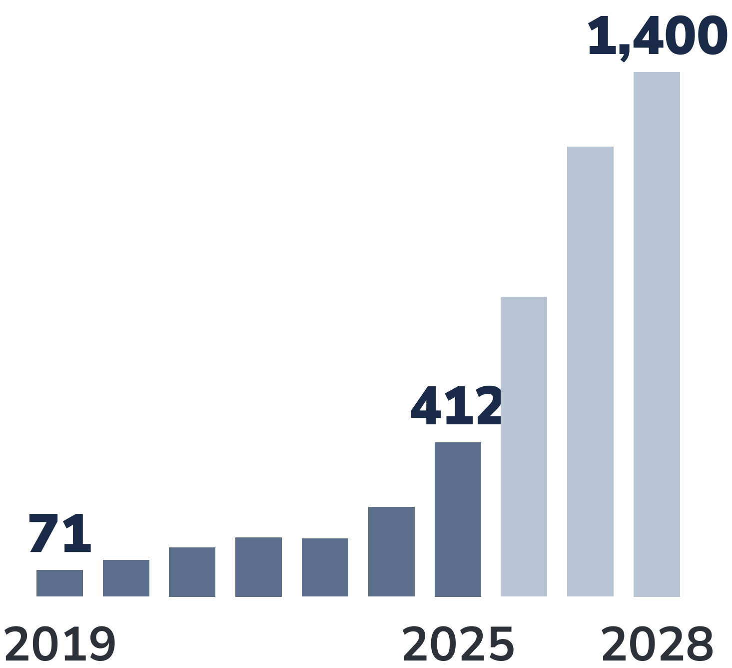
THE AI BUILD AND THE BOND MARKET

The biggest tech build meets the bond rout of 2026

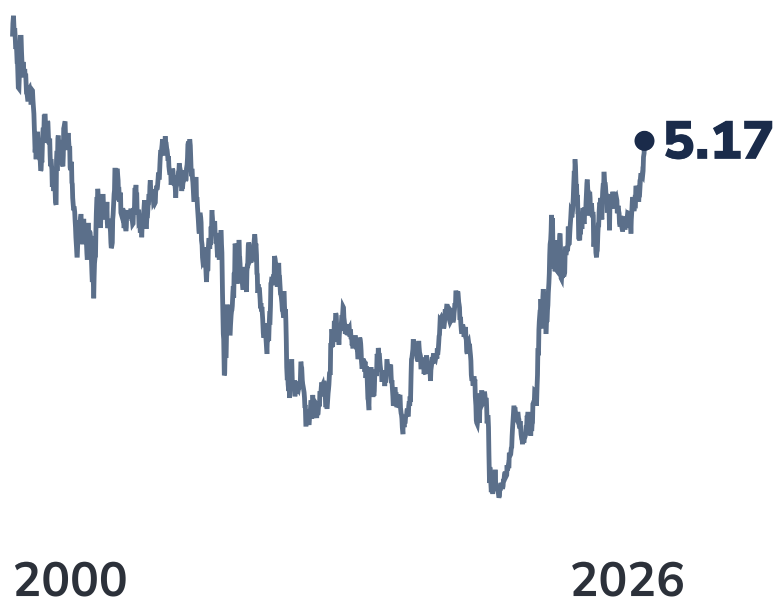
- **The five hyperscalers have nearly doubled their borrowing** since 2023.
- **The 10-year Treasury yield closed at 5.17 per cent** on 25 September, near its highest since 2007.
- **Their capital spending is set to nearly double** this year.
- **In the June quarter, capital spending took 99 per cent** of their operating cash flow.
- **Free cash flow has gone negative** at Oracle, Amazon and Alphabet.
- **Higher yields and wider spreads raise the cost of every new bond.**
- **More of the risk is off the balance sheet.**
- **J.P. Morgan Asset Management puts the whole data centre build at about 5 trillion dollars** through 2030.

Capital spending by the five, $bn a year

Pale bars are Goldman's forecast



10-year Treasury yield, %



SOURCES Listed on each page.

THE BOND MARKET

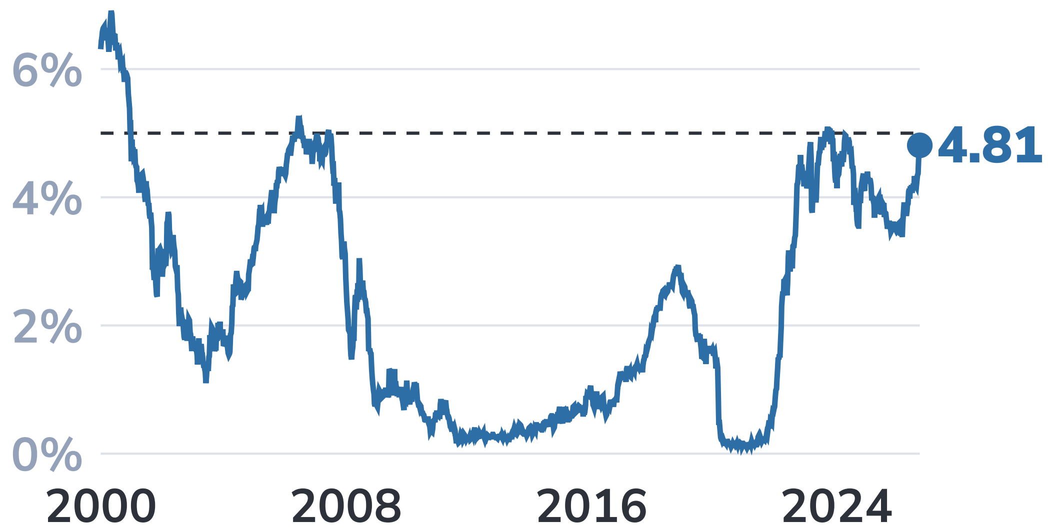
The bond market rout has taken the 10-year Treasury yield to its highest since 2007

10-year Treasury yield

per cent, weekly, 2000 to 25 September 2026

2-year Treasury yield

per cent, weekly, same period



This year. The 10-year has risen about 1 point since January, from 4.18 to 5.17 per cent. The 2-year rose from 3.47 to 4.81. The Fed raised rates by a quarter point on 16 September.

How it reaches the five. Higher yields raise the cost of every new bond they sell and every bond they refinance, and of any floating-rate loans. Wider spreads come on top.

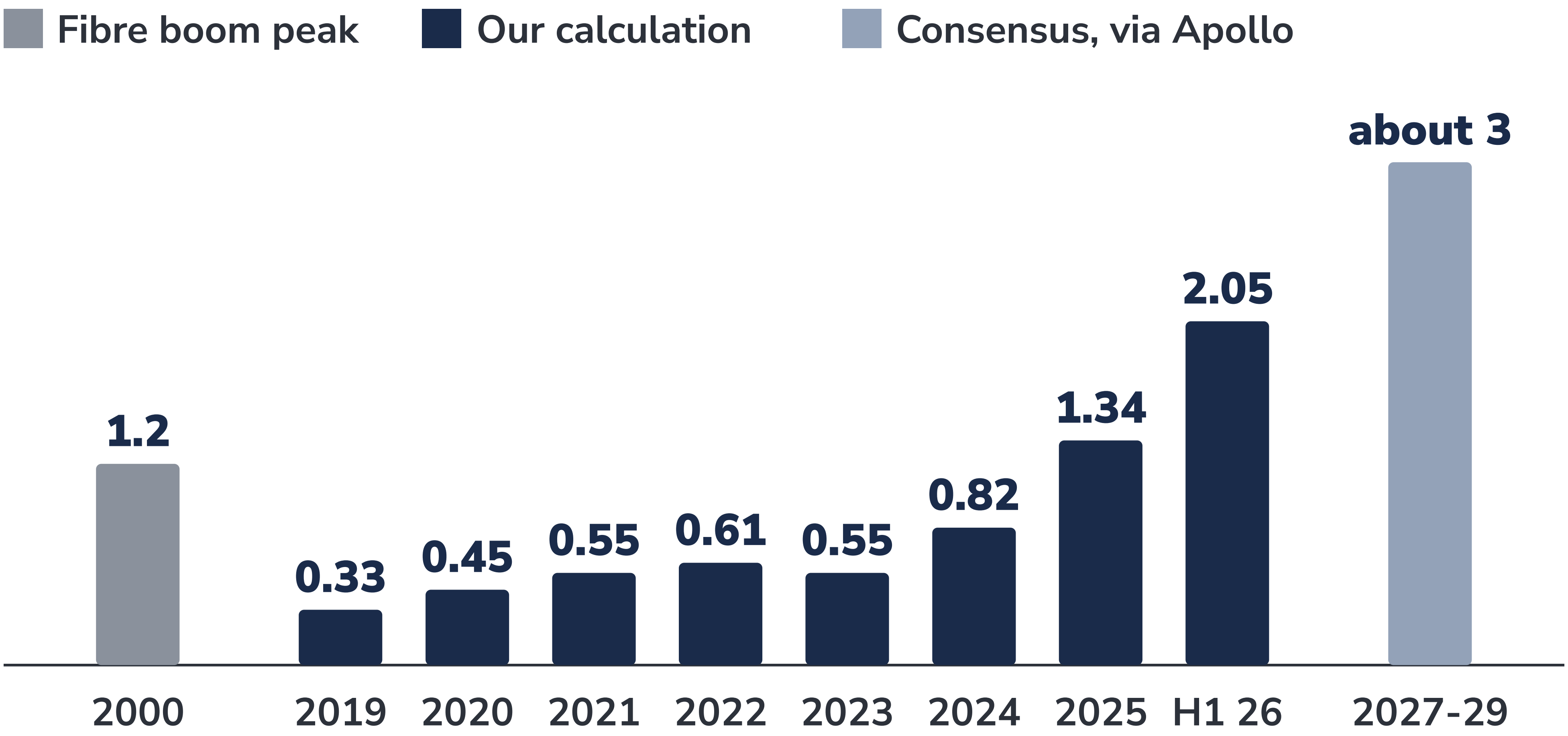
SOURCES AND METHODS FRED DGS10 and DGS2 via TREMOR to 23 September, US Treasury par yield curve for 24 and 25 September. Dashed line at 5 per cent. Fed, 16 Sep. Background: Bond Markets Are Sounding an Alarm, 6 Sep and The bond market rout of 2026, 25 Sep

THE SIZE OF THE BUILD

The five now spend a larger share of US GDP than the fibre boom did at its peak

Capital spending by the five

per cent of US GDP



The fibre boom. The late 1990s telecom build peaked at 1.2 per cent of GDP in 2000, then collapsed into a recession.

Earlier booms. Goldman puts the railway, electricity and car booms at 2 to 3 per cent at their peaks.

Close to Apollo. Our 2025 figure is 1.34 per cent, Apollo's 1.4. For 2019 ours is 0.33, Apollo's 0.3.

SOURCES AND METHODS Apollo, 6 Aug 2026. Business Insider, 11 Jun. SEC filings of Microsoft, Amazon, Alphabet, Meta and Oracle. BEA GDP via FRED. Method: the five's worldwide capital expenditure over US nominal GDP, the basis Apollo uses, calendar years. H1 2026 is half a year of spending over half a year of GDP

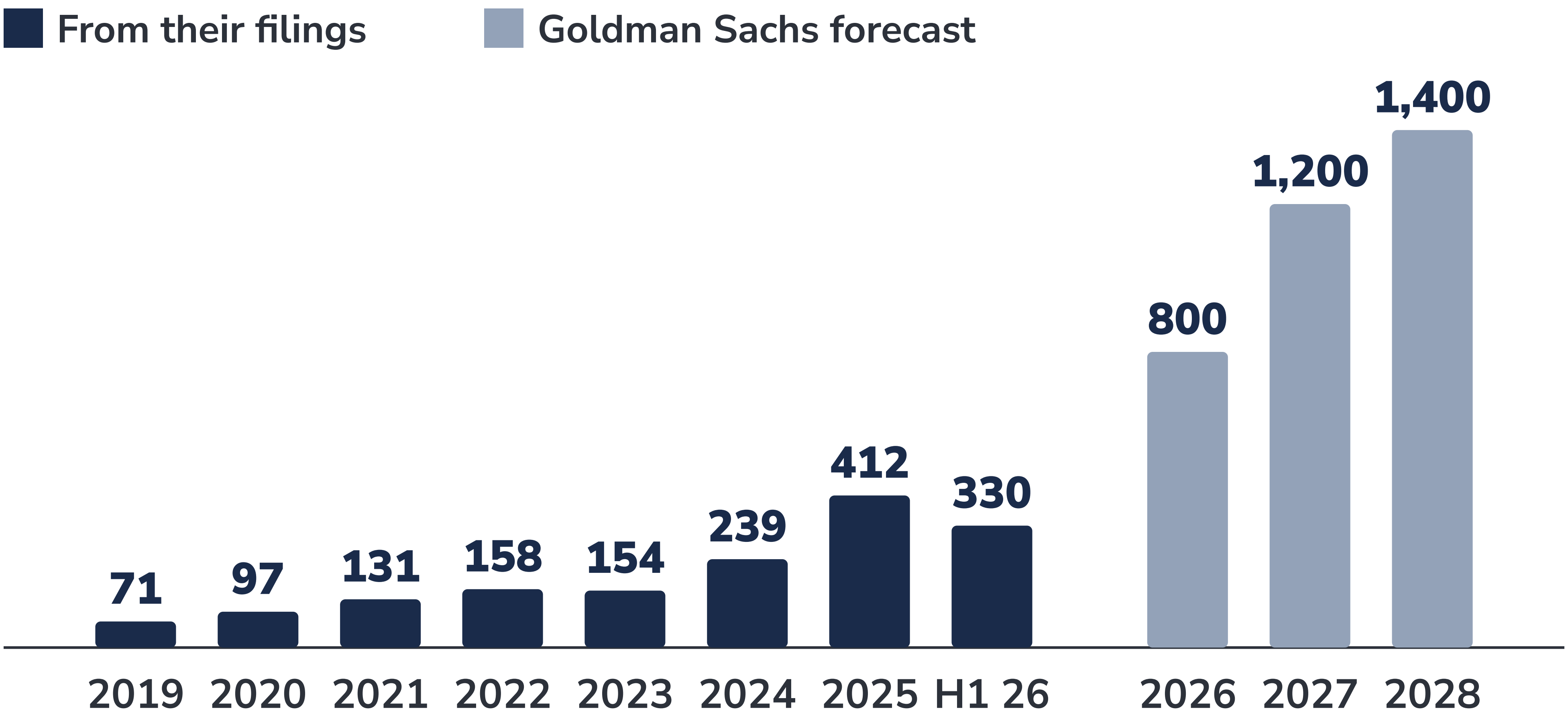
THE SIZE OF THE BUILD

The five spent 412 billion last year. Goldman expects 800 billion this year.

More of it now has to be borrowed, at higher yields and wider spreads. That makes the plan dearer and harder to fund.

Capital spending by the five

$bn a year



From their filings. The five spent 71 billion dollars in 2019 and 412 billion in 2025.

This year. 330 billion in the first half. Goldman's 800 billion needs 470 billion in the second.

Next. Goldman expects 1.2 trillion in 2027 and 1.4 trillion in 2028.

SOURCES AND METHODS SEC filings of Microsoft, Amazon, Alphabet, Meta and Oracle. Goldman Sachs, 23 Sep. Method: capital expenditure as filed, by calendar year. H1 is January to June, and Oracle's quarters end a month early

THE DEBT

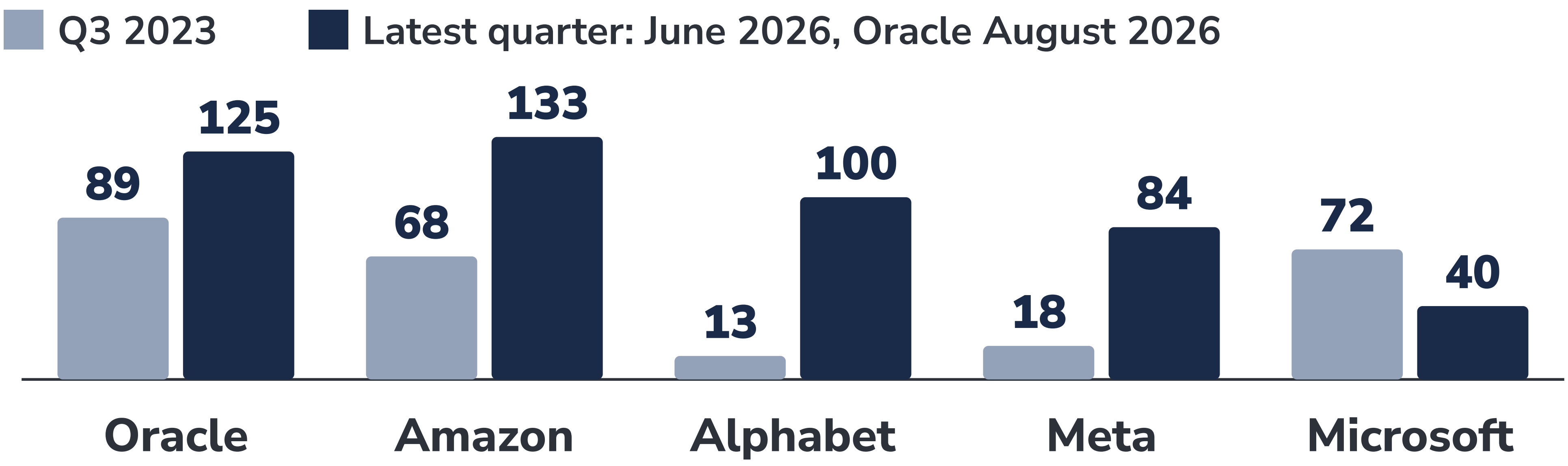
The five have nearly doubled their borrowing since 2023

Their new bonds now price off Treasury yields near or above 5 per cent.

- Their bonds and loans rose from 259 billion dollars in Q3 2023 to 483 billion.
- J.P. Morgan Asset Management expects them to sell about 279 billion dollars of bonds this year, up from 17 billion in 2024. It says their free cash flow no longer covers the build.
- They held about 570 billion dollars in cash and short-term investments in June (Oracle August), part of it borrowed or raised and not yet spent. Oracle has far more debt than cash.

Bonds and loans on the balance sheet

$bn



SOURCES AND METHODS SEC filings of Microsoft, Amazon, Alphabet, Meta and Oracle. J.P. Morgan Asset Management, 5 Aug. Method: bonds, loans and commercial paper at carrying amount, current and non-current; leases excluded. Latest is Jun 2026, Oracle Aug 2026. Microsoft's 2023 figure includes 25.8 billion of commercial paper

THE PRICE OF BORROWING

Investors now charge the AI builders more than other high-grade companies

Apollo says their credit rests on one assumption: operating cash flow tripling, from 600 billion dollars in 2025 to 2 trillion in 2030.

That is the consensus forecast. If it falls short, Apollo sees wider spreads, less capital spending and slower US growth.

The other reading. Fund managers told Reuters the wider spread reflects the flood of new bonds. They are not worried about default.

SOURCES AND METHODS Spread and credit insurance readings from 16 to 22 Sep, before yields jumped on 23 and 24 Sep; cover ratios are Feb and Jul. Reuters, 22 Sep. Apollo, 16 Sep, Apollo, 15 Jul and Apollo, 21 Sep. Apollo via CNBC, 16 Sep. Our check from filings puts the five's 2025 operating cash flow at 603 billion

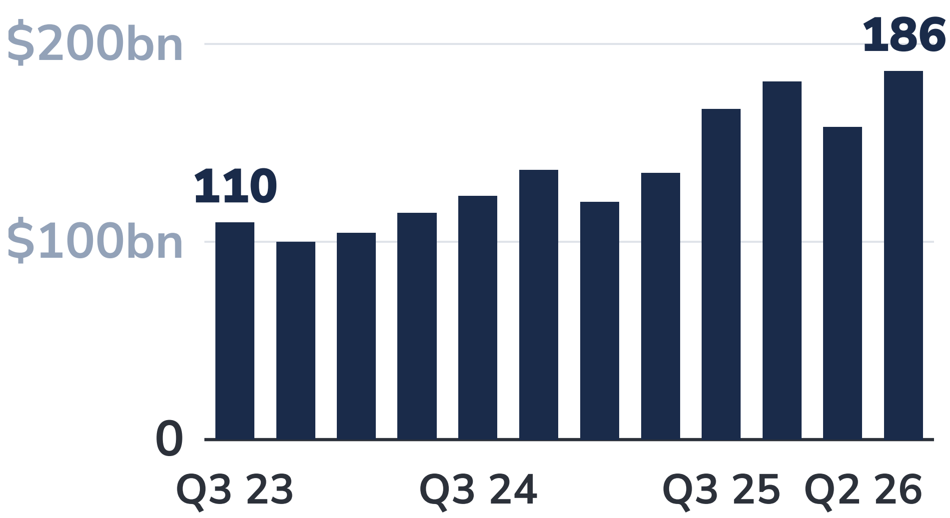
THE CASH FLOW

Capital spending took 99 per cent of their operating cash flow in the June quarter

Interest is paid out of this cash flow, so higher rates will shrink it, most of all at Oracle relative to its size.

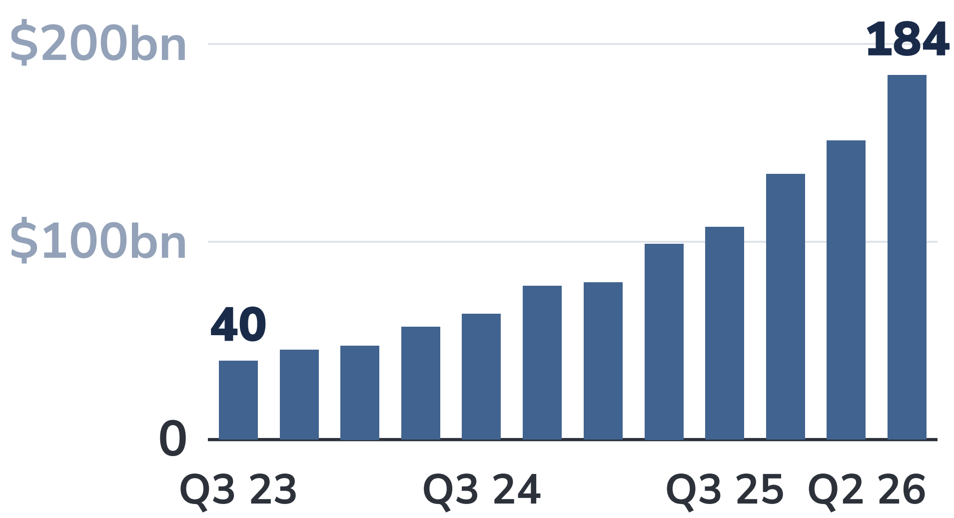
Operating cash flow

$bn a quarter



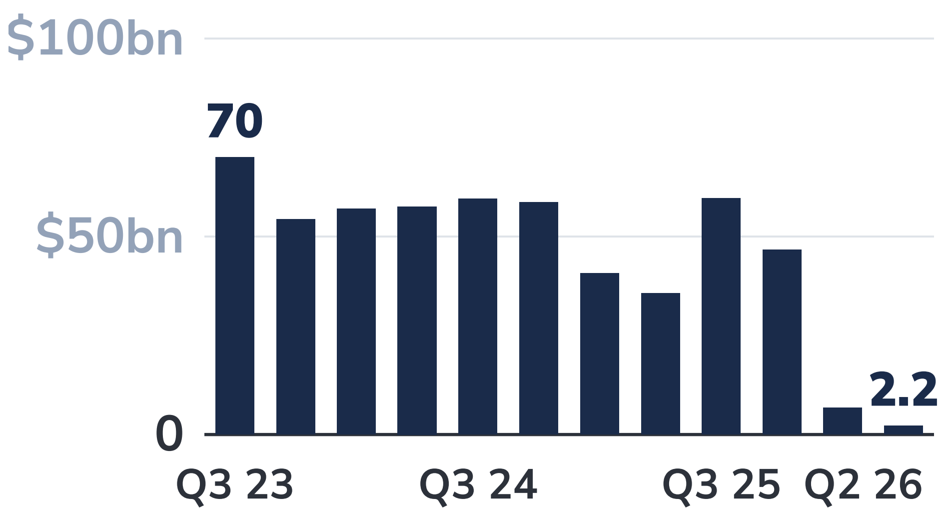
Capital spending

$bn a quarter, plus finance lease repayments



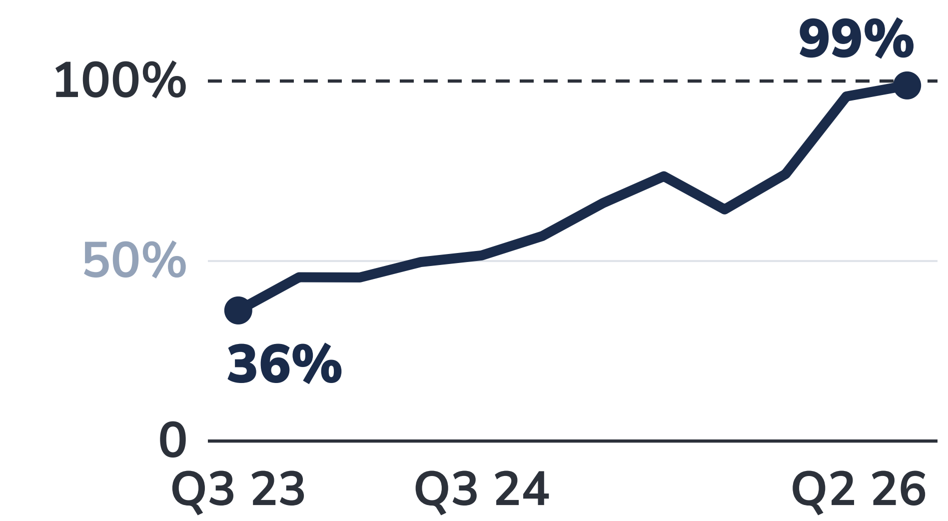
Free cash flow

$bn a quarter



Share of cash flow spent

per cent of operating cash flow



SOURCES AND METHODS SEC filings of Microsoft, Amazon, Alphabet, Meta and Oracle. Method: free cash flow is operating cash flow less capital expenditure and finance lease principal, by calendar quarter. Oracle's quarters end a month early

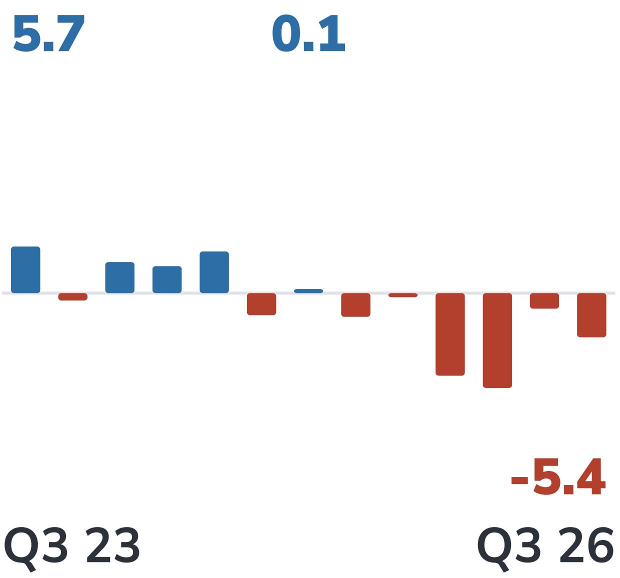
THE CASH FLOW, COMPANY BY COMPANY

Free cash flow is turning negative

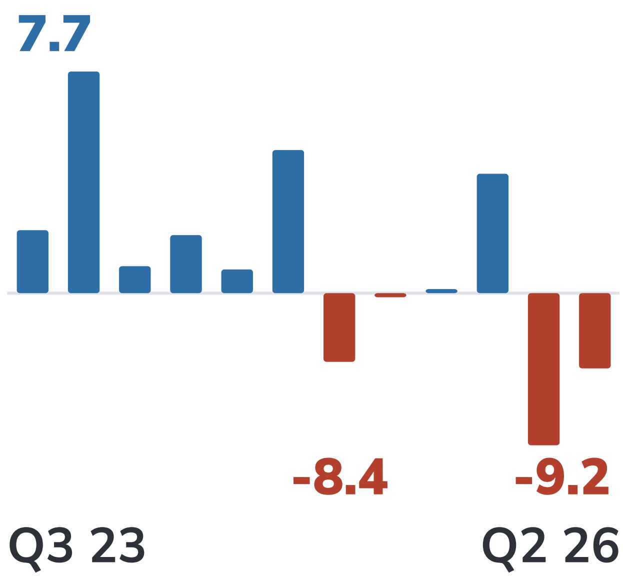
Higher interest costs will add to the pressure, most of all at Oracle relative to its cash flow.

- **Oracle:** negative six quarters in a row.
- **Amazon:** negative in both quarters this year.
- **Alphabet:** negative for the first time since Google listed in 2004.

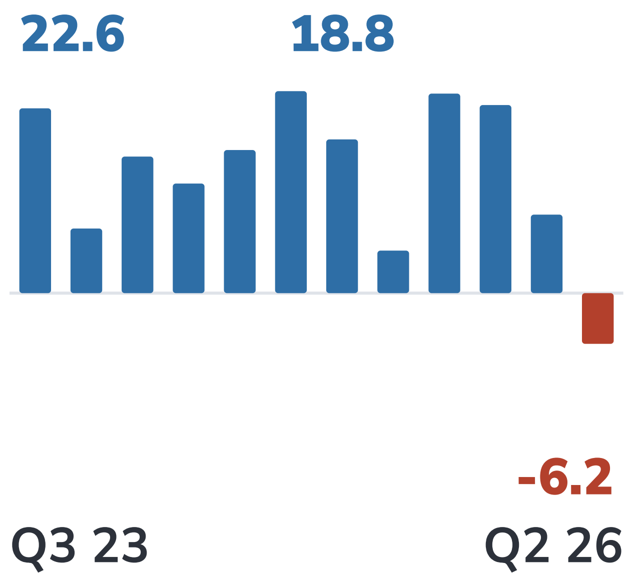
Oracle *



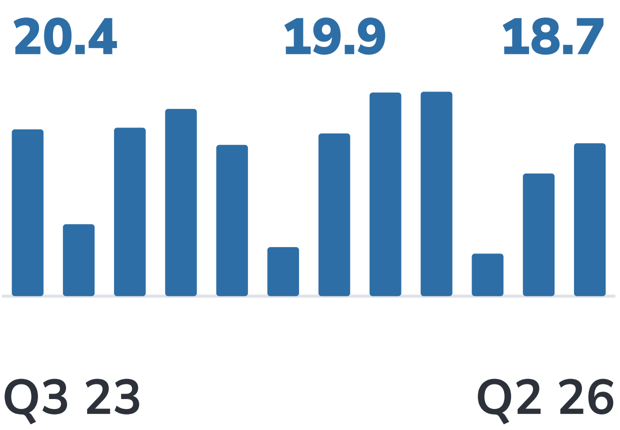
Amazon



Alphabet

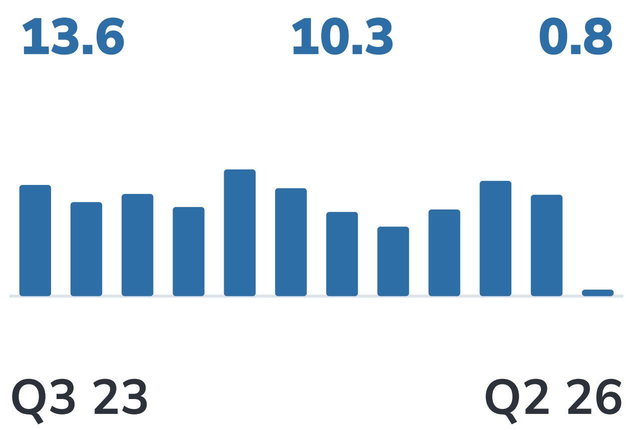


Microsoft



Neither Microsoft nor Meta has had a negative quarter since Q3 2023. Meta's June quarter, 0.8 billion, was its lowest.

Meta



SOURCES AND METHODS SEC filings of Microsoft, Amazon, Alphabet, Meta and Oracle. Method: free cash flow is operating cash flow less capital expenditure and finance lease principal. Charts are $bn a quarter, all on one scale. * Oracle's quarters end a month early, so its last bar is the quarter to 31 August 2026

ORACLE

Oracle is under the most credit strain of the five

Free cash flow	Minus 5.4 billion dollars in the quarter to 31 August, the sixth negative quarter in a row.
Capital spending	28.5 billion in that quarter. In June it guided to 90 to 95 billion for the year to May 2027.
Paid in advance	At least 11.4 billion of its operating cash flow in the quarter was customers paying ahead. It also sold about 20 billion dollars of new shares.
Credit rating	BBB- at S&P, one notch above junk, after a July downgrade.
The Jupiter loans	Banks quoted the 18 billion dollars of project loans on the New Mexico campus Oracle leases at 89 to 91 cents on the dollar.
The delay	It sent the developer a force majeure notice to delay payment if Jupiter misses its 2028 start, Bloomberg reported. A person familiar with the deal told Reuters it faces a one-year delay. Oracle says it is on schedule.
Its shares	Down about 30 per cent this year, 7 per cent in the week of the notice.

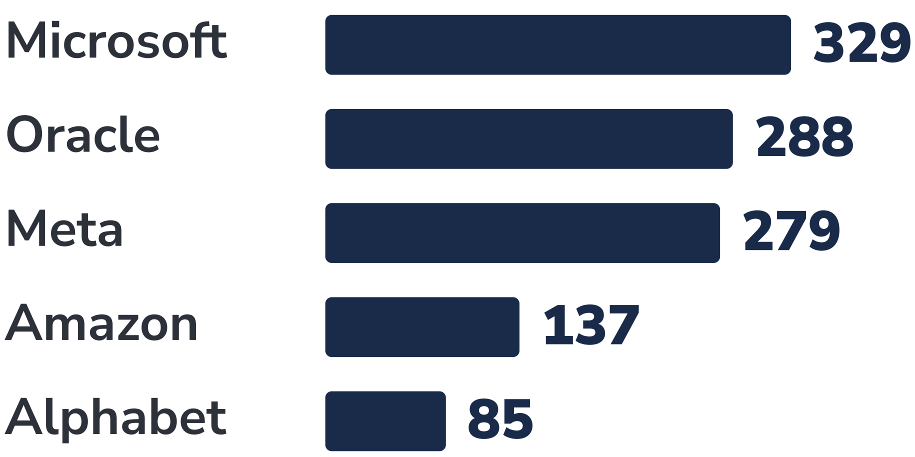
SOURCES AND METHODS Oracle 10-Q, Aug 2026. Morningstar, Jun. Reuters citing the FT, 18 Sep. Bloomberg via CNBC, 24 Sep. Reuters, 24 Sep. CNBC, 27 Sep

OFF THE BALANCE SHEET

The five have signed 1.1 trillion dollars of leases that start later, and two of them have given guarantees on data centres

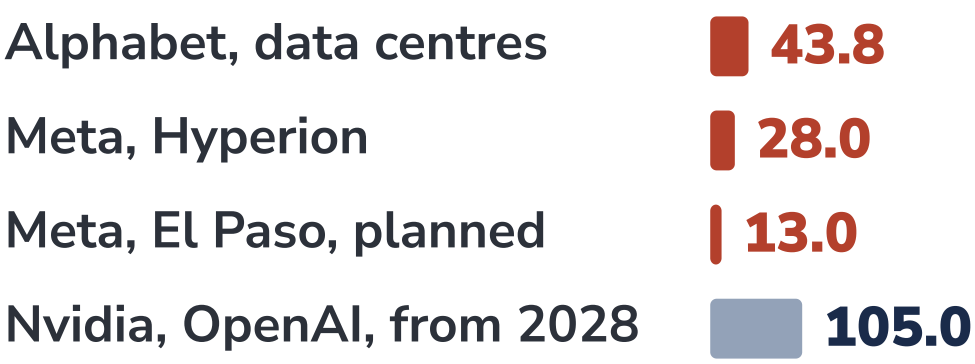
Leases signed that start later

$bn, total payments over the lease terms



Guarantees on data centres

$bn, the most they could pay



Tenant guarantees. If a tenant stops paying rent, Alphabet pays. Its backstops rose from 16.9 to 43.8 billion dollars in six months. Nvidia backs OpenAI's Ohio campus the same way, phased in from 2028.

A resale value guarantee. If Meta leaves its Hyperion campus and it is valued below a set amount, Meta pays the gap.

None of it is debt yet. It is not in the borrowing on page 5.

SOURCES AND METHODS Company filings: Microsoft 10-K, Jun 2026; Amazon 10-Q, Jun 2026; Meta 10-Q, Jun 2026; Alphabet; Oracle 10-Q, Aug 2026; Nvidia 10-Q. Nvidia, in grey, is not one of the five. The bar for Meta leaves out about 68 billion dollars of leases signed in July

BEYOND THE FIVE

J.P. Morgan Asset Management says the whole data centre build could cost about 5 trillion dollars through 2030. The five are one part of it

How big

J.P. Morgan Asset Management: about 5 trillion dollars through 2030, about 2 trillion of it from investment-grade credit markets. A separate JPMorgan estimate puts all AI-related borrowing through 2030 at 4.1 trillion, CNBC reported.

Weaker borrowers pay more

SoftBank sold 11.1 billion dollars of junk bonds in September at up to 9.75 per cent. Of some 50 neoclouds, lenders want about 20, one lender said.

Opposition is broad

71 per cent of Americans oppose an AI data centre in their area, Gallup found. On 21 September Texas halted state permits for data centres until a grid audit is done.

Borrowers keep going

"If you have a deal with Anthropic, will 50 basis points really stop you?" Bernie Margulies of American Compute told CNBC.

SOURCES AND METHODS J.P. Morgan Asset Management, 5 Aug. CNBC, 27 Sep. Gallup, May. Texas governor, 21 Sep

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