction and supply prediction? Because 2% per annum compounds over 50 years. Do you think that's too rosy? Or do you think you guys are more aligned there than maybe I imagined?

Adam Rozencwajg 30:22 I think looking at it right now, that might be a little bit rosy, you know, with the caveat, just like Doomberg puts out his caveat that we're only a geopolitical event away from a crisis, I would put out the caveat that it's difficult to try to look around the corner to find the next undiscovered potential field. But as of right now, it looks as though we're going to enter into 2024 with likely declines across the shale basins, likely declines in the rest of the non-OPEC world. And so if I'm looking at the market for the next five to 10 years, which is sort of our investment time horizon, the main source of new supply is probably going to be the deepwater. And can the deepwater provide 2 million barrels per day per year of net growth in order to hit that 2% number? That seems high to me. And I know, I know, they're making distinctions between natural gas and oil. But actually, we think that a lot of the depletion that's taking place in crude oil is actually taking place in natural gas as well, which is even a more controversial comment, because even the peak oil guys think we have as much gas as we need. And but we're not so sure. So I think I think 2% is probably too rosy based on how we see things now.

Doomberg 31:35 So may I respond to a couple of the points that Adam has made?

Adam Taggart 31:39 Absolutely. Just to let you guys know, what I do want to get to relatively soon is your outlook for supply and demand. But before we get there, I do want you to give your definition of what oil is, Doomberg, just in case if Adam has a difference of opinion, we can hear that, too. But yes, go ahead.

Doomberg 31:56 A quick response to the last couple of points that Adam has made about where the new supply is going to come from. And then we could shift to the definition of oil and its uses and how there are other alternatives that smart engineers will implement in the face of $200 oil. I will say, I think $200 oil in the next five years is totally possible. And I just don't think that would mark Peak Cheap Oil. But where would the price of oil be today? If we weren't engaged in a proxy war with the world's most important energy exporter, Russia? Where would the price of oil be today? If we didn't have a kinetic conflict that we're basically directly involved in in the heart of the Middle East? Where would the price of oil be today if Venezuela hadn't lost 3 million barrels a day of production because of political chaos? I don't think anybody would argue that the decline in Venezuelan oil production has anything to do with geology. Where would the price of oil be if the discovery of oil offshore in Guyana was used as a catalyst to develop a more productive relationship with Venezuela in a way that allowed Guyana's resources to be developed and Venezuela's resources to recover? We could talk about Mexico. We could talk about political leadership changes in Canada leading to further exploitation of the tar sands in Alberta. Where would the price of oil be if OPEC hadn't voluntarily cut 2 million barrels, a day's worth of production? Where will the price of oil be if the shale resources in Russia and Argentina and even China eventually get properly exploited? I mean, I think there's all manner of relatively low-barrier changes to the way the world currently operates. That could very well bridge us for the next five to 10 years, even in the face of a relatively unexpected slowdown in the shale patch. That's that's our base case. If you want, I could pivot to what we think oil should be defined as.

Adam Rozencwajg 33:56 Well, Doomberg, I just want to say one thing to that because I find that's a fascinating set of comments. And I agree with you that when you do look through 2023 and into 2024, I would have expected a dust-up in Europe and a major conflict in the Middle East — dust up is obviously a bit of a of a glib term but you know, major kinetic war, like you said, in both continental Europe and in the Middle East — to have elicited higher price. I do find that a little bit curious to say the least. When I look at some of the releases from the SPR through 2020 to 2023. I think I can understand some of what was being glossed over with the Russian/Ukrainian conflict. But the problem with counterfactuals is that they're kind of difficult to argue against. They're kind of difficult to see the other side of and so what I would propose back to you is: where would oil prices be if we hadn't brought on nearly 20 million barrels of unexpected new supply 20% of global oil production from from the US back in 2010. I mean, no one had that in their models. George Mitchell of Mitchell Energy was down to his last dollar, having gone broke trying and trying and trying, you know, in a way that only American ingenuity allows for. And finally, in sort of his last gasp effort, was able to make horizontal drilling and hydrological fracturing work. And yet, here we are today, still with oil, basically, in its long term inflation-adjusted range. What happens if we lose that source of growth, which I believe is very, very likely based on the reserves of these massive fields that have been huge contributors, but are ultimately finite in nature? The same thing is true in gas. I mean, gas is just astounding, when you kind of think of the counterfactual. I remember back in 2009 — and this is may be a good segue into talking about what makes for oil in different forms of hydrocarbons — but all the way back in 2009, we had Woodmac, in our office, a big energy consultant firm and they were talking about the LNG market, we were really bullish on LNG, and they were super bearish on LNG at the time. And the reason they were so bearish on LNG was that Qatar was about to ramp up their major new RasGas3 or RasGas 4, whatever it was. This would be a huge new source of LNG onto the world stage. And it was going to massively massively overwhelm supply demand balances and prices would fall effectively to $0 to the marginal cost of supply, which was Qatari gas effectively free feedstock and just the cost to ship it. This was such a pervasive view that the United States actually built a massive import terminal to try to soak up all this free gas that would be floating on the water come summertime because we were the only country in the world that had salt dome storages. Okay, so how can you measure whether LNG on the water is cheap or not? The conventional wisdom is you look at its parity to crude oil six-to-one plus transportation, if it holds its oil link price, that's a view that that the LNG market is pretty tight, trading up to its oil premium. Otherwise, if it's a wash, then it'll break that price. So from 2010 what has happened? Well, not only did all the Qatari gas come on, not only did they doubly expand their LNG exports, but the world's biggest importer, the United States became the world's biggest exporter. So you had a double order of magnitude swing: the world's biggest importer shut off and a new world's biggest exporter was crowned. And yet, LNG over that entire time held its oil link price. There's a few exceptions based on weather, but for the most part, here we are today and it continues to hold its LNG price. And so some of these counterfactuals are a little bit difficult, like like “Where would LNG prices be if the United States was still importing, you know, six or seven bcf a day instead of exporting 13 or 14?” That's the huge contribution that these shales have brought to the world. And the fact that they're potentially beginning to slow, I think, has to be if the shales were the most important oil story of the last 15 years, the slowing of the shales, I worry, will be the most important oil story and gas story of the next 15.

Adam Taggart 38:11 All right, well, that raises some supply questions that I want to get to in terms of your outlooks. One being, the shale basins that you're largely referencing there, Adam, are ones in the US, right? So the big question is: are there geologies elsewhere in the world that could potentially be exploited? Before we get to that though, Doomberg: I just want to make sure that you guys are agreeing when you say the word “oil”. Can you give your definition of oil and Adam, if you want to react to that in any way, that'd be great.

Doomberg 38:43 So I think this is an important point. And one of them I think, ruffled a few feathers and a few loud voices out there are misconstruing what we said, and certainly what we meant when we said it on your show, perhaps having not read what we actually wrote in our pieces. And one of the things that we have around here is, we're always happy to defend what we what we wrote, but not what you think you read. Because sometimes, amazingly, they can be very different things. If you want to understand what the proper definition of oil is, the first thing you have to understand is what is it used for. And in the vast majority of use cases, setting aside the 6 or 7% that is transformed into chemicals, oil is burned in engines to do work. That's a very broad definition of oil. And right now, the world has billions of machines and engines that burn oil to do work. And those machines are tuned to receive certain refined products. So a diesel engine can't run on gasoline and a gasoline engine can't run on diesel. And so on. And so, our refinery network, the global refinery network, its job is to convert hydrocarbons into those well-specified products. And so for today, our definition of oil is any hydrocarbon that finds its way into a refinery. And I think as refineries become more are flexible, chemists and chemical engineers work their magic when feedstocks are abundant because no refinery could really use them. Inventions and investments are made in order to close that molecular arbitrage. If heavy oil is plentiful, what you see is refineries investing in sulfur removal technologies where they might not have had to do so before because they were built to handle light, sweet crude. And so on. And over time, as refiners become more flexible, the variety of hydrocarbons that can find their way in either directly or through blending to displace what traditional crude oil had provided the market, the definition of oil necessarily must broaden. And so it's interesting that Adam bifurcated the conventional oil and the shale oil, as though they were meaningfully different. But I would argue that as refineries become more flexible and can adapt to the molecular arbitrage on offer, as you know, abundant feedstocks are cheap and feedstocks can be refined today get more expensive, those things tend to converge over time. Now, over the long run, we have a whole other handle we could pull, which is something we're publishing on tomorrow, which will be out before this podcast publishes I suspect, which is you could just change the engines. And in fact, you could run most of the engines on natural gas directly. We could run cars on natural gas, we could run long haul trucks, we could run mining equipment, ag equipment, we can even run cargo shipping vessels on natural gas if we had to. Now that would involve some financial investment. But as long as natural gas is cheaper than refined products, you could skip the refinery step and just use natural gas directly. And in the US where we have an unexpected glut at $2.35 as we're recording this podcast per million BTUs. I mean, a million BTUs natural gas in the US costs less than a six pack of nuggets at McDonald's. It will get put to use. People would change their engines and run their cars and their trucks on natural gas in a true crisis. If we did see $250, $300, $500 oil, like some people predict, the more violent the crisis in our view, the quicker the snapback. And that means that in the longest of long terms, all hydrocarbons will be oil and they will effectively trade for the same price that is the ultimate endpoint of the deflationary machine. That is modern technology.

Adam Taggart 42:27 All right. That is a pretty bold stick in the ground in terms of what oil is. I'm curious. Adam, do you agree? Strongly disagree? What what's your reaction?

Adam Rozencwajg 42:38 No, It's funny, you know, I don't find it to be that bold of a commentary at all. I mean, to the extent, you know, nobody consumes crude oil in an explicit sense, I suppose other than if you're a refinery. But when somebody says "Okay, Doomberg, Okay, Adam, what's your per capita oil consumption?" I mean, I don't know what you guys are doing with it. But for the most part, what you're consuming is vehicle miles traveled in a car. And so I completely agree that what we're looking at is the inherent energy in any of these fuels. And there are certain physical properties like the fact liquid crude oil has a certain amount of methane, a certain amount of various either hydrocarbons and tends to be a liquid of a various range of viscosities at room temperature. But other than that, what we're really getting after is the underlying energy that's contained in it. To some extent, I think it's a little bit of a moot point, because you do need to consider all the various sources of energy. And I don't think that we look at oil in a complete isolation from natural gas. And in fact, a lot of the trends that we see taking place and sort of peaking out of shale resources and crude oil is actually also taking place in gas. And actually, if you really want to look at it the the two fields that have had the biggest, most pronounced Hubbard style rollovers have been shale gas fields, not shale oil fields, so they're definitely subject to the same limitations. Now, one distinction, though, that I think is really important to make is that while we have a degree of flexibility, and while we can change crude slates or we can add byproducts, or we can start to strip out NGLs from liquid-rich streams and begin to reprocess them, and the refining system is this unbelievable optimizer that kind of sits in the middle of the value chain and of the supply chain. While that's all true, there are two distinctions here in my mind, because I was thinking about it as you were talking how to really frame this. The one would be if we ran into a new source of hydrocarbon: let's say we found a new shale oil field or a new shale gas field, and it had various properties that were not exactly consistent or conforming with the current refining slate and the refining complexities, meaning the refiners can't easily take that new source of oil or that new source of gas. Well, ultimately, over a fairly short term you would end up with a system in which that new source of energy — which was very, very efficient, because you're it's a new virgin field producing it really flesh rates — would find its way into the system through tweaks and through engineering changes to allow for that. And ultimately, probably would end up in greater than trend economic growth, to effectively use that new source of energy. That would be kind of one side of the of the equation. And I think that's kind of the world that you're envisioning here, where we're broadening our scope, engineering acumen is allowing us to now treat NGLS gas, oil is not quite fungible, but nearly fungible. And then, as you put it, at the end of this deflationary path, you'll have complete energy parity, because we'll have abundance throughout the different supply chains and the ability to go back and forth. And I would say you got to compare and contrast that with actually a lot of the historical precedent of things like Gas to Liquids. And, you know, as we've discussed in the past, Gas to Liquids was really engineered first in Germany during World War Two as a solution to get around the fact that they didn't have readily available supplies of crude oil to make aviation fuel. And then secondly in South Africa as an attempt to get around apartheid state sanctions and inabilities to access global energy markets from a crude basis. And in that case, what you're doing is turning natural gas or coal into a synthetic gasoline. So that kind of fits your build, too, right? That over time, we'll be able to get what we need through the system. But that's inherently done from a position of scarcity, because you have to do it with very poor energy efficiency and very poor energetics. Versus we're running into huge new supplies of feedstock, we're awash in a new superlight condensate and so we're going to change the slates to be able to accommodate that. I see us going more in the in the the first example that I gave you, the sort of Germany/South Africa example, where we're coming at it from a position of supply scarcity, and we do what we have to do to get what we need. But to me that's inherently inflationary, as opposed to, I think your view of the world where we have this expanded view, because we're just awash and everything, and we need the flexibility to go back and forth and we have a culmination of a deflationary event in energy. So I think I think the the logic is the same, but again, our expected outcomes are really, really different. Because I just don't think that we're running into new molecules anymore.

Doomberg 47:53 So let me give you a standard debate tactic, which is a yes..and. So I actually agree with everything that you said. And those two examples from history are instructive, because they do identify what we would do if situations got bad enough. And the technology exists and we have continued to perfect it over time — I would argue what Shell is doing at the Pearl GTL plant is different than what the Nazis were doing in World War Two out of necessity. But we have an even more recent example, which I think is very instructive as to what quote/unquote we would do if your predictions in the shale patch and in the US do pan out. And it's the European energy crisis of 2001-22. And what did they do? They scoured the world for every molecule of energy they could get their hands on, regardless of carbon footprint, regardless of price and regardless of impact on emerging markets. And, in fact, Germany, retreated to using coal on a massive scale to buttress the worst impacts, to shave the worst risks of the energy crisis. And I think the US would do much the same. I think the US would limit exports of all manner of refined products and LNG. I think we would quickly ramp back up coal production and use coal to produce electricity to offset natural gas that would be otherwise used for those efforts. I think this gets to the second category of why we think the repertoire of responses available to humanity to a temporary period of relative energy shortage would involve a wiping away of politics. Like there's strong support for coal in the US. There's huge controversy about its phase out, even if it's being replaced with natural gas. And I think a lot of that would get wiped away if we did see $200, $250 oil and the inevitable recession that would that would follow. And so I think the European example — and look, this is Germany, the global capital of the green energy transition — because of one year's worth of crisis, where oil leaped to $130 a barrel roughly, but most importantly natural gas hit unbelievable numbers tenfold type numbers like Adam explained earlier is possible $100 per million BTUs natural gas in Europe, intraday high at the top. Really remarkable. What did they do? They suffered economically and they still are, through their own, I think idiotic policies, but they immediately wiped away political constraints to getting their hands on any hydrocarbon that would work. And as I think we both agree, it doesn't take about 2 to 3 million barrels either way to swing the market violently from -$27 A barrel to +$130 a barrel like we saw during the COVID emergency and they in the era that followed. And so I think there are things we should we would do, we wouldn't need to do them at scale. If we did 5 million barrels a day of GTL, that would probably buy us a decade. You know, I think if we got serious about developing all the conventional resources, like I talked about earlier, that really are just inherently constrained by politics, I think $200 a barrel oil would would wipe away those political constraints. And so humans have an amazing way to regress to the mean. And the the production of energy resources, like oil and natural gas and NGLS and condensates and even coal is an upward sloping curve with a bit of a sine wave to it.

Adam Rozencwajg 51:19 Well, look, you know, I think, again, with so many of these details I agree totally. But I guess in some, it's the perspective and it's the conclusions between us that is a little bit different. So, you know, if oil prices went to $200, and the United States feared a normalization of its US natural gas price with world prices, which then led to an export ban on LNG — leading to effectively a pretty tough spot for most NATO countries who have come to rely on a US LNG backstop to help offset Russian production, thereby exporting what we're seeing here in the United States to the rest of the world —I would call that pretty pessimistic and kind of in my vein of what I would worry about for energy crisis in the next five years. So if coming out of the back of that, we end up with low energy prices, I don't know that I would consider that a defeat. Particularly because as you and I will find something else to agree on, when we go down the path and we look ultimately, 2030 years out, I think we both agree on the unbelievable high efficiency and low carbon footprint of nuclear power and uranium. And so I think we all know where we need to get eventually. And that's why ultimately, I am quite optimistic and bullish long term. I think our best days do lie ahead of us because if you look through human history, there was two major inflection points in human history and both of them corresponded to a step-change in energy efficiency. The first is when we went from hunting and gathering to domesticated farm life and that was commensurate give or take a couple of 1000 years with the written word and civilization as we know it. And then the second was civilization was basically static for the next 3000+ years, until we moved from that to a grain based die and using animal locomotion to burning coal and using fossil fuels. And we went from an ROI of 5-to-1 to 30-to-1, well, with nuclear, we could go to 101 or 180-to-1 on some of the new SMRs. And so I think that really, you know, I'm hyper bullish if if you really kind of coax me out of it in the long term, because I think that what this energy crisis is beginning to elicit is a proper appreciation for the benefits of nuclear power. And if that's what comes out of all this, and if you can chalk up renewables and EVS and a lot of the nonsense that we've had in the last 10 years as the cost of doing business to ultimately getting us to a nuclear future, then I think it's all well worth it. And I do think that sort of the best, most most prolific days for us lie ahead.

Adam Taggart 54:01 Adam, can I ask a question on that? Because this is where I was going to get around to your demand outlook. What general probability do you put on advances in other forms of energy that may reduce the world's need for for fossil fuels going forward? Let's say we go into a nuclear renaissance and we end up electrifying a much greater percentage of the transportation system. Will we just need fewer fossil fuels to power it going forward? Could that essentially push off your concerns about Peak Cheap Oil until the next 100 years?

Adam Rozencwajg 54:44 Well, look, so let me take a big step back because this could fill a whole podcast in and of itself and I want to be concise. I want to let Doomberg have some time and I want to be able to talk about some other things here as well that you find interesting and germane. So we look at everything through the lens of EROI. Higher energy return on investment, how much energy do you get out for every unit you put in? And all of human history has been a massive uni directional push towards things that have higher and higher and higher EROIs. We started out as I mentioned hunting and gathering, then we developed grain-based domesticated crops and farm life and then we move to coal and then ultimately to oil & natural gas. And then finally, to nuclear power in the second half of last century. We can't move towards something that has inferior energetics. Renewables have inferior energetics, we're never going to move towards them and that's why this push has been so painful. If they were really much more efficient, we would have readily adopted them. If the windmill was the answer to our problems, it would have been adopted when Don Quixote was fighting the windmills. It would not have to be in 2024, such as it is, and it's still a painful experience. Because the energetics don't work. The only thing where the energetics do work is nuclear. Nuclear is off the charts. When you're looking at chemical energy and releasing energy by breaking bonds of hydrocarbons, or anything else, for that matter, the only thing that beats that is nuclear power. So if we can go down the nuclear road, you can electrify anything you want. The EV, by the time you build the battery and you power it with renewables doesn't make a lick of sense. It's terrible energy efficiency and emits more CO_2 than if you just burnt the gasoline in the first place. If we want to go to an all-nuclear world have at it, that is by far the most efficient and cleanest and most efficient, most importantly, form of energy we've ever come to know. And you can do dumb things with it. You could have nuclear power plants that made hydrogen to run an airplanes if you really want it to. So yeah, if we move to 100% of a nuclear world, then I think that you could conceivably begin to wean yourself off of fossil fuels and hydrocarbons. And I would frankly be the first in line to buy a ticket to see that show, because I think it would be just fabulous.

Doomberg 56:52 So, 100% agreement, obviously, on our part, everything Adam just said we would wholeheartedly agree on and would, we would stand in line right behind him to buy that ticket. I will just have one nuance to that statement, which is even in that scenario, all primary energy production is additive. And we would still producing more oil, more natural gas and more oil, more coal than we do today. Because not all of the world is ready to receive and operate nuclear power facilities. They're very sophisticated to build, operate and maintain safely. And we don't necessarily want all the world to be in possession of this technology for national security concerns. But all the world does want to develop. And your standard of living is defined by how much energy you get to harvest. And in a world where the West/US/G7/G20 countries have proliferated nuclear power, to the extent that both Adam and I wish they would, there's 5 to 6 billion people who would greedily happily readily consume the incremental barrel of oil, natural gas, and ton of coal thus freed up. And I think even if you look at the renewables contribution, as inefficient and uneconomic as they are, the arc of history is the total primary energy consumed by humans always goes up. There's an infinite demand for energy at reasonable prices. And in a world where we did proliferate nuclear power, that would have a temporary dampening effect on the price of oil, gas and coal, which would then create new demand for it in the developing world who are desperate to raise their standard of living to something we would consider even recognizable.

Adam Rozencwajg 58:34 I think I think that's a wonderful point. And I think that, you know, it gets to this idea of what is energy and its relationship with the economy. I mean, to me energy is the economy. There's nothing that we do in our world that doesn't use energy to transform some material from one form to another, or move some good someplace to another or move some person some place to another. So the entire system that we live in is nothing but a giant energy conversion apparatus. And to the same extent that there's no upper bound on where we would accept per capita GDP, we would always take more. I think that there's absolutely no upper bound, so you're probably right. If you had almost unlimited, incredibly efficient energy coming from nuclear power, you probably would consume that and the oil and the coal and the gas up until up until you exhausted it all. So you're probably right about that. Obviously, the other thing being you know, as being a little bit facetious, if the world all goes 100% nuclear, then you could get rid of hydrocarbons and get rid of your cars.

I mean, you know, I think if you did not invest in oil and gas on the hypothesis that we're gonna go 100% nuclear and drive electric vehicles on 100% nuclear power load, you would miss quite a bit of a an investment cycle in between — so so obviously, I say that a little bit tongue in cheek.

Adam Taggart 59:56 All right. Well, look, we're coming up on the hour mark here. Gentleman, I will go as long as you want to go here. And I want to make sure we talk about whatever topics are important to you that we haven't yet. I'm going to ask maybe my last major question and let you guys just drive how you want to wrap this up. But if I can, I just want to get to your your outlooks for supply going forward. Doomberg: if I understand your perspective, it's that there are a couple of factors for why supply could go up in the future. One is you talk about expanding the definition of what oil feedstock is, and obviously new technologies will continue to help play a role in expanding that and accelerating that. The second is that there's the potential for new development, hopefully new discoveries of energy deposits around the world — we haven't really talked about all that much yet in this conversation. And then the third is, we get to a point that you made in our discussion earlier, Doomberg, that it's much easier to remove a political constraint than a geological constraint. And that there's lots of oil out there that we know of that we're just not tapping yet for a whole host of different political or geopolitical reasons. And in a crisis, if I understand your logic correctly, you think governments will become much more amenable to tapping those those resources. So we could potentially change the availability of supply pretty quickly if, say, all of a sudden the world got together and said, “Hey, let's help Venezuela really tap their resources”. That's just one example. So if maybe Doomberg, we could start with you. Did I summarize that well?, Do you guys agree that there is indeed enough oil that could come out of the ground here if we do these things? Or if you actually have different opinions on actually how much oil is out there to tap going forward?

Doomberg 1:02:06 I would say, first of all, thank you, it's been a wonderful discussion, a real honor to be invited to participate in it. And you have mostly accurately reflected our view, I would add the following. We often say and I think Adam would agree with this, that the single most important question you have to ask yourself about whatever economy that you're analyzing is, is that economy currently in a period of relative energy abundance or deficit? And the answer to that question drives significant influences on the answer to all other questions about the economy, because I agree with Adam that ultimately, GDP is just an expression of how much energy you are producing and how efficiently you are translating that energy into an increased standard of living. To the sort of descriptor of what we would do, if we were to pivot from what I believe today is a period of relative energy abundance. I mean, I think it's pretty undeniable with natural gas in the US at 2-and-change and LNG at eight and a half, and coal at 125 and oil in the low 70s. Despite all of the geopolitical risk premium that's undoubtedly baked into those prices that the world is, at worst balanced, but most likely in a period of relative energy abundance. If we pivot to a temporary period of energy deficit, the cost curve of implementation options include all manner of things, including developing resources that we know exist that are trapped by politics, including putting a ceiling on the equilibrium price of oil by building out all different manner of ways to use natural gas around the world to substitute either directly or indirectly, for the reasons we use oil. And then the last point I'd make is one we haven't talked about yet. As we alluded to heading into the 2010s, nobody would have had the impact of shale on the horizon. And it's an interesting question, sitting here today. What could that be in the next 10 years? And we would argue one possibility is we're leaving this most recent energy crisis, with a far more efficient global supply chain network for the exploration, exploitation and use of natural gas. In two to three years, we're going to be able to ship natural gas to and from far flung places around the globe that would have seemed inconceivable before the European energy crisis. And as Adam correctly said, I'm old enough to remember when Freeport LNG was an import terminal, and how quickly have we turned the tables? And we would argue that we would be just as quick at turning the tables in the face of an energy crisis. So to your question, we are currently in a period of relative energy abundance. If that were to change there's a menu of options with a cost associated with each of those options and the thickness of the wedge that could temporarily bridge the gap until the next technology miracle inevitably comes around the corner — and I don't know If it's from the proliferation of AI, across the oil majors or you know, some political Great Reset, after the fourth turning leads to a world that collaborates far more efficiently with less friction on energy, and so who knows? But it is always and forever the direction of the world that we produce more primary energy, and we exploit it for the betterment of humanity. And I choose to live in a world where that continues.

Adam Rozencwajg 1:05:28 Great, Doomberg, I think that we should have a Neil Howe Fourth Turning podcast on a regular basis, because I think we would, we might either do well by that or we would quickly have you fall from number one down to number sense, I guess. But I'm glad I'm glad to see your big fourth turning fan as well as are we here at G&R? So look, I think that the biggest single event that's happened to global energy markets in the last, arguably 100 years, and certainly in the last 20 years has been the unexpected introduction of nearly 13 million barrels a day of straight crude. And if you add in NGLS, and if you add in straight natural gas you're talking about probably close to 30 to 40 million barrels of oil equivalent, when it's all said and done. Unbelievable volumes of unexpected oil and natural gas that we made available. It's not that we discovered it, we always knew it was there, but we made it available. And if you don't think that that has been the seminal event of the last 20 years in the energy markets, you're living under a rock, I don't know what to tell you. We believe based on the geological properties of the shales based on how much total resource and recoverable reserve is in each of these shales. And I should point out, we have tools and analysis that I don't think anyone else has. We have developed our own neural networks. Talk about AI, we've been developing neural networks here for seven or eight years to try to assess shale qualities to try to assess the production profiles of each individual well in the shales — ultimately to try to get at a number of how much reserve is in that shale to determine when half of that has been produced and when we think production could roll over. And I don't know anybody else that's working on this type of stuff, mainly, probably because it's very technical. But also because with energy at 3.8% of the s&p versus 15%, historically, you've decimated investment houses you've decimated sell-side research, you've decimated buy-side guys. No one is doing this type of work anymore. Very, very, very few people with any type of a historical context. So but we have the tools, maybe we'll be right, maybe we'll be wrong, we have high degree of confidence that we'll be right. And what those models are all pointing to is the fact that now most of the shales —the Barnett the Fayetteville, the Eagleford, the Bakken — have already peaked and rolled over. And that the two big ones driving supply thus far — the Permian, on the oil side and the Marcellus on the gas side — are set to roll over in 2024. And if you look at the beginning of this year, January of this year, year on year growth in the Permian was like 600-700,000 barrels a day, it's 40,000 barrels a day, as of the last reading. This growth on a year on year basis has slowed to nearly zero, it's about to turn negative. And if you don't think that the biggest source of production rolling over is going to have as big an impact as when it ramped up, I think you're going to be in for a little bit of a shock. So do I think we can resolve out of this eventually? I do. Do I see exactly what path that's going to take? Of course not. However, I think that in 2024 and beyond the idea that you've had this major seminal once in a century move in terms of bringing on new production this quickly now turning from a tailwind to a headwind — it has to be taken into account. It has to be monitored very, very closely. And I think frankly, it has to be invested in. And the one thing that I would caution is this idea that the next shale, whether it literally means the next shale on an international basis or the next shale-style technology improvement is right around the corner, that's that's a tough prediction. Of course, the answer is “maybe”. However, I would caution against banking, our hopes on an equilibrium or even oversupplied market on the fact that we're going to pull another rabbit out of the hat the way we did with the shales, the shales were really, really unique in a lot of ways. We knew where they were, we needed a way to extract them. We figured out that way. And then we had this big wash as new supply came on line. Look at the copper industry. Just to give you a quick analogy. They did this in the 1990s with something called solvent extraction, electro winnowing new technology. It boosted copper supply by 20% over two or three years, maybe four or five years — not dissimilar to what we're talking about with shale, right? We're talking about bringing on 20 million barrels onto a 100 million barrel market, it's in the same ballpark. It depressed prices for nearly a decade. And then it peaked, rolled over and ran out. And now copper prices instead of being 45-50 cents are, you know, 10 times multiple of that. That's what I worry is happening here. We had this big shock to the system. I don't know when the next one's coming. Maybe it will, but maybe it won't. And as of now, I don't see evidence that we have that around the corner.

Adam Taggart 1:10:31 Adam, first off, thank you so much for sharing the forecasts, sobering that they are, from your proprietary model. Let me just ask one question, I think might be on viewers minds here, which is, since most of the shale that we've talked about so far in this discussion has been US-based. I think a regular person might say, "Okay, well, aren't there other shale fields around the rest of the world that we can go after now that we have the technology pretty much refined?" It seems like you think that's not a slam dunk, or wouldn't be necessarily easy or fast? Why?

Adam Rozencwajg 1:11:08 So about 10 years ago, we asked ourselves the same question. And the reason we asked ourselves this question was that the answers that people were putting for we felt to be largely unsatisfactory, most people were saying, well, the US has special land mineral laws different from anywhere else. And that means that we can do shale here, but not internationally, because we own our minerals privately. Other people were saying, Well, we have we have the pumping pressure, pressure pumping equipment here in the US, we don't have it anywhere else. And so we can't do it elsewhere. And to me, I thought that was all complete nonsense. I mean, you could have made the same case for conventional oil drilling. You know, when after Colonel Drake struck oil and Pennsylvania, you could have said, well, you can't do that in the Middle East. They don't have any rigs out there. Sure enough, you know, we brought the rigs out there and I was convinced that the same would be true here. What was more predictive when looking at the energy markets? Was instead the geology the endowment? Do you have major oil fields and other parts of the world? Do you have major shale basins in other parts of the world? And so we tried to put that together, we put together a model, the USGS has a lot of the data is just compiled very poorly, we put it together in a way that we found was usable. We spoke to shale industry experts and said, Look, if you had to design a shell from the ground up, what would its geological qualities be things like thickness and thermal maturity and seismicity, organic content, clay content, all these different things permeability, porosity, temperature as well. And so all these different things, we put it into the matrix and we said, okay, look, you know, how did the US sales rank? And how did the rest of the world shelves rank and the US sales of the 10? Best, the US were the seven, seven of the 10 best? It seems unfair, you know, there's sort of the sense well, how could all of the shale be in the US the obviously you're you're kind of looking at it wrong. But the truth of the matter is that resource endowment on a global basis is not uniform. It averages to something but it's not a uniform average, South Africa is the gold mines. Russia has the PGM deposits. Canada has the diamond Kimberlite deposits, the United States has the shale deposits, it has to do with the fact that most of the continent used to be this quiet inland sea it was the perfect depositional environment is quiet. It allowed for very thick sand packages and had very low clay, very high silica all these things that made for perfect shell, where are the other ones? Well, ones in Argentina, ones in Colombia, ones in Russia, the Argentina's the vacuum workday, I would watch that very closely. YPF just suffered another unforced or self imposed self enforced error just the other day with its privatization efforts. So you know, again, not looking like that's coming on anytime soon. Columbia has a moratorium on shale production. And Russia has a triple mint sanction on sharing Western shale technologies with Russia. That wasn't true. in place for the last 15 years. Whenever the Obama administration took off the Russian sanctions or mended things, it was never on the table to even discuss the sanctions pertaining to Western shale technologies into Russia. So is that something that can be removed one day? It's totally possible? Is it something that they can do themselves and ultimately develop that industry themselves? Certainly not on the timeline that we would need to avert a near term energy crisis, but medium term and long term possible, something to watch very, very closely. It is the that would be the mother of all shales. That would be like another Permian Basin that comes online. The question is, I suppose as depletion taken hold by that point to the point where we need another Permian Basin type. Time will tell. Alright,

Adam Taggart 1:14:40 Well, gentlemen, before we get to concluding remarks, I just want to make sure there's there aren't any remaining key points that you wanted to raise in this discussion that I haven't had the foresight to do so yet. Doomberg maybe we'll start with you.

Doomberg 1:14:53 I would say I very much enjoyed it. And even to what Adam just said, you know, I I think if those scenarios came to pass, I would argue they don't necessarily mark Peak Cheap Oil, they mark a temporary energy crisis that would quickly resolve if, for example, the Chinese stole our technology and gave it to the Russians if things got bad enough. And frankly, it's not like we don't have a long enough track record of that happening. And so yeah, I just want to say that I thoroughly enjoyed it. I think conversations like this where people respect each other and politely articulate their views are far too rare in the clickbait-driven social media world that we all live in. And so I for one am very thrilled to have been a participant of it. I read the G&R team stuff every time it comes out, and certainly are mindful that they do the same with us. And you Adam Taggart, of course, are a gentleman of the highest order. And so it's really fantastic and I'm proud to have been part of it.

Adam Taggart 1:15:47 Well, thank you. Mr. Rozencwajg?

Adam Rozencwajg 1:15:48 No, I had a wonderful time as well. We really respect your work. I'm glad to see we agree on more than we disagree on, please take me up on on our fourth turning podcast idea. I think we could easily fill an hour once a week and leave everyone depressed, and also wanting more. I think that human ingenuity is wonderful. I think our best days do lie ahead. But I think we're in an awful lot of trouble here, mainly because, you know, we haven't spent enough money in the last 15 years on our energy supply. And Doomberg, I thank you for putting out some of the really insightful analysis that you do. Even the ones that we don't agree with, I think you add a lot to the discourse of the global energy market at a time when there's not a lot of people that are left doing this. So more power to you. I'll continue to read your stuff. And thank you so much, Adam, for having us both here. I thought it was great.

Adam Taggart 1:16:38 Well, it's such a joy to be able to host discussions like this. These respectful "co-explorations" — rather than heated debates — are way too rare. I appreciate you, too, for doing this in such a gentlemanly and scholarly way. I think folks have learned an awful lot through this conversation. Both of you are welcome back on this platform anytime you like, together or individually. If you haven't gotten that forth turning podcast up and running soon, but you want to do a trial run, please do it here. As we wrap up here, if folks would like to follow you and your work, where they should go?

Doomberg 1:17:26 Very simple. Everything we do is at doomberg.substack.com. We participate on their notes platform, which is a Twitter variant. If you like all of our monthly pieces, our pro tier is where we do a monthly presentation to our premium subscribers. Our podcast appearances like this one will be linked there under our Doomccast webpage. So you can find everything we do at doomberg.substack.com. We are 100% subscriber-supported. It's truly the work of our lives and we're having a blast doing it.

Adam Taggart 1:17:55 Fantastic. And you, Adam?

Adam Rozencwajg 1:17:56 You can find us at Goering and Rosencwajg. If you get anywhere close to spelling it right, Google will will point you in the right direction. But our website is gorozen.com. We post all of our quarterly letters and all of our podcasts and everything like that. And I'll just say, in the spirit of respectful dialogue, the one thing I might I might ask, just a little little minor nit here, is: Doomberg, could you put a tie on next time when when when we talk like this?

Doomberg 1:18:24 I'll put a tie on when Adam [Taggart] does.

Adam Taggart 1:18:27 That might be a while guys. All right. Thanks so much, folks. If you've enjoyed this conversation, please let the participants here know by hitting the Like button, then clicking on the red subscribe button below, as well as that little bell icon right next to it. And if you enjoy deep dive interviews like these and want to follow what we do here at Thoughtful Money, feel free to go to my substack. That's adamtaggart.substack.com. Adam Rosenzweig, Doomberg — again, it has just been a delight. A pleasure. Thank you so much. Everybody else: thanks so much for watching!

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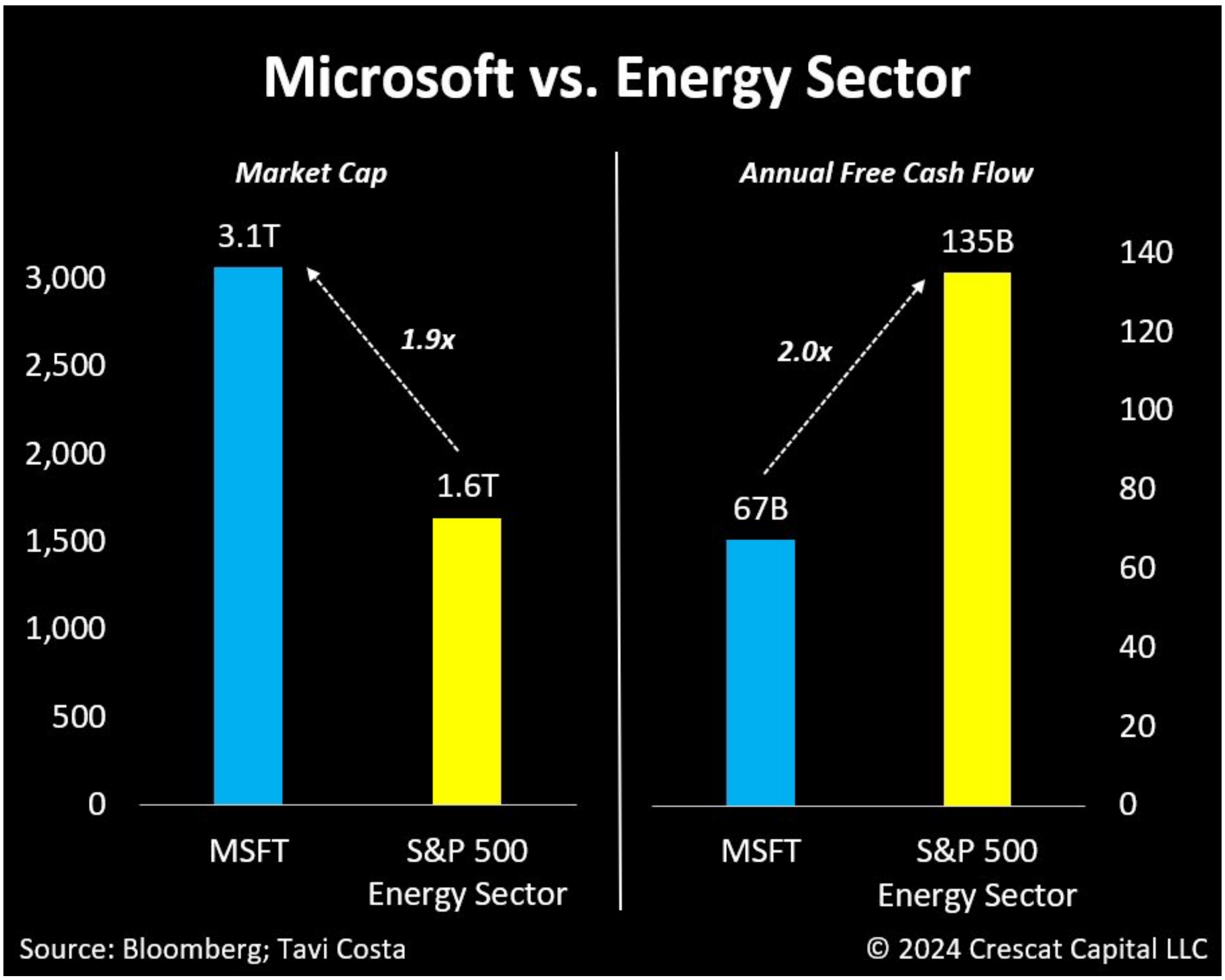
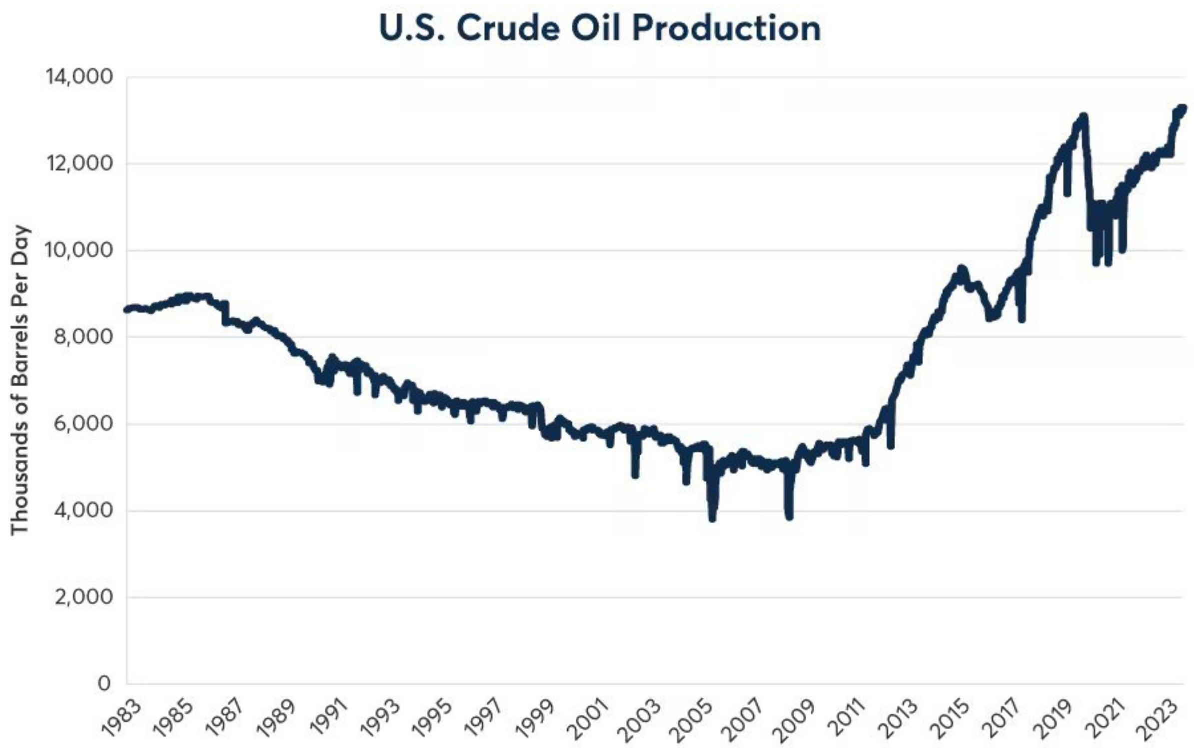
The entire energy sector is valued at half of Microsoft (MSFT), yet generates twice as much free cash flow (from Otavio (Tavi) Costa via X)...

Puzzling.

With a $3 trillion market cap, Microsoft is twice the size of the entire energy sector in the S&P 500, which generates double Microsoft's annual free cash flow.

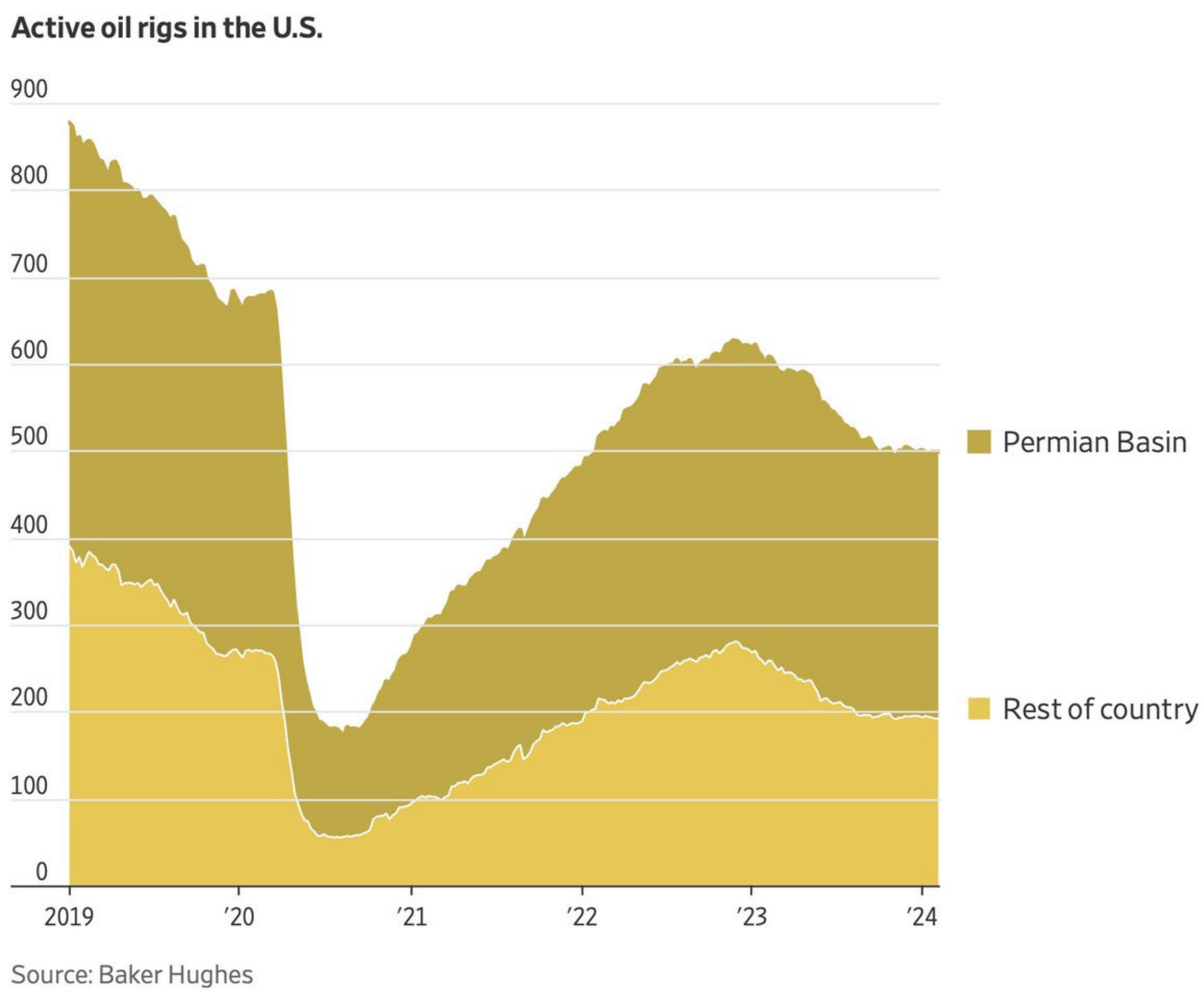


U.S. oil production has surged, replacing more than half of what OPEC+ cut and making the U.S. the largest producer of oil in the world (from Markets & Mayhem via X)...



Yet that growth in oil production may now be slowing again (from Jesse Felder via X)...

"The Permian Basin has accounted for nearly all the country's oil output growth since the pandemic. But the number of oil rigs in operation has dropped nearly 20% since the end of 2022. The decline signals a huge deceleration in growth could be coming."



Warren Buffett's Berkshire Hathaway continues to buy shares in Occidental Petroleum (OXY) (from Yahoo Finance)...

While Warren Buffett hasn't seen a whole lot to like in the stock market recently, there's one stock he seemingly can't get enough of.

Over the last couple of years, he's built up a 28% stake in Occidental Petroleum (NYSE: OXY) for Berkshire Hathaway (NYSE: BRK.A) (NYSE: BRK.B). That makes it one of Berkshire's top holdings, just behind fellow oil and gas company Chevron (NYSE: CVX).

The Oracle of Omaha has added to his Occidental position on three separate occasions since the start of December. His most recent purchase for Berkshire Hathaway's portfolio amounted to about $246 million. That follows purchases of about $589 million and $312 million in December. Meanwhile, Berkshire still owns about $8.5 billion worth of preferred shares in Occidental, which pay an 8% dividend.

Here's why Occidental has become Buffett's favorite energy stock and could soon top Chevron as Berkshire's biggest investment in the industry.

A big bet on oil prices

Occidental and Chevron are both integrated oil and gas companies. However, where Chevron makes most of its money from downstream operations like refineries and chemical plants, Occidental is heavily invested in drilling oil out of the ground. As a result, Occidental's business is much more closely tied to the price of oil.

Its strong position in the Permian Basin gives it a cheap source of oil production. It strengthened that position with the acquisition of Anadarko, supported by Berkshire's $10 billion investment in the company. More recently, it added CrownRock last December, when Buffett started buying up shares again.

Occidental's big investments in the Permian Basin have put pressure on its balance sheet. The company now holds a significant amount of debt. Management plans to divest non-core assets to accelerate the paydown of that debt. It did something similar following the Anadarko acquisition in 2019 and the subsequent drop in oil prices in 2020.

The moves to add more cheap sources of oil make sense in light of Occidental CEO Vicki Hollub's extreme bullishness on the price of the commodity. For one, she said the CrownRock acquisition will generate an additional $1 billion in cash flow in its first year as long as oil prices remain above $70. That was exactly the spot price of oil at the time of the acquisition, and it's only climbed to the mid-70s since.

More recently, Hollub has noted the potential for an oil supply shortage as soon as 2025. A production cut from OPEC combined with growing demand from China will push oil prices higher, she says. As a result, she sees oil climbing to $80 per barrel by the end of the year.

Buffett has a lot of confidence in Hollub. He called her "an extraordinary manager" at Berkshire's 2023 Shareholder meeting in May. After managing the company through the depressed oil prices of 2020 right after acquiring Anadarko, she seems to be up for almost any task.

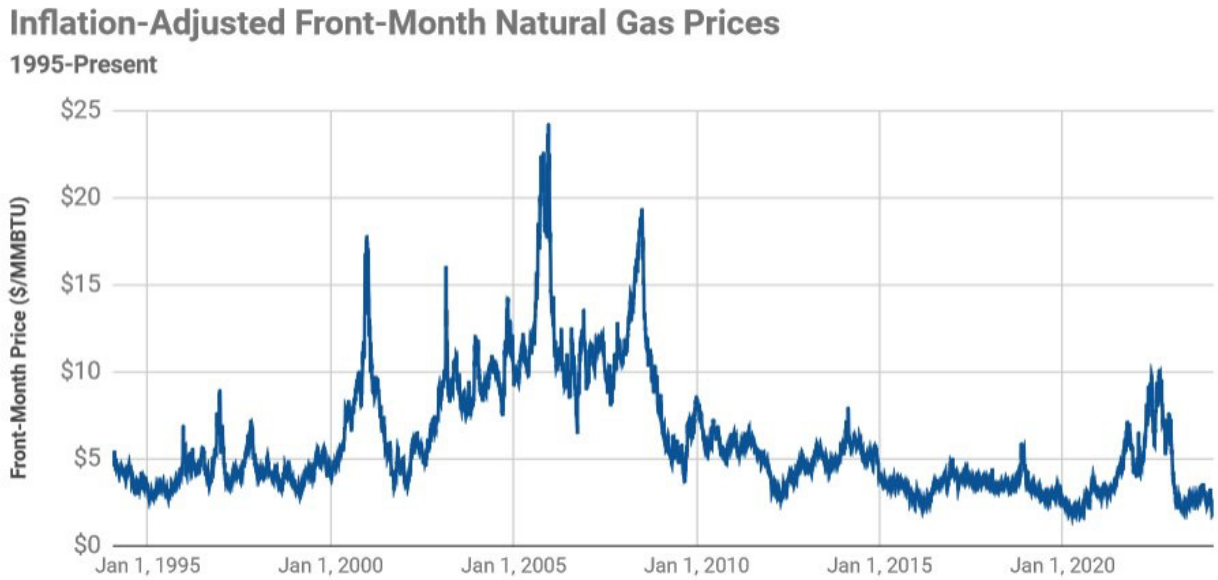
Shares of Occidental have gotten off to a poor start in 2024. While Chevron shares have climbed about 2% since the start of the year, Occidental is down about 3.5%.

Moreover, the valuation for Occidental is extremely attractive. Shares currently trade for an enterprise value/earnings before interest, taxes, depreciation, and amortization (EV/EBITDA) multiple of just 5x. By comparison, Chevron trades for a 6.6x multiple.

Continue reading here.

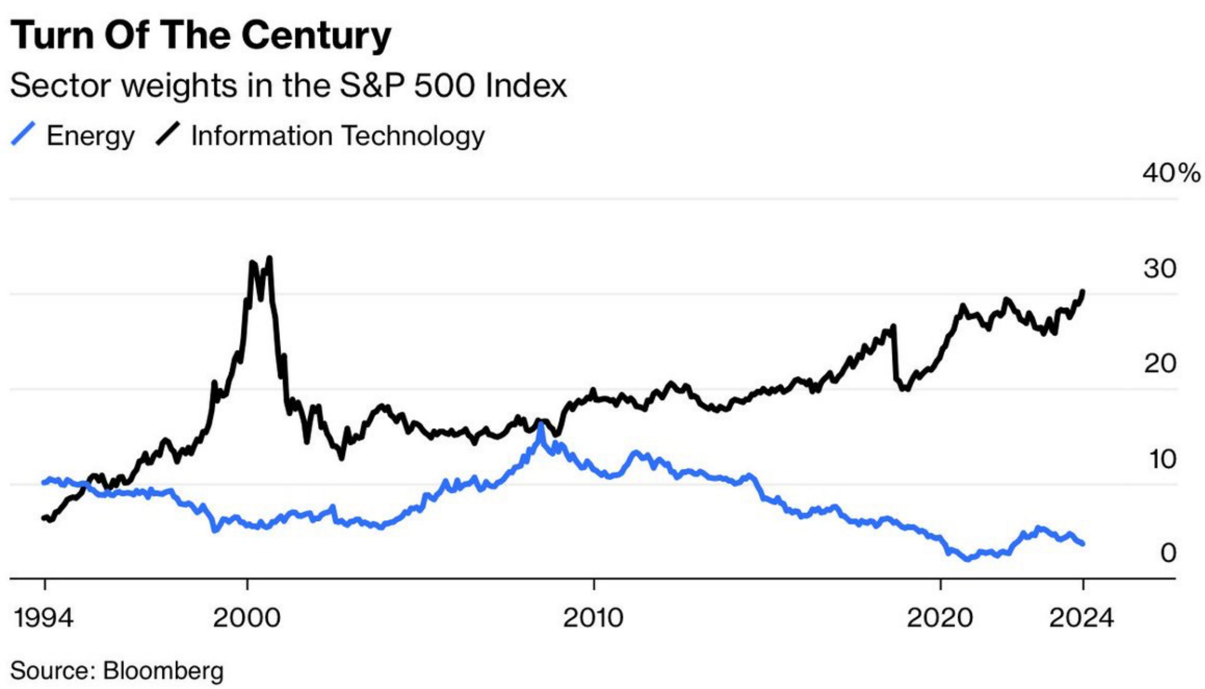
U.S. natural-gas prices hit record lows this month ([from Celsius Energy via X](#))...

By my calculations, [the February 13] $1.67/MMBTU close for #natgas is the lowest on an inflation-adjusted basis (per CPI data) since at least 1994, taking out the adjusted COVID low of $1.76/MMBTU from 6/25/2020. The absolute low of $1.32/MMBTU from 1/13/1995 adjusts to $2.67/MMBTU today.



Energy stocks may be an ideal hedge for the Big Tech bubble (from Jesse Felder via X)...

"At 30% of the S&P 500's market cap — but only about 20% of the anticipated earnings — the tech sector's weight is now roughly eight times that of energy, an even wider gap than at the height of the tech bubble 24 years ago."



The U.S. shale revolution is maturing (from *The Financial Times*)...

The shale revolution that began about 15 years ago saw a proliferation of thousands of small-time drillers turn the global energy order on its head and restored the US to the status of world's biggest producer.

Today, as a multibillion-dollar wave of consolidation washes over the Permian Basin — the engine room of America's oil industry — that landscape has been transformed. A handful of heavy hitters is now firmly in control.

Diamondback Energy's $26bn deal for rival Endeavor Energy this week brought to almost $180bn the value of an oil and gas dealmaking spree that has reverberated across the US shale patch since the beginning of last year as big, publicly listed players swallowed rivals.

Just 10 companies will now control more than 6.4mn barrels of oil equivalent a day of the Permian's 12.1mn boe/d of overall output, according to Wood Mackenzie, a consultancy. Six companies will each produce more than 700,000 boe/d — more than some Opec member countries.

Half of the sought-after Midland sub-basin, which makes up the eastern part of the Permian, will be controlled by just two companies: ExxonMobil and Diamondback.

"It's now a story of bigger companies — not smaller companies," said Dan Pickering, founder of Pickering Energy Partners, a consulting and investment group. "And that just has a much different cadence and tenor to it."

In the past four months alone, Exxon has announced a $60bn deal for Pioneer Natural Resources, the biggest producer in the Permian; Occidental has agreed to snap up CrownRock for $12bn; and Diamondback announced its purchase of privately held Endeavor. (Another pending $53bn deal by Chevron for Hess gives the supermajor shale assets in the vast Bakken oilfield of North Dakota.)

The action pushes the Permian into a new era where drilling focused on growth at all costs, which catapulted it into country's most prolific oilfield, has come to an end.

"It does feel like another turning of the page where shale has gone from an exploratory expansionary phase to a not declining but managed phase," said Andrew Dittmar, senior vice-president at consultancy Enverus.

Continue reading here (subscription may be required).

Global liquefied natural gas ("LNG") consumption is projected to rise more than 50% by 2040 (from Shell)...

Global demand for liquefied natural gas (LNG) is estimated to rise by more than 50% by 2040, as industrial coal-to-gas switching gathers pace in China and South Asian and South-east Asian countries use more LNG to support their economic growth, according to Shell's LNG Outlook 2024.

Global trade in LNG reached 404 million tonnes in 2023, up from 397 million tonnes in 2022, with tight supplies of LNG constraining growth while maintaining prices and price volatility above historic averages. Demand for natural gas has already peaked in some regions but continues to rise globally, with LNG demand expected to reach around 625-685 million tonnes a year in 2040, according to the latest industry estimates.

"China is likely to dominate LNG demand growth this decade as its industry seeks to cut carbon emissions by switching from coal to gas," said Steve Hill, Executive Vice President for Shell Energy. "With China's coal-based steel sector accounting for more emissions than the total emissions of the UK, Germany and Turkey combined, gas has an essential role to play in tackling one of the world's biggest sources of carbon emissions and local air pollution."

Over the following decade, declining domestic gas production in parts of South Asia and South-east Asia could drive a surge in demand for LNG as these economies increasingly need fuel for gas-fired power plants or industry. However, countries in South Asia and South-east Asia would need significant investments in gas import infrastructure.

The Shell LNG Outlook 2024 shows that gas complements wind and solar power in countries with high levels of renewables in their power generation mix, providing short-term flexibility and long-term security of supply.

European energy security

LNG continued to play a vital role in European energy security in 2023, following a slump in Russian pipeline exports to Europe in 2022, with new regasification facilities helping to improve security of energy supplies. European LNG imports remained at similar levels to 2022, despite an overall decline in European gas demand in 2023.

Relatively mild winter temperatures in countries that rely on gas for heating, combined with high gas storage levels, stronger nuclear power generation and a modest economic recovery in China, all helped balance the global gas market in 2023.

This helped bring down and stabilise gas prices in the key importing regions of Europe and East Asia compared to the record highs and unprecedented volatility seen from late 2021 through 2022. However, gas prices and volatility remained significantly higher in 2023 than in the 2017-2020 period.

Despite a well-supplied global market in 2023, the lack of Russian pipeline gas supply to Europe and a limited amount of LNG supply growth over the last year mean that the global gas market remains structurally tight.

Continue reading here.

U.S. electric vehicles are proving to be a "tough sell" (*from The Wall Street Journal*)...

The Michigan plant where the F-150 Lightning electric truck is built used to vibrate with excitement.

President Biden visited in 2021 and test drove the blazing-fast pickup. Before the first ones even started rolling off the assembly line in the spring of 2022, Ford said it would expand the factory to quadruple the number it could build.

That energy is rapidly fading. Ford is cutting the plant's output by half, and workers are relocating to other facilities, mostly those making gas-powered pickups and SUVs.

The sudden change "was a little bit of a shocker," said Matthew Schulte, who inspects trucks at the factory in suburban Detroit. "Reality has set in."

As recently as a year ago, automakers were struggling to meet the hot demand for electric vehicles. In a span of months, though, the dynamic flipped, leaving them hitting the brakes on what for many had been an all-out push toward an electric transformation.

A confluence of factors had led many auto executives to see the potential for a dramatic societal shift to electric cars: government regulations, corporate climate goals, the rise of Chinese EV makers, and Tesla's stock valuation, which, at roughly $600 billion, still towers over the legacy car companies.

But the push overlooked an important constituency: the consumer.

Last summer, dealers began warning of unsold electric vehicles clogging their lots. Ford, General Motors, Volkswagen and others shifted from frenetic spending on EVs to delaying or downsizing some projects. Dealers who had been begging automakers to ship more EVs faster are now turning them down.

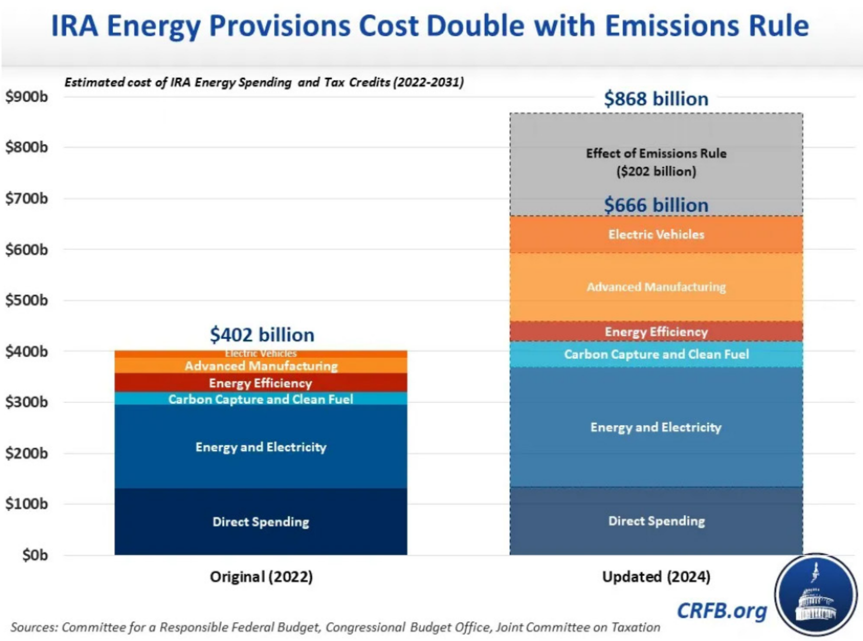
Even Tesla Chief Executive Elon Musk warned of "notably lower" growth in vehicle deliveries for the company in 2024.

"This has been a seismic change in the last six months of last year that will rapidly sort out winners and losers in our industry," said Ford Chief Executive Jim Farley on an earnings call in early February.

Continue reading here (subscription may be required).

The Congressional Budget Office revised the cost of Biden's energy policies up by nearly $500 billion (from Mish Talk)...

The cost estimate of Biden's Inflation Reduction Act coupled with EPA mandates, just jumped by $466 billion.



The Committee for a Responsible Federal Budget and the latest Congressional Budget Office outlook conclude IRA Energy Provisions Cost Could Double With New Emissions Rule:

> Last April, the Environmental Protection Agency (EPA) proposed a new rule for stricter vehicle emissions standards starting in model year (MY) 2027. If finalized, this rule would increase federal deficits both by increasing the number of electric vehicle tax credits awarded and reducing the collection of gas tax revenue.
>
> At the time of passage, CBO and the Joint Committee on Taxation (JCT) estimated the IRA's energy and climate spending and tax breaks would cost about $400 billion through Fiscal Year (FY) 2031 and would be more than fully offset by other parts of the law.

> Since then, the combination of higher inflation, greater demand for credits, and looser-than-expected regulations significantly boosted the cost of those credits. Last June, we estimated the cost of the IRA energy provisions had grown by two-thirds, to $660 billion through 2031. Assuming the new vehicle emissions rule proposed by the EPA is finalized, we now estimate the cost of the provisions will more than double to $870 billion through 2031, or $1.1 trillion through 2033…

Anyone surprised by this wasn't thinking and likely still isn't.

Continue reading here.

OTHER COMMODITIES

Copper prices have been diverging significantly from the stock market ([from All Star Charts]())...

Since no one is talking about this does that mean that we should all just ignore it like it's not happening?

The price of cocoa soared to a new record high in February (from Markets & Mayhem via X)...

One of the most powerful catalysts for commodities is a supply crisis.

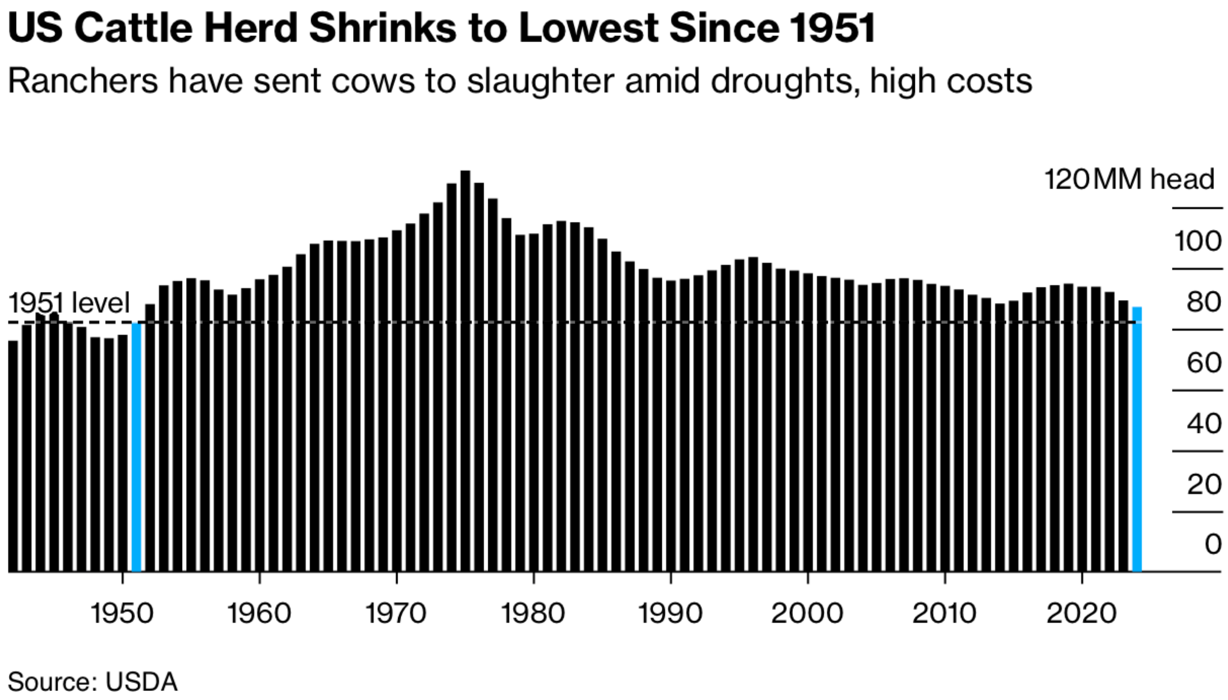
Global cocoa prices have soared to record highs as bad weather batters harvests in the world's main producing countries in West Africa - FT

Beef prices are likely to remain high as the U.S. cattle herd falls to a 73-year low (*from Bloomberg*)...

The US cattle herd shrank to the lowest level in more than seven decades as ranchers continue to send their cows to slaughter, threatening to keep beef prices at stubbornly high levels for consumers for at least another couple of years while eroding profits for meat processors.

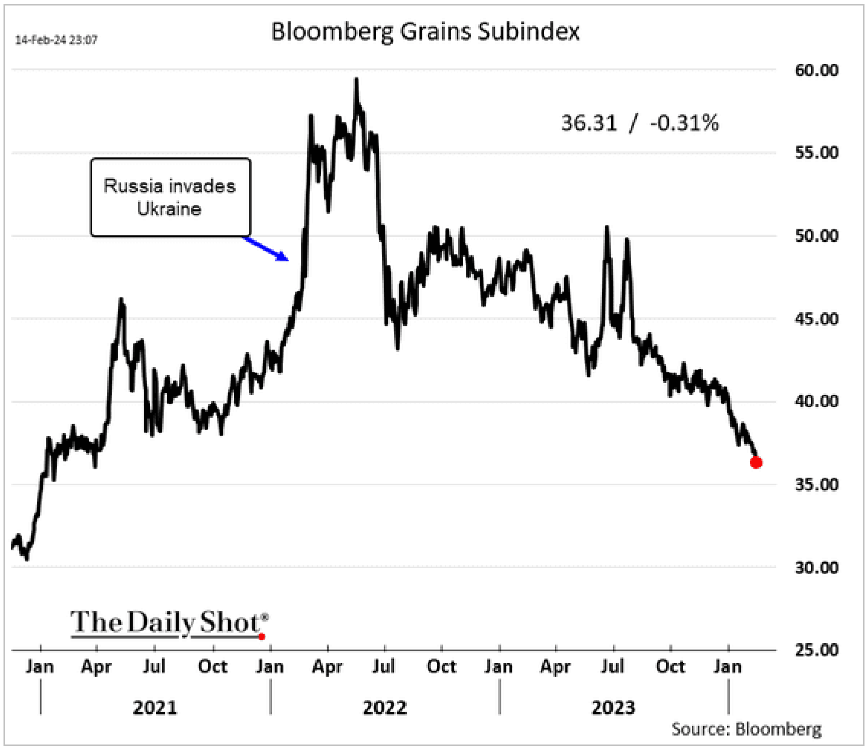
There were 87.2 million cattle as of January 1, down about 2% from a year ago and less than anticipated by analysts surveyed by Bloomberg, the US Department of Agriculture said Wednesday in its biannual cattle-inventory report. That's the smallest animal count since 1951, according to USDA data.

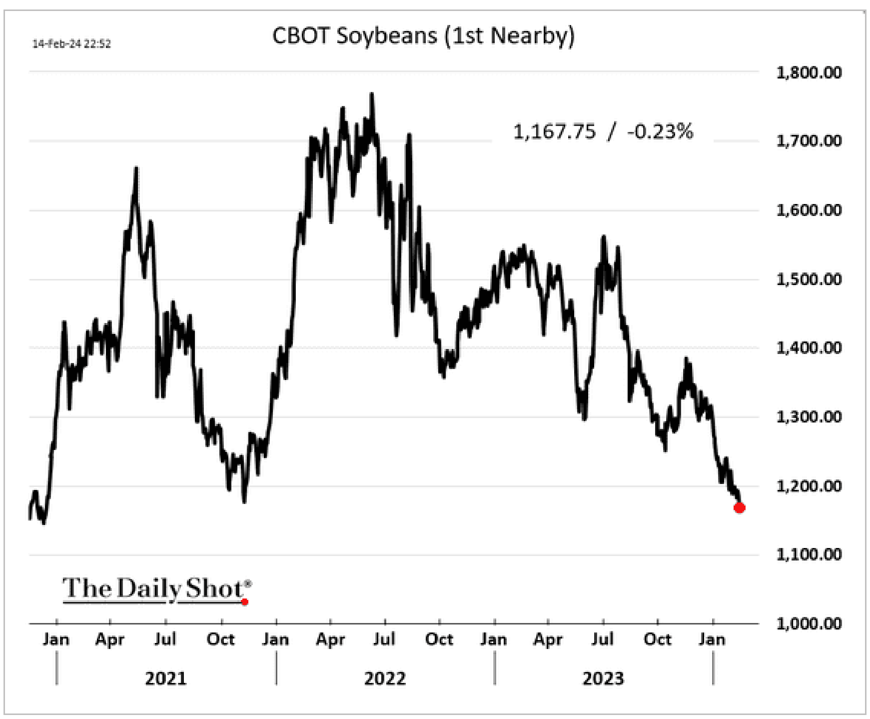
Shrinking herds means fewer cows are available to be processed into beef in the world's largest producing country at a time when meat demand is growing globally. Smaller cow numbers have sent cattle prices rising for three straight years, with consumer beef prices also surging. A shortage of fattened animals to kill have also hurt profits of meat processors including Tyson Foods Inc. and JBS SA.

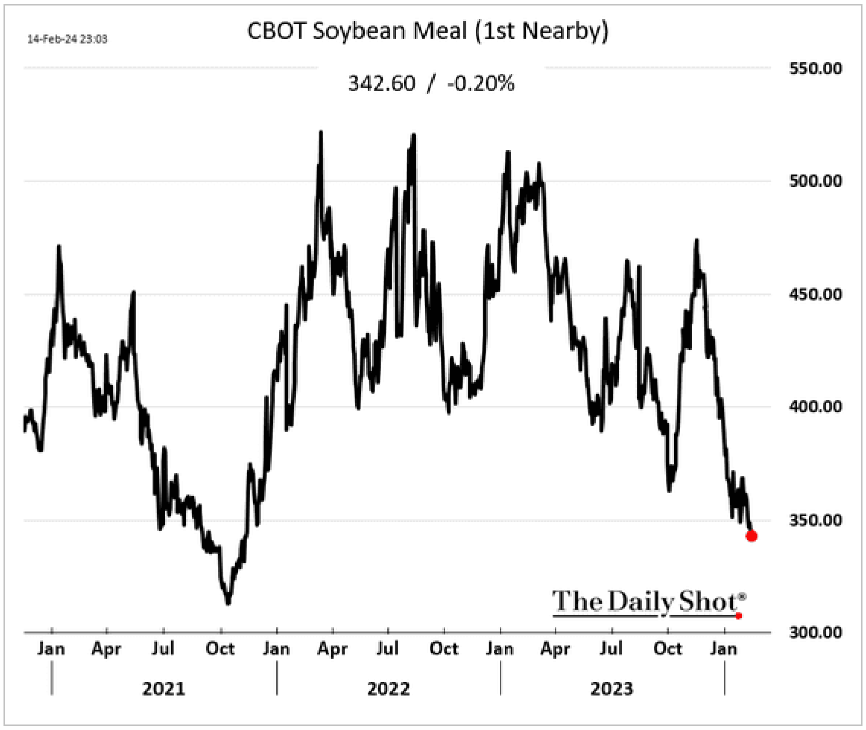


Continue reading here (subscription may be required).

However, plunging grain prices suggest at least some food inflation could moderate (from The Daily Shot)...






14-Feb-24 23:03
CBOT Soybean Meal (1st Nearby)
342.60 / -0.20%
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The Daily Shot®
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2021
2022
2023


14-Feb-24 22:49
CBOT Corn #2 (1st Nearby)
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700.00
600.00
500.00
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300.00
The Daily Shot®
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14-Feb-24 22:55
CBOT Hard Red Winter Wheat (1st Nearby)
585.75 / -0.34%
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900.00
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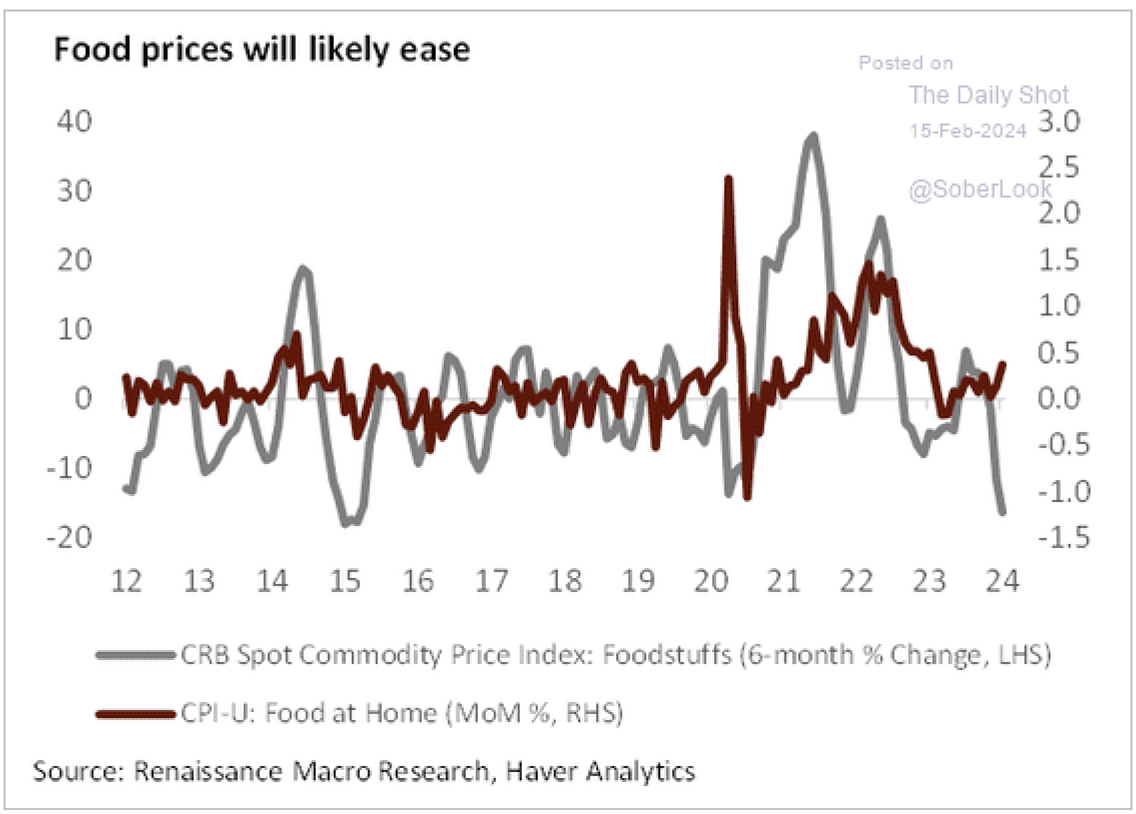
Food prices will likely ease
Posted on
The Daily Shot
15-Feb-2024
@SoberLook
40
30
20
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0
-10
-20
3.0
2.5
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1.5
1.0
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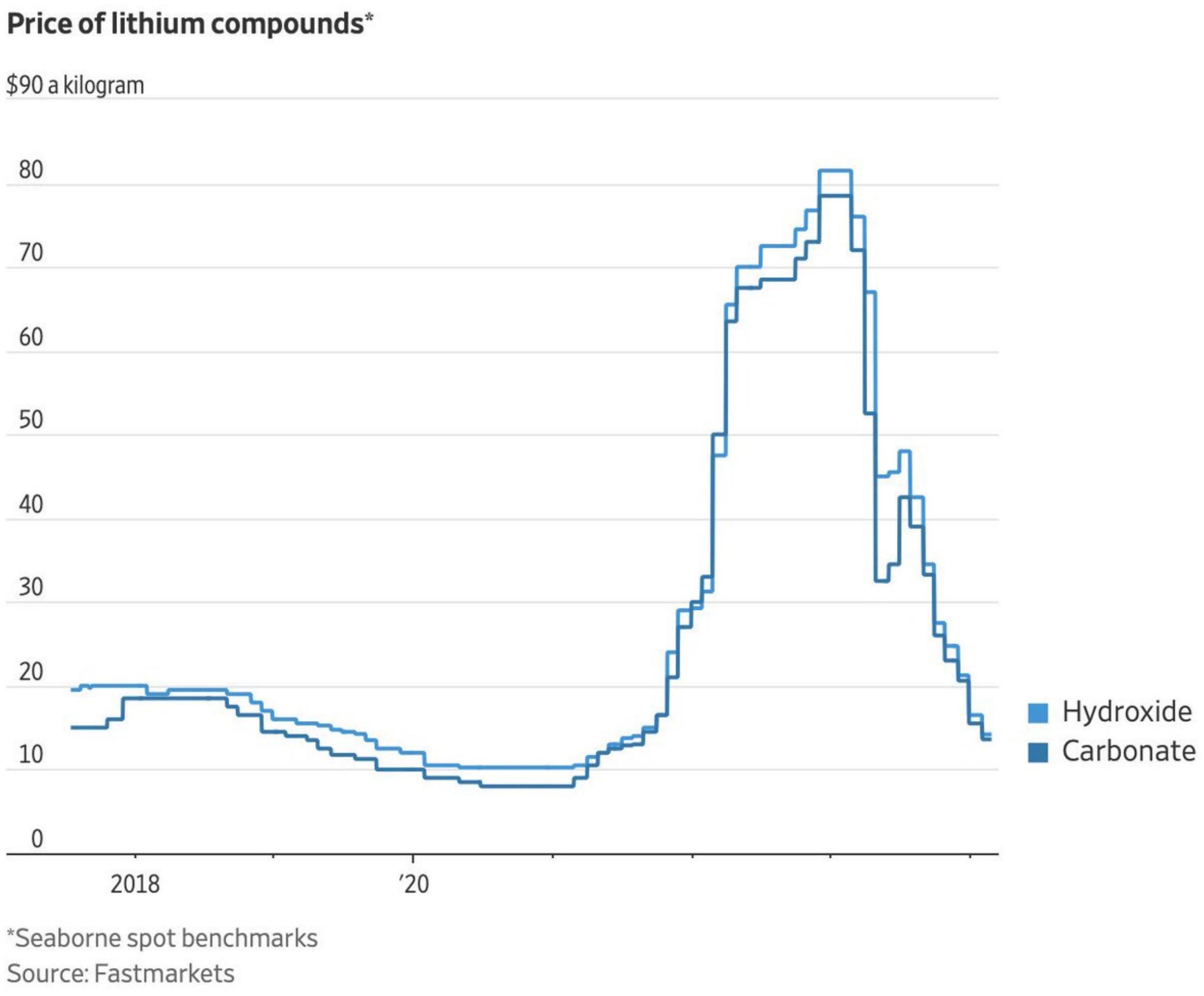
0.0
-0.5
-1.0
-1.5
12 13 14 15 16 17 18 19 20 21 22 23 24
CRB Spot Commodity Price Index: Foodstuffs (6-month % Change, LHS)
CPI-U: Food at Home (MoM %, RHS)
Source: Renaissance Macro Research, Haver Analytics

The price of lithium has returned to mid-2021 levels, down over 80% from its peak (from Charlie Bilello via X)...



U.S. textile mills' cotton demand has dropped to its lowest since 1885 ([from *Bloomberg*](#))…

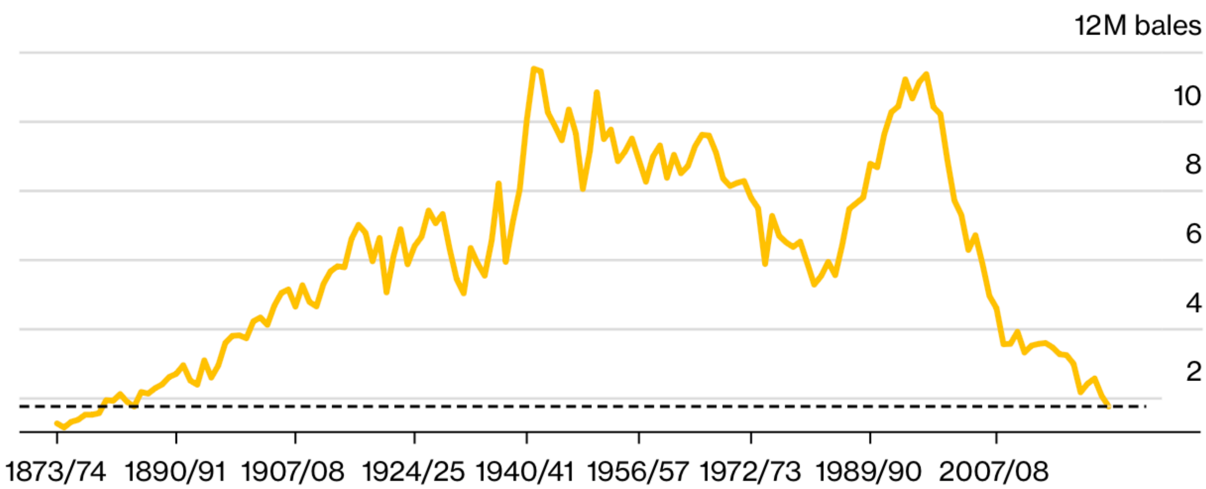
American mills are on track to process the least cotton this year since '85.

The year 1885, that is. The same year the Statue of Liberty arrived in New York City's harbor.

According to an updated US Department of Agriculture forecast released Monday, US textile mills will feed just 1.74 million bales of cotton into their machines in the 2023-2024 marketing year that ends in July, the slowest rate in 139 years. That's nearly 15% less than last year and even lower than the agency's prior forecast.

US Cotton Mill Use Will Be Lowest in Nearly 140 Years

Millers will process 1.74 million bales in 23/24, fewest since 1885



Source: US Department of Agriculture, Economic Research Service
Note: Each bale is 480 pounds. Data is for marketing year starting in August. 2023/24 data is projected.

[Continue reading here (subscription may be required)](#).

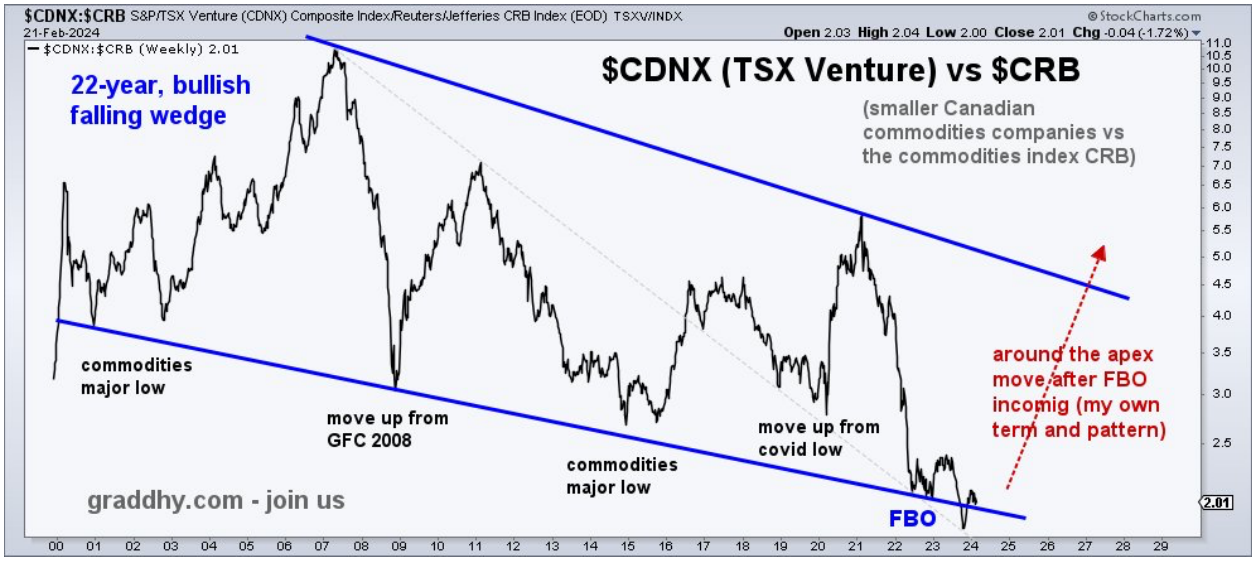
There doesn't appear to be any consistent correlation between commodity prices and Fed rate cuts ([from The Daily Shot](#))...

Commodities-company stocks are historically cheap relative to the commodities they produce (from Graddhy – Commodities TA+Cycles via X)...

This ratio chart shows how historically undervalued commodities companies are vs the commodities index CRB. Setting up an explosive move.

Called the false breakout, and it is now back above blue line, as expected.

This #commodities bull is a lifetime opportunity.



BITCOIN AND CRYPTO

FTX victims will get back only one-third of what Sam Bankman-Fried stole from them (from Dark Markets)...

This one hurts.

The FTX bankruptcy team led by John Ray III will pay back depositors at asset prices as of November 11, 2022 - specifically, at **$16,871 Bitcoin** - *almost literally the market bottom.*

A few unfortunate headlines have characterized this as "repayment in full," but while that might be technically true in the context of a bankruptcy court, **this is not repayment in full** in substance.

Bitcoin has recovered from the overall wave of 2022 scams, of which FTX was the biggest, to reach a price today of almost $43,000. That's ***nearly three times*** the November 11 price. Factor in more than a year of opportunity cost, and it seems fair to say depositors will **get back as little as one-third the value of what Sam Bankman-Fried stole from them**.

More infuriating still, that November 11 date was not just the day FTX declared bankruptcy - it was ten days after Coindesk's Ian Allison pulled the first thread of Sam Bankman-Fried's fraud, triggering a **roughly 20% selloff** in the days just before FTX's bankruptcy. In short, Sam conned them coming and going.

But most enraging of all is that this misleading "repayment in full" is certain to become **ammunition for the bizarre cadre of Sam Bankman-Fried defenders** and his unapologetic Effective Altruist backers. They will, as two Ivy League lawyers attempted to just last month, point to the judgment and say "See, **no crime was even committed!"**

With Bankman-Fried's sentencing just weeks away, that deception represents **a real threat to the dispensation of justice.** So if you see something from these misinformation terrorists, say something.

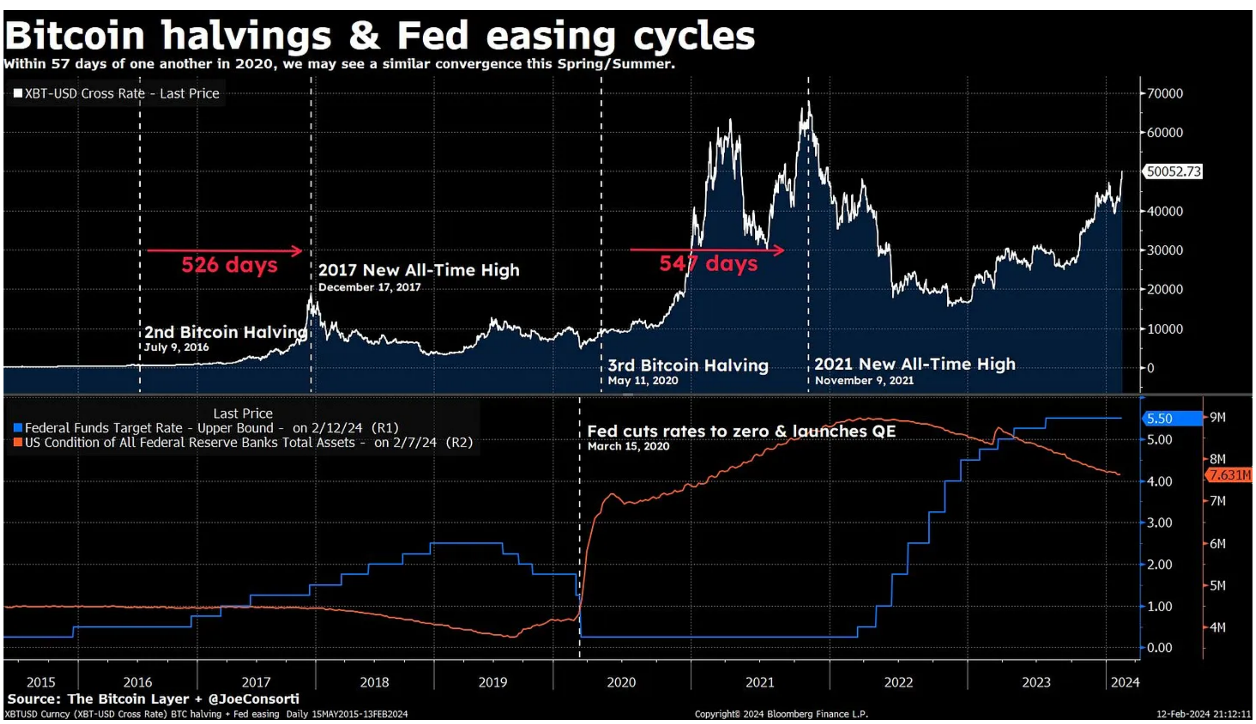
For more context, you can listen to my recent conversation with Sunil Kavuri, an FTX victim leading class-action recovery efforts, and involved in the push for at-par redemption for creditors.

Continue reading here.

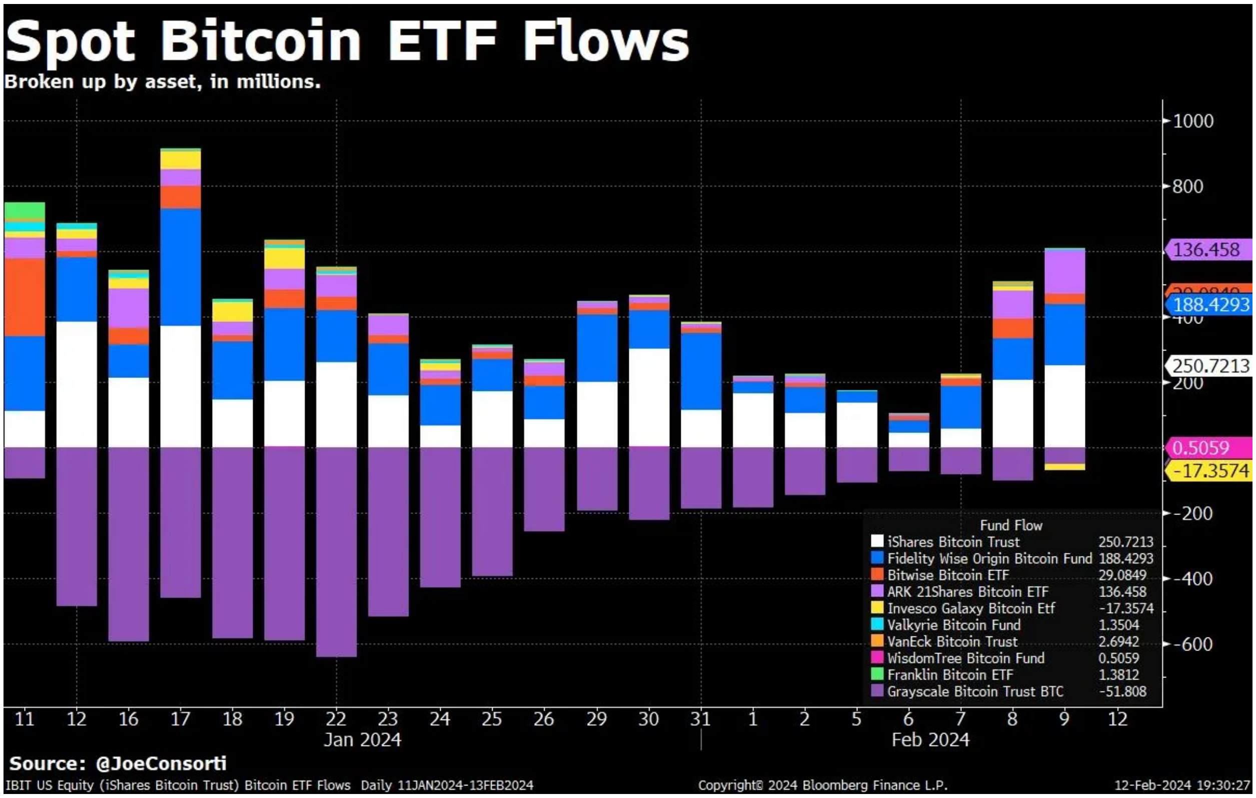
$100,000 Bitcoin is closer than you think (from The Bitcoin Layer)...

After a year of tumult followed by a year of choppy upward price action, we stand before you after a multi-month rally and present our case for why $100,000 bitcoin in 2024 is not as absurd as it first sounds. Moreover, it is a possibility sooner than you might think. At The Bitcoin Layer, we don't have to be shy about a bullish setup we haven't seen since 2016, when the CME was about to launch bitcoin futures and developers were working on a Segregated Witness upgrade to bitcoin's protocol that would allow for the launch of Lightning Network. Today, we'll look at bitcoin's cycle, effects of the Fed, institutional flows, bitcoin derivatives markets, and on-chain analysis to determine just how bullish the current setup appears.

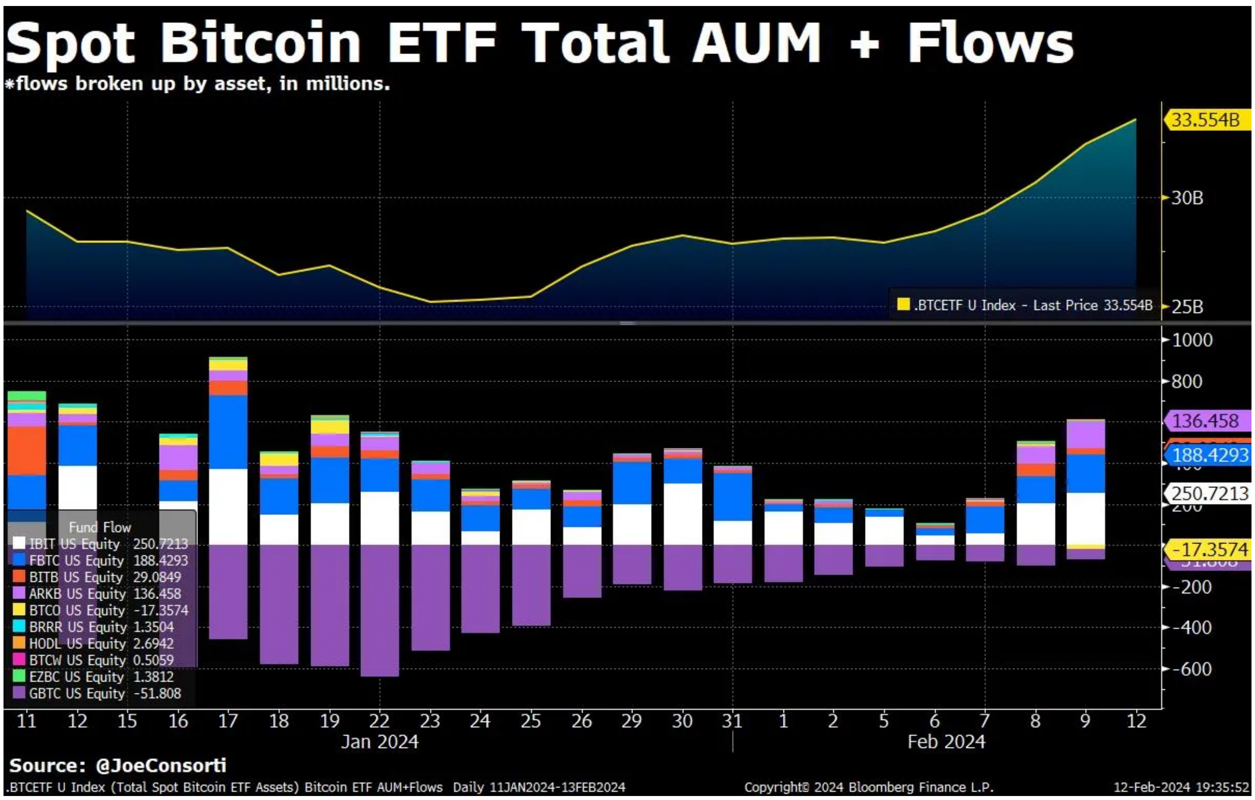
This chart depicts bitcoin's price on the top pane, with the Fed Funds rate and the Federal Reserve's balance sheet on the bottom pane. It took roughly 1.5 years for bitcoin to hit a cycle all-time high after its last two halvings. Just before the third halving, the Fed slashed policy rates and started QE to stimulate the economy that had crashed as a result of COVID. The bitcoin halving is ~9 weeks away and consensus estimates have the Fed cutting policy rates in June—in a twist of fate, mirroring the coincidence of the halving and easing in financial markets that we saw last cycle which propelled bitcoin from sub-$10,000 to $69,000 in just a year and a half:



In addition to the halving and easing efforts from the Fed lining up within months of one another, net inflows into bitcoin ETFs are accelerating. The buy-side from ETFs has finally usurped the initial sell-off from estates and GBTC holders getting out of dodge. Spot bitcoin ETFs have finally taken on the function that they were most anticipated for: a gateway for trillions of dollars of investor capital at the world's largest brokerages to directly gain exposure to bitcoin and drive its price up. Thursday saw ~$407 million in net inflows and Friday saw ~$542 million:

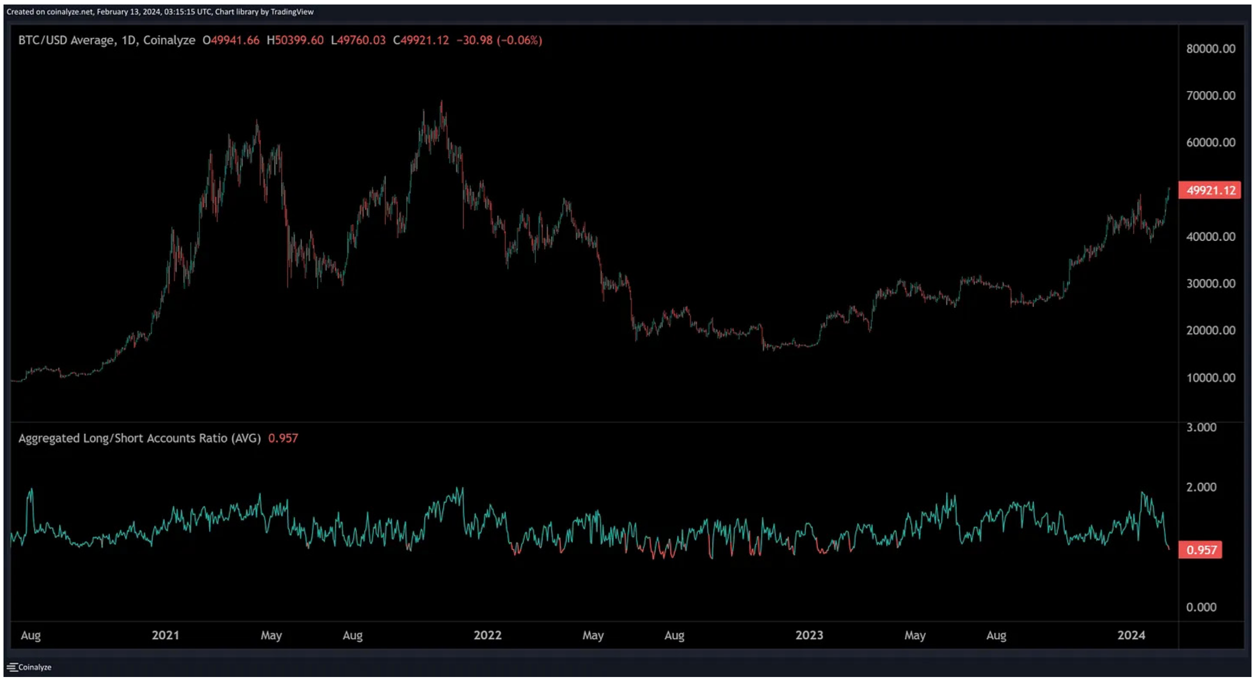


The total AUM of all spot bitcoin ETFs in the US is now $33.5 billion. The passive bid from Wall Street is now an increasing part of bitcoin's market structure. It will soon be the largest entity in day-to-day liquidity of bitcoin, holding down a perpetual bid as people automatically fund their retirement accounts. These spot ETFs have fundamentally introduced an element of stability to bitcoin that will only rise as its market capitalization continues growing and its investors increasingly treat it as a long-term asset to retire on as opposed to tech-stock adjacent:

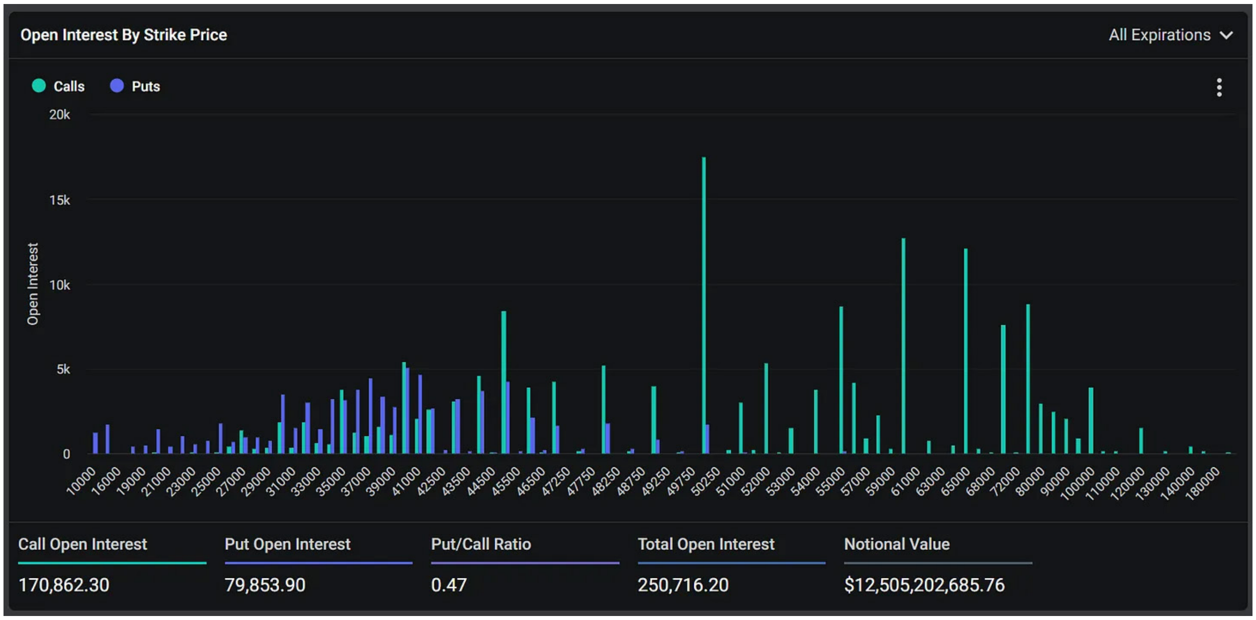


Looking at the perpetual futures market, there is a far more muted long bias than there was in 2021 when bitcoin was last at $50,000. Look down below at the funding rate, the amount that longs are paying shorts to hold their positions, a measure of how lopsided the market is to one side or the other. Much larger premiums were being paid by longs to stay in their positions during 2021 compared to today. Translation: the foundation for bitcoin's price now is much more rock solid than the last time it was this high:

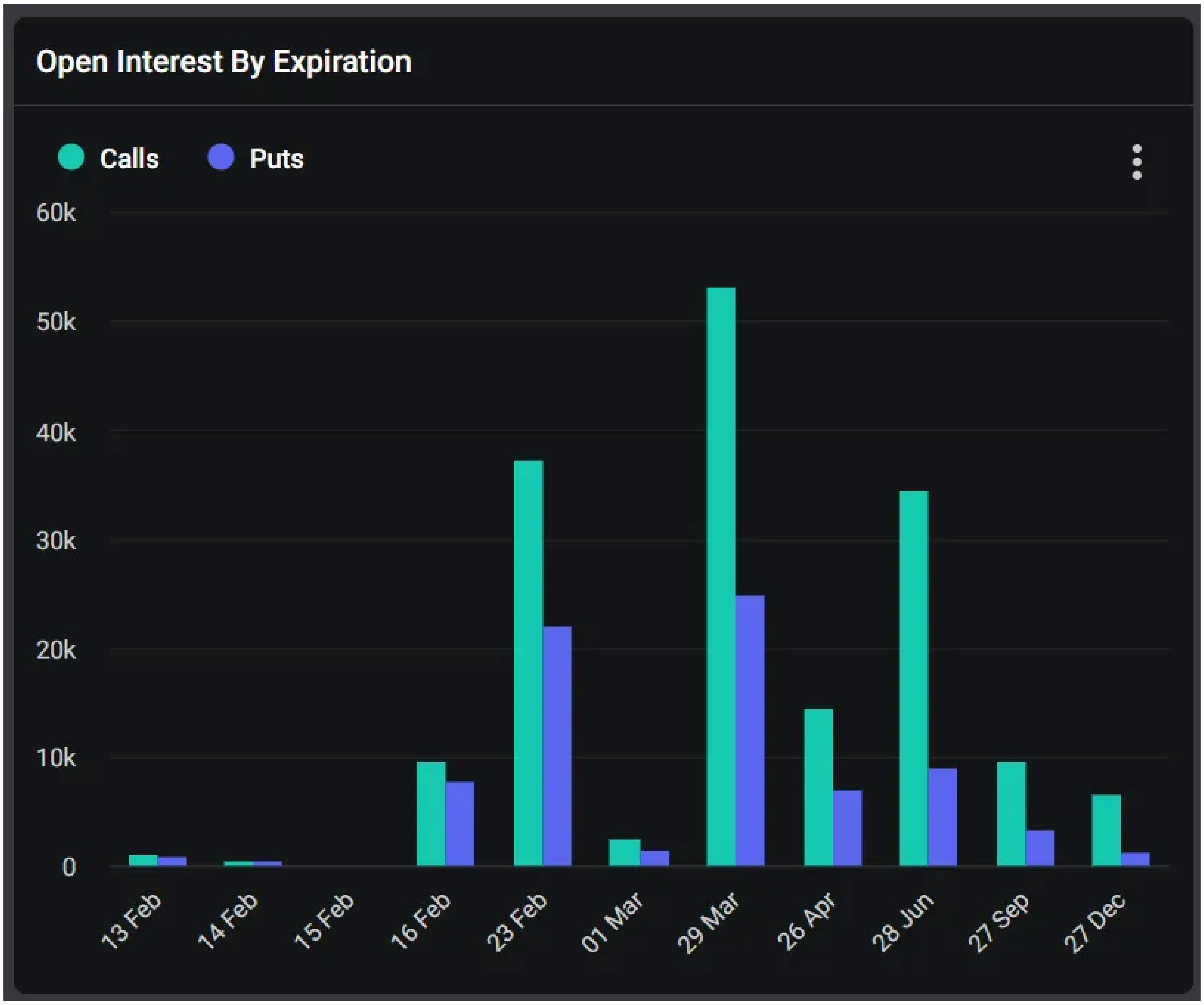
The ratio of longs to shorts further confirms this. Currently the ratio is 0.95 longs for every short position, whereas this ratio was close to 2 longs for every short the last time that bitcoin was at $50,000 in 2021. A much more healthy market structure to hold onto the $50,000 level for a while, allowing it to serve as behavioral support for this and future cycles:



Options data reflects a high degree of bullishness coalescing around the $50,000 mark. Back in November, options positions were building around the strike price of $40,000, and we're witnessing the same thing now with the $50,000 strike with similarly huge buying of call options between $60k and $75k. Participants expect major price upside still to come and are positioning themselves accordingly:

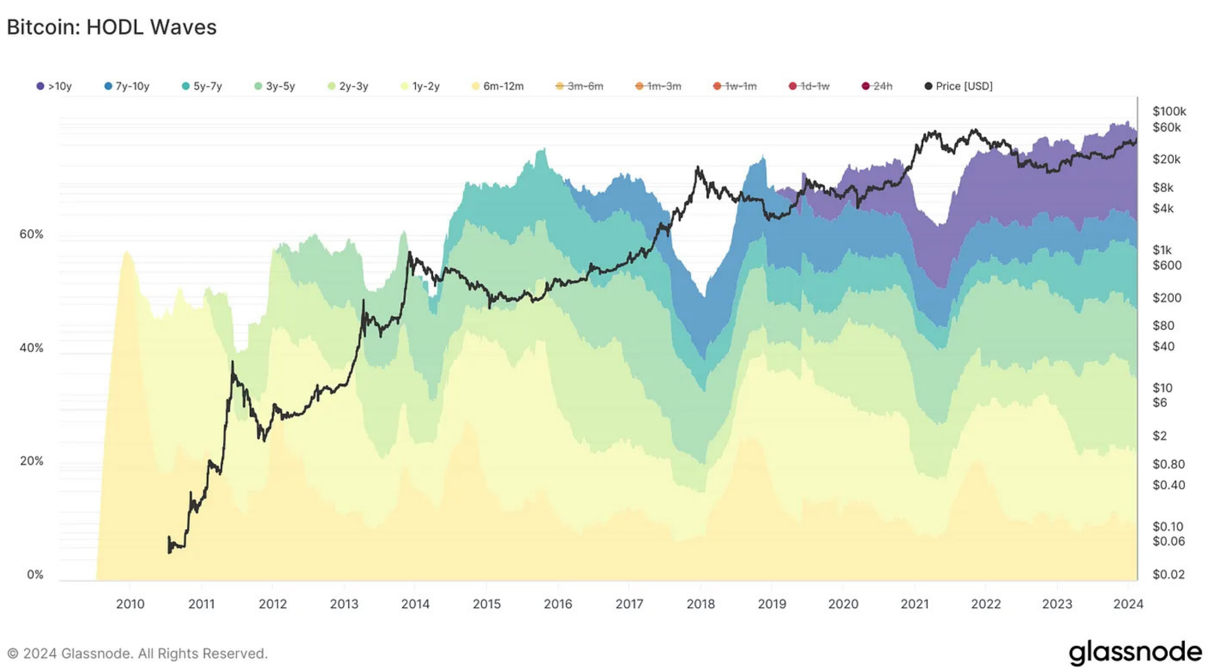


The most popular options are at the $53,000 strike with an expiration at the end of March, with $2.3 billion in open interest. The market has a high degree of certainty that the $50,000 level isn't one and done, but is here to stay in the months to come:

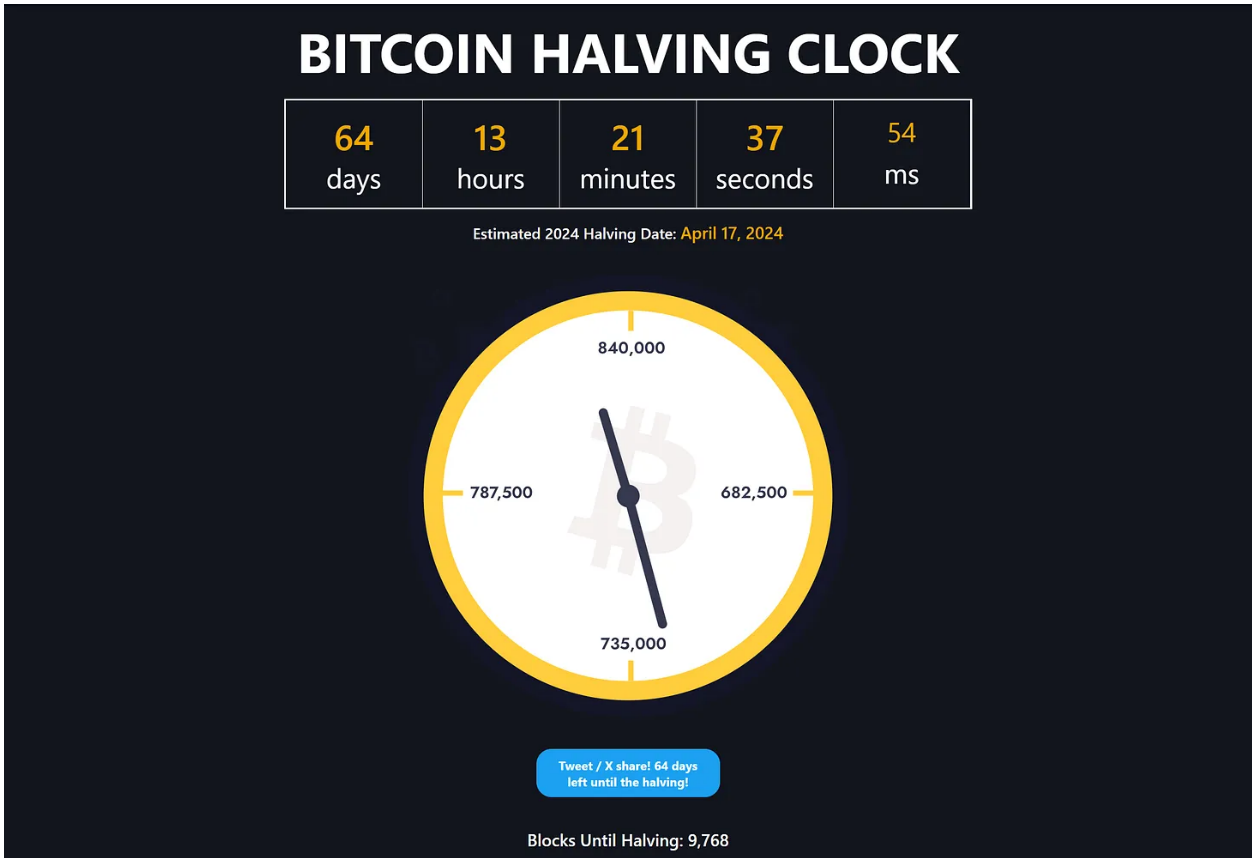


Bitcoin's current market structure is on much firmer bullish footing than it was in 2021 when the $50,000 was first reached. The run-up to bitcoin's all-time high was speculative and fueled largely by leverage, whereas the build-up to our current price level was much slower and methodical as spot bitcoin has been accumulated by buyers rather than in-and-out traders. Bitcoin's market structure today is much less prone to sudden reflexive sell-offs. The con artists have also been obliterated, from Celsius to FTX, as the Fed's rapid interest rate hikes made it financially infeasible for widespread scams to stay afloat. Fairweather bitcoin speculators are gone. With their tendrils displaced by a mature spot-driven market, bitcoin stands firm to appreciate in the face of maintenance financial easing from the Fed that is expected during Q2 of this year.

To cap it all off, **roughly 79.2% of all bitcoin in circulation has not changed hands at all in the past 6 months**:



An *increasingly stubborn* cohort of buyers is refusing to sell, while an *increasingly curious* cohort of institutional capital is passively bidding on what little supply is coming into circulation, and the *increasingly scarce* asset they are bidding up will have its supply issuance cut in half in just 64 days:



Six-figure bitcoin is an inevitability. With market sentiment extremely bullish and the Fed on the verge of the impossible by steering the economy back to trend without a deep recession, this sentiment could persist without interruption until mass hysteria is reached again.

If a recession does come, you can bet your bottom dollar that central planners will attempt to mitigate any prolonged downturn. The Fed's lightspeed response in 2020 and 2023 proves that deep recessions do not happen under the Fed's watch with the tools it has at its disposal. The global monetary and fiscal stimulus coupled with bailout packages that would come to respond to threats to financial stability would swiftly offset any sell-off that would happen in asset markets as a result.

Bitcoin stands to appreciate in the face of a world growing increasingly reliant on government deficits, and a ruling class that is totally uninterested in being austere to correct that reliance. Embrace it, don't overthink it, and enjoy the ride.

Continue reading here (subscription may be required).

Bitcoin is trading at all-time highs ("ATH") for over 1 billion people (from Ben Kaufman via X)...

Most people don't even realize that for over 1 billion people, the #Bitcoin ATH is already now.

ATH in:

Japanese Yen 🇯🇵

South African Rand 🇿🇦

Argentinian Peso 🇦🇷

Turkish Lira 🇹🇷

Nigerian Naira 🇳🇬

Pakistani Rupee 🇵🇰

Egyptian Pound 🇪🇬

Kenya Shilling 🇰🇪

Bangladeshi Taka 🇧🇩

Congolese Franc 🇨🇩

Lebanese Pound 🇱🇧

Sri Lankan Rupee 🇱🇰

Ukrainian Hryvnia 🇺🇦

Flows signal huge demand for Bitcoin exchange-traded funds ("ETFs") (from Jim Bianco via X)...

Here are the top 10 ETFs with the most inflows (top) and outflows (bottom) for all 4,500 US ETFs.

Inflows IBIT is #3 and FBTC is #7

Outflows GBTC is #2

And remember, the spot BTC ETFs started trading on January 11!

Seeing so many new funds on the top and BOTTOM 10 lists is amazing. It signals two things.

1. The complete maturity and understanding of the ETF product. No hesitation in jumping in it one day. Even 10 years ago, questions about a particular ETF's viability would have held some back. Not anymore.

2. Tremendous interest in a spot BTC ETF

Largest Year-to-Date ETF Inflows

December 31, 2023 to February 16, 2023

Rank	Symbol	Name	YTD Return	YTD Flows	Total Assets
				$60,040.83	$1,559,778.65
1	VOO	VANGUARD S&P 500 ETF	4.27%	$14,172.17	$406,221.41
2	IVV	ISHARES CORE S&P 500 ETF	4.26%	$13,900.29	$434,899.53
3	IBIT	ISHARES BITCOIN TRUST	9.41%	$5,364.84	$6,204.24
4	QQQ	INVESCO QQQ TRUST SERIES 1	3.74%	$4,768.04	$247,019.00
5	VTI	VANGUARD TOTAL STOCK MKT ETF	3.84%	$4,123.36	$368,457.44
6	SPLG	SPDR PORTFOLIO S&P 500 ETF	4.24%	$4,102.46	$31,260.74
7	FBTC	FIDELITY WISE ORIGIN BITCOIN	9.49%	$3,771.27	$4,467.14
8	IVE	ISHARES S&P 500 VALUE ETF	1.92%	$3,702.86	$31,697.65
9	DYNF	BLACKROCK US EQY FCTR ROTATE	4.73%	$3,116.81	$3,245.08
10	IUSB	ISHARES CORE TOTAL BOND ETF	-1.44%	$3,018.73	$26,306.42

Largest Year-to-Date ETF Outflows

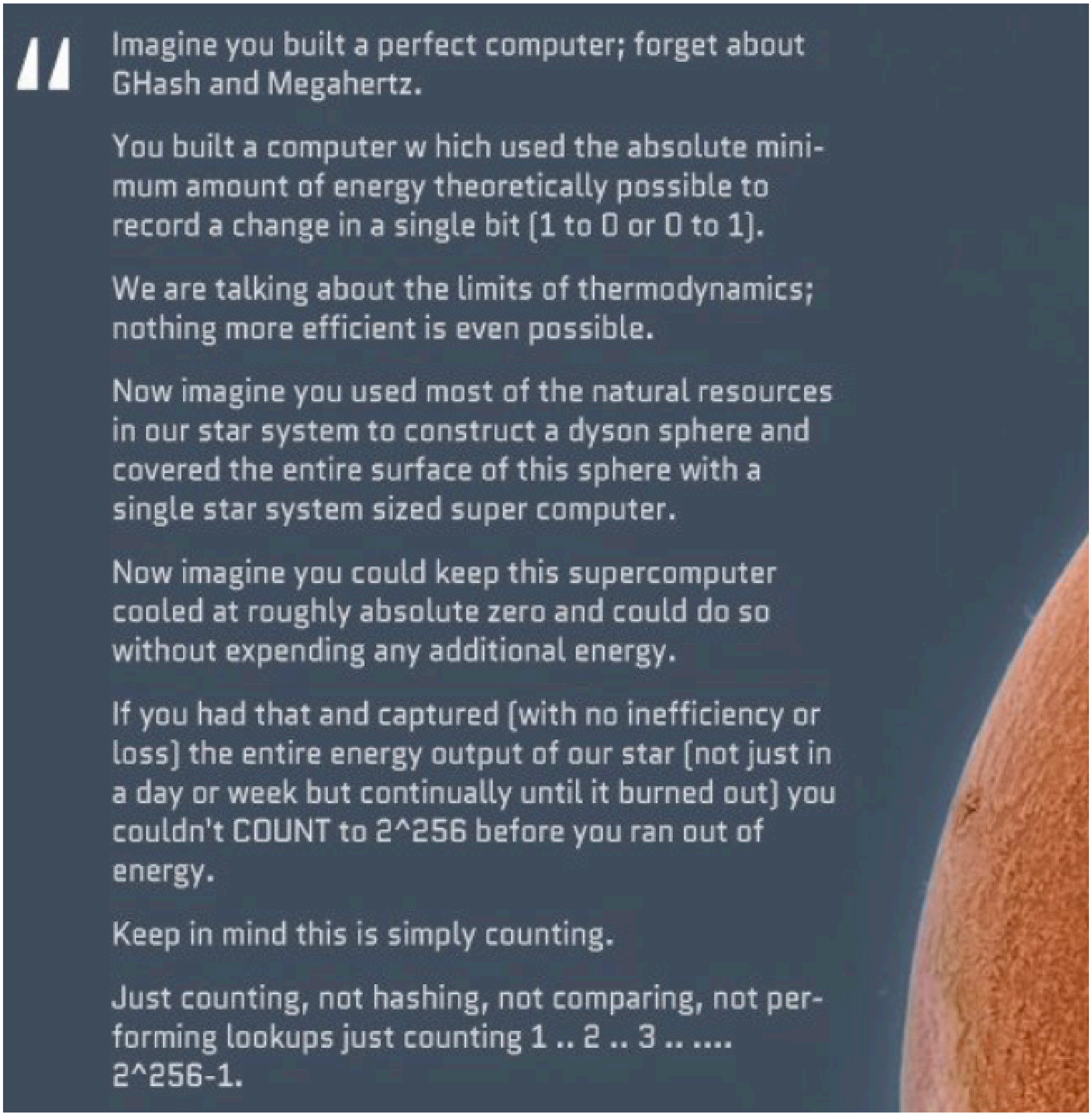
December 31, 2023 to February 16, 2023

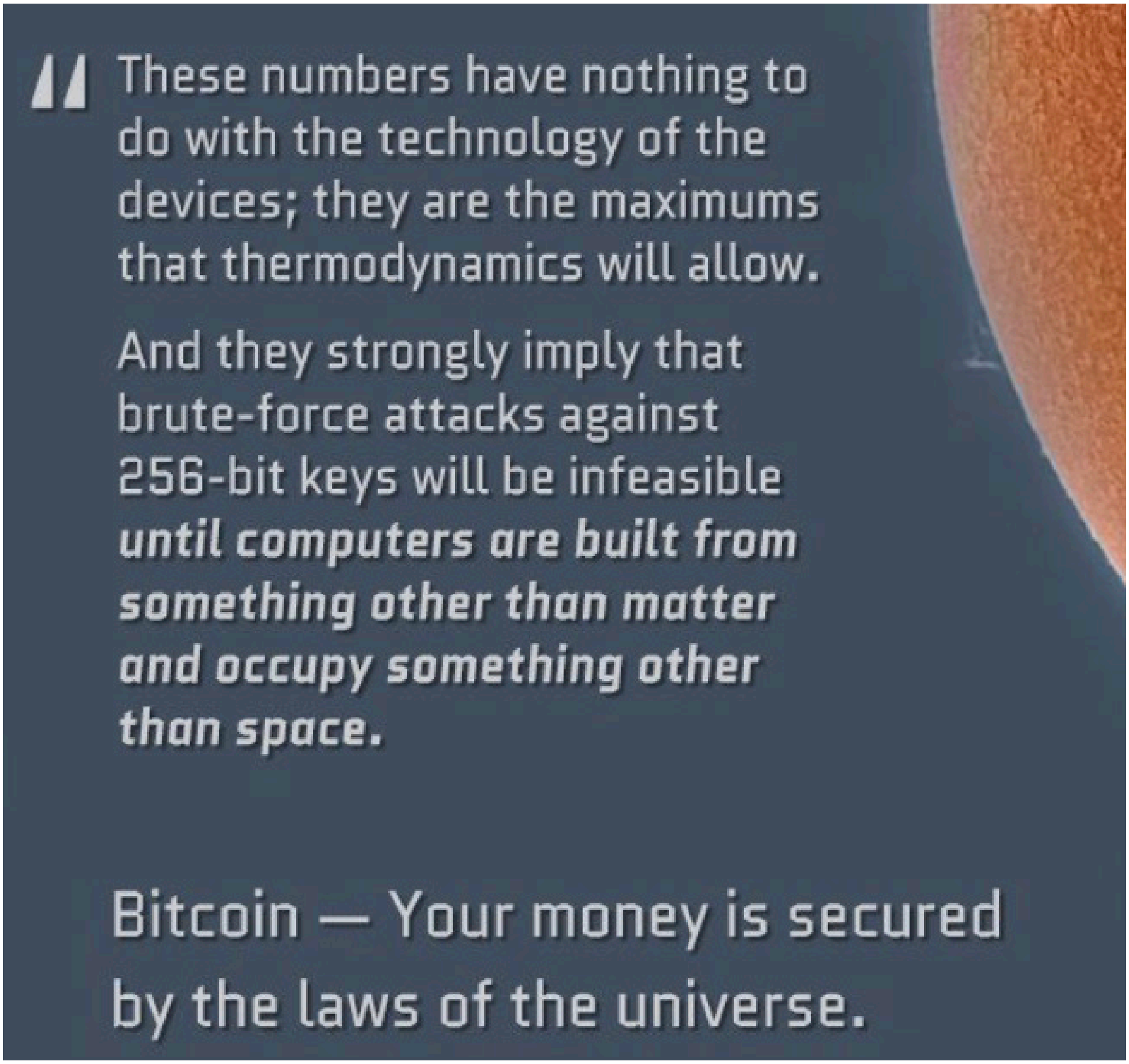
Rank	Symbol	Name	YTD Return	YTD Flows	Total Assets
				($58,848.95)	$1,140,557.29
1	SPY	SPDR S&P 500 ETF TRUST	4.25%	($29,043.75)	$488,571.75
2	GBTC	GRAYSCALE BITCOIN TRUST BTC	32.35%	($7,006.74)	$23,487.54
3	IWM	ISHARES RUSSELL 2000 ETF	-1.02%	($6,690.66)	$61,055.25
4	IWD	ISHARES RUSSELL 1000 VALUE E	1.95%	($2,941.75)	$53,168.06
5	GLD	SPDR GOLD SHARES	-1.74%	($2,653.30)	$53,811.77
6	USMV	ISHARES MSCI USA MIN VOL FAC	3.20%	($2,406.29)	$25,077.88
7	OEF	ISHARES S&P 100 ETF	5.07%	($2,170.25)	$11,140.46
8	IVW	ISHARES S&P 500 GROWTH ETF	6.26%	($2,029.74)	$37,681.34
9	BIL	SPDR BLOOMBERG 1-3 MONTH T-B	0.73%	($1,998.25)	$31,445.91
10	SUSA	ISHARES MSCI USA ESG SELECT	2.78%	($1,908.20)	$3,558.41

Why quantum computing risks to Bitcoin are probably overblown (from Adam O via X)...

Whenever people try to talk about "QuAnTuM CoMPuTiNG" breaking #bitcoin (brute forcing 256-bit encryption), just show them this little graphic.

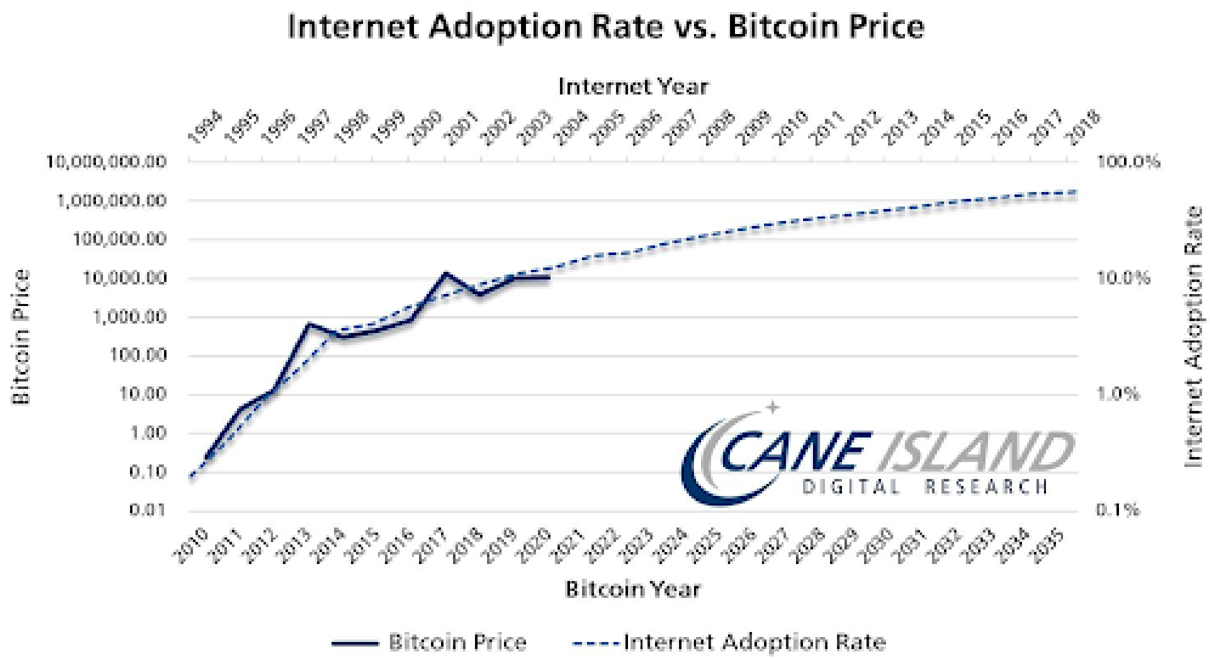
"... occupy something other than space." That part always tickles me.




“These numbers have nothing to do with the technology of the devices; they are the maximums that thermodynamics will allow.
And they strongly imply that brute-force attacks against 256-bit keys will be infeasible *until computers are built from something other than matter and occupy something other than space.*
Bitcoin — Your money is secured by the laws of the universe.

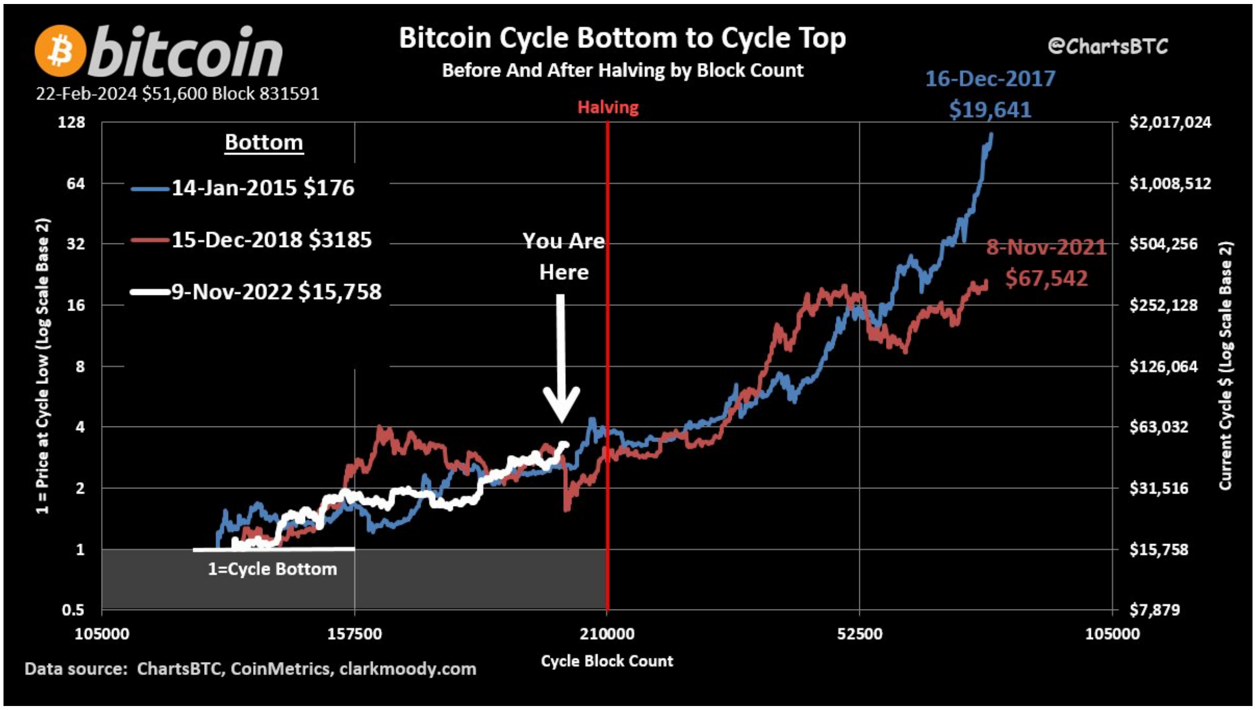
Bitcoin is closely following the internet's historical adoption rate ([from Luke Mikic via X]())...

The internet was mass-adopted in under 30 years, will Bitcoin do the same?



Bitcoin's behavior across halving cycles has been remarkably consistent (from ChartsBTC via X)...

Fascinating to observe the uncanny consistency of #Bitcoin cycles.

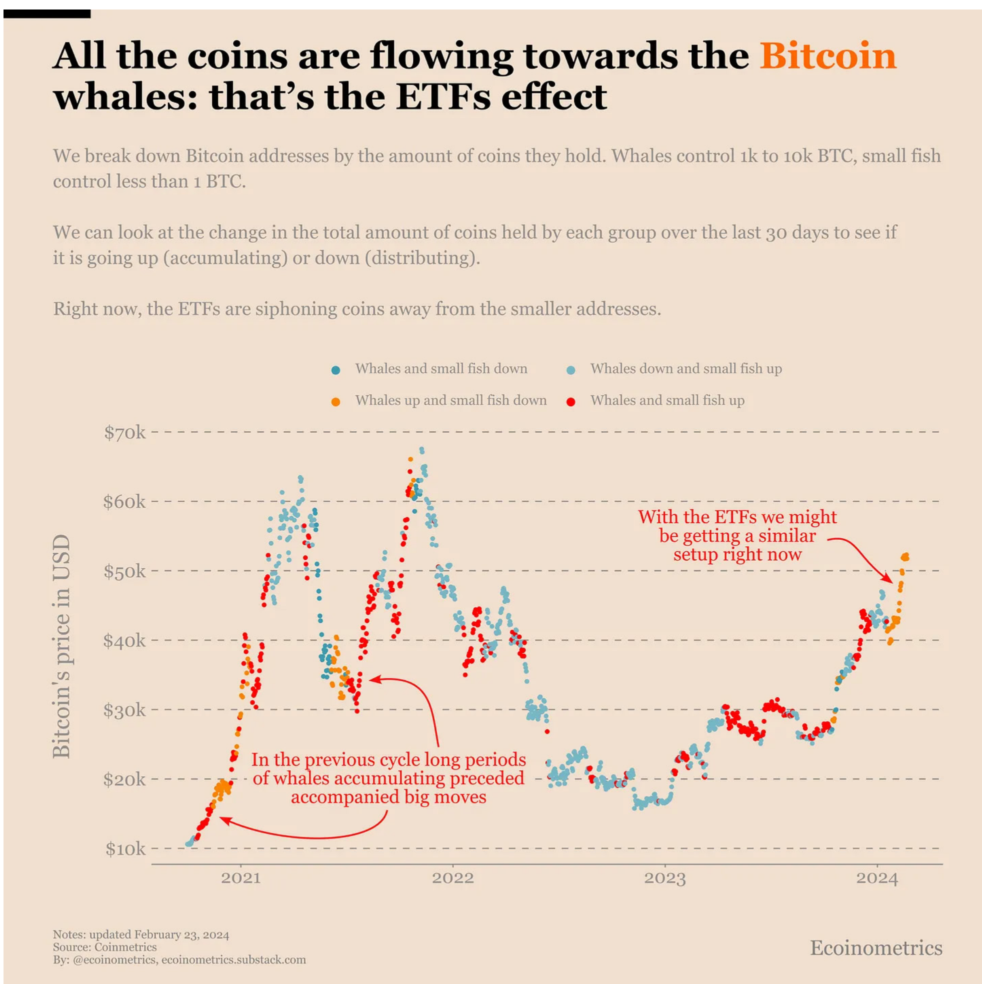


"Whales" are aggressively buying Bitcoin again. This has historically been a super-bullish signal (from Ecoinometrics)...

[Historically,] every time the whales (here the cohort of addresses controlling 1k to 10k BTC) are accumulating coins (with or without the small fish) Bitcoin's price is rising significantly. That's the blend of orange and red points you see on the chart below. It tends to accompany those big price moves.

Well, we could have another one of those events playing out in front of our eyes. Right now the ETFs are siphoning coins towards the whales addresses. And a big chunk of those coins are coming from the addresses of the smaller fish. That's why we get those orange dots mostly.

Is it a sign we are at the start of a big move? I don't know if we can trust the historical on-chain patterns given the new role the ETFs are playing in this dynamic... But it sure is some good hopium.



Continue reading here.

NOTABLE INSTITUTIONAL BUYING

From SEC Form 13F Filings by Top Investment Managers and Concentrated Hedge Funds This Month

Institution or Fund	Manager	Report Quarter	Stock Purchased/ Sold	Ticker	Shares Owned	Value of Holdings	% of Portfolio	Change in Shares	% Change in Shares	Average Transaction Price	Purchase Value
14B Capital Management LP	Bryan Gleason	2023 Q4	MASTERCARD INCORPORATED	MA	69,000	$29,429,190	17.78%	69,000	New	$426.51	$29,429,190
14B Capital Management LP	Bryan Gleason	2023 Q4	VISA INC	V	113,000	$29,419,550	17.77%	113,000	New	$260.35	$29,419,550
14B Capital Management LP	Bryan Gleason	2023 Q4	SHIFT4 PAYMENTS	FOUR	370,000	$27,505,800	16.61%	370,000	New	$74.34	$27,505,800
1888 Investments	Kevin Taylor	2023 Q4	Datadog	DDOG	6,772	$821,985	38.43%	6,772	New	$121.38	$821,985
1888 Investments	Kevin Taylor	2023 Q4	Braze	BRZE	11,614	$617,052	28.85%	11,614	New	$53.13	$617,052
AI-Squared Management	Si Min Michelle	2023 Q4	PDD HOLDINGS	PDD	150,735	$22,054,038	28.11%	150,735	New	$146.31	$22,054,038
AI-Squared Management	Si Min Michelle	2023 Q4	KE HLDGS	BEKE	686,810	$11,133,190	14.19%	686,810	New	$16.21	$11,133,190
AI-Squared Management	Si Min Michelle	2023 Q4	ALIBABA GROUP HLDG	BABA	143,600	$11,130,436	14.19%	143,600	New	$77.51	$11,130,436
AI-Squared Management	Si Min Michelle	2023 Q4	NETEASE	NTES	78,600	$7,322,376	9.33%	78,600	New	$93.16	$7,322,376
AlpInvest Partners	E.K. Herberg	2023 Q4	MADRIGAL PHARMACEUTICALS	MDGL	211,488	$48,934,093	11.18%	211,488	New	$231.38	$48,934,093
AlpInvest Partners	E.K. Herberg	2023 Q4	BROADCOM	AVGO	37,901	$42,306,991	9.66%	37,901	New	$1,116.25	$42,306,991
AMERICAN EXPRESS CO	Kristina V. Fink	2023 Q4	GLOBAL BUSINESS TRAVEL GROUP	GBTG	157,786,199	$1,017,720,984	97.65%	157,786,199	New	$6.45	$1,017,720,984
Andar Capital Management HK	Howard Lee	2023 Q4	Teradyne	TER	53,900	$5,849,228	8.25%	53,900	New	$108.52	$5,849,228
APEIRON CAPITAL	YAO WANYI	2023 Q4	Moderna	MRNA	31,200	$3,102,840	4.56%	15,300	96.23%	$99.45	$1,521,585
APPALOOSA MANAGEMENT LP	Michael L. Palmer	2023 Q4	ENERGY TRANSFER PARTNERS	ETP	5,143,082	$173,476,000	3.95%	5,143,082	New	$33.73	$173,476,000
Atlas Venture Life Science Advisors	Ommer Chohan	2023 Q4	Korro Bio, Inc.	KRRO	1,119,292	$53,647,666	6.39%	1,119,292	New	$47.93	$53,647,666
Bancreek Capital Management	Kevin Polli	2023 Q4	THE HERSHEY COMPANY	HSY	31,452	$5,863,911	4.98%	31,452	New	$186.44	$5,863,911
Bandera Partners LLC	Gregory Bylinsky	2023 Q4	MATCH GROUP INC	MTCH	595,000	$21,717,500	7.19%	595,000	New	$36.50	$21,717,500
BERKSHIRE HATHAWAY INC	Marc D. Hamburg	2023 Q4	CHEVRON CORPORATION	CVX	126,093,326	$18,808,080,506	5.41%	15,845,037	14.37%	$149.16	$2,363,445,719
BERKSHIRE HATHAWAY INC	Marc D. Hamburg	2023 Q4	OCCIDENTAL PETROLEUM CORP	OXY	243,715,804	$14,552,270,657	4.19%	19,586,612	8.74%	$59.71	$1,169,516,603
Blacksheep Fund Management	Jonathan Bull	2023 Q4	BROOKFIELD Corp	BN	2,537,384	$101,799,846	40.29%	2,537,384	New	$40.12	$101,799,846
Blacksheep Fund Management	Jonathan Bull	2023 Q4	BROOKFIELD ASSET MGMT	BAM	341,502	$13,718,135	5.43%	341,502	New	$40.17	$13,718,135
BOARDMAN BAY CAPITAL MGMT	Ken Brown	2023 Q4	SALESFORCE	CRM	14,000	$3,558,000	5.92%	14,000	New	$254.14	$3,558,000
BOARDMAN BAY CAPITAL MGMT	Ken Brown	2023 Q4	XILINX	XLNX	15,000	$3,180,000	5.29%	15,000	New	$212.00	$3,180,000
Boundary Creek Advisors	David O'Mara	2023 Q4	Mercer Intl	MERC	4,042,109	$38,319,193	32.99%	1,373,481	51.47%%	$9.48	$13,020,600
Boundary Creek Advisors	David O'Mara	2023 Q4	International Game Technology	IGT	524,439	$14,374,873	12.38%	263,138	100.70%	$27.41	$7,212,613
BROADWOOD CAPITAL INC	Neal C. Bradsher	2023 Q4	STAAR SURGICAL CO	STAA	10,537,835	$328,885,830	28.03%	1,273,408	13.75%	$31.21	$39,743,064
Canaan Partners IX	Nancy Levenson	2023 Q4	Maplebear	CART	3,728,485	$87,507,543	100.00%	3,728,485	New	$23.47	$87,507,543
Carlyle Group	Jeffrey W. Ferguson	2023 Q4	SOLENO THERAPEUTICS	SLNO	2,857,804	$115,038,749	5.53%	564,242	24.60%	$40.25	$22,713,137
Cederberg Capital Ltd	Joseph Reynolds	2023 Q4	TAL EDUCATION GROUP ADS REPSTG	TAL	2,976,769	$37,597,000	8.65%	2,976,769	New	$12.63	$37,597,000
CLEARFIELD CAPITAL MANAGEMENT	John Murray	2023 Q4	INTL FLAVORS & FRAGRANCES	IFF	355,326	$28,770,746	25.06%	355,326	New	$80.97	$28,770,746
CLEARFIELD CAPITAL MANAGEMENT	John Murray	2023 Q4	RB GLOBAL	RBA	211,400	$14,140,546	12.32%	211,400	New	$66.89	$14,140,546
CLEARFIELD CAPITAL MANAGEMENT	John Murray	2023 Q4	TRANSUNION	TRU	122,300	$8,403,233	7.32%	122,300	New	$68.71	$8,403,233
Coliseum Capital Management LLC	Chivonne Cassar	2023 Q4	UNIVERSAL TECHNICAL INSTITUTE	UTI	13,290,642	$166,398,838	13.34%	12,361,681	1330.70%	$12.52	$154,768,246

Institution or Fund	Manager	Report Quarter	Stock Purchased/ Sold	Ticker	Shares Owned	Value of Holdings	% of Portfolio	Change in Shares	% Change in Shares	Average Transaction Price	Purchase Value
Columbus Hill Capital Management	George Kim	2023 Q4	HUMANA INC	HUM	121,512	$55,629,409	22.44%	34,373	39.45%	$457.81	$15,736,303
CORNELL UNIVERSITY	Sean Graham	2023 Q4	ExxonMobil	XOM	8,000	$799,840	71.74%	8,000	New	$99.98	$799,840
CORNELL UNIVERSITY	Sean Graham	2023 Q4	Tomkins Financial Corp	TMP	5,232	$315,123	28.26%	5,232	New	$60.23	$315,123
Crake Asset Management	Dominic Booth	2023 Q4	UNITEDHEALTH GROUP	UNH	284,912	$149,997,621	14.30%	284,912	New	$526.47	$149,997,621
Dryden Capital LLC	Matthew C. Leavitt	2023 Q4	FTAC EMERALD ACQUISITION CORP	EMLD	850,000	$8,967,500	14.21%	270,000	46.55%	$10.55	$2,848,500
DSC Meridian Capital	David Gulkowitz	2023 Q4	TECK RESOURCES	TECK	1,206,697	$25,558,000	21.79%	1,206,697	New	$21.18	$25,558,000
DSC Meridian Capital	David Gulkowitz	2023 Q4	US SILICA HLDGS	SLCA	234,446	$9,910,000	14.27%	234,446	New	$42.27	$9,910,000
EDBI Pte	Ang Jen Keng	2023 Q4	Snowflake	SNOW	141,385	$28,135,615	27.84%	4,227	3.08%	$199.00	$841,173
ELEMENT CAPITAL MANAGEMENT	Thomas M. Schiera	2023 Q4	AMERICOLD REALTY TRUST	COLD	302,356	$9,152,316	32.05%	302,356	New	$30.27	$9,152,316
EMORY UNIVERSITY	Christie D'Amour	2023 Q4	SSGA Active Trust	SRLN	599,096	$25,120,095	15.53%	599,096	New	$41.93	$25,120,095
EMORY UNIVERSITY	Christie D'Amour	2023 Q4	Coursera	COUR	923,766	$17,893,347	11.06%	923,766	New	$19.37	$17,893,347
EnCap Energy Capital Fund VIII	Douglas E. Swanson Jr.	2023 Q4	PERMIAN RES	PR	3,021,829	$41,096,874	26.00%	3,021,829	New	$13.60	$41,096,874
EnCap Energy Capital Fund XI	Douglas E. Swanson Jr.	2023 Q4	PERMIAN RES	PR	26,006,121	$353,683,246	70.23%	26,006,121	New	$13.60	$353,683,246
Forerunner Ventures Management	Kirsten Green	2023 Q4	HIMS & HERS HEALTH	HIMS	9,756,893	$86,836,348	100.00%	9,756,893	New	$8.90	$86,836,348
Gavilan Investment Partners	Huy Nguyen	2023 Q4	ASML Holding	ASML	16,200	$12,262,104	4.56%	16,200	New	$756.92	$12,262,104
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	DELL TECHNOLOGIES	DELL	675,000	$51,637,500	27.59%	675,000	New	$76.50	$51,637,500
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	NVIDIA CORP	NVDA	60,500	$29,960,810	16.01%	60,500	New	$495.22	$29,960,810
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	NIKE	NKE	130,000	$14,114,100	7.54%	130,000	New	$108.57	$14,114,100
Grand Alliance Asset Management	Patricia O. Law	2023 Q4		STM	280,000	$14,036,400	7.50%	280,000	New	$50.13	$14,036,400
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	BROADCOM	AVGO	12,000	$13,395,000	7.16%	12,000	New	$1,116.25	$13,395,000
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	STAR BULK CARRIERS CORP	SBLK	600,000	$12,756,000	6.82%	600,000	New	$21.26	$12,756,000
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	ON SEMICONDUCTOR CORP	ON	150,000	$12,529,500	6.69%	150,000	New	$83.53	$12,529,500
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	MARVELL TECHNOLOGY	MRVL	180,000	$10,855,800	5.80%	180,000	New	$60.31	$10,855,800
Grand Alliance Asset Management	Patricia O. Law	2023 Q4	NXP SEMICONDUCTORS	NXPI	45,000	$10,335,600	5.52%	45,000	New	$229.68	$10,335,600
GREENLIGHT CAPITAL INC	Daniel Roitman	2023 Q4	ALIGHT INC.	ALIT	9,241,670	$78,831,446	3.85%	9,241,670	New	$8.53	$78,831,446
GREYLOCK 15 GP	Donald A. Sullivan	2023 Q4	Aurora Innovation	AUR	14,096,972	$61,603,768	69.61%	14,096,972	New	$4.37	$61,603,768
HIGHLAND PEAK CAPITAL	Craig Marshal	2023 Q4	SharkNinja, Inc.	SN	344,701	$17,638,350	13.15%	344,701	New	$51.17	$17,638,350
HIGHLAND PEAK CAPITAL	Craig Marshal	2023 Q4	TIDEWATER INC	TDW	144,322	$10,407,059	7.76%	144,322	New	$72.11	$10,407,059
HIGHLAND PEAK CAPITAL	Craig Marshal	2023 Q4	ALIGHT INC.	ALIT	1,165,120	$9,938,474	7.41%	1,165,120	New	$8.53	$9,938,474
INDUSTRY VENTURES	Joseph Patrick Hanson III	2023 Q4	Maplebear	CART	945,344	$22,187,224	36.03%	682,776	260.04%	$23.47	$16,024,753
IVY LANE CAPITAL MANAGEMENT	Robert Waldemar Koehn	2023 Q4	AT&T	T	515,000	$8,641,700	5.50%	515,000	New	$16.78	$8,641,700
JB Investments Management	Alex Bentley	2023 Q4	CALLON PETROLEUM	CPE	3,183,470	$98,146,380	97.42%	128,259	4.20%	$30.83	$3,954,225
JS Capital Management LLC	Elizabeth Locher	2023 Q4	Snowflake	SNOW	295,508	$58,806,092	7.04%	162,508	122.19%	$199.00	$32,339,092
Juniper Capital Advisors	Edward Geiser	2023 Q4	BAYTEX ENERGY CORP.	BTE	101,751,995	$337,816,623	100.00%	101,751,995	New	$3.32	$337,816,623
Kailix Advisors	Manish Mittal	2023 Q4	ANTERO RESOURCES	AR	1,914,213	$43,414,351	24.35%	423,017	28.37%	$22.68	$9,594,026
Kailix Advisors	Manish Mittal	2023 Q4	TECK RESOURCES	TECK	990,481	$41,867,632	23.48%	117,989	13.52%	$42.27	$4,987,395
Kailix Advisors	Manish Mittal	2023 Q4	GREEN PLAINS	GPRE	644,610	$16,257,064	9.12%	131,404	25.60%	$25.22	$3,314,009
Kellner Capital	Glen M. Friedman	2023 Q4	HESS CORPORATION	HES	78,752	$11,353,000	20.45%	78,752	New	$144.16	$11,353,000
Kellner Capital	Glen M. Friedman	2023 Q4	SPLUNK	SPLK	49,400	$7,526,000	13.56%	49,400	New	$152.35	$7,526,000
Kellner Capital	Glen M. Friedman	2023 Q4	PIONEER NAT RES	PXD	26,699	$6,004,000	10.82%	26,699	New	$224.88	$6,004,000

Institution or Fund	Manager	Report Quarter	Stock Purchased/ Sold	Ticker	Shares Owned	Value of Holdings	% of Portfolio	Change in Shares	% Change in Shares	Average Transaction Price	Purchase Value
Kellner Capital	Glen M. Friedman	2023 Q4	CAPRI HLDGS	CPRI	83,600	$4,200,000	7.57%	83,600	New	$50.24	$4,200,000
Kellner Capital	Glen M. Friedman	2023 Q4	SPIRIT RLTY CAPITAL	SRC	86,750	$3,790,000	6.83%	86,750	New	$43.69	$3,790,000
Kellner Capital	Glen M. Friedman	2023 Q4	SP PLUS	SP	67,836	$3,477,000	6.26%	67,836	New	$51.26	$3,477,000
KIZE CAPITAL LP	Jacqueline Walsh	2023 Q4	RYANAIR HOLDINGS PLC	RYAAY	242,485	$32,337,800	19.09%	242,485	New	$133.36	$32,337,800
Legion Partners Asset Management	Raymond T. White	2023 Q4	ADVANCE AUTO PARTS	AAP	772,950	$47,173,139	12.30%	772,950	New	$61.03	$47,173,139
Legion Partners Asset Management	Raymond T. White	2023 Q4	V.F. CORPORATION	VFC	1,791,610	$33,682,268	8.78%	1,791,610	New	$18.80	$33,682,268
Lodge Hill Capital	Jon Hanlon	2023 Q4	ARCH RESOURCES	ARCH	85,000	$14,104,900	6.21%	85,000	New	$165.94	$14,104,900
Long Corridor Asset Management	Ali Sheikh	2023 Q4	WEIBO CORPORATION	WB	1,494,608	$16,365,958	27.12%	874,608	141.07%	$10.95	$9,576,958
Madrone Advisors LLC	Brad Sikorski	2023 Q4	PACIFIC BIOSCIENCES OF CALIFOR	PACB	17,591,915	$172,576,686	21.50%	1,175,982	769.06%	$9.81	$11,536,383
Mantle Ridge LP	Paul C. Hilal	2023 Q4	DOLLAR TREE INC HOLDIN	DLTR	12,104,393	$1,719,429,026	77.84%	738,862	6.50%	$142.05	$104,955,347
Mantle Ridge LP	Paul C. Hilal	2023 Q4	Vestis Corp	VSTS	6,330,447	$133,825,650	6.06%	6,330,447	New	$21.14	$133,825,650
Marlin Sams Capital Management	Suzanne Present	2023 Q4	PAN AMERICAN SILVER CORP	PAAS	350,000	$5,715,500	4.33%	265,000	311.76%	$16.33	$4,327,450
Marlowe Partners LP	William Vernon	2023 Q4	DOLLAR GEN CORP	DG	18,705	$2,542,945	6.91%	11,603	163.38%	$135.95	$1,577,428
MKA Charitable Fund	Laura Twomey	2023 Q4	AIRBNB	ABNB	1,750,000	$238,245,000	100.00%	1,750,000	New	$136.14	$238,245,000
MUFG SECURITIES (CANADA)	Tiffany Chen	2023 Q4	TC ENERGY CORP	TRP	6,000,000	$235,580,245	66.47%	6,000,000	New	$39.26	$235,580,245
MUFG SECURITIES (CANADA)	Tiffany Chen	2023 Q4	CANADIAN IMPERIAL BK OF COMMER	CM	1,950,000	$94,373,191	26.63%	1,950,000	New	$48.40	$94,373,191
MUFG SECURITIES (CANADA)	Tiffany Chen	2023 Q4	BANK OF NOVA SCOTIA	BNS	500,000	$24,463,752	6.90%	500,000	New	$48.93	$24,463,752
Omni Partners US LLC	Sarah Funnell	2023 Q4	KANSAS CITY SOUTHERN	KSU	502,637	$136,033,000	7.15%	454,871	952.29%	$270.64	$123,105,674
Ovata Capital Management	Nicholoas Bloom	2023 Q4	HDFC BK	HDB	166,748	$11,190,442	32.84%	166,748	New	$67.11	$11,190,442
Ovata Capital Management	Nicholoas Bloom	2023 Q4	RIO TINTO PLC	RIO	83,000	$5,880,234	17.26%		New	$70.85	$5,880,234
Ovata Capital Management	Nicholoas Bloom	2023 Q4	ALIGHT INC.	ALIT	400,000	$3,568,000	10.47%	400,000	New	$8.92	$3,568,000
Ovata Capital Management	Nicholoas Bloom	2023 Q4	TALOS ENERGY INC	TALO	182,291	$2,594,000	7.61%	182,291	New	$14.23	$2,594,000
Panview Asian Equity Master Fund	Jesse Lentchner	2023 Q4	DECKERS OUTDOOR	DECK	43,500	$29,076,705	19.38%	12,000	38.10%	$668.43	$8,021,160
Panview Asian Equity Master Fund	Jesse Lentchner	2023 Q4	ACM RESH	ACMR	1,057,753	$20,668,494	13.77%	767,753	264.74%	$19.54	$15,001,894
PAULSON & CO. INC.	Stuart Merzer	2023 Q4	MADRIGAL PHARMACEUTICALS	MDGL	1,105,741	$255,846,353	23.09%	605,741	121.15%	$231.38	$140,156,353
Pavadi Capital LLC	Jeffrey S. Edelman	2023 Q4	ELEVANCE HEALTH INC.	ELV	17,374	$8,192,883	10.09%	17,374	New	$471.56	$8,192,883
Pavadi Capital LLC	Jeffrey S. Edelman	2023 Q4	ZIMMER BIOMET HOLDINGS	ZBH	55,515	$6,756,176	8.32%	55,515	New	$121.70	$6,756,176
Pavadi Capital LLC	Jeffrey S. Edelman	2023 Q4	BAXTER INTL	BAX	131,315	$5,076,638	6.25%	131,315	New	$38.66	$5,076,638
Pershing Square Capital Mgmt	William A. Ackman	2023 Q4	Howard Hughes Holdings	HHH	18,852,064	$1,612,794,075	15.51%	2,045,156	12.17%	$85.55	$174,963,096
Pine Brook Road Advisors	Elan Stukov	2023 Q4	Fidelis Insurance Holdings	FIHL	8,454,329	$107,116,348	52.96%	8,454,329	New	$12.67	$107,116,348
Pine Brook Road Advisors	Elan Stukov	2023 Q4	SITIO ROYALTIES CORP	CSTR	2,317,436	$54,482,920	26.94%	2,317,436	New	$23.51	$54,482,920
Pine Brook Road Advisors	Elan Stukov	2023 Q4	Better Home & Finance Holding Co	BETR	49,783,028	$40,647,842	20.10%	49,783,028	New	$0.82	$40,647,842
Prevatt Capital Ltd	Simon Batten	2023 Q4	GARRETT MOTION INC	GTX	2,500,000	$24,187,500	9.01%	2,500,000	New	$9.68	$24,187,500
Prevatt Capital Ltd	Simon Batten	2023 Q4	CARGURUS INC	CARG	1,000,000	$24,160,000	9.00%	1,000,000	New	$24.16	$24,160,000
Prevatt Capital Ltd	Simon Batten	2023 Q4	BRITISH AMERN TOB PLC	BTI	800,000	$23,432,000	8.73%	800,000	New	$29.29	$23,432,000
Prevatt Capital Ltd	Simon Batten	2023 Q4	KEURIG DR PEPPER INC	KDP	700,000	$23,331,000	8.69%	700,000	New	$33.33	$23,331,000
Prevatt Capital Ltd	Simon Batten	2023 Q4	CME GROUP, INC	CME	110,000	$23,166,000	8.63%	110,000	New	$210.60	$23,166,000
Prevatt Capital Ltd	Simon Batten	2023 Q4	BOOKING HLDGS	BKNG	6,200	$21,992,764	8.20%	6,200	New	$3,547.22	$21,992,764
Prevatt Capital Ltd	Simon Batten	2023 Q4	PAYPAL HLDGS	PYPL	350,000	$21,493,500	8.01%	350,000	New	$61.41	$21,493,500
QCM Cayman	James S. Robertson	2023 Q4	Chipotle Mexican Grill	CMG	99	$226,409	12.21%	99	New	$2,286.96	$226,409

Institution or Fund	Manager	Report Quarter	Stock Purchased/ Sold	Ticker	Shares Owned	Value of Holdings	% of Portfolio	Change in Shares	% Change in Shares	Average Transaction Price	Purchase Value
RIVERSTONE HOLDINGS	Thomas Smith	2023 Q4	CRESCENT POINT ENERGY	CPG	41,757,442	$289,379,073	24.92%	41,757,442	New	$6.93	$289,379,073
RIVERSTONE HOLDINGS	Thomas Smith	2023 Q4	LAREDO PETROLEUM	LPI	3,370,497	$153,323,909	13.20%	3,370,497	New	$45.49	$153,323,909
RWC ASSET ADVISORS (US)	Fadi Freiha	2023 Q4	PETRO BRAS SA	PBR	6,811,783	$108,784,175	20.21%	1,145,021	8.61%	$15.97	$18,285,985
RWC ASSET ADVISORS (US)	Fadi Freiha	2023 Q4	GOLD FIELDS	GFI	12,810,699	$185,242,708	19.28%	2,070,427	14.66%	$14.46	$29,938,374
RWC ASSET ADVISORS (US)	Fadi Freiha	2023 Q4	XPENG	XPEV	4,434,392	$64,697,779	5.12%	2,793,550	170.25%	$14.59	$40,757,894
Samjo Capital LLC	Andrew Wiener	2023 Q4	THRYV HLDGS	THRY	1,972,050	$37,015,379	14.63%	1,227,050	164.70%	$18.77	$23,031,729
Samjo Capital LLC	Andrew Wiener	2023 Q4	PDF SOLUTIONS	PDFS	1,101,234	$35,679,982	14.10%	556,234	102.06%	$32.40	$18,021,982
Samson Rock Capital	Trishawna Simpson	2023 Q4	SPLUNK INC	SPLK	335,016	$51,039,687	53.61%	335,016	New	$152.35	$51,039,687
Samson Rock Capital	Trishawna Simpson	2023 Q4	UNITED STATES STEEL	X	300,000	$14,595,000	15.33%	300,000	200.00%	$48.65	$14,595,000
Savior LLC	Sandy Capobianco	2023 Q4	HUT 8 CORP	HUT	115,671	$1,543,051	9.89%	115,671	New	$13.34	$1,543,051
Seafarer Capital Partners	David Lenik	2023 Q4	AMBEV SA	ABEV	19,399,000	$54,317,200	14.68%	1,000,000	5.44%	$2.80	$2,800,000
Seafarer Capital Partners	David Lenik	2023 Q4	CREDICORP	BAP	356,500	$53,450,045	14.44%	20,000	5.94%	$149.93	$2,998,600
Seafarer Capital Partners	David Lenik	2023 Q4	ANHEUSER-BUSCH INBEV	BUD	792,000	$51,179,040	13.83%	60,000	8.20%	$64.62	$3,877,200
SHAH CAPITAL MANAGEMENT	Himanshu H. Shah	2023 Q4	VEON	VEON	4,951,467	$97,543,900	24.98%	4,951,467	New	$19.70	$97,543,900
SHAH CAPITAL MANAGEMENT	Himanshu H. Shah	2023 Q4	ORIENTAL EDUCATION & TECH	EDU	827,770	$60,658,986	15.53%	827,770	New	$73.28	$60,658,986
SHAH CAPITAL MANAGEMENT	Himanshu H. Shah	2023 Q4	EMEREN GROUP	SOL	18,639,226	$50,885,087	13.03%	18,639,226	New	$2.73	$50,885,087
Soapstone Management L.P.	Jed Nussdorf	2023 Q4	Kenvue	KVUE	850,000	$18,300,500	10.01%	255,000	42.86%	$21.53	$5,490,150
Soapstone Management L.P.	Jed Nussdorf	2023 Q4	Vestis Corp	VSTS	475,000	$10,041,500	5.49%	475,000	New	$21.14	$10,041,500
SWaN & Legend Advisors	Anthony P. Nader	2023 Q4	Cava Group	CAVA	117,742	$5,060,551	84.07%	117,742	New	$42.98	$5,060,551
SWaN & Legend Advisors	Anthony P. Nader	2023 Q4	Pinterest	PINS	24,613	$911,666	15.14%	24,613	New	$37.04	$911,666
Tao Capital Management	Lori D. Mills	2023 Q4	MADRIGAL PHARMACEUTICALS	MDGL	130,529	$30,202,000	27.63%	130,529	New	$231.38	$30,202,000
Third Point LLC	Daniel S. Loeb	2023 Q4	FLEETCOR TECHNOLOGIES	FLT	615,000	$173,805,150	2.63%	615,000	New	$282.61	$173,805,150
Third Point LLC	Daniel S. Loeb	2023 Q4	VERIZON COMMUNICATIONS	VZ	4,675,000	$173,324,690	2.62%	4,675,000	New	$37.07	$173,324,690
TIGER MANAGEMENT L.L.C.	Elouise Manhertz	2023 Q4	COUPANG INC	CPNG	91,645	$1,483,733	26.69%	91,645	New	$16.19	$1,483,733
Trustees of Princeton University	Andrew Golden	2023 Q4	AMERESCO	AMRC	226,400	$7,170,000	92.24%	226,400	New	$31.67	$7,170,000
Truxt Investmentos	Carla Cid Varela Madeira	2023 Q4	NU HLDGS	NU	10,334,026	$86,082,437	31.34%	3,456,555	50.26%	$8.33	$28,793,103
Truxt Investmentos	Carla Cid Varela Madeira	2023 Q4	WALDENCAST	WALD	4,075,479	$44,585,740	16.23%	144,841	3.68%	$10.94	$1,584,561
Ursa Fund Management	Andrew Hahn	2023 Q4	Manchester UTD	MANU	402,700	$8,207,026	21.74%	402,700	New	$20.38	$8,207,026
Ursa Fund Management	Andrew Hahn	2023 Q4	Seritage Growth Pptys	SRG	747,400	$6,988,190	18.51%	322,400	75.86%	$9.35	$3,014,440
Ursa Fund Management	Andrew Hahn	2023 Q4	Kraneshares TR CSI China Internet	KWEB	200,000	$5,400,000	14.30%	200,000	New	$27.00	$5,400,000
Varenne Capital Partners	David Mellul	2023 Q4	ULTA BEAUTY	ULTA	113,812	$55,766,742	23.79%	113,812	New	$489.99	$55,766,742
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	XP	XP	1,232,082	$32,120,000	12.84%	1,232,082	New	$26.07	$32,120,000
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	META PLATFORMS	META	85,642	$30,314,000	12.12%	46,789	120.43%	$353.96	$16,561,521
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	THERMO FISHER SCIENTIFIC	TMO	30,383	$16,127,000	6.45%	30,383	New	$530.79	$16,127,000
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	GFL ENVIRONMENTAL	GFL	376,469	$12,992,000	5.19%	376,469	New	$34.51	$12,992,000
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	ALPHABET	GOOG	88,921	$12,532,000	5.01%	88,921	New	$140.93	$12,532,000
Verde Servicos Internacionais S.A.	Pedro Fukui	2023 Q4	BANK OF AMERICA	BAC	306,600	$10,323,000	4.13%	306,600	New	$33.67	$10,323,000
VIEX Capital Advisors LLC	Eric Singer	2023 Q4	ALLOT	ALLT	2,347,017	$9,200,000	30.95%	357,339	17.96%	$3.92	$1,400,722

Institution or Fund	Manager	Report Quarter	Stock Purchased/ Sold	Ticker	Shares Owned	Value of Holdings	% of Portfolio	Change in Shares	% Change in Shares	Average Transaction Price	Purchase Value
VIEX Capital Advisors LLC	Eric Singer	2023 Q4	BENEFITFOCUS	BNFT	1,210,573	$7,687,000	25.86%	277,522	29.74%	$6.35	$1,762,233
VIEX Capital Advisors LLC	Eric Singer	2023 Q4	QUOTIENT TECHNOLOGY	QUOT	2,552,436	$5,896,000	19.83%	522,817	25.76%	$2.31	$1,207,681
Vision Capital Corp	Vinh Truong	2023 Q4	HOST HOTELS & RESORTS	HST	1,121,000	$21,825,870	9.06%	1,121,000	New	$19.47	$21,825,870
Vision Capital Corp	Vinh Truong	2023 Q4	PROLOGIS	PLD	160,000	$21,328,000	8.85%	160,000	New	$133.30	$21,328,000
Voss Capital LLC	Travis W. Cocke	2023 Q4	R1 RCM INC	RCM	7,125,000	$75,311,250	7.33%	6,035,340	553.87%	$10.57	$63,793,544
Waterton Global Resource Mgmt	Richard J. Wells	2023 Q4	I-80 Gold Corp	IAUX	26,219,881	$38,281,027	96.12%	14,508,416	123.88%	$1.46	$21,182,288
WIT Partners Advisory Pte	Desmond Yeo	2023 Q4	Crocs	CROX	2,852,280	$266,431,000	100.00%	2,852,280	New	$93.41	$266,431,000
WuXi AppTec Co.	Edward Hu	2023 Q4	Lyell Immunopharma	LYEL	8,180,678	$15,870,515	41.15%	8,180,678	New	$1.94	$15,870,515
WuXi AppTec Co.	Edward Hu	2023 Q4	Ambrx Biopharma	AMAM	1,000,000	$14,240,000	36.92%	1,000,000	New	$14.24	$14,240,000
WuXi AppTec Co.	Edward Hu	2023 Q4	Adagene	ADAG	4,225,696	$8,161,509	21.16%	4,225,696	New	$1.93	$8,161,509
Yong Rong (HK) Asset Management	Erwin Tsui	2023 Q4	PDD HOLDINGS	PDD	591,700	$86,572,000	32.50%	331,400	127.31%	$146.31	$48,487,343
Yong Rong (HK) Asset Management	Erwin Tsui	2023 Q4	INTEL	INTC	668,700	$33,603,000	12.62%	668,700	New	$50.25	$33,603,000
Yunqi Capital	Selina GUAN	2023 Q4	FULL TRUCK ALLIANCE	YMM	2,805,300	$19,665,153	13.80%	2,805,300	New	$7.01	$19,665,153
Yunqi Capital	Selina GUAN	2023 Q4	LUFAX HLDG	LU	5,089,767	$15,625,585	10.96%	5,089,767	New	$3.07	$15,625,585
Yunqi Capital	Selina GUAN	2023 Q4	KE HLDGS	BEKE	510,100	$8,268,721	5.80%	510,100	New	$16.21	$8,268,721

NOTABLE INSIDER BUYING

From SEC Form 4 Filings by Top Executives and 10% Owners This Month

Stock Purchased/Sold	Ticker	Total Buy Value	Total Sell Value	Total Buy Filings	Total Sell Filings
Arcus Biosciences Inc.	RCUS	$320,000,000	$0	1	0
Maplebear Inc.	CART	$247,083,569	$19,776,952	8	1
OCCIDENTAL PETROLEUM CORP	OXY	$245,879,808	$0	1	0
Prime Medicine Inc.	PRME	$60,000,000	$0	3	0
Childrens Place Inc.	PLCE	$55,915,731	$0	3	0
Liberty Media Corporation	LSXMK	$55,438,738	$0	2	0
RXO Inc.	RXO	$53,014,788	$0	2	0
IOVANCE BIOTHERAPEUTICS INC.	IOVA	$48,330,300	$0	3	0
MERCURY SYSTEMS INC	MRCY	$37,868,871	$50,154	5	1
Larimar Therapeutics Inc.	LRMR	$37,521,992	$0	2	0
BlackRock Innovation & Growth Term Trust	BIGZ	$34,338,024	$0	9	0
BlackRock Health Sciences Term Trust	BMEZ	$32,100,677	$0	9	0
Sana Biotechnology Inc.	SANA	$29,999,988	$0	3	0
Astria Therapeutics Inc.	ATXS	$29,999,522	$0	1	0
PepGen Inc.	PEPG	$27,212,790	$0	1	0
Corbus Pharmaceuticals Holdings Inc.	CRBP	$23,361,941	$0	2	0
Tenaya Therapeutics Inc.	TNYA	$19,999,998	$37,258	2	1
Wave Life Sciences Ltd.	WVE	$16,500,000	$0	1	0
Aon plc	AON	$15,098,480	$19,237,586	1	3
Gates Industrial Corp plc	GTES	$13,081,297	$877,216,896	4	3
Skye Bioscience Inc.	SKYE	$12,026,031	$0	1	0
Arena Group Holdings Inc.	AREN	$11,999,999	$0	1	0
SONIDA SENIOR LIVING INC.	SNDA	$10,000,004	$0	1	0
Mineralys Therapeutics Inc.	MLYS	$7,499,993	$0	1	0
Lineage Cell Therapeutics Inc.	LCTX	$7,100,002	$0	2	0
OCULAR THERAPEUTIX INC	OCUL	$7,000,000	$248,267	1	4
Vera Therapeutics Inc.	VERA	$4,999,990	$0	1	0
Jasper Therapeutics Inc.	JSPR	$4,532,500	$0	1	0
AMERICAS CARMART INC	CRMT	$3,960,766	$0	2	0
EXELIXIS INC.	EXEL	$3,932,734	$0	1	0
KalVista Pharmaceuticals Inc.	KALV	$3,822,424	$2,324,421	3	5
Alteryx Inc.	AYX	$3,696,850	$0	2	0
Tourmaline Bio Inc.	TRML	$3,250,000	$0	1	0
TELA Bio Inc.	TELA	$3,038,315	$0	1	0
FIRST CITIZENS BANCSHARES INC	FCNCA	$2,707,742	$0	5	0
AGREE REALTY CORP	ADC	$2,619,673	$0	4	0
TILLY'S INC.	TLYS	$2,488,610	$0	4	0
OPKO HEALTH INC.	OPK	$2,484,338	$0	3	0
TILE SHOP HOLDINGS INC.	TTSH	$2,266,044	$0	5	0
WisdomTree Inc.	WT	$2,186,768	$0	1	0
Epsilon Energy Ltd.	EPSN	$2,058,371	$3,286,507	2	2
Paysign Inc.	PAYS	$1,800,772	$0	6	0
EMCORE CORP	EMKR	$1,747,970	$0	1	0
NANOPHASE TECHNOLOGIES Corp	NANX	$1,605,722	$0	3	0
V F CORP	VFC	$1,514,963	$62	3	0
Rocky Mountain Chocolate Factory Inc.	RMCF	$1,496,919	$0	8	0

Stock Purchased/Sold	Ticker	Total Buy Value	Total Sell Value	Total Buy Filings	Total Sell Filings
CHARTER COMMUNICATIONS INC.	CHTR	$1,491,215	$0	1	0
Allegion plc	ALLE	$1,324,146	$0	1	0
QNB CORP	QNBC	$1,256,776	$0	1	0
Mr. Cooper Group Inc.	COOP	$1,209,720	$1,689,000	1	1
Super Micro Computer Inc.	SMCI	$1,136,000	$1,078,016	1	3
EVEREST GROUP LTD.	EG	$1,127,775	$0	5	0
NEXTERA ENERGY INC	NEE	$1,116,700	$0	1	0
Princeton Bancorp Inc.	BPRN	$1,099,655	$0	6	0
CVB FINANCIAL CORP	CVBF	$1,067,038	$0	3	0
Heritage Insurance Holdings Inc.	HRTG	$999,999	$0	1	0
ROCKWELL AUTOMATION INC	ROK	$992,758	$0	1	0
AMN HEALTHCARE SERVICES INC	AMN	$991,906	$0	1	0
ILLUMINA INC.	ILMN	$991,673	$0	1	0
Modular Medical Inc.	MODD	$990,000	$0	1	0
RBB Bancorp	RBB	$917,480	$0	3	0
AMREP CORP.	AXR	$891,020	$0	1	0
NEW YORK COMMUNITY BANCORP INC	NYCB	$868,694	$0	7	0
COLUMBIA BANKING SYSTEM INC.	COLB	$864,390	$0	10	0
PIONEER MUNICIPAL HIGH INCOME FUND INC.	MHI	$841,645	$0	2	0
NUVEEN NEW JERSEY QUALITY MUNICIPAL INCOME FUND	NXJ	$825,747	$0	1	0
Virtu Financial Inc.	VIRT	$810,410	$0	1	0
SOUTH PLAINS FINANCIAL INC.	SPFI	$810,000	$854,960	1	2
NUVEEN PENNSYLVANIA QUALITY MUNICIPAL INCOME FUND	NQP	$794,969	$0	1	0
WOLFSPEED INC.	WOLF	$767,330	$0	3	0
Hillenbrand Inc.	HI	$763,611	$0	2	0
Bancorp Inc.	TBBK	$742,818	$0	4	0
Akoustis Technologies Inc.	AKTS	$710,000	$0	3	0
Expensify Inc.	EXFY	$709,347	$0	3	0
Reservoir Media Inc.	RSVR	$703,917	$0	2	0
Allied Gaming & Entertainment Inc.	AGAE	$685,708	$0	2	0
Heliogen Inc.	HLGN	$672,072	$672,072	1	1
Burke & Herbert Financial Services Corp.	BHRB	$669,333	$0	6	0
BYLINE BANCORP INC.	BY	$662,435	$841,662	4	1
Regional Management Corp.	RM	$648,950	$625,566	2	2
PIONEER MUNICIPAL HIGH INCOME ADVANTAGE FUND INC.	MAV	$632,821	$0	3	0
Dime Community Bancshares Inc.	DCOM	$622,564	$622,023	1	1
Clearside Biomedical Inc.	CLSD	$599,999	$0	1	0
NGL Energy Partners LP	NGL	$581,566	$0	1	0
FB Financial Corp	FBK	$579,846	$0	3	0
Compass Diversified Holdings	CODI	$556,514	$0	2	0
Pono Capital Two Inc.	PTWO	$548,964	$0	1	0
MALIBU BOATS INC.	MBUU	$535,250	$0	1	0
Hudson Pacific Properties Inc.	HPP	$535,200	$0	1	0
RELMADA THERAPEUTICS INC.	RLMD	$512,454	$0	2	0
GOODYEAR TIRE & RUBBER CO	GT	$510,300	$0	1	0
OPENLANE Inc.	KAR	$508,220	$0	1	0
CLEVELAND-CLIFFS INC.	CLF	$506,095	$0	1	0
HERBALIFE LTD.	HLF	$498,300	$0	1	0
HIGHWOODS PROPERTIES INC.	HIW	$473,400	$0	1	0
Goosehead Insurance Inc.	GSHD	$468,989	$4,013,556	2	3
Texas Pacific Land Corp	TPL	$461,065	$0	21	0
HOME BANCSHARES INC	HOMB	$454,824	$0	1	0
DORCHESTER MINERALS L.P.	DMLP	$448,702	$0	3	0
Broadstone Net Lease Inc.	BNL	$427,278	$0	4	0
AXIS CAPITAL HOLDINGS LTD	AXS	$409,150	$0	1	0
RxSight Inc.	RXST	$406,673	$4,082,486	1	3

Stock Purchased/Sold	Ticker	Total Buy Value	Total Sell Value	Total Buy Filings	Total Sell Filings
BioRestorative Therapies Inc.	BRTX	$368,278	$0	2	0
KKR Real Estate Finance Trust Inc.	KREF	$350,034	$0	2	0
BERRY GLOBAL GROUP INC.	BERY	$343,200	$825,020	4	1
Pinstripes Holdings Inc.	PNST	$343,000	$0	1	0
Blackstone Inc.	BX	$338,737	$3,694,438	2	1
AGENUS INC	AGEN	$324,050	$0	1	0
Adverum Biotechnologies Inc.	ADVM	$310,500	$0	2	0
BNY MELLON MUNICIPAL INCOME INC.	DMF	$306,894	$0	3	0
AG Mortgage Investment Trust Inc.	MITT	$306,155	$0	1	0
CITIZENS HOLDING CO	CIZN	$305,360	$0	5	0
MARKEL GROUP INC.	MKL	$285,175	$0	3	0
TEXAS CAPITAL BANCSHARES INC	TCBI	$284,720	$0	2	0
BLACKROCK MUNIYIELD PENNSYLVANIA QUALITY FUND	MPA	$277,390	$0	3	0
Enact Holdings Inc.	ACT	$269,690	$3,016,638	1	1
Greenwich LifeSciences Inc.	GLSI	$261,117	$0	2	0
FOMO WORLDWIDE INC.	FOMC	$259,916	$0	6	0
LINCOLN NATIONAL CORP	LNC	$259,000	$0	1	0
HIMALAYA TECHNOLOGIES INC	HMLA	$257,340	$0	13	0
INTEL CORP	INTC	$249,754	$0	2	0
FTI CONSULTING INC	FCN	$249,715	$3,251,117	1	1
HF Sinclair Corp	DINO	$246,369	$188,784	1	1
UNITED FIRE GROUP INC	UFCS	$244,000	$0	1	0
Western Midstream Partners LP	WES	$237,720	$0	1	0
SHORE BANCSHARES INC	SHBI	$232,368	$0	4	0
NEW PEOPLES BANKSHARES INC	NWPP	$223,893	$0	1	0
Orgenesis Inc.	ORGS	$216,612	$0	2	0
Health Catalyst Inc.	HCAT	$204,525	$0	1	0
HUMANA INC	HUM	$200,066	$0	1	0
AUTONATION INC.	AN	$200,020	$2,209,393	1	2
UNITED PARCEL SERVICE INC	UPS	$199,220	$0	1	0
ESTEE LAUDER COMPANIES INC	EL	$198,045	$0	1	0
AFLAC INC	AFL	$191,280	$6,692,297	2	5
Thermon Group Holdings Inc.	THR	$189,854	$0	3	0
LANTRONIX INC	LTRX	$186,835	$56,721	3	1
HEARTLAND EXPRESS INC	HTLD	$185,024	$0	1	0
HBT Financial Inc.	HBT	$179,626	$0	6	0
Lumen Technologies Inc.	LUMN	$174,728	$0	3	0
HAWTHORN BANCSHARES INC.	HWBK	$172,452	$0	2	0
Perspective Therapeutics Inc.	CATX	$169,184	$0	2	0
Oak Valley Bancorp	OVLY	$167,574	$0	8	0
Galera Therapeutics Inc.	GRTX	$166,417	$0	1	0
CSP INC	CSPI	$162,347	$0	1	0
MONRO INC.	MNRO	$161,490	$0	1	0
ENERGIZER HOLDINGS INC.	ENR	$152,500	$0	1	0
Processa Pharmaceuticals Inc.	PCSA	$150,574	$0	4	0
CUMMINS INC	CMI	$149,810	$1,396,758	1	2
ZIONS BANCORPORATION NATIONAL ASSOCIATION	ZION	$140,350	$0	1	0
CSB Bancorp Inc.	CSBB	$137,372	$0	5	0