



The AI Buildout

From infrastructure to transformation

2Q 2026





Agenda

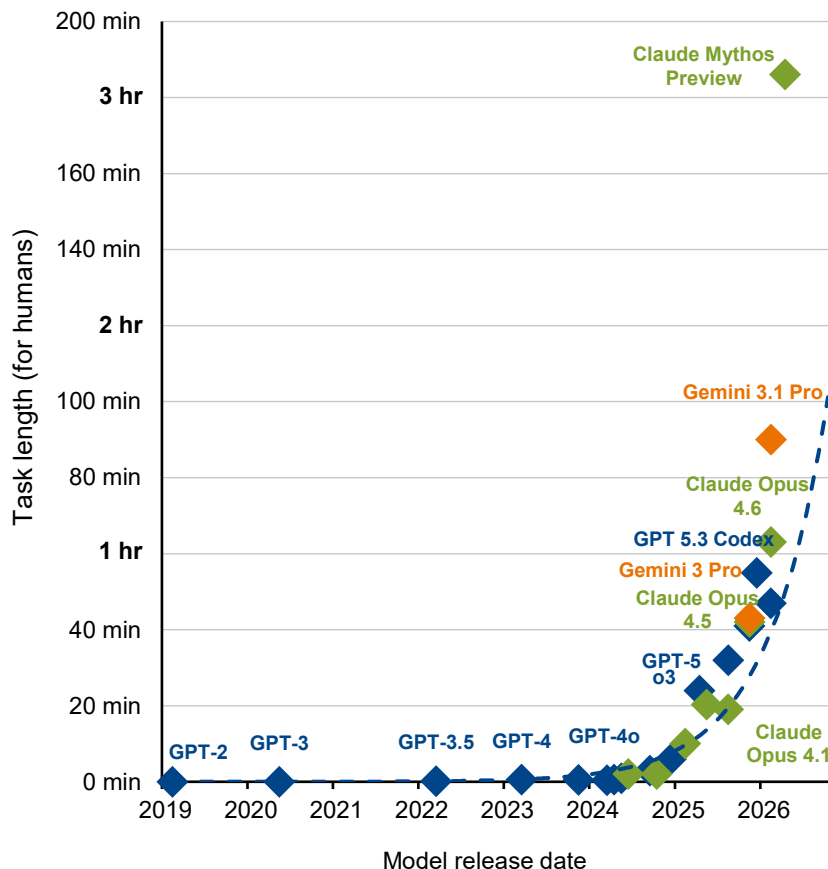
- 1. Exploding Demand for Compute**
2. The AI Infrastructure Value Chain
3. Investing in an AI Buildout



The AI capability frontier has leapt forward, accelerating the demand for compute.

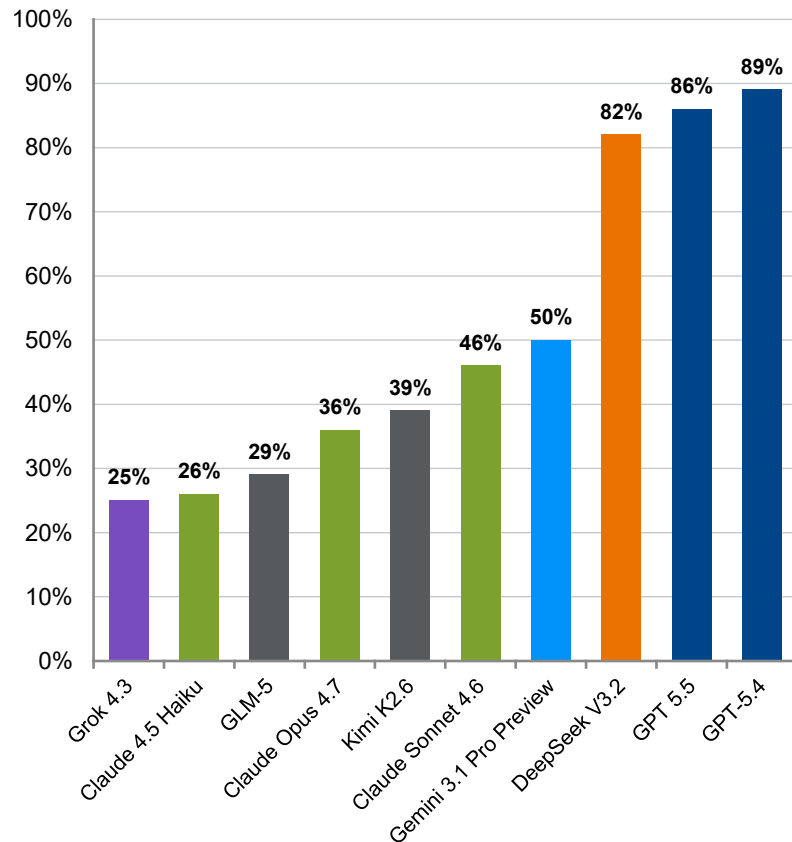
Length of tasks AI agents can autonomously complete

Multi-step software engineer, cybersecurity, general reasoning and ML tasks that models complete at 80% success



Hallucination rates for select AI models

% of time model answers incorrectly when it should have refused or admitted to not knowing the answer



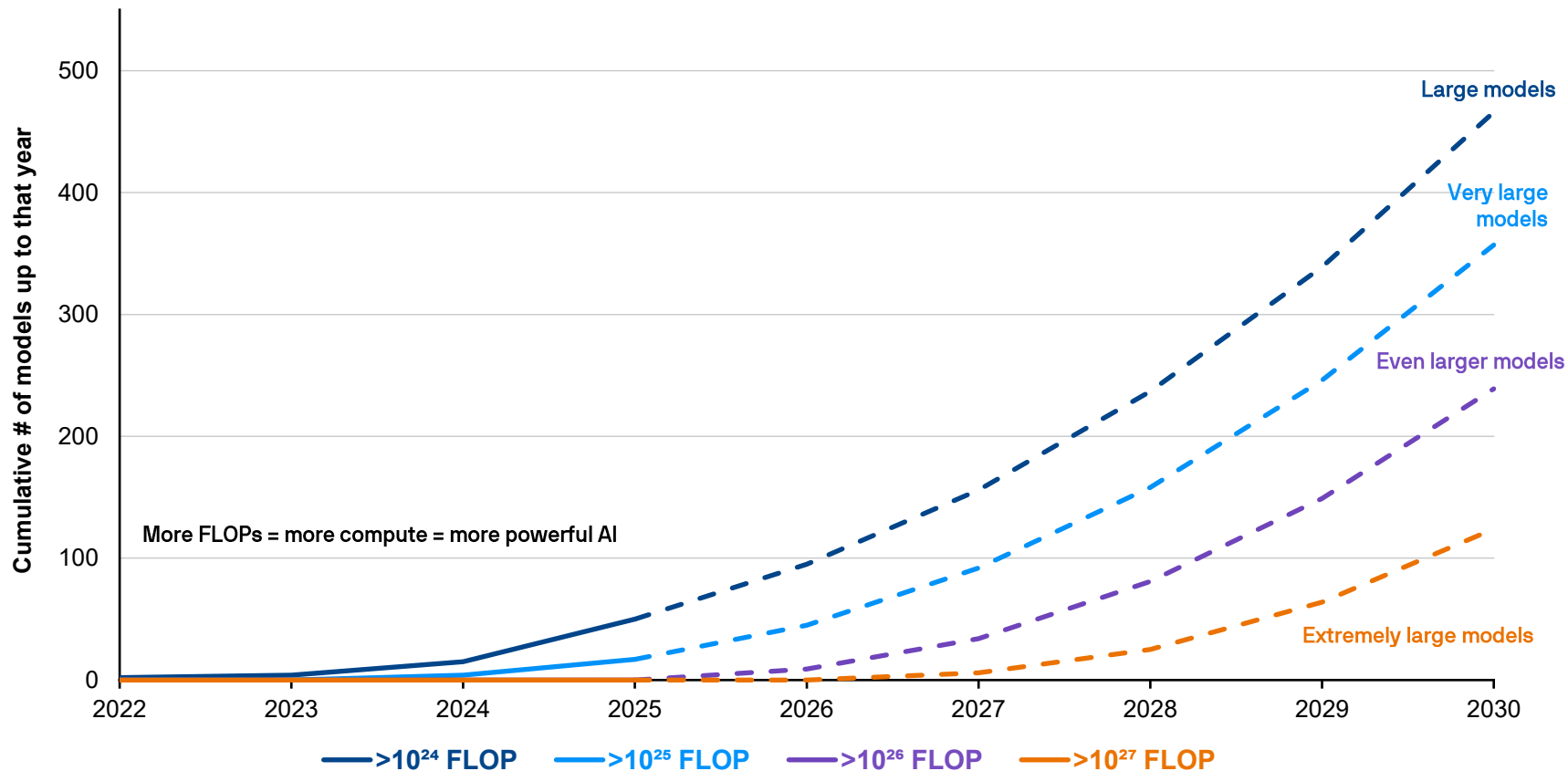
Source: (Left) METR, "Measuring AI Ability to complete long tasks", (Right) Artificial Analysis, J.P. Morgan Asset Management. The length of tasks (measured by how long they take human professionals) that generalist frontier model agents can complete autonomously with 80% reliability has been doubling approximately every 7 months for the last 6 years. Hallucination rates measure how often a model guesses when it lacks the required knowledge, which is a broader definition than accuracy (i.e. how often a model answers correctly.)
Date are as of April 30, 2026.



Training for AI models is also a major source of demand, with a long growth trajectory ahead.

The number of very large AI models is expected to grow quickly over the next few years

Median projection for different training compute thresholds, cumulative number of notable AI models

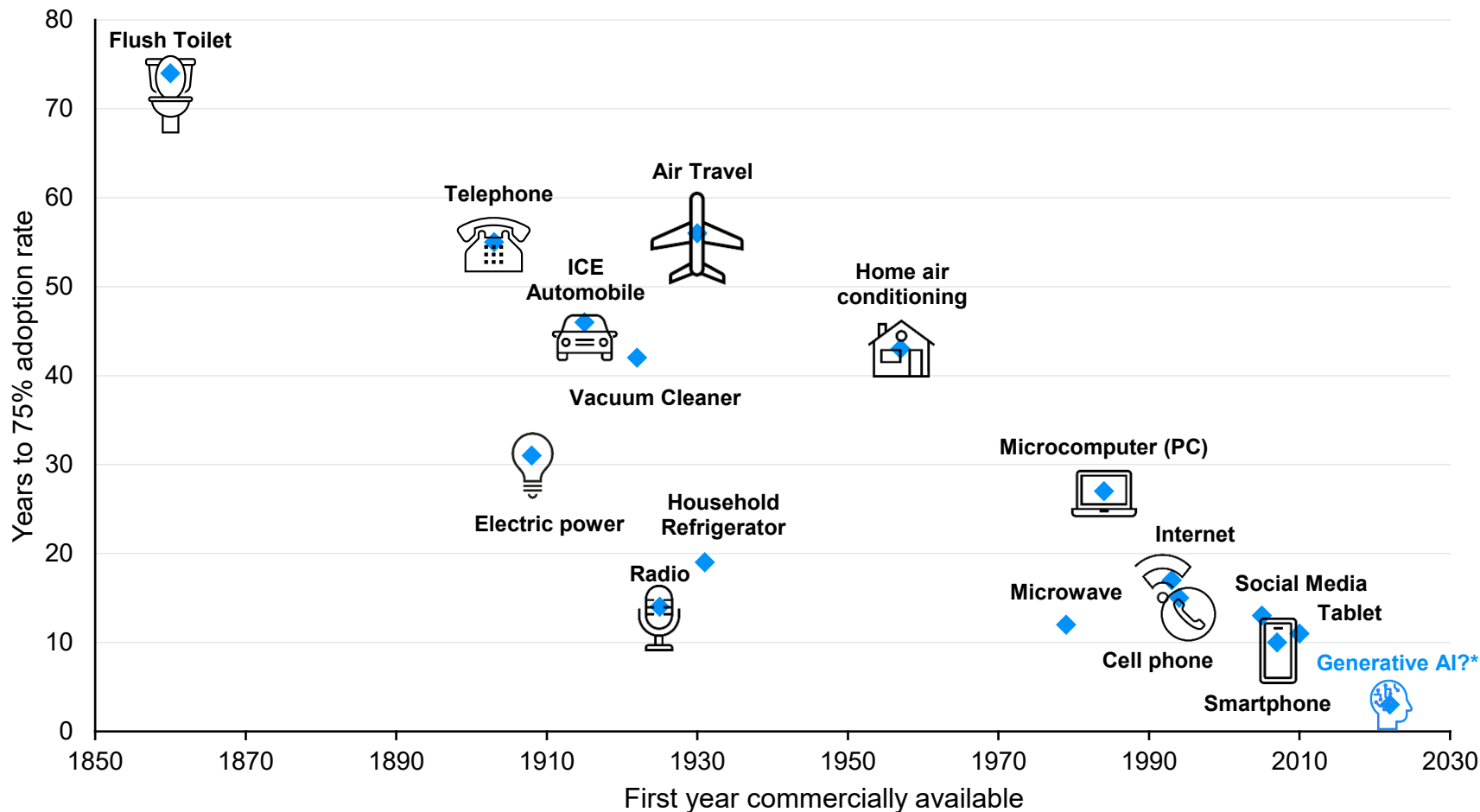


Source: Epoch AI, J.P. Morgan Asset Management. Dashed lines indicate EpochAI projections (2025-2030) from "How many AI models will exceed computethresholds?", May 30, 2025.



AI is on track to outpace prior technologies in reaching mass adoption.

U.S. technology rate of adoption



Source: Asymco, J.P. Morgan Asset Management. Compiled from various sources with support of the Clayton Christensen Institute.
*The Harvard Project on Workforce estimates that as of August 2025, generative AI usage is at 55% of the U.S. population aged 18 to 64. However, depending on how you define AI, usage could be nearly 100% if you include the usage of AI-powered products across search, maps, social media, etc. Gallup finds that only 64% of Americans consciously realize they are using AI-powered products.
Data are as of April 30, 2026.



Business adoption is growing, with increased divergence in depth and breadth.

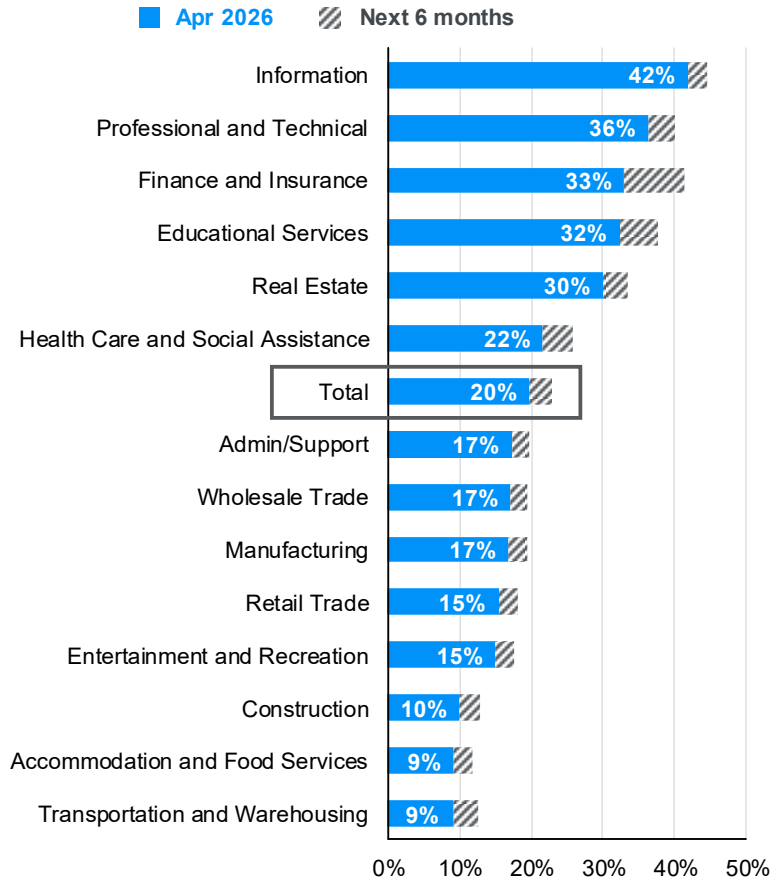
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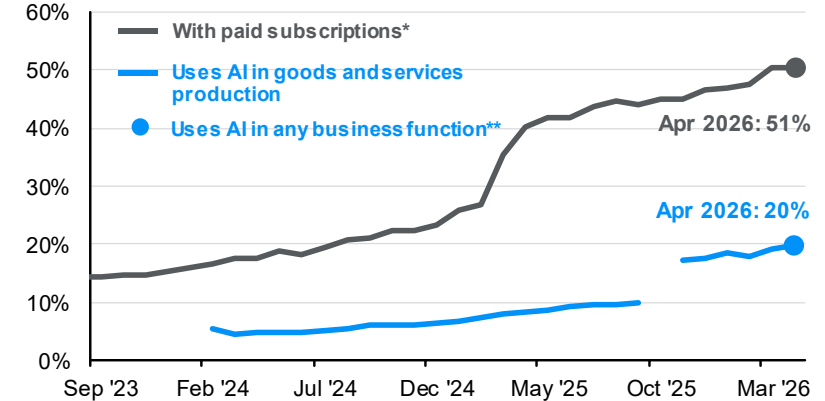
Businesses using AI in any business function

% of all firms reporting use of AI applications



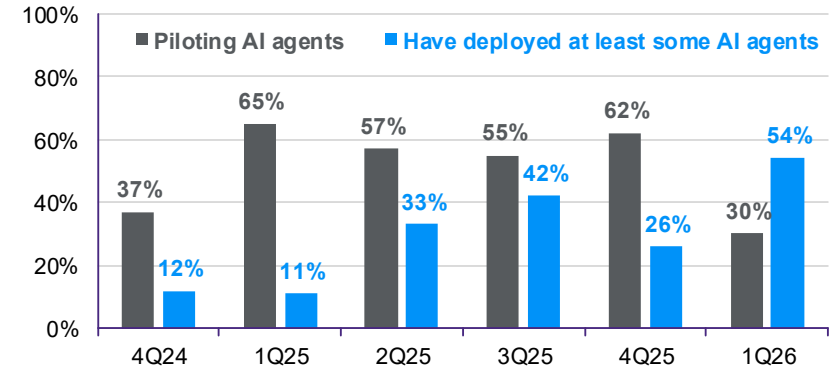
Companies spending on AI models, platforms and tools

% of businesses



AI agent deployment

% of organizations with revenues above \$1bn, KPMG Quarterly AI Pulse survey



Source: J.P. Morgan Asset Management; (Left) Census Business Trends and Outlook Survey; (Top right) RAMP AI Index; (Bottom right) KPMG Quarterly AI Pulse Survey.
*Ramp data is based on anonymized corporate card and bill-pay transactions with AI vendors across over 50,000 U.S. businesses on Ramp's spend platform to provide a spend-based measure of AI adoption that complements the self-reported AI use (which includes free and internal tools) in the Census survey series. The two measures differ in firm coverage and methodology, with Ramp data skewed towards digitally enabled firms.**Starting Dec. 2025, the Census changed the wording of their survey question to capture usage of AI in "any business function", broader language compared to their prior "in producing goods and services" question. Total adoption jumped from 10% to 17% of businesses because of this switch. AI agents refer to AI systems designed to autonomously execute specific tasks or workflows with minimal human intervention.

Guide to the Markets – U.S. Data as of April 30, 2026.



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A significant spending boom is underway, funded largely by hyperscaler cash flows.

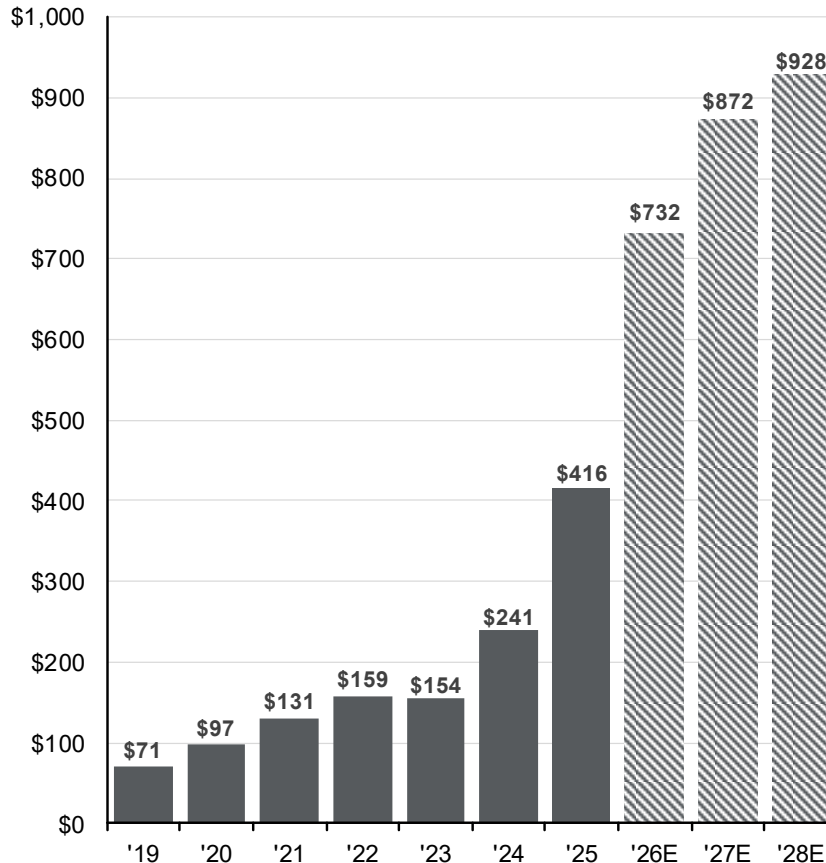
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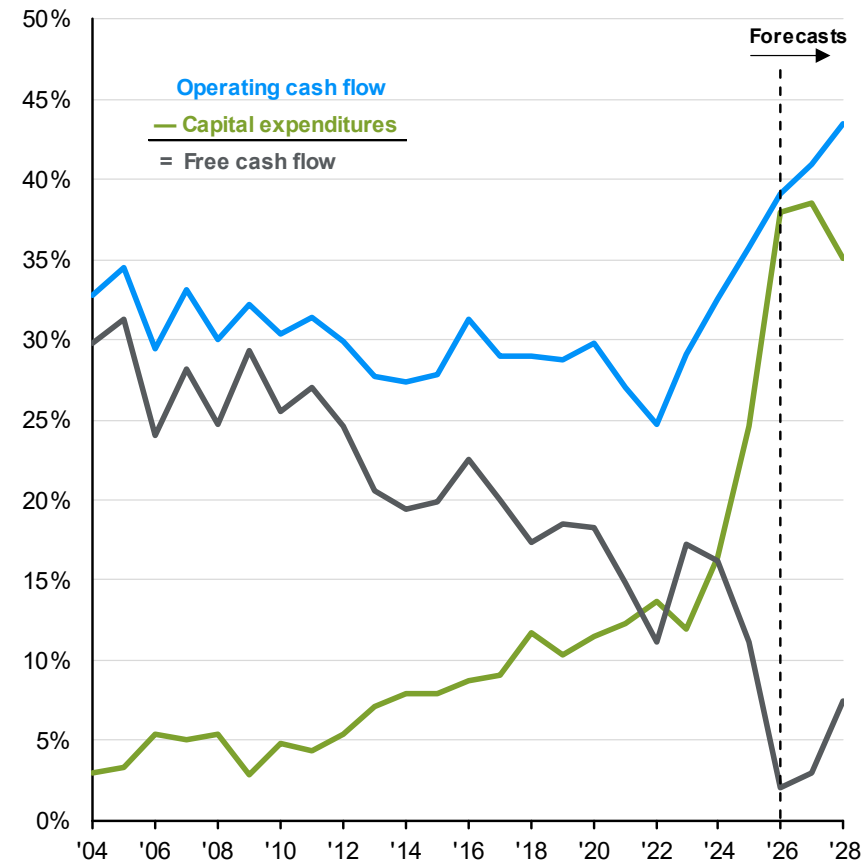
Capex from the major AI hyperscalers*

USD billions; Alphabet, Amazon, Meta, Microsoft, Oracle



Hyperscalers' cash flow and capex

% of sales



Source: Bloomberg, J.P. Morgan Asset Management.

Data for 2026, 2027 and 2028 reflect consensus estimates. Capex shown is company total. *Hyperscalers are the large cloud computing companies that own and operate data centers with horizontally linked servers that, along with cooling and data storage capabilities, enable them to house and operate AI workloads.

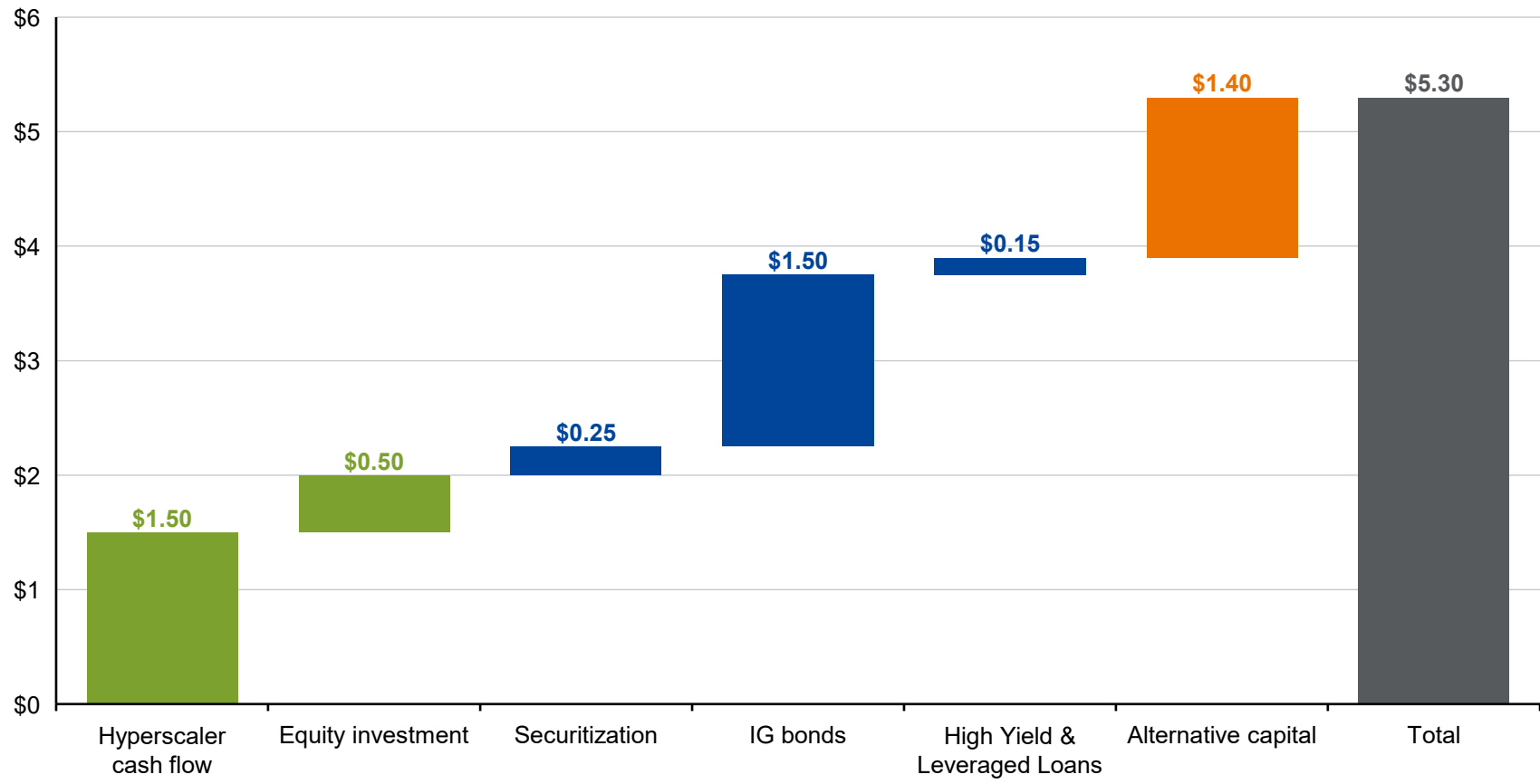
Guide to the Markets – U.S. Data are as of May 15, 2026.



Financing the AI buildout will increasingly stretch into debt and alternative capital.

Forecasted data center and AI funding sources

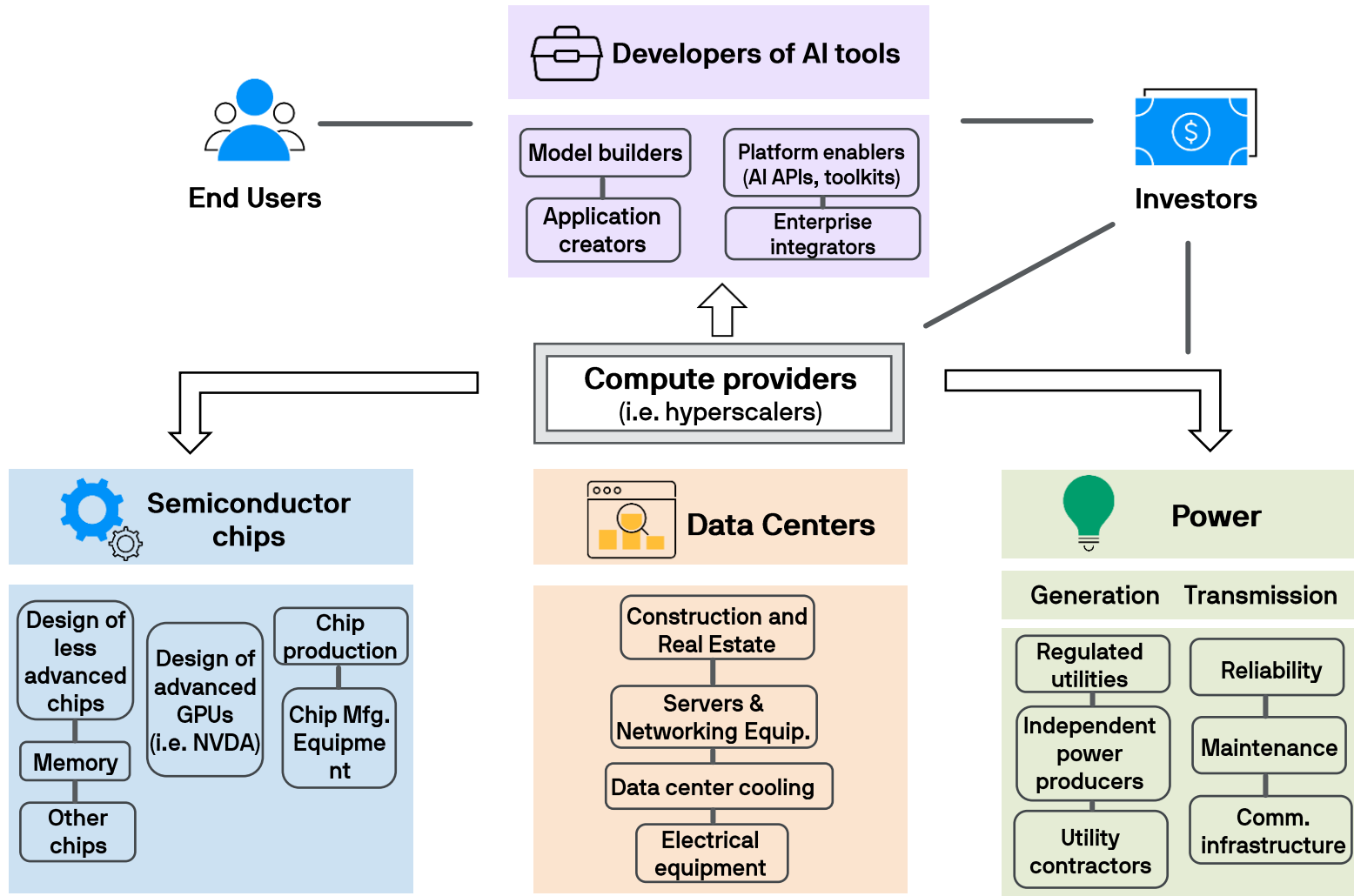
Cumulative total for the 2026-2030 period, USD trillions



Source: J.P. Morgan Global Research, J.P. Morgan Asset Management.
All funding forecasts come from the 2025 “AI CapEx – Financing the Investment Cycle” research report published by J.P. Morgan Global Research.
Alternative capital includes private credit, real estate funds, infrastructure funds, REITs and government funding.
Data are based on availability as of April 30, 2026.



The AI Value Chain has broadened meaningfully.



Source: Bridgewater, J.P. Morgan Asset Management.



The race to build compute capacity is on.

Only 8-10% of data center capacity can currently handle AI workloads

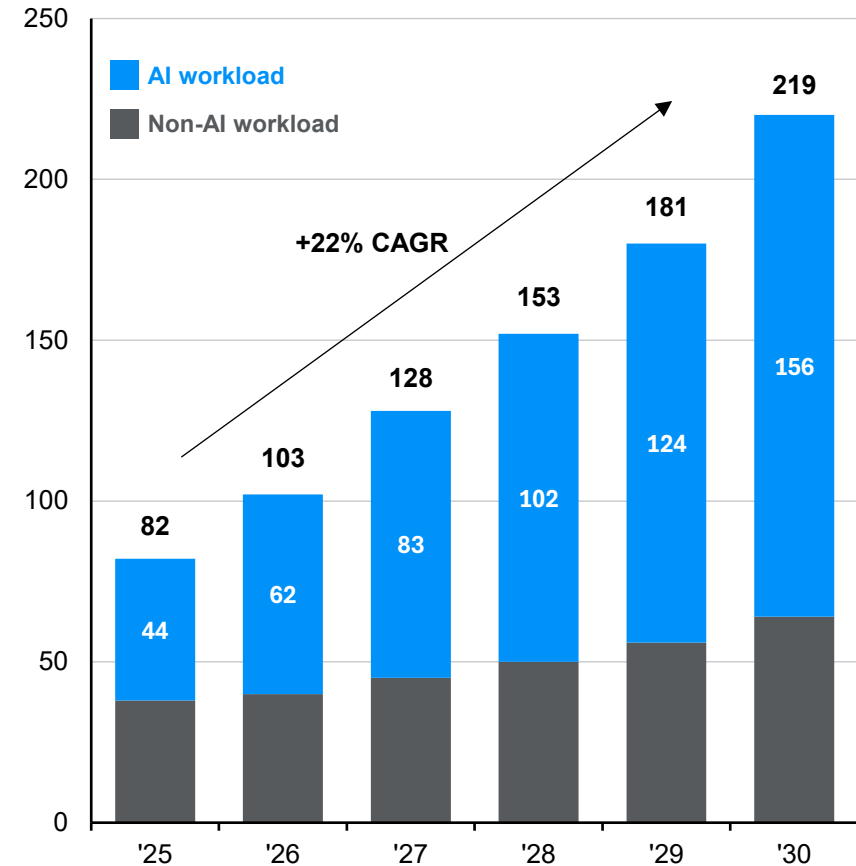
Gigawatts of global data center capacity



	Traditional	AI
Power density	5-10 kW/rack	30-80 kW/rack
Cooling	Air cooling	Liquid cooling
Electrical	Standard	5-10x capacity

Significant growth in data center capacity is expected

Gigawatts of global data center capacity



Source: (Left) [Smothering Heights](#), Eye on the Market, Deloitte, Equinix; (Right) "The cost of compute: A \$7 trillion race to scale data centers," McKinsey & Company, J.P. Morgan Asset Management. Traditional enterprise data center infrastructure lacks the power density, cooling capacity, and GPU architecture required for AI/ML training and inference workloads. *Guide to Alternatives*. Data are based on availability as of April 30, 2026.

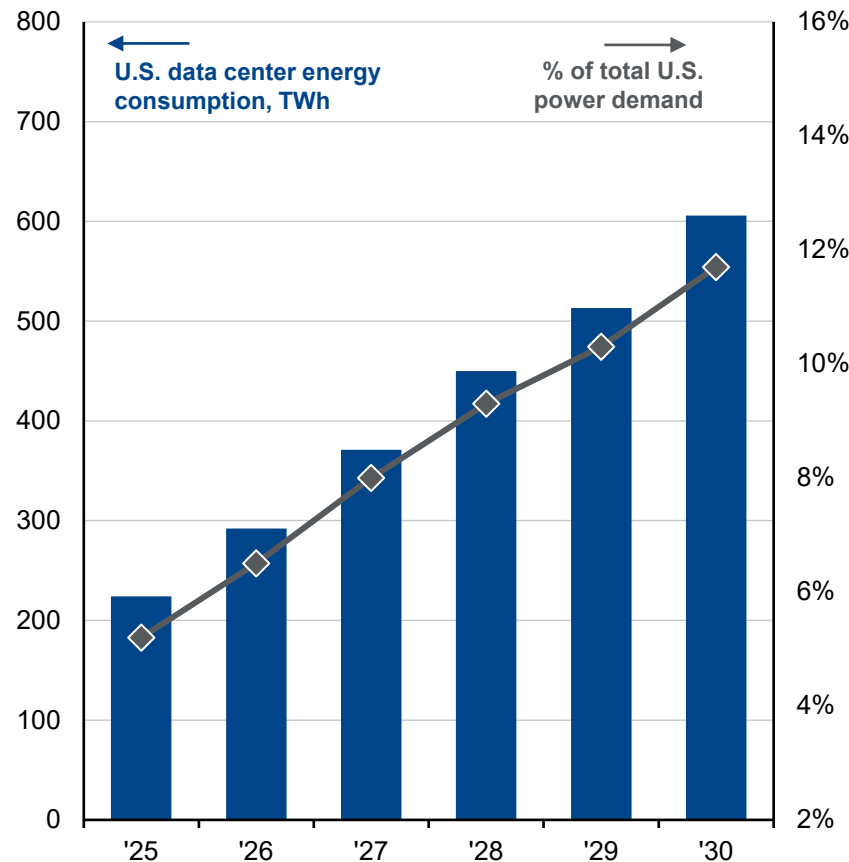


After 20+ years of stagnation, the U.S. is finally starting to upgrade its electric grid.

Other real assets

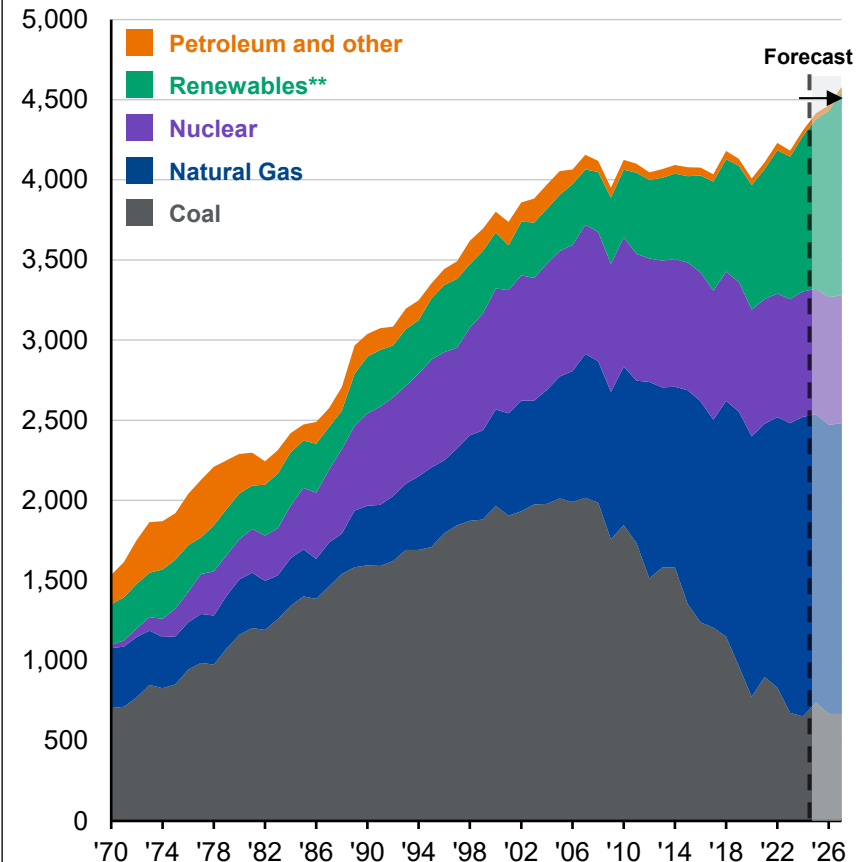
U.S. electricity consumption from data centers

Forecasts through 2030



U.S. electricity generation by source

Billion kWh, 1970 – 2027F*



Source: EIA, McKinsey & Company, J.P. Morgan Asset Management.

(Left) Forecasts are from McKinsey & Company. (Right) Data is from the EIA's "January 2026 Monthly Energy Review" report. *Energy forecast figures are from EIA's "Short Term Energy Outlook." **Renewables include wind, solar, geothermal, biomass waste, biomass wood and hydroelectric.

Guide to Alternatives. Data are based on availability as of April 30, 2026.



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Alternatives can help diversify concentrated public equity portfolios.

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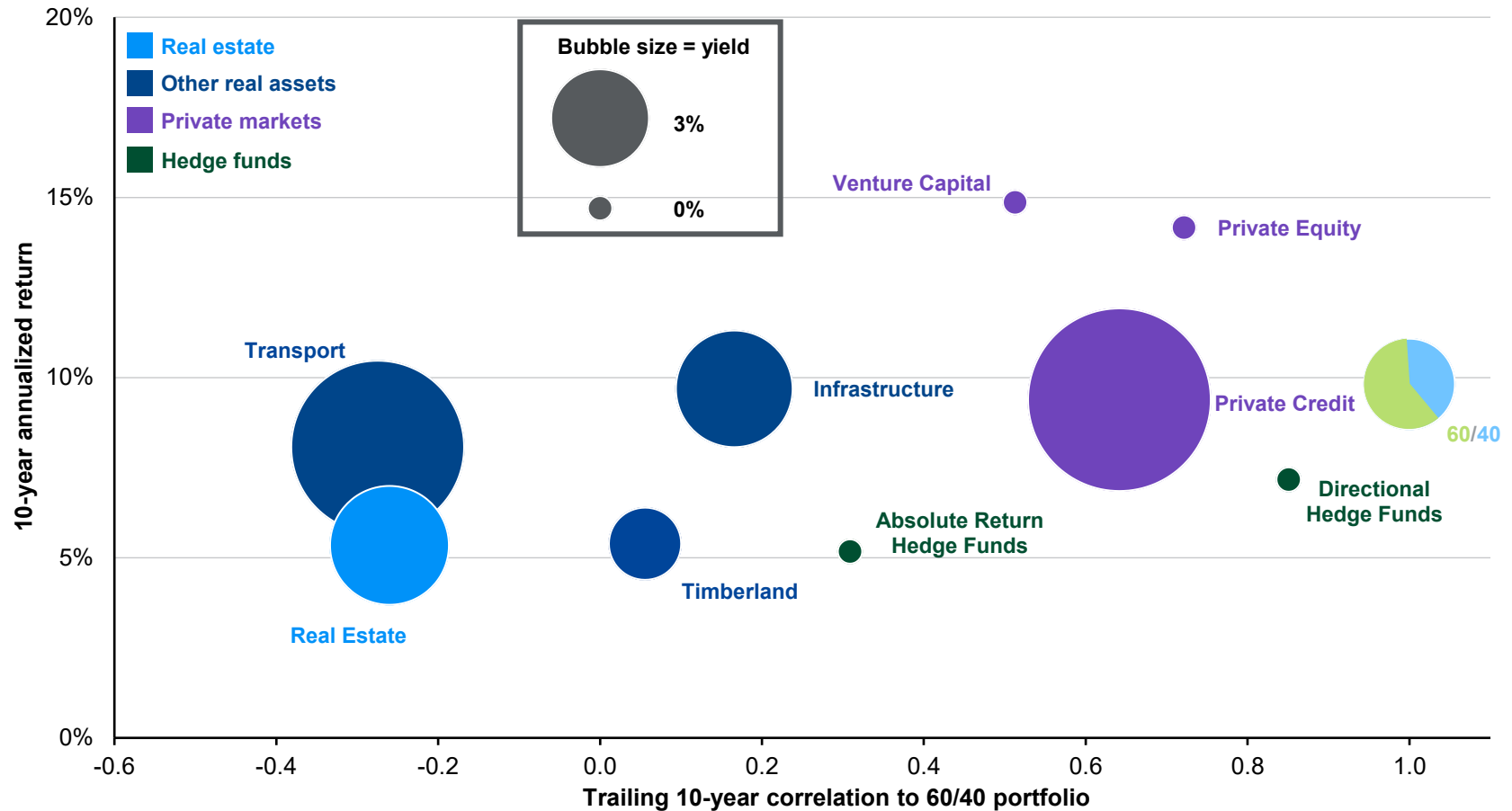
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Alternatives in portfolios

Correlations, returns and yields

10-year correlations and 10-year annualized total returns, 1Q16 – 4Q25



Source: Burgiss, Cliffwater, FactSet, MSCI, NCREIF, PivotalPath, J.P. Morgan Asset Management.

All categories are global, except for timberland and private credit, which are U.S. Correlations are based on quarterly returns over the time period indicated. A 60/40 portfolio is comprised of 60% stocks and 40% bonds. Stocks are represented by the S&P 500 Total Return Index. Bonds are represented by the Bloomberg U.S. Aggregate Total Return Index. 10-year annualized returns are calculated based on the time period indicated. "Absolute Return Hedge Funds" represent asset-weighted returns from the PivotalPath Global Macro and Relative Value indices. "Directional Hedge Funds" represent asset-weighted returns from the PivotalPath Credit, Equity Diversified and Event Driven indices. Private credit represents direct lending returns and yields from the Cliffwater Direct Lending Index. All other indices and data used for alternative asset class returns and yields are as described on pages 12 and 17 of the *Guide to Alternatives* based on latest data available. Transportation returns are shown on an unlevered basis and returns can be enhanced by adding leverage. Past performance is not a reliable indicator of current and future results. *Guide to Alternatives*. Data are based on availability as of April 30, 2026.

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Global infrastructure offers AI exposure and stable income.

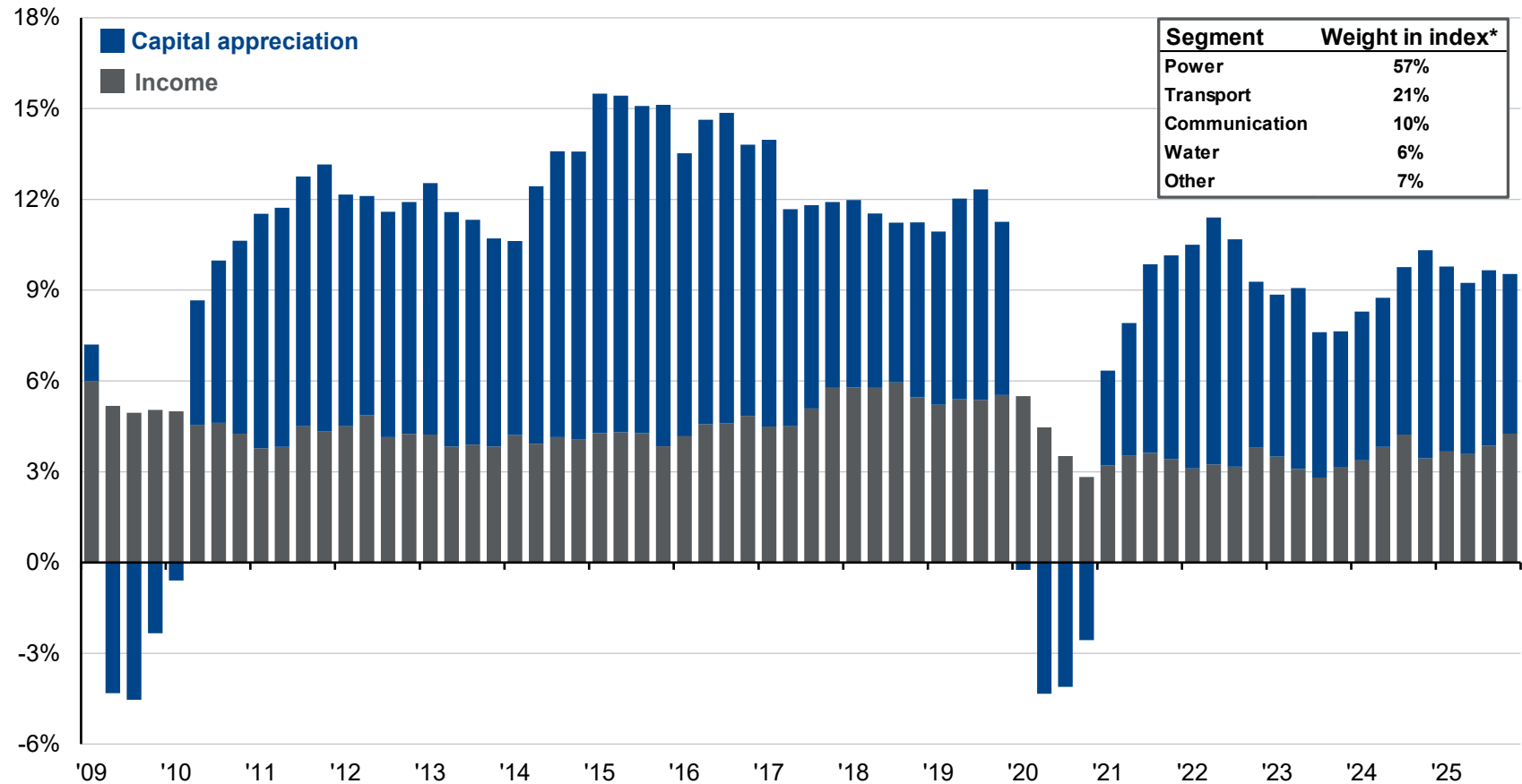
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Global infrastructure returns

1Q09 – 4Q25, rolling 4-quarter returns from income and capital appreciation



Source: MSCI, J.P. Morgan Asset Management.

Infrastructure returns represented by the MSCI Global Private Quarterly Infrastructure Asset Index. Data show rolling 4-quarter returns from income and capital appreciation. *Weights are based on enterprise value and may not sum to 100 due to rounding. Past performance is not a reliable indicator of current and future results.

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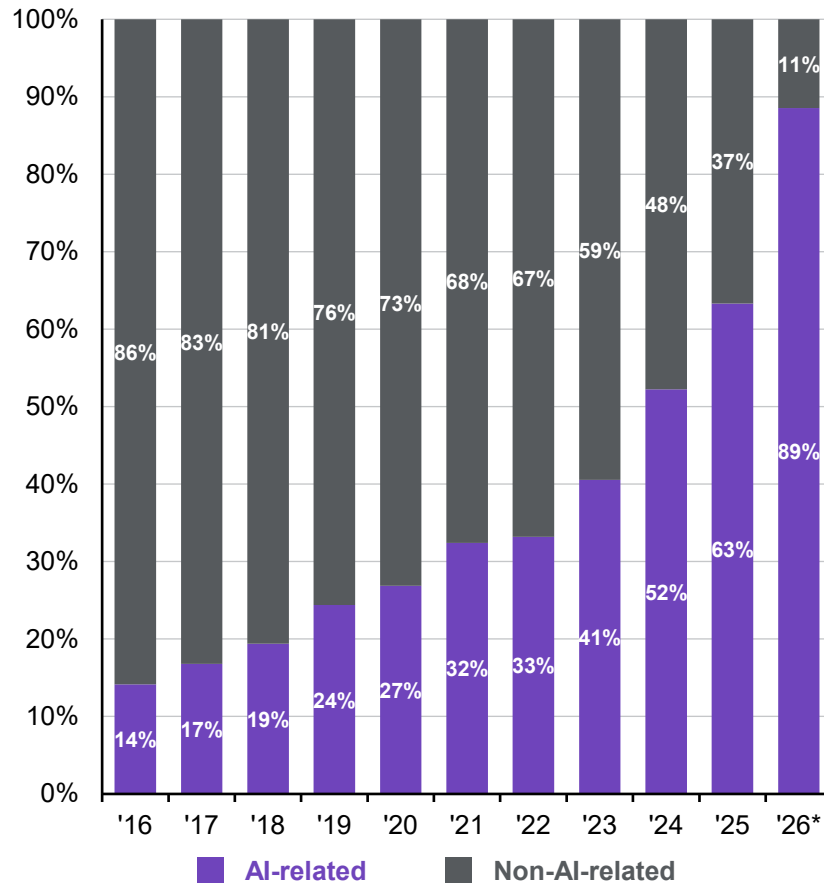


Private markets are home to many of the emerging players in LLMs and application development.

Private equity

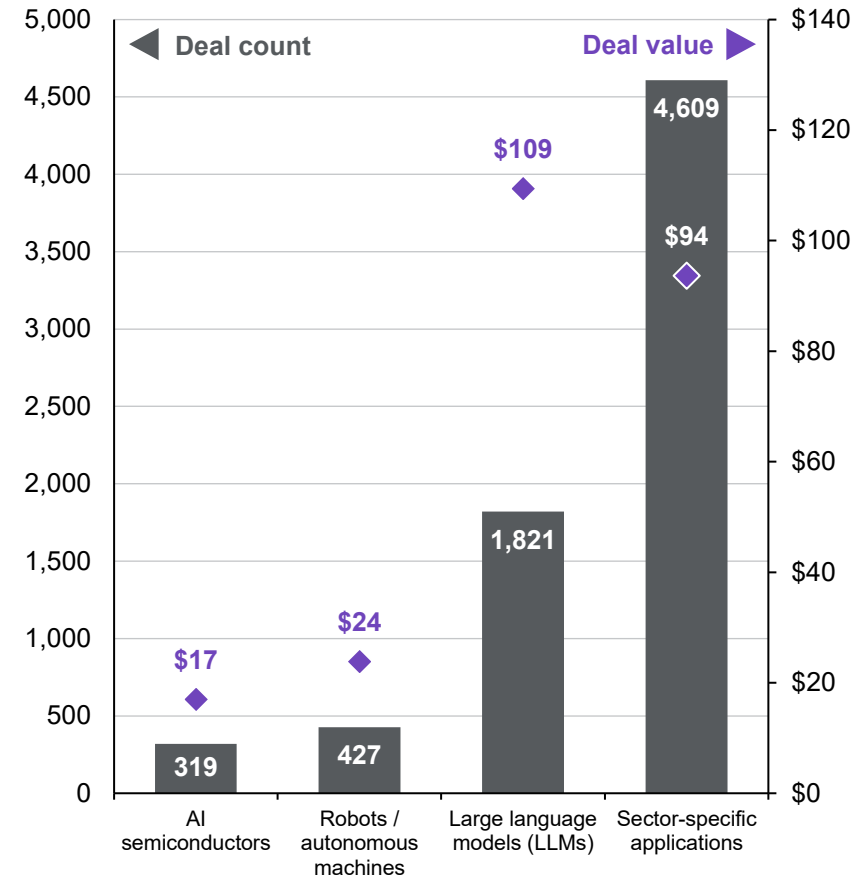
North America venture capital investments in AI

Deal value as a share of all venture capital deal value



Venture capital AI deal activity by type

Trailing 12 months deal count and value, USD billions, 4Q25



Source: PitchBook Data, Inc., J.P. Morgan Asset Management.

(Left) *2026 data are as of 1Q26. AI-related includes deal value for AI and machine learning (ML)-related deal activity. North America does not include Mexico. (Right) Sector-specific applications are built on top of AI models and enable domain-specific performance and integration.

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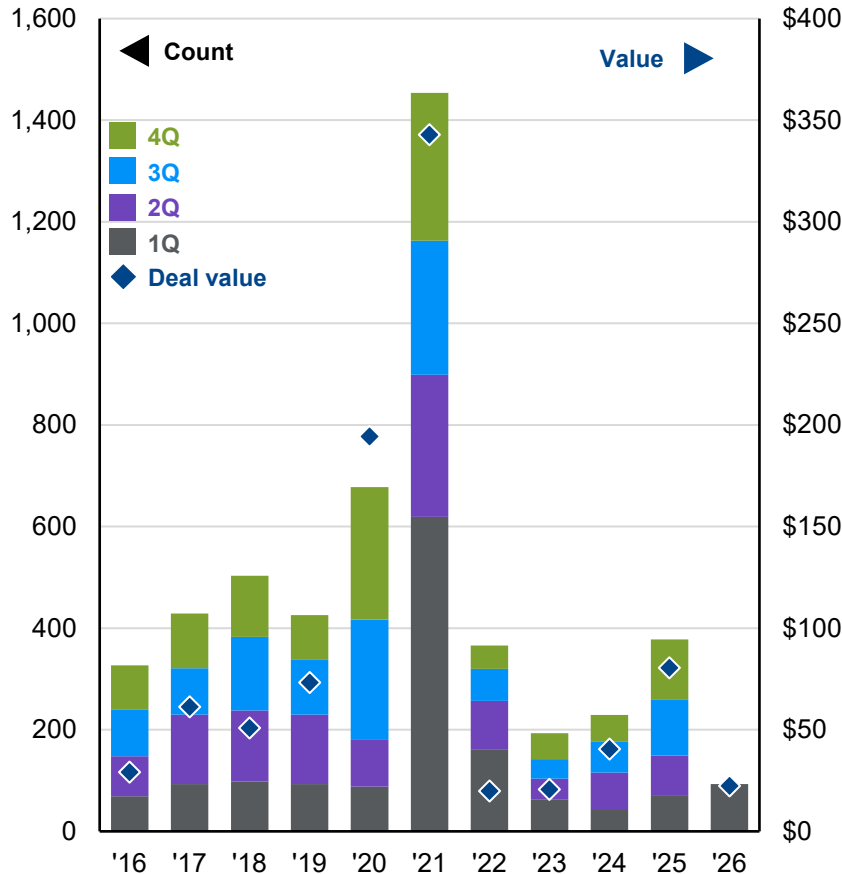


IPO activity is picking up, but today's most innovative companies are staying private for longer....

Private equity

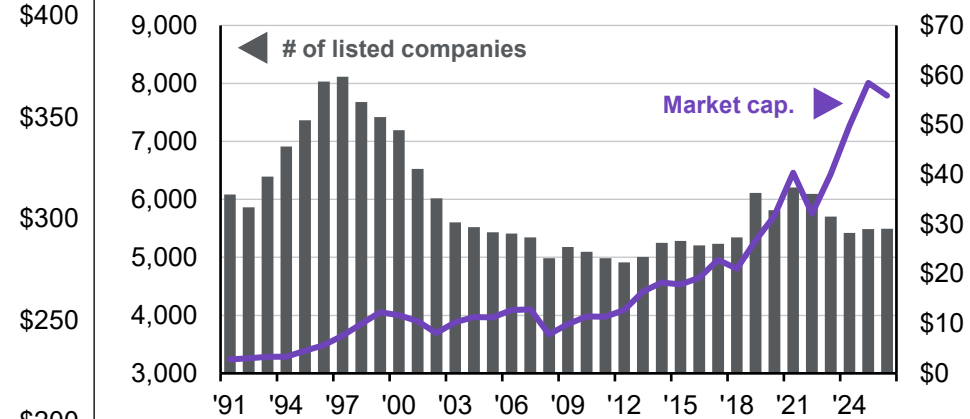
North America IPOs

Quarterly count and annual value by announcement, USD billions



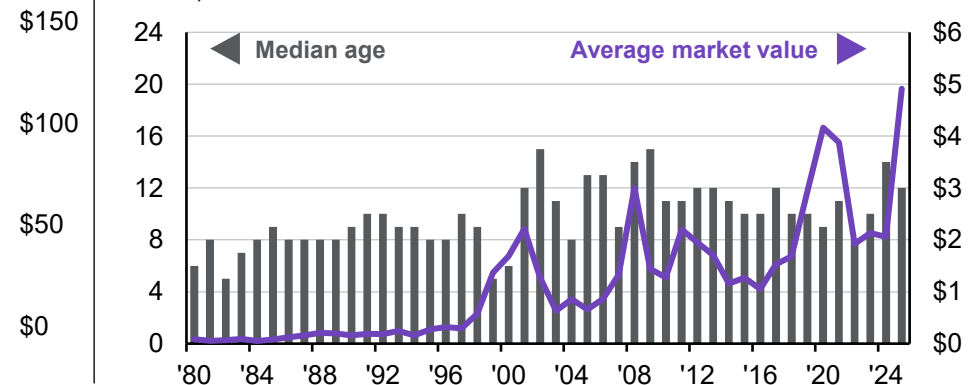
Number of listed U.S. companies* and market cap.

Count, S&P 500 market capitalization in USD trillions



Median age and average market value at IPO

Years, USD billions



Source: Bloomberg, FactSet, Jay Ritter – University of Florida, World Federation of Exchanges

(Left) Initial public offerings data are provided by Bloomberg and are tracked through public announcements or disclosed directly via the deal's lead underwriters. (Top right) *Number of listed U.S. companies is represented by the sum of the number of companies listed on the NYSE and the NASDAQ. (Bottom right) Average market value is calculated by dividing the total market value at first closing price by the total number of IPOs for each period. The sample is IPOs with an offer price of at least \$5, excluding ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls and stocks not listed on CRSP (CRSP includes Amex, NYSE and NASDAQ stocks). Guide to Alternatives. Data are based on availability as of April 30, 2026.

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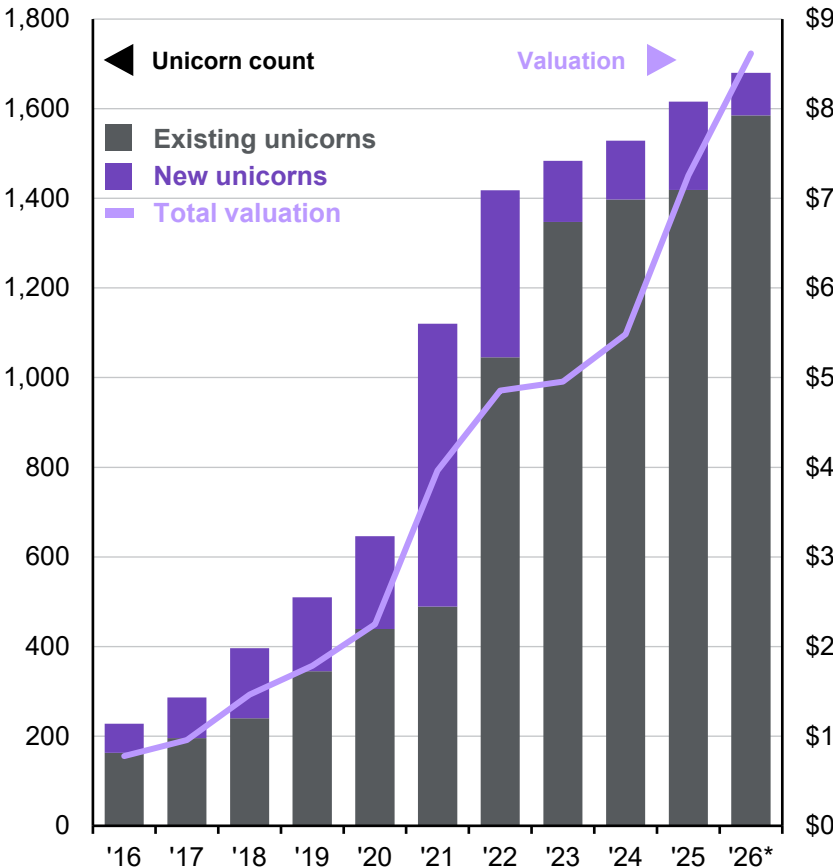


...and reaching meaningful scale before ever going public.

Private equity

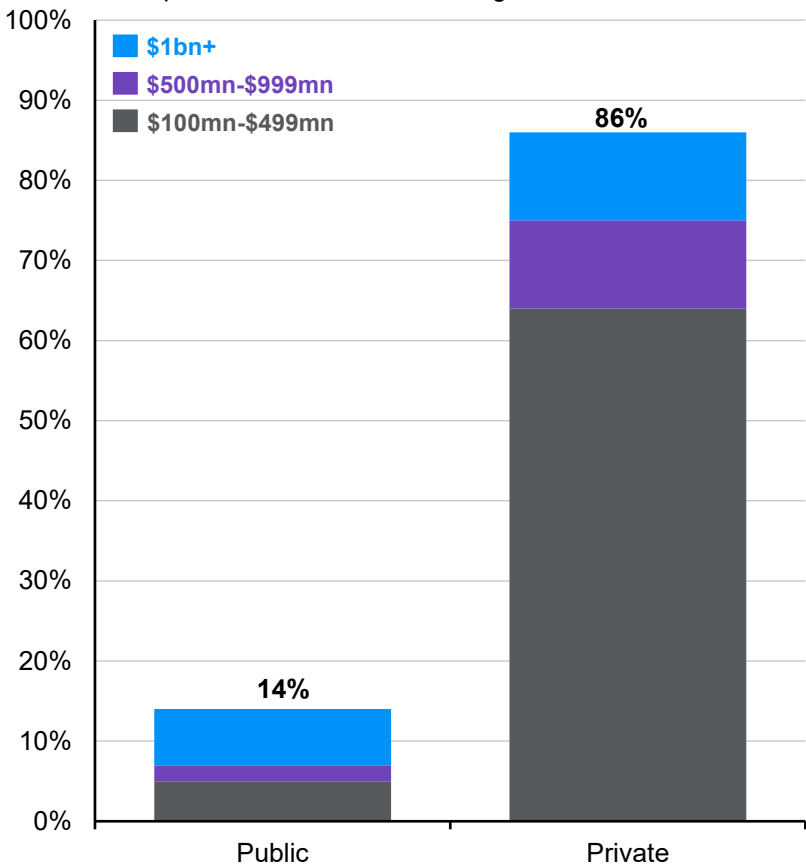
Count and valuation of global unicorns

Venture capital-backed companies valued over \$1bn+, USD trillions



U.S. companies split public vs. private

Share of companies with annual revenue greater than \$100mn



Source: Bain and Company, PitchBook Data, Inc., J.P. Morgan Asset Management.

(Left) Classification categories are from PitchBook. A unicorn is defined by PitchBook as a venture capital-backed company with a post-money valuation of over \$1 billion. Companies that have gone public, been acquired by another company or had their valuation fall below \$1 billion are no longer counted as a unicorn. Past performance is not a reliable indicator of current and future results.

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Investors shouldn't anchor to yesterday's winners... market leadership constantly evolves.

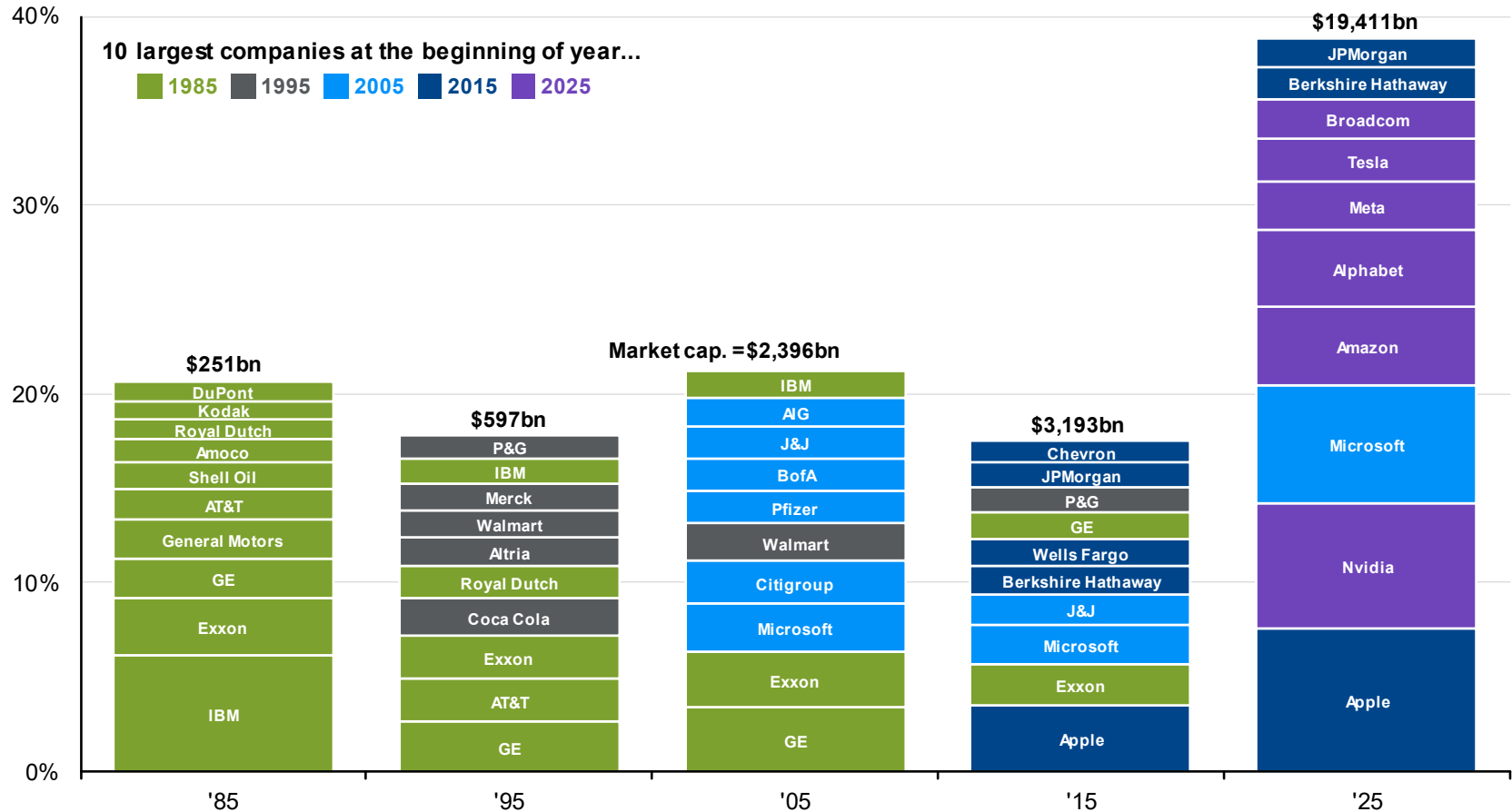
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Top 10 S&P 500 companies by market capitalization

Percent of S&P 500 market capitalization as of the first day of the indicated year



Source: Bloomberg, Standard & Poor's, J.P. Morgan Asset Management.
Companies are organized from highest weight at the bottom to lowest weight at the top. Past performance is no guarantee of future results.
Guide to the Markets – U.S. Data are as of April 30, 2026.



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