

By [Spencer Jakab](#)

The cruellest tax

Investors are putting more thought and energy into minimizing taxes and investment fees these days. That's smart—both can take a sneaky but [surprisingly large bite out of future nest eggs](#).

But what about the purchasing power of those savings? Inflation, the cruellest tax, has been making a comeback. It irks people when they buy milk but gets scant attention when they buy stocks, unless it's about handicapping what the Fed's next rate move might be.

Today's U.S. consumer-price index report and Fed Chairman Kevin Warsh's debut following next week's rate decision will give investors an important reading on the cost of living and how much of a priority controlling it is in Washington. The Fed's preferred inflation gauge has been running above its own target for 62 months straight.

That's easier to ignore in a bull market: Over the past five years, the S&P 500 is up almost 50% even when adjusted for inflation, though not the 72% we see when looking at an unadjusted chart. But stocks are now at a valuation that has preceded other prolonged bear markets.

Ian Harnett and David Bowers of Absolute Strategy Research see stagflation as a key risk. They warn that it could take a surprisingly long time for S&P 500 earnings to “grow into” today's lofty valuations if price/earnings multiples return to more normal historical levels.

They calculate that the S&P 500 took 15 years on a price basis to break even after inflation in the wake of the

Ticker Shock

Cyclically adjusted price/earnings ratio



Source: Prof. Robert Shiller

tech bubble burst—from 2000 to 2015. There have been far longer inflation-adjusted recoveries too: 1929 to 1956 and 1965 to 1991.

Looking at it another way, what was the absolute worst time in the past century to invest in U.S. stocks for 10 years? Most students of market history would immediately say 1929. No bear market or economic downturn came close to the awfulness of the Great Crash and the Depression, after all.

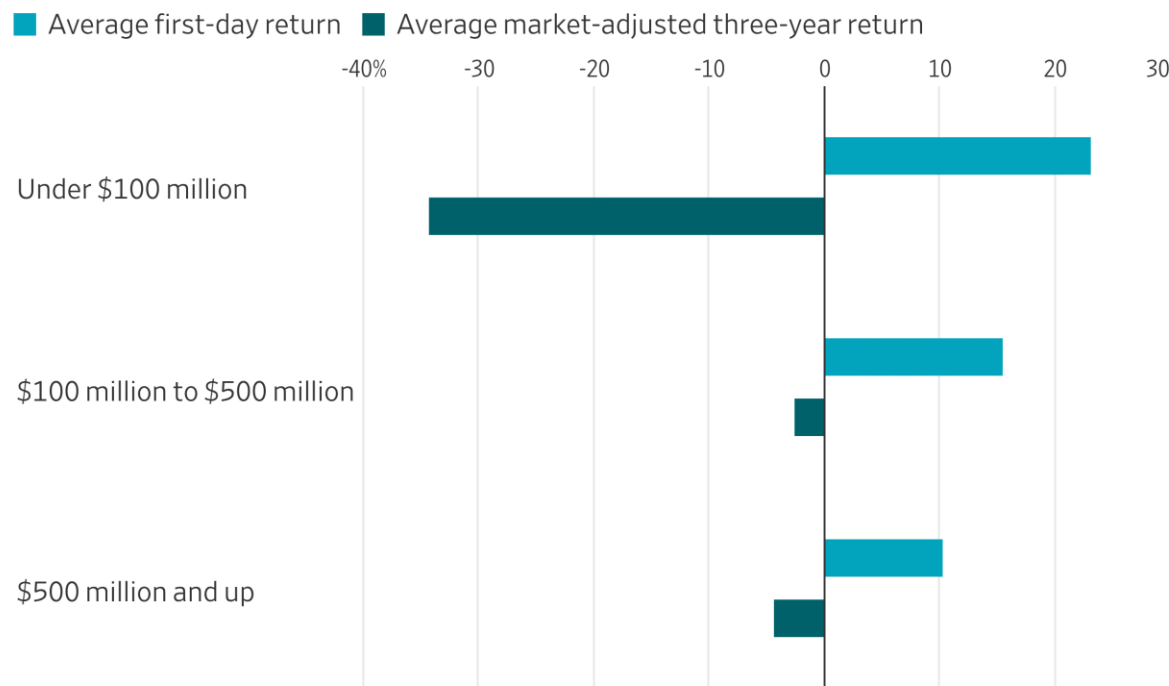
That's true just charting the index. But it was only the third worst time to invest at the beginning of a year considering both inflation and dividends (Absolute Strategy's numbers don't include dividends). Buying stocks in January of either 1973 or 2000 left you with less wealth 10 years later than in 1929. Chunky payouts and subdued prices meant the 1930s weren't quite as bad as they looked.

The S&P 500's cyclically adjusted valuation today is well above where its predecessor index was in 1929. Its dividend yield is close to a record low.

They say it's not what you earn but what you keep. Don't forget to ask what you'll be able to buy with it.

On Jun. 8:

Performance of IPOs on their first day, versus over first three years of trading, by range of company revenue



Note: First-day return is from offering price to first-day closing price. Market-adjusted return is from the IPO's first-day closing price. Sales are last-12-months, in inflation-adjusted dollars. These are U.S.-listed IPOs from 1980 to 2024.

Source: Jay Ritter at the University of Florida

When it comes to initial public offerings, the first-day pop is the fizz that attracts so much interest. After that, [they often fall flat](#).

Third Quarter 2026 Strategy Outlook: Aging Bull

I. Macroeconomic Outlook

How AI Saved the Day

In mid-2024, the Sahm rule was triggered when the 3-month average of the US unemployment rate rose by half a percentage point from its low over the previous 12 months. This had never happened before without a recession unfolding (**Chart 1**).

It was one of those rare instances where this time actually turned out to be different. Rather than continuing to rise, the unemployment rate stabilized in the low-4% range. A soft landing had been achieved.

What went right? The Fed's decision to start cutting rates in September 2024 certainly helped. The fact that many of the excesses that led to the financial crisis in 2008 had been purged also played a role. But timing was perhaps the most important factor. By mid-2024, the AI boom was gathering steam. This bolstered the economy in two ways.

First, the rollout of generative AI systems has fueled a huge increase in capital spending. As a share of GDP, outlays on software and hardware climbed to 4.9% in 2026 Q1, exceeding the peak of the internet bubble in 2000 (**Chart 2**).

CHART 1
False Alarm

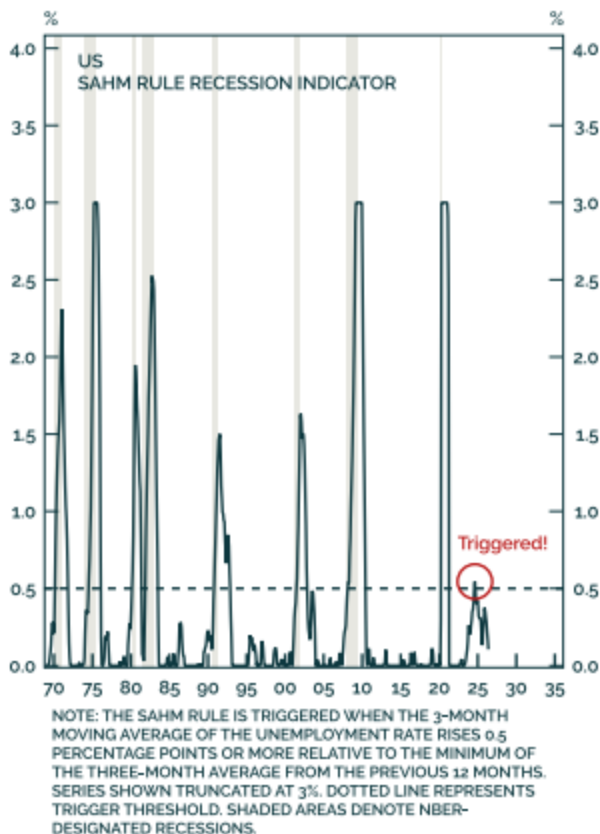
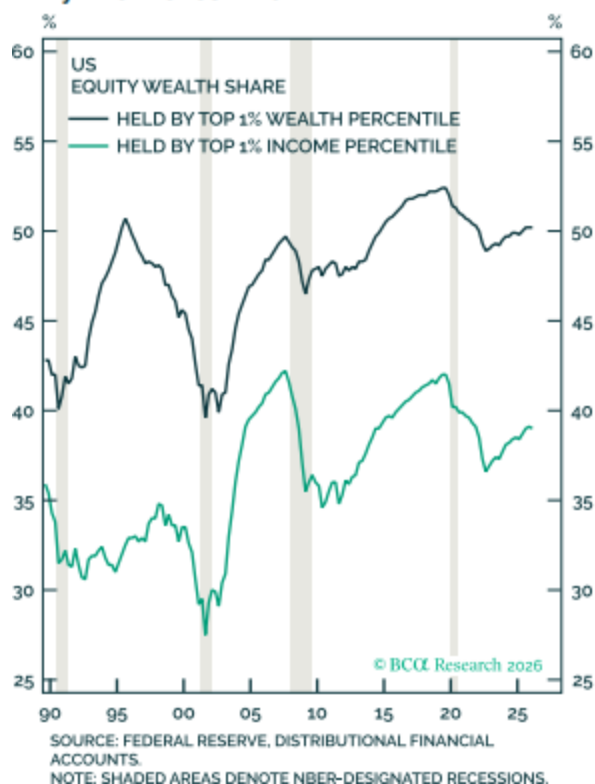


CHART 2
As A Share Of GDP, Tech Investment Is At Record Highs



CHART 3

Around Half Of Equity Wealth Is Held By The Richest 1%



Second, the accompanying rise in AI-linked stocks helped push US household equity holdings from \$44 trillion in Q3 2023 to \$73 trillion today. Empirical studies suggest that every extra dollar in equity wealth adds about three cents to consumption. This implies that US consumer spending is 4% higher now than it would have been if stock prices had remained flat over this period.

The K-Shaped Economy

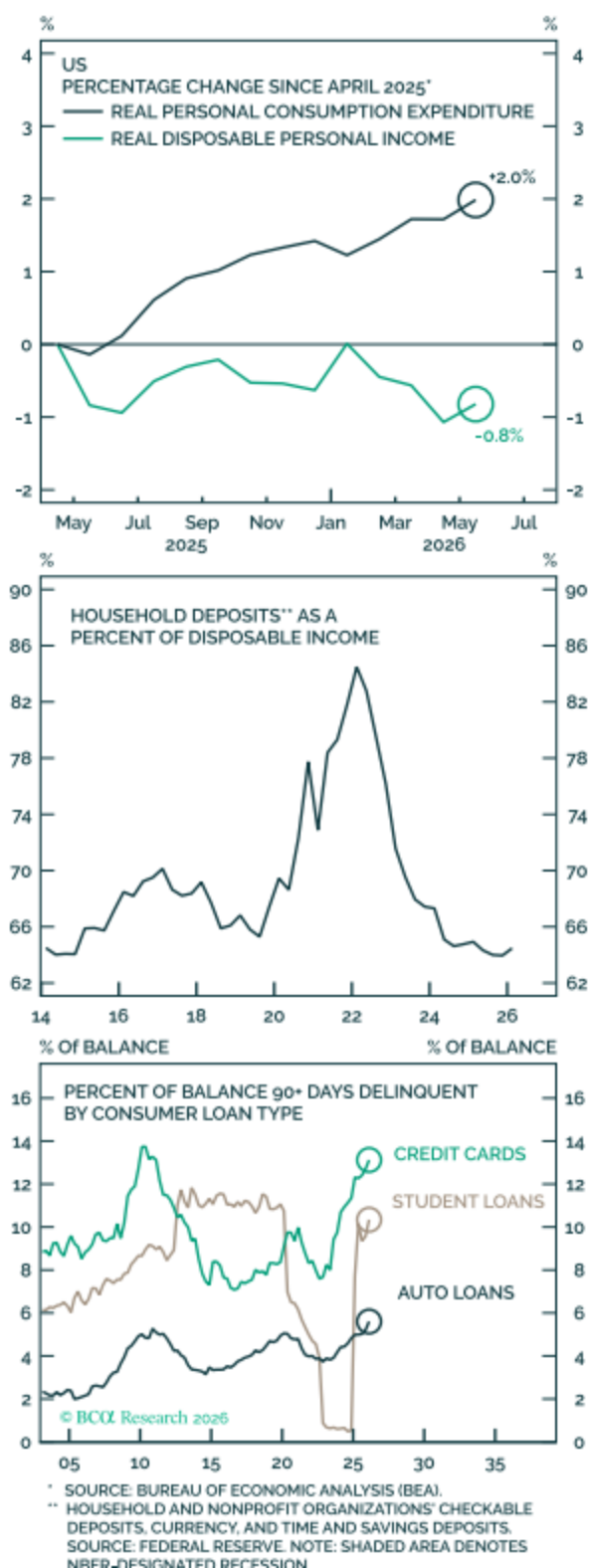
Around 50% of US equity wealth is held by the richest 1% of households (**Chart 3**). This fact goes a long way in explaining the so called “K-shaped economy” that has dominated popular discourse.

Using Fed data, Moody’s has calculated that real spending among the top 20% of households by income grew 4.5% in real terms over three years to 2026 Q1 but contracted 0.6% for the bottom 80%.

Real disposable personal income was down 0.8% in May 2026 from April 2025, the sort of stagnation one normally only sees during recessions (**Chart 4**). Excluding money market funds, which are overwhelmingly held by wealthy households, bank deposits have fallen to an 11-year low in relation to disposable income. Consumer delinquency rates are back to levels last observed during the Great Recession.

CHART 4

The Lower End Of The K Is Struggling



Unlike stock market wealth, housing wealth is much more widely distributed. After adjusting for inflation, nationwide home prices have been flat since mid-2021. However, the headline number disguises a lot of variation under the surface (**Chart 5**). Some southern states have seen a decline in home prices.

In contrast, states in the northeast, where homebuilding has been more constrained, have seen price gains. Consistent with a K-shaped economy, home values in wealthier zip codes have outpaced those in poorer ones.

Lower Gasoline Prices Will Help Blunt the Impact from Lower Tax Refunds and Tariffs

Looking out, middle-class families should see some relief from lower gasoline prices, provided, of course, that the shaky ceasefire between Iran and the US holds. Average US gasoline prices have fallen 66 cents from their peak on May 20, although they remain 38% above where they were at the start of the year.

Less auspiciously, the fillip to retail sales from the jump in tax refunds in Q2 will fade in the second half of the year. As of mid-June, tax filers have received about \$50 billion more in refunds than they had at this time last year. Much of that money has probably been spent.

The Trump administration would like to pass another stimulus package before the November midterm election. However, Matt Gertken, BCA's Chief Geopolitical Strategist, thinks that the Republicans in Congress are highly unlikely to muster the votes to do so.

Tariffs remain a wildcard. The effective tariff rate fell to 6.7% in April, down from a high of 10.8% last October. The Federal Reserve estimates that goods inflation is currently three percentage points higher than it would be in the absence of tariffs. Tariff-induced inflation should decline if tariff rates do not rise again.

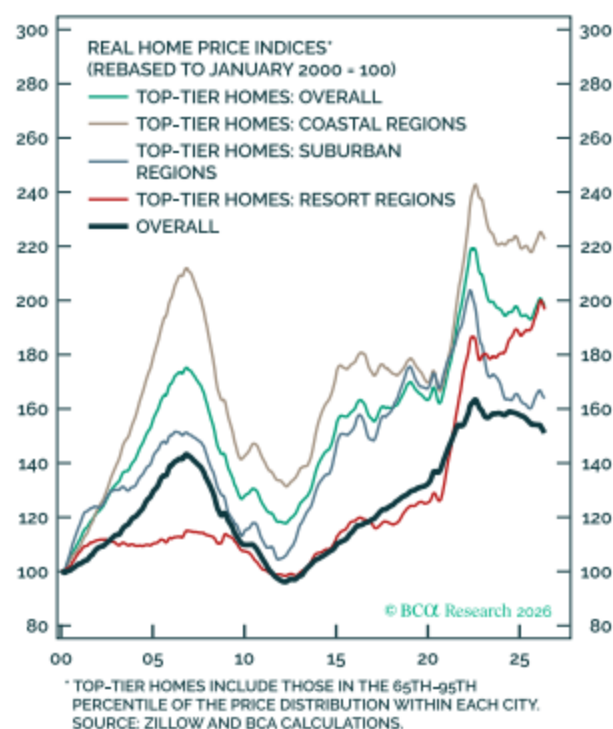
The catch is that the Trump administration has proposed new tariffs of 10% to 12.5% under Section 301 of the Trade Act of 1974 to replace its existing Section 122 tariffs, which are scheduled to expire on July 24, 2026. As with the earlier IEEPA tariffs, we expect these broad-based Section 301 tariffs to be struck down by the courts, although a range of industry-specific Section 232 tariffs is still likely to come into effect.

The Euro Area Will Benefit from Lower Oil Prices, But Structural Headwinds Persist

As an importer of both oil and gas, the Iran War hit Europe harder than the US. After adjusting for noise in Irish GDP estimates, the ECB's June 2026 staff projections show GDP growth slowing to 0.1% quarter-over-quarter in both Q2 and Q3, down from 0.2% in Q1. Among the major euro area economies, France has struggled the most. GDP contracted by 0.1% in Q1. In contrast, Spain managed to grow by 0.6%. Both Germany and Italy grew by a tepid 0.3%.

If oil prices stay down, growth in the euro area should pick up in the second half of the year. However, the region continues to face severe structural challenges. China is increasingly taking market share from European

CHART 5
Home Prices In The Wealthiest ZIP Codes Have Increased The Most



manufacturers. By their own admission, German companies are about as uncompetitive now as they have ever been.

The fact that the euro has appreciated by 14% against the Renminbi since July 2022 has only made things worse.

Punishing tax rates and stifling regulatory burdens are eroding entrepreneurship. While military spending has risen, high public debt burdens constrain governments' capacity to provide broader economic stimulus (Chart 9).

The demographic outlook remains unfavorable. The euro area has 37% more people aged 55 to 64 than aged 15 to 24. In Germany, that number is 69%.

The immigration system is delivering poor results: Employment and labor market participation among immigrants are well below native-born levels. Educational achievement, even among second-generation immigrants, is lagging.

The UK: Rising Political Risk

Similar to the euro area, the latest growth indicators for the UK point to some softening in Q2. Although the unemployment rate fell to 4.9% in the three months to April from 5.2% in the three months to January, this was partly due to a decline in the participation rate. Employment growth has been lackluster while job openings have been trending lower.

The housing market remains soft. In the latest RICS survey, a net balance of 34% of agents and surveyors reported a decline in new buyer enquiries, while a net 37% reported a decline in agreed sales.

Higher gilt yields have hurt the housing market and the broader economy. The prospect that Andy Burnham will succeed Keir Starmer as prime minister has added to investor angst. Burnham is to the left of Starmer and has promised to boost public spending at a time when UK government debt is already very high.

Japan: Wages are Finally Rising

Japan's economy grew by 1.8% annualized in Q1, led by strong growth in exports and public investment, as well as decent (at least by Japanese standards) growth in consumption.

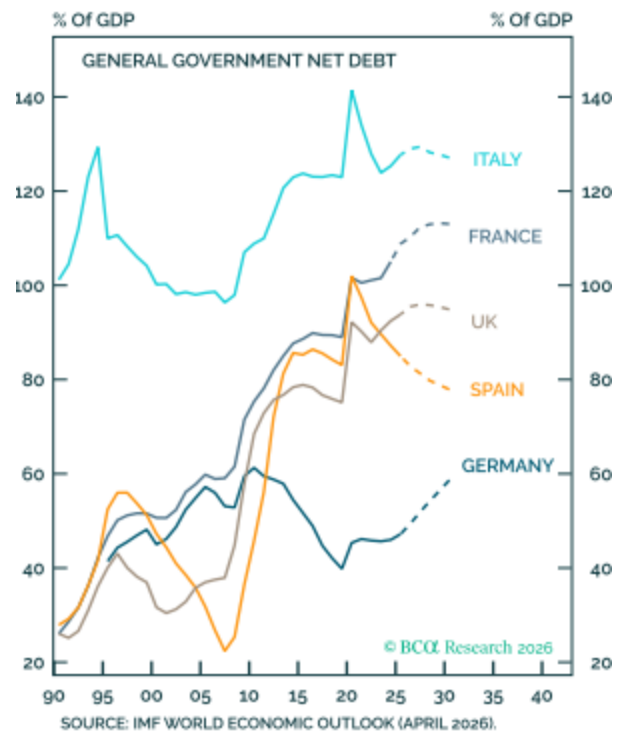
Rising wages are helping to prop up consumer spending. Real wages rose by 1.9% y/y in April (Chart 15). The spring round of negotiated wage deals shows nominal wages rising 5.1%, a historically strong number even if slightly below the initial headline estimate.

Business investment contracted in Q1 but should partially bounce back in Q2, as foreshadowed by the 8.7% m/m increase in core machinery orders in April. Semiconductor production remains robust and robotics is increasingly becoming an important driver of growth. Lower oil prices should also help Japanese industry.

Structurally, Japan faces severe demographic problems. The working-age population is projected to decline by 30% over the next 30 years. What is reflationary wage growth now could morph into severe labor shortages.

CHART 9

High Debt Levels Limit The Ability Of European Governments To Stimulate Their Economies



Government debt is also a concern. The ratio of net debt-to-GDP has fallen 26 percentage points since 2020, mainly thanks to a pickup in nominal GDP growth. However, rising interest rates will push up debt-financing costs, while the Takaichi government's pursuit of a more expansionary fiscal stance will lead to a higher budget deficit.

China: Deflationary Dynamics

In contrast to Japan, China's economy continues to face deflationary pressures. Retail sales declined 0.6% y/y in May. Fixed-asset investment fell 4.1% in the first five months of the year relative to the same period in 2025. The combined credit/fiscal impulse, which leads economic activity, has rolled over.

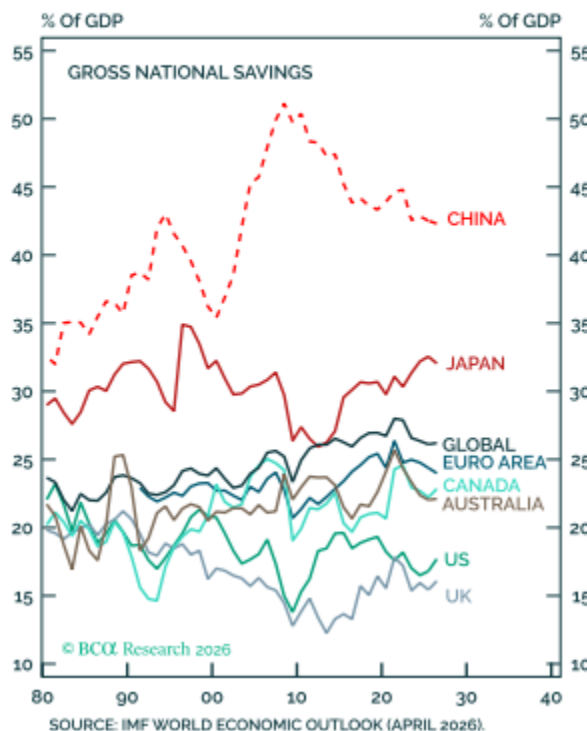
The property sector remains in dire straits. Home prices fell 3.6% y/y in May in the primary market and 5.9% in the secondary market. Housing starts are down 77% from their peak while sales are down 60%.

The tech sector is a bright spot. China continues to make great strides in areas such as AI, robotics, and biotechnology. This progress, however, has come alongside growing excess capacity in a variety of industries, including electric vehicles, solar panels, and batteries.

The underlying problem is that China's national savings rate stands at 42%, more than double that of most other major economies (**Chart 19**). By definition, a country's savings must equal the sum of its current account balance and its investment spending. As a share of global ex-Chinese GDP, China's current account surplus is already at a record high. Any further effort to pump out excess Chinese savings to the rest of the world would simply inflame protectionist sentiment.

This leaves China with only two choices: keep investment at very high levels despite rising excess capacity or take steps to curb savings by bolstering consumption. China has tried to do the latter, but it has been a slow process. This means investment will remain high, which will amplify the deflationary trend.

CHART 19
China Saves Too Much



II. Financial Markets

A. Global Asset Allocation

Slight Underweight to Stocks but Looking to Get More Defensive Later this Year

The equity bull market is getting long in the tooth. ...

We recommend that investors offset the slight underweight to equities with a slight overweight to cash and a neutral allocation to bonds. ...

If the AI boom turns to bust, this will unleash a significant deflationary wave across the global economy. Just as in 2001 after the dotcom bubble burst, this will force central banks to shift into easing mode.

B. Equities

AI: A Different Type of Bubble

AI is in a bubble but it is a different type of bubble from what investors are used to. Conventional bubbles feature an unsustainable rise in the P/E ratio. With AI, the bubble is in earnings rather than in valuations.

When Nvidia sells a GPU or Micron sells a memory chip, it books a big profit from the sale. However, the companies buying those chips, even at inflated prices, do not treat the purchase as an immediate expense. Rather, they treat it as capex. Thus, while aggregate cash flows do not rise, aggregate earnings do rise.

This has translated into a massive increase in profit margins, especially in the tech sector (**Chart 23**). Since 2019, S&P 500 forward profit margins have risen by 3.8 percentage points and by 11.3 points in IT. Had margins remained unchanged, the S&P 500 would be trading at 26.5 times forward earnings today, rather than 20 times.

Shortages of semiconductors and power generation equipment will not disappear anytime soon. However, markets will start pricing in relief well before it arrives. Waiting for analysts to start cutting earnings estimates risks waiting too long. In past tech cycles, stocks have usually fallen substantially by the time estimates start falling (**Table 1**).

CHART 23

S&P Profit Margins Have Surged, Led By Tech

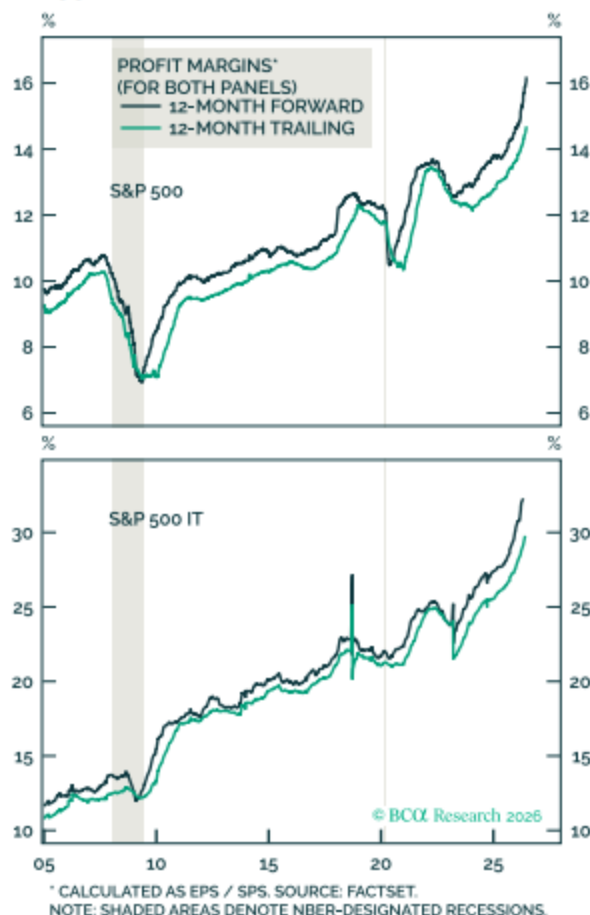


TABLE 1

Share Prices Tend To Peak Before Forward Earnings: The Case Of IT

STOCK/INDEX	PEAK PRICE	START OF 12-MONTH FORWARD EPS DECLINE*	TOTAL RETURN FROM PRICE PEAK TO START OF FORWARD EPS DECLINE* (%)
MICRON	Jun 2000	Jan 2001	-48.0
MICRON	Sep 2006	Dec 2006	-19.8
MICRON	Nov 2014	Mar 2015	-24.5
MICRON	May 2018	Oct 2018	-34.5
MICRON	Dec 2021	Jul 2022	-33.4
INTEL	Aug 2000	Jan 2001	-50.6
INTEL	Mar 2021	Feb 2022	-23.4
NVIDIA	Dec 2001	Jul 2002	-83.4
NVIDIA	Sep 2007	Feb 2008	-41.0
NVIDIA	Sep 2018	Jan 2019	-48.8
NVIDIA	Nov 2021	Aug 2022	-53.8
S&P 500 IT	Mar 2000	Nov 2000	-41.6
S&P 500 IT	Oct 2007	Sep 2008	-28.5
S&P 500 IT	Dec 2021	Jul 2022	-17.0

* DEFINED AS THE MONTH FOLLOWING PEAK 12-MONTH FORWARD EPS FOR EACH EPISODE.

Timing the AI Bust: Indicators to Watch

With that in mind, we have been tracking a variety of indicators to help gauge when AI stocks might begin to falter:

- GPU rental rates and memory chip prices: GPU rental rates have generally been strong, although Nvidia's older Hopper chips have seen rates come down from their highs. On the memory front, prices have continued to rise. More supply should come online over the next two years, however. Micron, SK Hynix, and Samsung are all boosting capacity. Chinese companies are also expanding production of lower-end memory with the aim of moving further upmarket.
- Adoption rates and AI spend: These remain in an uptrend. One caveat is that AI spending is dominated by a relatively small number of power users, some of whom may be engaging in wasteful "tokenmaxxing."
- Token prices and coding agent downloads: Token prices have fallen in recent weeks as cost-conscious users switch to cheaper models, an increasing number of which are open source. Coding agent downloads have also stalled.

To use a baseball metaphor, our best guess is that the AI boom is somewhere near the 7th or 8th inning. This is often the most exciting part of the game, but also one that is nearing its end. Our best guess is that when the AI earnings bubble finally bursts, equities will fall 30% to 50%. ...

E. Commodities

Oil Prices Are Approaching a Bottom After rising to as high as \$144/bbl, the price of Brent crude has retreated to \$73/bbl. At this point, downside risks for oil are limited. For one thing, transit through the Strait of Hormuz remains far below pre-war levels (**Chart 38**).

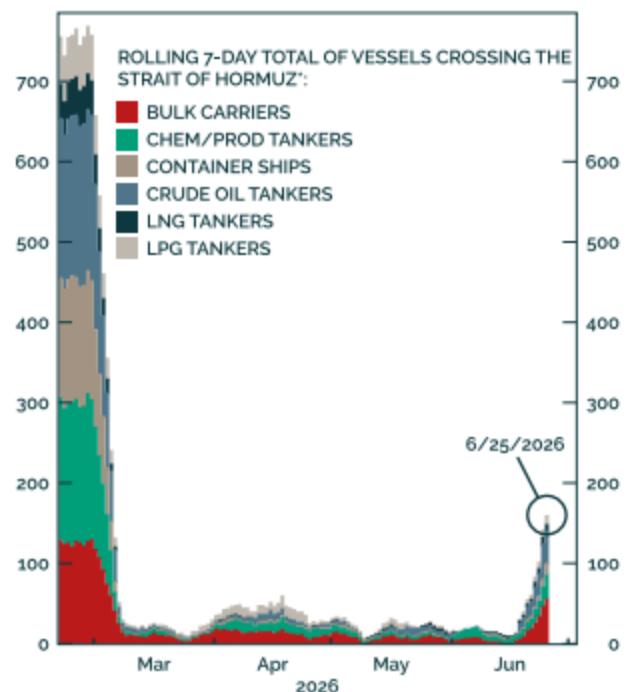
The truce between the US and Iran is fragile, with many contentious issues still to be worked out before an official ceasefire can be signed. Matt Gertken, BCA's Chief Geopolitical Strategist, thinks it is more likely than not that the ceasefire will fall apart after the US midterm elections in November.

Moreover, the conflict led to a depletion of global oil inventories. Most countries will want to rebuild those reserves in the months ahead, probably in excess of pre-war levels, given the risk that the Strait could be blocked again.

Long-Term Outlook Better for Metals Than Oil

While the downside for crude oil is limited, so too is the upside. As **Chart 39** illustrates, the 5-year futures price for WTI crude tracks the breakeven cost for shale producers very closely. Higher prices incentivize new production, which eventually brings prices back down.

CHART 38
Transit Through The Strait Of Hormuz
Is Recovering But Remains Well Below
Pre-War Levels



* VESSELS NEED TO HAVE KEPT THEIR AIS SIGNALS ON AND DETECTABLE WHEN THEY EXITED WEST/ EAST HORMUZ AND ENTERED EAST/ WEST HORMUZ. ADDITIONALLY, THEY NEED TO HAVE KEPT THEIR AIS SIGNAL ON WHILE THEY WERE CROSSING THE SPACE BETWEEN WEST AND EAST HORMUZ.
NOTE: LATEST DATA AS OF 6/25/2026.
SOURCE: BLOOMBERG FINANCE L.P. © BCG Research 2026

There is no shale equivalent for most metals. According to S&P Global, it takes around 18 years for a mine to become operational. The number of large copper deposits discovered has been trending lower over the past few decades, as has the quality of the ore.

An AI capex bust would pose near-term challenges for metals. However, prices would likely rebound once AI becomes more firmly embedded in the physical world. After all, if Elon Musk's vision of 10 billion Tesla Optimus robots ends up a reality, this will generate huge demand for metals, not just to manufacture the robots but, more importantly, to produce all the goods that those robots will be able to create. Simply put, in a world of abundance, anything that remains scarce will become more valuable.

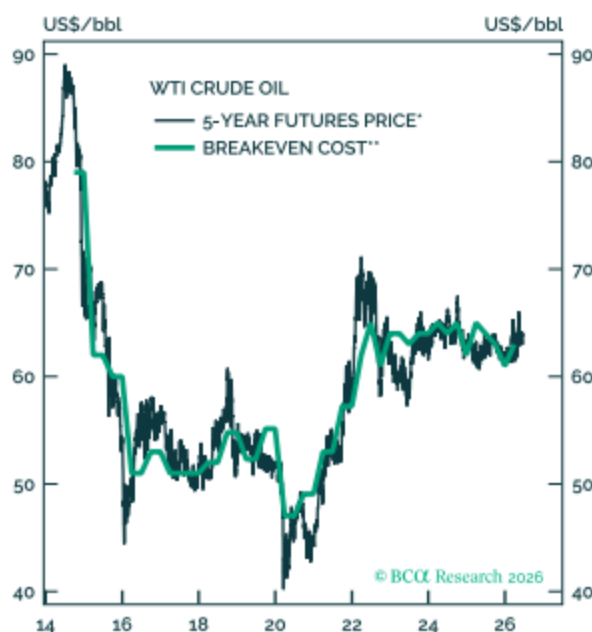
Gold: Near-Term Downside, Long-Term Upside

... Deteriorating price momentum, lower inflation, and the prospect of a stronger dollar are all bearish for gold.

Looking beyond the next few months, however, the outlook for gold is better. Despite the runup in prices over the past few years, gold only accounts for 3.8% of global household wealth, significantly below the peak of 22% in 1980 (**Chart 42**). The fiscal outlook in many

CHART 39

US Shale Has Increasingly Become The Long-Term Anchor For Oil Prices



* SOURCE: CHICAGO MERCANTILE EXCHANGE (CME).
 ** SOURCE: FEDERAL RESERVE BANK OF KANSAS CITY. FIRMS WERE ASKED WHAT OIL AND NATURAL GAS PRICES WERE NEEDED ON AVERAGE FOR DRILLING TO BE PROFITABLE ACROSS THE FIELDS IN WHICH THEY ARE ACTIVE.

CHART 42

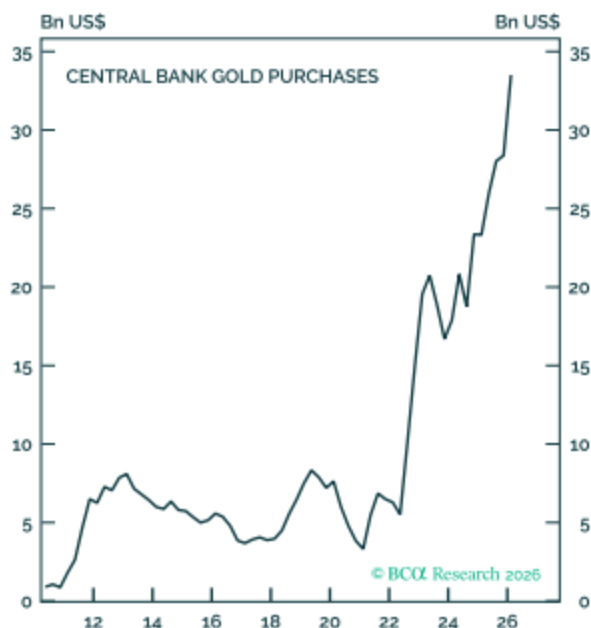
Gold Still Accounts For Only A Small Fraction Of Global Household Wealth



* DEFLATED BY HEADLINE CPI, IN MAY 2026 US DOLLARS. SERIES REBASED TO JAN 1970 = 100.
 ** GOLD PRICE MULTIPLIED BY TOTAL STOCK OF GOLD SUPPLY. SOURCE: METALS FOCUS, WORLD GOLD COUNCIL, US GEOLOGICAL SURVEY, AND BCA CALCULATIONS.
 *** SOURCE: CREDIT SUISSE, MSCI INC. (SEE COPYRIGHT DECLARATION), OECD, AND BCA CALCULATIONS.

CHART 43

Central Banks Are Shifting Their Reserves Into Hard Assets



SOURCE: METAL FOCUS AND WORLD GOLD COUNCIL.
 NOTE: SERIES ARE SHOWN AS 4-QUARTER MOVING AVERAGES. PURCHASES IN VALUE TERMS ARE CALCULATED BY MULTIPLYING THE PURCHASES IN VOLUME TERMS BY THE AVERAGE LBMA GOLD PRICE FOR EACH QUARTER.

countries is worrying. Perhaps most importantly, sovereign demand should remain strong as central banks seek to shift more of their reserves into hard assets (**Chart 43**).

Follow-ups

What History Tells Us About The AI Investment Boom

June 29, 2026 • [Larry Swedroe](#)

My friend Kai Wu, host of “The Intangible Economy” [podcast](#) and manager of Sparkline Capital’s Intangible Value ETFs ITAN and DTAN, interviewed financial historian Edward Chancellor, who has spent a career studying speculative manias. Chancellor’s capital cycle framework, built on the ruins of railways and dot-coms, has a sobering message for today’s investors. His message is not that AI will fail as a technology. Rather, he warns us that the greatest technological revolutions in history have repeatedly destroyed the investors who funded them. We’ll examine Chancellor’s core ideas and what they tell us about the unfolding AI boom.

Every generation convinces itself that *this time is different*. The railways of the 1860s were going to bind a continent together and make fortunes for all. The Internet of the 1990s was going to change everything, and anyone who missed it was a fool. Today it is artificial intelligence, and the numbers involved dwarf anything the world has seen before.

The Capital Cycle: What It Is And Why It Matters

Chancellor’s central idea is that when an industry starts earning high returns, capital floods in. Competitors pile on. Too much is built. Returns collapse. Capital then flees, leaving behind excess capacity and wrecked balance sheets—until, eventually, the survivors find themselves in an industry cleaned of competition, returns recover, and the whole thing starts again.

This is the capital cycle, and it operates across mining, shipping, banking, real estate and technology alike. The cycle exists not because markets are irrational, but because of a set of very human tendencies that Chancellor identifies in his work.

The Capital Cycle—How A Boom Becomes A Bust In Steps

1. New technology sparks excitement
2. High returns attract capital and competitors
3. Massive investments are made in new infrastructure
4. Supply overwhelms demand
5. Prices and profits collapse
6. Firms go bankrupt and investors suffer losses
7. Infrastructure remains and new users prosper

Smart People Keep Making The Same Mistake

Chancellor argues that capital cycles persist because of several deeply ingrained human tendencies. *Overconfidence* leads managers and investors to believe the opportunity is unique and their projections are sound. *Competition neglect* means that even as a manager invests to meet demand, they rarely ask what other managers are simultaneously doing. *Extrapolation* causes people to assume recent trends will continue indefinitely. And perhaps most powerful of all, *skewed incentives* mean that fund managers who sit out a boom risk losing clients, while those who pile in face losses only later—long after the bonuses have been paid.

‘High returns tend to attract capital, just as low returns repel it.’ —Edward Chancellor, *Capital Returns*

The result is that booms are self-reinforcing on the way up and self-destructing on the way down. The very signals that attract investors—soaring stock prices, bold expansion plans, CEOs on magazine covers—are also the signals that a cycle is approaching its peak.

Three Historical Precedents Chancellor Points To

Chancellor frequently draws on three historical case studies that rhyme uncomfortably with today’s AI boom.

The Railway Mania Of The 1860s–1870s

Following the American Civil War, railroad construction exploded. Over 33,000 miles of track were laid between 1868 and 1873 alone. The technology was genuinely transformative—it bound a continent, created national markets, and enabled industrialization on a massive scale. Yet the investors who funded it were largely wiped out. The Panic of 1873 saw hundreds of railroad companies collapse. Those that survived eventually earned returns that amounted to only a tiny fraction of the enormous economic value the railways created. *Society won. Shareholders lost.*

The Telecom Boom Of The 1990s

In the late 1990s, telecommunications companies spent over \$500 billion laying fiber optic cable around the world in anticipation of the coming internet age. Their projections were wildly optimistic. By the early 2000s, around 85% of that fiber sat unused, bandwidth prices had crashed by 90%, and firms like Global Crossing and WorldCom had filed for bankruptcy. The telecom stock index fell 92% from its peak and, remarkably, has still not recovered a quarter of a century later. But what about the cheap bandwidth they left behind? It powered Netflix, YouTube, Facebook, and everything that followed.

The Dot-Com Bubble Of 1999–2000

Internet companies were not the fiber layers. They were the early adopters of that infrastructure. Yet even they were not spared. A portfolio of dot-com darlings—companies with price-to-sales ratios above 25 entering the year 2000—did grow their revenues at a robust pace over the following two decades. The technology lived up to the hype. But because investors had paid such stratospheric valuations, the collapse in price multiples still destroyed 85% of their investment value. It took 18 years of strong fundamental growth just to get back to where they started.

The Key Lesson From History

Transformative technologies often deliver on their promise. The railways changed the world. The Internet changed the world. But the investors who funded the buildout were frequently left with little to show for it. Value accrued not to the builders, but to the users of what they built—and to those patient enough to buy after the wreckage.

Now Look At AI

The numbers being spent on AI infrastructure are, by any historical measure, extraordinary. The major U.S. technology companies—Amazon, Microsoft, Google, Meta, and others—are collectively on track to spend about \$750 billion on capital expenditure in 2026, the vast majority directed at AI hardware and data centers. Projected five-year cumulative AI investment has been estimated at about \$4 trillion. As a share of U.S. GDP, current AI spending already exceeds the peak of the internet boom, and if you adjust for the shorter useful life of AI chips compared to railway tracks, it may already exceed the railway

In his interviews and public talks, Chancellor has compared the current surge in the “Magnificent 7”—Apple, Microsoft, Amazon, Meta, Google, Nvidia, and Tesla—directly to the British railway mania and the 1990s internet boom. The warning is not that AI will fail, but that the pattern of overinvestment, excess competition, and eventual collapse is following a very familiar script.

The Prisoner’s Dilemma: Why They Can’t Stop

One of Chancellor’s most important observations is that the companies driving this buildout are not being reckless—they are being rational in a perverse way. Each major technology company faces what game theorists call a prisoner’s dilemma: the optimal collective outcome would be for all of them to moderate their AI investments, but each individual firm is incentivized to invest aggressively because if a competitor surges ahead, they risk losing everything.

Meta’s Mark Zuckerberg has publicly acknowledged this [trap](#): “If we end up misspending a couple of hundred billion dollars, I think that is going to be very unfortunate obviously... But what I’d say is I actually think the risk is higher on the other side.” Google’s Sundar Pichai has said much the [same](#): “The risk of under-investing is dramatically greater than the risk of over-investing.”

Chancellor notes that European mobile phone companies said almost identical things in the late 1990s before massively overpaying for 3G spectrum licenses—and before their stocks collapsed. The prisoner’s dilemma logic does not make the eventual overinvestment less likely; it makes it more certain. This situation more or less guarantees collective over-investment.

From Asset-Light To Asset-Heavy

One of the more subtle but important points Chancellor makes concerns the business model transformation underway at the big tech firms. For over a decade, their success was built on being *asset-light*—generating enormous profits from intellectual property, network effects, and software without needing vast physical infrastructure. That is what made them such extraordinary compounders of shareholder value.

The AI arms race is dismantling that model. Capital expenditure as a share of revenue has surged from roughly 4% in 2012 to 15% or more today among the Magnificent 7. Some firms are now spending between 21% and 35% of revenue on capital expenditure—more than AT&T at the height of the telecom bubble, and comparable to utilities. Asset-heavy businesses face a structural problem: physical assets depreciate, require constant reinvestment, are easier for competitors to replicate, and generate lower returns on invested capital. The very thing that made these companies exceptional is being traded away.

A Tale Of Two Investors: Who Wins, Who Loses

History suggests a consistent pattern in who benefits from technology investment booms—and it is not usually the companies doing the investing.

Boom Era	Infrastructure Builders (Losers)	Downstream Users (Winners)
Railway Boom 1860s–90s	Hundreds of railroad companies went bankrupt in the Panic of 1873 and 1893	American manufacturers, farmers, and consumers who used the cheap transport network
Telecom Boom 1990s	Global Crossing, WorldCom, Nortel—telecom index fell 92% and never recovered	Netflix, Facebook, Google—built on the subsidized bandwidth left behind
Dot-Com 1999–2000	Early internet darlings at extreme valuations lost 85% even as revenues grew	Those who bought quality Internet companies <i>after</i> the bust (i.e., Amazon at \$5)
AI Boom (ongoing)	Potentially: Infrastructure builders (hyperscalers, Nvidia) facing rising capital intensity and high valuations	Potentially: AI early adopters across healthcare, finance, industry—using subsidized AI compute

The mechanism is elegant in its cruelty: massive overinvestment in infrastructure creates excess supply, which drives down prices, which *subsidizes* the next wave of users. The telecom companies that went bankrupt accidentally gifted the world nearly free bandwidth. If history rhymes again, today’s AI infrastructure overbuild may eventually hand cheap AI compute to companies—in healthcare, finance, manufacturing and elsewhere—that have not yet built their winning applications.

The Revenue Problem

For all the excitement, there is a stark gap between money being spent and money being earned. Bain & Company estimated that to justify the expected AI buildout, the data centers being constructed will need to generate around [\\$2 trillion](#) in *new* annual revenue by 2030. Yet three years after ChatGPT launched, AI revenues across the industry remain in the tens of billions—implying a roughly hundred-fold increase is required in just a few years.

Chancellor points to a further accounting quirk that flatters current earnings: many of the biggest tech firms have been extending the assumed useful life of their AI servers from three years to five or six years, spreading depreciation costs over a longer period. If AI chips become obsolete faster than these assumptions imply—a reasonable concern given Nvidia’s accelerating replacement cycles—the real earnings hit will be considerably larger than currently disclosed.

What This Means For Retail Investors: Five Practical Implications

Chancellor’s framework is not a prediction of doom—it is a tool for thinking clearly when everyone around you is getting swept up in excitement. Here is what his analysis suggests for ordinary investors.

1. Be wary of the companies spending the most. Decades of data across multiple countries and sectors show that firms aggressively growing their capital expenditures tend to underperform their more conservative peers in the years that follow. The biggest AI spenders—the hyperscalers—are investing at levels that historically signal poor future returns for shareholders, not good ones.
2. The technology succeeding does not mean the stocks succeed. The railways transformed America. The Internet transformed the world. Shareholders in the companies that built them often lost most or all of their money. Do not confuse a transformative technology with a good investment.

3. Watch the supply side, not just the demand story. The market focuses on demand—will AI be adopted? Will it raise productivity? These are impossible to forecast with any level of precision. Chancellor’s insight is to watch what can be measured: how much capital is being invested. When it reaches historic extremes, excess capacity and falling returns almost always follow.

4. The “hidden winners” may not be the obvious ones. History suggests the long-term beneficiaries of infrastructure booms are the downstream users, not the builders. AI early adopters—companies using AI to improve operations in healthcare, finance, industrials, and other sectors—are currently less hyped and less expensively valued than the infrastructure providers, yet they may capture more of the ultimate value created.

5. Valuation is not optional, even in technological revolutions. Dot-com companies that entered the bust with price-to-sales ratios above 25 lost the vast majority of their value—even though they subsequently grew revenues at double digits rates for two decades. Paying too much for even a genuinely great business can lock you into a decade or more of poor returns. The question is not whether AI is real; it is what you are paying for it.

Chancellor’s Broader Warning: The Debt Supercycle

In his PFI Talks interview and other recent appearances, Chancellor sets the AI boom within a larger context he calls the “debt supercycle.” Decades of declining interest rates and repeated central bank interventions have encouraged ever greater risk-taking and inflated successive asset bubbles. Rising interest rates, soaring government debt, and the Federal Reserve’s loss of credibility mean the eventual reckoning, when it comes, may be more severe than previous corrections. For retail investors, this underlines the importance of not being overexposed to a single theme—however compelling—at historically extreme valuations.

A Final Word: History Does Not Repeat, But It Rhymes

Chancellor is careful to acknowledge what he does not know. He cannot tell you when the cycle will turn, which companies will survive, or whether some genuinely new feature of AI might produce an outcome that differs from the historical precedents. He has also noted that AI products already exist at scale and generate growing real revenues, which distinguishes the current moment from the most speculative phases of the dot-com era.

But he would say this: the mechanisms he describes—overconfidence, competition neglect, the prisoner’s dilemma of corporate investment, the gap between narrative and numbers—are not artifacts of a less sophisticated age. They are features of human nature and competitive capitalism. They were present in the 1860s, the 1990s and the 2000s. There is no compelling reason to think the 2020s are immune.

The AI revolution may well be the most transformative technology in a century. That does not mean, Chancellor would caution, that the companies leading the buildout will be the ones who profit from it—or that investors who pile in at peak euphoria will look back fondly on their timing.

History, after all, has a sense of irony. The people who laid the fiber cables went bankrupt. The people who used them became the richest companies on earth. The next chapter is still being written.

From Verdad:

The Private Equity Consensus Trade

Is there a reckoning coming for those who promoted private equity?

By: [Dan Rasmussen](#)

There's an old saying in corporate America: Nobody ever got fired for buying IBM.

Over the last 20 years, private equity has become the IBM of institutional investing.

Endowments bought it. Foundations bought it. Pension funds bought it. Family offices bought it. Wealth managers bought it. Consultants recommended it. Investment committees demanded it. If you wanted to signal sophistication, you bought more private equity.

And not just a little more. Many elite institutions have come to hold more private equity than public equities. [Harvard's fiscal 2025 portfolio](#) was 41% private equity and only 14% public equities. Some of the world's most sophisticated institutions now allocate 30%, 40%, even 50% of their portfolios to private markets. [BNY Wealth](#) found that families with \$250 million or more allocated 28% to private equity, more than the 21% allocated to public stocks.

This bet was not sized appropriately relative to market capitalization. [Private equity globally](#) has less than \$6 trillion of AUM, while global public equity market cap is about \$130 trillion, meaning private equity as an asset class is less than 5% the size of the public equity market. If your wealth manager put 40% of your portfolio into India because he told you Indian equities (which have roughly the same market capitalization as private equity and better liquidity) would reliably outperform other equity markets, you'd probably ask some follow-up questions. India may or may not be a good investment, and you might or might not want to be overweight it, but even if you love India, putting 40% into that one trade would force you to forgo the benefits of diversification into other markets and crowd out a variety of other opportunities.

But for years, surprisingly few people questioned these PE allocations. That's because there is a near complete consensus—still!—that private equity is the best asset class. [Adams Street's 2025 global LP survey](#) found that 85% of limited partners expected private markets to outperform public markets over the long run. An investment consulting firm captured the spirit of the age in its paper "[Life Can Be Better After 40\(%\)](#)," writing that families with multigenerational wealth "may be particularly well positioned to consider allocating 40% or more of their assets to private investments."

The sales pitch for private equity is great. Private equity funds are better asset owners. They make money by improving operations. They align incentives. They are long-term owners not distracted by day-to-day volatility. And, of course, the industry had generated excellent returns in the 1980s, 1990s, and even the early 2000s. Those who invested early did very well.

It's often said there are no bad ideas in finance, only good ideas taken too far. One of the most reliable principles in finance is that excess returns attract capital and capital compresses excess returns. Nobody believes a hedge fund strategy can absorb unlimited assets without degradation. Nobody believes a factor premium becomes larger after every investor discovers it. The overallocation and excessive enthusiasm alone should have been a warning signal that smart investors were taking the PE idea too far.

Yet private equity was often discussed as though the normal laws of competition did not apply. Private equity firms [proliferated](#). Purchase multiples went ever higher (or, more accurately, EBITDA multiples rose slightly while EBITDA adjustments soared). Yet return expectations from consultants went only one direction: [up!](#)

Now the tide has begun to turn. Private equity returns have been [worse than public markets](#) for years. Private equity and [private credit](#) are on the front pages of the newspaper seemingly daily for their rising inventory of stranded software assets. At this juncture, perhaps it's time we asked an uncomfortable question: How should investors evaluate the people who most aggressively promoted private equity?

Suppose your university endowment dramatically overweighted private equity. Suppose your consultant recommended a 40% private equity allocation. Suppose your multi-family office CIO encouraged you to emulate Yale, Harvard, or Princeton. How should you evaluate their judgment?

Investors should ask a simple question: What would convince you to reduce your allocation to private equity? If the answer is, "Nothing,"—if years of underperformance, record purchase multiples, shrinking distributions, and crowded positioning do not matter—then what is being defended is no longer an investment thesis. It is an article of faith.

From WSJ:

How Some Private-Equity Managers Collect Big Fees on Paper Gains

Fee structures are among the pitfalls of investing in semiliquid funds

By [Jonathan Weil](#)
June 28, 2026

At some private-equity funds, the old saying about not counting your chickens before they hatch doesn't apply.

It is one thing for fund managers to record large unrealized gains on hard-to-value, illiquid assets and report stellar investment performance. It is quite another to also charge investors large performance-based fees before the profits are actually locked in.

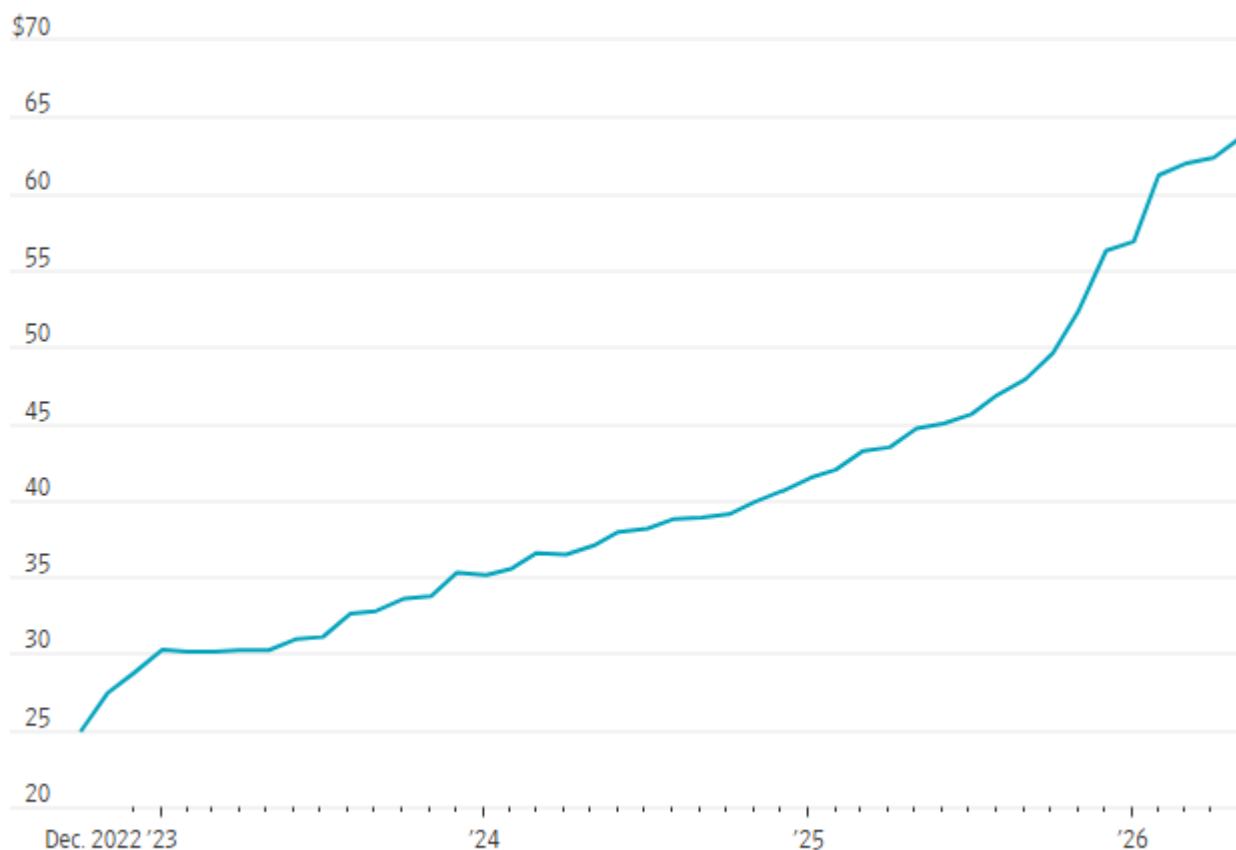
This happens all the time at private-equity funds that cater to wealthy individuals. And the numbers in some instances are eye-popping.

StepStone Private Venture and Growth Fund, also known as Spring, posted a 43% return for the fiscal year ended March 31. Almost all the gains at the \$6.5 billion fund came from marking up illiquid assets, including stakes in private investment funds. Some came from buying stakes in other funds at a discount to the stated net asset value [and writing them up immediately](#).

Net unrealized gains for the year were \$1.87 billion, while net realized gains were only \$3 million. The only other investment income last year was \$16.7 million in dividends and interest.

Spring during the fiscal year accrued \$271.3 million of incentive fees, which are determined as a percentage of profits, on top of \$56.8 million in regular management fees. The incentive fee is paid annually at the end of the

StepStone Private Venture and Growth Fund, net asset value per share



Note: Fund launched Nov. 1, 2022. Chart shows NAV for Class I shares. NAV is updated monthly.

Source: LSEG

calendar year to the fund's manager, a unit of [StepStone Group](#). In response to questions, StepStone said the cash amount actually paid for calendar 2025 was \$185 million. That was equivalent to almost 4% of the fund's net assets as of Dec. 31.

While the incentive fees might seem extreme, they are a consequence of the fund's semiliquid structure. They highlight a big difference between the sorts of private-equity funds [sold to many wealthy individuals](#) and those available to large institutional investors such as pension plans and university endowments. Such fees also can reward managers for using optimistic marks on hard-to-value assets.

With institutional funds, private-equity managers charge performance fees, too, but usually after the assets have been sold. Details are hard to come by because the funds' financial statements usually aren't disclosed, unlike those of publicly registered funds such as Spring.

As an evergreen fund, Spring raises capital monthly while offering existing investors liquidity through quarterly repurchase offers. The incentive fees are accrued throughout the year and baked into the net asset value, or NAV, that Spring updates routinely. If the fund charged such fees only on realized gains, that would reward departing investors at the expense of those who stay for the long haul, assuming the paper gains eventually turn into real money.

To protect against the risk of a run on its assets, the fund caps redemptions at 2.5% of its shares outstanding each quarter. At institutional funds, by comparison, there aren't frequent windows for investors to exit, which prevents mismatches between their assets and obligations.

Spring's fees also have been costly for StepStone Group, the fund manager's publicly traded parent. Years ago, StepStone entered into a new compensation agreement with its private-wealth-management team, giving them a contract that ties their ultimate payout to a multiple of the unit's profits.

The size of the related liability on StepStone Group's balance sheet more than tripled to about \$2.3 billion during the fiscal year ended March 31, driven in part by last year's fees at Spring. As a result, StepStone Group's common equity turned negative.

Other examples abound of large performance fees exceeding cash realizations. At TPG Private Equity Opportunities, a \$1.6 billion fund that started almost two years ago, net unrealized gains in 2025 were \$169 million. Realized gains were zero, and dividend and interest income was just \$2.6 million. In its annual report the fund said, "valuations of portfolio companies are estimates of fair value and may not necessarily correspond to reasonable value."

For the year, investors were charged \$19.3 million in performance fees on top of \$854,000 in management fees. The fund said it paid \$8.3 million of the amount owed in cash last January and \$8.3 million in stock.

At KKR Private Equity Conglomerate, an \$11.8 billion fund, performance fees for 2025 were \$203.2 million, in addition to \$78.7 million of management fees. Net unrealized gains were about \$1.2 billion, while the fund reported \$110.6 million in dividend income and net realized losses of \$27.9 million. The fund said it paid its performance fees in stock.

There are bound to be pitfalls any time a fund offers investors short-term liquidity while holding long-term, illiquid assets with opaque valuations. Notably, investors this year have flooded the managers of many private-credit funds with redemption requests. Those often have exceeded the funds' quarterly limits on share buybacks, meaning investors [can't get all their money out](#) when they want to.

To date, [only a few private-equity funds](#) have faced such redemption pressures. But the risk of getting trapped isn't the only trade-off with semiliquid funds. The semiliquid nature is what makes performance fees on unrealized gains necessary, if the fund manager is going to charge them at all. For investors, it is worth keeping in mind that the people managing their assets often prefer to pay themselves first.