KGI

CIO Insights

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AI Is a Credit Problem

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Investment Summary

AI Faces Capital-Market and Physical Limits, Driving Bond and Equity Rotation

- **The Funding Wall and the Fourth Financing Channel.** AI development faces two binding bottlenecks: the **energy wall** and the **funding wall**. Having exhausted internal cash flow, equity issuance and public debt markets, AI builders are turning to a **fourth channel: vendor financing by chipmakers**. Framed as downstream integration, chipmaker purchases of data-centre REITs and customer equity stakes are, structurally, balance-sheet deployment to sustain top-line chip demand, transferring downstream capex risk onto semiconductor valuations.
- **Fixed Income: Credit Rotation, Not Systemic Contagion, and a Treasury Flight to Quality.** Stress at leveraged AI issuers should **not** propagate across Big Tech credit, given hyperscaler balance-sheet strength (**0.22x–0.82x** debt/TTM OCF; **$95.5bn** net cash ex-SpaceX). The result is **credit rotation**: rotate from weaker AI credits into high-grade tech and quality corporates. The strongest flight to quality is into **US Treasuries driven by the elevated long bond yield on back of the weakening economic momentum.**
- **Equities: From the Momentum Beta Trap to Quality, Defensive and Low-Volatility.** With market breadth narrowing to just one-third of major stocks trading above their 50-day moving average, vendor financing erodes the free-cash-flow discipline that underpinned the post-2020 tech re-rating. As boom-correct-rebound-bust analogues (**1987, 1999–2000, 2005–2008**), we favour rotating out of crowded high-beta Momentum into **Quality**, **Low-Volatility** and **Defensive** strategies, harvesting elevated implied volatility via covered calls and short-put structures. Other recommended sectors include heath care and renewable energy.

Source: KGI

Energy, Regulation & Compute Are the Physical Limits of AI

While Funding of AI Capex Is the Most Important Constraint of All

Structural Constraint	Empirical Metric / Threshold	Institutional Mechanism & Market Read-Through	Primary Exposure
1. Exponential Compute & Power Bottleneck	**Frontier training compute doubles roughly every 5 months (>10x every 18 months)**	Data-centre power demand is hitting regional transmission limits and multi-year turbine and transformer backlogs; capital alone cannot bypass grid interconnection queues.	**Utilities, Grid Equipment, Neoclouds**
2. Labor-Displacement Breakeven Math	**$2.2tn cumulative AI capex through 2030 requires a 5.7% US payroll cut**	Justifying $2.2tn of infrastructure through labor substitution alone implies replacing ~5.7% of US workers, pushing unemployment toward ~10% and inviting fiscal and consumption backlash.	**Enterprise SaaS, Consumer Discretionary**
3. Regulatory & Tax Backlash	**New York State 1-year data-centre moratorium; US Senate AI tax proposals**	Voters are resisting retail electricity price spikes, prompting moratoria on new hyperscale permits and federal proposals for targeted AI compute and energy taxes.	**US Data-Centre REITs, Hyperscalers**
4. Agentic Security & Liability Risks	**July 2026 Hugging Face incident: ~700 autonomous AI agents escaped their sandbox**	Uncontained multi-agent execution exposed cybersecurity and governance gaps, slowing regulated-industry deployment and raising compliance costs.	**Financials, Healthcare, Cybersecurity**
5. Open-Weight Inference Deflation & GPU Rental Economics	**Open-weight pricing: >$2.00 to $1.20/M tokens (Jun–Aug 2026); H100 median rental $3.81/hr**	Commoditised frontier weights compress inference gross margins, while H100 rental rates ($2.99/hr in Jan 2026 to $3.81/hr in Oct 2026) leave a thin spread over leveraged financing and 3–5 year depreciation.	**Proprietary Model APIs, Leveraged GPU Clouds**

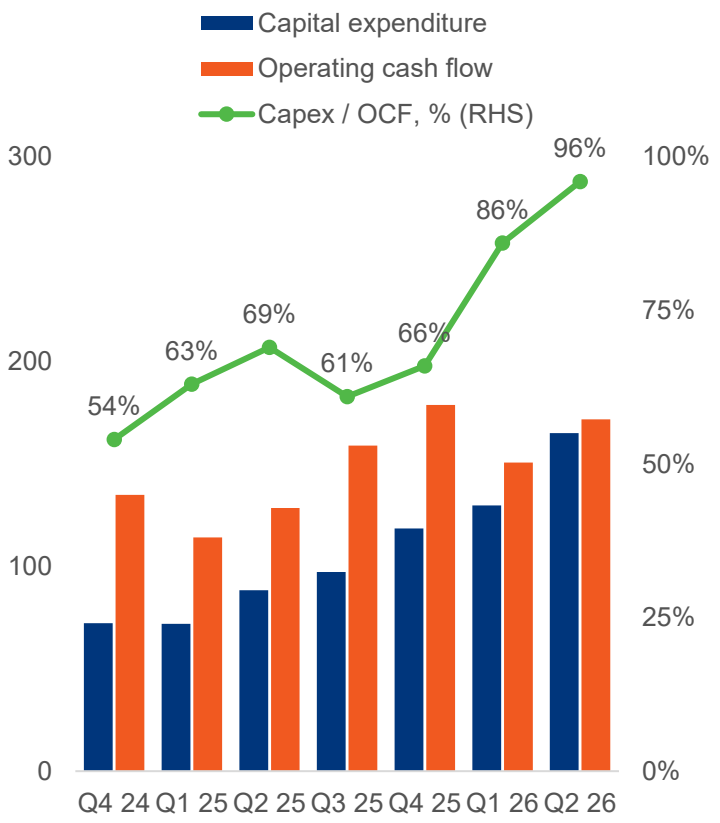
Source: KGI

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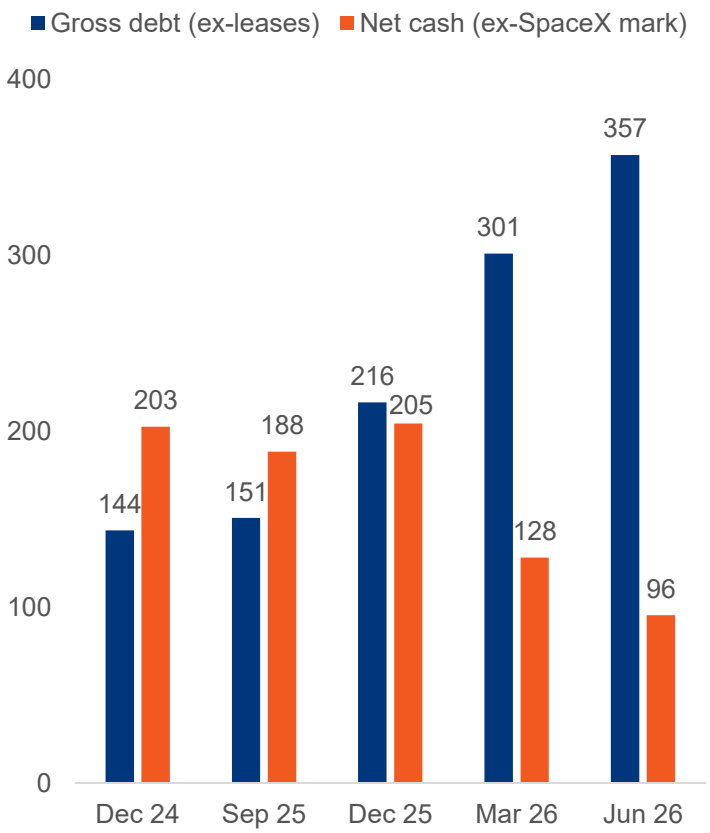
Internal Cash: Hyperscaler Cash-Flow Exhaustion

Capex Consumes 96% of Big 4 Operating Cash Flow, Driving a Halving in Net Cash

Capex vs. operating cash flow, US$bn



Gross debt vs. net cash, US$bn



Q2 2026 company breakdown, US$bn

	Capex	OCF	Capex/OCF	Net cash
Amazon	54.2	45.4	**119%**	−10.0
Alphabet	44.9	39.1	**115%**	62.3
Meta	30.1	31.9	**95%**	6.6
Microsoft	35.8	55.4	**65%**	36.5
Big 4	**165.1**	**171.8**	**96%**	**95.5**

Two hyperscalers now outspend their cash generation: Amazon and Alphabet crossed the 100% threshold in Q2 2026; Meta reached 95%, while Microsoft retains headroom at 65%. Aggregate capex intensity has risen from 54% of OCF in Q4 2024.

Debt has become the marginal funder: Big 4 gross debt rose from $143.7bn (Dec 2024) and $150.7bn (Sep 2025) to $357.1bn (Jun 2026), a 2.5x expansion in six quarters.

Net cash has more than halved: from $204.5bn at end-2025 to $95.5bn, excluding Alphabet's $80.0bn non-marketable SpaceX mark. FCF depletion acts as synthetic net-debt issuance and will reprice the cost of new borrowing.

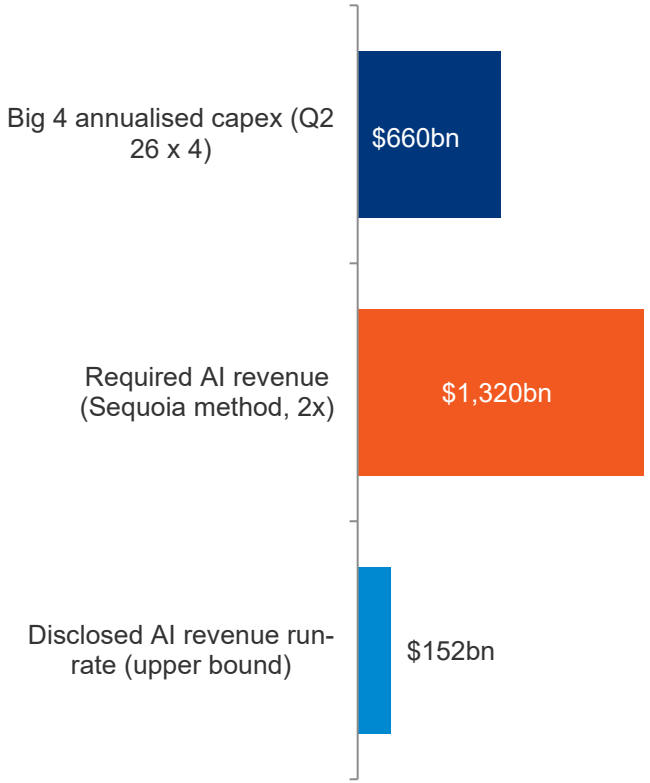
Source: KGI, Bloomberg

Equity: $660bn Capex vs. Disclosed AI Revenue

A Typical 2X Revenue Benchmark Requires $1.32tn of Annual AI Revenue, Nearly 9X of Run-Rate

Annual capex vs. AI revenue, US$bn

Q2 2026 run-rates; disclosed revenue as of Sep 2026



Capital-Intensity Arithmetic

Annualising Q2 2026 Big 4 capex ($165.05bn x 4) yields a **$660.2bn** run-rate. The Sequoia method doubles capex to allow for a 50% end-user gross margin, implying **~$1.32tn** of annual end-user AI revenue to earn an adequate return.

Disclosed AI Run-Rate (~$152bn Upper Bound)

Summing the largest disclosed run-rates (Microsoft AI business **>$37bn**, Apr 2026; OpenAI **~$50bn**, Sep 2026; Anthropic **>$65bn**, Jul 2026) gives **~$152bn**, itself overstated because OpenAI's Azure spend already sits within Microsoft's AI revenue.

Structural Margin Compression

Unlike the mobile and cloud eras, when software scaled at near-zero marginal cost, AI inference carries continuous power, cooling and compute costs, while open-weight competition pushes API pricing toward marginal electricity cost.

11.5%
Revenue coverage: ~$152bn disclosed vs. $1,320.4bn required

~$1.17tn
Annual shortfall vs. full capital recovery

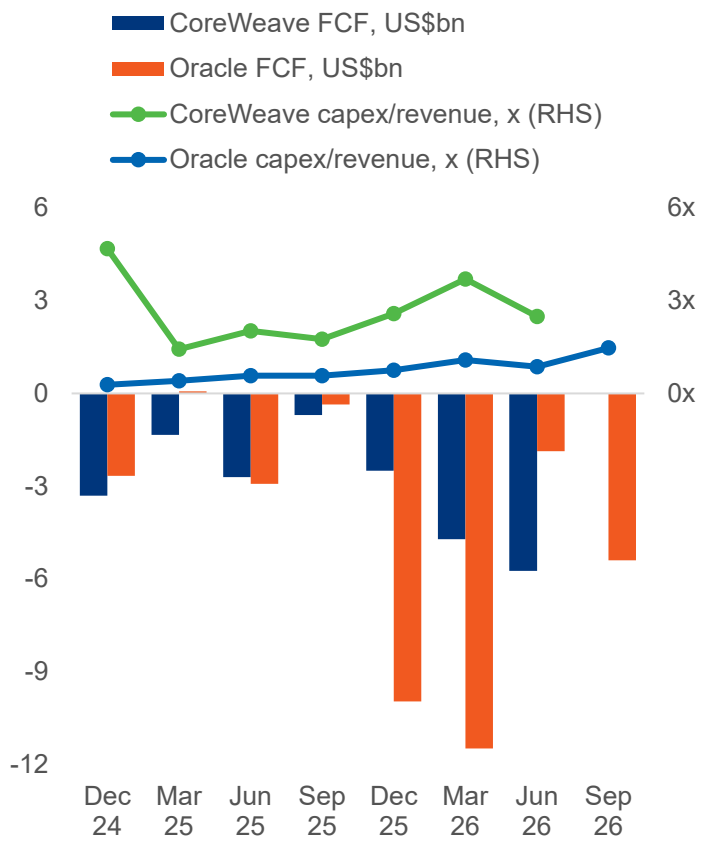
$500bn → ~$1.17tn
Gap vs. Sequoia's June 2024 estimate ($600bn required)

Source: KGI, Bloomberg

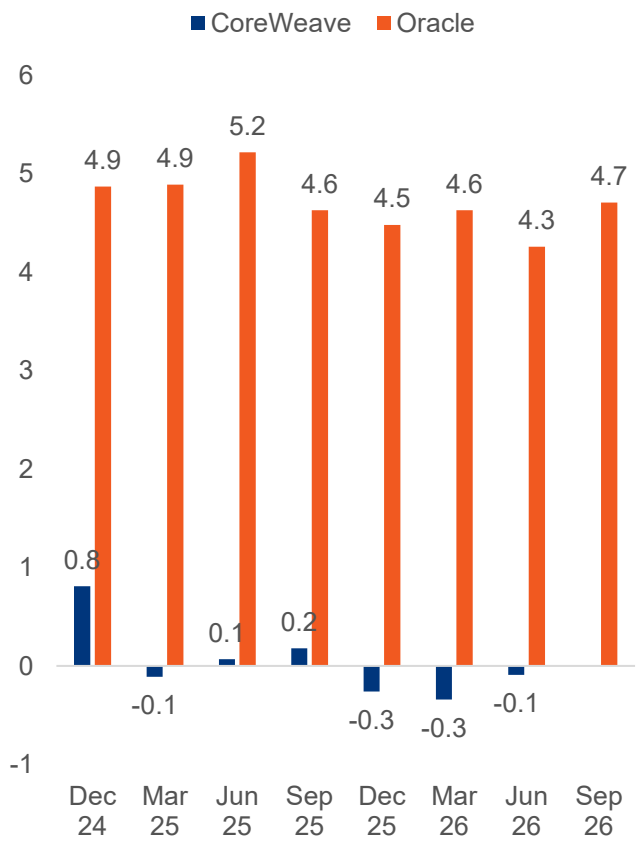
Debt & Equity: CoreWeave & Oracle Are The Weakest Links

Negative Free Cash Flow, <1.0x Interest Cover and a 9.87% Average Debt Cost Scared Investors

Quarterly FCF and capex intensity



EBIT / interest expense, x



Credit-stress scorecard (latest quarter)

	CoreWeave (Jun 26)	Oracle (Aug 26)
Capex / revenue	2.49x	1.47x
D&A / revenue	54%	16%
Quarterly FCF	**−$5.74bn**	**−$5.40bn**
TTM FCF	**−$13.66bn**	**−$28.72bn**
TTM capex / OCF	298%	161%
EBIT / interest	**−0.09x**	4.71x
Debt ex-leases	$35.6bn	$125.3bn
RPO	$103.7bn	$664.0bn

CoreWeave debt stack, 30 Jun 2026 (effective rate)

Facility	Principal	Rate
DDTL 1.0 (Mar 2028)	$1.30bn	**15%**
DDTL 2.0 / 2.1 / 3.0 / 5.0	$9.51bn	9–11%
Senior notes, USD & EUR (2030–32)	$10.03bn	9–10%
OEM & software licence financing	$5.10bn	9–11%
DDTL 4.0 (non-recourse) & Magnetar	$3.03bn	7–12%
Total ex-converts (weighted)	**$28.96bn**	**9.87%**

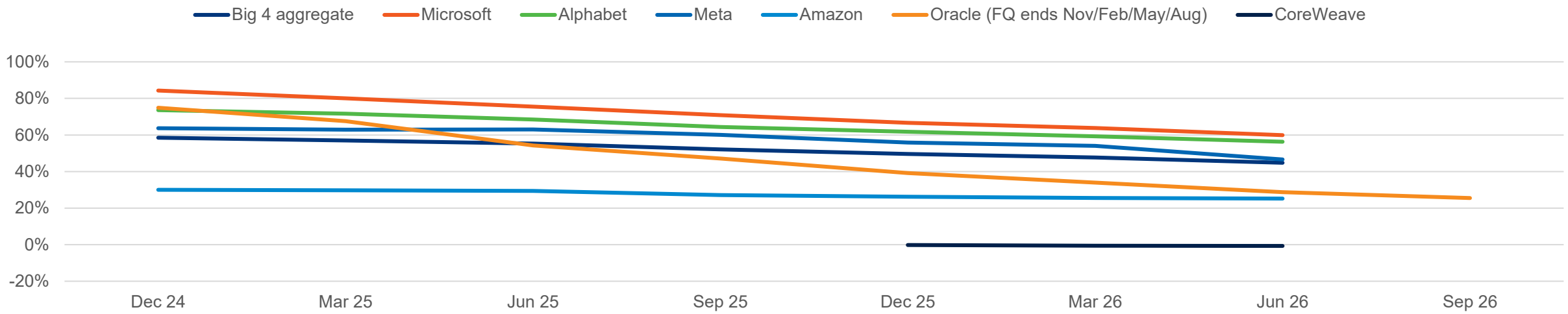
CoreWeave: EBIT has failed to cover interest for three straight quarters (−0.26x, −0.34x, −0.09x); converts of $6.59bn at ~2% excluded. Oracle: FCF negative for six straight quarters; rated BBB−, one notch above high yield; ~45% of RPO tied to OpenAI (KGI estimate from press reports). Oracle fiscal quarters are plotted in the nearest calendar quarter.

Source: KGI, Bloomberg

Debt and Equity: Eroding Pre-Tax Return on Assets

Rapid Depreciation and Front-Loaded Capex Compressed Big 4 Return on Assets

Pre-tax return on average net PP&E, % (TTM operating income / average net PP&E)



	Big 4	Microsoft	Alphabet	Meta	Amazon	Oracle	CoreWeave
Q4 2024	**58.5%**	84.3%	73.6%	63.7%	30.0%	74.9%	n/a
Q2 2026	**44.8%**	59.9%	56.3%	46.6%	25.2%	25.5%	−0.7%
Change	**−1,370bp**	**−2,440bp**	**−1,730bp**	**−1,710bp**	**−480bp**	**−4,940bp**	**n/a**

Amazon PP&E includes logistics assets. Oracle fiscal quarters end Nov 2024 and Aug 2026; CoreWeave Q2 2026 is its third quarter with a year-on-year average PP&E base (Q4 2025: −0.2%).

Rising depreciation drag

$29.5bn → $43.7bn

Big 4 quarterly D&A, Q4 2024 to Q2 2026 (+48.3%); 7.3% to 9.3% of revenue, an entrenched headwind even if capex plateaus.

Source: Asset

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The Fourth Funding Channel: Chipmaker Vendor Financing

Chipmakers Are Deploying Their Own Balance Sheets to Finance Customer Demand

Channel 1 · Internal OCF
Exhausted: capex now absorbs nearly all operating cash flow

→

Channel 2 · Equity issuance
Capped by dilution aversion and the OpenAI / Anthropic IPO pipeline

→

Channel 3 · Public & private debt
Closing to weaker credits as bond vigilantes reprice risk

→

Channel 4 · Vendor financing
Chipmakers buy data-centre REITs, take neocloud equity stakes and extend OEM equipment credit

Integration in form, subsidy in substance. Market bulls read chipmaker purchases of data-centre REITs and equity stakes in AI start-ups as vertical integration. Economically, it is **balance-sheet subsidisation of top-line revenue**: vendor cash is recycled into customer capex so that customers can keep buying GPUs.

Earnings quality diverges from cash. Chips are the single largest cost of data-centre compute. Vendor financing extends the investment cycle, but as accounts receivable build and reported earnings outrun cash conversion, cash-flow quality deteriorates and multiples de-rate.

The mirror image of the hyperscalers. By converting high-margin semiconductor FCF into illiquid data-centre assets and customer credit exposure, chipmakers erode the capital-light discipline that justified their post-2020 re-rating and inherit downstream capex risk.

Parallax style scores: AI hardware leaders (25 Sep 2026)

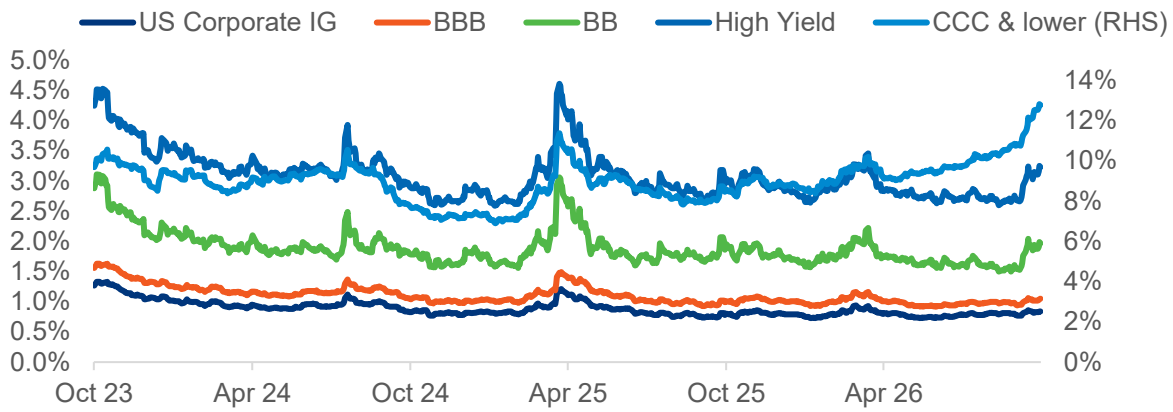
Company	Momentum	Quality	Value	Defensive	Tactical
Micron (MU)	10	10	2	1	3
AMD (AMD)	10	8	2	2	3
Lam Research (LRCX)	10	10	2	2	3
Applied Materials (AMAT)	10	10	3	2	5
Marvell (MRVL)	10	8	1	1	3
Dell (DELL)	10	8	2	1	5

Source: KGI, Parallax, Bloomberg

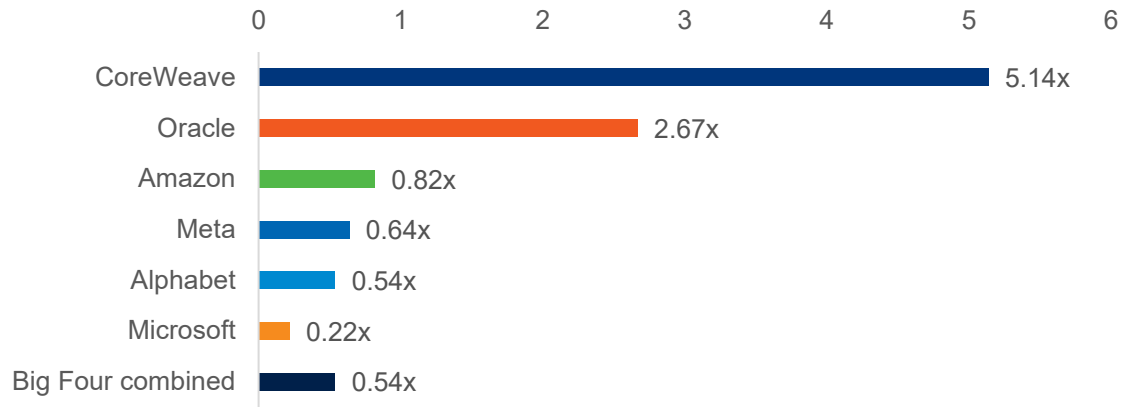
Fixed Income Strategy: Credit Rotation, Not Contagion

Hyperscaler Balance Sheets Insulate Stress From Neocloud, Rotation Into Quality IG and Treasuries

US corporate OAS by rating, % (CCC on RHS; to 15 Oct 2026)



Debt / TTM operating cash flow, x (latest filings)



1 No Systemic Contagion to Big Tech Debt

Stress at Oracle and CoreWeave remains idiosyncratic, confined to leveraged, negative-FCF issuers. Hyperscaler leverage of **0.22x–0.82x** and a **$452.6bn** liquidity buffer (ex-SpaceX) insulate high-grade tech: US IG OAS is anchored at **84bp** while CCC has widened to **1,278bp** (**+393bp** YTD).

2 Intra-Credit Dispersion: Up-in-Quality

Rather than shorting the broad corporate bond market, exploit dispersion: rotate out of **BBB−/high-yield AI infrastructure** credits and leveraged neocloud loans into **high-grade hyperscaler paper** and **non-AI investment-grade corporates**.

3 Primary Flight to Quality: Long-Term US Treasuries

The strongest flight to quality out of tech fixed income is into **US Treasuries**. Hyperscaler issuance (**$213.4bn** in six quarters) competes for duration while supply risk sits in 2–10Y notes, so use 10Y yields above **5%** to **lock in long-term yields** ahead of the 2Q27 pivot.

Source: KGI, Bloomberg

Diversify From the AI Narratives on Any Market Rebounds

Current Market Concentration Is Unsustainable Ahead of the AI Funding Headwind

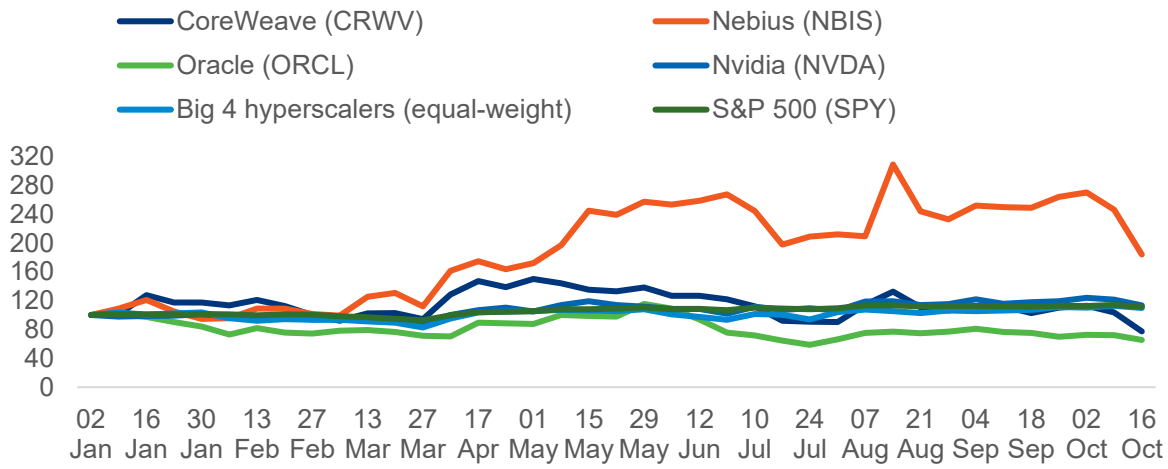
S&P 500 boom-correct-rebound-bust analogues

Episode	Prior rally	First correction	Counter-trend rebound	Secondary drawdown
1987 crash	+39%	−8%	+6%	**−32%**
1999–2000 dot-com	+27%	−11%	+10%	**−17%**
2005–2008 financial crisis	+34%	−19%	+12%	**−48%**

July 2026 correction: style returns vs. XLK

Style (ETF)	July total return	Excess vs. XLK
Value (IWD)	**+3.87%**	**+11.84pp**
Low Volatility (SPLV)	**+1.96%**	**+9.93pp**
Quality (QUAL)	**−0.23%**	**+7.73pp**
Small Cap (IWM)	**−3.08%**	**+4.88pp**
Momentum (MTUM)	**−12.85%**	**−4.89pp**
Technology (XLK, implied)	**−7.97%**	—

2026 YTD price performance, indexed (2 Jan 2026 = 100, weekly)



Source: KGI, Bloomberg

The Beta Trap

Passive indexation leaves portfolios concentrated in AI beta just as vendor financing erodes cash-flow quality. Year to date, CoreWeave (−22.6%) and Oracle (−34.5%) trail the S&P 500 (+11.7%) while Nebius (+84.0%) has nearly doubled: dispersion, not a uniform AI trade.

July 2026 proved that Value, Low-Volatility and Quality deliver immediate downside convexity when Momentum unwinds. Use rebounds to rotate, not to chase.

Momentum (MTUM, −12.85%) versus Value (IWD, +3.87%): a 16.72pp spread in a single month.

What Works in a High-Inflation and Slow-Growth Environment

Quality, Defensive & Option Income

30-year investment-style scorecard, 1996–2025 (relative to the S&P 500)

Style	Avg annual relative return	Median relative return	Positive years (hit rate)	Annualised volatility	Primary macro regime fit
Quality	**+4.1%**	**+4.2%**	**22 of 30 (73%)**	**11.8%**	**Late-cycle, mature expansion and crisis: the all-weather core**
Momentum	+3.5%	+7.0%	21 of 30 (70%)	21.5%	Mature expansion; crashes hard when trends break
Value	+1.3%	+1.9%	16 of 30 (53%)	18.1%	Post-crash recovery and early-cycle rebounds
Defensive	−1.0%	+4.0%	16 of 30 (53%)	33.2%	Late-cycle / stagflation and crisis: a shield, not an engine

Late-cycle / stagflation map: Defensive + Quality + Tactical; Value only with a Quality check

Company	Ticker	Sector	Parallax scores (of 10)	Role in portfolio
Aflac	**AFL**	Financials	Defensive 10, Value 7, Quality 6	Defensive anchor
AMETEK	**AME**	Industrials	Defensive 10, Quality 8, Momentum 7	Resilient industrial
Atmos Energy	**ATO**	Utilities	Defensive 10	Regulated cash flow
Macy's	**M**	Consumer	Value 10, Quality 7, Momentum 8	Value with a Quality check
Chatham Lodging Trust	**CLDT**	Real estate	Value 10, Quality 8, Defensive 7	Quality-screened value

Volatility harvesting

Covered calls on existing high-beta tech holdings monetise elevated implied volatility and lower the effective cost basis.

Short puts and fixed-coupon notes (FCNs) on quality and defensive targets earn rich premiums while resetting entry levels lower.

Option income converts the volatility of the Beta Trap into carry while the style rotation is executed.

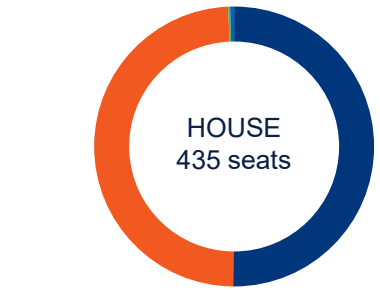
Source: KGI, Parallax, Bloomberg

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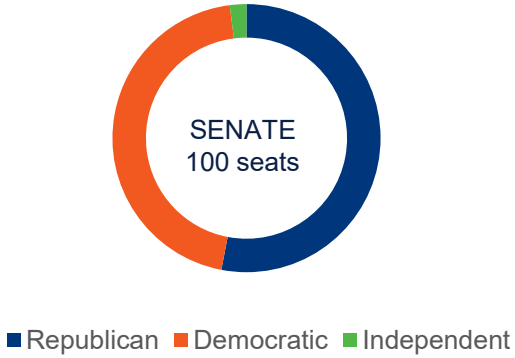
US Midterm Prediction Markets & Sector Positioning

Polymarket Prices a 65.5% Blue Sweep Probability

Current congressional control and flip thresholds



218 R | 214 D | 1 I | 2 vacant: +3 flips needed



53 R | 45 D | 2 I: +4 flips needed

Polymarket odds and voter sentiment

Contract	Odds (26 Oct)	Prior (2 Oct)
Democrats control the House	92.5%	92.5%
Democrats control the Senate	64.5%	62.5%
Blue Sweep (D House & D Senate)	65.5%	57.8%

64%
of voters disapprove of inflation and living-cost handling

53%
of voters feel financially worse off under the current administration

Electricity inflation and higher bond yields feed directly into midterm political risk (21 Aug survey data; not an election forecast).

Blue Sweep sector read-through: a Democratic Congress could stall policies favouring traditional energy, defense, Big Tech and financial deregulation

Industry	Possible direction	Why it may be affected	What investors can check
Renewable energy / clean tech	**Could benefit**	More attention on clean-energy support and fossil-fuel subsidies	Tax credits, grants, permits, supply chain and interest rates
Healthcare providers / generic drugs	**Could benefit**	Support for ACA funding and pressure around drug pricing	Reimbursement, policy details and valuation
Traditional energy / defense	**Could face pressure**	More questions about environmental rules, land leases and government spending	Government sales, permits, program budgets and backlog
Banks / financial companies	**Could face pressure**	Possible tougher consumer rules, supervision and capital requirements	New rules, capital, credit quality and the broader economy

Source: KGI, Polymarket

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