

AMERICAS TECHNOLOGY

IT Spending Survey: AI momentum continues to build against a more muted broader outlook

IT Spending Survey

Tracking enterprise IT budget trends and shifting spend priorities across Infrastructure, Software, and Services. [Explore >](#)

**IT spending intentions moderated slightly in our May 2026 survey**

Our overall IT Spending Index decreased to 65.0 from 68.0, and our IT Capital Spending Index decreased to 59.0 from 65.5. Both indices have consecutively decreased since our November 2024 survey (79.0 and 69.0, respectively). The indices are below the 10-year average of 73.5 and 67.1 respectively (excluding COVID-impacted results in Jun/Dec 2020), but are well above the contraction/expansion breakpoint of 50. We suspect that the moderation may be tied to ongoing AI evaluations, such that a) there may be some crowding out of category spend not tied to AI; b) there may be some hesitancy on committing to larger IT projects before the impact of AI on core budget categories is clear. In categories that require equipment procurement, the uneven demand (servers/storage/PC spend up, networking/firewall more mixed) likely reflects ongoing macro uncertainty, including volatility in the trade/tariff environment and commodity supply tightness.

Recall we survey participants both on Overall IT spending, and on Capital IT spending (the former includes headcount and skews toward more recurring spend; the latter tends to skew to one-time cyclical spending that would be recognized as capex). For 2H26, 53% of respondents expect Overall IT Spending to increase, and 29% anticipate a decrease. This is a downtick vs. November 2025 (56%/26% split). For Capital IT spending, 48% anticipate an increase and 29% expect a decrease vs. 43%/23% in November. This is a wider dispersion of expectations, with a larger share of respondents now anticipating both increases and decreases in spending.

AI momentum builds as enterprises scale production deployments

Over the next 12 months, 88% of CIOs (vs. 93% prior) expect AI to account for <10% of IT budgets, reflecting an ongoing testing and refinement phase (weighted average of 5%). Over 3 years, 42% (vs. 35% prior) anticipate GenAI to exceed 10% of their IT budgets, with a weighted average of 10%. We introduced new questions on a)

Gabriela Borges, CFA

+1(212)902-7839 |
gabriela.borges@gs.com
Goldman Sachs & Co. LLC

Michael Ng, CFA

+1(212)902-8618 | michael.ng@gs.com
Goldman Sachs & Co. LLC

James Schneider, Ph.D.

+1(212)357-2929 |
jim.schneider@gs.com
Goldman Sachs & Co. LLC

Eric Sheridan

+1(917)343-8683 |
eric.sheridan@gs.com
Goldman Sachs & Co. LLC

Katherine Murphy

+1(212)902-1151 |
katherine.a.murphy@gs.com
Goldman Sachs & Co. LLC

Selina Zhang

+1(212)357-9979 |
selina.zhang@gs.com
Goldman Sachs & Co. LLC

Max Gamperl

+1(415)249-7311 |
max.gamperl@gs.com
Goldman Sachs & Co. LLC

Luya You

+1(212)902-5297 | luya.you@gs.com
Goldman Sachs & Co. LLC

Zorayda Montemayor

+1(212)357-6403 |
zorayda.montemayor@gs.com
Goldman Sachs & Co. LLC

Maura Hager

+1(212)9028724 | maura.hager@gs.com
Goldman Sachs & Co. LLC

Praachi Arora

+1(332)245-7970 |
praachi.arora@gs.com
Goldman Sachs India SPL

Goldman Sachs does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html. Analysts employed by non-US affiliates are not registered/qualified as research analysts with FINRA in the U.S.

Table of Contents

| | |
|---|----|
| Detailed survey results | 4 |
| Key spending priorities and strategic vendors | 7 |
| Subsector focus: Servers and PCs | 8 |
| Subsector focus: Storage | 12 |
| Subsector focus: Networking | 13 |
| Subsector focus: IT Services | 17 |
| Subsector focus: Software | 20 |
| Subsector focus: Security Software | 29 |
| Respondent Overview | 33 |
| Disclosure Appendix | 34 |

funding AI inference costs (1/3 net new, 2/3s from reallocation) and b) expectations around building in-house software vs. buying from packaged vendors (most still expect to buy). Please see the Software section for further detail on these emerging themes.

Subsector takeaways

Software: (1) Expectations for public cloud migrations remain range bound compared to 3 years ago (possibly as enterprises evaluate cloud migrations alongside broader GenAI strategy), although the survey still shows penetration is expected to scale from high-20s to high-40s over three years (1.7x). (2) GenAI spend is trending higher (5% / 10% of IT budgets over 1- and 3-year horizons), but AI inference costs are modest (1–5% of IT budgets for 89% of respondents). Two-thirds are funded via reallocation (incl. 18% indicating shifting budget from application software), suggesting AI spend is likely impacting near-term software and labor budgets. (3) Enterprise preferences skew toward buy vs. build, with 56% expecting to build less and buy more (vs. only 17% expecting more building in-house), suggesting that investor concerns may be overblown; (4) While Microsoft Copilot penetration remains low ($\leq 10\%$ across most enterprises), sentiment is improving (36% “getting better”). E7 adoption intent is skewed toward a multi-year horizon (11% in 12 months vs. 25% longer-term), suggesting a gradual, multi-year upgrade cycle.

Servers/PCs/Storage/Networking: IT hardware spend expectations have increased significantly in our May 2026 survey as customers digest higher ASPs driven by DRAM/NAND supply tightness against a backdrop of continued refresh/modernization demand. (1) 60% of respondents now expect to increase server spending (v. 37% prior); (2) 75% of respondents now expect to increase storage spending (v. 47% prior); and (3) 69% of respondents now expect to increase server spending (v. 36% prior). At the same time, (4) Networking spending expectations worsened sequentially.

IT Services: (1) IT Services spending intentions have weakened relative to Nov 2025 as ongoing macroeconomic uncertainty and competing priorities (such as AI) continues to drive enterprises to tighten spending on external vendors; (2) Clients continue to modestly wind down spending intentions across most vendors; (3) As vendors increasingly offer AI-driven cost savings to clients, more clients still prefer to keep these savings, though a growing share are now choosing to reinvest these savings as higher spending with the vendor.

Security Software: With Security trading at a 65% premium to broader Software (vs. 30% a year ago), we believe the key question is when and to what extent AI drives demand in Security, given minimal AI upside in 1H company trends to date. 1) 69% of respondents expect GenAI to increase their NTM security budgets. The weighted average is for a 3.28% uplift, vs. a 3.05% uplift 6m ago; small, but increasing. 2) Firewall demand is uneven, with only 8% expecting a NTM refresh, but 29% expecting a 12–36 month refresh, alongside more distributed, multi-year replacement cycles; 3) SASE and SOC transformations continue to favor incumbent vendors; and 4) Microsoft, Cloudflare, and Palo Alto Networks are the vendors where respondents expect budgets to grow most over the next 3 years, reflecting ongoing platform consolidation trends.

Detailed survey results

Index Results: Overall IT and Capital IT Spending intentions continue to soften from November 2025

Our latest May 2026 survey of CIO spending intentions points to a modest softening in spending intentions vs. the November 2025 survey, and the trend has been softening for ~18 months. The **Overall IT Spending Index** decreased from 68.0 to 65.0, while the **IT Capital Spending Index** decreased from 65.5 to 59.0. Both indices remain above the contraction/expansion breakpoint of 50.0, and modestly below the 10-year average (excluding Covid).

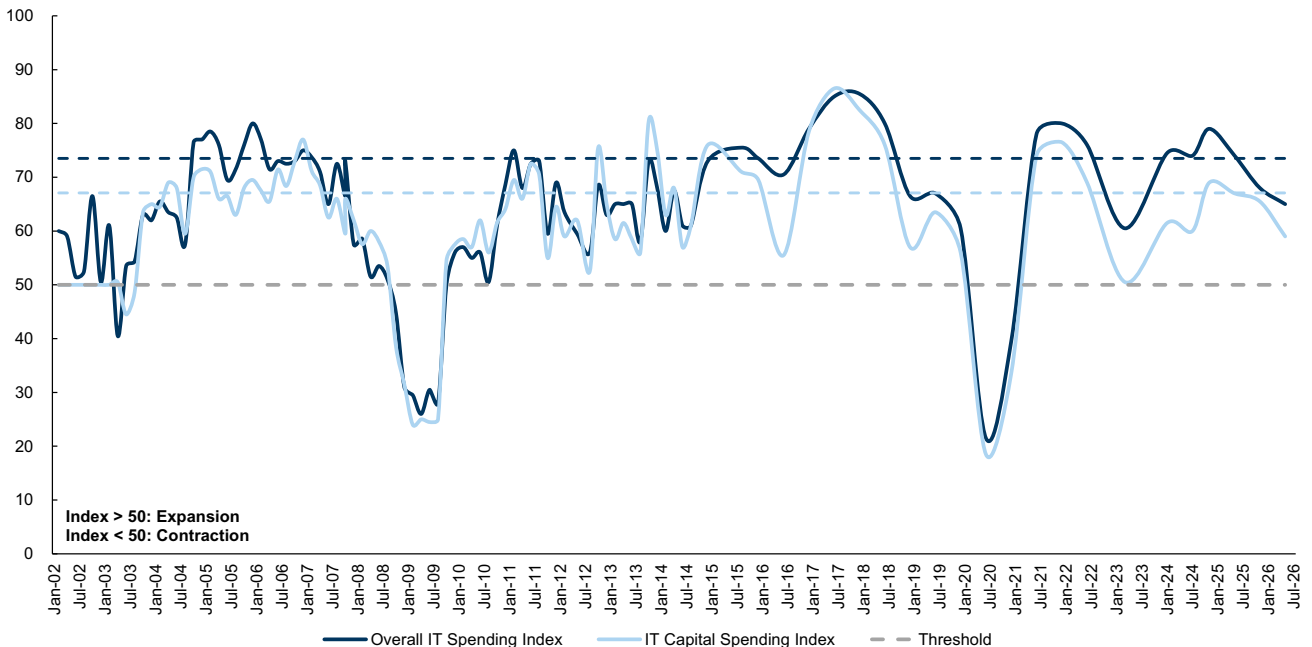
Exhibit 1: Survey data indicates demand moderated throughout 2025

CIOs Anticipate IT Spending Sentiment Moderating in 2026

| | May-25 | Nov-25 | May-26 |
|--------------------------|--------|--------|--------|
| GS IT Spending Index | 74.0 | 68.0 | 65.0 |
| GS IT Cap Spending Index | 67.0 | 65.5 | 59.0 |

Source: Goldman Sachs Global Investment Research

Exhibit 2: Overall IT Spending remained at historically elevated levels



Index based on your current thinking, how do you expect your overall 2026 IT spending growth to be relative to 2025? What do you expect your IT capital spending growth (spending on new equipment and software only; not including staffing, services, depreciation, occupancy, or other) to be in 2026?

Source: Goldman Sachs Global Investment Research

IT and capital spending index methodology

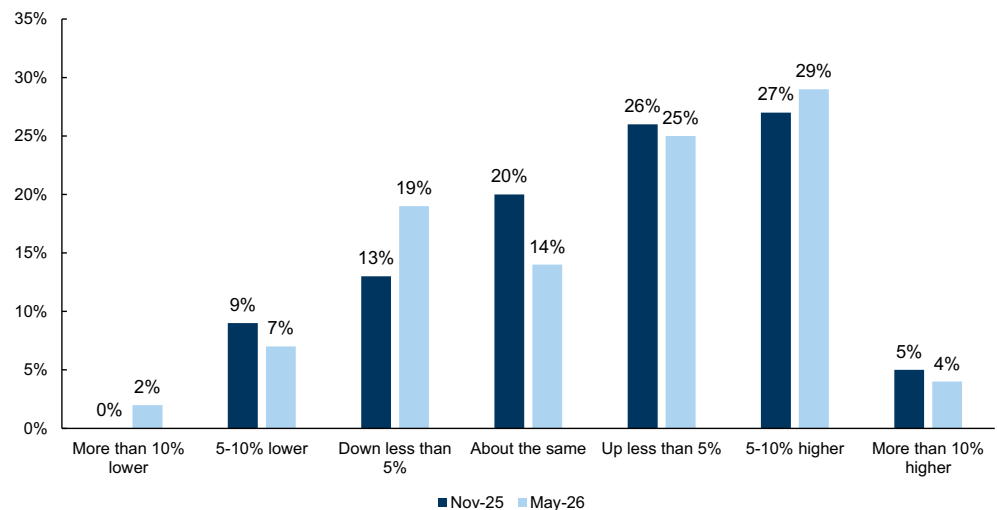
Our IT Spending indices ([Exhibit 2](#)) summarize our detailed survey data on forward spending expectations in terms of directional changes, thus providing a continuous data series across many years. The indices are determined by a methodology similar to that used by the ISM manufacturing indices, although our index is more forward-looking in that it gauges forward-year spending expectations, as opposed to the ISM indices which gauge current spending. Responses indicating “spending growth” in the coming year receive a weighting of 1.0, responses of “no change” receive a weighting of 0.5, and responses indicating “declining spending” receive a weighting of zero. Thus, an index value above 50 indicates expected spending growth, while a value below 50 indicates expected contraction.

Spending sentiment remains constructive across most respondents, though showing modest signs of softening

Our **Overall IT Spending Index** remains relatively healthy at 65.0 for 2H26, though down from 68.0 in the November 2025 survey that gauged initial spending intentions for 2026. The number of respondents expecting to increase Overall IT Spending remained consistent at 58%, while those expecting a decrease rose to 28% (vs. 22% previously). Respondents expecting to increase spending by more than 5% increased slightly to 33% (v. 32% prior); those expecting to reduce by more than 5% was consistent at 9% ([Exhibit 3](#)).

Exhibit 3: IT spending sentiment has gone down since the macroeconomic uncertainties have weighed down on IT budgets

Underlying responses driving the IT Spending Index



Question: Based on your current thinking, how do you expect your overall 2026 IT spending growth to be relative to 2025?

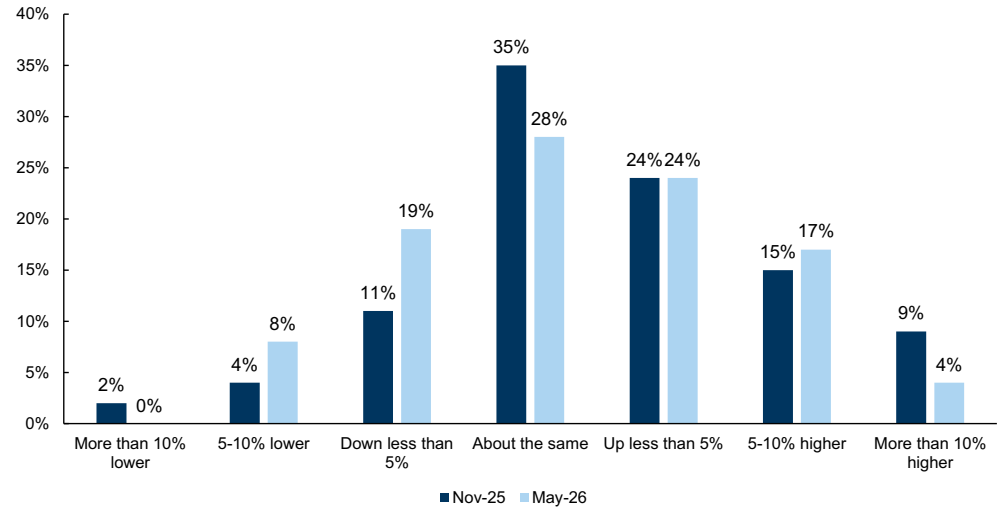
Source: Goldman Sachs Global Investment Research

Our IT Capital Spending Index continues to moderate. Our IT Capital Spending Index for 2026 decreased to 59.0 vs. 65.5 in the November 2025 survey that gauged initial spending intentions for 2026. The number of respondents expecting an upward trend in IT Capital Spending decreased to 45% (from 48% previously), while those expecting a downward trend decreased to 27% (from 17% prior). Respondents expecting to increase spending by more than 5% declined modestly to 21% from 24%, while those expecting to reduce by more than 5% rose to 8% from 6% in the previous survey ([Exhibit](#)

4).

Exhibit 4: The IT Capital Spending Index has dropped compared to 6 months back but in a lesser magnitude than the overall IT spending

Underlying responses driving the IT Capital Spending Index



Question: Based on your current thinking, how do you expect your overall 2026 IT capital spending growth (spending on new equipment and software only; not including staffing, services, depreciation, occupancy, or other) to be in 2026 relative to 2025?

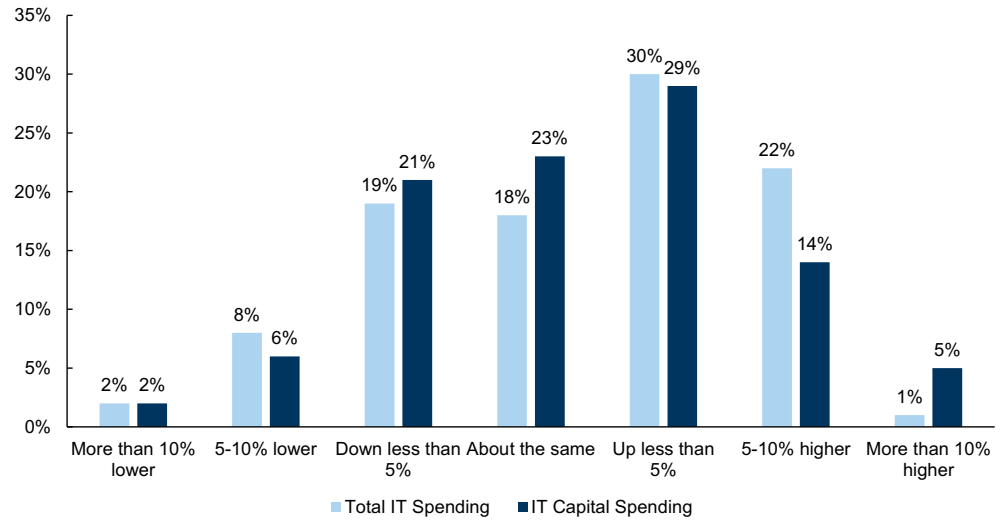
Source: Goldman Sachs Global Investment Research

Respondents continue to expect IT spending to increase in 2H26 despite weaker sentiment for the full year

We asked CIOs about their expectations for Overall IT Spending and IT Capital Spending comparing 2H26 vs. 2H25. On **Overall IT Spending** expectations, 53% of respondents expect spending to increase (vs. 56% in November 2025); 29% respondents expect spending to decrease (vs. 26%); and 18% respondents expect spending to be flat (vs. 19%). On **IT Capital Spending** expectations, 48% respondents expect spending to increase (vs. 43% prior), 29% respondents expect spending to decrease (vs. 23% prior), and 23% respondents expect spending to be flat (vs. 34% prior).

Exhibit 5: 2026 spending outlook should continue to be mixed following a volatile 2025

Question: "What do you expect your IT spending to be in 2H26 relative to 2H25?"



Source: Goldman Sachs Global Investment Research

Key spending priorities and strategic vendors

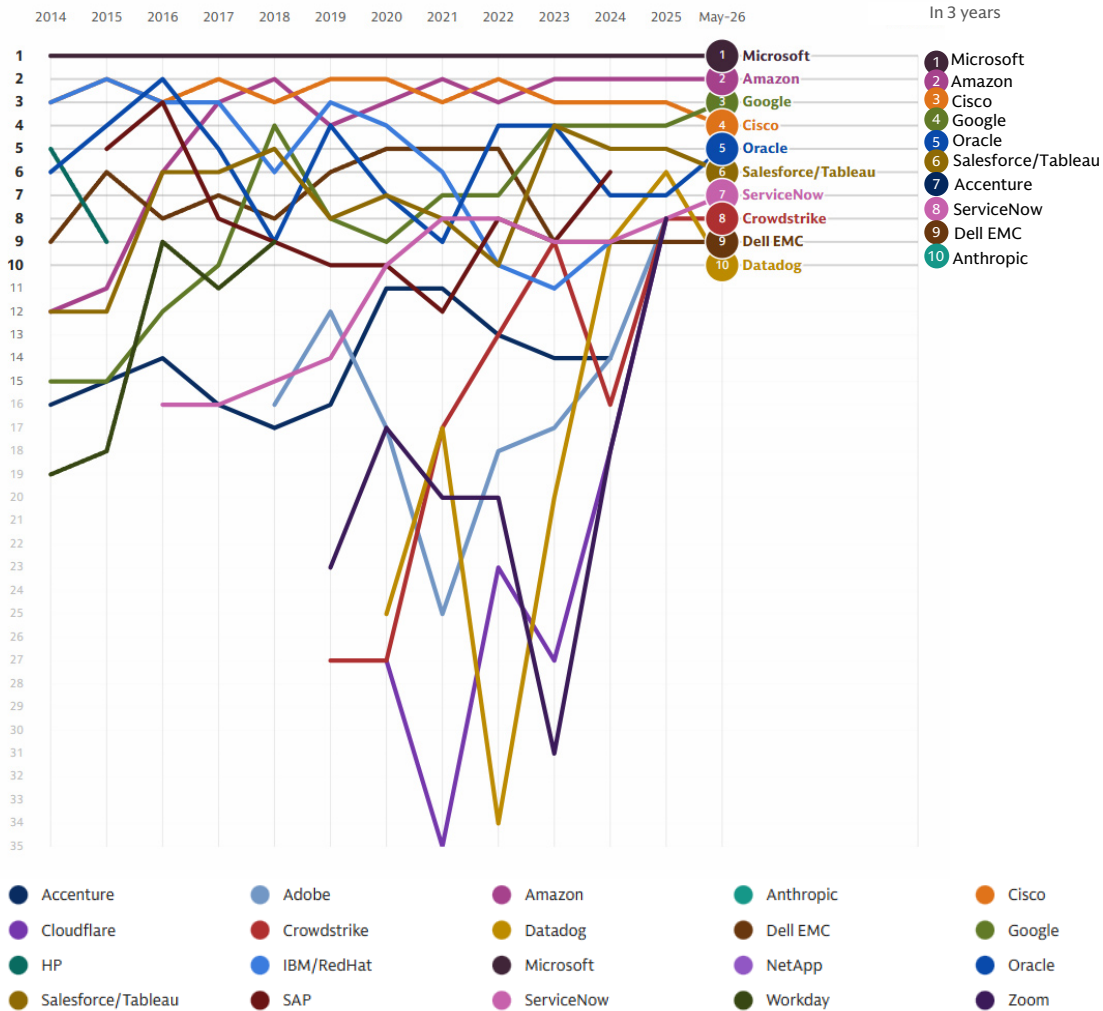
Microsoft and Amazon continue to dominate; Google moves into the top tier

Microsoft remains the clear leader with 23% of the vote today, with Amazon (11%) steady at #2, while Google (8%) rises into #3, surpassing Cisco at #4 with 7% of the vote.

In three years, Microsoft (23% of the vote) is expected to maintain first place, with Amazon (#2) maintaining its position at 14%, Cisco moving back up to third at 8%, Google at 7%, and Oracle at 6%. We also began including OpenAI and Anthropic in our survey in May 2026; Anthropic is currently listed as a #10 most strategic vendor in 3 years.

Today's top 10 vendors, tracked over time

2014 to 2026 surveys



Source: Goldman Sachs Global Investment Research

Subsector focus: Servers and PCs

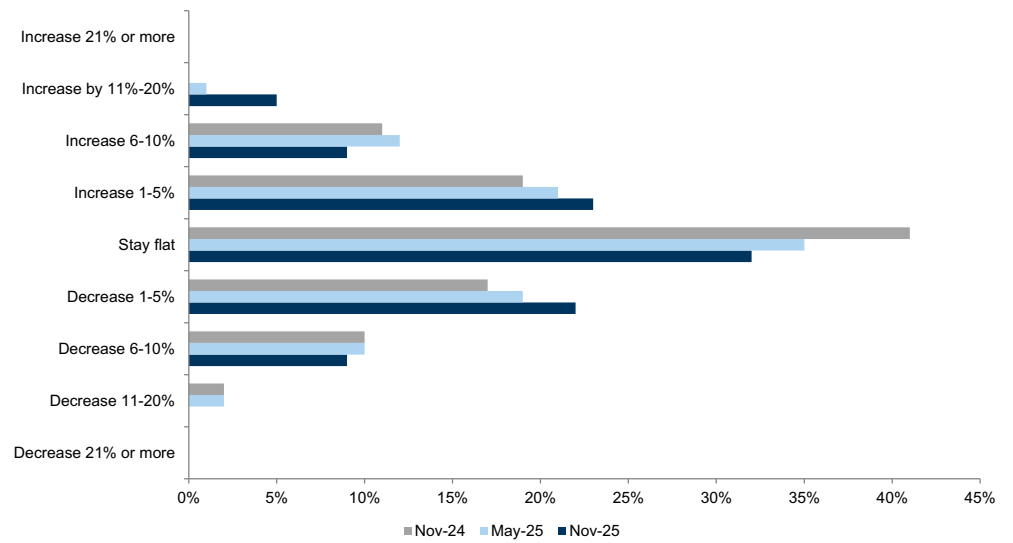
Server spending expectations improve sequentially

Per our May 2026 survey, expectations for server spending over the next 12 months improved significantly relative to our previous survey in November 2025. The share of respondents expecting to increase server spending over the next 12 months increased to 60% (v. 37 in our November 2025 survey). 25% of respondents expect spending to remain flat, compared with 32% and 35% in our previous two surveys. 15% of

respondents expect to decrease server spending, v. 31% relative to November 2025.

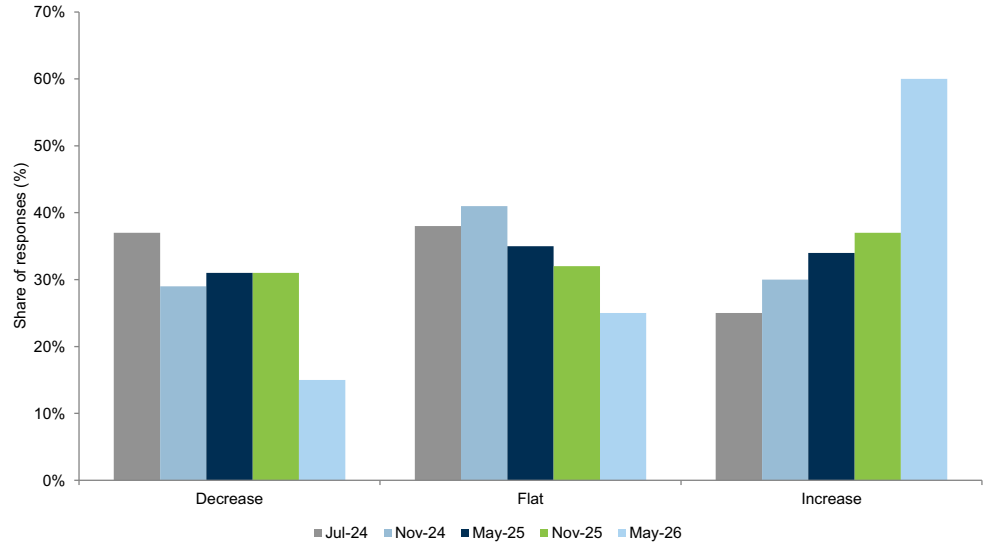
We expect growth in the server market to primarily be driven by (1) continued demand for AI infrastructure and (2) traditional server refresh. In particular, traditional server refresh should be driven by (a) the aging of equipment purchased in 2020-21; (b) the return of workloads from the Cloud to on-prem; and (c) the consolidation of current general compute workloads with more efficient equipment.

Exhibit 6: In terms of your server spending, what do you anticipate as the most likely scenario over the next 12 months?



Source: Goldman Sachs Global Investment Research

Exhibit 7: Relative to November 2025 results, the share of respondents in our May 2026 survey expecting to increase server spending over the next 12 months increased by 23 pp, and the share of respondents expecting to lower server spending is down 16 pp
 Share of responses over time by direction (%)

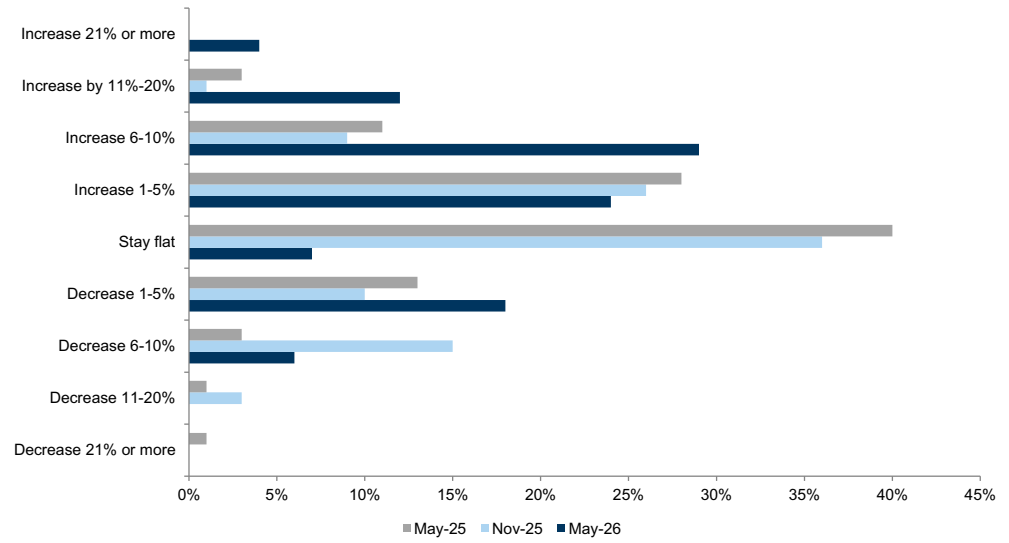


Source: Goldman Sachs Global Investment Research

PC spending expectations worsen

- Per our May 2026 survey, expectations for PC spend also improved sequentially. The share of respondents expecting to grow PC spending over the next 12 months nearly doubles to 69% (v. 36% in November), as enterprises pull-forward their purchase decisions to get ahead of further industry price increases and potential supply constraints related to industry DRAM and NAND shortage. PC spending is also benefitting from a strong uplift to ASPs as vendors pass through higher pricings related to rising prices across the PC bill of materials.

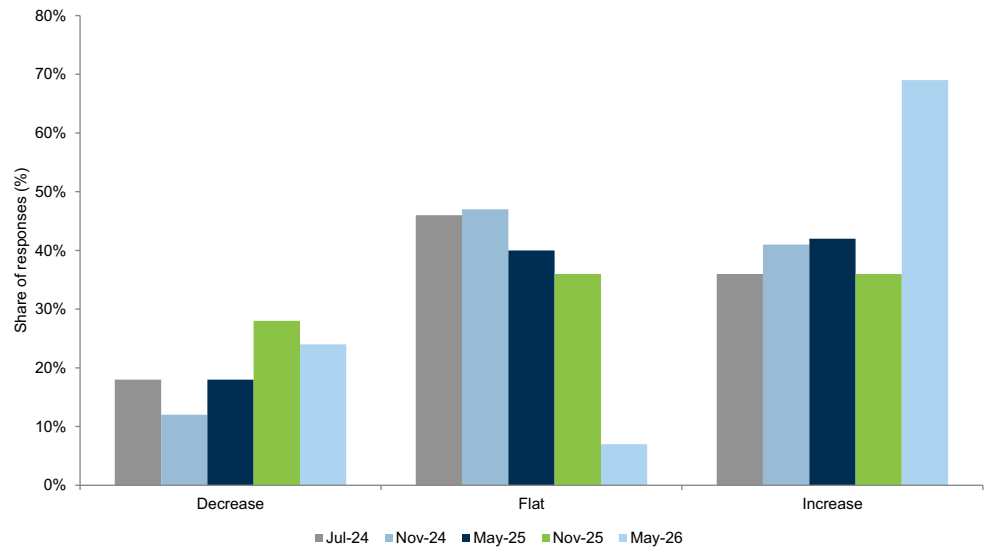
Exhibit 8: In terms of your PC units purchased, what do you anticipate as the most likely scenario over the next 12 months?



Source: Goldman Sachs Global Investment Research

Exhibit 9: Expectations for PC spend to grow over the next 12 months increased by 33 pp relative to November 2025

Share of responses over time by direction (%)



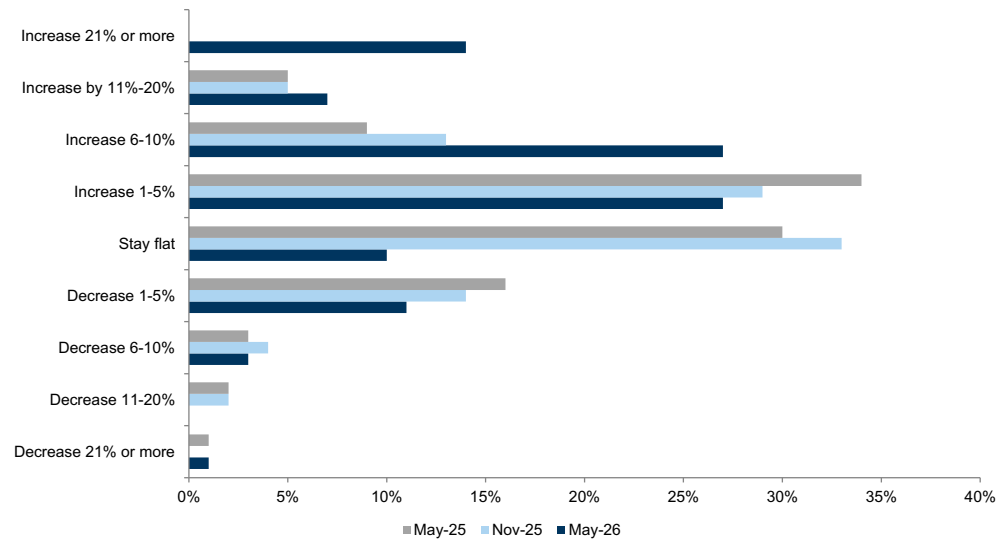
Source: Goldman Sachs Global Investment Research

Subsector focus: Storage

Storage spending expectations are mixed

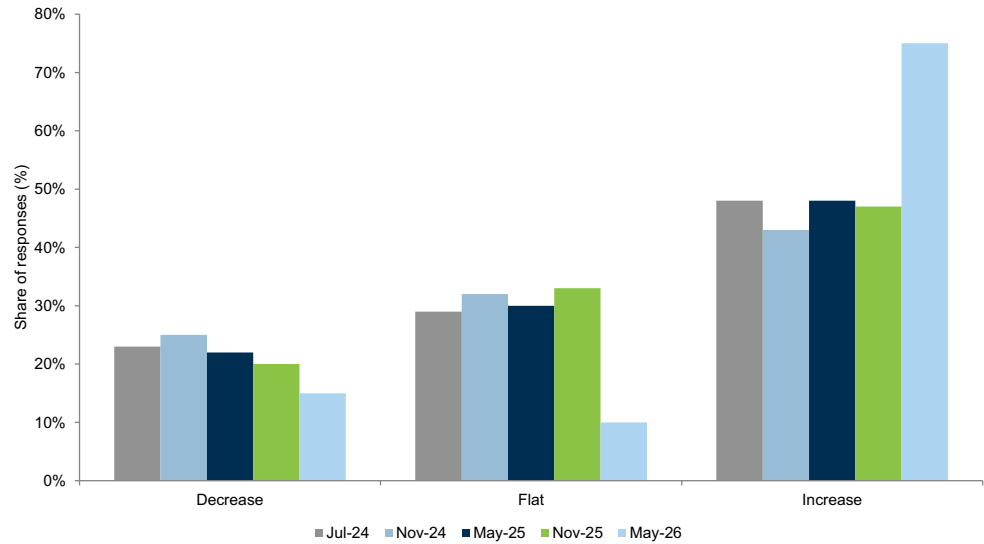
In our May 2026 survey results, we find that expectations for storage spending over the next 12 months increased significantly, with 75% of respondents expecting to increase storage spend, up from 47% in our November 2025 survey and above pre-pandemic ranges of 50-60% (2018-19). 10% of respondents expect storage spending trends to remain flat, down from 33% in our November 2025 survey. 15% of respondents expect storage spending to decrease, lower sequentially relative to November 2025 survey levels of 20%.

Exhibit 10: In terms of your storage spending, what do you anticipate as the most likely scenario over the next 12 months?



Source: Goldman Sachs Global Investment Research

Exhibit 11: The share of responses indicating storage spending should increase is up significantly in our May 2026 survey relative to November 2025 levels
 Share of survey responses over time by direction



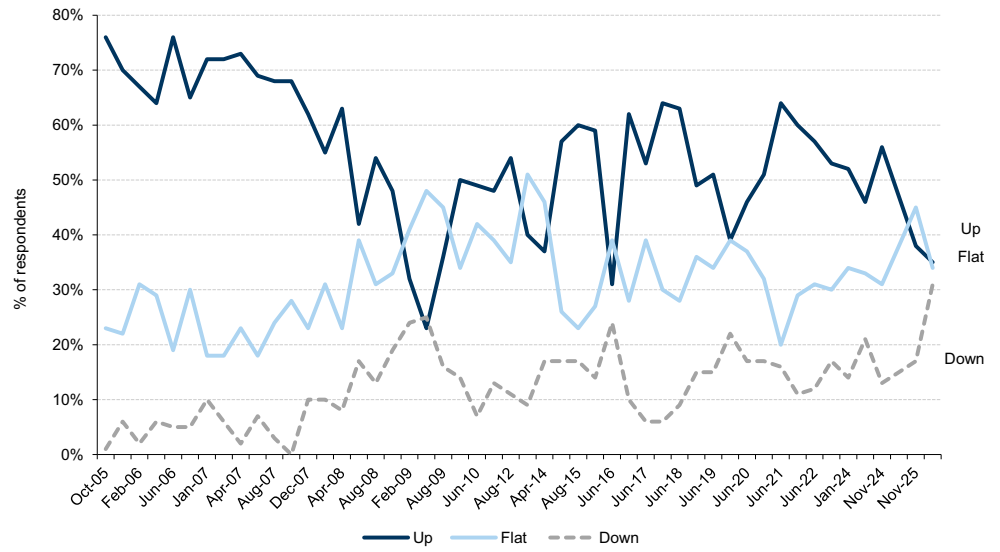
Source: Goldman Sachs Global Investment Research

Subsector focus: Networking

Network equipment spending expectations worsen sequentially

Since 2003 we have asked our CIO respondents about their spending intentions for Networking Equipment over the next 12 months. In our May 2026 survey, 35% of respondents indicated that they expect to increase networking spend over the next year, 3 percentage points below our prior survey in November 2025, and 12 percentage points below the share of respondents who expected to increase networking spend in May 2025 (47%). The share of respondents expecting to increase networking spend is below the ~5 year average (since June 2021) of ~53%. Declining expectations for networking spend is consistent with 31% of survey respondents now expecting spending to decrease, up from 17% in November 2025. 34% of survey respondents expect spending to remain flat, below 45% and 38% in our previous two surveys.

Exhibit 12: In terms of your overall network equipment spending, what do you anticipate as the most likely scenario over the next twelve months? Please select one.

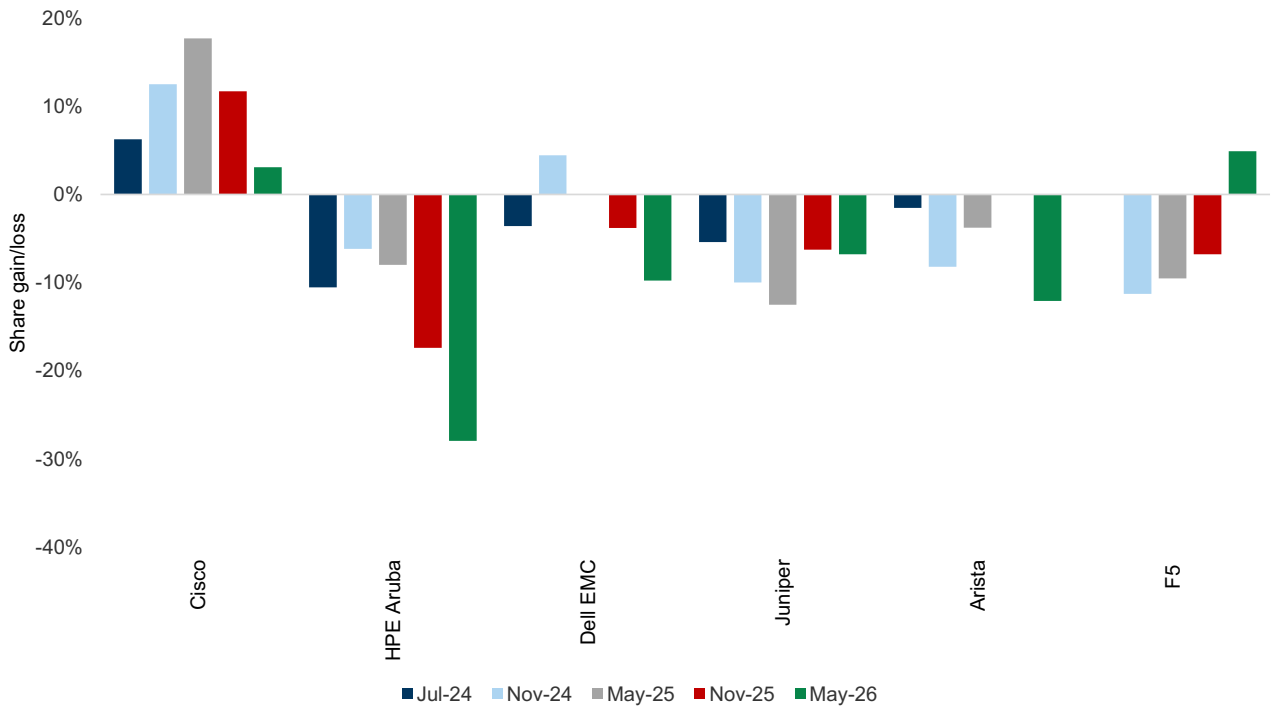


Source: Goldman Sachs Global Investment Research

Cisco is expected to gain networking wallet share

Exhibit 13: Are the following vendors gaining or losing share of wallet in your networking budget this year (for diversified vendors, please only consider the networking portion)?

Net share gain/(loss)



We define net share gain/loss as the number of net respondents who see a vendor gaining share, divided by the number of respondents that use the vendor's networking products.

Source: Goldman Sachs Global Investment Research

Share gainers

Cisco: A net 3% of our May 2026 survey respondents expect Cisco to gain share of their networking wallet over the next 12 months, slightly down from a net 12% in our November 2025 survey. Of the 100 respondents surveyed, 25 indicated Cisco was gaining share of wallet, 22 indicated Cisco was losing share, and 50 reported spending share levels were unchanged. The remaining 3 respondents did not use Cisco products.

F5's net share expectations grew (+5%), better from -7 pp net share decline expectations per our November 2025 survey results. Of the 61 respondents who use F5's products, 5 indicated F5 would gain share of wallet within their networking budgets, 2 reported F5 should lose share of budget, and the remaining 54 indicated F5's share should remain about the same over the next 12 months.

Share losers

Arista's net share expectations were down -12%, worsening from flat net share loss expectations per our previous November 2025 survey. Of the 58 respondents who report to use Arista products, 6 indicated they expect Arista to gain share of wallet, with 13 reporting Arista should lose share. The remaining 54 respondents indicated Arista's share of wallet would remain about the same over the next 12 months.

Dell EMC's net share expectations declined (-10%) compared with -4% per our November 2025 survey results. Of the 82 respondents surveyed who use Dell EMC products, 14 said Dell EMC was gaining share, 22 said Dell EMC would lose share, and 46 said Dell EMC's share should remain about the same over the next 12 months.

HPE Aruba's net share expectations declined (-28%), worsening from -17 pp net share declines estimated by our November 2025 survey results. Of the 68 respondents who use HPE Aruba products, 4 said HPE Aruba was gaining share, 23 indicated HPE Aruba would lose share of its networking budget spend, and the remaining 41 stated HPE Aruba spending share would be the same over the next 12 months.

Juniper's net share expectations declined (-7%), slightly worsening from -6 pp net share declines estimated by our November 2025 survey results. Of the 59 respondents surveyed who use Juniper's products, 8 indicated that Juniper should gain share of wallet in their networking budget, while 12 indicated Juniper would lose share. The remaining 39 respondents indicated Juniper's share of wallet within their networking budget would remain about the same over the next 12 months.

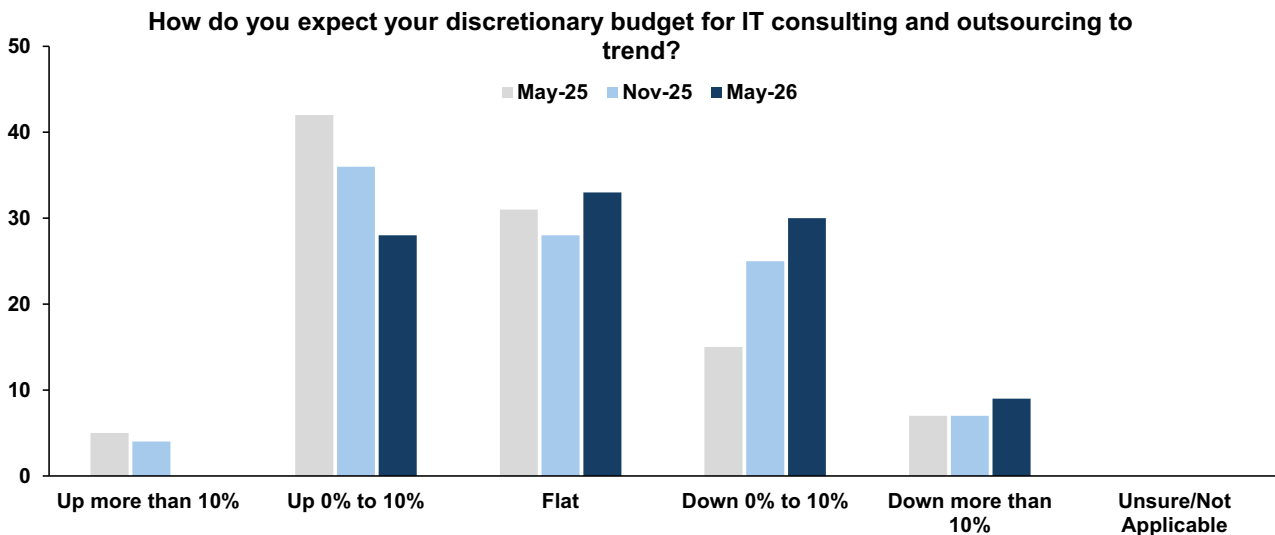
Subsector focus: IT Services

Discretionary IT Services spending intentions declined relative to our Nov 2025 survey

Discretionary IT Services spending intentions have weakened versus our November 2025 data points. We asked CIOs how they expect their discretionary budgets for IT Services to trend in 2H26 ([Exhibit 14](#)). The number of respondents forecasting IT Services spending to rise decreased to 28% (vs. 40% prior). The number of respondents forecasting IT Services spending to remain flat increased to 33% (vs. 28% prior). Lastly, the number of respondents expecting IT Services spending to be down increased to 39% (vs. 32% prior).

Exhibit 14: In 2H26 (compared with 2H25), how do you expect your discretionary budget for IT consulting and outsourcing to trend?

November 2025 vs. May 2026



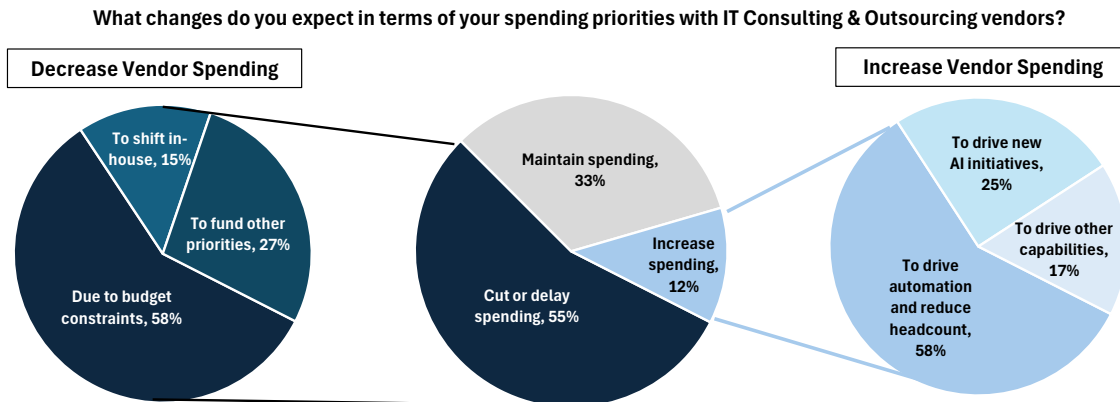
Source: Goldman Sachs Global Investment Research

Outlook for IT Consulting & Outsourcing spending reflects ongoing caution among clients

We asked respondents about planned changes in spending priorities for IT Consulting and Outsourcing vendors in 2H26. Approximately 33% of respondents expect to keep overall external spending on services at around the same level and mix (up from 30% prior). Of the 12% of respondents who plan to increase their external vendor spending (down from 17% prior), 58% are increasing spending to drive automation and internal headcount reductions (up from 53% prior), 25% are increasing spending to drive new AI initiatives (down from 35% prior), and 17% are seeking to drive other new capabilities (up from 12% prior). Of the majority or 55% of respondents who plan to cut or delay external vendor spending (up from 53% prior), 58% cited budget constraints (up from 56% prior), 27% are cutting or delaying spending to fund other priorities (up from 23% prior), and 15% are seeking to shift work in-house (down from 21% prior).

Exhibit 15: In 2H26, what changes do you expect in terms of your spending priorities with IT Consulting & Outsourcing vendors? (choose all that apply)

May 2026



Source: Goldman Sachs Global Investment Research

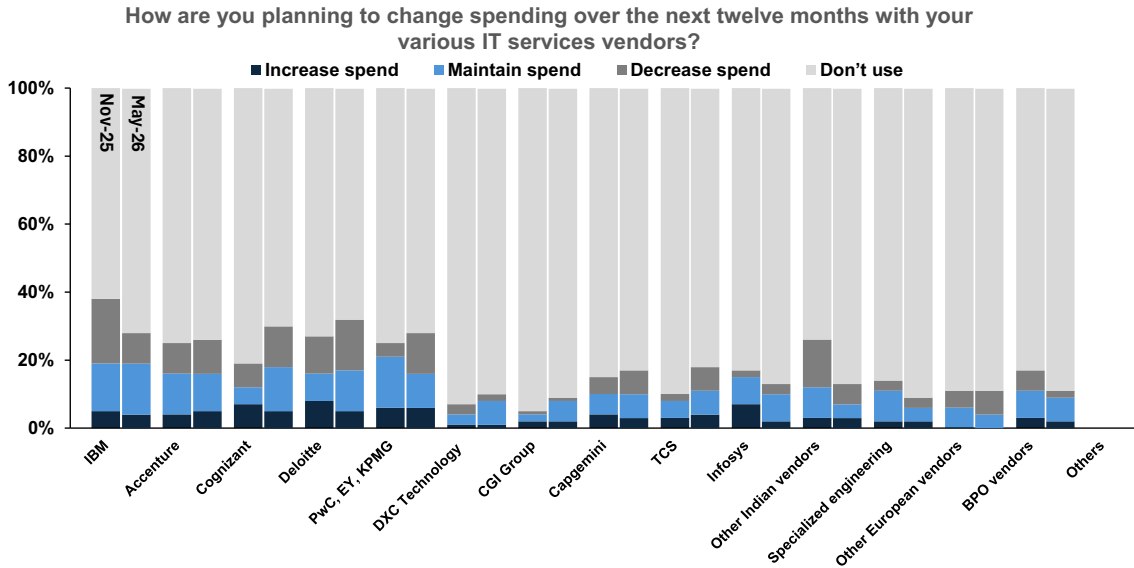
Vendor rankings: Expect increased movement among vendors in a more constrained environment

We asked respondents how they plan to change their spending (increase, decrease or maintain) with various IT Services vendors over the next 12 months. Compared to Nov 2025, we noted a greater share of respondents are now maintaining spend across vendors relative to those who are decreasing or increasing spend. We believe this points to ongoing macro-driven headwinds in client spending behavior with muted expectations of an immediate spending recovery in the near term.

As clients continue to balance external vendor spending with constrained budgets and an increased focus on AI investment, we have seen clients continue to wind down spending intentions with large vendors since Nov 2025. In our most recent survey, IBM saw 4% of respondents intending to increase spend (vs. 5% prior), 15% maintain spend (vs. 14% prior), and 9% decrease spend (vs. 19% prior). Accenture saw 5% intending to increase spend (vs. 4% prior), 11% maintain spend (vs. 12% prior), and 10% decrease spend (vs. 9% prior). Meanwhile, Cognizant saw 5% intending to increase spend (vs. 7% prior), 13% maintain spend (vs. 5% prior), and 12% decrease spend (vs. 7% prior).

Exhibit 16: How are you planning to change spending over the next twelve months with your various IT services vendors? Select all that apply.

November 2025 vs. May 2026



Source: Goldman Sachs Global Investment Research

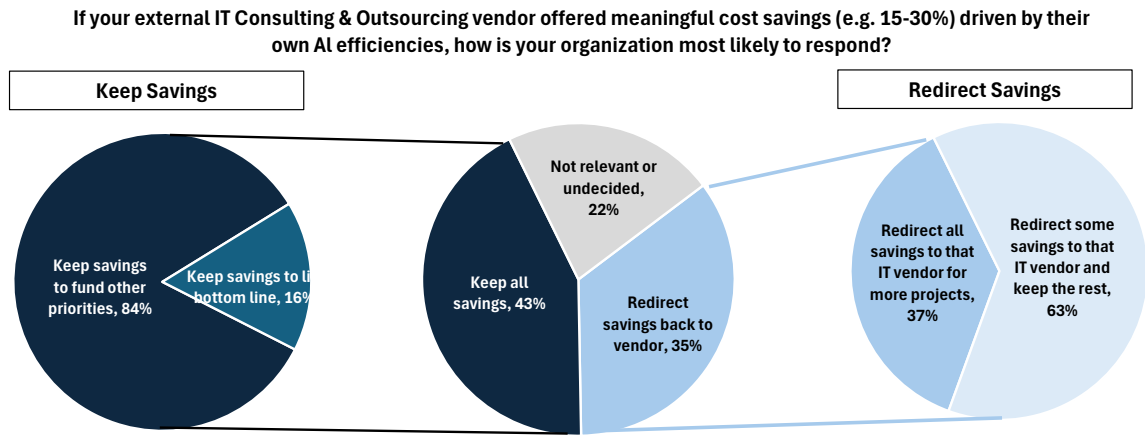
AI: Clients still prefer to keep AI-driven savings, but a growing share are choosing to reinvest with IT vendors

To understand how AI may be driving client cost savings and potentially reshaping IT Services revenue models, we asked respondents how they would most likely react to substantial cost savings (e.g. 15% - 30%) offered by IT Services vendors due to the vendors’ own AI-led efficiencies. ([Exhibit 17](#)).

Overall, 43% of respondents plan to keep all the savings (down from 48% prior), 35% of respondents plan to redirect all or some of the savings back to the external vendor (up from 30% prior), and 22% are undecided as vendor savings are still unclear (same as 22% prior). Of the 43% who plan to keep all savings, the majority or 84% intend to use the savings to fund other priorities such as AI infrastructure (up from 73% prior), and the remaining 16% intend to use the savings to increase their bottom line (down from 27% prior). Of the 35% who plan to redirect all or some savings back to the vendor, 63% intend to redirect a portion of the savings back to the vendor while keeping the rest (up from 53% prior), and 37% intend to redirect all the savings back to the vendor to perform additional projects (down from 47% prior).

Exhibit 17: If your external IT Consulting & Outsourcing vendor offered meaningful cost savings driven by their own AI efficiencies, how is your organization most likely to respond?

May 2026



Source: Goldman Sachs Global Investment Research

Subsector focus: Software

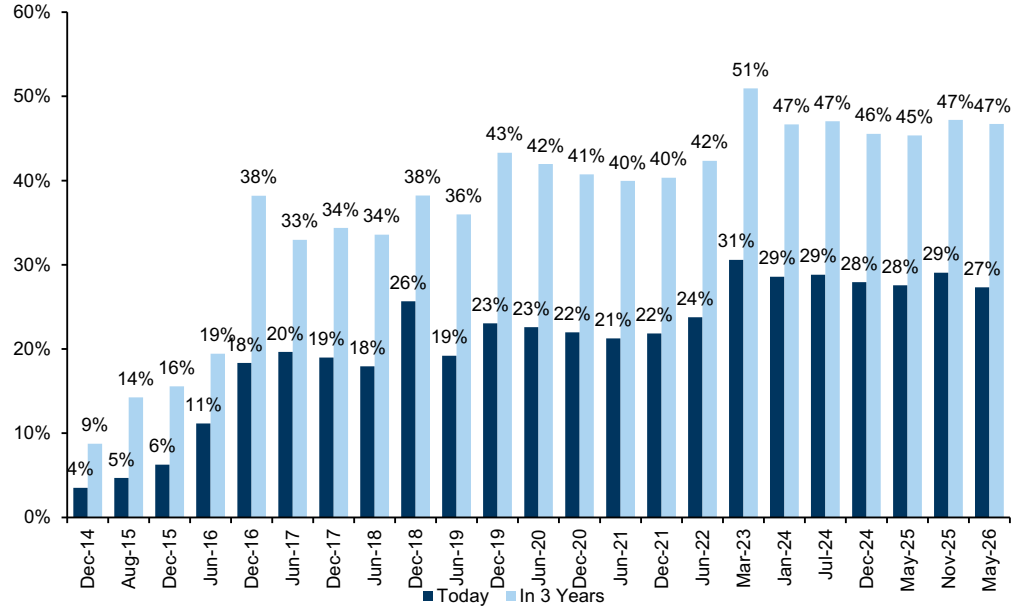
Where are enterprises in the cloud migration cycle today, and how much incremental migration could be realized as AI adoption scales?

Cloud adoption survey datapoints have been relatively steady over the last 3 years.

Respondents have consistently estimated that about 30% of their workloads are currently in the cloud (27% in our most recent survey, down from 29% in November), and that 45-50% of their workloads will be in the cloud in 3 years. Interestingly, there has been minimal progress toward this 45%+ target over the last 3 years, likely as GenAI has introduced new dynamics into the on premise vs. cloud equation.

Exhibit 18: Cloud workload penetration remains elevated, with AI poised to further catalyze cloud migration activity

Question: What percent of your applications have you moved to public cloud platforms today and what do you expect in 3 years from now (e.g., Amazon AWS, Microsoft Azure, Google Cloud Platform, Oracle OCI, etc.)?



Source: Goldman Sachs Global Investment Research

How is GenAI impacting budgets?

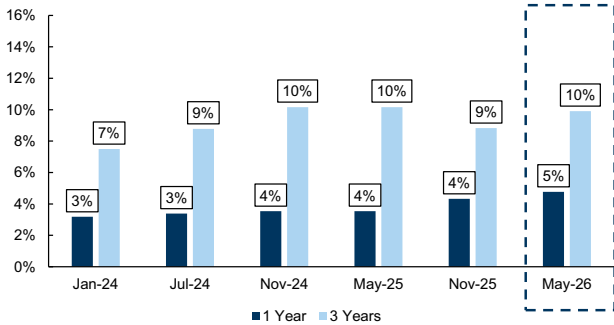
GenAI budget allocation continues to trend higher. Since introducing GenAI-specific questions in January 2024, we have observed a steady increase in IT budget allocation, with 5% (vs. 4% prior) of budgets expected to be allocated over the next year and 10% (vs. 9% prior) over a three-year horizon. This largely aligns with the respondents also indicating that AI inference costs today represent ~1-5% of their overall IT budgets. 88% of CIOs (vs. 93% prior) expect GenAI to account for <10% of IT budgets in the next 12 months, while 12% (vs. 7%) expect to allocate >10% to GenAI. Over a three-year horizon, 42% (vs. 35%) anticipate GenAI to exceed 10% of IT budgets. As enterprises shift from experimentation to production, alongside rising inference costs driven by increasing GenAI adoption and usage, we expect GenAI’s share of IT budgets to continue expanding.

Expectations for GenAI’s share of cloud workloads appears more uneven. CIOs expect GenAI to represent 6% of cloud workloads in the next year, consistent with the prior survey, and 15% over a three-year horizon (vs. 16% prior). We believe hybrid configurations are being actively debated, as AI initiatives move into production and enterprises increasingly evaluate running certain workloads on-prem or in localized environments where TCO dynamics may be more favorable. That said, cloud workloads related to GenAI are still expected to grow ~2.5x, reinforcing GenAI as a meaningful, albeit evolving, driver of incremental cloud demand. We remain constructive on public cloud demand, driven by ongoing digital transformation and application modernization, with AI acting as an incremental catalyst to migration. For example, cloud-native data platforms like Snowflake are seeing acceleration in the core platform, as AI-native development tools lower the friction of migrating from legacy systems. As AI workloads

shift from experimentation into production, we see scope for continued uptick in public cloud migration activity.

Exhibit 19: GenAI budget allocation expectations continue to rise, with spending expected to ~2x over the next 3 years

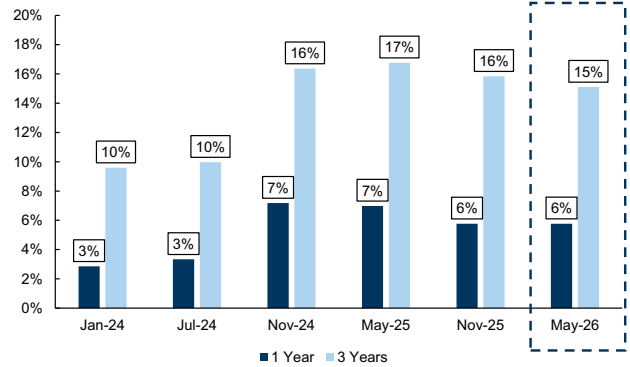
Question: What percent of IT budgets could be allocated to GenAI in the next 1 year? 3 years?



Source: Goldman Sachs Global Investment Research

Exhibit 20: While expectations for GenAI cloud workloads have tempered since end of 2024, it is still poised to grow >2.5x in 3 years

Question: What percent of your cloud workloads do you expect to be GenAI in 1 year? 3 years?



Source: Goldman Sachs Global Investment Research

Against supply-constrained backdrop, how is cloud vendor share evolving?

In each survey, we ask CIOs about their vendor choices for cloud, specifically for IaaS (Infrastructure-as-a-Service) deployments. **Broadly, the market continues to consolidate around major Hyperscalers, with Microsoft Azure and AWS capturing a significant and growing share.** In our latest survey, 76% of respondents indicating utilizing Microsoft (46%) and Amazon (30%) for their IaaS needs, in line with the prior survey (77%). This trend is similarly reflected in the three-year expectations, with Microsoft continuing to be the most cited public cloud vendors that CIOs expect to use and maintaining a lead over AWS.

While investors have shared concerns that Microsoft could be losing share in cloud given the pace of acceleration and large contract commitments observed across other hyperscalers such as GCP and Oracle, we remain constructive on Microsoft’s build-out strategy and the specific contracts that it has chosen to take on. Given that many contracts with frontier model developers are multi year in nature and carry demand uncertainty over extended time horizons, Microsoft mitigates risk by prioritizing fleet-level fungibility. This approach allows the same infrastructure to support not only external customer workloads but also demand across Microsoft’s ecosystem, including M365, GitHub, Dynamics, and Bing. This flexibility enables Azure to absorb customer demand variability while preserving utilization, and capital commitments are made selectively to workloads and contracts that align with Microsoft’s long-term strategy and economic interests.

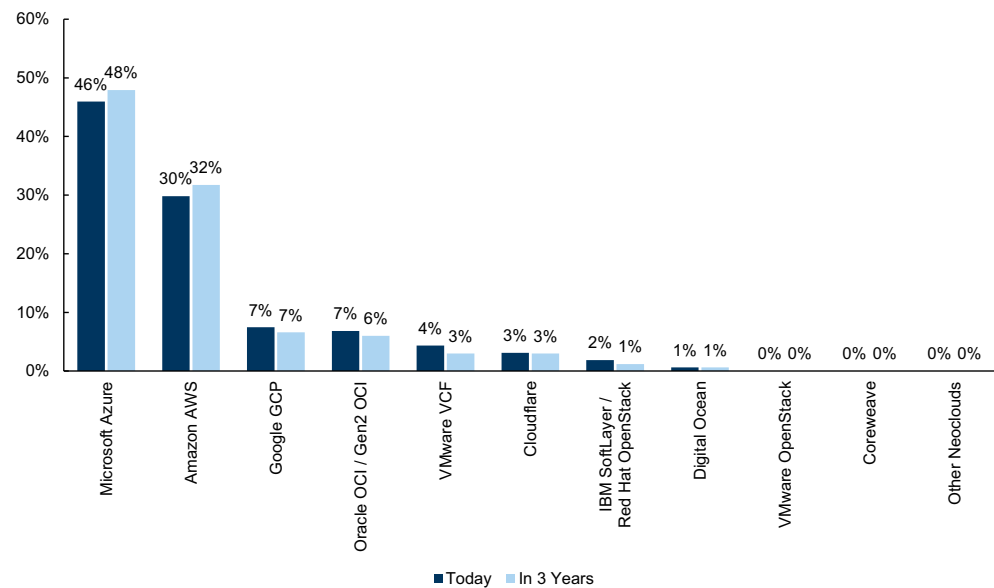
In this survey, we modified the responses to also include neoclouds, reflecting their growing role in AI-driven compute demand. While the market remains subscale relative to hyperscalers (we estimate <5% of the total compute market) and highly fragmented across a broad set of providers (SemiAnalysis identifies 120+ emerging neocloud players), recent demand for GPU capacity and purpose-built AI infrastructure continues to support incremental share gains for these players. Within neoclouds, larger-scale providers such as CoreWeave, Lambda, and Crusoe, are focused on high-density

workloads and rapid capacity deployment, and more specialized platforms, including DigitalOcean and Cloudflare, are targeting inference, edge compute, and developer-centric use cases.

Our CIO survey suggests these neoclouds rank low in enterprise IT spending today, consistent with our view that neocloud demand is being driven primarily by AI-native companies, while enterprises are more anchored to established hyperscaler relationships. As enterprise AI adoption moves from experimentation toward production, this dynamic could begin to shift at the margin, particularly for specific workloads where neoclouds offer advantages. Taken together, we view neoclouds as an increasingly relevant component of the cloud ecosystem.

Exhibit 21: Azure and AWS's strength over other vendors continues

Question: Public and Private Cloud - Which vendor(s) are you using today and add which vendor will you use 3 years from now?



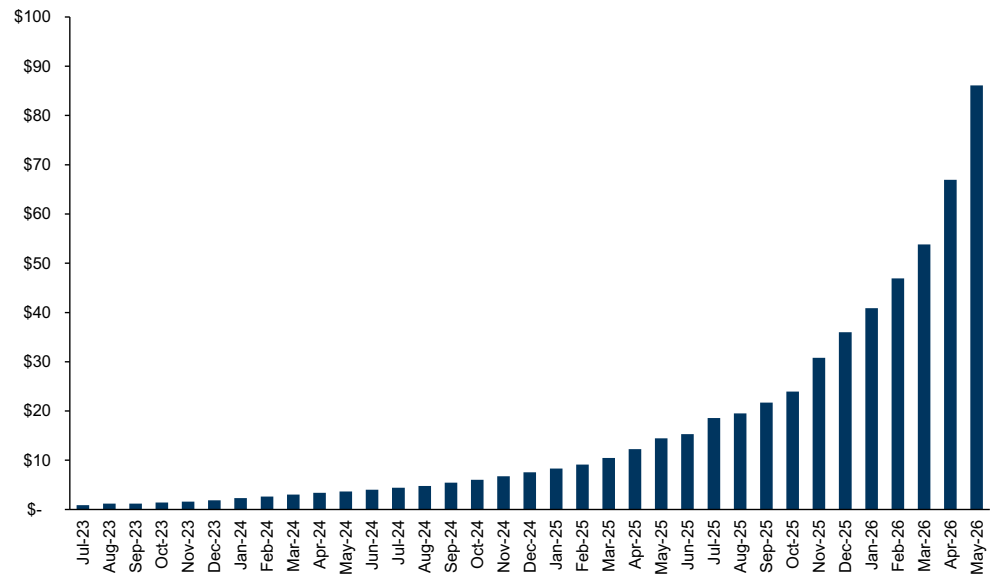
Source: Goldman Sachs Global Investment Research

How material are AI inference costs, and where is the budget coming from?

With AI-native companies, including frontier labs, reaching >80B in ARR over the past ~36 months, investors have become increasingly focused on the sources of incremental budget — and specifically whether this new ARR is being funded through budget expansion, or reallocated from existing software and efficiency programs. We introduced a new survey question on this topic.

Exhibit 22: Aggregate annualized revenue of the 34 most mature AI startups have surpassed >\$80B

\$ in billions

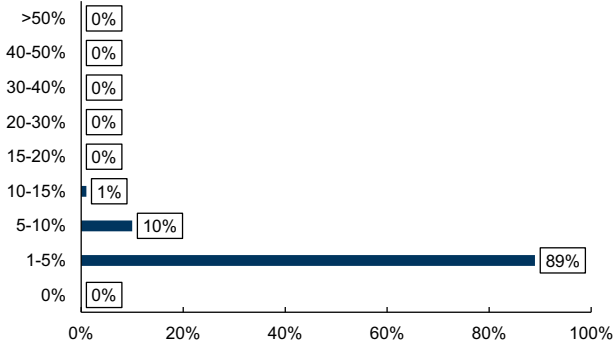


Source: The Information, Data compiled by Goldman Sachs Global Investment Research

Our results suggest that inference costs are modest in percentage terms today, with 89% of respondents indicating that AI inference represents ~1–5% of total IT budgets. The funding mix skews about 2/3 toward reallocation and 1/3 toward pure incremental spend. By category of reallocation, 18% cited ongoing cost efficiency programs, 18% cited app software, and 11% cited labor budget. Simplistically, consider a \$600bn app software TAM, with vendors typically realizing a 3% pricing increase on apples to apples annual contract renewals. In the event that customers push back on standard pricing increases (e.g. with the counter of considering building in house or a reduced head count) such that their contracts are now flat for the same functionality, this 3% would fund \$18bn of the \$88bn in AI native ARR (~20%). If customers are successful in negotiating a 3% price cut, the delta would now fund ~40% of AI native ARR.

Exhibit 23: For majority of respondents, ~1-5% of the overall IT budget is allocated to AI inference costs

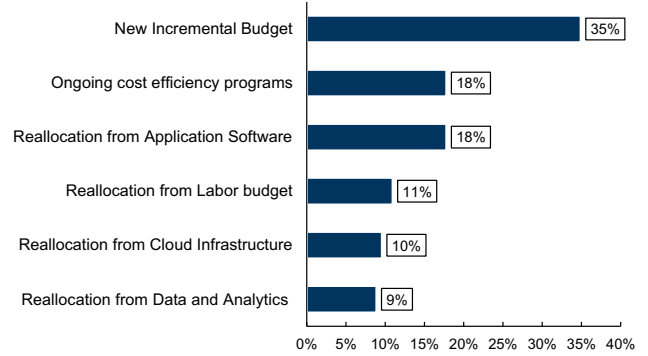
Question: Approximately what percentage of your total IT budget is allocated to AI inference costs today?



Source: Goldman Sachs Global Investment Research

Exhibit 24: Beyond new incremental budget, enterprises are funding AI inference costs mainly through efficiency gains and reallocation from application software spend

Question: How are AI inference costs primarily funded within your IT budget?



Source: Goldman Sachs Global Investment Research

As AI adoption scales, how is the “build vs. buy” calculus changing, and is the current shift structural or temporary?

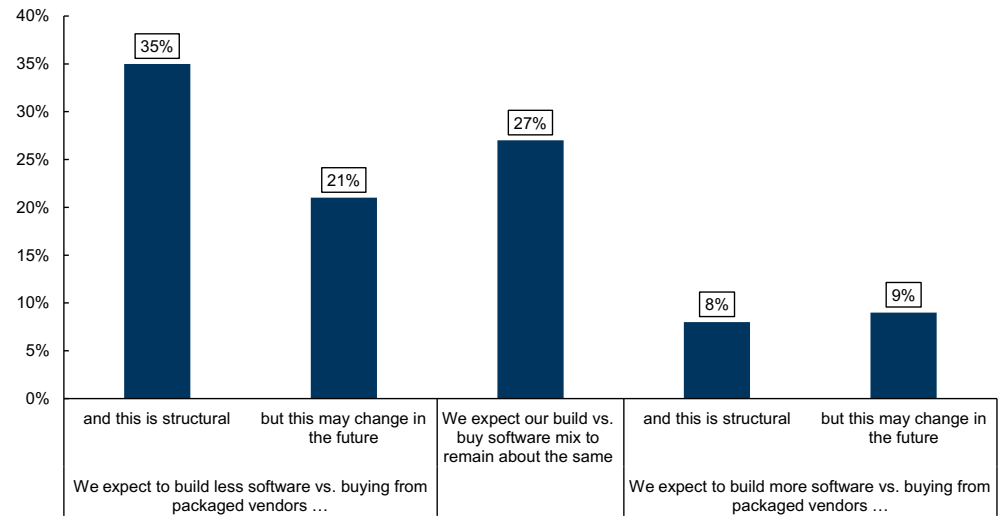
As the cost of code declines, investors have increasingly questioned whether the build vs. buy calculus is shifting toward in-house development. The concern is that enterprises may opt to build custom applications tailored to their specific workflows, data, and use cases, rather than rely on packaged software. In this scenario, value would increasingly accrue to infrastructure platforms (e.g., Databricks, Snowflake), model providers, and select application-layer platforms such as Palantir. We introduced a new survey question on this topic.

Responses suggest limited evidence of a broad-based move toward building. Only 17% of respondents indicated they expect to build more software relative to buying from packaged vendors, and just 8% view this as a structural shift. By contrast, 56% expect to continue building less and buying more, with 35% characterizing this as a structural preference.

In our view, these results suggest enterprise preference remains skewed toward packaged software, even as AI lowers barriers to development. This stands in contrast to prevailing investor concerns and reinforces our view that enterprises continue to favor vendor-led solutions for AI experimentation and deployment.

Exhibit 25: Contrary to investor concerns, most respondents continue to favor buying packaged software over building in-house

Question: Please select the statement that best approximates your build vs. buy strategy

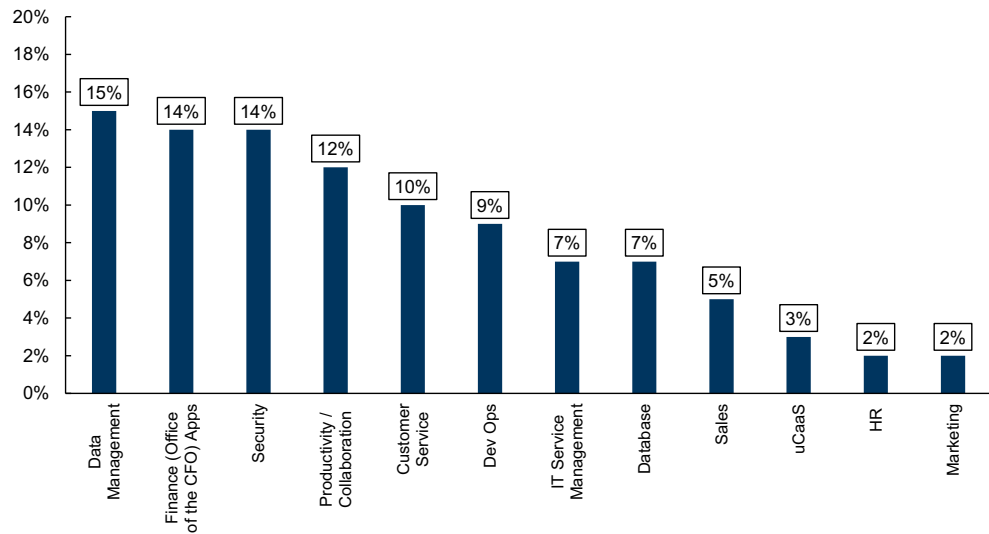


Source: Goldman Sachs Global Investment Research

Where are enterprises prioritizing AI-related investments across various business functions?

Enterprises near-term AI investment priorities are concentrated in foundational and control-oriented layers of the technology stack, with data management (15%), finance / office productivity (14%), and security (14%) emerging as the leading areas of focus. This skew reflects a pragmatic approach to AI adoption, where organizations are first investing in data infrastructure and governance to ensure quality, accessibility, and compliance, while also targeting finance functions for measurable efficiency gains and automation. **Secondary priorities extend to productivity and collaboration (12%), customer service (10%), and developer operations (9%),** highlighting gradual expansion into workflow-level use cases. At the same time, elevated prioritization of security underscores increasing awareness of risks associated with broader AI deployment, including data leakage, access control, and model governance. Together, these trends suggest that enterprises are focusing initial AI spend on enabling infrastructure and high-ROI use cases, with broader functional adoption likely to scale over time as foundational capabilities mature.

Exhibit 26: AI investment priorities led by data management, finance, and security
 Question: Which categories are you prioritizing as it relates to your NTM efforts to adopt AI?



Source: Goldman Sachs Global Investment Research

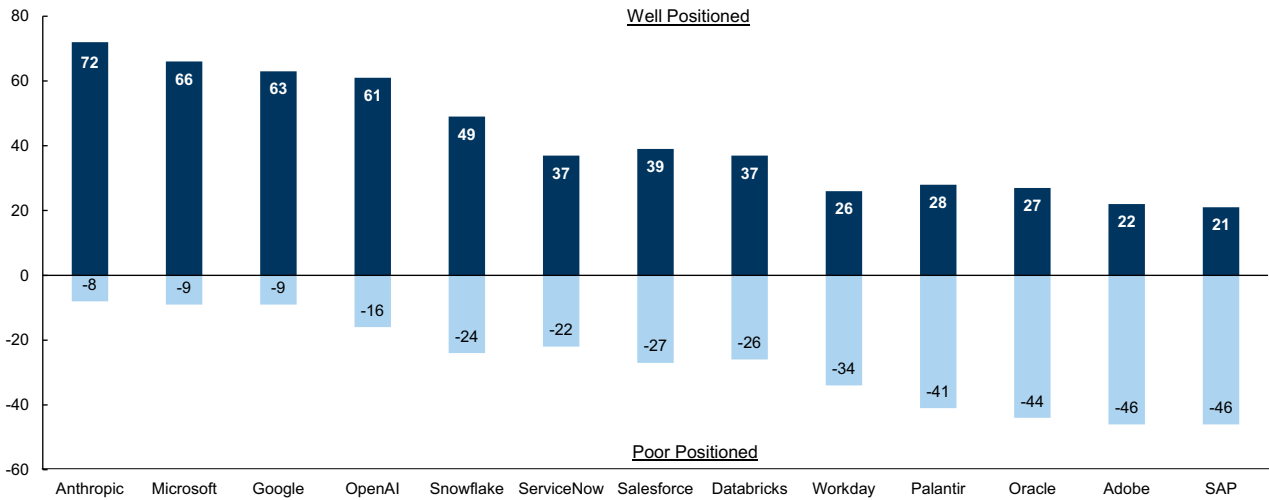
Which vendors are best positioned to capture enterprise AI wallet share?

Enterprise perceptions of the vendor landscape indicate AI wallet share capture will be heavily skewed toward leading hyperscalers and frontier model providers. Survey responses point to a narrow set of vendors expected to capture disproportionate wallet share, led by Anthropic (72), Microsoft (66), Google (63), and OpenAI (61), all with relatively limited negative sentiment (high single digits to mid-teens). Google’s positioning stands out as incrementally stronger than expected, which may be a positive early signal for the momentum Gemini could garner in enterprise environments. Our industry conversations also suggest that Gemini Enterprise is making progress at becoming a de facto knowledge worker search interface (Google’s experience with intuitive consumer-facing UI is now extending into the enterprise and being complemented by the raw power of Gemini).

Incumbent application and data platform vendors screen as second-tier beneficiaries. Snowflake (49), Salesforce (39), ServiceNow (37), and Databricks (37) lag the leaders, while a broader long tail including Workday (26), Palantir (28), Oracle (27), Adobe (22), and SAP (21) shows weaker positive positioning and meaningfully higher negative sentiment (generally ~30 to 45). The Snowflake, Databricks and Palantir results are particularly surprising to us. The dispersion underlines a potential shift toward full stack platforms. The data reinforces our prior “Revisiting Moats” work, where we see share accruing to vendors that orchestrate across models, data, and workflows whilst having a clear architectural moat for AI that extends beyond the application layer.

Exhibit 27: Anthropic, Microsoft, Google, and OpenAI are viewed as best positioned in capturing enterprise AI wallet share

Question: Which of the following vendors do you think are in aggregate well positioned / poor positioned to capture wallet share of enterprise AI applications?



Source: Goldman Sachs Global Investment Research

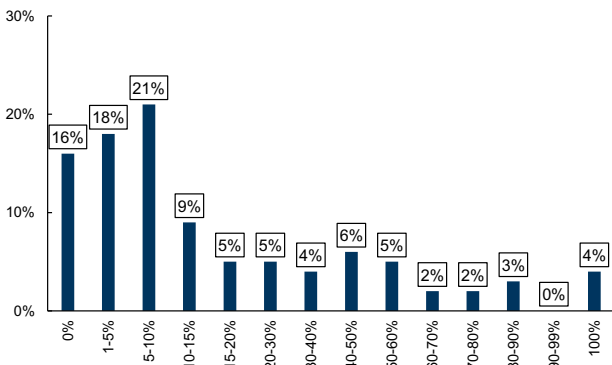
What is the current level of Copilot seat penetration, how is usage trending? How big of a product cycle will E7 be?

Copilot adoption across the enterprise installed base is in the early stages, with seat penetration limited across most enterprises. Most respondents noted that $\leq 10\%$ of their employee base has access to Copilot. 36% indicating that their Copilot experience is getting better while 50% noted that it is in line with their expectations. This dynamic is consistent with broader Microsoft datapoints, where Copilot seat growth is accelerating (~20mn seats, ~4% of the M365 Commercial installed base), and qualitative feedback across the installed base is showing improvement. That said, we believe many of the technical improvements Microsoft has made are being received by a relatively skeptical installed base given many customers have trialed a less mature product over the course of 2025. We see potential for the release of new Copilot advancements and the launch of E7, coupled with training and enablement campaigns, to reset the bar on Copilot performance.

E7 upgrade intentions suggest a more gradual adoption curve, consistent with our view that this will be a multi-year upgrade cycle. ~11% of respondents are planning to adopt E7 within the next 12 months while a larger portion (25%) indicated intention to adopt over a longer-term horizon. Recall, reacceleration in M365 is expected to take time given the scale of the installed base and elongated sales cycles, implying that broader penetration across the installed base is likely to follow a phased, multi-year trajectory rather than a near-term inflection. We view the E3 to E5 upgrade cycle as a relevant precedent that drove multi-year mix shift and pricing tailwinds for M365. Even with elongated sales cycles and mixed Copilot feedback, E7 adoption is likely to be faster than E5 given AI as a catalyst. We see the core E7 upsell opportunity within the existing E5 installed base, while E7 could also catalyze incremental E5 adoption among E3 customers that require a stronger governance foundation to deploy agents at scale.

Exhibit 28:

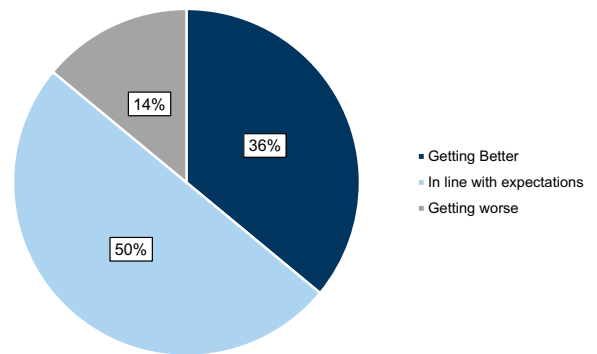
Question: Today, what percentage of your employee base has access to Copilot?



Source: Goldman Sachs Global Investment Research

Exhibit 29:

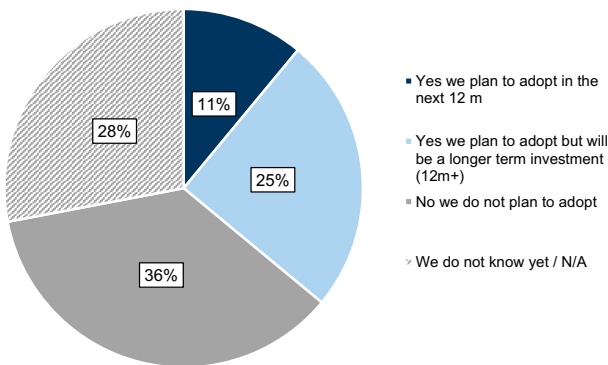
Question: If your organization uses Copilot, please indicate your experience?



Source: Goldman Sachs Global Investment Research

Exhibit 30:

Question: If your organization uses Copilot, please indicate your E7 plans?



Source: Goldman Sachs Global Investment Research

Subsector focus: Security Software

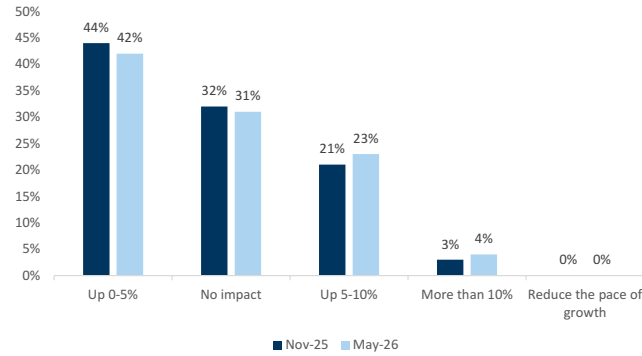
Is GenAI acting as an incremental driver of security spend? 3% for now, but more to come

69% of respondents expecting higher spend (vs. 67% in our December report). 23% of respondents expect a 5-10% uplift to security budgets tied to AI projects (vs. 21% in November). The weighted midpoint suggests an 3.28% uplift to budget, from 3.05% prior. It is much clearer to us today why we have not yet seen a meaningful AI tailwind to public security companies. We spoke to many security practitioners in 1H June who told us that agentic implementations are still largely running in sandboxes, or isolated environments that are temporarily spun up and down. We also believe part of the disconnect between broader agentic AI adoption data and limited traction for security vendors is that some of this activity is happening on unmanaged and/or personal devices, where enterprise security vendors have less visibility today. Over the next 12 months, we expect tech risk processes to mature and allow more agents into real

enterprise environments, at which point agentic runtime security, data protection, and identity should see more material product cycles from a small base.

Exhibit 31: GenAI is incrementally expanding security budgets, with 23% of respondents expecting a 5-10% uplift to security spend tied to AI adoption

How is Generative AI impacting your security budget in the next 12 months?



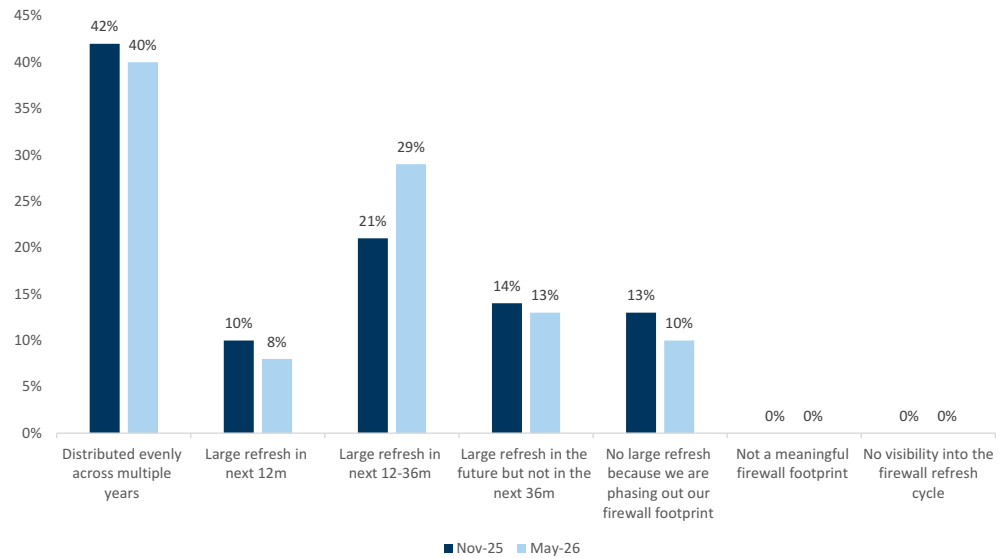
Source: Goldman Sachs Global Investment Research

What does firewall demand indicate about hardware cycles?

Firewall demand appears uneven, with 8% expecting a large refresh in 12 months (down from 10%) but 29% expecting a large refresh in 12-36m (up from 21%). Responses continue to point to more gradual replacement cycles with 40% expecting refresh cycles to be spread over multiple years vs. historical expectations of lumpier hardware refresh. The biggest question in our view is to what extent AI inference traffic can drive an uptick in network security spend, but we suspect that we may need more agentic use cases to move into production before we see a measurable impact in network security budgets.

Exhibit 32: Firewall demand appears healthy, with 29% of respondents expecting a large refresh in the next 12-36 months

% of CIO respondents on NTM incremental Firewall refresh visibility



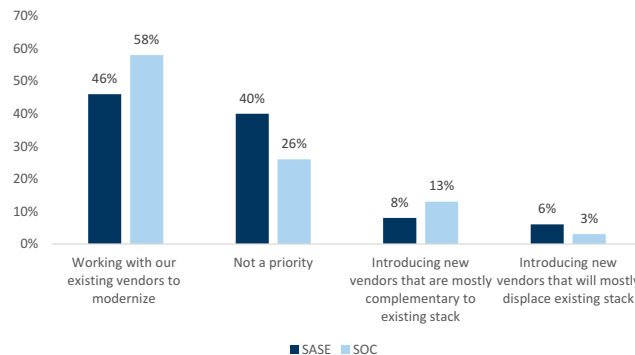
Source: Goldman Sachs Global Investment Research

How are enterprises executing SASE and SOC transformations?

Survey data indicates sustained transformation activity, with 40% of enterprises pursuing SASE and SOC initiatives, largely consistent with prior expectations of ongoing modernization. Both categories also skew toward incumbent vendor consolidation, with 46% of respondents working with existing SASE vendors to modernize and 53% working with existing SOC vendors to modernize. SOC transformations show relatively greater propensity to use new vendors, which we view as consistent with the category’s relative immaturity.

Exhibit 33: SASE and SOC transformation activity remains healthy, with consolidation favoring incumbents

Where is your company with respect to Security Operations Center transformation & SASE implementation?



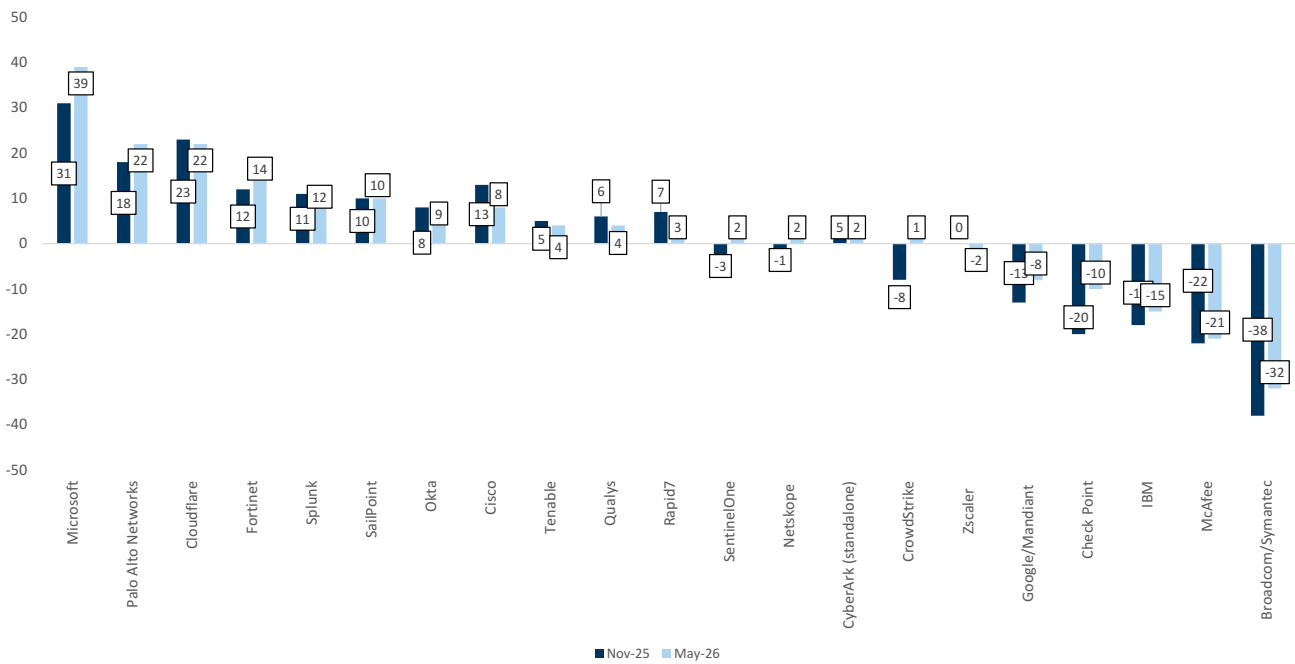
Source: Goldman Sachs Global Investment Research

By vendor: Microsoft, Cloudflare, and Palo Alto Networks best positioned to

capture incremental spend. This is consistent with our prior “Revisiting Moats” ([link](#)), where we highlighted that share accrues to vendors with platform breadth, integrated architectures, and policy standardization capabilities, while point solutions and legacy vendors face ongoing pressure. From Nov-25 to May-26, Check Point shows the most notable improvement in spending expectations, followed by CrowdStrike, while Cisco sees the most deterioration. Broadcom/Symantec, McAfee and Check Point ranked lowest.

Exhibit 34: Platform vendors remain best positioned to capture incremental security wallet share, reinforcing consolidation dynamics

Please select the 3 vendors that are likely to grow and decline the most within your security budget in the next 3 years



Source: Goldman Sachs Global Investment Research

Respondent Overview

This is the 99th issue of our IT Spending Survey series, which was conducted in May 2026. Our survey panel comprises a controlled group of 100 IT executives from Global 2000 companies. The current survey results reflect the following:

Exhibit 35: Respondent Demographics

| Revenue Breakdown (\$USD) | | Industry Breakdown | |
|---------------------------|-----|----------------------------|-----|
| \$0 - \$250M | 0% | Financial services | 12% |
| \$251M - \$500M | 4% | Communications | 4% |
| \$501M - \$1B | 36% | Manufacturing | 15% |
| \$1B - \$10B | 40% | Government | 0% |
| >\$10B | 20% | Business services | 9% |
| | | Technology | 15% |
| | | Retail | 13% |
| | | Healthcare | 8% |
| | | Transportation | 0% |
| | | Utilities | 1% |
| | | Education | 4% |
| | | Wholesale/Distribution | 8% |
| | | Energy | 8% |
| | | Engineering & Construction | 0% |
| | | Logistics | 1% |
| | | Defense | 0% |
| | | Media | 0% |
| | | Pharmaceuticals | 2% |

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Gabriela Borges, CFA, Michael Ng, CFA, James Schneider, Ph.D., Eric Sheridan, Katherine Murphy, Selina Zhang, Max Gamperl, Luya You, Zorayda Montemayor, Maura Hager and Praachi Arora, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

Contributing Authors: Gabriela Borges, CFA Goldman Sachs & Co. LLC, Michael Ng, CFA Goldman Sachs & Co. LLC, James Schneider, Ph.D. Goldman Sachs & Co. LLC, Eric Sheridan Goldman Sachs & Co. LLC, Katherine Murphy Goldman Sachs & Co. LLC, Selina Zhang Goldman Sachs & Co. LLC, Max Gamperl Goldman Sachs & Co. LLC, Luya You Goldman Sachs & Co. LLC, Zorayda Montemayor Goldman Sachs & Co. LLC, Maura Hager Goldman Sachs & Co. LLC, Praachi Arora Goldman Sachs India SPL.

Unless otherwise stated, the individuals listed in the Contributing Authors disclosure of this report are analysts in Goldman Sachs' Global Investment Research division.

GS Factor Profile

The Goldman Sachs Factor Profile provides investment context for a stock by comparing key attributes to the market (i.e. our universe of rated stocks) and its sector peers. The four key attributes depicted are: Growth, Financial Returns, Multiple (e.g. valuation) and Integrated (a composite of Growth, Financial Returns and Multiple). Growth, Financial Returns and Multiple are calculated by using normalized ranks for specific metrics for each stock. The normalized ranks for the metrics are then averaged and converted into percentiles for the relevant attribute. The precise calculation of each metric may vary depending on the fiscal year, industry and region, but the standard approach is as follows:

Growth is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

For a more detailed description of how we calculate the GS Factor Profile, please contact your GS representative.

M&A Rank

Across our global coverage, we examine stocks using an M&A framework, considering both qualitative factors and quantitative factors (which may vary across sectors and regions) to incorporate the potential that certain companies could be acquired. We then assign a M&A rank as a means of scoring companies under our rated coverage from 1 to 3, with 1 representing high (30%-50%) probability of the company becoming an acquisition target, 2 representing medium (15%-30%) probability and 3 representing low (0%-15%) probability. For companies ranked 1 or 2, in line with our standard departmental guidelines we incorporate an M&A component into our target price. M&A rank of 3 is considered immaterial and therefore does not factor into our price target, and may or may not be discussed in research.

Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

Disclosures

Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global Equity coverage universe

| | Rating Distribution | | | Investment Banking Relationships | | |
|--------|---------------------|------|------|----------------------------------|------|------|
| | Buy | Hold | Sell | Buy | Hold | Sell |
| Global | 50% | 34% | 16% | 65% | 60% | 45% |

As of April 1, 2026, Goldman Sachs Global Investment Research had investment ratings on 3,074 equity securities. Goldman Sachs assigns stocks as Buys and Sells on various regional Investment Lists; stocks not so assigned are deemed Neutral. Such assignments equate to Buy, Hold and Sell for the purposes of the above disclosure required by the FINRA Rules. See 'Ratings, Coverage universe and related definitions' below. The Investment Banking Relationships chart reflects the percentage of subject companies within each rating category for whom Goldman Sachs has provided investment banking services within the previous twelve months.

Regulatory disclosures

Disclosures required by United States laws and regulations

See company-specific regulatory disclosures above for any of the following disclosures required as to companies referred to in this report: manager or co-manager in a pending transaction; 1% or other ownership; compensation for certain services; types of client relationships; managed/co-managed public offerings in prior periods; directorships; for equity securities, market making and/or specialist role. Goldman Sachs trades or may trade as a principal in debt securities (or in related derivatives) of issuers discussed in this report.

The following are additional required disclosures: **Ownership and material conflicts of interest:** Goldman Sachs policy prohibits its analysts, professionals reporting to analysts and members of their households from owning securities of any company in the analyst's area of coverage. **Analyst compensation:** Analysts are paid in part based on the profitability of Goldman Sachs, which includes investment banking revenues. **Analyst as officer or director:** Goldman Sachs policy generally prohibits its analysts, persons reporting to analysts or members of their households from serving as an officer, director or advisor of any company in the analyst's area of coverage. **Non-U.S. Analysts:** Non-U.S. analysts may not be associated persons of

Goldman Sachs & Co. LLC and therefore may not be subject to FINRA Rule 2241 or FINRA Rule 2242 restrictions on communications with a subject company, public appearances and trading in securities covered by the analysts.

Distribution of ratings: See the distribution of ratings disclosure above. **Price chart:** See the price chart, with changes of ratings and price targets in prior periods, above, or, if electronic format or if with respect to multiple companies which are the subject of this report, on the Goldman Sachs website at <https://www.gs.com/research/hedge.html>.

Additional disclosures required under the laws and regulations of jurisdictions other than the United States

The following disclosures are those required by the jurisdiction indicated, except to the extent already made above pursuant to United States laws and regulations. **Australia:** Goldman Sachs Australia Pty Ltd and its affiliates are not authorised deposit-taking institutions (as that term is defined in the Banking Act 1959 (Cth)) in Australia and do not provide banking services, nor carry on a banking business, in Australia. This research, and any access to it, is intended only for “wholesale clients” within the meaning of the Australian Corporations Act, unless otherwise agreed by Goldman Sachs. In producing research reports, members of Global Investment Research of Goldman Sachs Australia may attend site visits and other meetings hosted by the companies and other entities which are the subject of its research reports. In some instances the costs of such site visits or meetings may be met in part or in whole by the issuers concerned if Goldman Sachs Australia considers it is appropriate and reasonable in the specific circumstances relating to the site visit or meeting. To the extent that the contents of this document contains any financial product advice, it is general advice only and has been prepared by Goldman Sachs without taking into account a client’s objectives, financial situation or needs. A client should, before acting on any such advice, consider the appropriateness of the advice having regard to the client’s own objectives, financial situation and needs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests and a copy of Goldman Sachs’ Australian Sell-Side Research Independence Policy Statement are available at: <https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html>. **Brazil:** Disclosure information in relation to CVM Resolution n. 20 is available at <https://www.gs.com/worldwide/brazil/area/gir/index.html>. Where applicable, the Brazil-registered analyst primarily responsible for the content of this research report, as defined in Article 20 of CVM Resolution n. 20, is the first author named at the beginning of this report, unless indicated otherwise at the end of the text. **Canada:** This information is being provided to you for information purposes only and is not, and under no circumstances should be construed as, an advertisement, offering or solicitation by Goldman Sachs & Co. LLC for purchasers of securities in Canada to trade in any Canadian security. Goldman Sachs & Co. LLC is not registered as a dealer in any jurisdiction in Canada under applicable Canadian securities laws and generally is not permitted to trade in Canadian securities and may be prohibited from selling certain securities and products in certain jurisdictions in Canada. If you wish to trade in any Canadian securities or other products in Canada please contact Goldman Sachs Canada Inc., an affiliate of The Goldman Sachs Group Inc., or another registered Canadian dealer. **Hong Kong:** Further information on the securities of covered companies referred to in this research may be obtained on request from Goldman Sachs (Asia) L.L.C. **India:** Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (India) Securities Private Limited, Research Analyst – SEBI Registration Number INH000001493, 10th Floor, Ascent-Worli, Sudam Kalu Ahire Marg, Worli, Mumbai-400 025, India, Corporate Identity Number U74140MH2006FTC160634, Phone +91 22 6616 9000, Fax +91 22 6616 9001. Goldman Sachs may beneficially own 1% or more of the securities (as such term is defined in clause 2 (h) the Indian Securities Contracts (Regulation) Act, 1956) of the subject company or companies referred to in this research report. Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Goldman Sachs (India) Securities Private Limited compliance officer and investor grievance contact details can be found at: <https://www.goldmansachs.com/worldwide/india/documents/Grievance-Redressal-and-Escalation-Matrix.pdf>, and a copy of the annual audit compliance report can be found at this link: <https://publishing.gs.com/content/site/india-annual-compliance-report.html>. **Japan:** See below. **Korea:** This research, and any access to it, is intended only for “professional investors” within the meaning of the Financial Services and Capital Markets Act, unless otherwise agreed by Goldman Sachs. Further information on the subject company or companies referred to in this research may be obtained from Goldman Sachs (Asia) L.L.C., Seoul Branch. **New Zealand:** Goldman Sachs New Zealand Limited and its affiliates are neither “registered banks” nor “deposit takers” (as defined in the Reserve Bank of New Zealand Act 1989) in New Zealand. This research, and any access to it, is intended for “wholesale clients” (as defined in the Financial Advisers Act 2008) unless otherwise agreed by Goldman Sachs. A copy of certain Goldman Sachs Australia and New Zealand disclosure of interests is available at: <https://www.goldmansachs.com/disclosures/australia-new-zealand/index.html>. **Russia:** Research reports distributed in the Russian Federation are not advertising as defined in the Russian legislation, but are information and analysis not having product promotion as their main purpose and do not provide appraisal within the meaning of the Russian legislation on appraisal activity. Research reports do not constitute a personalized investment recommendation as defined in Russian laws and regulations, are not addressed to a specific client, and are prepared without analyzing the financial circumstances, investment profiles or risk profiles of clients. Goldman Sachs assumes no responsibility for any investment decisions that may be taken by a client or any other person based on this research report. **Singapore:** Goldman Sachs (Singapore) Pte. (Company Number: 198602165W), which is regulated by the Monetary Authority of Singapore, accepts legal responsibility for this research, and should be contacted with respect to any matters arising from, or in connection with, this research. **Taiwan:** This material is for reference only and must not be reprinted without permission. Investors should carefully consider their own investment risk. Investment results are the responsibility of the individual investor. **United Kingdom:** Persons who would be categorized as retail clients in the United Kingdom, as such term is defined in the rules of the Financial Conduct Authority, should read this research in conjunction with prior Goldman Sachs research on the covered companies referred to herein and should refer to the risk warnings that have been sent to them by Goldman Sachs International. A copy of these risks warnings, and a glossary of certain financial terms used in this report, are available from Goldman Sachs International on request.

European Union and United Kingdom: Disclosure information in relation to Article 6 (2) of the European Commission Delegated Regulation (EU) (2016/958) supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council (including as that Delegated Regulation is implemented into United Kingdom domestic law and regulation following the United Kingdom’s departure from the European Union and the European Economic Area) with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest is available at <https://www.gs.com/disclosures/europeanpolicy.html> which states the European Policy for Managing Conflicts of Interest in Connection with Investment Research.

Japan: Goldman Sachs Japan Co., Ltd. is a Financial Instrument Dealer registered with the Kanto Financial Bureau under registration number Kinsho 69, and a member of Japan Securities Dealers Association, Financial Futures Association of Japan Type II Financial Instruments Firms Association, and Investment Management Association of Japan. Sales and purchase of equities are subject to commission pre-determined with clients plus consumption tax. See company-specific disclosures as to any applicable disclosures required by Japanese stock exchanges, the Japanese Securities Dealers Association or the Japanese Securities Finance Company.

Ratings, coverage universe and related definitions

Buy (B), Neutral (N), Sell (S) Analysts recommend stocks as Buys or Sells for inclusion on various regional Investment Lists. Being assigned a Buy or Sell on an Investment List is determined by a stock’s total return potential relative to its coverage universe. Any stock not assigned as a Buy or a Sell on an Investment List with an active rating (i.e., a stock that is not Rating Suspended, Not Rated, Early-Stage Biotech, Coverage Suspended or Not Covered), is deemed Neutral. Each region manages Regional Conviction Lists, which are selected from Buy rated stocks on the respective region’s Investment Lists and represent investment recommendations focused on the size of the total return potential and/or the likelihood of the realization of the return across their respective areas of coverage. The addition or removal of stocks from such Conviction Lists are managed by the Investment Review Committee or other designated committee in each respective region and do not represent a change in the analysts’ investment rating for such stocks.

Total return potential represents the upside or downside differential between the current share price and the price target, including all paid or anticipated dividends, expected during the time horizon associated with the price target. Price targets are required for all covered stocks. The total return potential, price target and associated time horizon are stated in each report adding or reiterating an Investment List membership.

Coverage Universe: A list of all stocks in each coverage universe is available by primary analyst, stock and coverage universe at <https://www.gs.com/research/hedge.html>.

Not Rated (NR). The investment rating, target price and earnings estimates (where relevant) are removed pursuant to Goldman Sachs policy when Goldman Sachs is acting in an advisory capacity in a merger or in a strategic transaction involving this company, when there are legal, regulatory or policy constraints due to Goldman Sachs' involvement in a transaction, and in certain other circumstances. **Early-Stage Biotech (ES).** An investment rating and a target price are not assigned pursuant to Goldman Sachs policy when this company has neither a drug, treatment or medical device that has passed a Phase II clinical trial nor a license to distribute a post-Phase II drug, treatment or medical device. **Rating Suspended (RS).** Goldman Sachs Research has suspended the investment rating and price target for this stock, because there is not a sufficient fundamental basis for determining an investment rating or target price. The previous investment rating and target price, if any, are no longer in effect for this stock and should not be relied upon. **Coverage Suspended (CS).** Goldman Sachs has suspended coverage of this company. **Not Covered (NC).** Goldman Sachs does not cover this company.

Global product; distributing entities

Goldman Sachs Global Investment Research produces and distributes research products for clients of Goldman Sachs on a global basis. Analysts based in Goldman Sachs offices around the world produce research on industries and companies, and research on macroeconomics, currencies, commodities and portfolio strategy. This research is disseminated in Australia by Goldman Sachs Australia Pty Ltd (ABN 21 006 797 897); in Brazil by Goldman Sachs do Brasil Corretora de Títulos e Valores Mobiliários S.A.; Public Communication Channel Goldman Sachs Brazil: 0800 727 5764 and / or contatogoldmanbrasil@gs.com. Available Weekdays (except holidays), from 9am to 6pm. Canal de Comunicação com o Público Goldman Sachs Brasil: 0800 727 5764 e/ou contatogoldmanbrasil@gs.com. Horário de funcionamento: segunda-feira à sexta-feira (exceto feriados), das 9h às 18h; in Canada by Goldman Sachs & Co. LLC; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in India by Goldman Sachs (India) Securities Private Ltd.; in Japan by Goldman Sachs Japan Co., Ltd.; in the Republic of Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in New Zealand by Goldman Sachs New Zealand Limited; in Russia by OOO Goldman Sachs; in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 198602165W); and in the United States of America by Goldman Sachs & Co. LLC. Goldman Sachs International has approved this research in connection with its distribution in the United Kingdom.

Goldman Sachs International ("GSI"), authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA, has approved this research in connection with its distribution in the United Kingdom.

European Economic Area: Goldman Sachs Bank Europe SE ("GSBE") is a credit institution incorporated in Germany and, within the Single Supervisory Mechanism, subject to direct prudential supervision by the European Central Bank and in other respects supervised by German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, BaFin) and Deutsche Bundesbank and disseminates research within the European Economic Area.

General disclosures

This research is for our clients only. Other than disclosures relating to Goldman Sachs, this research is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. The information, opinions, estimates and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Other than certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgment.

Goldman Sachs conducts a global full-service, integrated investment banking, investment management, and brokerage business. We have investment banking and other business relationships with a substantial percentage of the companies covered by Global Investment Research. Goldman Sachs & Co. LLC, the United States broker dealer, is a member of SIPC (<https://www.sipc.org>).

Our salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to our clients and principal trading desks that reflect opinions that are contrary to the opinions expressed in this research. Our asset management area, principal trading desks and investing businesses may make investment decisions that are inconsistent with the recommendations or views expressed in this research.

The analysts named in this report may have from time to time discussed with our clients, including Goldman Sachs salespersons and traders, or may discuss in this report, trading strategies that reference catalysts or events that may have a near-term impact on the market price of the equity securities discussed in this report, which impact may be directionally counter to the analyst's published price target expectations for such stocks. Any such trading strategies are distinct from and do not affect the analyst's fundamental equity rating for such stocks, which rating reflects a stock's return potential relative to its coverage universe as described herein.

We and our affiliates, officers, directors, and employees will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research, unless otherwise prohibited by regulation or Goldman Sachs policy.

The views attributed to third party presenters at Goldman Sachs arranged conferences, including individuals from other parts of Goldman Sachs, do not necessarily reflect those of Global Investment Research and are not an official view of Goldman Sachs.

Any third party referenced herein, including any salespeople, traders and other professionals or members of their household, may have positions in the products mentioned that are inconsistent with the views expressed by analysts named in this report.

This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this research is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of investments referred to in this research and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments.

Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Investors should review current options and futures disclosure documents which are available from Goldman Sachs sales representatives or at <https://www.theocc.com/about/publications/character-risks.jsp> and https://www.goldmansachs.com/disclosures/cftc_fcm_disclosures. Transaction costs may be significant in option strategies calling for multiple purchase and sales of options such as spreads. Supporting documentation will be supplied upon request.

Differing Levels of Service provided by Global Investment Research: The level and types of services provided to you by Goldman Sachs Global Investment Research may vary as compared to that provided to internal and other external clients of GS, depending on various factors including your

individual preferences as to the frequency and manner of receiving communication, your risk profile and investment focus and perspective (e.g., marketwide, sector specific, long term, short term), the size and scope of your overall client relationship with GS, and legal and regulatory constraints. As an example, certain clients may request to receive notifications when research on specific securities is published, and certain clients may request that specific data underlying analysts' fundamental analysis available on our internal client websites be delivered to them electronically through data feeds or otherwise. No change to an analyst's fundamental research views (e.g., ratings, price targets, or material changes to earnings estimates for equity securities), will be communicated to any client prior to inclusion of such information in a research report broadly disseminated through electronic publication to our internal client websites or through other means, as necessary, to all clients who are entitled to receive such reports.

All research reports are disseminated and available to all clients simultaneously through electronic publication to our internal client websites. Not all research content is redistributed to our clients or available to third-party aggregators, nor is Goldman Sachs responsible for the redistribution of our research by third party aggregators. For research, models or other data related to one or more securities, markets or asset classes (including related services) that may be available to you, please contact your GS representative or go to <https://research.gs.com>.

Disclosure information is also available at <https://www.gs.com/research/hedge.html> or from Research Compliance, 200 West Street, New York, NY 10282.

© 2026 Goldman Sachs.

You are permitted to store, display, analyze, modify, reformat, and print the information made available to you via this service only for your own use. You may not resell or reverse engineer this information to calculate or develop any index for disclosure and/or marketing or create any other derivative works or commercial product(s), data or offering(s) without the express written consent of Goldman Sachs. You are not permitted to publish, transmit, or otherwise reproduce this information, in whole or in part, in any format to any third party without the express written consent of Goldman Sachs. This foregoing restriction includes, without limitation, using, extracting, downloading or retrieving this information, in whole or in part, to train or finetune a machine learning or artificial intelligence system, or to provide or reproduce this information, in whole or in part, as a prompt or input to any such system.