September 2025

From the front page of Wednesday's WSJ:

Nervous Investors Fret Stocks Are Too Hot

BY KRYSTAL HUR

Investors have a lot to feel happy about these days. That has some on Wall Street worried the 2025 rally could be on borrowed time.

The Dow Jones Industrial Average inched 0.2% higher Tuesday to close at a fresh record, leaving the index with a 5.2% gain in its best quarterly run in a year. Interest rates are coming down. Earnings growth remains robust. Tax cuts are poised to bolster corporate coffers. And analysts are racing to raise their yearend targets for the S&P 500.

But the gains have gone so far that some investors are beginning to worry it is too much of a good thing. October is traditionally a tough month for stocks, and many investors see signs of overheating—from surging speculation on meme stocks to stretched corporate valuations—that could portend a pullback. …

Many think the gains at least originate on firm ground. The economy has proved resilient. The job market is cooling but not cratering, and the trade war has yet to power a significant rebound in inflation. Analysts now think a tariff- fueled recession is unlikely, helping propel a 14% gain for the S&P 500 index so far this year. The Dow industrials and Nasdaq composite are up 9.1% and 17%, respectively.

The run has broadened to beaten-down shares poised to benefit from lower borrowing costs. The Russell 2000 index, which tracks smaller U.S. companies, recently closed at its first all-time high since 2021.

Pressure has eased in the bond market, where the prospect of more interest-rate cuts has helped boost government bond prices. That drove the 10-year Treasury yield, a key benchmark for borrowing costs for individuals and companies, down to 4.149%, below where it ended in June, according to Tradeweb.

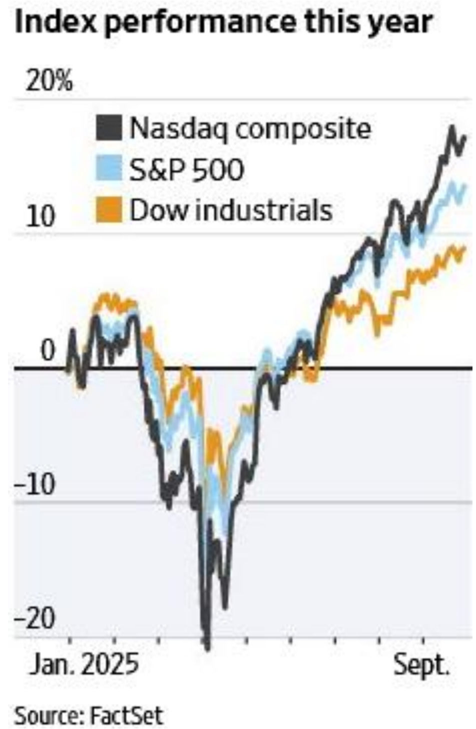
Corporate bonds also rallied, shrinking the extra return investors demand to hold companies' bonds over riskfree Treasurys to its lowest level in decades.

Yet some fear this year's 28 S&P 500 records are whipping up the kind of froth that precedes a rally's end. Individual traders, for example, are driving a 2021-esque wave of speculation.

Opendoor Technologies, a real-estate technology platform that became the face of the new class of meme stocks, skyrocketed 398% this year and at times accounted for up to 13% of the entire U.S. stock market's trading volume in a day, according to Dow Jones Market Data. Another concern: the rebirth of special-purpose acquisition companies, or SPACs. A SPAC is a shell company that raises money and trades on a stock exchange with the sole intent of merging with a private company and taking it public.

More than 90 SPACs raised roughly $20 billion so far this year, the highest annual tally and fundraising total since 2021, according to SPACInsider data. That was shortly before the Federal Reserve's inflation-fighting campaign sparked a bust that erased tens of billions of dollars in market value.

And shares of new companies going public through more conventional means have jumped around 34% on average in their first day of trading this year, the best average gain since at least 2000, according to Callie Cox, chief market strategist at Ritholtz Wealth Management.



Meanwhile, the dizzying rally in artificial-intelligence stocks is raising worries about a bubble.

The Magnificent Seven big technology companies—Alphabet, Amazon.com, Apple, Meta Platforms, Microsoft, Nvidia and Tesla—recently made up about 37% of the S&P 500's market capitalization, the highest share on record.

Adding to investor concerns, some warn that President Trump's tariffs will eventually fuel a rebound in inflation, potentially derailing the Fed's rate cuts and ramping up pressure on American consumers. …

Those anxieties have manifested in lackluster performance from transport stocks, which track the railroads and air carriers moving the freight powering the economy. The Dow Jones Transportation Average has fallen 1.1% this year, one sign investors expect lower demand for goods, raw materials and travel.

And gold futures, often viewed as an inflation hedge and a haven for nervous investors, notched their best first three-quarters of a year since 1979. Silver futures are up 60%, near their own record.

Stretched stock valuations are casting a shadow over the booming rally. Companies in the S&P 500 are the most expensive on record based on four different metrics, according to Bank of America.

That leaves some investors hunting for bargains, helping broaden the market's concentration beyond pricey sectors. …

The Unreported Divergence in Returns

Larry Swedroe
Oct 4

Turn on Bloomberg Business, and the conversation inevitably gravitates toward the same narrative: US stocks are dominating, particularly the Magnificent 7 and the S&P 500, while small value stocks languish in their shadow. The numbers support the story—through October 3, 2025, Vanguard's 500 Index ETF (VOO) returned 15.3% year-to-date, handily outperforming Dimensional's Small Value ETF (DFSV) at 6.4%, a gap of 8.9%.

But here's what you are not hearing discussed on financial television.

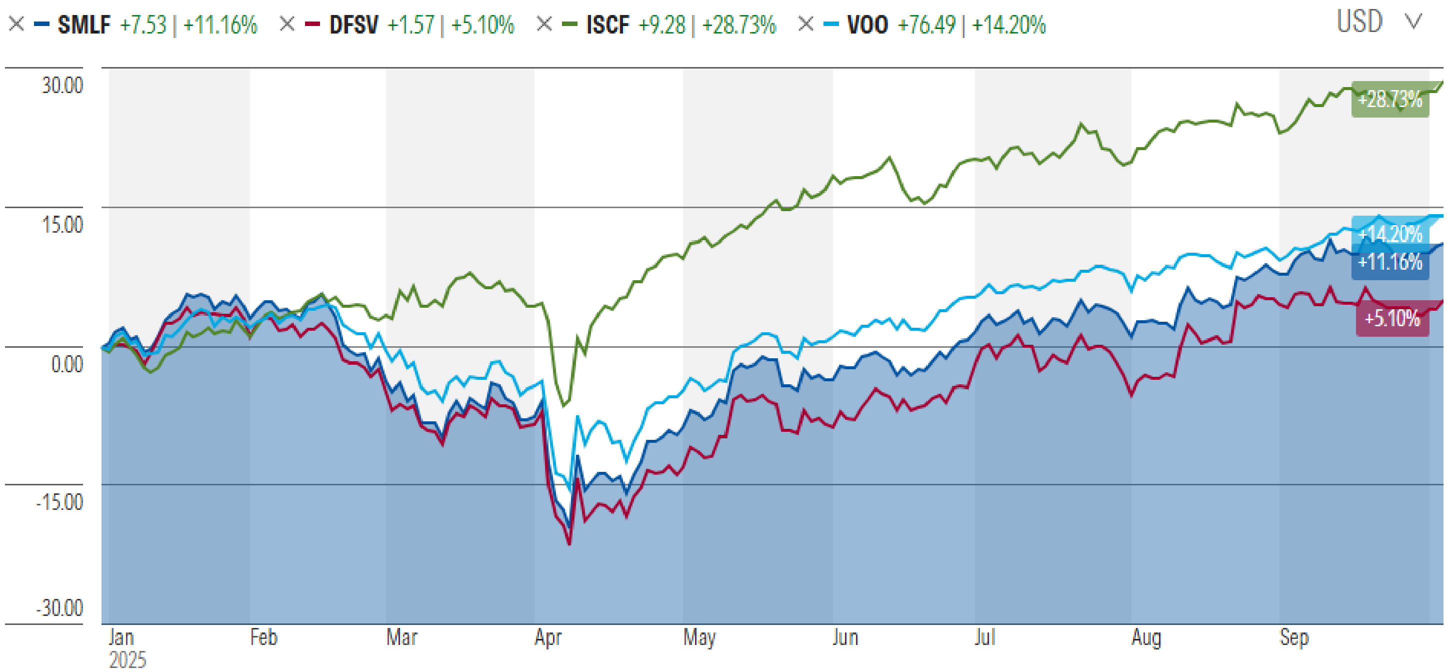
The Story They're Missing

While US commentators fixate on domestic market dynamics, an extraordinary divergence has unfolded in international markets. Dimensional's International Small Value Fund (DISVX) returned a staggering 42.5%

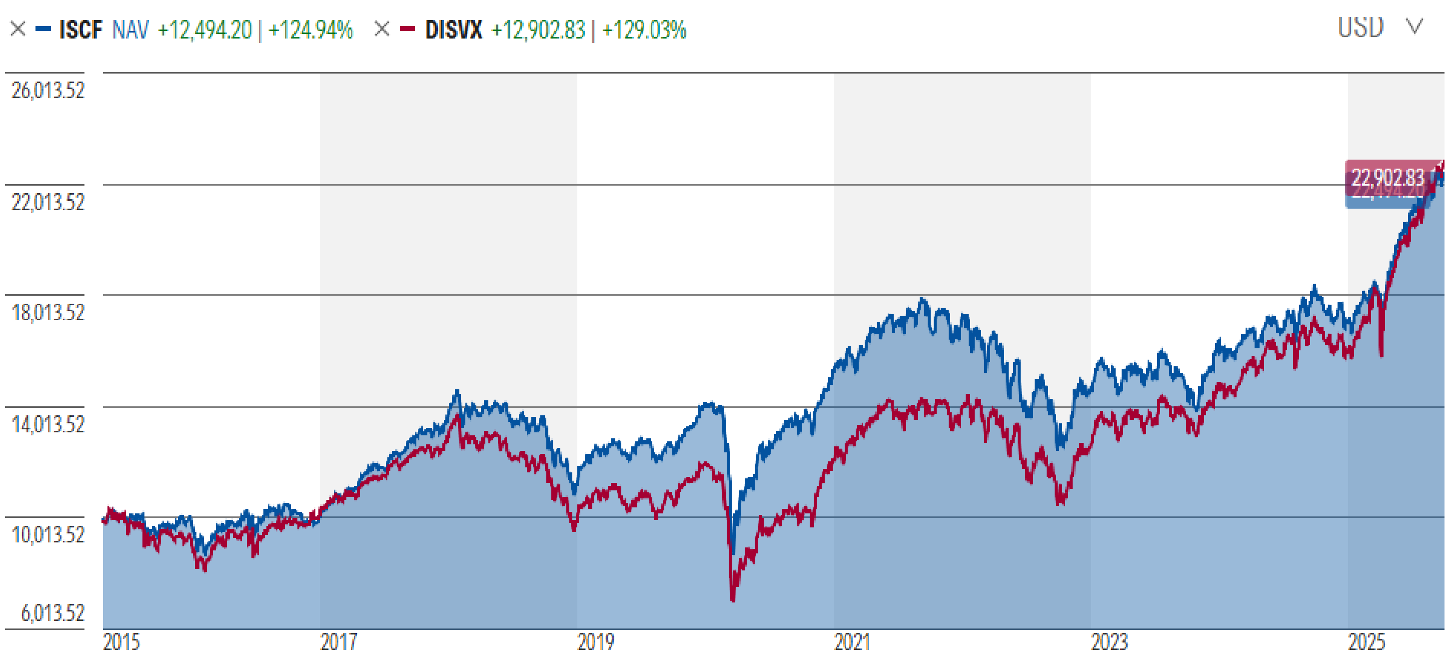
over the same period—outperforming VOO by 27.2%. And Dimensional's Emerging Markets Value Fund (DFEVX), with a 24.5% return, beat the S&P 500 by 9.2%.

Despite these remarkable results, I have literally never heard a single commentator mention this performance gap. The silence is deafening….

As the Morningstar chart below shows, SMLF (iShares U.S. Small-Cap Multi. Factor ETF held by all HCM Funds only clients) has outperformed DFSV, and ISCF (SMLF's International sister held by all HCM clients) has outperformed VOO.



Comparing ISCF, since inception, with DISVX:



Markets A.M., the first on 9/19:

We Were Promised a Recession

By Spencer Jakab

A funny thing happened at the end of 2007, on the brink of the worst downturn since the Great Depression: Two-thirds of economists didn't see even a garden variety U.S. recession coming. The Fed had just cut rates three times in the past four months, after all, with more cuts on the way.

The proportions were flipped in The Wall Street Journal's economics survey three years ago when nearly two-thirds of respondents were expecting a recession to begin within a year. One didn't happen, despite several Fed rate hikes in the preceding months and more in 2023.

Predictions are hard, especially about the future. The point of digging through old ones isn't to make fun of economists but to understand what wrongfooted them. Can the warning lights on their dashboards be ignored when the Fed is easing, like it is now?

Possibly the most-reliable indicator of an impending downturn is an inverted yield curve. When the interest rate on longer-term securities like the 10-year Treasury note is lower than that for short-term ones then it signals an expectation of future rate cuts in response to coming economic weakness.

Since the 1960s, an inverted curve had reliably signaled recessions. One of those, in 2019, was right on a technicality—bond traders didn't predict the pandemic.

The inversion that lasted from summer 2022 through last summer was the longest ever. When it ended, some die-hards pointed out that the downturn doesn't actually hit until the curve un-inverts. Well, it's been a year, and a recession hasn't materialized.

Another previously reliable recession indicator, the ISM's index of U.S. manufacturing activity, was in contraction for a whopping 26 consecutive months through early 2025. It's now on a new six-month contraction streak. The barometer tends to point down just as a recession is beginning.

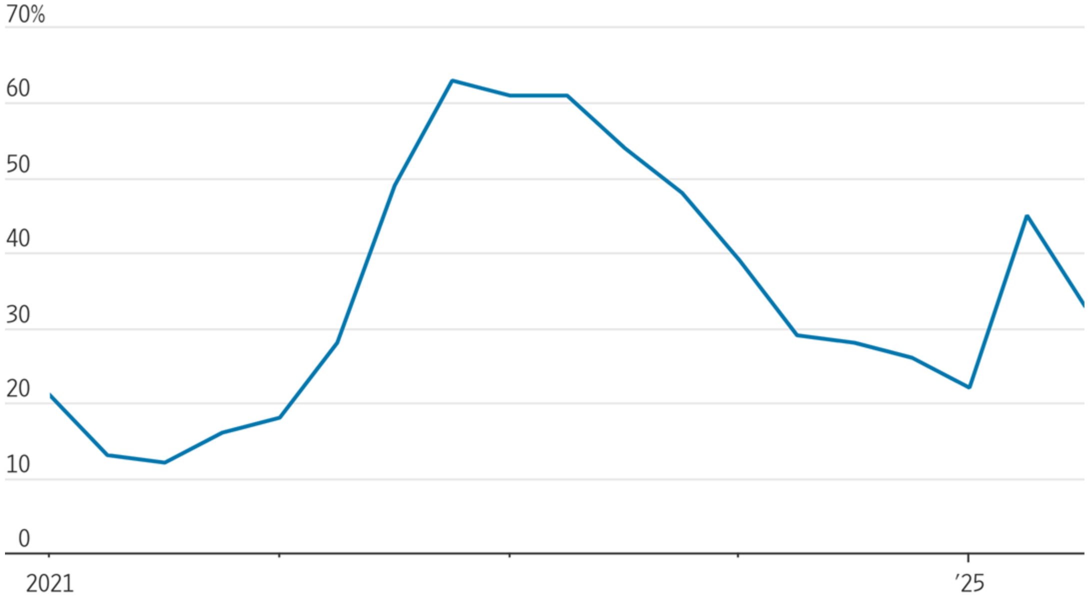
And finally, bear markets. Stocks nearly always enter one ahead of recessions and they did so in 2022. Economist Paul Samuelson famously cast doubt on this indicator, quipping that "the stock market has predicted nine out of the last five recessions."

Why did most economists misread the last few years, though? One reason is that the bond market hasn't behaved normally since the Fed adopted powerful new tools in response to the financial crisis. Outright Fed bond buying and near-zero interest rates pack a lot of punch and create distortions too.

A bigger fly in the ointment might be government spending. Even with the economy growing, the federal budget deficit is at levels previously only experienced during sharp downturns when social and stimulus spending has flowed. That gusher of cash goes a long way.

It also raises the question of how much dry powder Washington will have when warning signs aren't a false alarm and the U.S. really does enter a recession.

Probability of recession in next 12 months, WSJ economist survey



Source: WSJ

On 9/17:

Are These Funds Empty Calories?

By Spencer Jakab

"Why risk it?"

That's the question posed by one of the largest providers of buffered funds, often called "boomer candy." The funds aim to avoid or dampen losses during stock swoons.

As the nickname suggests, the fast-growing category appeals to older investors who would face the toughest setback from a bear market. There are many flavors, but what they all have in common is solving two problems—one for customers and the other for the companies selling them.

While buffer funds are popular with baby boomers, losing money hurts at any age. It's part of being human—a survival instinct embedded in our psyches that helped in prehistoric times when downplaying danger could have taken our ancestors out of the gene pool.

What was rational when saber-toothed tigers roamed collides with what we know about avoiding penury in old age. Without owning risky things like stocks, we'd be left with a fraction of the potential wealth after a lifetime of saving.

Boomer candy threads that needle. Funds typically put the bulk of investors' money in safe Treasury bills and the rest in a "call spread." The fund simultaneously buys a call option on an index like the S&P 500 to capture its gains and sells a cheaper one that kicks in at a higher level to offset the first contract's cost.

That caps the funds' gain in a good year; the pile of T-bills limits losses in bad ones. The bills earn some interest but, in the event of a market plunge, investors might not keep that since it helps the fund break even.

Peace of mind isn't free, and there's also a little extra in fees for the companies that sell the funds. That solves a problem for asset managers.

The traditional approach to diversification meant to limit steep portfolio losses is holding a mix of stocks and bonds, such as the classic 60/40 portfolio. The bond allocation rises over time according to various formulas or rules of thumb, like 100 minus your age.

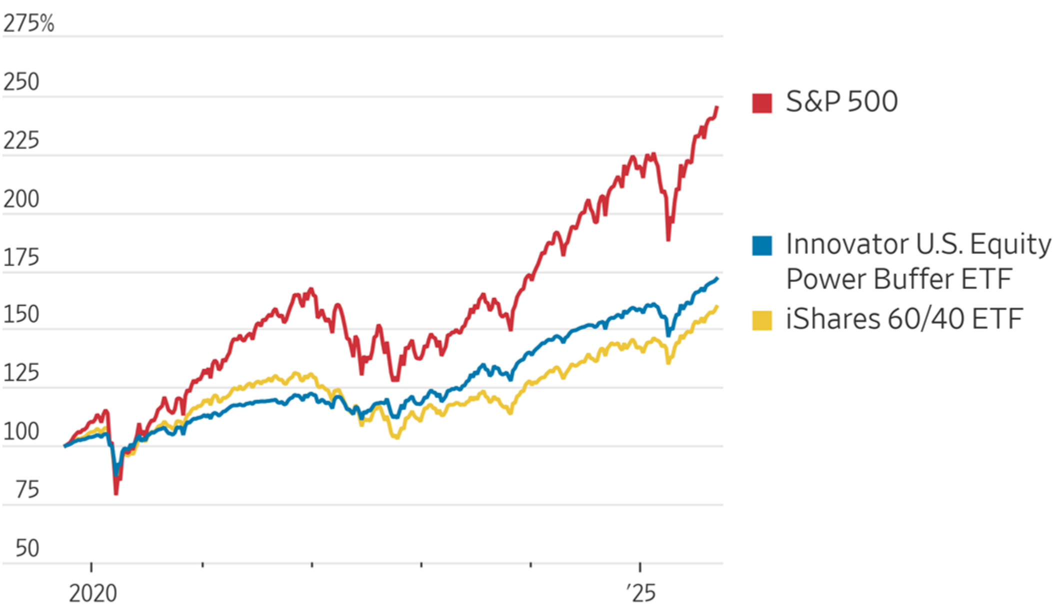
Intense competition means doing that on your own has become very cheap—about 0.03% for stock and bond index funds from big asset managers like Vanguard. Buffer funds typically cost between 0.5% and 0.8%, or 15 to 25 times as much, plus the costs of administering the strategy. Buyers, meanwhile, face occasional tax surprises.

Is it just money down the drain? That depends on the customer.

Someone able to grit their teeth and hang on during market swoons is needlessly harming their returns. Another who can't stomach volatility might cost themselves more by dumping their stocks at the worst time.

Sure, it would be cheaper to pay someone a few hundred bucks to hide your brokerage account password, but probably a tougher product to sell.

Total return of a buffer ETF vs. S&P 500 and a balanced 60/40 fund



Source: FactSet

on 9/12:

Are Stocks Headed for a Meltup?

By Spencer Jakab

One of the greatest investors of all time, Stanley Druckenmiller, has a cautionary tale for all of us.

Skeptical about tech stocks during the bubble a quarter century ago, he bet against them too early. Licking his wounds, Druckenmiller saw other traders making huge gains while he was playing it safe. The tech-heavy Nasdaq Composite crossed 3000 in November 1999, having doubled in a little more than two years.

Those gains accelerated, and it crossed 4000 late the following month. Many networking stocks were doubling and then doubling again. A little over two months later, the index briefly crossed 5000.

So like around March I could feel it coming. I just - I had to play. I couldn't help myself. And three times the same week I pick up a - don't do it. Don't do it. Anyway, I pick up the phone finally. I think I missed the top by an hour. I bought $6 billion worth of tech stocks, and in six weeks I had left Soros and I had lost $3 billion in that one play. You asked me what I learned. I didn't learn anything. I already knew that I wasn't supposed to do that. I was just an emotional basket case and couldn't help myself. So, maybe I learned not to do it again, but I already knew that.

The ride up sure was fun though. Could the stars be aligning for another meltup?

Back then, an already red-hot stock market was stoked by three Fed rate cuts in late 1998 after hedge fund Long Term Capital Management's collapse. Although it then began to raise rates in 1999, the Fed had simultaneously flooded the financial system with liquidity, fearing Y2K disruptions that never happened.

"We typically speak of stock market meltups as desirable for a limited time only, as they're typically followed directly by meltdowns," wrote strategist Ed Yardeni this week. Not necessarily, though, if earnings growth is supportive.

Fund manager Jeremy Grantham of GMO, who has been bearish for some time while claiming we're in a classic bubble, isn't reassured by that possible earnings safety net. He's called bubbles "excellent fundamentals, euphorically extrapolated" and has noted parallels between AI and the tech wave that wrongfooted Druckenmiller. For Grantham, the telltale sign of a meltup is an "upcycle of real acceleration" that tends to last about 21 months.

While there are signs that we may be in or entering that phase—near-record valuation, extreme market concentration and big gains in low-quality, speculative investments—the Fed's actions are being watched closely this time, too.

Yardeni sees 25% odds of a meltup that would lift the S&P 500 to 7000 by year end and 20% odds of a correction. But he says the Fed cutting interest rates next week and signaling more cuts to come would increase meltup chances and decrease those of a correction.

Yardeni's numerical odds, along with Grantham's past averages of how long meltups keep melting up, offer a false degree of precision for those fearful of AI hype but greedy enough to wager on another spectacular leg up.

Identifying turning points is more art than science. One informal sign is when skeptics can't stay away from the raucous party.

Druckenmiller said he knew he wasn't supposed to play and did anyway. Years before that, economist and bubble scholar Charles Kindleberger laid out the psychology that lured him in.

"There is nothing so disturbing to one's well-being and judgment as to see a friend get rich."

Nasdaq Composite Index

Source: FactSet

From WSJ:

Why You Don’t Want to Trade Stocks Like a Member of Congress

Investors are chasing all kinds of crazy bets in today’s bull market

By Jason Zweig
Sept. 12, 2025

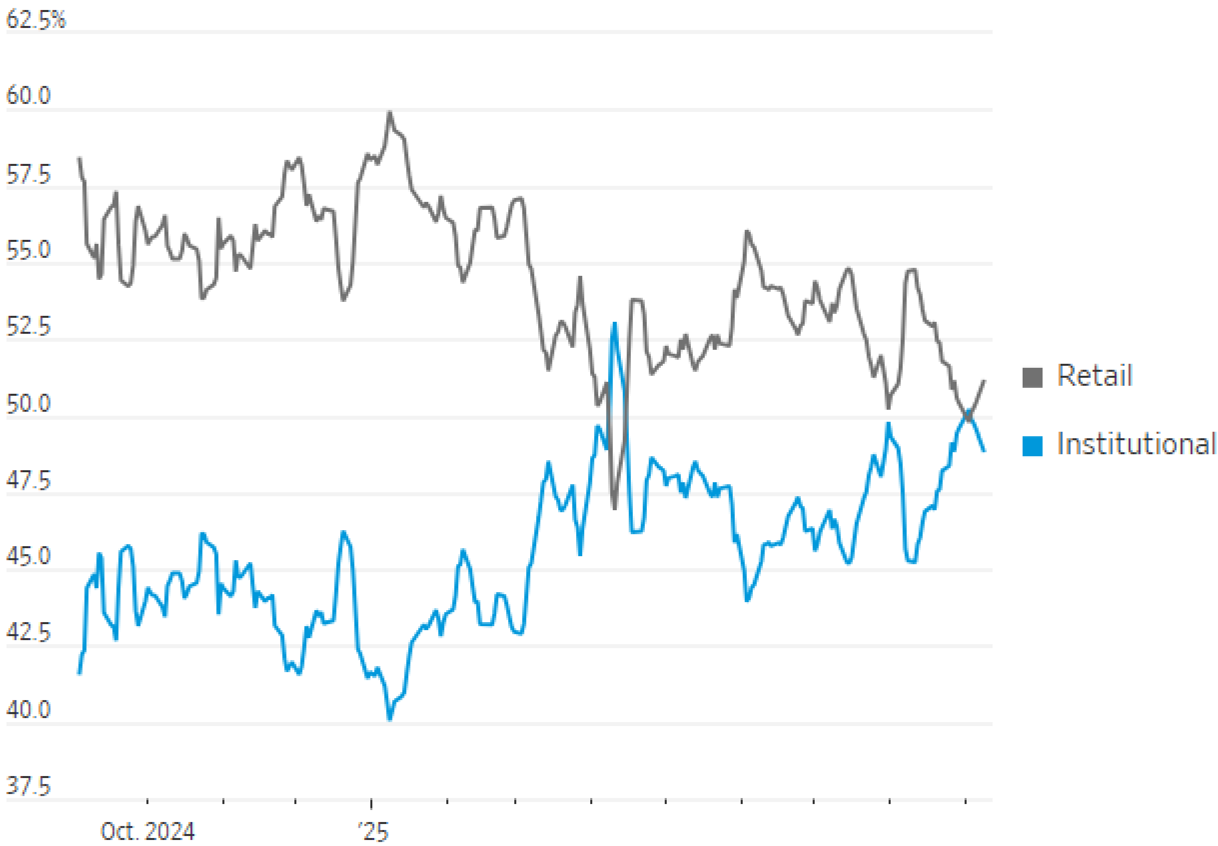
The peak of a bull market and the bottom of a bear market have one thing in common: Buy-and-hold investing starts to feel like a waste of time.

Just look at how many investors seem unsatisfied that stocks are merely setting record highs day after day. They want more and more, faster and faster.

As the cartoonist Walt Kelly’s character Pogo said back in 1970, “We have met the enemy and he is us.” For some individual and professional investors, the fruitless pursuit of fantasy profits never stops—although it should. Sooner or later, the quest to get rich quick with rapid, risky trading ends in tears.

Out of 672 launches of new exchange-traded funds so far this year, according to FactSet, 28% are tied to a single stock and 25% are leveraged, amplifying the daily gains or losses of the underlying asset. Many of these ETFs multiply the ups and downs of tiny, ultra-risky stocks. At least three seek to double the daily gains or losses of cryptocurrencies, which are already convulsively volatile.

Estimated share of trading in one-day S&P 500 index options



Note: Share is based on average five-day trading volume
Source: CBOE

Retail traders account for about 50% of daily trading volume in zero-day options tied to the S&P 500, according to Mandy Xu, head of derivatives market intelligence at Cboe Global Markets. These options are contracts that allow buyers to bet on what stocks will do the same day. Many users hold them for only a few minutes—or seconds.

How entrenched is the fast-trading frenzy?

Four members of Congress have disclosed at least 600 stock trades apiece so far this year. Among them, Rep. Ro Khanna (D., Calif.) reported 2,883 trades through Aug. 29; Rep. Rob Bresnahan (R., Pa.) reported 629.

To put that in perspective, 600 stock trades in eight months is an average of four buys or sells every day the market was open.

Khanna and Bresnahan, among others, have said that they don't make these trades themselves; their financial advisers do the buying and selling without any input from the members of Congress. Often, the account is a family member's, not the legislator's own.

Fair enough.

But check out what Bresnahan said when asked if he would tell his financial planner to stop trading his assets so often.

“And then do what with it?” he said. “Just leave it all in the accounts and just leave it there and lose money and go broke?”

Isn’t that a sign of the times? Somehow, “just leave it there” has become synonymous with “lose money and go broke.”

Bresnahan doesn’t trade his own stocks and has no advance knowledge of the transactions, a spokeswoman told my colleague Katy Stech Ferek earlier.

But why would a financial planner trade anyone’s account more than 600 times in eight months? I can only guess, because Bresnahan’s office declined to make his adviser available for an interview.

In the bad old days, some unscrupulous brokers paid by commission churned their clients’ accounts, buying and selling stocks dozens of times a month. These days, stock commissions have mostly disappeared, yet many advisers still trade too often. That might not be their fault alone.

Nearly a half-century after index funds made buy-and-hold investing convenient and cheap for just about any investor, people still want to believe in magic: the secret key, the holy grail, the hidden passageway to outperformance.

You should hire financial advisers to provide financial advice. Instead, clients often want them to perform a magic show: the illusion of being able to beat the market.

Every year, I read hundreds of advisers’ disclosure forms. I’m amazed at how many still boast of charting, technical analysis and other short-term trading techniques. Although many advisers no longer believe that professional fund managers can beat the market, they still seem to believe that they can do it themselves. …

Meanwhile, the almost universal acceptance of index funds has likely cranked up everyone’s willingness to take risk. With most of your money in a stalwart S&P 500 index fund, why not let your financial adviser try to beat the market or bet on some highfliers yourself?

Investors’ appetite for risk may be what Gerald Wilde, a psychologist who died in 2019, called “homeostatic”: When the environment comes to feel safer, as it does in a long bull market, people’s behavior becomes riskier. (“You will probably drive faster in a big SUV than in a little tin can of a car,” he once told me.)

Before you take on more risk in this market, I urge you to consider a simple distinction.

Investing can be an enterprise, or it can be an entertainment.

Investing as an enterprise is a lifelong endeavor to build wealth with patience and prudence; your long-term odds of making money are close to 100%.

Investing for entertainment is a roller-coaster ride of trading ups and downs. It’s sure to give you thrills in the short run but likely to leave you shaken in the end; your long-term odds of making money are close to zero. That’s why fast money should be, at most, only a tiny slice of your portfolio.

You can invest both as an enterprise and for entertainment, of course. Just make sure you don’t fool yourself into thinking that investing for entertainment *is* the enterprise.

Boomer Candy: Simple Strategies at Premium Prices

A deep dive into structured outcome funds and why investors pay far more than necessary for downside protection.

Larry Swedroe
September 2, 2025

Following my July 22, 2025 article "[Financial Fairy Tales: Buffered, Overlay and Defined Outcome Funds]," the team at [ABR Dynamic Funds] shared their July 2024 [analysis] of these increasingly popular investment vehicles. Their research perfectly illustrates a fundamental Wall Street truth: the more complex a product appears, the more investors should scrutinize what they're actually buying—and what they're paying for it.

The "100% Protection" Promise

Consider a recent product launch that caught investors' attention: S&P 500 exposure with complete downside protection and a 9.81% cap on gains over one year. At first glance, this sounds like the holy grail of investing—upside potential with none of the risk.

But as ABR Dynamic Funds demonstrated, this "can't lose" proposition isn't quite what it seems.

Unwrapping the "Boomer Candy"

ABR's team used the term "Boomer Candy" (coined by *The Wall Street Journal*) for these zero-downside strategies, and their analysis reveals exactly what investors are purchasing. For every $100 invested, here's the reality:

The Simple Recipe:

- **$95 invested in Treasury bills** (earning the risk-free rate of ~5%)
- **$5 invested in an S&P 500 call spread** (specifically, a 100/110 call spread)

After one year, before fees, this combination yields $100-$110, depending on S&P 500 performance. The T-bills guarantee your principal back, while the call spread means limited upside participation.

The catch? You could easily construct this strategy yourself for a fraction of the cost.

Five Hidden Drawbacks You Need to Know

1. You Can Still Lose Money

Despite marketing claims of "100% protection," breaking even means losing money when risk-free rates are 5%. You're effectively paying $5 for an option that could expire worthless, making your "protected" $100 return worth $95 in opportunity cost terms.

2. The Fee Structure Is Extraordinary

Assuming a typical 70 basis point annual fee:

- You pay 70bp on $95 worth of T-bills (available elsewhere for nearly free);

- This means you're paying an effective 12%+ fee on the $5 option component to get to 70bps on the $100 investment;
- With only 0.25 beta to the S&P 500, you're paying 2.80% for every 1.0 unit of S&P 500 exposure**.**

Compare this to free S&P 500 exposure through funds like Fidelity's ZERO Large Cap Index Fund.

3. Diversification Is an Illusion

Despite bond-like return caps, these products maintain high correlation to the S&P 500. You're not buying alternative exposure - you're buying expensive, limited equity exposure that moves with your existing portfolio.

4. Massive Opportunity Cost

Since 1990, this strategy would have delivered approximately 4.1% annualized returns versus 10.5% for the S&P 500. That's a 6.4 percentage point annual drag on performance.

5. Timing Flexibility Is Overrated

Even with perfect five-year investment horizons, ABR's research struggled to find scenarios where these products delivered compelling risk-adjusted returns.

The Psychology Trap

The behavioral aspect may be the most insidious. These products exploit myopic loss aversion—our tendency to fear short-term losses more than we value long-term gains. Once invested, several psychological factors work against you:

- **Market crashes** make the protection seem invaluable, encouraging rollovers.
- **Market gains** fuel fears that a downturn is "due," keeping you trapped.
- **Media headlines** constantly provide new reasons for concern.
- **Product sponsors** host webinars reinforcing these fears.

The S&P 500 spends nearly half its time within 5% of all-time highs, yet historically delivers the same forward returns from these levels as any other starting point. Timing the market using these products is a fool's errand.

The Bottom Line: DIY for Pennies on the Dollar

Wall Street's structured products represent financial engineering at its most profitable—for Wall Street. These "innovative" solutions are simply repackaged combinations of basic building blocks (bonds and options) that any investor can access directly.

Before swallowing any more "Boomer Candy," ask yourself:

- Do I understand what I'm actually buying?
- Could I construct this myself for less?
- Am I paying premium fees for basic market exposure?

- What's the real opportunity cost of this "protection"?

The wrapper may look appealing, but the ingredients are neither exotic nor worth the premium price. Your portfolio and long-term wealth deserve better than expensive candy masquerading as a sophisticated investment strategy.

Follow-ups

Two from WSJ:

The Hidden Cost of Playing the Stock Market's Slot Machine

Superpowered ETFs make money fast, but cost more than you know

By Jason Zweig
Oct. 3, 2025

Getting rich quick has never seemed so cheap and easy.

Exchange-traded funds that seek to magnify the daily gains or losses of a single stock are generating returns that look like typos. Defiance Daily Target 2X Long RGTI, which aims to double the daily return of quantum-computer firm Rigetti Computing, is up roughly 1,000%. It's only been around since March 31.

Tradr 2X Long QBTS Daily targets twice the daily results of computing firm D-Wave Quantum. It has gained more than 700% since launching in late April.

Those returns are net of all costs, including annual expenses that typically run 1% to 1.3%—but what buyers might not realize is how high those costs can go. On some of these funds, undisclosed costs can sometimes hit a 15% to 20% annualized rate.

That matters because the perennial urge to get rich quick gets worse when people think it's become virtually free.

About $6.5 billion poured into leveraged single-stock ETFs in the first nine months of 2025, bringing their total assets to $28.8 billion, according to FactSet.

Regulators and financial advisers—and even the firms that run them—say these funds are suitable only for professional traders and people who understand that their returns become unpredictable if you hold for more than a day. Yet fund managers admit many of the buyers are probably do-it-yourselfers.

How many of the people plunging into these funds plan to hold not for a single day but for what they hope will be a longer joy ride? How many think that joy ride will be a free ride, like a bonus code at the casino?

Here's a glimpse into the buried costs at these funds. On July 1, John Tinsman of AOT Invest, an asset manager in Davenport, Iowa, launched 2x Daily Software Platform, an ETF seeking to double the daily return of a basket of technology companies. Its initial assets were only $1 million.

Tinsman quickly noticed that the fund's returns were lagging behind the target. Leveraged ETFs use instruments called total-return swaps to magnify the daily results of the underlying assets.

The bank providing the swaps will pay a double-leveraged ETF twice the daily return of the assets—but it has to hedge its exposure. The riskier the underlying stocks, the higher the financing rate the bank will charge.

Tinsman estimates his fund was paying 1.7% a month in unexpected expenses, primarily financing costs on its total-return swaps. “If a fund has 20% annualized expenses, I’m just going to have to shut it down,” he says. “I can’t justify that to investors.” On Sept. 19, he announced he would unwind the fund this month.

Tinsman’s experience, while extreme because of how small his fund was, isn’t unusual.

The costs of financing swaps start with a base rate, perhaps 2 percentage points above an overnight borrowing benchmark. With overnight rates above 4% lately, base rates on swaps might average about 6%.

But the financing rates on swaps can temporarily spike much higher on smaller stocks whose prices are fluctuating sharply. “A 15% [annualized] rate doesn’t sound outrageous at all,” says Will Rhind, chief executive of GraniteShares, which offers three dozen leveraged single-stock funds. “It’s just the way the money is priced.”

The early leveraged single-stock ETFs were tied to giant companies like Apple, Nvidia or Tesla. Many of the new ones are linked to much smaller, riskier stocks like CleanSpark, Pony AI and Navitas Semiconductor.

These funds can seek to deliver 1.25, 1.5 or 2 times the underlying stock’s daily return (or its opposite).

The more wildly a stock fluctuates, the more the swaps cost. Many of the market’s hottest stocks have frequently lost at least 20% in a single day, making their swaps extremely expensive.

Like the trading costs at a conventional fund, financing costs at a leveraged ETF aren’t reflected in its reported expense ratio. They come out of the fund’s total return. These are expenses you pay without seeing them itemized.

You can usually find the base rate, or “spread,” on swaps in an ETF’s annual and semiannual reports. A report might typically show a spread of 175 to 250 basis points, or hundredths of a percentage point, over a specified reference rate. But the resulting 6% to 7% rate is only the tip of the expense iceberg. It doesn’t reflect the volatility that can come and go, often driving costs two or three times higher.

To be fair, you would have to pay 5% to 10% and up if you wanted to leverage these stocks up with a margin loan from your broker.

New research by Arizona State University finance professor Hendrik Bessembinder looks at why leveraged single-stock ETF returns deviate from expectations.

He finds that the funds underperform their targets by an average of 0.79 percentage point a month, or more than 9 percentage points annually.

Bessembinder estimates that what he calls “frictions,” including swap costs, eat up an average of half a percentage point of return a month—more than 6 points annually.

“The payoffs are going to be more complicated, more risky and more expensive than you might appreciate,” says Bessembinder. “These funds can surprise you.”

Sure, if you flip a fund in a day—or you hang on and make 800%—you won’t care about expenses. If you hang on and lose 90%—as you certainly could in some of these funds—you will care a lot.

Worst of all, not understanding these costs could make you believe that they don't exist and that you're getting a free play on the stock market's slot machine.

Spending on AI Is at Epic Levels. Will It Ever Pay Off?

Tech companies pour hundreds of billions into data centers, taking on heavy debt, but current revenue is relatively tiny; echoes of dot-com bubble

By *Eliot Brown* and *Robbie Whelan*
Sept. 25, 2025

The windswept town of Ellendale, N.D., population 1,100, has two motels, a Dollar General, a Pentecostal Bible college—and a half-built AI factory bigger than 10 Home Depots.

Its more than $15 billion price tag is equivalent to a quarter of the state's annual economic output.

The artificial-intelligence boom has ushered in one of the costliest building sprees in world history. Over the past three years, leading tech firms have committed more toward AI data centers like the one in Ellendale, plus chips and energy, than it cost to build the interstate highway system over four decades, when adjusted for inflation. AI proponents liken the effort to the Industrial Revolution.

A big problem: No one is sure how they will get their investment back—or when.

The building rush is effectively a mega-speculative bet that the technology will rapidly improve, transform the economy and start producing steady profits. "I hope we don't take 50 years," Microsoft CEO Satya Nadella said at a May conference with Meta CEO Mark Zuckerberg, referring to the initially slow adoption of electricity.

"Yeah, well, we're all investing as if it's not going to take 50 years," replied Zuckerberg, who surmised at a recent White House dinner the company's U.S. spending through 2028 was "probably going to be something like" $600 billion.

Silicon Valley watchers worry that enthusiasm for AI has turned into a bubble that has increasingly loud echoes of the mania around the internet's infrastructure build-out in the late 1990s.

Then, telecom companies spent over $100 billion blanketing the country with fiber optic cables on the belief that the internet's growth would be so explosive, most any investment was justified. The result was a massive overbuilding that made telecom the hardest hit sector in the dot-com bust. Industry giants toppled like dominoes, including Global Crossing, WorldCom and 360Networks.

Today, the typically dull world of chips and data centers has become a raging multihundred billion dollar battleground where Silicon Valley giants one up each other with spending commitments—and sci-fi names.

Zuckerberg teased his planned "Hyperion" mega-data center with a social-media post showing it would be the size of a large chunk of Manhattan.

OpenAI's Sam Altman calls his data-center effort "Stargate," a reference to the 1994 movie about an interstellar time-travel portal. Company executives this week laid out plans that would require at least $1 trillion in data-center investment, and Altman recently committed the company to pay Oracle an average of around $60 billion a year for servers in data centers in coming years. Yet OpenAI is on track to take in just $13 billion in revenue from all its paying customers this year. …

Today's numbers are far larger than the dot-com bubble, implying a massive shift in the economy would be needed to make these investments worthwhile.

David Cahn, a partner at venture-capital firm Sequoia, estimates that the money invested in AI infrastructure in 2023 and 2024 alone requires consumers and companies to buy roughly $800 billion in AI products over the life of these chips and data centers to produce a good investment return. Analysts believe most AI processors have a useful life of between three and five years.

This week, consultants at Bain & Co. estimated the wave of AI infrastructure spending will require $2 trillion in annual AI revenue by 2030. By comparison, that is more than the combined 2024 revenue of Amazon, Apple, Alphabet, Microsoft, Meta and Nvidia, and more than five times the size of the entire global subscription software market.

Morgan Stanley estimates that last year there was around $45 billion of revenue for AI products. The sector makes money from a combination of subscription fees for chatbots such as ChatGPT and money paid to use these companies' data centers.

How the tech sector will cover the gap is "the trillion dollar question," said Mark Moerdler, an analyst at Bernstein.

Consumers have been quick to use AI, but most are using free versions, Moerdler said. Businesses have been slow to shell out for AI beyond the roughly $30 a month per user for Microsoft's Copilot or similar products. "Someone's got to make money off this," he said.

Predicting when a boom turns into a bubble is notoriously hard. Many inflate for years. Some never pop, and simply stagnate. AI boosters insist that this boom is different from the dot-com era.

Today's tech giants produce far more cash than the fiber builders in the 1990s. And AI is immediately available for use by much of the planet, unlike the internet, which required consumers and businesses to get wired for high-speed access.

OpenAI counts roughly 700 million people—9% of the world's population—as weekly users of ChatGPT as of August, up from 500 million in March, while its revenue is on track to triple over 2024.

If AI continues to advance to the point where it can replace a large swath of white collar jobs, the savings will be more than enough to pay back the investment, backers argue. AI executives predict the technology could add 10% to global GDP in coming years.

"Training AI models is a gigantic multitrillion dollar market," Oracle chairman Larry Ellison told investors this month. The market for companies and consumers using AI daily "will be much, much larger."

The financing behind the AI build-out is complex. Debt is layered on at nearly every level.

Alphabet, Microsoft, Amazon, Meta and others create their own AI products, and sometimes sell access to cloud-computing services to companies such as OpenAI that design AI models. The four "hyperscalers" alone are expected to spend nearly $400 billion on capital investments next year, more than the cost of the Apollo space program in today's dollars. …

Echoes of bubbles past

History is replete with technology bubbles that pop. Optimism over an invention—canals, electricity, railroads—prompts an investor stampede premised on explosive growth. Overbuilding follows, and investors eat giant losses, even when a new technology permeates the economy.

The U.K.'s 19th-century railway mania was so large that over 7% of the country's GDP went toward blanketing the country with rail. Between 1840 and 1852, the railway system nearly quintupled to 7,300 miles of track, but it only produced one-fourth of the revenue builders expected, according to Andrew Odlyzko, an emeritus University of Minnesota mathematics professor who studies bubbles.

He calls the unbridled optimism in manias "collective hallucinations," where investors, society and the press follow herd mentality and stop seeing risks.

He knows from firsthand experience as a researcher at Bell Labs in the 1990s. Then, telecom giants and upstarts raced to speculatively plunge tens of millions of miles of fiber cables into the ground, spending the equivalent of around 1% of U.S. GDP over half a decade.

Backers compared the effort to the highway system, to the advent of electricity and to discovering oil. The prevailing belief at the time, he said, was that internet use was doubling every 100 days. But in reality, for most of the 1990s boom, traffic doubled every year, Odlyzko found.

The force of the mania led executives across the industry to focus on hype more than unfavorable news and statistics, pouring money into fiber until the bubble burst.

"There was a strong element of self interest," as companies and executives all stood to benefit financially as long as the boom continued, Odlyzko said. "Cautionary signs are disregarded."

Kevin O'Hara, a co-founder of upstart fiber builder Level 3, said banks and stock investors were throwing money at the company, and executives believed demand would rocket upward for years. Despite worrying signs, executives focused on the promise of more traffic from uses like video streaming and games.

"It was an absolute gold rush," he said. "We were spending about $110 million a week" building out the network.

When reality caught up, Level 3's stock dropped 95%, while giants of the sector went bust. Much of the fiber sat unused for over a decade. Ultimately, the growth of video streaming and other uses in the early 2010s helped soak up much of the oversupply.

Worrying signs

There are growing, worrying signs that the optimism about AI won't pan out.

An MIT report found 95% of organizations surveyed are getting no return on their AI product investments. A University of Chicago economics paper found AI chatbots had "no significant impact on workers' earnings, recorded hours, or wages" at 7,000 Danish workplaces.

OpenAI's release of ChatGPT-5 in August was widely viewed as an incremental improvement, not the game-changing moment many expected. Given the high cost of developing it, the release fanned concerns that generative AI models are improving at a slower pace than expected.

Each new AI model—ChatGPT-4, ChatGPT-5—costs significantly more than the last to train and release to the world, often three to five times the cost of the previous, say AI executives. That means the payback has to be even higher to justify the spending.

Another hurdle: The chips in the data centers won't be useful forever. Unlike the dot-com boom's fiber cables, the latest AI chips rapidly depreciate in value as technology improves, much like an older model car.

"This is bigger than all the other tech bubbles put together," said Roger McNamee, co-founder of tech investor Silver Lake Partners, who has been critical of some tech giants. "This industry can be as successful as the most successful tech products ever introduced and still not justify the current levels of investment."

Despite the worries, money continues to fly in. …

In Ellendale, the population doubles during the daytime as construction workers crowd the sandwich counter at the Cenex gas station during the lunch rush. Once the data center is finished, the permanent population of the town is expected to grow by 300 to 400 people, or roughly one-third.

There's a growing housing shortage, said Mayor Don Flaherty. The town recently took out loans to build sewers, sidewalks and other infrastructure to serve a planned neighborhood of about 20 new houses.

"We're stepping out and taking a chance here, and there's a fear that everything could come crashing down" if the AI boom falters, Flaherty said.

But without the boom, "there's a chance that in 20 or 30 years, Ellendale could be a ghost town," he said. "We're on the wave right now, and we've just got to keep riding it."

From WP:

Why private equity needs you more than you need them

President Trump says he wants ordinary Americans to be able to invest in private equity. But in reality, the industry needs your cash.

September 18, 2025

Column by Bethany McLean

On Aug. 7, President Donald Trump issued a directive that is supposed to make us all richer. The goal is to make it easier for "alternative assets" like private equity to be included in 401(k) and other retirement plans. Or as Trump said, "My Administration will relieve the regulatory burdens and litigation risk that impede American workers' retirement accounts from achieving the competitive returns and asset diversification necessary to secure a dignified, comfortable retirement."

It was the cumulation of a long campaign by private equity firms to allow you the privilege of giving them your money. "One of the dreams is our desire — and the market's need — to have more access" between alternative investment funds and ordinary savers, Blackstone CEO Steve Schwarzman said on a call way back in 2017. "We are aiming to unlock the benefits of private investments for the 95% of individual investors who have not historically been able to invest," announced the heads of KKR last year. All the major players and plenty of minor ones already have been racing to sell products to high-net-worth individuals — and soon, there will be private equity opportunities for the rest of the public.

If you took this at face value, you might think that an immense favor has finally been granted to you. But it's a ruse of sorts, one that is extremely convenient, even necessary, to the entire Wall Street ecosystem. It's debatable whether you need private equity. But it is absolutely clear that private equity needs you — or rather, the trillions of dollars Americans have in our retirement accounts. Without our money, the industry is slamming into a brick wall of its own making. "I would joke with friends that when I see them going after 401(k)s, we'll know it's over," said Nate Koppikar, who used to work in private equity before starting his own hedge fund. "And they're going after 401(k)s."

What were then called leveraged buyouts got their start in the go-go 1980s — the era of junk bonds, Michael Milken and "Barbarians at the Gate." Firms like KKR were essentially start-ups. There was a swashbuckling, maverick feel to the whole thing. The idea was that you'd use lots of debt to buy a company, and while it was private and free of the demands on public companies, you'd make the business better. Then you'd sell it back to the public market. The managers won big only if investors won too, because they earned the majority of their money not through the fees they took to manage the money, but on "performance fees," which were directly linked to how much they improved the profitability of the companies they bought.

The modern-day private equity business has morphed into something very different. It's now a multi-trillion-dollar industry and very much part of the Wall Street firmament. A big chunk of the fees that banks earn from doing deals and selling debt comes from their private equity clients. While private equity firms still talk about making businesses better, there's not much to suggest that's true. Dan Rasmussen, who is also a former private equity analyst and now runs investment firm Verdad Capital, looked at the universe of private-equity-owned companies and found that most of what the firms do is add debt. "If you're investing in PE because you believe that the asset class as a whole is selecting better companies or running companies better, it's quite hard to see how that's true from this dataset," he said.

In his newsletter, entrepreneur and investor Auren Hoffmann sums up the industry's evolution this way: "Private equity in 1985: Ruthless efficiency machines. Barbarians at the … gate. Private equity in 2025: PowerPoint, debt and vibes." He added, "When you meet a PE-backed company, there is literally no correlation with it being run better than any other company of a similar size. In fact, many similarly-sized private and public companies are actually MUCH BETTER run than the PE-backed company."

In a great irony, starting with Blackstone in 2007, some of the big private equity firms — including Carlyle, KKR and Apollo — themselves went public. It helped make the private equity titans billionaires, but it also made them hostage to the very thing they'd long derided. Their firms are now evaluated by investors on a quarterly basis. And because investors care about predictability, they care far more about fees on assets under management than about those performance fees. In other words, the incentive of the publicly traded private equity firm is to get more money to manage. Of course the returns still matter — that eventually matters for getting more investors to give you more money — but the incentives are weighted differently.

Which brings us to today. Because the industry grew so exponentially in the past decade, many of the big institutions that have traditionally put money in private equity now have too much money in private equity. That's why both Harvard and Yale are selling some of their private equity portfolios.

A related problem is that as there was more and more money sloshing through private equity, and more pressure for the public firms to generate fees by investing that money, the business changed from one of opportunistically investing in troubled companies at tough times to buying anything and everything at the top of the market. In 2021, when the market was soaring, private equity firms spent a record $1.6 trillion buying companies, according to Morgan Stanley. But the more expensive the purchase price, the harder it is to make money. Indeed, Rasmussen's research shows that the biggest factor in private equity returns is the price that was paid, or as he writes, "Cheap buys make good investments."

So it's not a shock that by a lot of metrics, private equity's recent performance has been bad. Moody's says that the default rates for private-equity-backed companies reached 17 percent between January 2022 and August 2024, more than double the companies that are not backed by private equity. Nor have private equity firms, for the most part, been able to sell many of their companies to the public market. The consulting firm Bain said that at the end of 2023, the private equity sector globally was sitting on a record 28,000 companies with a supposed collective value of more than $3 trillion. That's especially surprising given that we have a booming stock market. The most likely explanation is that were they to sell, the private equity firms would have to realize losses. (The number of IPOs has picked up a little bit this year.)

Until an investment is sold and there's actual cash, any gains are theoretical and investors' money is stuck. Distributions — the cash being returned to investors — are running at 50 percent below normal levels, Morgan Stanley says.

That explains why the industry has resorted to tactics to generate what are called "exits." For years, a hefty percentage of private-equity-backed companies have been sold not to the public market, but to other private equity firms. In 2022, according to Harvard Law School research, deals between private equity managers accounted for almost half of total exits. "This is the start of, potentially, I'm saying 'potentially,' a pyramid scheme," Mikkel Svenstrup, chief investment officer at ATP, which was traditionally a big investor in private equity, told the Financial Times in 2022. "Everybody's selling to each other." So far in 2025, deals between managers account for about a third of exits — but the popularity of another type of exit, in which the private equity fund sells the investment to a new fund of its own has also soared, accounting for an additional 20 percent of exits in the first part of 2025, according to Jefferies.

Private equity firms have also increasingly borrowed against their portfolios — meaning they have added even more debt — to pay investors distributions. There are now more than $100 billion in these kinds of loans, and industry participants predict that will grow to at least $600 billion by 2030.

What was a virtuous circle has become a vicious one. As long as the industry was growing, the new funds could buy the old assets. But because investors have been unable to get cash out, they've also been unwilling to commit more cash to new funds. "In the last six months, almost every institutional quality investor we talk to is reducing their PE allocation," Rasmussen said. "It's like a total sea change." Even at the big marquee firms like Blackstone, Carlyle and Apollo, their latest flagship private equity funds are smaller than their previous ones; according to Bain, overall, buyout funds raised 23 percent less capital in 2024 than they had in 2023. "If the fundraising's down, the exits are down. If the exits are down, the returns go down. If the returns go down, the fundraising gets worse," Koppikar said.

The big firms rebut the idea that the business is in any trouble. KKR co-CEO Scott Nuttall has said that there will be more differentiation, but that "I don't think this 'private equity is dead and they're never going to be able to sell any stuff any more' is true this time around, any more than it was last time around."

"For decades, private equity has outperformed every major asset class over the long term, offering steady, diversified, and robust returns even during periods of economic volatility," said Will Dunham, CEO of the

American Investment Council, an advocacy group for private investments. “Retirement systems and public pension funds nationwide continue to rely on private equity to bolster returns for police, firefighters, teachers and other public servants. In an increasingly complex investment environment, where public markets remain unpredictable and highly concentrated, private equity’s consistency matters more than ever.”

The big publicly traded firms also have been diversifying by expanding into other businesses — like private credit and insurance — and selling to high-net-worth individuals, which they view as another huge growth area. Overall, their assets under management are still growing, but far more slowly than in the past, according to Morgan Stanley. They’d still exist without our money — but their stocks would not perform well.

And that’s where Americans with 401(k)s come in! We’re fresh capital. We can buy the assets that the institutions no longer want. For instance, Harvard’s endowment is reportedly in talks to sell $1 billion in private equity to Lexington Partners, which is part of mutual fund giant Franklin Templeton. Franklin CEO Jenny Johnson told analysts recently that selling alternative assets to individuals is “a massive opportunity.” In a report warning about the risks of putting America’s retirement funds into private equity, Moody’s noted that some of the investments going into retail funds might be the leftovers from institutions that wanted out. “That raises questions about alignment, transparency and product integrity,” Moody’s wrote.

But you will almost certainly hear more about the benefits than the risks, because the entire Wall Street ecosystem wants your money to go into private equity. Wall Street banks need the private equity business to keep growing to keep paying the fees upon which they’ve come to rely. Brokers want to earn commissions on products they sell you now that it’s far harder to earn money by selling you stocks. Money managers, which have gone hungry (okay, hungrier) as low-fee index funds have taken over, are salivating at the prospect of offering higher-fee products. …