

## Americas Technology: Software

# 2025 Outlook: Gen-AI Moving up from Infrastructure to the Platform and Application Layer

### GS SECTOR OUTLOOK 2025

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We believe the CY25 playbook is to own high-quality franchises that can deliver modest upside to Street expectations while building solid foundations for Gen-AI, which we believe can support durable seat-based and consumption growth over the next 3-5 years with OpM leverage. We don't place much confidence in the old tech cycle coming back as customer priorities have changed and are firmly pivoted to AI (evidenced by our recent [IT Survey](#)). After consecutive years of holding out hope for revenue re-acceleration following the sector's peak growth in CY21 (did not pan out), we are modeling stable growth in CY25. In the meantime, we see a positive set up for software: NTM EV/S multiples for our coverage contracted 12% in 2024 while interest rate expectations have come down and Gen-AI is set to lead a tech cycle in CY25. Our coverage was +4% in CY24, underperforming NASDAQ by ~25 pp as an unprecedented Gen-AI infrastructure build-out crowded out software. We expect AI to permeate up the stack from Infrastructure into the Platform and Application layers ([Gen-AI deep dive](#)). All of this is punctuated by our belief that discretionary categories (CRM, digital experiences) and SMB markets could see better days ahead. In the near term, we see an opportunity for re-rating in ADBE, CRM, INTU, MDB, MNDY, MSFT, and SNOW. Although not dislocated and trading at healthy multiples, we are still constructive on long-term secular growth companies such as Datadog, Rubrik, Samsara, and ServiceNow. While we expect conservative initial CY25 guidance, we are looking for cRPO and NER to lead the way for potential re-acceleration in C2H25, followed by years of compounding durable growth ahead.

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# Looking Back and Looking Ahead

**Looking Back:** Looking back at CY24, many of the key themes heading into the year largely played out in-line with our expectations, namely: 1) Management teams started the year with a conservative guidance posture (akin to CY23) and have executed well against initial guidance through C3Q24 ([Exhibit 1](#), [Exhibit 8](#)), 2) We observed stability and, in some instances, growth in company headcounts as CY24 progressed following a period of workforce rationalization (CY23) as Management teams gained more confidence in a stabilizing demand environment and emerging Gen-AI product cycle ([Exhibit 19](#)), 3) Stability to key components of the software growth algorithm, including Net Expansion Rates (NER, [Exhibit 12](#)) and customer growth ([Exhibit 13](#)), reflecting customers' improving purchase appetite on the back of a stable (and increasingly less restrictive) cost of capital environment and abating concerns of an impending recession, and 4) Investors placed a sizable premium on high-quality growth assets following a material operating leverage cycle in CY23, particularly those names still delivering >20% growth and showing relative stability to their growth profile (think NOW, DDOG, SNOW, MNDY, IOT, RBRK) in the last 2-3 quarters.

## Exhibit 1: Companies Outperforming Initial Revenue and OpM

Guidance Largely Performed Better vs. NASDAQ (+29%)

CY24 Revenue and Operating Margin Revisions vs. Initial Guidance

Ticker	C24 Estimates vs. Initial Guidance (IG)		
	Revenue vs. IG	OpM vs. IG (bps)	CY24 vs. NASDAQ
RBRK	6.4%	880	43.4%
ORCL	-0.4%	10	29.4%
NOW	0.9%	50	21.4%
TWLO	0.9%	250	13.8%
WEAV	3.6%	240	10.2%
IOT	3.9%	500	2.2%
CRM	0.3%	10	-1.6%
MNDY	4.0%	610	-3.3%
ADSK	1.4%	30	-7.2%
CFLT	0.9%	210	-9.2%
DDOG	3.7%	370	-10.9%
SWI	1.4%	--	-14.5%
ZM	1.3%	150	-15.2%
MSFT	0.0%	60	-16.6%
PCOR	0.6%	330	-20.4%
RNG	0.7%	0	-25.5%
TEAM	1.1%	130	-26.3%
DBX	0.0%	390	-26.7%
INTU	1.4%	50	-28.1%
DT	-0.6%	90	-29.3%
WDAY	-0.6%	100	-35.2%
INFA	-1.6%	80	-37.3%
GTLB	3.6%	820	-39.1%
BSY	-0.6%	20	-39.1%
ESTC	-1.0%	120	-40.7%
PD	-1.7%	--	-49.8%
SNOW	4.5%	200	-51.0%
ADBE	0.0%	50	-54.1%
BASE	1.4%	280	-59.4%
MDB	3.3%	230	-71.7%
ZI	-5.3%	(440)	-71.8%
U	0.6%	--	-73.7%
DH	-5.8%	140	-87.3%
<b>Average</b>		<b>0.9%</b>	<b>+200 bps</b>
			<b>-25.0%</b>

\*Using CY24 Consensus for Guidance for ADBE, DT, ESTC, INTU, MSFT, ORCL, TEAM, TWLO.

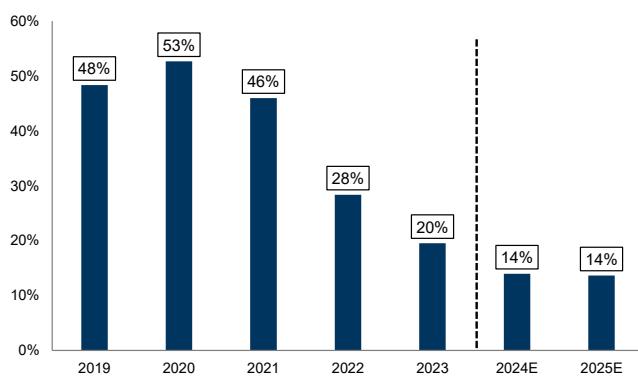
\*\*Using Subscription Revenue for NOW, SNOW, WDAY. \*\*\*Don't Guide to Operating Margin: PD, SWI, U. \*\*\*\*RBRK IPOed in April 2024.

Source: Company data, Goldman Sachs Global Investment Research, FactSet

■ **Factors contributing to Software coverage's underperformance in CY24.** Despite greenshoots starting to materialize in software fundamentals, we note that our coverage underperformed the NASDAQ by 25 pp. in CY24 ([Exhibit 1](#)). We believe the factors contributing to software's underperformance include: 1) Initial investor exuberance (including GS) on Gen-AI product adoption presenting upside to software fundamentals in CY24 did not transpire, baring a few exceptions (MSFT, NOW). Investments are still largely concentrated in the compute build-out that has predominantly benefited the Hyperscalers and select Semiconductor companies (e.g. NVDA), and 2) Limited operating leverage following significant cost rationalization in CY23 ([Exhibit 3](#)), placing the burden back on growth to drive stock performance, which has continued to decelerate vs. CY23 ([Exhibit 2](#)). While software has started to rally since October on election certainty and better-than-feared F3Q results, we believe the sustainability of this performance will be predicated on stable to inflecting revenue growth following 3-4 years of deceleration. Ramping revenue contributions from Gen-AI at the Platform and Application layers will be squarely in focus following a 2+ year investment/innovation cycle to bring new products to market.

**Exhibit 2: Our Estimates for CY25 Revenue Growth Reflect Stability; See Multiple Avenues for Upside**

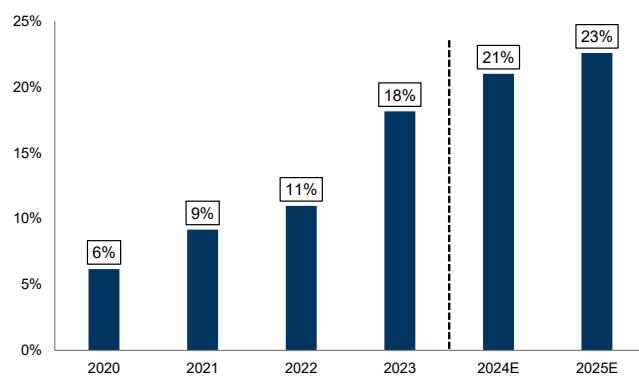
Avg. Revenue Growth Across our Coverage



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 3: Our Estimates for CY25 OpM Suggest Software is Poised for Modest Operating Leverage, Even as Focus Shifts Back to Growth**

Avg. Operating Margin Across our Coverage



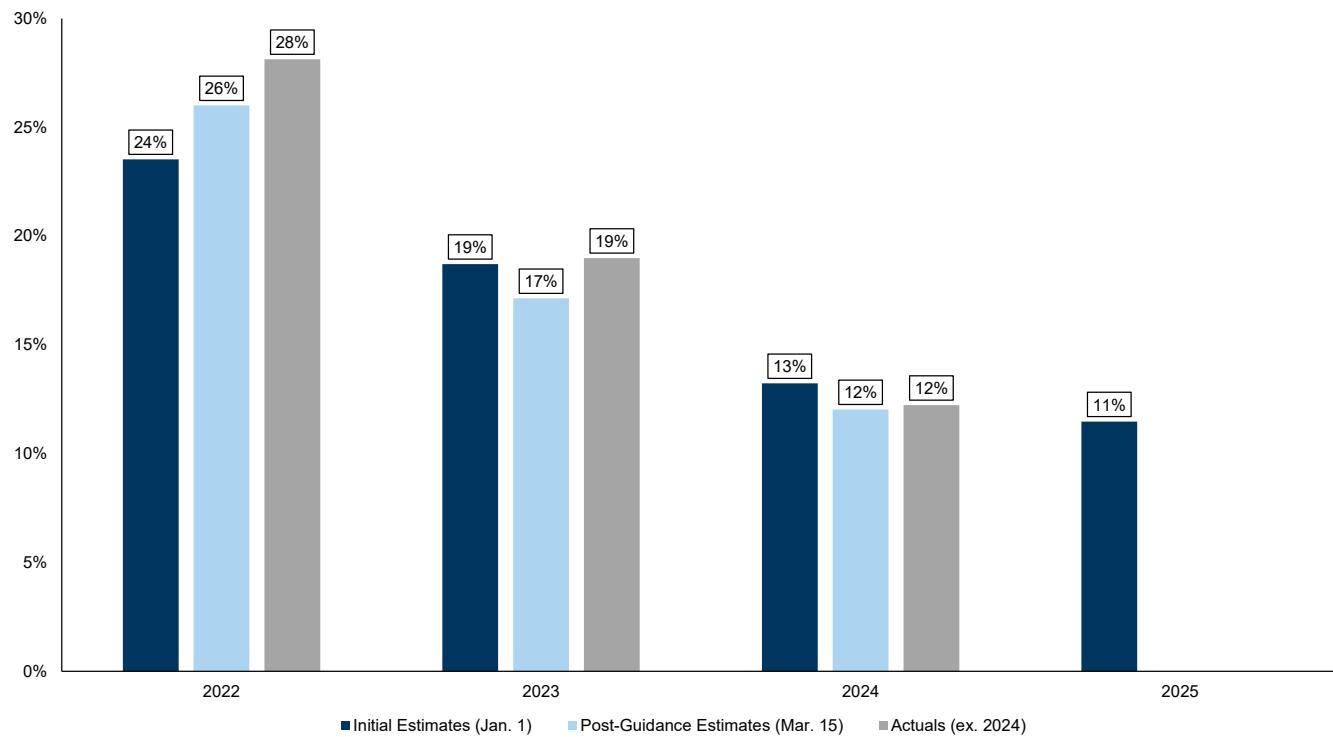
Source: Company data, Goldman Sachs Global Investment Research

**Looking Ahead:** Looking ahead to CY25, we believe that software's performance is likely to be fueled predominantly by Gen-AI's move up the stack from Infrastructure to Platforms and Applications, consistent with our [IPA framework](#). We believe this is critical for two reasons: 1) Growing AI revenue attribution throughout the tech stack, which largely did not transpire in CY24 beyond the Hyperscalers, validates the massive compute build-out that has occurred in the past 12-18 months, and 2) It provides an incremental monetization lever that can support revenue growth inflection against steady core business across a number of companies through F3Q. In addition, exogenous factors that remained somewhat punitive to demand and budgets in CY24 - higher-for-longer rates environment, recession concerns, and election uncertainty - should all be in the rear view as we move into CY25, setting up for a potentially healthier demand environment. Even so, we believe Management teams are likely to guide conservatively into CY25, akin to CY24 ([Exhibit 4](#)). While it's clear leading indicators have

stabilized in the last three months (e.g. NER, cRPO), we believe Management teams are unlikely to fully index their businesses to more recent positive trends considering the more sluggish demand environment over the last 24-months. As such, we identify a few important factors to evaluate the potential for revenue growth inflection: 1) Stabilizing or improving Net Expansion Rates, 2) Accelerating new customer adds, 3) Return to growth in hiring in revenue-generating roles (GTM/Engineering), and 4) Gen-AI monetization and product velocity.

**Exhibit 4: Revenue Growth Expectations Typically Reduced Post-C4Q; Suggests Potential Cuts to CY25 Growth Expectations**  
 Avg. Consensus Revenue Growth Estimates Across our Coverage at the Beginning of the Year, Post Full-Year Guidance, and Actuals

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Coverage ex. Recent IPOs

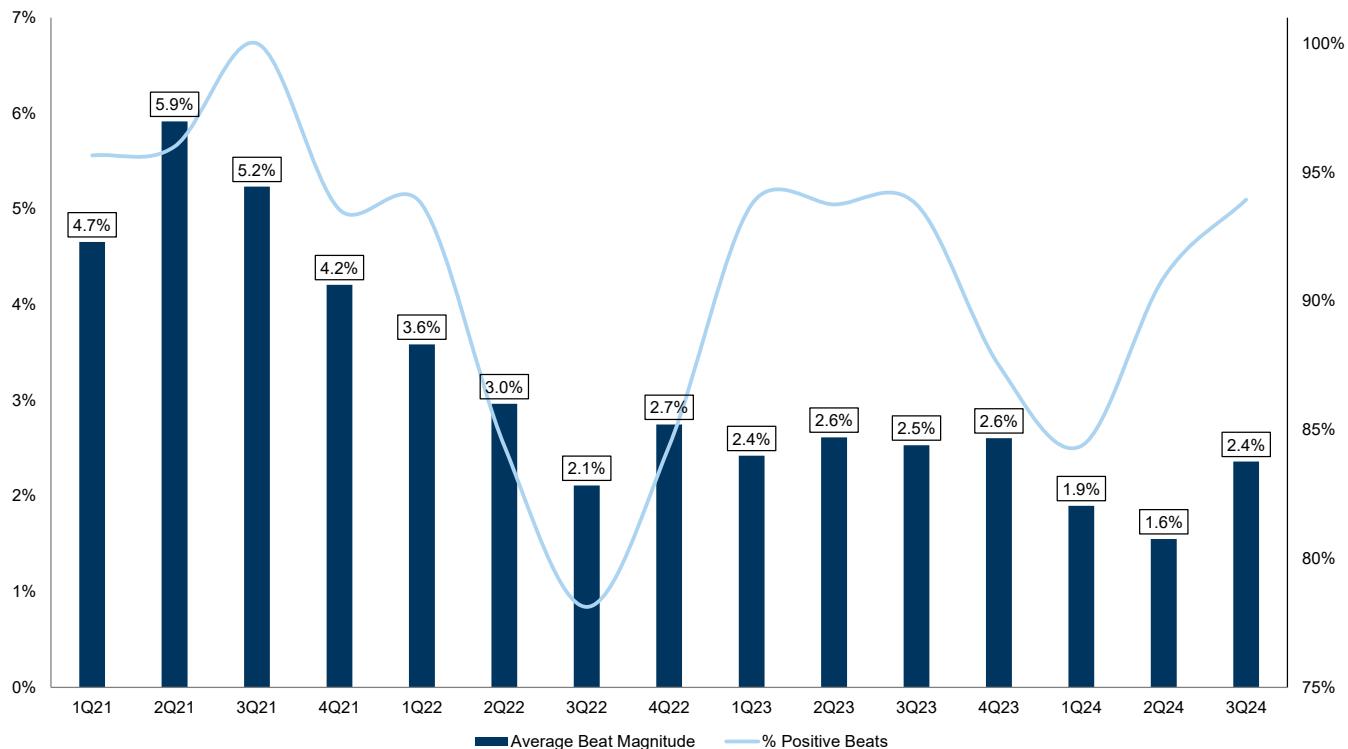
Source: Company data, Goldman Sachs Global Investment Research, FactSet

# State of Play in Software: More Abundant Growth Catalysts Supports Stability, Potential Inflection

**Management teams likely to set conservative initial FY guidance.** As we approach C4Q24 results, we believe investors will be narrowly focused on the following dynamics: 1) Magnitude of outperformance against C4Q guidance relative to prior Q's ([Exhibit 5](#)), especially with the majority of companies in our coverage slightly raising or keeping 4Q expectations unchanged coming out of 3Q ([Exhibit 6](#)), and 2) Management's initial CY25 guidance assumptions. Similar to CY23, Management teams entered CY24 with conservative guidance, with the average company in our coverage observing a 1 pp. cut to growth expectations when comparing Consensus post-C3Q23 vs. Management's initial FY guidance exiting C4Q23 ([Exhibit 4](#)). Similarly, we would expect Management teams to embed a modest degree of conservatism when approaching CY25 guidance considering the demand environment has yet to inflect materially. That said, we do believe that the environment heading into CY25 will be conducive to a more material beat-and-raise cadence relative to what we observed in CY24 through 3Q (avg. company has raised guidance +0.9% above initial range, [Exhibit 1](#)), presenting an opportunity for investors to lean into any temporary dislocations exiting 4Q. Our view is centered on the following: 1) Recession concerns, a higher rates environment, and election uncertainty that impacted business confidence and purchasing appetite are now in the rear view, and 2) Gen-AI has true potential to move up the stack in software to the Platform and Application layers with many products and services now GA, though Management teams are unlikely to embed material contributions from new products and SKUs considering their nascent. With signals of a healthier demand environment, an upcoming budget reset (with potential for [higher Gen-AI allocation](#)), and a more established set of Gen-AI products, we're constructive on CY25 marking a period of, at a minimum, growth stability relative to the cyclical growth downturn that has beleaguered broader software fundamentals in the past three years.

**Exhibit 5: CY24 Beat Magnitudes Down Slightly from CY23 But Improving Exiting C3Q; Constructive on CY25 Mirroring CY23 with Multiple Upside Factors**

Avg. % Revenue Beat vs. Estimates Across our Coverage and % of Companies in our Coverage who Reported a Revenue Beat

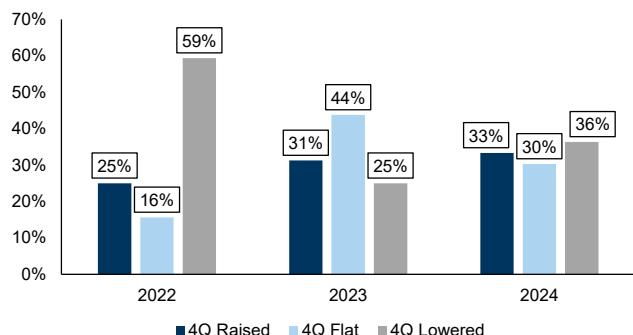


Source: Company data, Goldman Sachs Global Investment Research, FactSet

**Our coverage largely raised or kept 4Q estimates flat, suggesting modest improvement to business conditions as CY24 progressed.** After reporting 3Q earnings, we note that 63% of our coverage either guided 4Q in-line or above Street expectations ([Exhibit 6](#), [Exhibit 7](#)). Coupled with the higher beat magnitude in C3Q (+2.4% vs. <2% in C1H24, [Exhibit 5](#)), this tells us that software demand has improved modestly as CY24 has progressed relative to Management teams' conservative initial forecasts. This maps comparably to CY23, when 31% of companies raised 4Q guidance (vs. 33% in CY24). We also note that CY23 and CY24 results show a more equitable dispersion of companies guiding up, down or in-line relative to CY22 when signals of post-COVID normalization started to emerge (59% of companies guided lower vs. Street on C4Q22), suggesting that Management teams now have a better handle on how to appropriately factor for dynamics such as deal cycle elongation and budget scrutiny that have been more present in the software selling environment over the past 2-3 years. We expect Management teams will adopt a similar philosophy when approaching CY25 guidance. However, the combination of steady core business in recent months, coupled with potential for growing revenue contributions from Gen-AI product adoption, leaves us optimistic that software companies will be better positioned to deliver true beat-and-raise results that can support sector outperformance.

**Exhibit 6: Majority of our Companies Either Raised or Kept 4Q Revenue Estimates Flat, Suggesting Healthier Demand vs. Management Teams' Initial Forecasts**

% of Our Coverage Who Implicitly Raised or Lowered 4Q Estimates After Reporting 3Q



**Exhibit 7: 4Q Estimates for Most Companies Under Coverage were either Raised or Maintained; Lowered Estimates Largely due to Idiosyncratic Factors**

Consensus 4Q Estimate Changes Post-3Q Across Our Coverage

Company	4Q Consensus Change
Adobe	Lowered
Atlassian	Raised
Autodesk	Raised
Bentley Systems	Lowered
Confluent	Flat
Couchbase	Lowered
Datadog	Flat
Definitive Healthcare	Flat
Dropbox	Lowered
Dynatrace	Raised
Elastic	Flat
GitLab	Raised
Informatica	Lowered
Intuit	Lowered
Microsoft	Lowered
Monday.Com	Flat
MongoDB	Raised
Oracle	Lowered
PagerDuty	Lowered
Procore Technologies	Lowered
RingCentral	Lowered
Rubrik	Raised
Salesforce	Flat
Samsara	Flat
ServiceNow	Raised
Snowflake	Raised
SolarWinds	Flat
Twilio	Raised
Unity Software	Raised
Weave	Flat
Workday	Lowered
Zoom Communications	Raised
ZoomInfo Technologies	Flat

+/- 0.5% of the Initial Estimates is "Flat"

Source: Company data, Goldman Sachs Global Investment Research

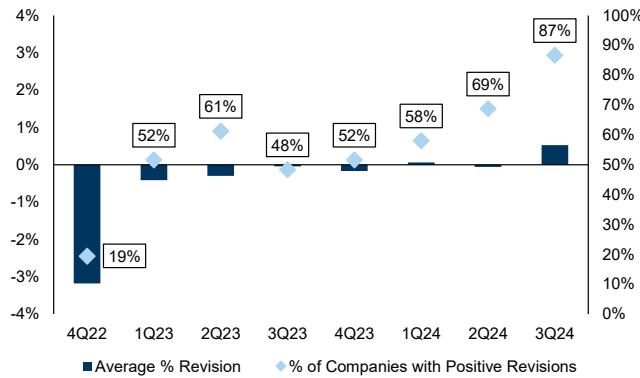
Source: Company data, Goldman Sachs Global Investment Research, FactSet

**Potential for modest cuts to CY25 paves way for upside.** Our coverage at a group-level has executed reasonably well against CY24 Consensus expectations since initiating guidance in C4Q23, with relatively unchanged (+/- 0.5%) FY estimates through C2Q but an overwhelming majority raising guidance exiting C3Q, marking the highest positive revision in the C4Q22-C3Q24 period ([Exhibit 8](#)). While we acknowledge this can be partially attributed to a narrower range of outcomes with 3-months left to the year alongside the beat magnitude in C3Q, it also tells us that Management teams are feeling slightly more optimistic about business conditions heading into the seasonally important December quarter; enough to either raise or leave estimates unchanged (with 63% of our companies doing so, [Exhibit 6](#)). We note that this trend parallels well with the revision activity observed on CY25 estimates through C3Q24, with estimates relatively unchanged exiting C3Q vs. low single-digit percent negative revisions from C4Q23 to C2Q24 ([Exhibit 9](#)). As mentioned prior, we do believe Management teams will opt to set initial CY25 guidance conservatively since demand signals appear to be generally stable

vs. inflecting. We highlight [Exhibit 4](#), which illustrates that since CY23 we have observed a 1-2 pp. cut to Consensus growth expectations from post-C3Q to when Management teams guide on the coming year (e.g., CY23/24).

**Exhibit 8: CY24 Stabilized Post-4Q and Inflected Upwards, with Majority of Companies Raising Expectations**

Avg. Estimate Revisions on CY24 Revenue

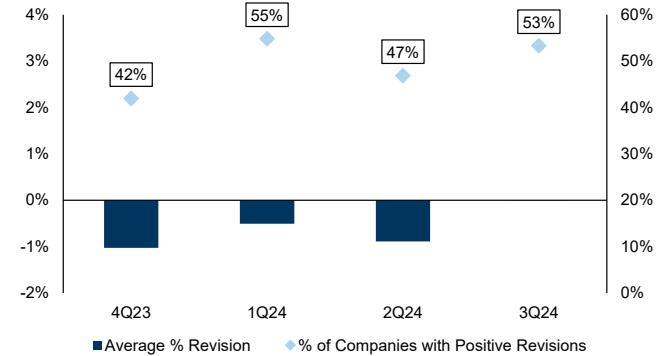


Unity Excluded due to Volatility

Source: Company data, Goldman Sachs Global Investment Research, FactSet

**Exhibit 9: Projections for CY25 Beginning to Stabilize, with Potential to Inflect Post-4Q**

Avg. Revisions to CY25 Revenue Estimates

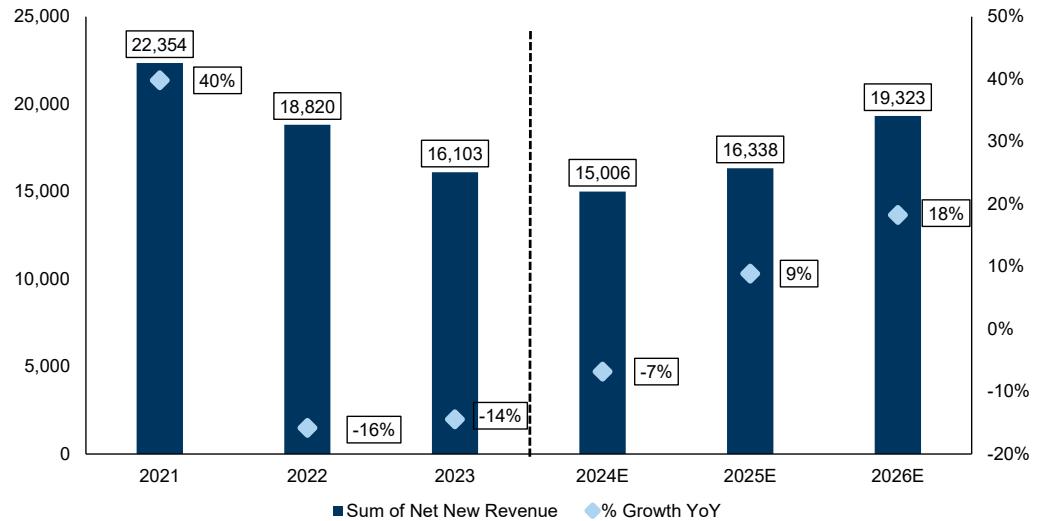


Unity Excluded due to Volatility

Source: Company data, Goldman Sachs Global Investment Research, FactSet

- **Net New Revenue analysis suggests C4Q likely final cut to CY25.** We highlight our analysis of annual Net New Revenue (NNR) from our coverage, which shows that Consensus currently expects +9% NNR growth in CY25 vs. -7% in CY24 and -14% in CY23 ([Exhibit 10](#)). We note that there are multiple potential catalysts for improving NNR into CY25, whether it be a CY25 budget reset (plus easing rates environment), improving seat expansion on the back of an improved hiring environment, better consumption activity as enterprises lean back into cloud initiatives, healthier SMB activity or an emerging Gen-AI product cycle. However, many of these potential factors have yet to manifest materially in software results. As such, we see potential for revenue estimates at a group-level to come down 5-10% exiting C4Q earnings, akin to CY23 and CY24 ([Exhibit 11](#)). We believe this may present potential near-term dislocations that investors can capitalize on, especially with the prospects of the aforementioned growth catalysts in hindsight more abundant than the initial setup to CY24. This could be supportive of a more normalized (and higher) beat-and-raise cadence through CY25 vs. CY24 (avg. +2% beat) that can support outperformance for the sector ([Exhibit 5](#)).

**Exhibit 10: CY25 Net New Revenue Assumptions Imply Acceleration vs. CY24; Expectations Likely to Come Down Post-Initial Guidance in C4Q**  
 Consensus Net New Revenue Assumptions for our Coverage



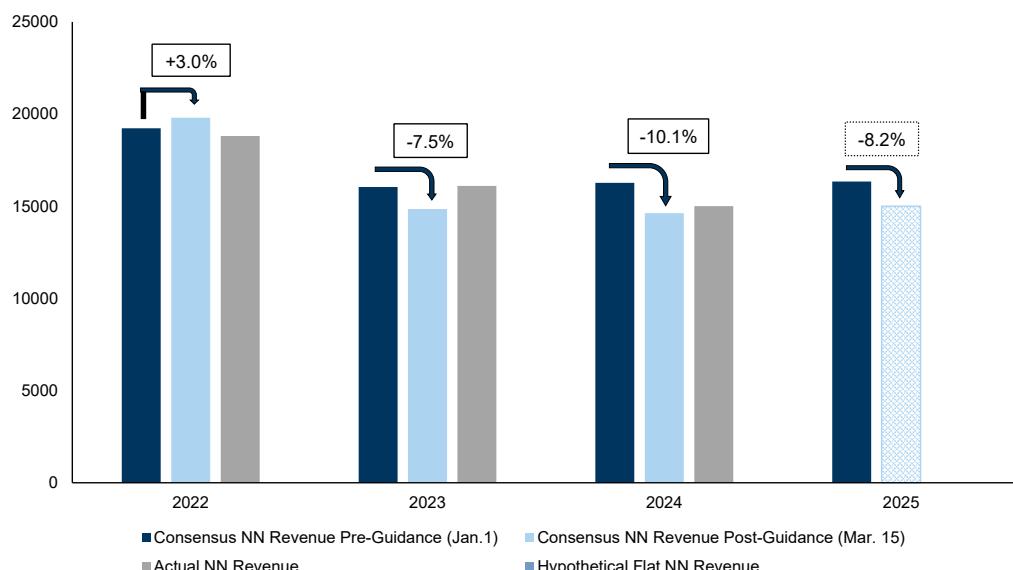
Excluding MSFT, ORCL, Recent IPOs

Source: Company data, Goldman Sachs Global Investment Research, FactSet

- **If CY25 Net New Revenue estimates follow recent history, estimates could see as much as an 5-10% cut following initial CY25 guidance.** We believe Consensus CY25 Net New Revenue (NNR) estimates are likely to observe a 5-10% cut following companies' initial CY25 guidance, similar to CY23 and CY24 estimate cuts ([Exhibit 11](#)). We do not anticipate companies will initially guide to accelerating NNR (currently implied in Consensus/GSe) which would present a high bar to clear after declining Net New Revenue growth since CY22 () and a broadly comparable demand environment. Below we outline a hypothetical scenario in which companies guide towards flat Net New Revenue (vs. CY24) in [Exhibit 11](#), which implies an 8% cut to current estimates. While this could create potential volatility to software stocks in C4Q, we believe companies in our coverage are likely to outperform this expected initial cut (in-line with historical results), particularly with the potential for more abundant growth catalysts in CY25.

**Exhibit 11: Both CY23 and CY24 Net New Revenue Estimates Contracted Post-Guidance; Similar Pattern Likely for CY25**

Consensus Net New Revenue Pre-Guidance vs. Consensus NNR Post-Guidance vs. Actual NNR Reported



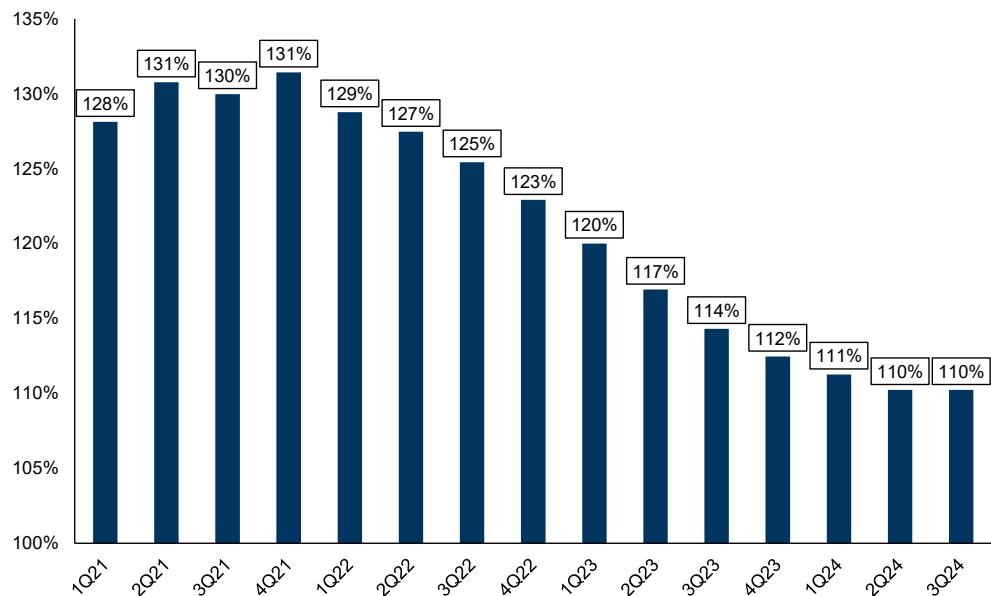
Excluding MSFT, ORCL, Recent IPOs

Source: Company data, Goldman Sachs Global Investment Research, FactSet

**Stabilization in NER points to healthier environment ahead.** Consistent with our CY24 Outlook, Net Expansion Rates (NER) stabilized in mid-2024 on a group-level across our coverage (Exhibit 12). We believe this marks an important fundamental bottoming out. It suggests customers are now stabilizing their spend with software providers following a multi-year cycle of point-solution consolidation, increased budget scrutiny, workforce rationalization, and SMB weakness that has impeded healthier cross-sell and upsell rates across the sector. We believe this has contributed to the modest outperformance in the sector more recently, with our coverage +4 pp. vs. the NASDAQ since the start of C3Q earnings season (10/23). We expect that Management teams will not factor for stable NER in initial CY25 guidance, as such continued stability and/or inflection is likely to be met with positive estimate revisions. We see multiple tailwinds driving NER improvement in CY25, including improved seat expansion, better multi-product attach (esp. with overlay of new Gen-AI services and SKUs), higher consumption activity as optimization headwinds are anniversaried and new AI services are adopted, all of which can be complemented by a less restrictive cost of capital environment that can support higher business confidence and increased spending appetite.

**Exhibit 12: NER Stable at 110% After 10 Consecutive Quarters of Decline; Stability/Inflection Could Offer Top-Line Upside Against Initial Management Guidance**

Avg. Net Expansion Rates Across Coverage

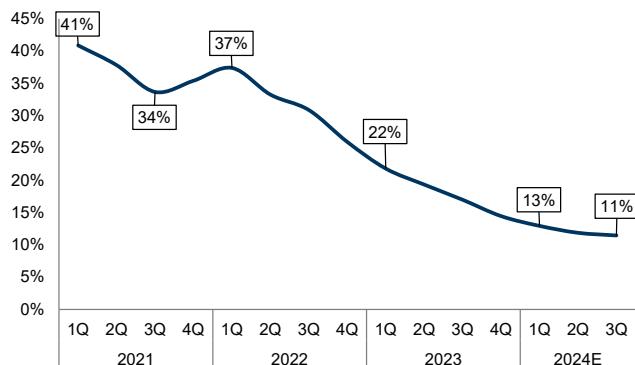


Source: Company data, Goldman Sachs Global Investment Research

**Steadying customer acquisition growth signals improving customer appetite.**

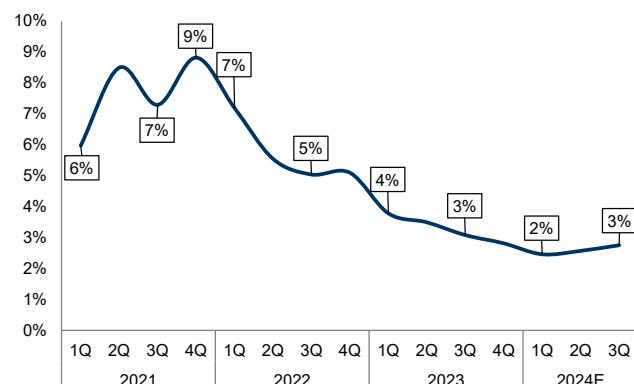
Beyond NER, new logo acquisition is amongst the primary indicators for gauging the health of the software demand environment. Note that from C4Q22 to C4Q23, sequential growth in total customers (aggregated across our coverage) moderated from +5-6% to +3% ([Exhibit 14](#)). Consistent with Management commentary from this period, this was largely a function of increased budget/deal scrutiny, delayed purchasing decisions, elongated sales cycles, higher customer churn (particularly in SMB), and a hesitation for buying personas to make new IT purchasing decisions due to the velocity and disruption risk of new Gen-AI innovations. The stability in sequential customer growth at +2-3% through CY24 suggests some easing to these dynamics, which we believe can set the stage for improving net customer add trends in CY25. We note that over the last two years, the weaker demand environment and slowing growth across the sector has placed further emphasis on bringing new products to market (particularly around Gen-AI) to spur higher growth both through new logos and installed base expansion. This is present across all sectors of software - ServiceNow launched Now Assist for multiple workflows, Salesforce introduced Agentforce, RingCentral and Zoom are deepening their presence in Contact Center and launching AI assistants, MongoDB launched Vector Search, Snowflake developed Cortex AI, Adobe launched Firefly, and Microsoft introduced Copilot across its sprawling applications portfolio. With a budget reset into CY25, a more cooperative macro backdrop, and an emerging Gen-AI product cycle, we see potential for healthier new logo acquisition that can fuel better growth prospects for the sector, initially manifesting in improving cRPO growth.

**Exhibit 13: YoY Customer Growth Across our Coverage Has Stabilized at 11%; Can Add Visibility into CY25 Top-Line Estimates**  
Avg. Growth in Customer Count (Year-over-Year)



Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 14: QoQ Customer Growth Slightly Inflected in 3Q; Suggests Potential Upside to CY25 Top-Line Estimates**  
Avg. Growth in Customer Count (Quarter-over-Quarter)



Source: Company data, Goldman Sachs Global Investment Research

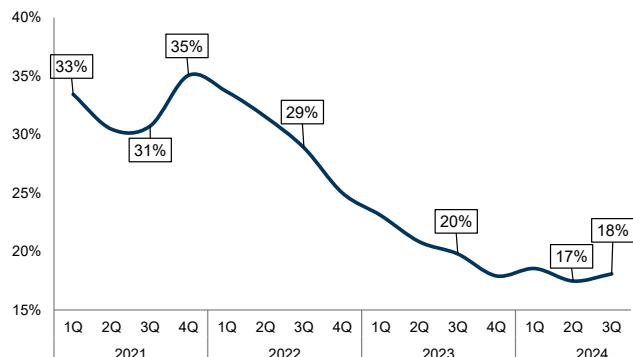
**Despite potentially conservative Management guidance, cRPO inflection provides support for upside on CY25 revenue expectations.**

Our analysis of cRPO trends suggests revenue estimates pre-CY25 guidance are achievable, even as we anticipate modest cuts to forward growth expectations with Management teams likely to maintain a conservative posture given a still limited view into macro inflection. In line with prior years, we see revenue growth expectations likely coming down post-guidance though returning to at least prior levels by year-end ([Exhibit 4](#)). While CY25 revenue growth expectations for our overall coverage are consistent with CY24 at 14% ([Exhibit 2](#)), average cRPO growth has inflected slightly from 17% in C2Q to 18% in 3Q ([Exhibit 15](#)). If cRPO growth continues to pace ahead of CY25 Consensus revenue growth into C4Q, it should help boost investor confidence in the software sector's ability to outperform initial revenue expectations.

- **Expect healthy base of committed revenue entering CY25.** In conjunction with analyzing absolute cRPO growth, we computed cRPO as a % of NTM Consensus estimates for the 17 companies in our coverage that have: 1) Disclosed cRPO since 1Q22 and 2) Report cRPO that is, on average, at least 50% of NTM revenue ([Exhibit 16](#)). As cRPO tends to be highly correlated with NTM revenue growth, we leverage this analysis to determine whether estimates have been de-risked heading into CY25 vs. prior periods. From C3Q22-3Q24, cRPO for these companies has, on average, accounted for 65% of NTM revenue estimates (based on Consensus after each respective quarter). Assuming a similar seasonal uptick in C4Q24 cRPO as in previous years, we anticipate software companies will have a comparable, if not higher, proportion of cRPO as a percentage of NTM Revenue estimates entering CY25. This can provide a solid base of committed revenue that should leave investors better positioned to underwrite initial CY25 guidance with potential upside from a healthier new business environment.

**Exhibit 15: YoY cRPO Growth Has Slightly Inflected to 18% vs. the 2Q Trough of 17%, Suggesting Some Support for Top-Line Inflection in CY25**

Avg. cRPO Growth Across Our Coverage (Year-over-Year)

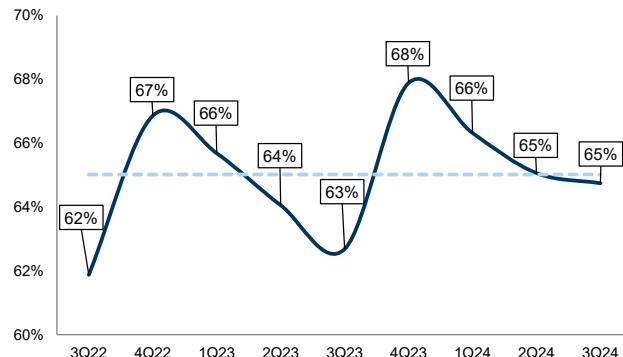


Ex. Companies with cRPO of less than 50% of NTM Revenue

Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 16: cRPO / NTM Revenue Growth Higher than Previous 3Q's, Suggestive of Incremental Conservatism in NTM Revenue Estimates**

cRPO as a % of Point-in-Time NTM FactSet Consensus Revenue Estimates Across our Coverage

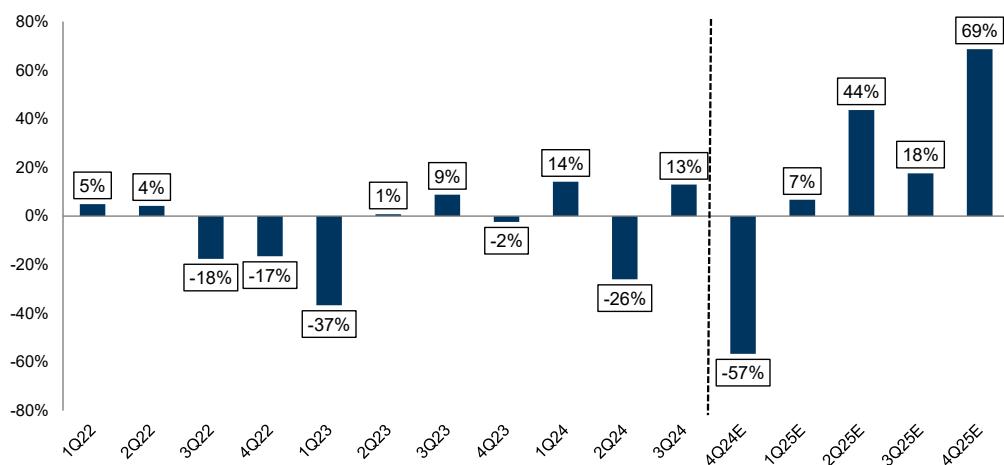


Ex. Companies with cRPO of less than 50% of NTM Revenue

Source: Company data, Goldman Sachs Global Investment Research, FactSet

**While initial guidance is likely to be conservative, relatively easier comps lowers the hurdle rate for accelerating NNARR growth in CY25.** Following two years of contracting NNARR, and with a modestly improving fundamental backdrop, we believe companies may be able to accelerate NNARR growth in CY25 ([Exhibit 17](#)). That being said, we believe companies are likely to initially guide conservatively ([Exhibit 11](#)) and shift down NNARR growth expectations post-C4Q given the currently stable, but not inflecting, macro environment. Nevertheless, the following informs our view for a return to NNARR growth in CY25: 1) Modestly improving customer acquisition ([Exhibit 14](#)) can support revenue growth. As software companies continue to ramp sales hiring ([Exhibit 19](#)), we believe these new reps can add to improved new logo revenue contributions, and 2) Healthier cross-sell activity and customer expansion. As delayed purchasing decisions are revisited and new products and services are adopted (both core and Gen-AI), we see room for improving NER ([Exhibit 12](#)) and thus improving new business activity. Our confidence in both improving customer adds and NER is supported by what we expect to be a less restrictive budgetary environment and improving purchasing appetite, highlighted by our recent [IT Survey](#) ([Exhibit 22](#)).

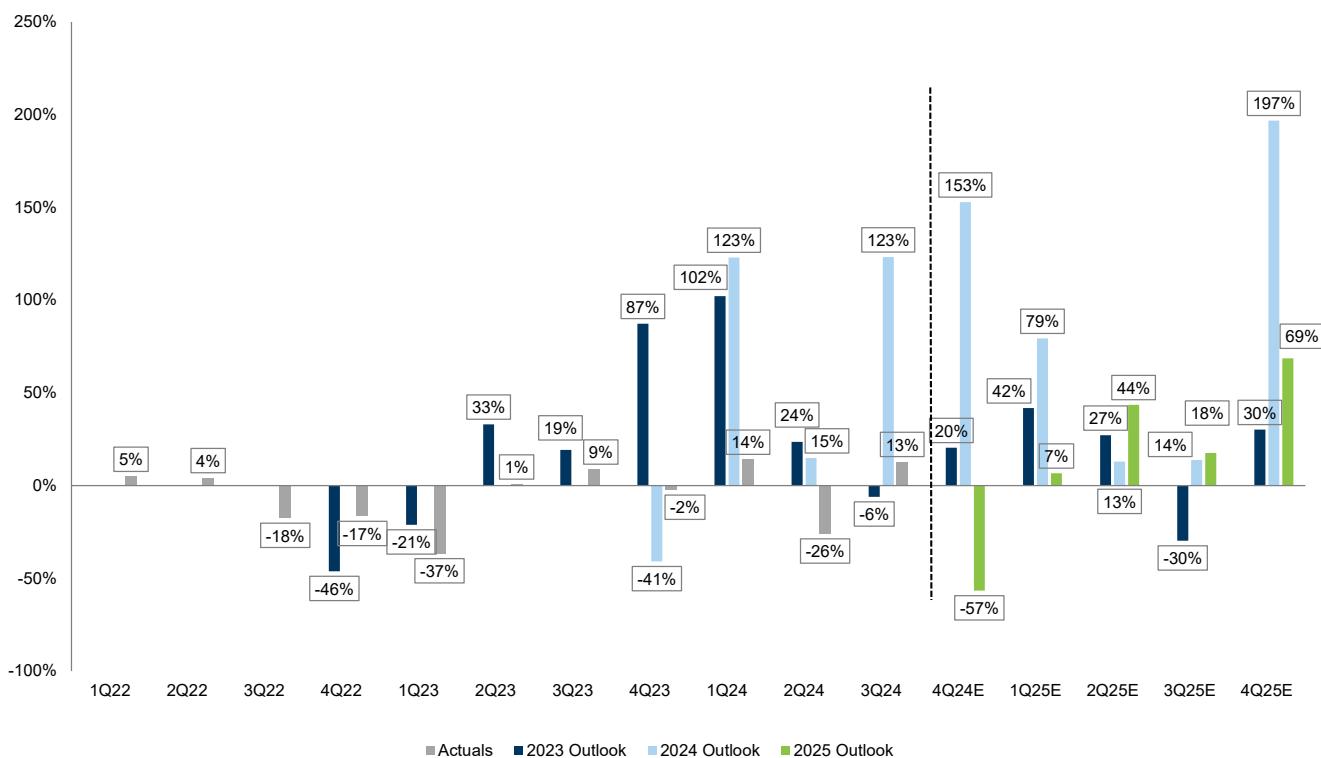
**Exhibit 17: See Potential for Net New ARR to Inflect in CY25 off of Low Comps and Improving Macro**  
Avg. Net New ARR Growth Across Our Coverage (GSe)



Source: Company data, Goldman Sachs Global Investment Research

- **Looking back: New business activity weaker-than-expected in CY24, likely contracting vs. our initial expectations for an inflection.** Software companies have seen significant degradation to their growth profile since CY21 (+14% in CY24E vs. +46% in CY21, [Exhibit 2](#)). Both customer expansion and new logo adds have been weighed down from a higher rate environment, onerous comps, and sluggish macro conditions. As a measure of new business momentum, we have been computing and tracking the sequential dollar change in ARR (subscription revenue x 4) and comparing it against the prior year period. After seeing net new ARR growth turn negative in C3Q22 as a result of a weaker budgetary environment and higher deal scrutiny, we conducted this analysis over three points in time: 1) In December 2022 – along with our [2023 Outlook](#), 2) December 2023, with our [2024 Outlook](#), and 3) today – along with our 2025 Outlook ([Exhibit 18](#)). While both our 2023 and 2024 estimates assumed a more meaningful macro improvement throughout the year, a still-choppy environment led to NER compression, slower customer adds, and further softening of certain verticals across the economy. Together, these drove continued NNARR contraction in 2023 and 2024. This also led us to refactor our 2025 NNARR assumptions to better-align with current demand trends and our view for a modest inflection in CY25 NNARR. We believe that the confluence of a more cooperative macro backdrop, stabilizing leading indicators (cRPO ([Exhibit 15](#)), NER ([Exhibit 12](#)), new logos([Exhibit 14](#))), and a true Gen-AI product cycle in CY25 are supportive of our coverage hitting our revised NNARR assumptions in CY25, irrespective of potentially conservative initial Management guidance.

**Exhibit 18: Our Prior Net New ARR Estimates Over-Estimated Growth and Macro Turnaround**  
GSe Net New ARR Assumptions vs. Prior Estimates from 2024 Outlook (Dec. 2023) and 2023 Outlook (Dec. 2022)



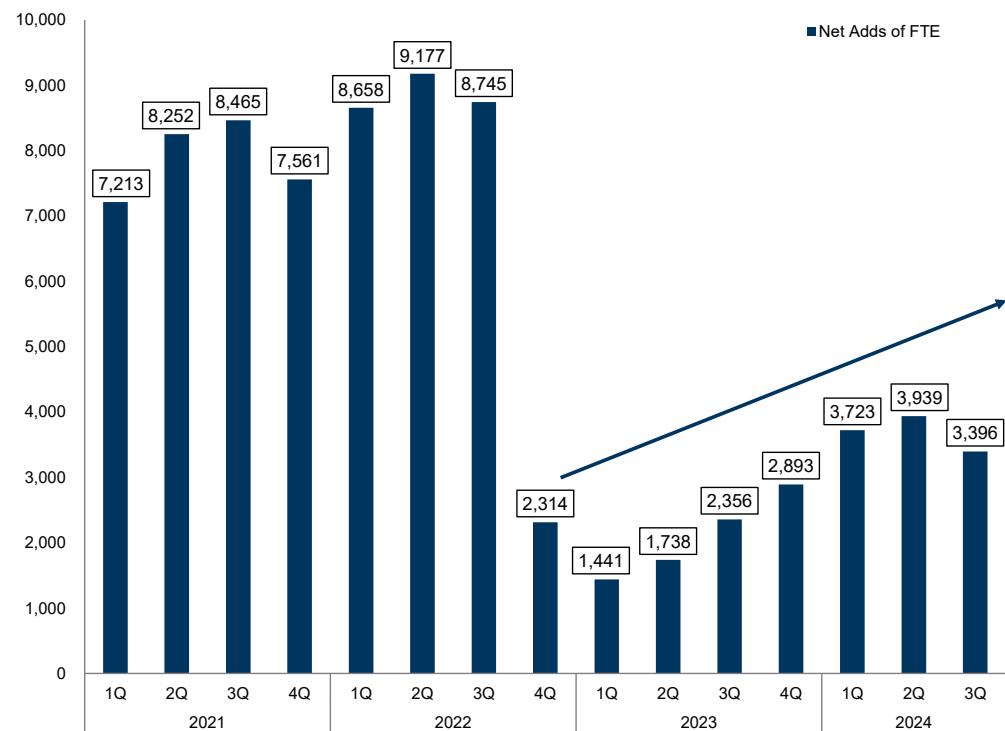
Source: Company data, Goldman Sachs Global Investment Research

**Healthier hiring trends through CY24 represents a positive signal for new business activity.** Adding new headcount is amongst the primary methods for driving incremental growth in software. Hiring in revenue-generating roles such as GTM and product development can fuel new business activity either via cross-sell, upsell, or new logos. Our analysis of aggregate hiring trends across 20 companies in U.S. Enterprise and Emerging Software (covered by Gabriela Borges, Adam Hotchkiss) points to improving trends throughout CY24 following a trough in CY23 when headcount growth moderated to +5% in C2H23 (vs. 20%+ in C2H22, [Exhibit 20](#)). This was a function of workforce rationalization in Software as Management teams sought to optimize their expense profiles and drive improved operating leverage in a more subdued growth environment. This dynamic is reflected in our coverage's revenue growth moderating 8 pp. to +20% in CY23 ([Exhibit 2](#)) while OpM's expanded +700 bps (vs. +200 bps in CY22, +300 bps in CY21, [Exhibit 3](#)). We note the market generally rewarded those names that showed an inflection in OpM expansion (plus top-line execution) that supported more balance to their 'Rule Of' profiles. The improvement to headcount growth through CY24 can be a precursor to improving new business trends as Management teams tend to ramp hiring (esp. in quota-bearing reps) as greenshoots emerge in their respective end-markets (healthier top-of-funnel activity, improving pipeline maturity / coverage / conversion, etc.). Consistent with our estimates for more subdued margin expansion (+200 bps) and stable growth in CY25 (vs. steady deceleration since CY21), we believe investors will increasingly place a premium on those companies with inflecting growth trends.

Signaling of higher expense growth associated with revenue-generating capacities exiting C4Q should serve as an early read into a potential inflection in revenue growth, particularly with a wider slate of AI products that are primed to become more material contributors to top-line across all layers of the tech stack in CY25. Additionally, we reference the following names that indicated they have been hiring in CY24, which, if the trendline continues, could be a bullish signal for potential growth inflection in CY25 ([Exhibit 21](#)): CRM, DDOG, DT, INTU, MNDY, MDB, NOW, PCOR, and SNOW.

**Exhibit 19: Employee Hiring has Grown Steadily for the Past 8 Quarters, Indicating Macro Sentiment May be Improving**

Net Full Time Employee (FTE) Adds for our Index of US Software Companies that Report Quarterly Headcount

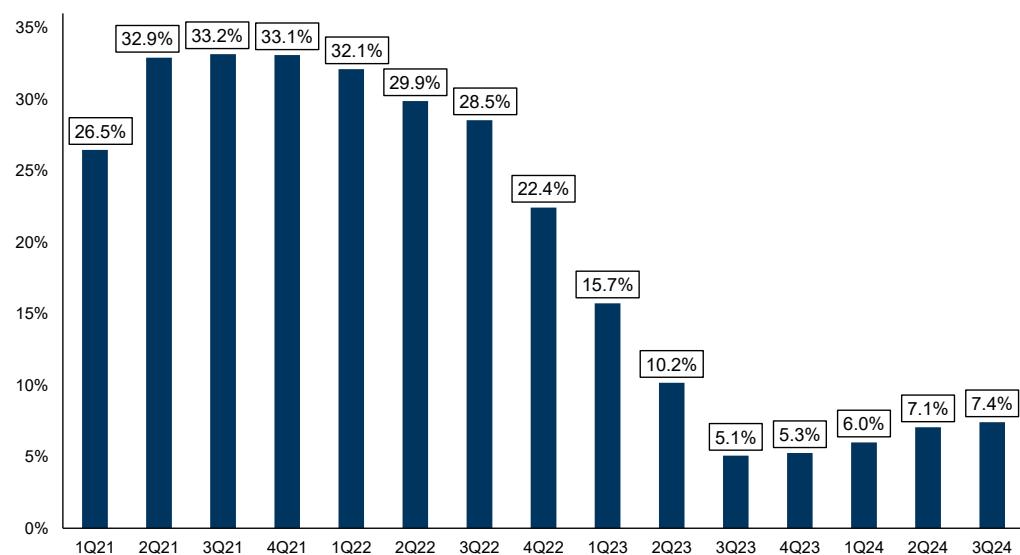


Companies Included: ADBE, ALRM, BASE, CRWD, FTNT, HUBS, ESTC, MDB, NET, OKTA, PANW, PLTR, NOW, SNOW, TEAM, TWLO, TYL, VEEV, WDAY, WK

Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 20: Hiring Growth Re-Accelerating Modestly, Suggesting Software Companies May be Positioning for a More Favorable Buying Environment**

Year-over-Year Growth in Employee Count for our Basket of Software Companies that Report Quarterly Employee Count



Companies Included: ADBE, ALRM, BASE, CRWD, FTNT, HUBS, ESTC, MDB, NET, OKTA, PANW, PLTR, NOW, SNOW, TEAM, TWLO, TYL, VEEV, WDAY, WK

Source: Company data, Goldman Sachs Global Investment Research

**Exhibit 21: Several Companies Signaled Accelerating Hiring in 2024 and 2025 to Match Demand Levels**

Commentary Around Hiring in 2024

Company	Period	Statements on Hiring
<b>Datadog Inc. (DDOG)</b>		
	3Q24	Management is focussing on <b>increasing head count in 2024</b> with the rise in operating expenses reflecting progress in hiring for S&M and R&D efforts during the year.
	2Q24	Management is <b>prioritizing headcount growth</b> in 2024, evident from the increasing OpEx.
	4Q23	Company intends to <b>accelerate hiring</b> and R&D investments to execute on long-term growth opportunities and reach customers worldwide.
<b>Dynatrace Inc. (DT)</b>		
	3Q24	The maturity of the <b>sales reps and account managers</b> , <b>many of whom were recently added</b> as part of the new segmentation model, is expected to be a significant driver of the pipeline. Currently, around 30% of the sales team has a tenure of one year or less, which typically correlates with lower productivity. As these team members gain experience their productivity and contribution to the pipeline is expected to improve.
	2Q24	While management continues to <b>expect to hire more</b> , the hiring will be more in the second half of the year. Management is happy as long as the accounts are setting in with reps
<b>Intuit Inc. (INTU)</b>		
	3Q24	The mid-market sales force being built, which includes the <b>hiring of ~200 people</b> , requires a focus in training and efficiency. Over time, this team becomes increasingly effective, contributing to better results, particularly in the second half of the fiscal year.
<b>Monday.com (MNDY)</b>		
	3Q24	The company plans to <b>increase head count by a significant percentage in FY24</b> , prioritizing investments in R&D, product development and sales teams to support the expansion of its platform and product suite. As FY25 approaches, the focus will shift toward ramping up hiring for sales quota carriers to drive further growth.
	2Q24	Although hiring fell behind this quarter, the company has <b>ambitious plans for recruitment</b> and increased spend on performance marketing tied to the BigBrain system. These initiatives are closely monitored as part of the efficient growth strategy with a balanced focus on managing costs and growth.
	4Q23	Management plans to <b>hire increasingly in FY24</b> prioritizing investments in R&D and S&M to support the expansion of its platform.
<b>MongoDB Inc. (MDB)</b>		
	3Q24	The company is implementing organizational changes under the new CRO's leadership to enhance alignment and collaboration. These adjustments aim to <b>strengthen efforts in targeting up-market opportunities, advancing app modernization</b> , and positioning the company as the preferred database for Gen-AI apps.
	4Q23	Recognizing the significant opportunity ahead, the company is <b>increasing head count by mid to high teens percent</b> , which is considered appropriate for the scale.
<b>Procure Technologies Inc. (PCOR)</b>		
	3Q24	The company is investing in its sales teams, <b>adding hundreds of GTM resources to ramp up productivity</b> quickly. Hiring is progressing well, with general managers and leadership expected to be in place by end of year.
<b>Salesforce Inc (CRM)</b>		
	3Q24	The company aims to <b>hire an additional 1000 to 2000 salespeople</b> , recognizing the need to not only maximize the productivity of the current sales team but also expand to capture a significant distribution opportunity.
<b>ServiceNow (NOW)</b>		
	3Q24	The company previously shared plans to <b>increase headcount growth in the second half of the year</b> , with most of the S&M hires being quota-bearing reps. This reflects their confidence in the opportunity ahead, and they intend to <b>continue accelerating head count growth</b> .
	2Q24	<b>Hiring in S&amp;M is expected to gradually increase</b> , remaining aligned with the original plans. As opportunities expand and performance exceeds expectations, the company will continue hiring to ensure a strong presence on the field to close deals.
	1Q24	The company entered 2024 with the <b>largest increase in ramped reps in some time</b> and plans to <b>reaccelerate hiring</b> . With a strong pipeline and high demand, hiring efforts for salespeople in the field will continue.
<b>Snowflake Inc. (SNOW)</b>		
	3Q24	The company has focused on improving efficiencies through performance management, particularly within the sales organization. There has been <b>ongoing hiring, and additional hiring will continue in the sales team this quarter</b> .
	2Q24	The company is considering <b>accelerating hiring in the second half of the year</b> , especially for the sales force and key areas of focus. This has already been incorporated into the full-year guidance.
	1Q24	While the company does think they have increased spending on GPUs, they have also <b>invested in hiring talent</b> . This includes employees from a pending acquisition, all of whom will be integrated into the AI organization. Given the rapid evolution of AI, the company is making significant investments in this area.
	4Q23	A significant portion of the <b>company's costly hiring is focused on R&amp;D, particularly in AI/ML space where engineers are highly sought after</b> . While the company continues to hire in the sales organization, it expects 1000 new hires incl. M&A.

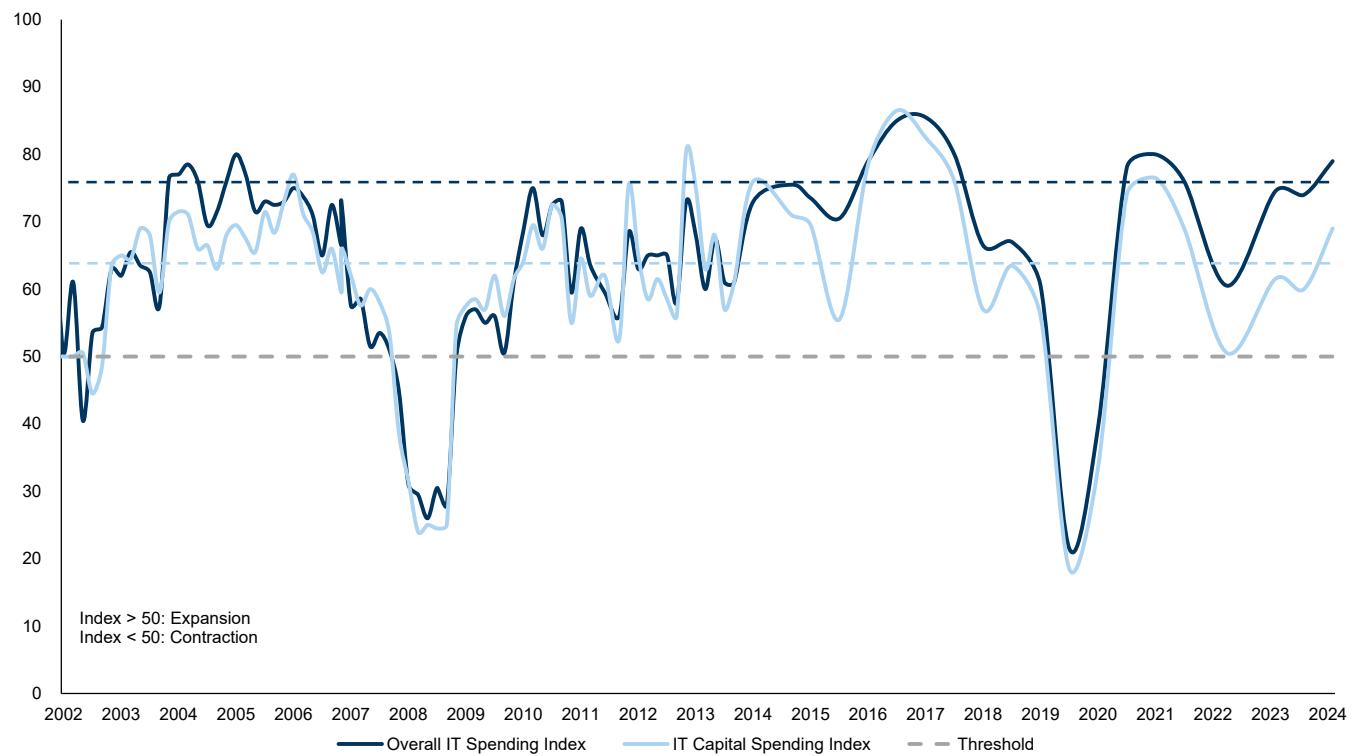
Source: Company data

**IT Survey points to growth in CY25 budgets, higher allocation to Gen-AI.** Our survey of overall CIO spending intentions for 2025 improved relative to our July 2024 survey. Notably, our overall IT spending index increased to 79.0 from 74.0 ([Exhibit 22](#)), firmly in expansion territory (above breakpoint of 50) and comparable to the near-highs observed in 2021-22. The number of respondents expecting to increase overall IT spending improved to 70% (from 65% in July), while the number expecting a decrease in overall IT spending was 12% (vs. 17% in July, [Exhibit 23](#)). We believe these positive early results affirm our view that CY25 can be a better year for software demand as the broader IT spending backdrop improves. This is complemented by CIOs noting that they expect Gen-AI to constitute 5% of overall IT budgets in CY25 ([Exhibit 25](#), up from 3% in the prior survey), which ties with our view that AI product adoption can be an increasing contributor to top-line growth in CY25 for companies at both the Platform and Application layers.

#### Exhibit 22: Overall IT Spending Intentions Remain at Historically Elevated Levels

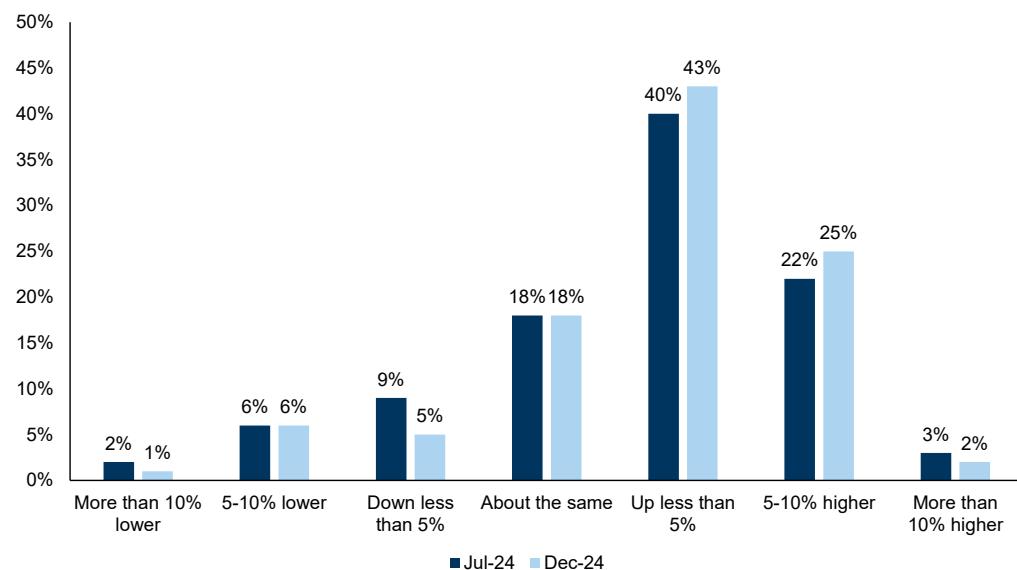
Index based on your current thinking, how do you expect your overall 2025 IT spending growth to be relative to 2024? What do you expect your IT capital spending growth (spending on new equipment and software only; not including staffing, services, depreciation, occupancy, or other) to be in 2025?

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Source: Goldman Sachs Global Investment Research

**Exhibit 23: IT Spending Expectations Improved vs. Our July 2024 Survey**  
Underlying responses driving the IT Spending Index



Source: Goldman Sachs Global Investment Research

## Gen-AI's Progression up the Stack to Drive CY25 Revenue Growth

**After growing momentum in 2H24, we expect AI contribution to software growth to start taking shape in CY25.** CY25 will be defined by three fundamental changes to the AI landscape: **1)** Software customers are increasingly incentivized to allocate more meaningful budget towards Gen-AI, **2)** Product cycles are moving at an accelerated pace towards the next generation of AI (particularly agentic AI), supporting faster adoption on the Application layer, and **3)** AI application pricing models are becoming solidified as software companies gain confidence in how to best balance AI adoption, compute costs, and value capture. Combined, we see these factors setting the foundation for AI to move to the Platform and Application layer and start contributing more tangibly to CY25 revenue growth, as we outlined in our August Gen-AI deep-dive. We acknowledge that the timing of this AI-driven revenue growth at the Application layer is consistent with the conversations we had with management teams in our bus tour last year, though longer than we initially expected at the beginning of CY24. CY24 AI adoption and monetization has accelerated, but, for the majority of our Platform and Application layer coverage, AI revenue is not yet material; early products were relatively immature and deployments were largely experimental. Following a major product shift in 2H24 towards agent-based or “agentic” AI as well as increasingly positive macro signals on a recovery in IT spending, we believe there is upside to current CY25 revenue estimates and that companies who can show tangible AI revenue contribution in CY25 could see a positive re-rating.

**Application layer poised to benefit in CY25 as revenue moves from the Infrastructure layer.** We believe the Application layer is best poised to see upside from AI in CY25. Most of the early focus on AI has been on building increasingly performant models. While Artificial General Intelligence (AGI) is the north star for many private AI companies, and this is laudable, AGI is not necessary for Gen-AI to permeate across the enterprise. The current momentum in Gen-AI application-layer uptake and revenue suggests that, even with current models, customers are observing meaningful efficiency gains. Instead, what has been holding application software back has been twofold: 1) A constrained budgetary environment and 2) Relatively early-stage products. Both of these factors have generally limited AI deployments to experimental, small-scale rollouts. To the first point, the buying environment should improve as election uncertainty has been resolved and companies have more clarity around rate cuts. To the second, as AI product velocity and quality increases, productivity benefits become more obvious and enterprises will deploy AI solutions more widely. Despite early concerns about the long-term viability of the seat-based model in software, if significant productivity benefits are realized, organizations will be hard-pressed not to invest aggressively in AI solutions to maintain their competitive advantages. These productivity boosts are complemented as the wider AI ecosystem is built out, including integrations, open source solutions, and platform-layer advancements which all make it easier to build and adopt AI solutions. In particular, products recently brought to market that can support AI data management, intelligence and app development are seeing growing adoption, including Microsoft Fabric (16k paid customers), Salesforce Data Cloud (+130% increase in paid customers YoY), Snowflake AI and ML features (3.2k accounts), and Elastic Gen-AI use cases (>1,550 customers). Longer-term, as we outlined in our [Gen-AI report](#), we believe productivity benefits will expand the labor pool, improve productivity, and redirect workers' attention to higher-level tasks (as nearly all prior tech cycles have demonstrated). Thus, we see room for meaningful ARPU uplift, particularly as interactions with Copilots and agents become more frequent and bespoke, which can translate into tangible CY25 AI revenue growth.

- **Gen-AI 2.0: AI product development focuses on agentic AI.** We see agent-based (agentic) AI products as becoming increasingly ubiquitous and encouraging more frequent usage of AI solutions. The first stage of enterprise Gen-AI was essentially reactive: customer-facing chatbots, code generation, and business productivity enhancements. These products were refined across CY23 and C1H24 for increasingly use-case specific applications. While these initial applications saw some uptake, we believe much of the real productivity promise lies within the second stage of AI product development: agentic solutions. Across the software stack, autonomous AI agents that act independently and can take actions on behalf of a user are becoming an increasingly helpful part of daily workflows. The proof is in the demand: [Salesforce](#) has already signed >1,000 Agentforce deals within a month of launch, with thousands in the pipeline and [Workday](#) notes that Recruiter Agent is boosting the core selling price by almost 150%. As AI agents become increasingly prevalent across the enterprise, we believe they will make the underlying software stickier and drive more frequent, bespoke interactions with the software. We argue, if agents are well-designed and easy to deploy, companies in our coverage could see

material revenue uplift from the increased consumption of their software.

**Commentary across our coverage highlights tangible AI revenue contribution and customer adoption.** While it is early for most software companies, across our coverage we see clear signs of scaling AI customer uptake and growing AI revenue contribution. This commentary supports our thesis that AI products can become a more substantial revenue driver in CY25, particularly at the Application layer. Examples of this are present across the tech stack. At the Infrastructure layer, we estimate Microsoft's Azure AI Services is at an almost \$8bn run-rate. Similarly, Oracle highlighted that it had signed \$12.5bn in AI contracts in just C1Q24. At the platform layer, Datadog saw 6 pp. of growth from AI-native customers last quarter, Snowflake highlighted >3,200 accounts using AI and ML features, and Elastic has over 1,550 Gen-AI customers, including 240 among their \$100K+ customer bracket. Even at the application layer, revenue and adoption has begun to scale. Salesforce has now signed >1,000 Agentforce wins. Based on their deal commentary, we estimate ServiceNow has well over \$100mm in Gen-AI ACV (partially contributing to their 3 turn re-rating this year). ZoomInfo now has >\$60mm in Copilot ACV. And, based on commentary around revenue growth and customer count, we estimate GitHub Copilot is at an almost \$400mm run rate. Together, these data points reinforce the clear AI-generated momentum and the attainability of material AI growth contribution in CY25.

**Exhibit 24: Select CY24 AI Commentary Highlights Scaling AI Adoption Across Our Coverage, Sets Solid Foundation for CY25 Revenue Contribution**

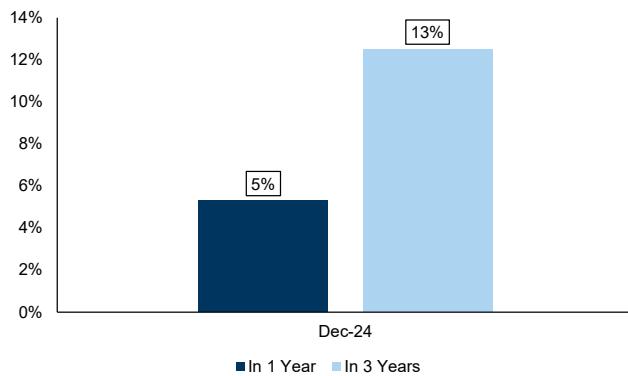
Commentary and Data Points on AI Revenue Contribution and Product Uptake Across Our Coverage

	3Q	2Q	1Q
<b>Adobe (ADBE)</b>			
- 12bn Firefly-powered generations since launch	- 9bn Firefly-powered generations since launch	- 6.5bn Firefly-powered generations since launch	
- AI assistant Interactions +70% QoQ	----	----	----
<b>Datadog (DDOG)</b>			
- AI native customers contributed ~6% of YoY growth	- AI-native customers contributed >4% of ARR	- AI native customers represented 3.5% of ARR	
- 3k customers use 1+ AI integrations	- ~2.5k customers use 1+ AI integrations	- ~2k customers use 1+ AI integrations	
<b>Elastic (ESTC)</b>			
- 240 customers spending \$100,000+ with ESTC are GenAI customers	- ~200 customers spending \$100,000+ with ESTC are GenAI customers	- 145 customers spending \$100,000+ with ESTC are GenAI customers	
- Over 1,550 customers using ESTC for GenAI use cases	- >1,300 customers using ESTC for GenAI use cases	----	
- 3 AI deals >\$1mm in ACV	----	----	
- New customer commitments with GenAI almost doubled in dollar volume vs. Q2	----	----	
<b>GitLab (GTLB)</b>			
- When Duo is attached to a deal, it makes up >25% of the total net ARR in year one	----	----	
<b>Intuit (INTU)</b>			
- Piloted Intuit Assist with >2mm customers	- >1mm SMB businesses with Intuit Assist availability	- >24mm customers interacted with Intuit Assist	
<b>Microsoft (MSFT)</b>			
- 12pp of Azure growth from AI services (GS\$ 2.0bn)	- 11pp of Azure growth from AI Services (GS\$ 1.4bn)	- 10pp of Azure growth from AI Services (GS\$ 1.0bn)	
-----	- >60k Azure AI customers (+60% YoY)	-----	
- >100k organizations have used Copilot Studio to-date	- 50k organizations have used Copilot Studio (>>70% QoQ)	-----	
- Nearly 70% of the F500 now use M365 Copilot	- M365 Copilot customers +>60% QoQ	- Nearly 60% of the F500 now use M365 Copilot	
-----	- 77k organizations adopted GitHub Copilot (+180% YoY)	- 1.8mm GitHub Copilot paid subscribers	
-----	- Copilot was >40% of GitHub FY24 revenue growth, already a larger business than all of GitHub when acquired	-----	
<b>Oracle (ORCL)</b>			
-----	-----	- Signed >30 AI contracts for \$12.5bn in new AI business, and nearly \$17bn this year	
<b>RingCentral (RNG)</b>			
- >1,200 RingSense customers (+>45% QoQ)	- >800 RingSense for Sales customers (net new bookings almost 3x QoQ)	- >600 RingSense for Sales customers (>2x QoQ)	
- RingCX AI Quality Management saw nearly 50% attach rate to new bookings	-----	-----	
<b>Salesforce (CRM)</b>			
- Signed >2,000 AI deals	- Signed 1,500 AI deals	-----	
- Signed >1,000 Agentforce deals by mid-December	-----	-----	
- 8 out of top 10 deals included Data Cloud and AI	- Paid Data Cloud customers +130% YoY	-----	
- Wins >\$1mm with AI >300% YoY	-----	-----	
<b>ServiceNow (NOW)</b>			
- Now Assist is the fastest-growing product ever	- Now Assist is the fastest-growing new product in the company's history	-----	
-----	- Now Assist NNACV 2x QoQ	-----	
- 44 Now Assist customers spending >\$1mm in ACV	- 11 Now Assist deals >\$1mm ACV	- 7 Now Assist deals >\$1mm in ACV	
- 6 Now Assist customers spending >\$5mm	- 2 Now Assist Deals >\$5mm	-----	
- 2 Now Assist customers spending >\$10mm	-----	-----	
-----	-----	- 7 out of top-10 deals included GenAI products	
-----	- Plus SKUs saw >30% price uplift vs. Pro	-----	
-----	- Plus average deal size >3x vs. Pro upgrade	-----	
<b>Snowflake (SNOW)</b>			
->3,200 accounts are now using AI and ML features	->2,500 accounts were using Snowflake AI weekly	->750 customers using Cortex AI capabilities	
<b>Workday (WDAY)</b>			
- >30% of customer expansions involved 1+ AI solutions	-----	-----	
- Recruiter Agent boosts the ASP of the core recruiting solution by almost 150%	-----	-----	
- >2,000 HCM customers are using Workday Assistant	-----	-----	
- Extend Pro ASP is 2x Extend Essentials	-----	->50% of Q1 Extend ACV was from Extend Pro	
<b>Zoom Communications (ZM)</b>			
- 57% of F500 have enabled AI Companion.	- AI Companion is now enabled on >1.2mm accounts	- AI Companion now enabled on >700k customer accounts	
- Zoom AI Companion MAUs grew 59% QoQ	-----	-----	
<b>ZoomInfo (ZI)</b>			
->\$60mm Copilot ACV	->\$18 million of Copilot ACV	-----	
-----	- 1,000 Copilot logos	-----	

**Percentage of IT budgets expected to go towards Gen-AI over the next year has increased by 200 bps to 5%.** Our IT survey provides evidence that CIOs are planning for AI budget allocation and, notably, adoption expectations are accelerating. Though the G2K CIOs surveyed may not be representative of the entire IT market, even a small portion of the 5T+ in IT spending (Gartner) would provide a meaningful revenue uplift for software. Notably, in just the six months since this survey was last conducted, the percentage of IT budgets expected to go towards Gen-AI over the next year has increased by 200 bps to 5% and expectations for allocation in three years has risen by 400 bps to 13% of IT budgets ([Exhibit 25](#), vs. just 3% and 7% respectively as of [last January](#)). Similarly, respondents indicated that Gen-AI workloads would be 16% of total cloud workloads in three years (vs. 10% in [last January](#)), which would constitute a major source of revenue for the CSPs (Gartner estimates total Public Cloud Services spending in CY24 is \$600bn, and will rise to nearly \$1.3tn by CY28).

#### Exhibit 25: Expected Gen-AI Allocation to Reach 5% of Total IT Budgets in 1 Year

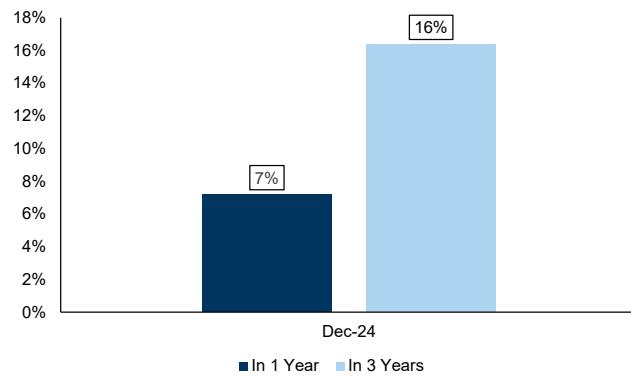
Question: "What percent of IT budgets could be allocated to Gen-AI in the next 1 year? 3 years?"



Source: Goldman Sachs Global Investment Research

#### Exhibit 26: Gen-AI Expected to be 7% of Total Cloud Workloads in 1 Year

Question: "What percent of cloud workloads do you expect to be Gen-AI in 1 year? 3 years?"



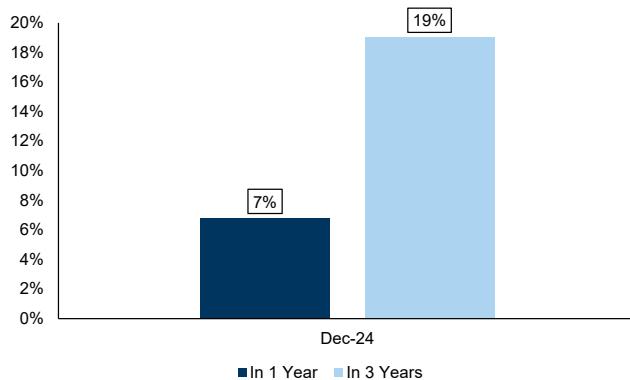
Source: Goldman Sachs Global Investment Research

- **As budget constraints ease and macro environment stabilizes, Gen-AI and Office Copilot adoption may accelerate; Azure emerging as the leader in Gen-AI workload allocation.** The installed base using Copilot is expected to be 19% in three years ([Exhibit 27](#), vs. 13% in the [January 2024 survey](#)). We believe these increased adoption expectations are likely a result of: 1) Easing budgetary constraints with improved visibility into interest rate cuts that supports a less restrictive capital environment, encouraging enterprises to invest in Gen-AI initiatives, 2) Reduced concerns around data governance as organizations gain familiarity and knowledge about Gen-AI and LLMs, coupled with a potential uptick in the number of company-specific LLMs. Together, these alleviate customers' data security concerns by ensuring that their proprietary data is not being used to train foundational models, and 3) Customers are gaining increased visibility into the potential efficiency gains driven by Gen-AI as more tangible use-cases and proof-points have emerged on the Application layer (e.g., Salesforce's Agentforce, ServiceNow's Now Assist, and Microsoft 365 Copilot). Furthermore, we asked CIOs for their platform of choice in Gen-AI workload allocation, where Azure rises as a leader with 80 respondents selecting it as the preferred cloud service provider for

Gen-AI workloads for the next three years, indicating a strong preference for Azure as companies shift their workloads towards Gen-AI ([Exhibit 28](#)).

#### **Exhibit 27: CIOs Expect Copilot Could be 7% of their Install Base in 1 Year**

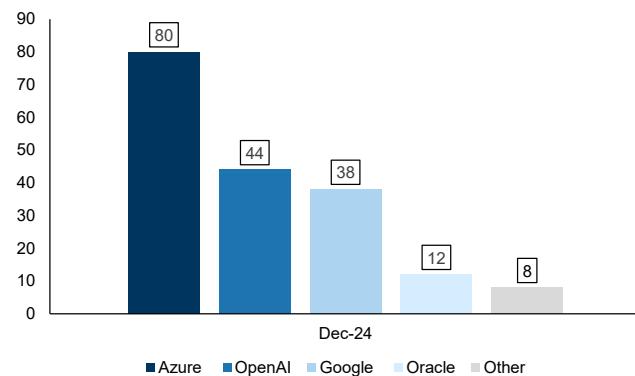
Question: "If you plan on using Office Copilot what percent of the install base could be on Office Copilot in the next 1 year? 3 years?"



Source: Goldman Sachs Global Investment Research

#### **Exhibit 28: Azure leads in Gen-AI Workload Allocation, Followed by Google and OpenAI**

Question: What percent of your Gen-AI workloads would be allocated to the following: Azure, Google, OpenAI, Oracle, & Other?



Source: Goldman Sachs Global Investment Research

**Consumption pricing likely to play a more significant role in Application software pricing with Gen-AI; Potential uplift to 2H25 Revenue.** We believe CY25 will be the year where AI application companies solidify their pricing models and their path towards AI monetization. We see the most likely outcome of AI pricing on the Application layer as a combination of seat-based and consumption pricing, which benefits from the stability of the seat-based model and aligns the usage of AI products with the cost. Application software companies can, thus, augment their relatively fixed seat-based CY25 revenue projections with consumption pricing. Companies have thus far approached Gen-AI products with five main pricing strategies: 1) Additional AI SKUs (i.e. GitLab Duo), 2) Premium AI Pricing Tiers (i.e. ServiceNow's Now Assist), 3) Consumption-based pricing (i.e. Adobe's token system or Salesforce's Agentforce), 4) Hybrid pricing, and 5) No direct monetization (Zoom AI Companion). Consumption based pricing benefits from the direct reflection of customers' engagement with the platform and the value extracted. This will be particularly true for agent-based solutions where usage could vary significantly company-to-company. Early examples from companies like Salesforce, pricing their solution at \$2 / conversation, validate this strategy ([Exhibit 29](#)).

- **AI boosts to productivity appear to have limited effect on overall hiring thus far.** We see CY25 as an important indicator as to what degree early AI adopters are able to offset hiring with AI-related efficiency gains. We note that while consumption-based pricing reduces the impact that a potential reduction in hiring could have on software's traditionally seat-based model, we also reiterate our belief productivity benefits are likely to augment human capacity and support GDP growth, not push employees out of the labor force. As [GS macro notes](#), while companies are seeing large impacts to productivity where Gen-AI has been deployed, AI-related corporate layoffs remain limited overall. And, as noted in our [AI report](#), history suggests that technological shifts ultimately boost labor productivity and create jobs.

**Exhibit 29: Pricing Models for AI SKUs Largely Hover Around \$20 to \$30 per Seat, With Some Introducing Consumption Pricing Publicly Available Per-Seat and Per-Conversation AI Pricing Models**

Product	Tier	Price	Description
<b>Anthropic: Claude.ai</b>			
	Free	Free	- Talk to Claude on the web, iOS, and Android
	Pro	\$18 / User / Month	- Higher usage limits - Use Claude 3.5 Sonnet and Claude 3 Opus - Access to Projects to organize documents and chats
	Team	\$25 / User / Month	- Higher usage limits than Pro - Early access to collaboration features - Central billing and administration
	Enterprise	N/A	- Higher usage limits than Team - Expanded context window - SSO, domain capture, role-based access, SCIM, audit logs, and data source integrations
<b>GitHub Copilot</b>			
	Individual	\$10 / User / Month	- For individual developers who want to code faster
	Business	\$19 / User / Month	- Includes organization-wide policy management, can exclude specified files from Copilot
	Enterprise	\$39 / User / Month	- Also includes Copilot chat, pull request summaries, knowledge bases
<b>GitLab Duo</b>			
	Duo Pro	\$19 / User / Month	- Code generation, code completion, code explanation, test generation, etc. - User permissions for AI capabilities - Only available to Premium and Ultimate customers
	Duo Enterprise	\$39 / User / Month	- Discussion summary, merge request summary, code review summary, vulnerability explanation/resolution, model personalization, etc. - Self hosted models and model personalization (planned) - Only available to Ultimate customers
<b>Google Workspace</b>			
	Gemini Business	\$20 / User / Month	- Gemini in Gmail, Docs, Slides, Sheets, and Meet - Enterprise-grade security and privacy
	Gemini Enterprise	\$30 / User / Month	- AI note taking and translated captions in 65+ languages - Automatically Classify, label, and safeguard sensitive documents with AI - Full access and usage of Gemini
<b>Loom</b>			
	Loom AI	\$5 / User / Month	- Filler word and silence removal, auto titles/summaries/chapters, AI workflows, edit videos by transcript
<b>Microsoft Copilot</b>			
	Microsoft Copilot	Free	- Search, create and edit images, use plug-ins
	Copilot Pro	\$20 / User / Month	- Can use in select M365 apps like Word, Excel, PowerPoint, and Outlook - Priority access to latest models during peak usage times
	M365 Copilot	\$30 / User / Month	- Incorporated into apps like Word, Excel, PowerPoint, Outlook, and Teams - Combine business data and AI with Business Chat and Copilot Pages - Create custom Copilot in Copilot Studio - Enterprise-grade security, privacy, and compliance
<b>OpenAI: ChatGPT</b>			
	Free	Free	- Access to GPT-4o mini, limited access to GPT-4o
	Plus	\$20 / User / Month	- Everything in Free - Extended limits on messaging, file uploads, data analysis, and image generation - Limited access to o1 and o1-mini - Create and use custom GPTs
	Team	\$25 / User / Month	- Higher message limits vs. Plus on GPT-4, GPT-4o, and Dall-E, web browsing, etc. - Create and Share GPTs with a workspace - Admin console for workspace management - Team data excluded from training by default
	Pro	\$200 / month	- Unlimited access to GPT-4o and o1 (usage must be reasonable) - Unlimited access to advanced voice - Access to o1 pro mode (uses more compute for the best answers to the hardest questions) - High speed access to GPT-4, GPT-4o, GPT-4o mini and tools like Dall-E, web browsing, etc.
	Enterprise	N/A	- Expanded context window - Admin controls, domain verification, analytics, enhanced support, and account management - Excluded from training by default
<b>Perplexity Pro</b>			
	Free	Free	- Unlimited Quick searches, 5 Pro Searches / day - Standard Perplexity AI model
	Professional	\$20 / User / Month	- Includes at least 300 Pro Searches / day - GPT-4 Omni, Claude 3 Sonnet and Haiku, Sonar Large 32k - Also includes file analysis, \$5 monthly API credit, and Pro support
	Enterprise Pro	\$33.33 / User / Month	- Unlimited access to Pro search - Access to models such as GPT-4 and Claude 3 - Collaborate in team workspaces with custom versions of Perplexity - Enhanced security, data privacy, user management, and data retention
<b>Salesforce Agentforce</b>			
	Agentforce	\$2 / Conversation	- Includes out-of-the-box Service Agent - Agent builder - Prompt builder
<b>Zoom</b>			
	Custom AI Companion	\$12 / User / Month	- Add-on to customize and personalize Zoom AI Companions, including a personalized coach and custom avatar clips - Can ground with data from internal and 3rd party applications

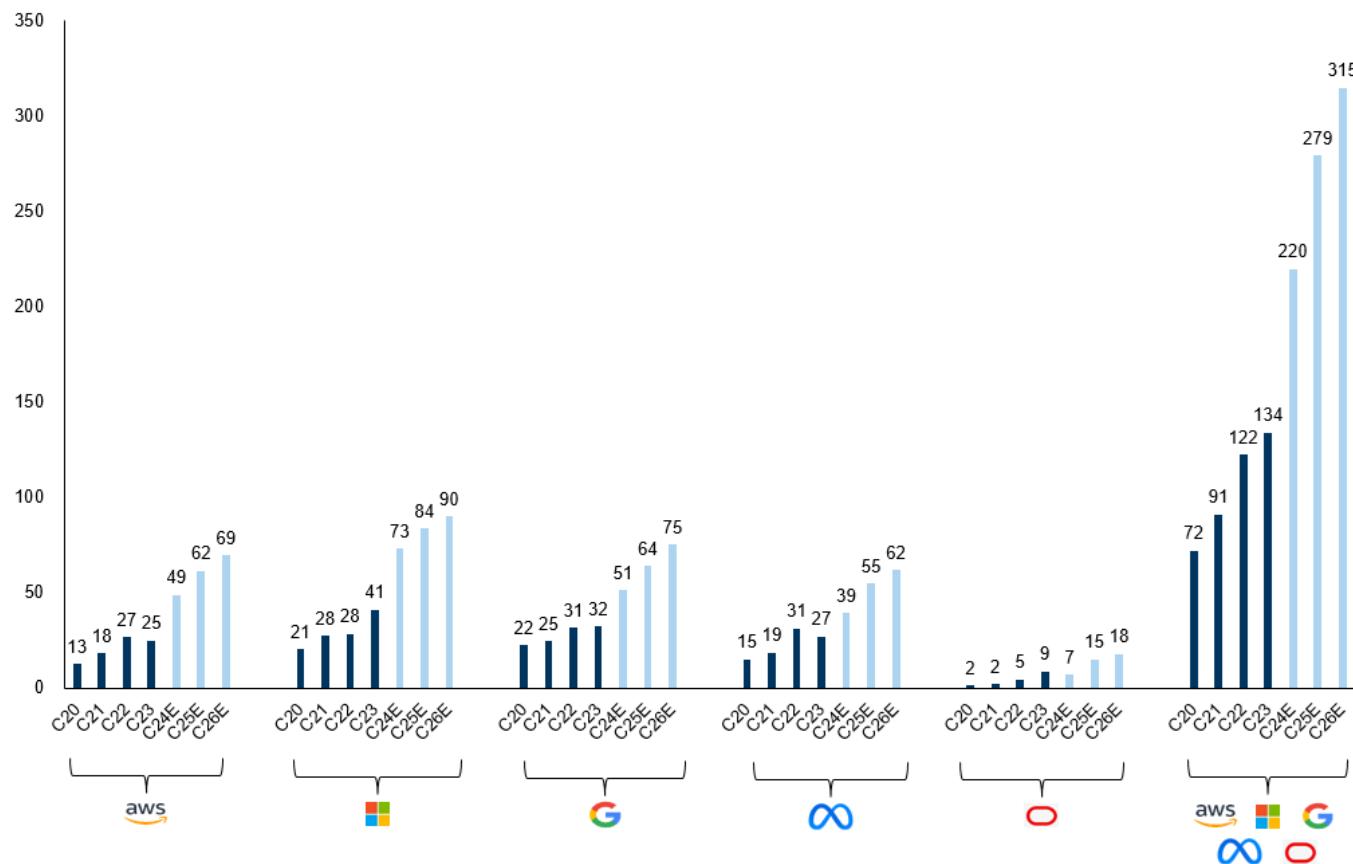
If price per month and price per year are different, defaulted to annual pricing

Source: Company data, Goldman Sachs Global Investment Research

**Current CapEx cycle sets stage for emerging AI opportunity, particularly as supply constraints ease in 1H25.** We see three major dynamics shaping the CapEx debate in CY25: 1) Capacity constraints beginning to ease, 2) Gen-AI native infrastructure becoming commercially available, and 3) Hyperscalers gaining more clarity on longer-term AI CapEx investments. To the first point, nearly all of the hyperscalers have called out AI demand outpacing supply in CY24. As large portions of AI data center capacity comes online in C1H25, we expect to see AI become an increasingly material portion of hyperscalers' Cloud revenue and for these investments to support long-term AI revenue streams and competitive moats. On the second point, we believe recent announcements of specialized Gen-AI hardware can help extend the GPU architecture and begin to offer relief on capacity constraints ([MSFT Ignite](#), [AWS re:Invent](#), [Google I/O](#)). CY25 will be the first year where hyperscalers' internally developed AI native hardware will be on the market. Beyond helping relieve capacity constraints, we see opportunities for this hardware to increase AI workload efficiencies and diversify supply. Lastly, CY25 CapEx growth and longer-term guidance (particularly Microsoft's initial FY26 guidance in July) should give investors a clearer understanding of the LT CapEx growth they are underwriting. Microsoft, in particular, recently highlighted they expect to invest approximately \$80bn in AI-enabled data centers in FY25 (June end). As roughly half of Microsoft's cloud and AI-related spend is for long-lived assets that will support monetization over the next 15+ years and Microsoft continues to build out agile, broad-based architecture that can be directed toward wherever tangible demand builds, we are constructive on the company's investment philosophy. GS currently expects CapEx from the five largest players on the market (Alphabet, Amazon, Microsoft, Meta, Oracle) to be 27% higher in CY25 and 13% higher in CY26 ([Exhibit 30](#)), as we believe the investment cycle may mirror the initial cloud buildout: growth moderating over time but absolute dollars still growing each year.

**Exhibit 30: Hyperscaler CapEx is Expected to See Material Increases in CY24 / CY25, Largely Driven by AI Investments**

GSe Hyperscaler CapEx



Microsoft CapEx is calendarized, includes Finance Leases

Source: Company data, Goldman Sachs Global Investment Research

## Valuations Still Have Room for Modest Re-Rating

### **Peak-to-trough analysis implies modest upside to current software valuations.**

Upon updating our peak-to-trough analysis, we believe that despite the multiple expansion at the back-end of CY24, software valuations can still re-rate marginally higher. While multiples for the broader SaaS universe appreciated by 9% in CY24 ([Exhibit 32](#)), we believe current levels still represent a minor discount to where valuations could land should there be an inflection in top-line growth. While not calling for a sharp re-rating in the sector, we note that prior expansionary cycles (2012/2013/2017/2019/2021/2023) have seen multiples expand by ~51%, on average ([Exhibit 32](#)). Current software multiples still trade below the pre-COVID average of ~9x (vs. current 7.5x NTM EV/S, [Exhibit 33](#)) which, on balance, screens reasonable considering NTM sales growth expectations have come down from mid-to-high 20% (CY19-CY22) to low-to-mid-teens (CY24) but operating margins across the broader software universe improved 11 pp. from CY19 (10%) to CY24E (21%, Consensus). As such, software companies are now sporting more balanced Rule Of profiles that provides decent support for current valuations despite a more tempered growth outlook vs. years past.

Looking ahead, growth stability vs. CY24 should support current valuation levels for the sector. If our upside view for modest growth inflection plays out (more 2H weighted), we could see modest re-rating and, as such, we believe this represents a buying opportunity for many of our high-quality SaaS names. We highlight key drivers of growth inflection that could drive modest re-rating at a sector-level: 1) Several companies ramped hiring in CY24 as Management teams look to capitalize on a potentially improving demand backdrop and extend into adjacent end-markets in CY25 ([Exhibit 19](#)). Historically, headcount additions have preceded revenue re-acceleration as companies ramp hiring either in reaction to, or in anticipation of, the return of end-market demand, 2) As the macro stabilizes further, we believe initial budget forecasts could prove to be too conservative, giving room to projects that were delayed or de-prioritized in CY23 and CY24 (i.e. cloud migrations, digital transformation initiatives), and 3) The proliferation of Gen-AI into the Platform and Application layer in our coverage could lead to upside in growth expectations, especially with current Consensus and upcoming Management guidance unlikely contemplating material contributions.

**Exhibit 31: Multiples have Compressed ~30% on Avg. Across the Last 24 Years**

Peak Date	Peak Multiple	Trough Date	Trough Multiple	Correction Duration (Months)	Multiple Compression
07/17/01	4.7x	09/27/01	2.6x	2.4	-44%
01/09/02	4.0x	10/07/02	2.0x	9.0	-49%
01/14/03	3.0x	03/11/03	2.5x	1.9	-18%
01/20/04	4.1x	08/12/04	3.0x	6.8	-27%
01/03/05	4.1x	04/28/05	3.0x	3.8	-27%
04/27/06	3.9x	07/13/06	3.0x	2.6	-24%
02/21/07	3.7x	03/13/07	3.4x	0.7	-10%
06/05/08	3.2x	11/20/08	1.4x	5.6	-57%
01/06/09	1.8x	03/09/09	1.4x	2.1	-20%
04/26/10	3.5x	06/30/10	2.8x	2.2	-20%
07/07/11	3.9x	08/19/11	2.8x	1.4	-28%
03/05/14	9.3x	04/11/14	6.7x	1.2	-28%
01/04/16	5.7x	02/09/16	3.9x	1.2	-32%
01/26/18	7.3x	02/08/18	6.6x	0.4	-9%
02/19/20	11.5x	03/16/20	7.4x	0.9	-36%
02/12/21	20.3x	03/08/21	14.5x	0.8	-28%
01/03/22	13.2x	11/04/22	5.5x	10.2	-57%
<b>Average</b>	<b>6.3x</b>		<b>4.3x</b>		<b>-30%</b>

EV/Sales data is comprised of 130 software companies.

Source: FactSet, Goldman Sachs Global Investment Research

**Exhibit 32: Expansionary Periods Have Seen Multiples Expand on Avg. by 51%**

Trough Date	Trough Multiple	Peak Date	Peak Multiple	Expansion Duration (Months)	Multiple Expansion
01/01/12	3.4x	12/31/12	5.0x	12.0	45%
01/01/13	5.0x	12/31/13	7.2x	12.0	44%
01/01/17	4.7x	12/31/17	6.0x	12.0	26%
01/01/19	7.0x	12/31/19	8.9x	12.0	28%
03/17/20	7.3x	02/09/21	18.6x	11.0	156%
05/18/21	12.4x	11/09/21	16.3x	6.0	31%
01/01/23	5.6x	12/31/23	7.2x	12.0	29%
<b>Average</b>	<b>6.5x</b>		<b>9.9x</b>		<b>51%</b>
01/01/24	6.9x	12/31/24	7.6x	12.0	9%

EV/Sales data is comprised of 130 software companies.

Source: FactSet, Goldman Sachs Global Investment Research

**Software Valuations remain below Pre-Covid (CY19) levels despite recent rally; we believe positive inflections to company fundamentals could drive a modest re-rating opportunity in CY25.** We anticipate NTM growth stabilization, if not inflection, supported by steady customer additions ([Exhibit 14](#)) and improved NER expectations ([Exhibit 12](#)). Our anticipation for further customer additions is supported by budget resets in CY25, an emerging Gen-AI product cycle, and a more cooperative macro backdrop while potential NER improvements may be driven by improved seat expansion and better multi-product attach with new Gen-AI SKUs. As seen from our recent IT Spending Survey, fundamentals could be set for a potential inflection as enterprises re-engage with digital transformation initiatives and look to allocate more budget towards Gen-AI products and services. Software names with more established

Gen-AI product sets remain well-positioned to capture this demand. These factors collectively create a favorable environment for the sector to modestly re-rate in CY25 from current levels ([Exhibit 33](#)).

#### **Exhibit 33: Software Multiples Remain Below the Pre-Covid Peak of 10.3x, Remain Similar to Early 2019 Levels**



NTM EV/Sales, NTM Sales Growth data is comprised of 130 software companies.

Source: FactSet, Goldman Sachs Global Investment Research

#### **Intrinsic value analysis indicates that half of our coverage universe trades at a discount.**

**discount.** Our coverage (+4% in CY24) has underperformed the NASDAQ by ~25 pp. in CY24 ([Exhibit 1](#)) as enterprise IT spending remained constrained due to uncertain macroeconomic conditions, resulting in another year of revenue growth deceleration for the sector. Entering CY25, we believe company guidance could be initially conservative and call for another year of growth degradation as Management teams are awaiting stronger demand signals prior to materially altering their current guidance philosophy. That being said, we see multiple fundamental catalysts likely providing upside to initial estimates. Given the volatility in the market, we believe our intrinsic value analysis could prove useful for identifying strong investment opportunities.

We triangulate current valuations across our software coverage against the intrinsic value of software companies' current maintenance base versus the 'growth' optionality embedded in current price. We attempt to determine the EV/S multiple of a software company in a zero-growth environment (no net new growth) - akin to a bond with a fixed yield. In our zero-growth methodology we use our standardized 4.5% WACC (in line with the current interest environment) and assume that companies limit S&M spend to replace churn, with no net new spending on growth. We also make assumptions regarding R&D and G&A intensity under a no growth scenario, with limited investments in new product development, hiring, etc.

As detailed in [Exhibit 34](#), using a 4.5% yield, the average revenue multiple for our

coverage would be 9x. As 9x remains higher than what the sector is valued at currently (7.5x) we believe there is room for modest upward revision in multiples. Furthermore, with our current coverage trading at lower levels as our zero-growth scenario, this would imply that should even modest growth be accounted for, our coverage would screen dislocated versus their intrinsic value. Additionally, we flex our assumptions to include a 3.5% and 5.5% yield, accounting for bull and bear cases. A 3.5% and 5.5% yield implies intrinsic values of 11x and 7x (+49% / -4%) from current levels, respectively).

**Exhibit 34: Intrinsic Value Analysis**

Ticker	Rating	Price				Zero-Growth Scenario - 3.5% WACC				Zero-Growth Scenario - 4.5% WACC				Zero-Growth Scenario - 5.5% WACC			
		Current	Target	U/D	Revenue	EV / Sales	Share Price	Maintenance	Growth	EV / Sales	Share Price	Maintenance	Growth	EV / Sales	Share Price	Maintenance	Growth
ADBE	Buy	\$420	\$640	53%	\$21.51	13.9x	\$678	162%	-62%	11.0x	\$537	128%	-28%	8.9x	\$437	104%	-4%
ADSK	Neutral	\$296	\$295	0%	\$5.96	13.0x	\$363	123%	-23%	10.1x	\$284	96%	4%	8.3x	\$233	78%	22%
BASE	Sell	\$16	\$18	13%	\$0.20	9.0x	\$36	232%	-132%	7.0x	\$28	180%	-80%	5.7x	\$23	148%	-48%
BSY	Neutral	\$47	\$51	9%	\$1.31	13.2x	\$48	103%	-3%	10.3x	\$37	80%	20%	8.4x	\$29	65%	35%
CFLT	Neutral	\$29	\$29	1%	\$0.92	11.2x	\$27	94%	6%	8.7x	\$20	73%	27%	7.1x	\$16	60%	40%
CRM	Buy	\$327	\$400	22%	\$37.19	10.1x	\$390	119%	-19%	7.9x	\$303	93%	7%	6.4x	\$248	76%	24%
DDOG	Buy	\$142	\$162	14%	\$2.54	12.0x	\$86	61%	39%	9.4x	\$67	47%	53%	7.7x	\$55	39%	61%
DT	Buy	\$52	\$62	19%	\$1.56	13.6x	\$74	144%	-44%	10.6x	\$58	112%	-12%	8.7x	\$48	91%	9%
ESTC	Neutral	\$98	\$113	15%	\$1.38	11.1x	\$145	149%	-49%	8.7x	\$113	116%	-16%	7.1x	\$93	95%	5%
GTLB	Buy	\$62	\$88	43%	\$0.71	15.0x	\$65	105%	-5%	11.7x	\$51	82%	18%	9.5x	\$42	67%	33%
INFA	Buy	\$26	\$38	48%	\$1.66	5.9x	\$28	110%	-10%	4.6x	\$21	85%	15%	3.7x	\$17	70%	30%
INTU	Buy	\$626	\$800	28%	\$16.59	11.2x	\$644	103%	-3%	8.7x	\$498	80%	20%	7.1x	\$406	65%	35%
IOT	Buy	\$44	\$55	24%	\$1.18	12.1x	\$25	56%	44%	9.4x	\$19	44%	56%	7.7x	\$16	36%	64%
MDB	Buy	\$249	\$390	57%	\$1.92	11.5x	\$271	109%	-9%	9.0x	\$212	85%	15%	7.3x	\$175	69%	31%
MNDY	Buy	\$227	\$350	54%	\$0.91	14.4x	\$273	123%	-23%	11.2x	\$218	95%	5%	9.1x	\$183	78%	22%
MSFT	Buy	\$425	\$500	18%	\$254.19	11.3x	\$380	90%	10%	8.8x	\$295	70%	30%	7.2x	\$241	57%	43%
NOW	Buy	\$1,049	\$1,200	14%	\$10.46	14.5x	\$733	70%	30%	11.3x	\$572	54%	46%	9.2x	\$469	44%	56%
ORCL	Neutral	\$163	\$185	13%	\$54.93	11.3x	\$190	114%	-14%	8.8x	\$142	89%	11%	7.2x	\$111	73%	27%
PCOR	Buy	\$76	\$83	9%	\$1.11	12.6x	\$95	125%	-25%	9.8x	\$74	97%	3%	8.0x	\$61	80%	20%
PD	Neutral	\$18	\$21	19%	\$0.46	9.8x	\$47	260%	-160%	8.7x	\$42	230%	-130%	7.1x	\$34	188%	-88%
RBRK	Buy	\$63	\$77	22%	\$0.80	12.1x	\$52	82%	18%	9.4x	\$40	64%	36%	7.7x	\$32	52%	48%
RNG	Neutral	\$34	\$38	13%	\$2.36	9.0x	\$210	471%	-371%	7.0x	\$160	366%	-266%	5.7x	\$128	300%	-200%
SNOW	Buy	\$161	\$220	37%	\$3.41	10.5x	\$105	64%	36%	8.6x	\$87	53%	47%	7.4x	\$75	45%	55%
SWI	Sell	\$14	\$12.50	-11%	\$0.78	11.3x	\$52	389%	-289%	8.8x	\$41	303%	-203%	7.2x	\$33	248%	-148%
TEAM	Buy	\$244	\$245	0%	\$4.57	14.2x	\$252	103%	-3%	11.0x	\$197	80%	20%	9.0x	\$162	66%	34%
TWLO	Neutral	\$111	\$77	-31%	\$4.34	6.4x	\$171	153%	-53%	5.0x	\$133	119%	-19%	4.1x	\$108	97%	3%
WDAY	Buy	\$255	\$300	18%	\$8.16	10.3x	\$306	120%	-20%	8.0x	\$237	93%	7%	6.5x	\$193	76%	24%
WEAV	Neutral	\$16	\$14.50	-8%	\$0.20	9.6x	\$27	173%	-73%	7.5x	\$21	135%	-35%	6.1x	\$17	110%	-10%
ZM	Neutral	\$80	\$86	8%	\$4.63	4.7x	\$73	91%	9%	3.6x	\$58	70%	30%	3.0x	\$48	58%	42%
Average			18%			11.2x		141%	-41%	8.8x		111%	-11%	7.2x		91%	9%

\*Excl. DH, DBX, ZI, U. Stock Price as of 1/8/2025

Price targets are for a 12-month time frame. Stock Prices as of 1/8/24 market close

Source: FactSet, Company Data, Goldman Sachs Global Investment Research

**While acknowledging that companies with improved underlying fundamentals are likely to warrant a modest upward re-rating, we also note rate cuts can benefit software valuations.** Following a prolonged period of artificially low rates, the raising of interest rates to tamp down inflation had a considerable impact on software multiples as seen in [Exhibit 35](#). Throughout CY24, software sector EV/Sales multiples showed a weaker inverse correlation to the 10-year yield compared to previous years. While the most recent Fed dot plot showed a median projection of two 25bps cuts in 2025, GS' expectation for 3 cuts ([December FOMC Recap](#)) strengthens the case for a more favorable low interest rate environment which reduces the risk-free rate, historically benefiting software valuations.

**Exhibit 35: Average Multiples Can Expand As Interest Rates Go Down**

NTM EV/Sales data is comprised of 130 software companies.

Source: FRED Economic Data, Goldman Sachs Global Investment Research, FactSet

## Best Positioned Names: Continue to Own Quality Growth, Lean into Temporarily Dislocated Stocks

**Framework for identifying the best positioned names for CY25.** As we evaluated our coverage to determine our top investment ideas for CY25, we reflected back on what worked in CY24. We note that CY24 was, on the whole, a challenging year for software, with only 6 of the 33 names under our coverage outperforming the NASDAQ (+29% in CY24); note our coverage underperformed NASDAQ by ~25 pp. in CY24 ([Exhibit 1](#)). Of those that outperformed, there was a clear bend towards either quality, long-term growth assets – Rubrik (+48%), ServiceNow (+21%), Samsara (+2%) – or idiosyncratic narratives (whether on valuation, product cycle, or better-than-anticipated fundamental execution) as we observed with the outperformance of Oracle (+29%), Twilio (+14%), and Weave Communications (+10%). When determining the best positioned names for CY25, we opted to employ a barbell approach which centers on identifying names that are either: 1) High-quality franchises positioned for modest upside in CY25 and durable 20%+ LT growth due to expansive market opportunities, clear product-market fit and strong operational execution or 2) Mispriced debate stocks exiting CY24 where fundamentals, sentiment and valuation have room to improve. In our LT quality list, we highlight: NOW, DDOG, RBRK, and IOT and in our mispriced stocks list, we highlight: ADBE, CRM, INTU, MDB, MNDY, MSFT, and SNOW. Below we lay out the rationale for each of these names and potential drivers of outperformance.

## Mispriced Debate Stocks

- **Adobe (12-month PT \$640):** We highlight Adobe entering CY25 as an underappreciated, durable franchise that is poised to benefit from a change in sentiment and to outperform conservative expectations. Adobe has underperformed the NASDAQ (-54 pp. in CY24) largely due to a conservative growth outlook and two fundamental debates: 1) Why Adobe hasn't more meaningfully monetized its AI offerings and 2) How durable is the lower end of Adobe's market. In contrast to bears, we view guidance as achievable/beatable, AI products as sticky and differentiated, and see Adobe gaining traction in the enterprise. We see three main reasons for conviction in FY25 double-digit growth, strong market positioning, and eventual narrative shift: 1) Adobe has a strong record of meeting and beating its guidance targets. Particularly as AI product monetization scales, we see multiple avenues to FY25 double-digit growth and outperformance, 2) AI products are a sticky and underappreciated source of revenue growth as Adobe begins to more directly monetize. In customer conversations, it is abundantly clear how many customers are using AI products and reporting significant productivity boosts. At the same time, alternative AI tools don't have comparable advanced functionality which, for most customers, is indispensable, and 3) Seat expansion and cross-selling can be key pillars of growth. In particular, the company is seeing momentum in cross-selling enterprise-wide products like Express and GenStudio which are becoming a more meaningful part of the company's growth algorithm and can provide high LTV users. Alternatively, at the lower end of the market, Adobe is poised to benefit from any potential CY25 recovery in SMB spending while we believe concerns about competitive pressure are overstated. Across all business sizes, we find creatives are intently focused on best-in-class functionality and are reluctant to adopt emerging solutions that often are either less holistic or lack comparable depth vs. Adobe products. Trading at 7x EV / CY26 sales vs. Rule-of-50+ comps at an average of 11x, we believe Adobe's risk/rewards skews positively. We view Adobe's Analyst Day in March as a key catalyst in CY25 for investors to gain conviction on the company's growth components and TAM penetration.
- **Intuit (12-month PT \$800):** We highlight Intuit heading into CY25 following a year of notable underperformance vs NASDAQ (28 pp.), where the business faced a challenging operating environment and the downward revision to the LT growth outlook for Credit Karma (10-15% from 20-25%) and Consumer (6-10% from 8-12%). Despite a perceived heightened competitive landscape, we are constructive on Intuit's long-term growth durability given their established footprint, rich platform, and ability to execute on moving up-market. Long-term, we see Intuit with multiple years of durable mid-teens+ topline growth and 20%+ profit growth as we believe that the company is in the early stages of a strategic shift, where the growth algorithm weighed more towards revenue per customer growth unlocking margin expansion vs traditional being a unit expansion business. Going into CY25, we believe that there is upside to expectations given an improved macro backdrop that signals for potential improvements in the SMB/SE segment. In particular, we see potential for Online ecosystem to reaccelerate with credit availability stabilizing for SMB businesses and interest rates continuing to ease. Further, we believe that

Intuit can execute upon a large and relatively uncontested greenfield market for QBO Advanced in the mid-market, already demonstrating strong momentum with ~42% yoy growth in F1Q25. We see room for QBO Advanced to further accelerate as contribution from Intuit Enterprise Suite (launched at Investor Day) grows, driving higher ARPC across the customer base, albeit small given its early stages. Lastly, we believe that Intuit's enhanced functionalities to accommodate more medium-sized businesses with more complex tax filings, coupled with Intuit Assist, will be key components to the company's next leg of growth which we see the market discounting today. Looking ahead to CY25, we see a positive risk/reward (+28% vs. current stock price) at an entry multiple of 8x EV/S (CY26), representing a discount vs Rule-of-50+ comps trading at an average of 10x.

- **Microsoft (12-month PT \$500):** We highlight Microsoft entering CY25 as a stock uniquely poised to benefit both as AI revenue moves from the Infrastructure to the Platform and Application layers as well as AI workloads move past model-focused and product trials to wider-scale deployments. After Microsoft underperformed the NASDAQ last year (-17 pp in CY24) we believe the stock can inflect in CY25 due to: 1) Azure reacceleration, given the alleviation of AI-related capacity constraints as AI data centers come online, 2) A more meaningful growth contribution from M365 Copilot Revenue, which can shift investor focus from cost concerns to the revenue opportunity, and 3) EPS support, if not upside, from rising cash levels and interest income (after buybacks and dividends), despite losses related to the company's OpenAI investment. Our CIO Survey continues to indicate that Microsoft remains a market leader, with 80% of CIOs anticipating to allocating some of their Gen-AI workloads to Azure (Exhibit 28). At the same time, Copilot enhancements and expanded use cases are coming to market at a rapid pace (Ignite), which can complete the AI revenue opportunity as we see budgets spanning all layers of the stack in CY25. As customers allocate more budget to AI solutions and expand product deployments, we believe Copilot may evolve to be the key Gen-AI use-case, particularly as Microsoft builds out the enterprise AI ecosystem.
- **Monday.com (12-month PT \$350):** We highlight Monday.com entering CY25 as a best-in-class Rule-of-60+ company with a strong product foundation and durable margin profile that can support outperformance in CY25. Monday underperformed the NASDAQ last year (-3 pp in CY24) after reporting a softer beat than expected in F3Q24, worries about execution risk from a transition in sales leadership, and intra-quarter commentary on EMEA macro softness. Trading at 7x CY26 sales vs. best-in-breed Rule-of-50+ comps at an average of 10x, we see Monday's risk/reward skewed positively with opportunity for meaningful re-rating in CY25 from both earnings and multiple revision. We remain constructive on Monday's path to becoming a strategic software provider and supporting sustained high 20% growth as: 1) Newer products scale (like CRM, Dev, and Service), 2) Bolstered Work Management capabilities drive wider deployments and support expansion upmarket, and 3) An increasing focus on AI products should support customer retention and eventual monetization. While we acknowledge the initial CY25 guide may come below our current expectations of 31% (especially given ongoing macro choppiness, particularly in EMEA), we believe the aforementioned tailwinds will likely yield full

year results to ultimately land in this range. The stock's current levels (selling off 17% since 12/16) also suggest this scenario is already baked into the company's valuation. We also note that with 55% of their ARR coming from SMB and mid-market (Investor Day), Monday is poised to benefit from an expected CY25 in the lower end of the software market (while they expand their position in the enterprise). As Monday continues to deliver strong growth in the face of macro uncertainty while exhibiting strong pricing power, durable new customer demand, and traction within enterprise, we believe Monday is a unique asset, with the path toward \$2bn+ in revenue by FY27.

- **MongoDB (12-month PT \$390):** We highlight MongoDB heading into CY25 following a year of significant underperformance vs. NASDAQ (-72 pp.) as Revenue growth slowed across both core Atlas (macro-induced plus slower CY23 workload cohort growth) and Enterprise Advanced (on strong renewal cycle, unusually tough multi-year compare) plus -380 bps of OpM contraction (albeit better than initial guide) that fell short of investor expectations relative to its premium multiple. That said, looking ahead to CY25 we see a positive risk/reward (+57% upside vs. current stock price) at an entry multiple of 7x EV/S (CY26), representing a wide discount to consumption peers Snowflake (11x) and Datadog (12x). While we don't rule out an initially conservative Management guide (C4Q) that could initially fall short of Consensus expectations for +17% (vs. GSe +18%), akin to the prior two years, we see scope for MongoDB to subsequently return to a mid-single digit beat cadence (vs. +3.3% in CY24) and benefit from an upward revision cadence through CY25 as a healthier demand backdrop (esp. in SMB) translates to better underlying app usage activity (consumption) on Atlas. Additionally, Enterprise Advanced (EA) can overshoot vs. rather muted expectations as recent quarters have validated MongoDB's run anywhere strategy is resonating with enterprises, which can translate to healthier-than-expected new workload acquisition. In addition, we see MongoDB's operational steps such as doubling down on the upmarket opportunity through the expansion of its strategic accounts program, investing in ProServ for accelerated legacy app modernization and driving early awareness and adoption of its Vector Search product augmenting FY26 revenue growth. Stepping back, we believe stronger fundamental execution that can also drive multiple re-rating closer to consumption comps can support NTM stock outperformance.
- **Salesforce.com (12-month PT \$400):** We highlight Salesforce heading into CY25 as one of the most strategic application software companies in the \$1tn+ TAM cloud industry, well-positioned to durably grow in the Gen-AI dominated world with first-mover advantage in agentic AI. Data Cloud and Agentforce have played instrumental roles in laying the foundation to enable Salesforce's competitive strength in the age of AI. We believe that Salesforce can continue strengthening its value proposition beyond a traditional CRM tool, supported by the differentiated data and metadata which customers have built into the Salesforce platform over the last 25 years. We view Salesforce's early leadership in agent-based AI as support for the company's strong product-market fit and long-term growth durability. Where, the company is well-positioned to benefit as AI spend moves up the tech stack from the Infrastructure into the Platform and Application layer. CRM lagged the market in the

first half of CY24 but has since gained momentum (-2pp. vs NASDAQ for the full-year) as these product investments came together, with further upside stemming from: 1) Improving macro environment, 2) IT budget unlock as AI spend move into the application layer (Gen-AI VIII), 3) Gen-AI strategy execution with strong early momentum in Agentforce (>1,000 deals closed within a month of launch and thousands more in the pipeline), 4) Data Cloud's added contribution as it approaches ~\$1bn, and 5) Cyclical improvements in Marketing and Commerce Cloud which we believe can reaccelerate to ~12% yoy growth. Lastly, we reiterate our conviction in Salesforce's ability to deliver ~\$17 FCF/Share in CY26. We also highlight that comparable companies like INTU, ADBE, and ADSK, which have made the transition to profitable and sustainable growth, have been able to garner >30x FCF at several points in their journey. Looking ahead to CY25, we see a positive risk/reward (+22% vs. current stock price) at an entry multiple of 7x EV/S (CY26), underlining a notable discount vs Rule-of-50+ comps trading at an average of 10x.

- **Snowflake (also on the CL, 12-month PT \$220):** We highlight Snowflake heading into CY25. The stock underperformed the NASDAQ by 51 pp. in CY24, a function of a weaker-than-expected positive revision cycle on FY25 Product Revenue against perceived conservative initial Management guidance and an unabating competition narrative from private peer Databricks. However, we see a positive risk-reward over the NTM (+37% upside vs. current stock price) at an entry multiple of ~11x EV/S (CY26), predicated on stabilizing fundamentals and room for modest re-rating closer to Rule of 50+ peers such as Datadog (12x) and ServiceNow (13x). With the stock off more than 10% from the local highs following Snowflake's strongest print (C3Q) in several Q's, we believe the setup points to limited risk of a material downside surprise for initial FY26 Product Revenue guidance. Assuming a more modest +3% beat on Product Revenue in F4Q25 (implying \$788M in Net New Revenue for FY25), Management should be well-positioned to guide FY26 Product Revenue within a small margin of error (+/- 2%) of Consensus estimates for \$4.2B. We see this representing a solid baseline for Snowflake to outperform against, particularly with Snowflake's core Data Warehousing/Engineering business demonstrating stability as of F3Q (with NRR steady at +127%) and growth optionality via Snowpark (plus Container Services) and Cortex AI, where adoption and utilization is ramping quickly. The potential for a healthier spending backdrop and enterprises higher proclivity to spend on Gen-AI product/services should also dovetail nicely with Snowflake's accelerating cRPO/RPO in the past two quarters (now \$2.9B/\$5.7B), which provides a healthy base of committed capacity that can be unlocked against Snowflake's slate of new Gen-AI and core services. We also see Snowflake delivering OpM expansion following an AI investment cycle in CY25. Stepping back, we believe that Snowflake is now on firmer footing to drive durable mid-20's revenue growth rate at scale and re-establish itself as a compounding growth asset (w/ FCF support) with the new CEO firmly established, product velocity markedly improving, and its core business poised to inflect.

## High Quality Long-Term Assets

- **Datadog (12-month PT \$162):** We highlight Datadog heading into CY25, as we

continue to believe in its competitive positioning as a strategic infrastructure software provider with an end-to-end observability platform that should allow it to sustain a growth rate of 20%+ for the foreseeable future. This outlook is bolstered by an increasing contribution of AI revenue (comprising 6% of ARR in F3Q24 vs 2.5% in F3Q23), which we believe can continue to scale well north of 10% in CY25. Furthermore, with a more accommodative Fed policy and revival of business optimism among digital natives, we believe Datadog's SMB business (which has been trailing the growth of Enterprise) has the potential for a snap back. We note that Datadog's stock performance in CY24 (+18%) has been largely a function of its revenue growth rate while its out-year calendar revenue multiple has effectively remained the same. We view DDOG as a compounding growth asset, with an attractive combination of sustained 20%+ topline growth rate and 25% of OpM, tracking its way to a \$10bn business—a threshold few software companies achieve. Having said that, we do believe that management's initial stab at CY25 guidance is likely to be conservative and don't see near-term upside to current Consensus estimates of 22% growth rate. We could even see a modest downward revision while the year can end up similar to that of CY24, with beats and raises ultimately landing closer to 25% topline growth rate. Looking ahead, we believe that Datadog will be able to better monetize the rapidly expanding workloads of Gen-AI once AI GPU workload pricing is more firmed up with new SKUs.

- **Rubrik (12-month PT \$77):** We highlight Rubrik heading into 2025. We believe Rubrik offers best-in-class growth potential as the company continues to disrupt the \$11B+ legacy-dominated backup and recovery market with its purpose-built data security platform. While Rubrik's stock has returned +72% in CY24 (vs. NASDAQ +29%) since its IPO in late-April and re-rated to >8x EV/S (CY26) on the back of consecutive beat-and-raise Q's, continued hypergrowth in its Cloud business (+69% in F3Q) and a FCF inflection coming out of F3Q, we still see potential for the stock to deliver appreciable upside in the NTM (+22% upside vs. current price). Central to our view is Rubrik's ability to sustain its beat-and-raise cadence into FY26, with the company well-positioned to deliver modest upside to Consensus' +24% Subscription ARR growth (implying ~\$250M in NNARR). The combination of durable 120%+ DBNER via organic data volume growth, subscription up-tiering and new workloads plus healthy contributions from new logos should be supportive of NNARR at least in-line with FY24 (GSe \$267M ex. Maintenance benefit), especially with prospects of a less constrained budgetary environment heading into CY25. This would only serve to complement the company's ability to deliver upside to Street expectations considering Rubrik's already strong value proposition to the enterprise that enables CIOs to repurpose existing backup budgets for a next-generation data security platform that often comes with considerable TCO reduction vs. incumbent offerings. All the while, FCF is hitting an inflection point as Rubrik realizes incremental S&M efficiencies via channel leverage, lower acquisition costs and a growing renewal base, which should enable the company to deliver on, if not exceed, its initial target for breakeven or better FCF in FY26.
- **Samsara (12-month PT \$55):** We highlight Samsara heading into CY25, as we continue to view Samsara as a differentiated, compounding growth company at

scale, coupled with significant competitive advantages while delivering consistent product innovation and operating leverage. We note that very few companies in software can claim that attractive combination while highlighting Samsara's ability to generate double-digit FCF while continuing to grow topline by 30%+ as a standout factor. While the recent set-back in the stock is understandable following F4Q25 guidance of 22% yoy growth vs. 36% in F3Q25, we would note that adjusting for the extra week of revenue growth would land closer to ~31%. We remain encouraged by Samsara's expanding dollar-based NRR across the core of >115%, and more importantly that of large customers at >120%. Moreover, the company has shown the ability to deliver rapid product velocity with the introduction of Asset Tags which has shown considerable progress (growing at 100% QoQ). Further, we believe that international markets (composing 17% of net new ACV in F3Q25) can continue to expand significantly in the years ahead. Taking a step back, we believe that Samsara should be seen as a broader workflow application platform in addition to its core telematics and driver safety products, as the company permeates a much larger asset management market outside of its core domains. We would note that the performance in the stock in CY24 (~30%) has been driven by its striking growth rate of ~40% yoy (as of F3Q25) while holding the out-year multiples steady at 12-13x EV/Sales. While the stock has underperformed since F3Q25, we see this as a temporary set-back and believe that the company is on track to deliver 30%+ growth in CY25. We view this as optimistic about the near-term while also constructive on the potential for the company to eventually break into the \$5bn revenue lead.

- **ServiceNow (12-month PT \$1,200):** We highlight ServiceNow entering CY25 as a best-in-class software franchise that can sustainably growth 20%+ with a Rule of 50+ profile. We also raise our price target to \$1,200 (\$1,050 prior) to reflect recent peer performance and our confidence in ServiceNow's long-term growth trajectory. ServiceNow outperformed the NASDAQ last year (+21 pp. in CY24) on the back of consistent top- and bottom-line outperformance, accelerating backlog growth (+33% CC in F3Q24 vs. +31.5% in F2Q24 and +27.5% in F4Q23), and rapidly ramping Gen-AI deal momentum (GSe \$100M+ in F3Q Gen-AI ACV). As Gen-AI transitions from the Infrastructure layer to the Platform and Application layers, we expect ServiceNow to continue to lead application peers in tangible AI revenue attribution. In CY25, we see investors continuing to reward software companies that can demonstrate material AI revenue growth and product velocity; we expect ServiceNow to continue to outperform peers with less sophisticated products and/or more ambiguous paths towards monetization. In particular, we expect AI adoption to increasingly focus on agentic solutions. As an early leader in the agent-based AI solutions, we look for ServiceNow's AI momentum to continue as ServiceNow's Agents are made available to customers and additional features are released (CSM AI Agents and ITSM AI Agents available as of November 2024 in limited release). Broadly, we see ServiceNow's leadership in AI product innovation as complementary to an already robust product portfolio and cross-sell motion (NRR >120%) which, together, can support a diversified growth profile. Longer-term, we are 5% above Management's target for \$15bn+ in Subscription Revenue by FY26 as we believe steady execution and impressive innovation velocity position the company well to sustainably grow 20%+ with a 30%+ FCF margin profile.

## Valuation & Key Risks

**Adobe (Buy):** We reiterate our 12-month price target of \$640. Our price target is based on a three-pronged valuation framework based on equal weights to a DCF, EV/Sales multiple, and a P/E multiple. Our DCF assumes a 4% perpetual growth rate (unchanged). We use a 12x Q5-Q8 EV/Sales (unchanged) and a 28x Q5-Q8 P/E multiple (unchanged).

Key risks include: 1) prolonged and worse-than-expected COVID-19 impact causing slower net new business, deal delays, and longer sales cycles, 2) slower and more volatile Digital Experience growth, 3) slower net new subscriber additions, 4) higher expense growth limiting margin expansion, and 5) increased competition.

**Datadog (Buy):** We reiterate our 12-month price target of \$162. Our Price Target is based on a 50% / 50% weighting of EV/Sales and DCF. We use an EV/NTM Sales multiple of 15x (unchanged). Our 10-year DCF assumes a perpetuity growth rate of ~3% (unchanged).

Key downside risks include: 1) Decline in sales growth from lower SMB contribution resulting from COVID-19, 2) Declining sales productivity, 3) Increased competition from both observability and hyperscaler vendors, 4) Lack of traction of newer products, and 5) optimization headwinds persist.

**Intuit (Buy):** We reiterate our 12-month Price Target of \$800. Our PT is derived from a three-pronged, equal-weighted blend of an EV/FCF multiple, P/E multiple and DCF. Our EV/FCF target multiple is 32x our Q5-Q8 FCF estimates (unchanged) and our P/E target multiple is 33x Q5-Q8 EPS (unchanged). Our 10-year DCF assumes a perpetual growth rate of ~3% (unchanged).

Key downside risks include: 1) Increased SMB failures and churn related to extended COVID headwinds, 2) Higher than expected competition in both SMB and consumer businesses limiting Intuit share gains, 3) Decelerating customer growth and higher than expected attrition, 4) Slower than expected adoption of QuickBooks Online, QuickBooks Advanced, and TurboTax Live, 5) Slower adoption of Intuit's higher priced assisted offerings, thereby limiting ARPC growth, 6) Online ecosystem growth slowing and not reaching long-term targets for 30% growth, 7) Synergies between core Intuit, Credit Karma, and Mailchimp taking longer than expected to materialize, 8) Incremental competition from Microsoft, Salesforce, Hubspot in the SMB segment, 9) Slower than expected margin expansion.

**Microsoft (Buy):** We maintain our 12-month price target of \$500. Our price target is derived from an equal weighting of a DCF (~3% perpetuity growth rate, unchanged), 35x Q5-Q8 EV/FCF (unchanged), and 35x Q5-Q8 P/E (unchanged).

Key downside risks include: 1) Slower than anticipated public cloud adoption, 2) Overall slowdown in IT spending, 3) Slower pace of margin expansion, and 4) Adverse competitive landscape.

**Monday.com (Buy):** We reiterate our 12-month price target of \$350. Our price target is

based on an equal weighted DCF analysis and EV/Sales multiple. Our DCF assumes a 3% perpetual growth rate (unchanged). We use an 11x Q5-Q8 EV/Sales (unchanged).

Key downside risks to our thesis include: 1) incremental competition as Monday.com faces competition from a number of pure-play project management vendors such as Asana, Smartsheet, Atlassian, and Microsoft, 2) slower-than-expected adoption of adjacent use-cases, 3) slower-than-expected traction with the upmarket motion and enterprise customer growth, 4) higher-than-expected customer attrition, and 5) longer-than-expected free cash flow burn.

**MongoDB (Buy):** We maintain our 12-month Price Target of \$390. Our Price Target is derived from an equal weighting of a DCF using an ~3.5% perpetuity growth rate (unchanged) and 12.5x Q5-Q8 EV/Sales (unchanged).

Key downside risks include: 1) Adverse changes in the IT spending environment and spending priorities, 2) Competition in the non-relational database market, particularly from proprietary offerings from cloud service providers (CSPs), 3) The ramp to profitability as the company continues to invest ahead of a large and growing market opportunity, 4) Slowing pace in public cloud adoption, and 5) Potential for rising interest rates.

**Rubrik (Buy):** We raise our 12-month Price Target to \$77 (vs. \$72 prior) as we raise our EV/S multiple to better align with best-in-class growth comps across broader Software given our view that Rubrik is uniquely positioned to sustain its elevated growth profile with strong FCFM expansion ahead. Our valuation methodology is based on an EV/S multiple approach. We apply a 13x NTM EV/S multiple to Rubrik's SNTM sales (vs. ~12x prior).

Key downside risks to our thesis include: 1) Heightened competition from Cohesity, Commvault and Veeam, amongst others, limits Rubrik's ability to capture a sizable portion of the legacy Backup and Recovery market, 2) Industry consolidation, akin to Cohesity combining with Veritas' data protection business, leading to better-resourced peers with improved distribution footprints and more competitive product offerings, impacting Rubrik's win rates, 3) Elevated product development and sales and marketing expenditures prolong path to breakeven FCF (F26) relative to GSe, and 4) Slower-than-expected adoption of next-generation backup and recovery solutions limits Rubrik's addressable market opportunity.

**Salesforce.com (Buy):** We reiterate our 12-month Price Target of \$400. Our price target is derived from an equal weighting of a DCF (~2% perpetuity growth rate, unchanged), 29x Q5-Q8 EV/FCF (unchanged), and 8.7x Q5-Q8 EV/Sales (unchanged).

Key downside risks include: 1) Sales execution, 2) Macroeconomic slowdown, 3) Unsustainable pace of acquisitions, 4) Slower than expected operating margin expansion or higher than expected expense growth, and 5) Adverse changes in the IT spending environment.

**Samsara (Buy):** We maintain our 12-month price target of \$55. Our Price Target is derived from an equal weighting of a DCF (~3% perpetuity growth rate, unchanged) and

18.5x Q5-Q8 EV/Sales (unchanged).

Key downside risks include: 1) Potential risk of increase in competition from solutions such as Verizon Connect, Omnitracs, etc., 2) Higher than expected exposure to industries sensitive to supply chain constraints / macroeconomic uncertainty could result in revenue downside, and 3) Potential data privacy issues: any breach in, or delay in the implementation of, or attendance to regulatory concerns and demands could negatively affect official views of Samsara and concomitantly reduce customer confidence in the reliability of the company's data management processes.

**ServiceNow (Buy):** We raise our 12-month Price Target to \$1,200 (vs. \$1,050 prior) as we mark-to-market multiples to better reflect recent Software sector performance while maintaining a premium to Rule of 50 peers (e.g. DDOG, SNOW) given our confidence in the long-term durability of ServiceNow's 20%+ Revenue growth profile and scaling AI revenue. Our Price Target is derived from an equal weighting of a DCF (perpetuity growth rate of ~3%, unchanged), 52x Q5-Q8 EV/FCF (vs. 45x prior), and 16.5x Q5-Q8 EV/Sales (vs. 14x prior).

Key downside risks include: 1) Execution risk limiting growth in new markets, 2) Slower new business growth and longer sales cycles, and 3) Higher expense growth limiting margin expansion. We also note a potential slowdown in net new ACV or customer expansion would likely limit revenue growth in the near term. Furthermore, investors may view the potential of a large M&A transaction as a risk to margin expansion.

**Snowflake (Buy, also on the CL):** We reiterate our 12-month Price Target of \$220. Our price target is derived from an equal weighting of a DCF analysis and EV/Sales multiple. Our DCF analysis is based on a terminal growth rate of ~4% (unchanged) and our relative valuation is based on a 15x Q5-Q8 EV/Sales multiple (unchanged).

Key downside risks include: 1) Adverse changes in the IT spending environment, 2) Competition - particularly from cloud service providers (CSPs) and Databricks, and 3) Outages from reliance on CSPs.

# Disclosure Appendix

## Reg AC

We, Kash Rangan, Matthew Martino, Gili Naftalovich, Henry Dane, Nishad Patwardhan and Selina Zhang, 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.

## GS Factor Profile

The Goldman Sachs Factor Profile provides investment context for a stock by comparing key attributes to the market (i.e. our coverage universe) 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 (DACP) (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

### Rating and pricing information

Adobe Inc. (Buy, \$422.63), Atlassian Corp. (Buy, \$247.85), Autodesk Inc. (Neutral, \$290.82), Bentley Systems Inc. (Neutral, \$46.42), Confluent Inc. (Neutral, \$28.80), Couchbase Inc. (Sell, \$15.83), Datadog Inc. (Buy, \$141.40), Definitive Healthcare Corp. (Neutral, \$4.25), Dropbox Inc. (Sell, \$29.58), Dynatrace Inc. (Buy, \$52.26), Elastic NV (Neutral, \$98.68), GitLab Inc. (Buy, \$60.57), Informatica Inc. (Buy, \$25.94), Intuit Inc. (Buy, \$615.43), Microsoft Corp. (Buy, \$422.37), Monday.Com Ltd. (Buy, \$225.36), MongoDB Inc. (Buy, \$245.96), Oracle Corp. (Neutral, \$162.03), PagerDuty (Neutral, \$17.52), Procore Technologies Inc. (Buy, \$75.85), RingCentral (Neutral, \$34.03), Rubrik Inc. (Buy, \$64.34), Salesforce Inc. (Buy, \$324.93), Samsara Inc. (Buy, \$42.92), ServiceNow Inc. (Buy, \$1,054.15), Snowflake Inc. (Buy, \$158.84), SolarWinds Corp. (Sell, \$14.06), Twilio (Neutral, \$109.82), Unity Software Inc. (Neutral, \$23.08), Weave Communications Inc. (Neutral, \$15.92), Workday Inc. (Buy, \$249.68), Zoom Video Communications Inc. (Neutral, \$80.45) and ZoomInfo Technologies Inc. (Sell, \$10.14).

### Other disclosures

The spouse of a GIR analyst, who is not on the covered company's coverage team but is a member of the same industry business unit, is the Chief Executive Officer and shareholder of HubSpot.

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