BERNSTEIN
SOCIETE GENERALE GROUP

28 October 2026

## Global Software, U.S. SMID-Cap Software

# Bernstein Software: How crowded is software as we enter Q4'26?



**Mark L. Moerdler, Ph.D.**
+1 917 344 8506
mark.moerdler@bernsteinsg.com


**Peter Weed**
+1 917 344 8390
peter.weed@bernsteinsg.com


**Firoz Valliji, CFA**
+1 917 344 8316
firoz.valliji@bernsteinsg.com


Luwei Yang
+1 917 344 8342
luwei.yang@bernsteinsg.com


Shelly Tang, CFA
+1 917 344 8342
shelly.tang@bernsteinsg.com


Ryan Dou
+1 917 344 8451
ryan.dou@bernsteinsg.com



*This update on the status of 'crowdedness' within our covered Software / SaaS companies builds on research done by our Quant Team on crowding in stocks across regions and sectors. We believe it has implications for stock selection, portfolio construction and risk management.*


**Software crowding improved modestly in Q3'26 compared to July (July crowding note), but remains well below its historical average over the past 25 years (Exhibit 3).** The improvement appears largely driven by a rebound by a few of the application SaaS names (NOW, TEAM, CRM, WDAY) with stable or accelerating revenue growth, as the AI disruption concern, if at all, does not seem as imminent as investors have feared. On the other hand, database, consumption infra. and cybersecurity names remain the most crowded software areas, with SNOW becoming the most crowded name across our coverage in Q3. In contrast, seat-based end-user names such as ADBE, HUBS, GTLB, and ZM remain out of favor due to either lackluster results or management/strategy shift, which failed to alleviate concerns around GenAI-driven competition and potential seat and pricing compression. Even SAP which is AI safe still lags. Among the hyperscalers, MSFT's crowding score has moderated but remains positive, while ORCL has become one of the least crowded names in the sector as concerns around capital constraints and data center build-out execution are still dominating the narrative despite solid results.

**Crowding is an important consideration for downside risk mitigation, diversification and subsequent returns.** Crowding describes stocks that are already broadly over-weight in the portfolios of active managers. Bernstein's Quant Team has found that the risk-reward of these stocks can skew lower than expected.

**Balancing crowded trades with uncrowded positions can help mitigate downside risk.** While losses associated with crowding are episodic, historically in months when draw-downs to crowded trades are most severe, the least crowded stocks offer protection in the form of negatively correlated returns. Times of market stress or uncertainty can trigger de-risking and simultaneous selling of crowded trades, with illiquidity on exit exacerbating draw-downs. In months when the VIX rises to above average levels, the most crowded trades underperform the least crowded by -40bps a month (Exhibit 30). H1'26 seems to be an outlier, with crowded stocks outperforming uncrowded stocks by 13.3% in the overall market, and an even bigger outperformance of 51% in the TMT sector (Exhibit 31). But the momentum has reversed in H2, with the most crowded names in TMT underperforming the least crowded ones by 30.2%.

**Crowding in the tech sector has remained** above average on a cross-sectional basis (Exhibit 32), and is above average levels when compared with its own history by share of stocks (Exhibit 34). However, within tech, **software is well below its historical average crowding levels, which creates (we believe) investment opportunities, but one must be selective.** We analyzed the relative crowding of the 30 largest software and internet companies and present these findings in the note along with the relative crowding scores of the 10 stocks that are most and least crowded. Within our coverage, SNOW became the most crowded company, followed by DDOG, PANW, TWLO, and OKTA. Our least crowded names are S, ZM, GTLB, and HUBS.



First Published: 28 Oct 2026 04:01 UTC Completion Date: 27 Oct 2026 21:38 UTC

## BERNSTEIN TICKER TABLE

| | | | 27 Oct 2026 | | TTM | | Adjusted EPS | | | Adjusted P/E (x) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ticker | Rating | Cur | Closing Price | Price Target | Rel. Perf. | Cur | 2026A | 2027E | 2028E | 2026A | 2027E | 2028E |
| ADBE (Adobe ) | O | USD | 248.36 | 373.00 | (42.9)% | USD | 20.95 | 24.60 | 29.19 | 11.9 | 10.1 | 8.5 |
| MSFT (Microsoft) | O | USD | 531.33 | 662.00 | (12.4)% | USD | 17.28 | 19.96 | 24.12 | 30.7 | 26.6 | 22.0 |
| ORCL (Oracle) | O | USD | 130.53 | 325.00 | (65.9)% | USD | 7.63 | 8.37 | 12.19 | 17.1 | 15.6 | 10.7 |
| CRM (Salesforce.com) | U | USD | 240.89 | 195.00 | (18.0)% | USD | 12.52 | 17.13 | 15.49 | 19.2 | 14.1 | 15.5 |
| SAP.GR (SAP) | O | EUR | 212.90 | 285.00 | (21.2)% | EUR | 6.10 | 7.35 | 8.73 | 34.9 | 28.9 | 24.4 |
| SAP (SAP) | O | USD | 235.80 | 333.00 | (25.7)% | EUR | 6.10 | 7.35 | 8.73 | 34.7 | 28.8 | 24.3 |
| SNOW (Snowflake ) | M | USD | 337.42 | 377.00 | 14.5% | USD | 4,684 | 6,391 | 8,490 | 25.5 | 18.7 | 14.1 |
| WDAY (Workday) | O | USD | 205.46 | 238.00 | (26.3)% | USD | 9.23 | 11.58 | 15.30 | 22.3 | 17.7 | 13.4 |
| NOW (ServiceNow) | O | USD | 154.78 | 266.00 | (30.5)% | USD | 3.50 | 3.93 | 4.77 | 44.2 | 39.4 | 32.4 |
| TEAM (Atlassian) | O | USD | 219.41 | 309.00 | 21.2% | USD | 5.85 | 7.61 | 9.35 | 37.5 | 28.9 | 23.5 |
| DDOG (Datadog) | O | USD | 280.82 | 350.00 | 65.8% | USD | 2.05 | 2.82 | 4.00 | 136.7 | 99.6 | 70.2 |
| ZM (Zoom) | M | USD | 97.40 | 108.00 | 2.0% | USD | 5.92 | 6.41 | 6.94 | 16.4 | 15.2 | 14.0 |
| OKTA (Okta) | M | USD | 226.07 | 174.00 | 138.8% | USD | 3.50 | 4.05 | 4.45 | 64.6 | 55.8 | 50.8 |
| TWLO (Twilio) | M | USD | 254.56 | 199.00 | 110.0% | USD | 4.89 | 6.08 | 6.44 | 52.0 | 41.9 | 39.5 |
| MDB (MongoDB) | O | USD | 389.84 | 470.00 | 2.3% | USD | 2,464 | 3,075 | 3,728 | 11.8 | 9.4 | 7.8 |
| GTLB (GitLab) | O | USD | 56.82 | 60.00 | 4.8% | USD | 0.96 | 0.93 | 1.22 | 58.9 | 61.3 | 46.4 |
| PANW (Palo Alto Networks) | M | USD | 401.70 | 351.00 | 70.0% | USD | 3.84 | 4.57 | 5.82 | 104.5 | 87.8 | 69.0 |
| NET (Cloudflare) | M | USD | 327.80 | 181.00 | 33.3% | USD | 0.92 | 1.32 | 1.98 | 354.5 | 248.4 | 165.4 |
| CRWD (CrowdStrike) | M | USD | 268.02 | 132.00 | 90.1% | USD | 0.93 | 1.28 | 1.73 | 287.4 | 209.6 | 155.0 |
| FTNT (Fortinet) | M | USD | 185.00 | 145.00 | 104.6% | USD | 2.76 | 3.62 | 4.11 | 67.1 | 51.2 | 45.0 |
| S (SentinelOne) | M | USD | 25.65 | 25.00 | 33.4% | USD | 0.20 | 0.36 | 0.56 | 127.9 | 70.3 | 45.8 |
| ZS (Zscaler) | O | USD | 260.15 | 298.00 | (32.6)% | USD | 4.21 | 5.42 | 6.78 | 61.7 | 48.0 | 38.4 |
| HUBS (HubSpot) | M | USD | 250.79 | 220.00 | (59.2)% | USD | 9.70 | 13.20 | 15.91 | 3.6 | 3.1 | 2.7 |
| SPX | | | 7,722.60 | | | | | | | | | |
| EDME | | | 1,595.37 | | | | | | | | | |

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

SNOW, MDB estimate is Revenues (M); SNOW, MDB, HUBS valuation is EV/Sales (x); ADBE, SAP.GR, SAP, NOW, DDOG, TWLO, NET, FTNT, HUBS base year is 2025;

Source: Bloomberg, Bernstein estimates and analysis.

## INVESTMENT IMPLICATIONS

### GLOBAL SOFTWARE:

2026 has seen a major reshuffle of crowding, with the application names falling out of favor due to the SaaS Apocalypse narrative, while consumption names became the most crowded stocks. The overhanging Gen AI disruption concern, while it has partially abated for some names, has also made the software sector as a whole far less crowded as compared to its historical average. Interestingly, since our last update 3 months ago (Bernstein Software: How crowded is software as we enter H2'26?), there have been some major shift within the global software coverage:

**Snowflake**, once the least crowded stock in the Global software coverage, has become more crowded and over the past 3 months has climbed up even further to be now the most crowded score across both our coverages. This is not just due to the argument that it could be a Gen AI beneficiary, but also the meaningful growth re-acceleration in the last 2 quarters driven by the consumption increase in the core platform and a meaningful increase in AI revenue led by Coco (Cortex Code) and Snowflake Intelligence. While we agree that the Snowflake database will be accessed more frequently if the data in Snowflake is used for Gen AI inferencing, we are not convinced that using their Gen AI tools and their data federation capabilities are the best long-term answer especially given the competition. We choose to remain on the side line as we worry about the long-term growth prospects, where the core market, data warehousing, has Cloud saturated and competition has increased.

**MongoDB** has also become crowded. While being a more volatile stock its crowding score tends to fluctuate, as the other names in our coverage have become less crowded it has steadily climbed up the rank in 2026 and now ranks #2 in crowding

in the Global Software coverage. In the near-term, the consumption strength at MongoDB builds on the positive performance we saw at other platform vendors. While the CEO transition adds more uncertainty, the company's new 3Y guide at their 2026 Investor Day should assure investors of business momentum and continuity. We continue to think that MDB has the right product to benefit from AI adoption.

**Microsoft** is the third most crowded stock in our Global Software coverage and 9th across our joint coverage. Normally the most crowded stock across coverage, its crowding has retreated in 2026 due to concerns around CAPEX, ROI and the success of Copilot; even after the stock rebound after 4Q26, where Microsoft delivered on all metrics, accelerated Azure and Office365 Copilot growth, first steps in disproving the bear case. We like the setup for the stock going forward. Microsoft is trading at a discount to its historical multiples, and we continue to believe the stock is undervalued when one considers 1) MSFT's ability to deliver stable GAAP operating margins in the mid 40s; 2) downside risk protection; 3) accelerating Azure growth, 4) decelerating CAPEX growth; and 5) accelerating Office 365 Copilot paid adoption. Even if we see some bubble like behavior in parts of AI, this is a stock that every investor should have significantly in their portfolio.

**Salesforce's** crowding score has fallen dramatically since early 2025 but has notably bounced back in the past 3 months, now ranking #4 in the Global Software coverage. As bearish sentiment on SaaS has retreated slightly since 2Q software earnings, Salesforce as one of the biggest was one of the most beaten-down app names but has seen a decent bounce. However, we are less sure if investor confidence in CRM can sustain. We believe the CRM market and the company's organic growth opportunities are reaching Cloud saturation and naturally slowing into the mid to high single digits. While AI could be a longer term incremental tailwind, it is not enough to offset slowing in core business and the company is increasingly leaning in to M&A. We are worried one or more large / expensive acquisition could happen relatively soon.

**SAP** ranks #5 in the Global Software crowding score within the Global Software. SAP, like most of enterprise software, has been hit by concerns about AI eating the enterprise app market. We strongly disagree and the recent quarterly results are validating this. Applications such as ERP are not going to be internally developed and especially complex large enterprise ERP. More recently there is also a concern that the cloud migration has come to an end, which we also disagree and which the stable / slight increase in CCB validates. As EPS and FCF growth are going to be the drivers of the stock, we see it as a compounder and given depressed valuation this is a good opportunity to increase ownership of the stock.

**Workday** ranks #6 in the Global Software coverage. The stock had been in a penalty box in the last two years first as growth slowed to the mid-teens and then the underwhelming long-term guidance from company last year to more recently AI disruption concerns. Most recently, given the PE buyout rumor, stabilized results and an updated FY28 guide which floors growth expectation, its crowding has recovered slightly. At the recent Workday FAM the company showcased their AI vision and execution and discussed how this could drive upside. Fundamentally, we think that the existential concerns many have about system of record businesses like Workday are overblown. While it continues to be a show-me story, given the durability of the business and margin improvement potential, we like the story long-term.

**Oracle**'s crowding has come down significantly after peaking in 3Q25, and over the last 3 months even more so as it has fallen from being the most crowded name to 3rd to last in the Global Software coverage. Crowding has retreated since Oracle put out the impressive 5Y guide in 2025, due to concerns around the scale of the datacenter build-out and the company's capital constraints, customer concentration risk, and execution. However, despite negative sentiment, Oracle continues to deliver solid results. In addition, the new management team is giving more color, commentary and details to help investors under the value they are creating. We like the stock as revenue growth is going to accelerate driven by 1) OCI growth; 2) ERP suite and 3) Autonomous Database / multi-Cloud database. Operating margins should be relatively stable. Looking 5-10 years out Oracle could be many times larger on most factors investors care about. The fact that it's uncrowded provides an attractive entry point for investors, in our opinion, especially ahead of the Investor Day this week.

**Adobe** is the second to last crowded stock in Global Software and has remained uncrowded since 2025. While the stock had been the darling of software investors for many years, it has lately become a more controversial stock as growth slowed and investors worry whether this was due to increasing competition or the impact of Gen AI. Adding to the concern and uncertainty is the ongoing management transition as people await a new roadmap under the recently announced new CEO (previously president of Adobe Experience). Overall, the near term uncertainties might make it difficult for investors to see Adobe's long-term value. As such Adobe remains a show-me story that is ripe for a reset. However, we believe Adobe can still deliver stable financials results in the near-term, This, coupled with washed out multiple and the buyback program at hand, limits the downside risk.

**Hubspot's** crowding score has declined drastically since mid-2025 and is now the least crowded stock in both Global Software and our joint coverage. As an SMB focused stock and a CRM software provider, the stock became less loved amid heightened macro uncertainties and the concern of AI disruption. We downgraded the stock to Market-Perform after its 2Q26 earnings as we believe recent results have shown that 1) growth expectations have degraded since the company changed its GTM and pricing strategies; and 2) recovery may take some time, as management confidence has rolled back on the outlook. However, 3) valuation is low, which limits downside but without a clear catalyst in the near-term horizon, we believe the stock is going to be in the penalty box and recommend stepping to the side for now.

## SMID-CAP SOFTWARE - IT INFRASTRUCTURE/DEVELOPER:

**ServiceNow** used to be one of the consistently most crowded names in software, but sentiment has turned negative in 2026. This likely reflects a combination of factors: recent acquisitions have raised questions about the durability of organic growth, concerns that AI spending could displace portions of enterprise SaaS budgets, and investor capital rotating toward consumption-driven names with accelerating revenue growth stories in H1'26. However, we expect sentiment to improve in H2'26 as organic growth remains resilient, acquisitions are integrated successfully and drive broader platform adoption, and AI offerings continue to gain traction. Longer term, we believe ServiceNow will maintain its leadership in enterprise workflow automation and see significant upside potential.

**Datadog** has seen its crowding score reach an all-time high, driven by investor enthusiasm around its revenue acceleration over the past five quarters. This acceleration has been supported by both increasing enterprise cloud workloads and rapid expansion among AI-native companies. While Datadog faces two headwinds heading into Q4 with a partial churn from its largest "Born-in-AI" customer and a softer growth in non-AI cloud workloads, we expect the increased consumption from other "Born-in-AI" customers can more than offset those headwinds, driving Datadog's revenue growth rate to high-30% and even 40%+ over the next four quarters (more details in our recent upgrade note here).

**Atlassian's** crowding score has remained depressed over the past year, as the bearish narrative around GenAI disrupting developers and developer tools has continued to weigh on sentiment, placing the stock in the market's "penalty box." Despite consistently delivering beat-and-raise results and reporting healthy seat expansion across its customer base, investor perception has been clouded by inorganic growth contributions from recent acquisitions, as well as the complex and difficult-to-model dynamics surrounding Data Center end-of-life and related accounting changes. As these near-term overhangs fade, however, we believe Atlassian's position as a leading platform for project and work management remains highly durable. It may even become an "AI winner" if its platform investments offering ways to measure and manage AI usage productivity and reduce AI Coding Agent token consumption proves successful. Over the longer term, we view Atlassian as a potential 10+ year compounder and one of the enduring winners in software (more details here).

**GitLab**'s crowding score has turned negative since Q3'25 similar to Atlassian, pressured by bear narrative around GenAI competition risk and a deceleration in revenue growth rate in its FY27. But this deceleration is largely due to a couple of headwinds that GitLab faces in FY27: ~200-250bps of headwinds from the previous round of pricing increase, ~100bps of seat-based compression due to the US Federal DOGE right-sizing in 2025, and a ~300bps headwind airpocket in 3-year contract renewals caused by poor demand in the period just after COVID ended in calendar '22-23 (more details here). But as those headwinds mostly alleviate in the second half of this year, we expect its revenue growth rate to improve and return to 20% + next year.

**Twilio** has seen improving sentiment and a return to positive crowding following its 2025 Investor Day, where management reinforced its focus on the core Communications platform and highlighted strong customer growth among AI-native startups. Organic revenue growth has accelerated for six consecutive quarters, benefiting from robust cloud consumption trends that have also driven strength across hyperscalers and other consumption-based software companies. A bullish narrative has also emerged around voice becoming a key interface for AI, with Twilio well positioned as a critical provider of voice communications infrastructure. While we expect Twilio to continue benefiting from broader cloud adoption trends, we remain more cautious on the long-term growth opportunity associated with its voice AI offerings.

**Zoom's** crowding score has turned negative in Q3'26 as growth rate decelerated. We remain on the sidelines, as the path to durable long-term growth remains uncertain, with newer product initiatives still in their early stages and ongoing concerns that value-destructive M&A could weigh on investor sentiment.

## SMID-CAP SOFTWARE – CYBERSECURITY:

**CrowdStrike** is perceived as one of the higher quality names in security with a well recognized leadership position in the largest and one of the growthiest pillars of cybersecurity attached to their endpoint security ownership (e.g., Threat Intelligence / ITDR / AIDR, AI Enabled SOC, Identity). Investors seem to agree as the stock is up 90%+ over the past year with crowding so heavy it actually breaks our analysis (part of our analysis is fund flows, but it is so deeply owned we think it has been hard for investors to accumulate more). It continues to have significant success as companies continue to modernize and move to a cloud-first infrastructure, and it appears AI has actually driven even more energy for the remaining ~1/2 of enterprises still on legacy Antivirus or Next Gen Antivirus endpoint protection to modernize to an EDR / XDR platform like CrowdStrike. When companies modernize, we anticipate CrowdStrike will continue to win an unfair share as it seems to have overcome its technical outage and, in fact, leveraged its response to further burnish its reputation. They are well positioned to be a beneficiary of AI-induced cybersecurity demand tailwinds. Net Net: if we ignore valuation, CrowdStrike would be one of our favorite cybersecurity companies to own given its strong position. The big issue? Its valuation is hard to justify. Even our premium to rule-of-40 regression multiple doesn't meet the hefty multiple for the stock, leading to unfavorable entry price. And we worry that investors are expecting hockey stick accelerating growth similar to what hyperscalers have seen, but unfortunately we think this is operationally unlikely — their products don't have the type of consumption growth benefits those cloud infrastructure companies see. Instead, products are sold on 6-9 month sales cycles, with POCs / bakeoffs, and implementation efforts by customers. CrowdStrike (like most cybersecurity) are largely constrained by human commercial capacity to sell more rapidly. We think holding in upper 20% to ~30% growth over the coming year or two would be a huge success, but worry this may actually be disappointing for momentum investors, and cause the stock price to sour as we move through 2027.

**Palo Alto Networks** is a well-loved potential cybersecurity platform consolidator, and first standalone cybersecurity vendor to cross $100B in market cap (in 2023) which parallels its strong crowding score. We like its platformization pitch and believe that they have the right product mix to execute it with specific customer segments (though product maturity varies across product types). Its greatest success seems to be adjacent to its historic network security starting point, such as in virtual firewalls, SASE, Next Gen SIEM / Threat Intelligence / ITDM, and SecOps. Other areas have had less traction, such as investments in Cloud Security and endpoint. We believe its recent acquisition of CyberArk likely will help its platformization approach by now offering attractive identity products, but we remain less certain how well it will progress in some of those other end-to-end platform areas. While PANW has been on the relatively more crowded side for the past two years, its crowding score further increased since May 2026 with its strong fit to solving top priorities due to AI-induced risks driven by expected demand tailwinds from perceived / real experienced AI Risks, Mythos / Glasswing news, and regulation such as on OT have increased the stock's crowding. We continue to like Palo Alto relative to other stocks in cybersecurity because it is one of the few likely to accelerate materially from the AI-demand — their network security business has product purchase dynamics that can be most similar to consumption-like-demand that grows with infrastructure scale. And its CyberArk acquisition we think could prove advantaged both with timing and better commercial execution.

**Zscaler** was well liked for its pioneering SSE offering and redefining network security. It helped many organizations implement secure work from home policies during COVID driving massive tailwinds, and 2/3 of its growth coming from net new customers. But competitors were licking their lips, and the space became relatively crowded quickly, with 2023 seeing Microsoft's SSE announcement and Palo Alto's continued focus on SASE causing investors to worry about their pricing power and new customer headroom. We shrugged that off at initiation, as we believed Zscaler should continue to succeed vs. these entrants — we don't think those entrants are targeted at Zscaler's core global enterprise customers. Instead, the big overhang we worried about was a commercial transformation that we see as a good strategy (moving towards a farming sales model to increase NRR as their platform breadth expanded), but that also continues to miss a key component: hunters that would land net new customers. In addition, a real direct competitor did emerge: Cloudflare. Cloudflare had the technical capability for quite a while but not the commercial capability to execute. Between these two issues (sales and competitive), net new customers has plummeted to <¼ of Net New ARR. It is hard to maintain strong growth on only expansion of existing customers, which forced our hand on a downgrade late in 2025. But we were also clear, the company remains valuable and will not go to 0, particularly if they can change their sales capability on hunting — thus when the stock price plummeted, we upgraded them. The company realizes this sales capability requirement is needed, but feels they can't change their sales compensation mid-year, so the more balanced emphasis on hunting will be a 2027 opportunity. We will now be watching to see if the company can demonstrate it can also accelerate new customer wins. These two sales motions are needed to keep growth rates in the mid-to-high teens range for the next several years, and allow us (and investors) to raise our model. Separately, with more emphasis on AI-related cyber spend, many CISOs have focused on other areas within cyber (like identity, endpoint, and email security) at the cost of verticals like SSE. This has left Zscaler in a less narrative benefited area relative to others.

**SentinelOne** was a hoped for winner of CrowdStrike's outage, with crowding up late in 2024 and into early 2025, but as earnings came in and benefits were not seen, this crowding turned sour, and went negative by the calendar 4th quarter of '25. SentinelOne failed to materially gain share following CrowdStrike's outage or outperform on other tailwinds for the overall endpoint market. Fast-forward to the 1st calendar quarter of '26 at the same time its perceived most direct comp, CrowdStrike, trumpeted strong AI-driven demand we saw SentinelOne remain more conservative on communication. Not surprisingly we saw crowding go even more negative. With weak Q1'27 earnings, investors seem to be more concerned about the business as witnessed by its ~8% drop in stock price the following day. We continue to believe the easiest to see upside is the potential for acquisition, something that several suitors have been interested in historically — we think they are an asset that would make a lot of sense for several large strategics.

**Fortinet** is the cybersecurity workhorse which continues to hold integrated hardware and software close to its heart. After a positive crowding score in the 1st half of 2023, we saw Fortinet's crowding score go down in the 2nd half of 2023 and staying negative until the end of Q3 of 2024 due to concerns around billings growth and threat of Microsoft in hopes for software expansion areas such as SASE. More recently a possible hardware refresh cycle had moved crowding to a neutral stance, but poor earnings that included communications challenges late in 2025 impacted the crowding score negatively. Fast-forward to the 1st quarter of this year, and their fortunes went strongly in the positive direction as a combination of pricing increases and demand for OT cybersecurity due to AI risks have accelerated their product growth strongly. We continue to worry that their revenue growth acceleration has nearly peaked as pricing increases may be less likely and the OT tailwinds mature, and as it slows in future quarters the crowding might turn right back around.

**Okta's** crowding score went negative post COVID as growth rate plummeted and had no end of deceleration (and narrative worries around competitive) in sight. It didn't help that they made a large acquisition, Auth0, that they fumbled commercial integration on, then had a series of embarrassing hacks where Okta was at partially blamed. 2023-2025 proved to be crucible for them — could they get their commercial act together, their communications act together, and their product roadmap actor together. Coming out the other side we are increasingly optimistic. We saw the line of sight to bottoming of growth, and leaned in on the stock starting early 2025 which was joined by an improving crowding score… sadly DOGE happened, creating a 100bps headwind exiting calendar Q3'25, so the acceleration was put on pause for a couple added quarters. This caused crowding to go negative again. We now see the real acceleration coming, and both us and investors seem to be leaning back in with crowding back up. Agentic AI could be a strong tailwind for the company's identity solutions, and we agree their long-term revenue story continues to have strong potential.

**Cloudflare** is well-liked by growth investors and is owned for the promise it holds. We agree, particularly liking their Act I (CDN/DDoS) business (~90% of revenue) and Act II (SSE) business. The first indexes really nicely to AI-driven increases in Cloud Native workloads, as we've been reporting in our AWS/DDOG modeling. The second was struggling to take off, as buyers wanted real commercial hand holding and trust they had someone to call when they needed help after buying — the company had a couple failed attempts, but has now succeeded, and we think over the last year has demonstrated strong trajectory. But on the other hand, we think investors also believe there is a large promise in the Act III ("Workers" Headless software architecture platform). This is where we deviate. We are believers in the vision that Headless as a product architecture will be an incremental winner vs. Cloud Native (and earlier legacy platforms), and this is seen via priority recommendation by AI Coding agent platforms. BUT we worry Cloudflare is in a disadvantaged position to win this opportunity vs. alternatives (their proxy network and technology architecture strategy has an innovators dilemma attached to it). If there was less value in the stock price for Act III or if we are wrong about Cloudflare's overall participation in the potentially massive AI-driven tailwind for headless architectures, we think Cloudflare would be a VERY attractive investment opportunity, but for now we are not fortunate to have that cheaper setup or the conviction in Act III scale. As a result we deviate in our investment recommendation from the crowding seen in the company.



## DETAILS

Based on the significant interest and readership in our prior crowding reports, we are providing an update on the status of 'crowdedness' within the software and SaaS space. This report is intended for both PMs and analysts to help in risk mitigation and optimized portfolio construction. As a final note, this report reflects the GICS industry framework, where the legacy Telecom sector is expanded into the new Communication Services sector with the addition of Media and selected Internet names (such as Alphabet and Meta).

Given concerns around the "SaaS Apocalypse" and AI disruption risk to software, overall software names have become much less crowded especially when compared to its own history over the last 25 years (Exhibit 3) but within software there is clear divergence. On one hand, YTD, database, Infrastructure software and Cybersecurity are considered AI beneficiaries, and they have remained crowded over the last 3 months. On the other hand, application software have taken a significant hit YTD and becoming very uncrowded, although in the last 3 months we start to see some of the names that delivered stable to improving results recover slightly in crowding (e.g. revenue re-acceleration in NOW and TEAM, stable results in CRM, SAP and WDAY). As much of the AI disruption talk was narrative driven, this start to recovery was also due to the realization that the negative impacts of AI will take longer (or may not materialize).

Amid this challenging period we see some major reshuffling in the rankings of the software companies within the sector (Exhibit 1):

- **Snowflake** has moved up the most (12 places) over the last 3 months to become now the most crowded stock across our coverage. Snowflake re-accelerated meaningfully in the last 2 quarters driven by the consumption increase in the core platform as well as a meaningful increase in AI revenue led by products like Coco (Cortex Code) and Snowflake Intelligence. This strengthens the argument that Snowflake is a Gen AI beneficiary.

- **Palo Alto Networks** remains #2, as its platformization strategy continues to gain traction with customers seeking to consolidate cybersecurity vendors. The recent acquisition of CyberArk further strengthens the platform by adding a leading identity security offering, enhancing PANW's ability to deliver a broader, more integrated security stack. The ongoing shift toward vendor consolidation remains a key tailwind, while increased investor focus on the company's AI security vision through Mythos and rising cybersecurity budgets have provided additional support for both sentiment and crowding levels.

- **Datadog** dropped a bit in ranking but remains one of the most crowded names in the sector. This reflects growing investor enthusiasm for consumption-based software companies, which have benefited from the acceleration in cloud usage since Q4'25. Datadog's position has been further strengthened by its leadership in cloud-native observability and its success in winning AI-native customers. Several frontier model developers and large AI labs have become meaningful users of the platform, driving increased consumption as they scale increasingly complex AI workloads.

- **Twilio** remains crowded as well, benefitting from many of the same cloud consumption tailwinds that have supported Datadog's recent performance. The longer-term growth narrative has also improved. Management has highlighted 20% + growth in the Voice business, driven by rising adoption of voice-based AI applications within enterprises and growing demand from AI-native startups that are embedding voice capabilities directly into their products. As voice increasingly becomes a core interface for AI interactions, investors are viewing Twilio as a potential beneficiary of the broader expansion of AI-driven communications workloads.

- **Oracle** dropped from # 4 in crowding in July to a #17 in October as sentiment continues to be negative on Oracle's capital constraints and execution on the data center build-out, perhaps more so given recent concerns on rate hikes and neocloud debt. However, despite negative sentiment, Oracle continues to deliver solid results in recent quarters and the new management team is giving more color, commentary and data to help investors better understand the value they are creating. We are also seeing the most in-bounds on Oracle across the Global Software coverage. Based on our analysis we believe that Oracle's capital raise so far can support most of the funding needs necessary for the build-out. With good execution Oracle could deliver many times larger on revenue, profit and FCF over the next 5–10 years.

Overall, over the past three months, well-liked consumption infrastructure software and cybersecurity names have remained relatively crowded, although crowding has moderated somewhat since July across most names except NET. This may suggest that valuations are approaching a near-term ceiling relative to current financial performance, limiting incremental fund flows into these names. By contrast, crowding has recovered across select application SaaS names in our coverage, but the improvement has been concentrated among line-of-business enterprise application platforms that delivered solid CQ2 results, demonstrated revenue re-acceleration, and offered clearer line-of-sight to AI tailwinds, namely NOW, TEAM. The rest of application SaaS,

where revenue has yet to re-accelerate or the GenAI narrative remains less established, continues to sit in the penalty box, including ADBE, HUBS, GTLB, and ZM. In the middle sits SAP which has delivered stable growth and better than expect Current Cloud Backlog while returning to margin improvement and while the stock price has increased it's crowding position has not changed.

## WHAT ARE THE BIGGEST SHIFTS WITHIN EACH OF OUR COVERAGE?

In **Global Software**, traditionally crowded stocks have retreated significantly in ranking, while database names have risen significantly to take the #1 and #2 seat. Oracle, once the most crowded stock in late 2025, has fallen to 3rd to last, while Microsoft, traditionally the most crowded stock across both coverage, ranks only #9, even after the stellar results last quarter. Snowflake, which had been one of the least crowded stock within Global software coverage over the past 5 years, have taken the crown seat while MongoDB ranked #2.

In the past 3 months, some of our application names (CRM, WDAY, ADBE), although still very uncrowded compared to their history, have seen some recovery in their crowding score due to the overall improved sentiment on the SaaS disruption risk. The two exceptions are SAP, which due to its more durable nature had seen less abrupt selloff earlier this year and is still gradual declines in crowding scores, and HUBS, which with its shift in GTM and AI strategy is facing more near term uncertainties and put into the penalty box.

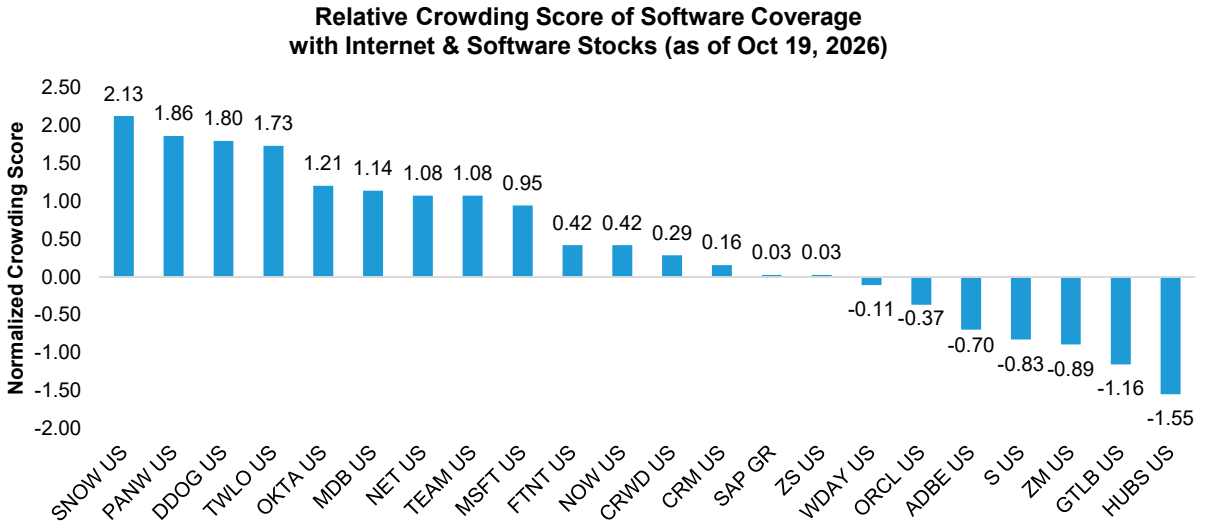
In **SMID-Cap Software**, consumption infrastructure and cybersecurity remain the most crowded areas, with PANW, DDOG, TWLO and OKTA the most crowded names in our coverage. DDOG has benefited from accelerating revenue growth and investor enthusiasm around the rapid expansion of its "Born-in-AI" customer cohort, while PANW remains a well-liked cybersecurity consolidator with strong exposure to emerging priorities around AI and OT security. Even beyond software, PANW and DDOG now rank as the most crowded names within the largest 30 software and internet companies (Exhibit 5). TWLO has also seen a meaningful increase in crowding, joining Datadog as one of the 10 most crowded names across large-cap software and internet (Exhibit 6). Both DDOG and TWLO are benefiting from consumption-based business models, accelerating cloud adoption, and growing investor confidence in their AI-driven revenue opportunities.

Within cybersecurity, higher-valuation names such as NET and CRWD screen as less crowded, reflecting valuations that are increasingly difficult to justify amid competitive concerns. However, we believe CRWD's low crowding score likely understates its true positioning. Our crowding score is backward-looking and captures positioning over the prior quarter, while CRWD appears to be an outlier given already-high institutional ownership and relatively cautious sell-side ratings driven by valuation concerns. As a result, we believe CRWD is likely much more crowded than its model score suggests. On the other hand, ZS and S remain on the less crowded side as both are not well liked by investors given their recent soft earnings and more challenged competitive dynamics longer term.

In general, although sentiment improved in the past 3 months, the debates on software names remain:

- Whether SaaS players will become obsolete and replaced by AI coded solutions
- Whether Generative AI might have negative impact on some seat-based models.
- The timeline for AI adoption at the SaaS vendors could take longer than many expected
- Hyperscaler Capex and ROI
- Is there an AI bubble?

EXHIBIT 1: **Current relative crowding score among within software coverage**




Source: MSCI, Factset, Bernstein analysis

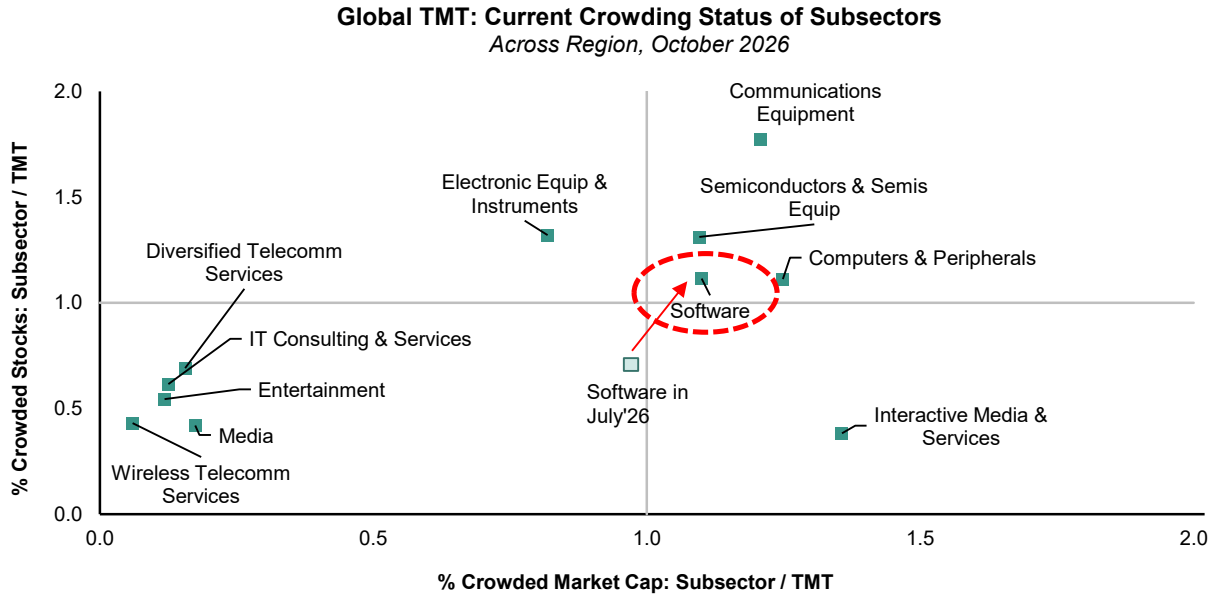
## IS SOFTWARE STILL A GOOD PLACE TO INVEST?

**Software was once among the most crowded sectors within TMT, but despite some recovery over the past 3 months, it is still less crowded than other sectors this year within the broader TMT universe, mostly due to the "AI loser" narrative** (Exhibit 2). Software has had a bumpy ride over the past few years. It was first perceived as the AI winner during the initial Gen AI hype in late 2023, and, as the hype retreated in 2024 and IT spending on certain projects were squeezed to accommodate new AI projects, software became less crowded. In 2025, while many projects that were delayed started to go live, the narrative around AI's impact on software has almost gone180 degrees and become more controversial. As agentic AI started to emerge and becomes more real in late 2025, the initial reaction of software being the beneficiary of Gen AI turned into suspicion around whether software will be replaced by Gen AI. As a result, software having declined significantly in "crowdedness". Despite the bounce back over the last 3 months, **software still stands near the bottom of its historical average crowding levels over the last 25 years (see Exhibit 3)**. Perhaps not surprisingly, the crowded sectors in TMT are dominated by semis and hardware, with software's crowding score slightly recovering from being negative in 1H26 to slightly positive now (Exhibit 4).

Despite the short-term bearish sentiment, we believe software in general is still a good place to invest. While individual companies could (and are likely to be impacted by Gen AI disruptions), software and especially enterprise application software should do quite well. The belief that enterprises are going to build their own software using Gen AI is way over-rated both in terms of how long it will take for the technology to deliver enterprise class applications and how likely enterprises are to take on the additional risk (Putting the SaaS Apocalypse in Context). The bigger risk is the potential in specific sub-sets of the market (e.g. help desk) where people are replaced by automation decreasing seats and whether vendors will be able to make up the lost revenue by charging for usage of the agents. The other area of risk is point solution software that does not manage system of record data or have significant semantic knowledge and can relatively easily be coded using the latest tools. For deep dives on Generative AI and our opinion on its effects on different software segments, we recommend you read our BlackBook: Scaling Intelligence: The Generative AI Handbook.

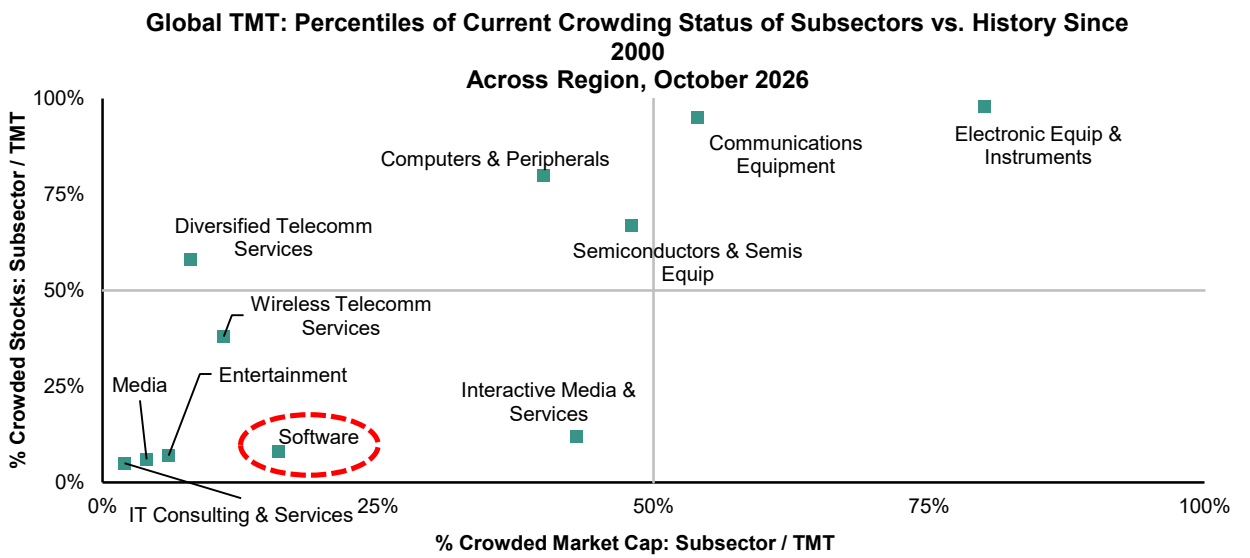
Moreover, many parts of software (e.g. ERP, HCM and IaaS/PaaS) will continue to see a tailwind from a major business model transition — license/maintenance moving to Cloud/subscription. However, we'd like to caution investors that portions of the Cloud transition are approaching where growth slows as the majority of on-premise workloads have moved to the Cloud and the remainder will take a lot more time due to legal, regulatory, business, performance and other reasons. This can be seen in the Customer Relationships Management, email and collaboration markets even though up-sell is still a big opportunity in parts of these markets.

EXHIBIT 2: **Software sector has become slightly positive in relative crowding among TMT subsectors**



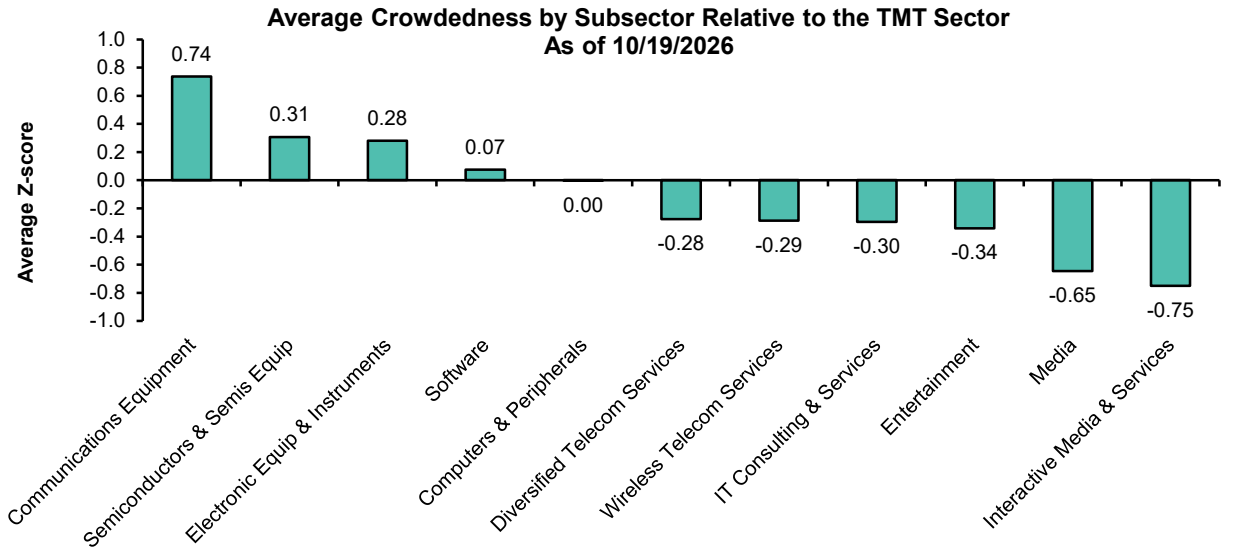

as of 10/21/2026
Source: MSCI, Factset, Bernstein analysis

EXHIBIT 3: **...but when compared to its own crowding history over the last 25 years, software is well below average**




as of 10/19/2026
Source: MSCI, Factset, Bernstein analysis

EXHIBIT 4: **Despite slight recovery on software crowding score, the crowded sectors within TMT remains being dominated by semis and hardware.**




We first calculate the z-score of each TMT stock's raw crowding score relative to the TMT sector (i.e. number of standard deviations from sector average), and then calculate the equal-weighted average z-score for each subsector.
Source: MSCI, Factset, Bernstein analysis

To help investors better understand our coverage in relationship to its peers in software and internet:

- **30 Largest Companies Relative Crowding:** We analyzed the relative crowding of the 30 largest software and internet companies and present these findings in Exhibit 5.
- **10 Most/Least Crowded Large Cap Software & Internet Stocks:** We present the relative crowding scores of the 10 stocks that are most and least crowded, respectively, in Exhibit 6.

EXHIBIT 5: **Relative Crowding within the 30 Largest Software and Internet Companies by Market Cap**

**Relative Crowding within the 30 Largest Software and Internet Companies by Market Cap**
As of October 19, 2026

| Ticker | Company | Market Cap (USD Mil) | Percentile Among Top 30 |
|---|---|---|---|
| PANW US | PALO ALTO NETWORKS | 282,764 | 97% |
| DDOG US | DATADOG A | 92,649 | 94% |
| GOOGL US | ALPHABET A | 4,177,964 | 91% |
| ADSK US | AUTODESK | 50,788 | 88% |
| TEAM US | ATLASSIAN (US) | 54,908 | 84% |
| MSFT US | MICROSOFT CORP | 3,963,218 | 80% |
| RDDT US | REDDIT A | 29,866 | 80% |
| META US | META PLATFORMS A | 1,790,889 | 75% |
| PLTR US | PALANTIR TECHNOLOGIES A | 465,438 | 71% |
| FFIV US | F5 | 25,434 | 65% |
| FTNT US | FORTINET | 125,649 | 65% |
| NOW US | SERVICENOW | 149,866 | 65% |
| CRWD US | CROWDSTRIKE HLDGS A | 232,265 | 59% |
| CRM US | SALESFORCE | 198,567 | 54% |
| CSU CN | CONSTELLATION SOFTWARE | 47,483 | 54% |
| SAP GR | SAP | 275,382 | 47% |
| ZS US | ZSCALER | 34,368 | 47% |
| CDNS US | CADENCE DESIGN SYSTEMS | 89,877 | 41% |
| WDAY US | WORKDAY A | 48,305 | 41% |
| ORCL US | ORACLE CORP | 373,280 | 36% |
| 9888 HK | BAIDU (HK) | 27,556 | 33% |
| MSTR US | STRATEGY A | 38,180 | 30% |
| DSY FP | DASSAULT SYSTEMES | 35,055 | 26% |
| NBIS US | NEBIUS GROUP A(NL) | 54,851 | 23% |
| SNPS US | SYNOPSYS | 87,043 | 20% |
| ADBE US | ADOBE | 98,218 | 17% |
| ZM US | ZOOM COMMUNICATIONS A | 28,627 | 13% |
| ROP US | ROPER TECHNOLOGIES | 38,702 | 10% |
| 700 HK | TENCENT HOLDINGS LI (CN) | 484,041 | 7% |
| INTU US | INTUIT | 89,069 | 4% |

Source: MSCI, Factset, Bernstein analysis

EXHIBIT 6: **10 Most/Least Crowded Large Cap Software & Internet Stocks (>$5B market cap)**

**10 Most / Least Crowded Software and Internet Stocks (>$5B Market Cap)**
As of October 19, 2026

| 10 Most Crowded: | | Std. Dev from Software & Internet Avg. | 10 Least Crowded: | | Std. Dev from Software & Internet Avg. |
|---|---|---|---|---|---|
| FROG US | JFROG LTD | 2.52 | OTEX CN | OPEN TEXT CORP | (2.21) |
| IDCC US | INTERDIGITAL | 2.26 | 1024 HK | KUAISHOU TECHNOLOGY B | (2.04) |
| SNOW US | SNOWFLAKE | 2.13 | NICE IT | NICE | (1.81) |
| RBRK US | RUBRIK A | 2.13 | INTU US | INTUIT | (1.68) |
| PANW US | PALO ALTO NETWORKS | 1.86 | CHKP US | CHECK POINT SOFTW (USD) | (1.68) |
| DDOG US | DATADOG A | 1.80 | PINS US | PINTEREST A | (1.68) |
| TTAN US | SERVICETITAN A | 1.74 | 9626 HK | BILIBILI (HK) | (1.62) |
| TWLO US | TWILIO A | 1.73 | HUBS US | HUBSPOT | (1.55) |
| DOCN US | DIGITALOCEAN HOLDINGS | 1.60 | 4716 JP | ORACLE CORP JAPAN | (1.42) |
| GOOGL US | ALPHABET A | 1.47 | SNAP US | SNAP A | (1.42) |

Source: MSCI, Factset, Bernstein analysis

## GLOBAL SOFTWARE: LOOKING AT EACH COMPANY IN OUR COVERAGE AND HOW CROWDED IT IS VERSUS HISTORY

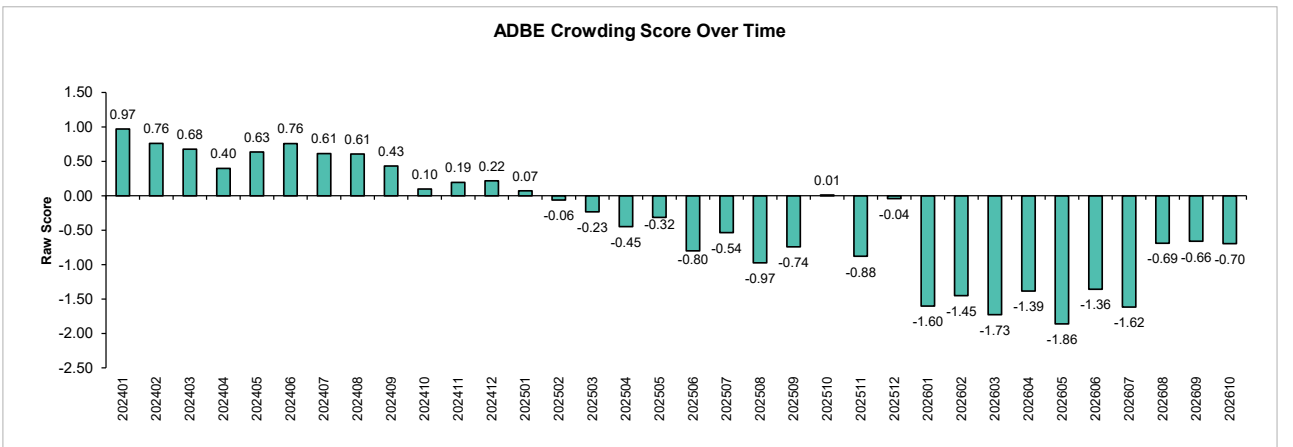
### Adobe

Adobe, once one of the most crowded stocks, became the least crowded stock for a while; but over the last 3 months its crowding score has come back slightly and is now the second least crowded stock in our coverage (Exhibit 7). While the stock had been the darling of software investors for many years, it has become a very controversial stock due to concerns around Gen AI disruption to Creative Cloud, risks to seat-based pricing model and general competition concerns. Adding to the concerns has been the lack of enough data for investors to gain confidence in the sustainability of the revenue.

Since 2024, Adobe has disappointed investors through a combination of poor communication and soft revenue growth and guidance. In 2026, although results seem to stabilize over the last few quarters, the stock has remained in the penalty box due to 1) top management transitions; 2) the broader AI disruption concerns continues; 3) company plans to delay Creative Cloud monetization plan to drive customer acquisition/adoption. Before 3Q26 results, Adobe announced Anil Chakravarthy (previously president of Adobe Experience) as the new CEO. During the transition we believe actual results are likely to take a backseat while everyone awaits for clarity on the future strategy and roadmap from new management (CFO still in search) (Adobe 3Q26: Status quo as new CEO takes the helm).

Overall, the near term uncertainties might make it difficult for investors to see Adobe's long-term value. As such Adobe remains a show-me story that is ripe for a reset. However, we believe Adobe can still deliver stable financials results in the near-term. This, coupled with washed out multiple and the buyback program at hand, limits the downside risk and if the new management gives more color and details this could become an interesting stock.

EXHIBIT 7: **Adobe Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

### Salesforce

Salesforce's crowding score has recovered quite a bit in the recent months, after having fallen dramatically in 2025 from top crowding positions. It is now the 4th crowded stocks in our coverage (Exhibit 8). While investors have accepted the reality of structural growth slowdown of the core business, as one of the biggest SaaS companies Salesforce has been battling with the SaaS Apocalypse concerns for most of the year. As bearish sentiment has faded slightly since 2Q software earnings as results were not as bad as investors feared, Salesforce's crowding score has bounced back a fair amount. In addition, management gave updated mid term revenue guidance that for many set a floor on growth.

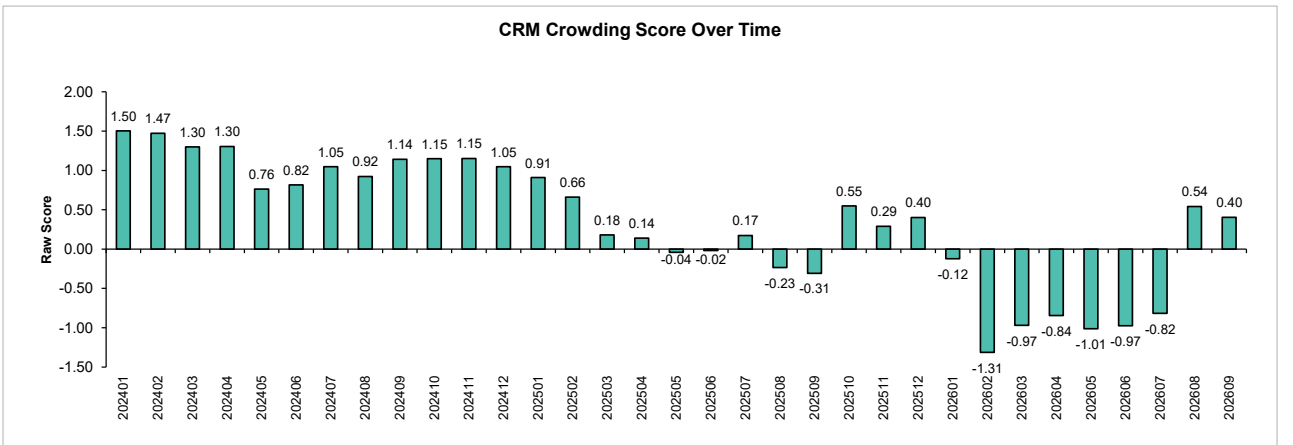
In 2Q27, Salesforce delivered a decent quarter and guided up, but excluding the tailwinds from M&A, the results were basically in-line. Nonetheless, the stock bounced up 13% and rose over 50% in the subsequent 3 months. The stock has been punished by the AI apocalypse, but investors are now coming back to software as they realize the headwind is not that big. This was not just a CRM phenomenon but for the broader application software in general (Salesforce 2Q27: Small beat excluding M&A, but

still good enough to drive a stock bounce.).

However, we are less sure if investor confidence on CRM can sustain. While it is good to see Agentforce ARR ramping to $1.5B ARR this quarter (up 240% Y/Y including new AI products), the non-AI part of the core business is slowing with some drag from Marketing / Commerce and Tableau, and the AI revenues are either too small to fully offset the slow-down, While management expressed increasing confidence around 2H acceleration it is not in the organic numbers. Until it not only shows up in the numbers but will sustain this will remain a show-me story and questions over whether the deceleration is fundamental will continue. In addition, the company is going back to its old formula of M&A's (Quick Take: Salesforce's acqusition of Braze - Initial thoughts) which in this case could help offset weakness in the company's core Marketing Cloud business. The real concern, which we have been asking for a while, is whether this is on a trend-line of more and more M&A to replace organic innovation and growth.

Organically, we believe that Salesforce can grow subscription revenue in the mid to high single digits near term, slowing further over time and that the ability to drive margins will become constrained. The bigger wildcard is the possibility of large / expensive M&A which remains a concern. More broadly, we disagree with the concern that Gen-AI would destroy SaaS business model rather it is an incremental headwind. We believe that platform vendors like Salesforce are positioned to deliver AI functionalities and monetize them within their core CRM business. With not a lot of clarity, we choose to remain Underperform.

EXHIBIT 8: **Salesforce Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## Microsoft

Microsoft, which used to be consistently the most crowded stock across our joint coverage, has become less crowded. Post the stellar results in 4FQ26, Microsoft's crowding have come back a bit, but still below where it used to be, ranking #10 in our joint coverage and #3 in the Global Software coverage, behind the database names (see Exhibit 9). While sentiment has improved, there are still overhangs on the stock regarding 1) ramping CAPEX; 2) Azure acceleration vs. peers; and 3) Copilot competition concerns. While 4FQ26 results have temporarily silenced the bears, not everyone is onboard yet as reflected in the crowding score

Last quarter (4FQ26), both Azure and Office beat consensus, with Azure growth accelerating to 43% and guiding to 45% in Q1 while Copilot paid seats accelerating to 30M (50% QoQ). At the same time, CAPEX guide remained unchanged (Microsoft 4Q26: Breakout !!! not stagnation.). As Microsoft delivered on all 3 fronts, this at least temporarily disproved the bear thesis and the stock ran up 30%+ post last quarter's results. Going into 1Q27 earnings on Wednesday, the stock is no longer the cheapest, but we believe expectation levels as well as valuation are still reasonable, which provides a decent setup. We also believe with the new capacities Microsoft has brought live recently, are able to continue to deliver growth acceleration in both Azure and Office (Microsoft 1Q27 preview: Could Azure and Office both accelerate?)

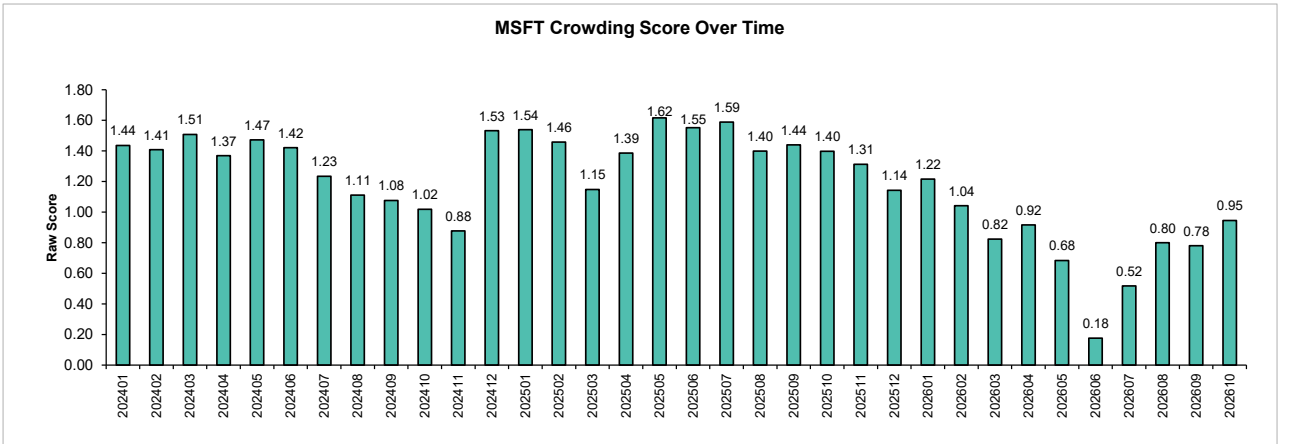
While it will likely take a couple more solid quarters to fully disprove the bear thesis, this is a solid start. Management also expects to remain FCF positive in FY27 while many of the hyperscaler peers have turned FCF negative and some have raised debt and/or sold equity. By saying so Microsoft has set the tone that there is a limit to how large cash CAPEX will be next year

and how their cash generating capabilities will be strong.

Management has also announced additional head count reduction as they optimize the business and leverage the effeciency of AI. This should help with margins and FCF.

We like the setup for the stock going forward. Microsoft is still trading cheaper than its historical multiples, and we continue to believe the stock is undervalued when one considers 1) MSFT's ability to deliver stable GAAP margins in the mid 40s and 2) downside risk protection. Even if we see some bubble like behavior in parts of AI, this is a stock that every investor should have significantly in their portfolio.

EXHIBIT 9: **Microsoft Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## Oracle

After a stellar run in 2024 and 2025, Oracle's crowding has come down in 2026 and quite significantly in the last 3 months, now ranking 3rd to last in crowding within the Global Software coverage. Compared to its own history Oracle crowding peaked in 3Q25 (Exhibit 10), when RPO jumped and Oracle put out an impressive 5-year guide driven by OCI growth acceleration (Oracle: Implications of updated OCI guidance ($144B in FY30) over the next 5 to 10 years). Crowding has since retreated as some investors digest the scale of the datacenter build-out and are concerned with the company's capital constraints and execution. At the same time, negative sentiment around OpenAI and concerns around customer concentration also influenced Oracle's stock, given that OpenAI will be the biggest customer of OCI.

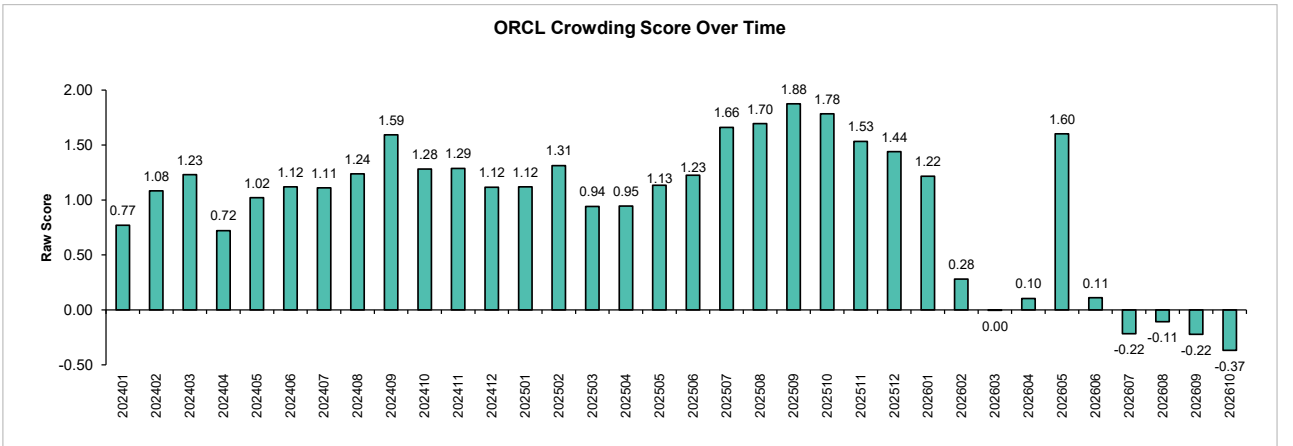
However, despite various negative reports around OCI datacenters (e.g. Quick take on Oracle's "Force Majeure"), Oracle has delivered solid results in the past few quarters (Oracle 1Q27: Solid quarter and improving communication. Next catalyst is FAM), showing that they are executing well towards their FY30 targets with no major hiccups or obscured data points. OCI growth is accelerating (120% CC in 1FQ27) and Oracle added another $30B to the already impressive RPO ($664B) and requires minimal additional funding as the new contracts are pre-paid or bring-your-own-hardware. In addition, the new management team is giving more color and data, and we expect even more details, likely in the upcoming Financial Analyst Day.

The remaining overhang on the stock is investor's continued concern around Oracle's Capex and the necessary capital raise that, some worry, would affect the health of the company's balance sheet. In 1Q27, Oracle raised the previously announced $20B in equity. They have previously guided to raising another tranche either via equity or debt of as much as $20B this year. In our most recent deep-dive Oracle: The story is better than we thought, with better upside potential, we modeled out the revenue, margin, and Capex and FCF trajectories and believe that Oracle's capital raise so far can support most of the funding needs necessary for the build-out.

More importantly, we look at the potential long term impact of Cloud and AI on Oracle. We expect Oracle's growth to accelerate for the next few years; revenue and operating profit growth will accelerate, and once growth slows FCF margins will rebound and the value created for investors will be substantial. Looking 5–10 years out Oracle could be many times larger on most

factors investors care about.

EXHIBIT 10: **Oracle Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## SAP

SAP had been a relatively crowded stock until this year, when Current Cloud Backlog (CCB) growth decelerated in 4Q25 and the broader SaaS Apocalypse narrative (Exhibit 11) impacted the stock. It is now ranked in the middle of the pack within the Global Software coverage, behind hyperscaler and database names and behind CRM, but ahead of other SaaS names. ERP is still considered relatively safer compared to other SaaS segments, and SAP still has the cloud transition story anchoring its future growth. SAP is traditionally well owned within its traditional European ownership, as its cloud transition story with steady EPS and FCF growth is rather resilient from macro volatility. The fact that SAP delivers critical solutions for some of the largest / most complex companies in the world limits the downside risks and should result in the stock outperformance.

SAP delivered a solid Q3 (SAP 3Q26), where Current Cloud Backlog (CCB) grew 28% (26% in CC), and beating consensus of 24% CC, flat QoQ and up from a low in Q4FY25 where investors were worried about growth sustainability. The overall improvement in CCB and 3 consecutive quarters of beats should have allayed investor concerns. This quarter, SAP also delivered on operating margin (+120bp Y/Y) after a slight miss last quarter. Management is executing well on delivering operating leverage and hence margin improvement, even as Cloud becomes a bigger portion of revenue and has a lower gross margin.

SAP, like most of enterprise software, has been hit recently by concerns about AI eating the enterprise app market. We strongly disagree, applications such as ERP are not going to be internally developed and especially complex large enterprise ERP. AI today is a driver of the Cloud transition for SAP and will be a long term driver of revenue growth. The other concern following the 4Q25 results was that the Cloud transition / margin improvement was near the end. We addressed both concerns in the note SAP: Why we believe the bear case is wrong and detailed why we believe it is not the case. In the most recent quarters, CCB growth has stabilized and while the AI bear thesis would take time to be disproven, we have argued in length here Global Software: Putting the SaaS Apocalypse in Context why the concerns are overblown.

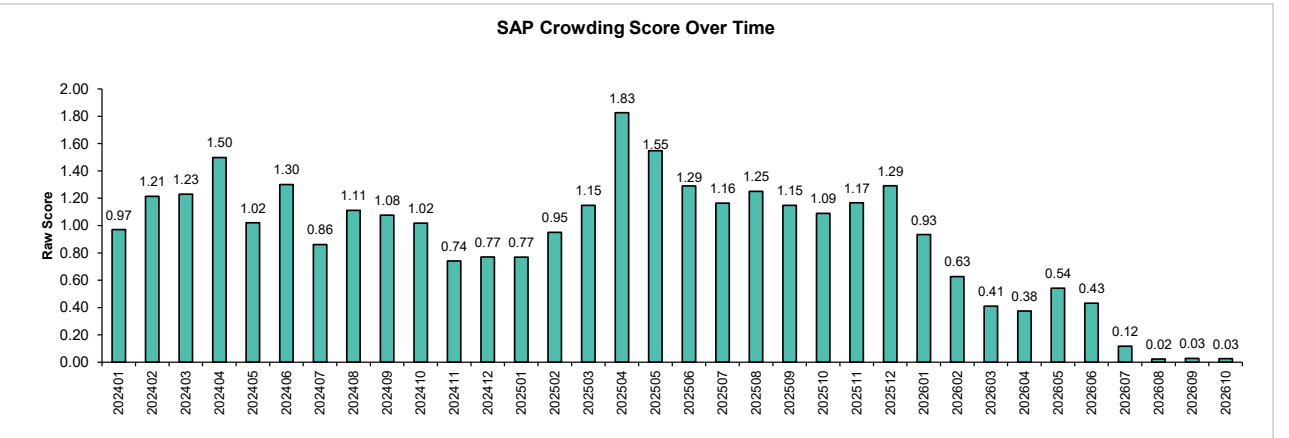
Overall, we continue to think that SAP is fundamentally a Cloud transition and margin improvement story, and they are executing well on both counts. As a reminder, The SAP thesis consists of:

- **Existing customer revenue lift**: SAP is moving existing customers to the Cloud and capturing 2.5x or greater revenue lift with the size of the lift driving up sales of SaaS solutions and platform usage.
- **New customers**: SAP is capturing new customers. ERP is moving to the Cloud, and we estimate that ~40% of the on-premise installs are using solutions that do not have a viable Cloud offering.

- We wrote a joint note discussing the opportunity for new customers and new workload growth from the supply chain opportunity (SAP: Supply Chain, a strategic growth driver through 2030).

- **Margins**: SAP will not only drive efficiency with scale, they have the opportunity to drive operating leverage and operating efficiency. We believe the combined effect is the ability to drive 100 to 300bps per year of margin improvement each year through CY28 and possibly CY30.

EXHIBIT 11: **SAP Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## Snowflake

Snowflake, once the least crowded stock in the Global software coverage, has climbed up the rank over the last year and is now the most crowded score across both our coverages! (Exhibit 12). Snowflakes's crowding score has improved as there is an argument for it to be a Gen AI beneficiary. In fact, although Snowflake's growth rate had decelerated meaningfully over the years, it re-accelerated meaningfully in recent quarters driven by the consumption increase in the core platform as customers migrate workloads faster as well as a meaningful increase in AI revenue led by products like Coco (Cortex Code) and Snowflake Intelligence (Snowflake 2Q27: Stellar quarter surprising the street).

In 2Q27, product revenue accelerated yet again to 37% this quarter vs. 34% last quarter (4.5% above consensus), and FY27 guide on product revenue growth was raised 5pts to 36%, implying substantial revenue acceleration from last year. The company is getting a visible tailwind from AI driven by CoWork (formerly Snowflake Intelligence - for data analysis and actions) and CoCo (formerly Cortex Codex - coding / development). The interesting question is longer term, as critical data migrates to the Cloud and SaaS vendors and hyperscalers expand their AI development capabilities, whether this AI functionality migrates back to the systems of record.

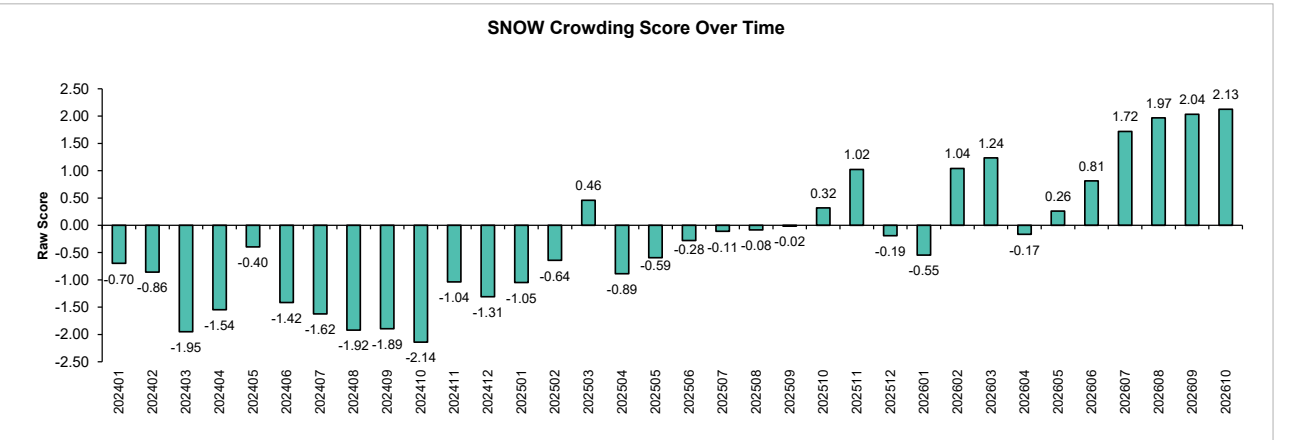
While we agree that the Snowflake database will be accessed more frequently if the data in Snowflake is used for Gen AI inferencing we are not convinced that using their Gen AI tools and their data federation capabilities are the answer. With the shift to Iceberg data storage, data in Snowflake is more easily available externally and Snowflake sits on 3 of the biggest Gen AI technology investors / innovators (Microsoft Amazon[1] , and Google). The concern we have is why use Snowflake AI when you have access to the broadest and most mature Gen AI capabilities from the hyperscale Cloud provider on which you are running Snowflake and all of which have added data federation capabilities and from the AI Labs? In addition, we wonder if long term as traditional on-premise data moves to the Cloud and the Cloud providers all add improved data storage and manipulation, data federation (also called zero copy), and AI capabilities the need for Snowflake decreases?

While it is too early to know the answer, we are encouraged by the innovation and execution focus under the new CEO. However, we remain concerned that competition is increasing in their core market. Newer initiatives are still in the early stages, and we need to see sustained data points before assuming meaningful future growth contributions. Therefore, we choose to remain on

[1] Amazon and Alphabet are covered by Bernstein US Internet team.

the sidelines

EXHIBIT 12: **Snowflake Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## Workday

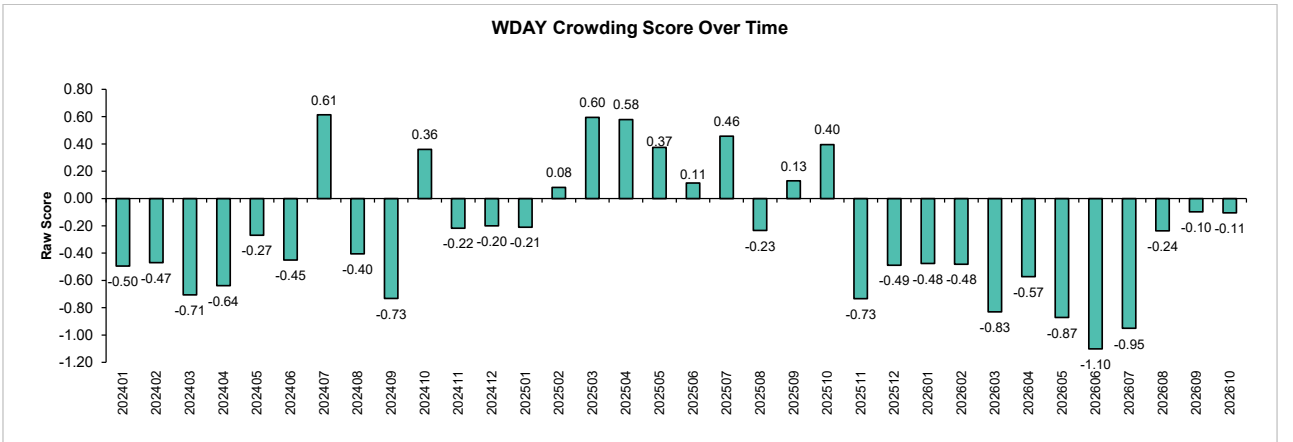
Workday's crowding score first declined in late 2023, stabilized in most of 2024 and 2025, and started to decline again over the past year due to slower growth and AI disruption concerns. Most recently, given the PE buyout rumor as well as stabilized results, its crowding has recovered slightly, now ranking #6 in Global software coverage (Exhibit 13). The stock started to get less crowded when growth started to slow from 20+% to high teens in FY24. The company then issued two-year guide (FY26 and FY27) of mid-teens growth, but subsequently guided for only 14% growth for FY26, which left investors perplexed and has put the stock in the penalty box since. During the 2025 Investor Day, the company has revised mid-term guidance to grow 13-14% CAGR through FY28 and most recently is guiding to 13% FY27 and 11% FY28 subscription revenue growth.

In 2Q27 (Workday 2Q27: In-line quarter with a floor set to next year's growth plus significant margin improvement.), Workday delivered a good quarter with small beats, with subscription revenue growing 13.9% Y/Y. The company also updated FY27 and FY28 revenue and margins, guiding to margin improvement in FY27 and then another 200 bps expansion in FY28, as well as 11% subscription revenue growth in FY28, which sets a floor for investor expectations amid concerns of sharp growth slowdown due to AI and other competition risks.

Workday also held 2026 Rising conference in October (Workday: Re-founding in an AI world at Workday Rising and FAM). 9 months into his return as CEO of Workday, Aneel Bhusri defined the transformation he is driving at the company as effectively "re-founding". In less than a year the company has pivoted to AI-centric, technologically open, platform centric and trying to operate more like a startup than an incumbent.

While stable quarters and strong LT guidance are a good start, for the stock to ultimately work, investors will want to see 1) growth acceleration and 2) validation of AI success. Until one of the two catalysts happens, we think it continues to be a show-me story. Fundamentally, we think that the existential concerns many have about system of record businesses like Workday are overblown. Given the durability of the business and margin improvement potential, we continue to like the story long-term.

EXHIBIT 13: **Workday Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## MongoDB

MongoDB's crowding score has fluctuated since late 2025 (Exhibit 14), but as the other names in our coverage have become less crowded it is now the 2rd most crowded stock in Global Software coverage. While consumption names are generally viewed as AI beneficiaries and thus fared much better than SaaS names, MongoDB's management conservatism in annual and quarterly guidance and more recently the CEO exit has created volatility in its crowding.

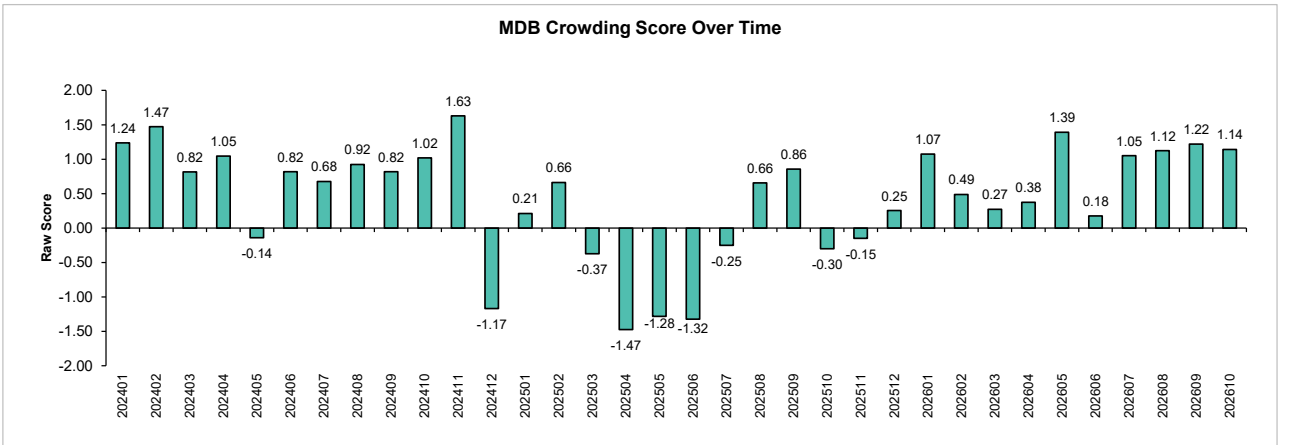
In 2Q27 (MongoDB 2Q27: Strong and clean quarter with continued momentum), MongoDB delivered a strong beat and raise, with Atlas growing at 29% and EA (on-prem) growing 36% this quarter. FY27 guide was also raised more than passing on the beat, to 21-23% total revenue growth and 27% Atlas growth. Yet the stock was down 14% post market, which we believe is a combination of expectations running ahead on Atlas (likely expecting a bit of acceleration to 30% vs. the 29% growth that was delivered) and the lack of a clear AI inflection as seen at Snowflake. That said, strong growth momentum, improving NRR (+1pt to 122%) and strong operating margins should set up the company well for 2H. We continue to see potential for the stock to grind up and the company to deliver growth acceleration for FY27 vs. 23% in FY26.

At the end of September, Meta hired MongoDB CEO CJ Desai to run their enterprise platform, just 10 months after CJ assumed the CEO role at MongoDB, which created jitters around the stock and across software (Quick Take on MDB CEO transition). Former CEO Dev Ittycheria will step in as interim CEO and President and MongoDB's Board has initiated a search for a permanent CEO.

Two days after the announced CEO transition, MongoDB hosted their 2026 Investor Day (MDB investor day 2026: Solid multi-year outlook and roadmap) where they are guiding to 20%+ total revenue growth and 25%+ Atlas cloud growth over the next three years plus 100-200 bps of annual non-GAAP operating margin improvement and even greater GAAP margin improvement.

We initiated on MongoDB in 2023 (see: MongoDB: Growth could surprise on the upside. Initiating at Outperform). We like MongoDB as a long-term holding due to its exposure to a large and fast growing non-schematic database market. Management highlighted a small but accelerating contribution from Frontier (AI) labs and AI-native customers, but did not elaborate further. Overall, given the strong demand environment and MDB's execution, we continue to like MDB's prospects for delivering healthy beat-and-raise through FY27. However, narratives around AI adoption and management transition may drive volatility.

EXHIBIT 14: **MongoDB Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## HubSpot

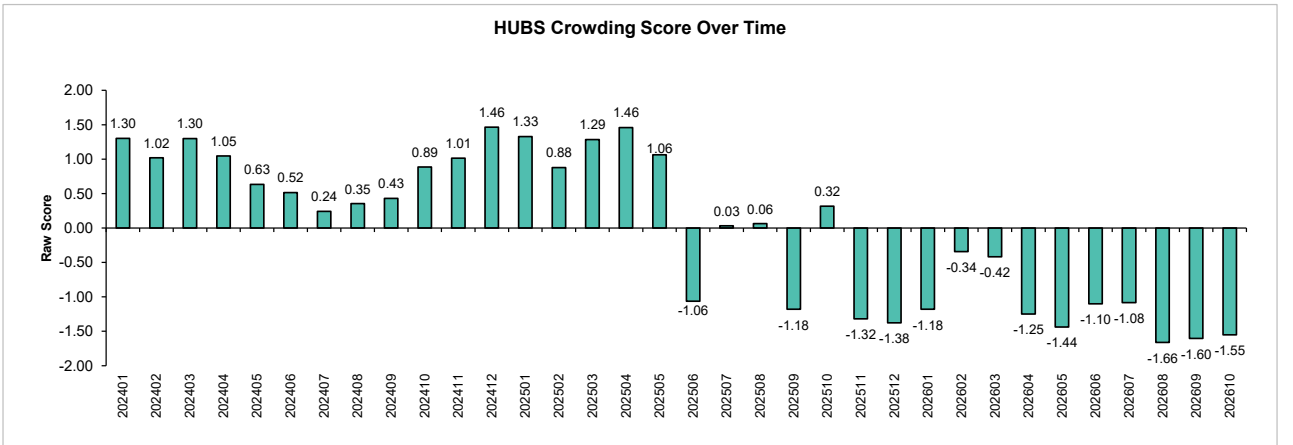
HubSpot's crowding score has declined drastically since June 2025 and is now the most uncrowded stock across both our software coverage (Exhibit 15). As an SMB focused stock and a CRM software provider, the stock became less loved amid heightened macro uncertainties and the concern of AI disruption. More recently, the strategy shift and restructuring has left the stock in the penalty box.

We downgraded the stock to Market-Perform after its 2Q26 earnings (HUBS 2Q26: Growth under pressure and no catalyst in sight. Downgrading to Market-Perform) as we believed recent results have shown that 1) growth expectations have degraded since the company changed its GTM and pricing strategies; and 2) recovery may take some time, as management confidence has rolled back on the outlook. However, 3) valuation is low, which limits downside but without a clear catalyst in the near-term horizon, we believe the stock is going to be in the penalty box and recommend stepping to the side for now.

Last September when we upgraded the stock, we believed that HubSpot's GTM and pricing changes would drive higher revenue per customer and NRR, driving growth acceleration in FY26. This expectation is now being challenged as HubSpot is seeing elongated deals cycles, customer budget and renewal pressure, in both core products and AI initiatives, leading to slower revenue and customer growth. Management revised down outlook for FY26 revenue, customer adds and NRR.

It is important to note that we do not think the business is fundamentally broken. Rather, it is impacted by a confluence of headwinds, including a difficult macro, uncertainty regarding the timing of AI adoption, and maturation of the SaaS CRM market. Taken together, these headwinds create near term uncertainty, and we believe it will take time for the issues to resolve and investor confidence to return.

EXHIBIT 15: **HubSpot Crowding Since Jan 2024**




Source: MSCI, Factset, Bernstein analysis

## SMID-CAP SOFTWARE: LOOKING AT EACH COMPANY IN OUR COVERAGE AND HOW CROWDED IT IS VERSUS HISTORY

### ServiceNow

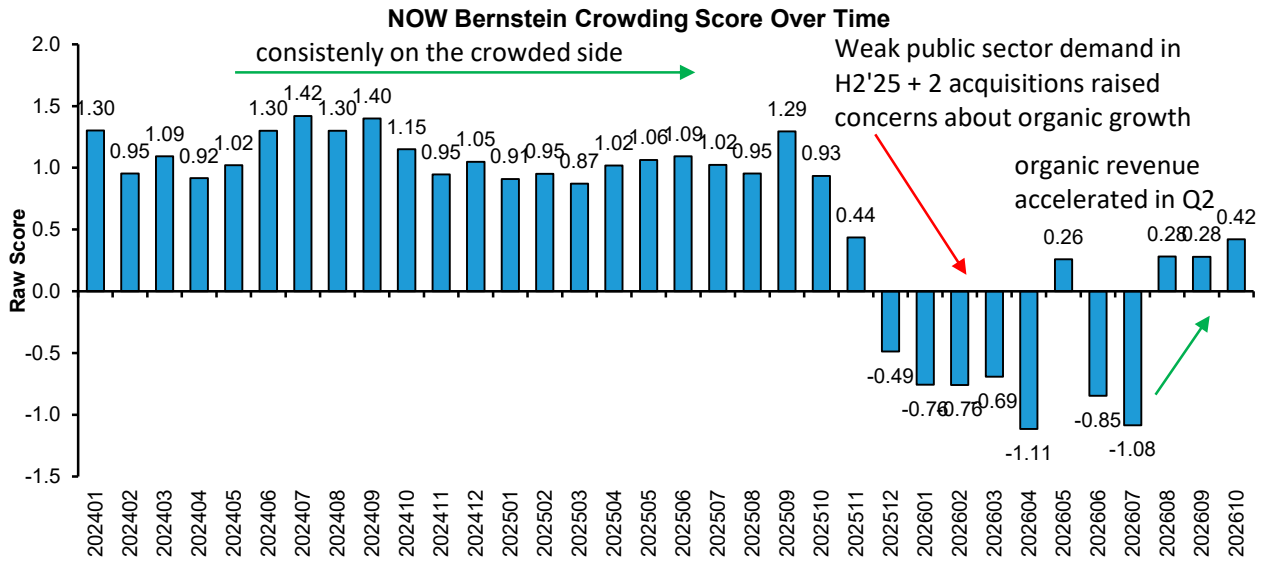
ServiceNow has been a darling growth and margin story, with a long track record of consistent growth and reliable beats vs. management guidance. Perhaps it is not surprising that the company has had a long history of crowding and hence the focus used to be really around the variation between periods of crowding and more crowding. Especially during periods such as Q2 2024 where the sector as a whole was impacted by macro concerns and experience volatility, ServiceNow was treated by some investors as a bit of a "safe harbor" (link to our note).

While ServiceNow's AI product launches were successful and gained strong customer traction, the company faced a more challenging macro backdrop in 2025. Uncertainty stemming from DOGE-related policy discussions and tariff announcements early in the year was compounded by a U.S. government shutdown in October, which persisted as a headwind into the second half. As a result, ServiceNow's public sector business experienced pressure in Q3 and Q4 2025, with deal cycles lengthening and one government agency ceasing operations. At the same time, the company's acquisition activities in late 2025 (Moveworks, Armis, Veza) sparked investor concerns about the sustainability of its organic growth profile, with some questioning whether ServiceNow was increasingly relying on M&A to drive growth. The acquisitions of cybersecurity firms Armis and Veza further raised questions around integration execution and the company's ability to expand successfully into the cybersecurity market. Together, these factors weighed on investor sentiment, driving both the stock price and crowding score lower beginning in Q3 2025. Notably, the crowding score turned negative for the first time in our dataset.

In the first half of 2026, sentiment has remained subdued following Q1 results that suggested a deceleration in constant-currency organic revenue growth, while the increase in the company's 2026 AI ACV target to $1.5 billion failed to meaningfully improve investor confidence. But the sentiment has started to improve after Q2 earnings report delivering larger-than-normal beats on both constant-currency revenue and cRPO. Its organic constant currency revenue growth rate also started showing an acceleration, debunking the bear narrative around the company having to buy inorganic growth through acquisitions.

Looking into H2'26, we believe sentiment will continue to improve as public sector pipeline continues to build and is enhanced with demand for ServiceNow's AI platform, new AI-native packaging with higher pricing adding ~60-70bps growth tailwind by Q4'26, and ServiceNow's recent acquisitions become fully integrated into the platform, enhancing the value of its core offerings and driving future revenue growth.

EXHIBIT 16: **ServiceNow Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

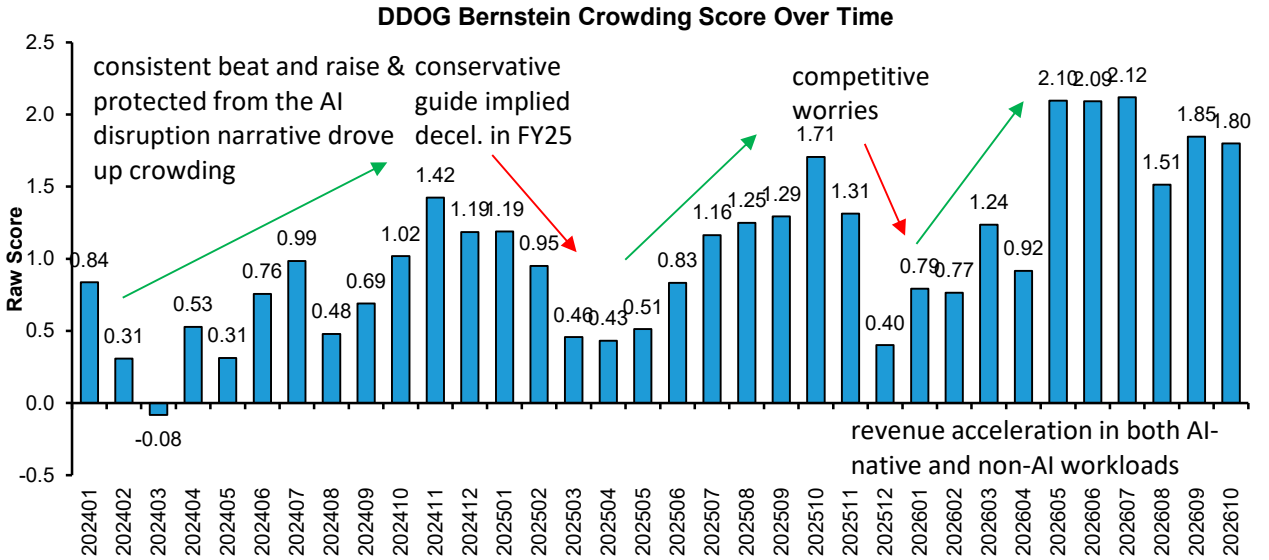
## Datadog

Datadog has had many swings in its stock price and crowding due to the boom bust cycle of investors psychology around excess bullishness and at other times excessive fear around fundamentals. Its connection to AWS has become a signal that we and investors watch for closely and sometimes leads to excess bullishness or fear before its quarterly results. See our most recent note on strong correlation for Datadog to AWS revenue here. Historically, Datadog's stock price and crowding levels have tended to rise when investors anticipate revenue growth acceleration, such as after the Q3'23 earnings release when management raised FY23 revenue guidance, and from May to October 2025 as growth reaccelerated. Conversely, crowding has typically declined when growth was expected to slow, as seen around Q2'23 and Q4'24.

In 2026, Datadog's crowding score started at relatively low levels following weaker-than-expected 2025 revenue guidance. However, stronger revenue acceleration in Q1'26 drove both the stock and crowding score higher. The acceleration has been supported by increased enterprise cloud workloads and strong growth within its "Born-in-AI" customer cohort. As adoption of AI coding tools and AI agents expands, and Datadog's large AI lab customers continue to report strong ARR growth, expectations for Datadog to benefit from AI-driven consumption growth have steadily increased, pushing crowding to historical high levels.

We think the crowding level for Datadog will remain high as it continues to deliver high-30% to even over 40% revenue growth rates over the next four quarters, underpinning our recent upgrade of the stock (here). Datadog faces two headwinds heading into Q4 with a partial churn from its largest "Born-in-AI" customer and a softer growth in non-AI cloud workloads signaled by the AWS web metric data. But "Born-in-AI" customer tailwind appear strong enough to more than offset those, with enterprise token consumption appears to have grown at least 50% QoQ in Q3 among the largest AI Labs (and perhaps even faster in their smaller "Born in AI" customers).

EXHIBIT 17: **Datadog Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

### Atlassian

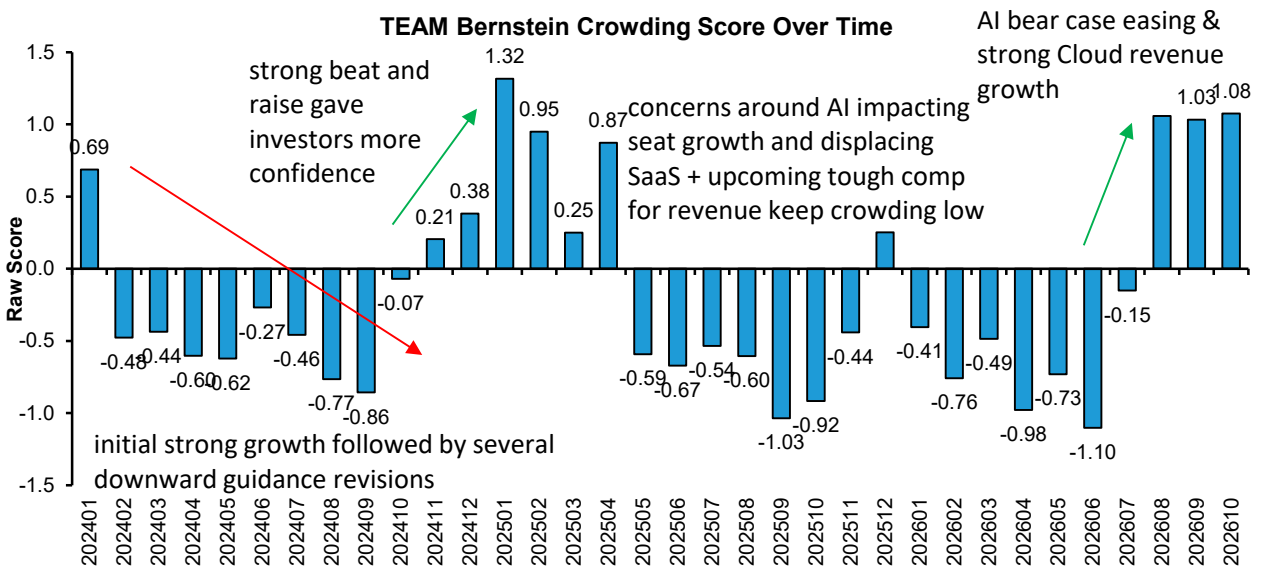
Atlassian entered 2023 as a fairly crowded name, with Cloud and Data Center both growing 40%+ on Server migrations. Sentiment reversed after the February 2023 print, when management cut FY guidance, acknowledged prior assumptions had not been conservative enough, and declined to guide to the following year. Crowding remained low through 2023 and 2024 as continued Cloud growth guidance cuts eroded investor confidence, while the challenging hiring environment pressured seat growth, historically about half of Atlassian's growth. With Server EOL largely behind them and long-term guidance cut three times, investors became increasingly cautious about future Cloud growth.

Towards the end of 2024, we started hearing many of our clients interested in the name again because it was “cheap” relative to historic multiples, and the strong beat and raise in FY25Q1 gave investors a bit more confidence in the company’s 20%+ FY27 CAGR guidance provided in their most recent investor day. And combined with the multiple expansion across the software sector, Atlassian’s crowding score started recovering towards the end of 2024.

In January 2025, the crowding score shot up to a historic high with the company keeping its beat and raise cadence in its FY25Q2 earnings. But the high crowding level didn’t last very long. With the elevated macro uncertainties around April and the DOGE actions in early 2025, the whole sector came down and reached a bottom in April. While the software sector started to recover after the announced tariff pauses, the sentiment around Atlassian remained negative with a disappointing FY25Q3 results in May. Its Cloud revenue beat was thinner than past couple quarters and both Data Center and Marketplace missed guidance.

Concerns that AI could reduce software developer hiring and seat growth, while potentially displacing SaaS, weighed on the stock throughout H1'26. However, this AI bear narrative appears to have eased in Q3, driven by strong Cloud revenue growth in Q2, Atlassian demonstrating the value of its platform in providing context that helps AI agents work more effectively, and third-party data suggesting companies are reinvesting AI-driven productivity gains into additional development activity and headcount, both of which benefit Atlassian (more details discussed in our note).

EXHIBIT 18: **Atlassian Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

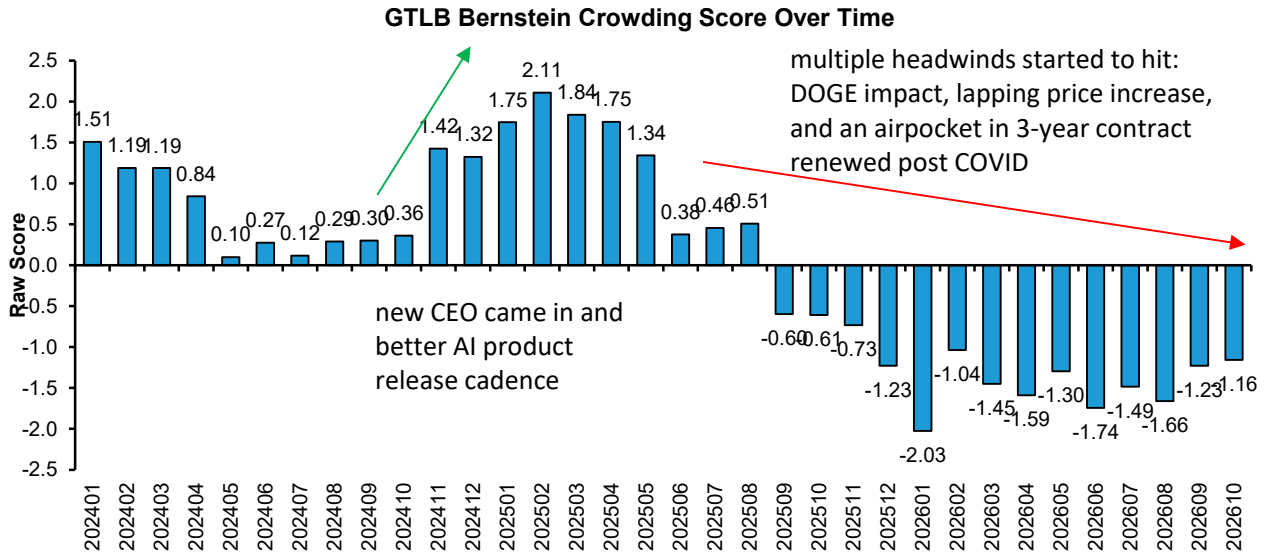
### GitLab

GitLab's crowding was positive entering 2024, as the Premium tier price increase provided a lasting growth tailwind. That momentum faded after disappointing FY25 guidance and confusing management communication renewed concerns around the growth outlook, sending the stock sharply lower. This improved somewhat after the FY25Q2 earnings as they demonstrated a beat/raise with some hopefulness of the positive impact from pricing and anticipated new big product releases around GitLab Duo. And this optimism lasted into the end of 2024 with the company delivering an expanded beat in its FY25'Q3 earnings in December and sharing the strong demand they are seeing with Duo Enterprise and self-hosted release.

In December 2024, GitLab had a change in its CEO with the founder stepping down to focus on his health. The new CEO Bill Staples did a good job in his first quarter as a CEO to lay out a strong narrative for GitLab's unique position in an increasingly competitive developer tool market. The company displayed major customer wins like AWS, Zscaler, Barclays and had another strong of $100K+ customer net adds in FY25Q4. But its crowding score came down in CQ2 as macro uncertainties and potential federal headwind started to kick in.

The crowding level remained negative from late 2025 into 2026 as the company guided to a sharp deceleration in FY26 revenue growth due to couple headwinds as we laid out in this note: ~200-250bps of headwinds from the previous round of pricing increase, ~100bps of seat-based compression due to the US Federal DOGE right-sizing in 2025, and a ~300bps headwind airpocket in 3-year contract renewals caused by poor demand as COVID ended in calendar '22-23. Additionally, the accelerated layoff in tech sector and GitLab's recent restructuring introduced new risks and uncertainties in the near term. But as those headwinds alleviate in the second half of this year, we expect the revenue growth rate to inflect from Q3 and go back to 20%+ growth rate in CY2027.

EXHIBIT 19: **GitLab Crowding Since Jan 2023**



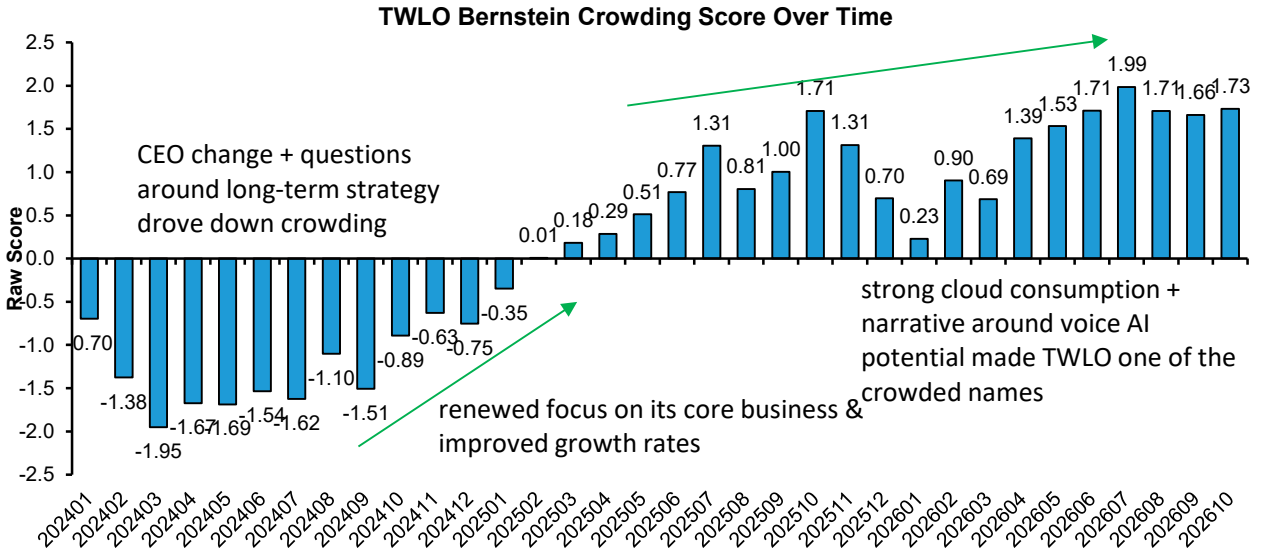

Source: MSCI, Factset, Bernstein analysis

## Twilio

Twilio entered 2024 with relatively low crowding as investors remained cautious about the durability of growth, particularly following the January CEO transition and lingering questions around the company's strategy and the strength of its core business. We heard many investors remained on the sidelines, with Twilio being a “show me” story for management to prove they can re-accelerate fundamentals. But as 2024 wore on, and the company showed an improving growth rate and focus back on their core business, placing some ill-fated acquisitions behind them, investors confidence grew. We think this was particularly supported by a “cheap” relative stock price vs. most other cloud software winners. By the start of 2025, their strategy became clearer and investors drove up their stock price in January post investor day as a result.

The positive momentum extended through 2025 and into 2026, with revenue growth rate continuing to accelerate. As we have seen in the revenue acceleration from the hyperscalers and consumption names like Datadog, cloud consumption trends have remained robust since late 2025. This wave of new cloud workloads has also benefited Twilio, with its organic revenue growth trending above 10% for the past six quarters. The story around voice being the new interface for AI and Twilio's role as a critical infrastructure provider for voice communications positions the company to benefit from increasing adoption of voice-enabled AI applications, adding another layer of optimism to the stock narrative. While the crowding score continued to increase, the concern around a compressing gross margin started to emerge since its Q1’25 earnings release. The management emphasized that they can drive both revenue growth acceleration and margin improvements, but it will not be an easy task to manage.

EXHIBIT 20: **Twilio Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

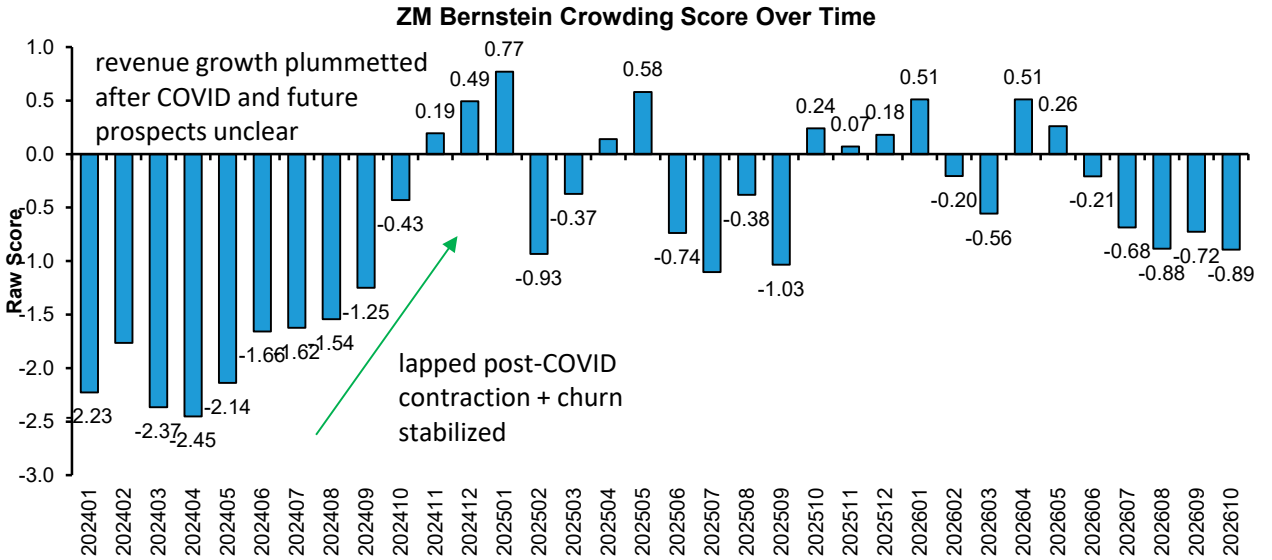
## Zoom

Entering COVID, Zoom was already a well liked company and showed higher crowding scores going into the period. But then during COVID its top line growth exploded, and this also seems to have created some uncertainty with investors who backed off and reduced their crowding. Finally, emerging from COVID, when it became clear that revenue growth rates would plummet and future prospects were difficult to see, crowding has gone steeply negative and remained negative for most of the past 2 years.

From late 2024, the company started to gain some investors' confidence as the Online segment churn rate started to stabilize around 3% and the Enterprise revenue growth rate bottomed in FY25Q2 and started to reaccelerate to high single digits. The company's expansion into the contact center market also started to show some progress with the number of Contact Center customers growing at over 80% YoY in FY25Q3. The unbundling of Microsoft Teams from its Office Suite due to antitrust regulations in Europe also helped Zoom's narrative. The positive crowding faded in early 2025 as the company delivered the narrowest beat vs. any recent quarter since mid-CY22 in FY25Q4, and its full year revenue growth guidance was also a modest 3%. The sentiment improved a bit in May as the company's FY26Q1 result showed slow but durable growth and $10-15M revenue benefit from its recent pricing increase on its Online segment.

We remain on the sidelines, as there is still the overhang of a possible large M&A, but see some hope for their AI offerings and new product releases to be enough to maintain same levels of revenue or slight single digit growth.

EXHIBIT 21: **Zoom Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

## CYBERSECURITY

### CrowdStrike

CrowdStrike has been one of the strongest execution stories in cybersecurity. Success of its endpoint protection platform offering helped replace existing endpoint protection solutions, and now it is building a broader platform offering. It is a well-loved brand and one of the largest IT outages in history in July made it a household name. CrowdStrike was starting to gain prominence as a gold standard cybersecurity name and was well-owned name with investors looking for cybersecurity exposure. In June 2024, CrowdStrike was included in the S&P500 which led to incremental dollars flowing into the stock and thus, the crowding score shooting up. However, just 1 month later, CrowdStrike pushed a faulty update to its sensor agent causing a global outage across Microsoft systems. This is billed as one of the largest IT outages ever.

CrowdStrike fell ~45% from its peak price in July to the trough in August 2024 as investors digested the potential risk to the business (everything from the cost of remediation to customer growth/churn). As active managers reduced their exposure to CrowdStrike, its crowding score fell dramatically. Management at the Fal.con conference just after the outage tried their best to assuage concerns on pipeline impact and launched their “Financial services” offering aimed to complementing their Falcon flex program. Since then, the company has delivered strong results proving their point, as they saw success with the flex program in addition to customer commit packages (to ameliorate impact on affected customers).

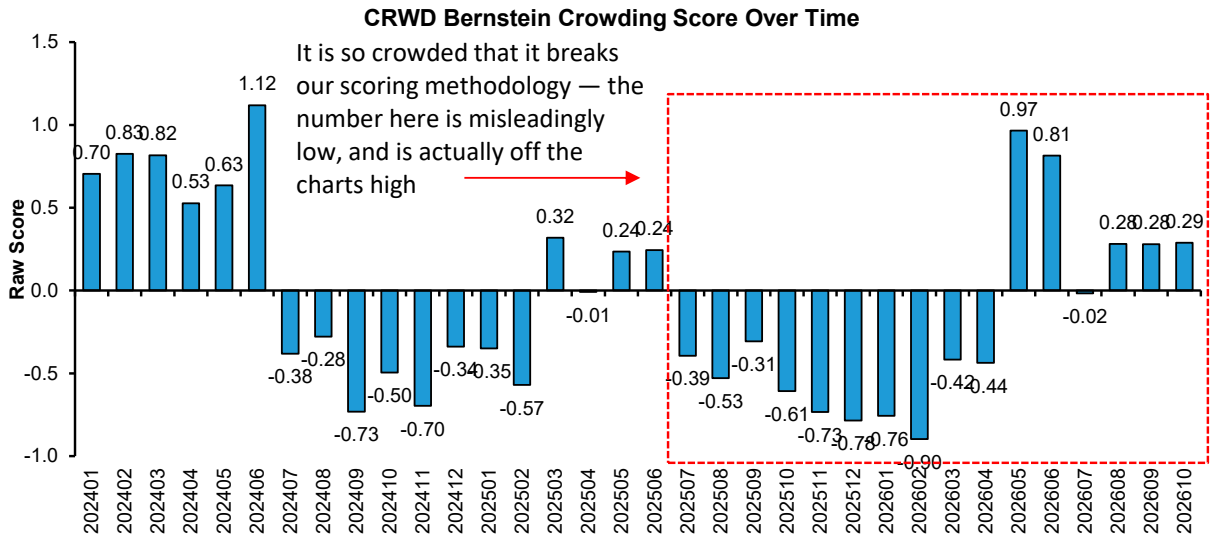
As we sit here in 2026, the post-outage recovery story is largely complete. Customer retention remained strong, platform adoption continued to expand, and CrowdStrike successfully repositioned itself beyond endpoint security as a broad security operations platform. The stock has not only recovered its outage-related losses, but has also returned to trading at premium growth multiples, supported by investor enthusiasm around AI-enabled cybersecurity and platform consolidation.

In fact, investor confidence has rebounded to such an extent that CrowdStrike once again exhibits characteristics of a highly crowded position. While traditional crowding metrics may not fully capture this dynamic, ownership among growth investors appears elevated, and many funds already hold meaningful positions. As a result, incremental demand becomes increasingly dependent on either continued fundamental upside or expanding ownership from new investor cohorts rather than increased allocations from existing holders. At the same time, valuation remains a key point of debate, with many investors acknowledging best-in-class execution while questioning how much future growth is already reflected in the share price.

Therefore, we continue to view CrowdStrike as somewhat of an outlier within crowding frameworks. Although quantitative crowding indicators may not always register extreme levels, the stock arguably remains highly crowded because: 1) the company can’t take more institutional money as it’s already at max allocation in funds; and 2) sell-side ratings are lower because

of high valuations discussed above. Therefore, CRWD crowding is probably higher than its score reflects.

EXHIBIT 22: **Crowdstrike crowding score since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

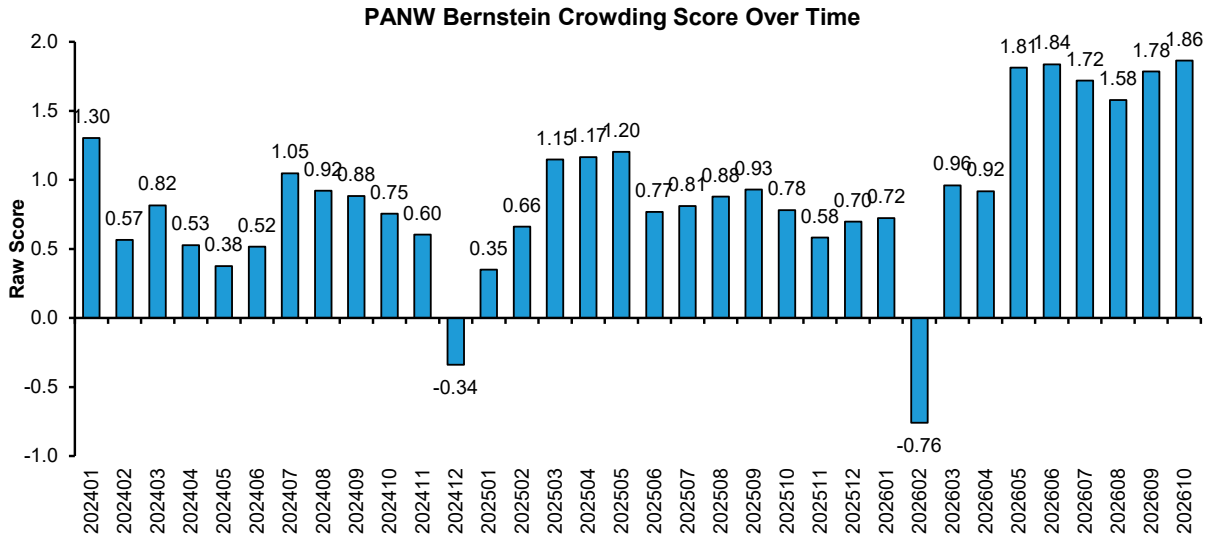
### Palo Alto Networks

Palo Alto Networks has been considered as a strong, bankable name in security by both investors and CISOs and not surprisingly its crowding score reflects the same… but a realization about the maturing nature of firewalls has been creeping into investor sentiment for some time, and PANW has been vocal on its plans around reducing hardware exposure. This precipitated a reset of strategy earlier in 2024, shortly after the prior strategy was released in 2023, causing some worry and uncertainty in investors, particularly because the new strategy suggested short term growth deceleration matched to a "trust us" future re-acceleration. This drove a drop in the stock price and crowding in the 1$^{st}$ half of 2024 (although being a well-loved name, it remained positive).

In more recent quarters, the company has showed good progress on ramping their new strategy, driving up investor confidence and both the stock price and crowding. We believe CrowdStrike's high valuation will continue to help in some rotation of investor dollars towards PANW as a safe pick and due to the continued share gain on the core firewall refresh cycle. Its recent acquisitions of CyberArk caused some pullback, but with the deal closing and result announcements, we see recovery as investors received more deal information and got comfortable about revenue and cost synergies associated with the deal that could easily cover the premium paid and added execution risks caused by the deal.

As execution improved, both the stock price and crowding levels recovered, re-establishing PANW as one of the preferred large cap cybersecurity investments. Management's strategy of encouraging customers to consolidate vendors onto broader Palo Alto platforms has increasingly resonated in an environment where enterprises remain focused on reducing security complexity and maximizing returns on cybersecurity spending.

EXHIBIT 23: **Palo Alto Networks crowding score since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

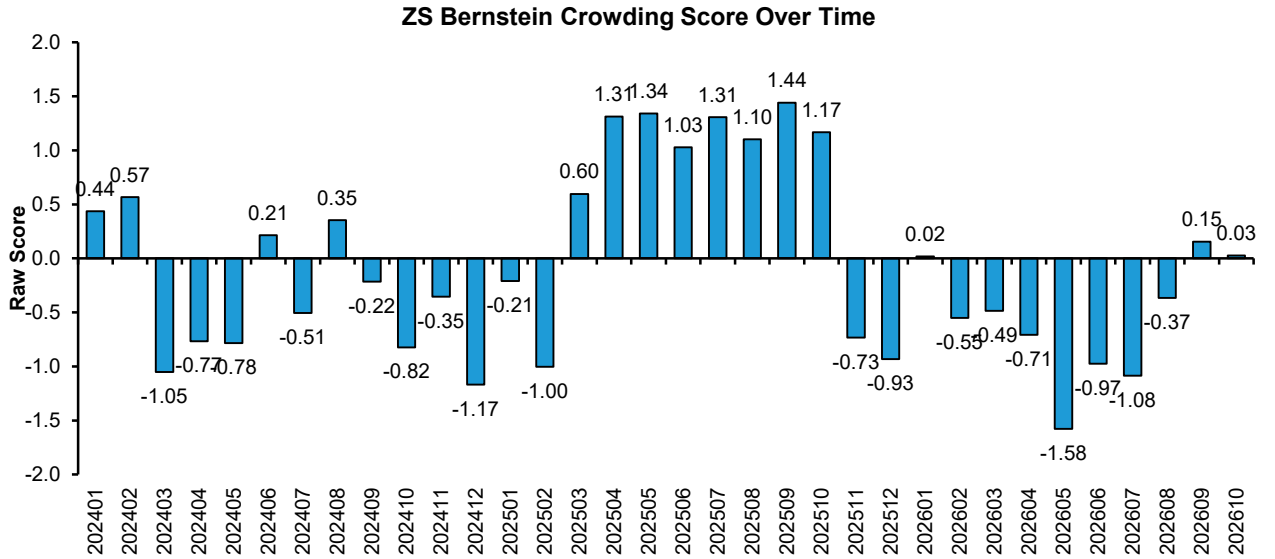
### Zscaler

Zscaler is the champion of the zero trust, SASE market. It created the category and introduced to the market, a novel architecture for network security which is inherently more secure as it helps prevent horizontal movement within a network even if a malicious user somehow breaks in. Further, it provides a better VPN experience to WFH / remote employees by reducing network latency. Though the high growth enabled by structural drivers such as cloud transition (and some temporary COVID tailwinds) made SSE an attractive market and many network security players started to see it as a critical offering to future-proof their business. However, the attractiveness of the market has led to strong competition. This has led to some venture funded startups such as Netskope and Cato Networks to enter the SSE market. Further, Palo Alto launched Prisma Access 2.0 and is doubling down. These competitive pressures combined with return to work policies that some firms are starting to implement have led to concerns around a slowing SASE market. These fears led to negative investor perceptions by mid-2023. But as 2023 evolved it became more clear ZS was able to maintain pricing premium and their incremental new customers showed no signs of slowing.

However, Zscaler announced a change in their commercial strategy in early 2024, and hiring of a new head of sales (not to mention the turnover of some old talent). The company guided this would be a material headwind to expansion and new customer growth through the year, and that things would eventually rebound (which is a setup we don't think many investors like), not to mention some guidance on billing that was confusing to investors (who don't track billings waterfalls very closely) causing the crowding to fall sharply. Then, in 2025, crowding turned positive as investors realized the decline in billings growth was not indicative of revenue growth decelerating.

As we sit here in 2026, the crowding has turned negative because of soft earnings by the company in the recent quarters that has been exacerbated by concerns about competition as well as less emphasis on spend in the category due to prioritization of other verticals following AI and Mythos in particular. But its most recent earnings release in September showed a durable and improving NNR combined with elevated level of contribution from new customers. Its new sales strategy has been ramping through the year, its new contract term Z-Flex is attractive to customers, and its offerings in AI cybersecurity (such as Zero Trust Everywhere platform, Data Security, and AI Security offerings) fit the current market demand. All these factors helped its net new ARR accelerate and its crowding score to turn slightly positive.

EXHIBIT 24: **Zscaler crowding score since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

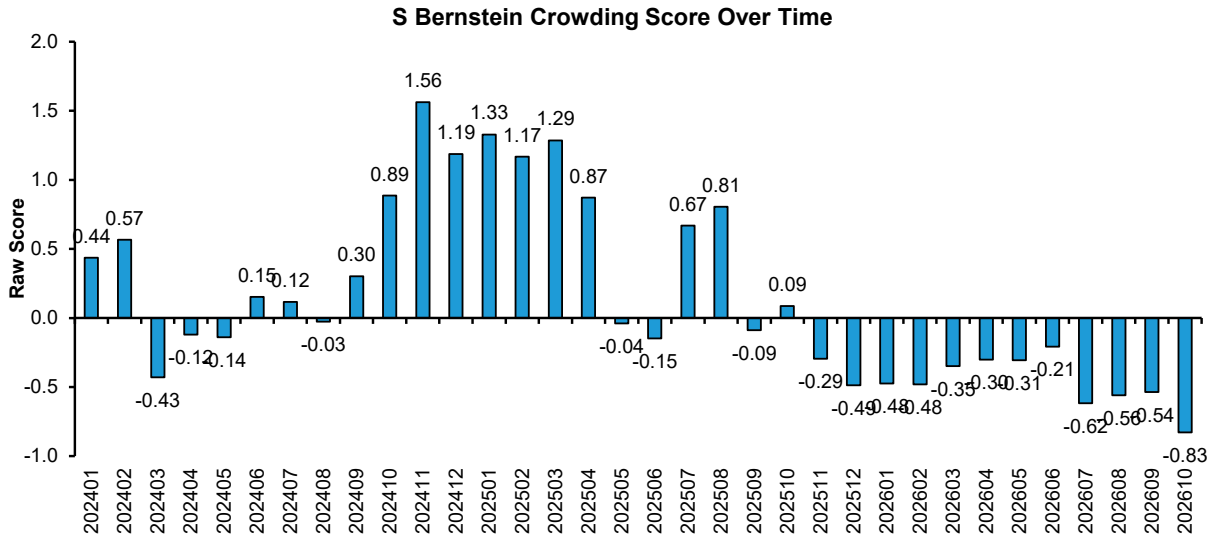
## SentinelOne

SentinelOne IPO'd in 2021 as the highest valued cybersecurity IPO at the time, but has struggled to be the long term investor's preferred buy as it's market leading endpoint offering continues to live in the shadow of Crowdstrike (and Microsoft). Further, many investors we speak with continue to wonder about the real success of their product expansion vectors (that often mirror Crowdstrike's) and express concerns about leadership churn. And the company remains only near break even on FCF, and there are worries it may struggle to get much better. All we think these resulted in lower crowding scores for SentinelOne in 2023.

However, as SentinelOne continues to demonstrate strong execution and stabilizes its executive leadership (including a splashy new CFO hire), some of these concerns are starting to work their way out and crowding has become a bit more neutral to positive in early 2024. And this was only further enhanced by the Crowdstrike outage in July 2024 — investors wondered if this would be a catalyst for increased inclusion in buyer RFPs and win rates vs. Crowdstrike as SentinelOne tries to move up market into enterprise. SentinelOne management had pointed to early momentum they are seeing in the top of the funnel from the Crowdstrike outage, though they shied away from adding any of that to their guide as they predict that it will be a longer term opportunity as enterprise sales cycle take longer to close.

As a result of the outage and SentinelOne's expected market share gain, crowding scores shot up in late 2024 and early 2025. However, SentinelOne failed to show results of this market share gain and when the positive impact from CrowdStrike outage wasn't obvious to see, investors lost confidence in the story. The company still hasn't materially delivered strong results over the past several quarters, which means it still hasn't gained investors' trust, hence its continued negative crowding.

EXHIBIT 25: **SentinelOne crowding score since Jan 2023**



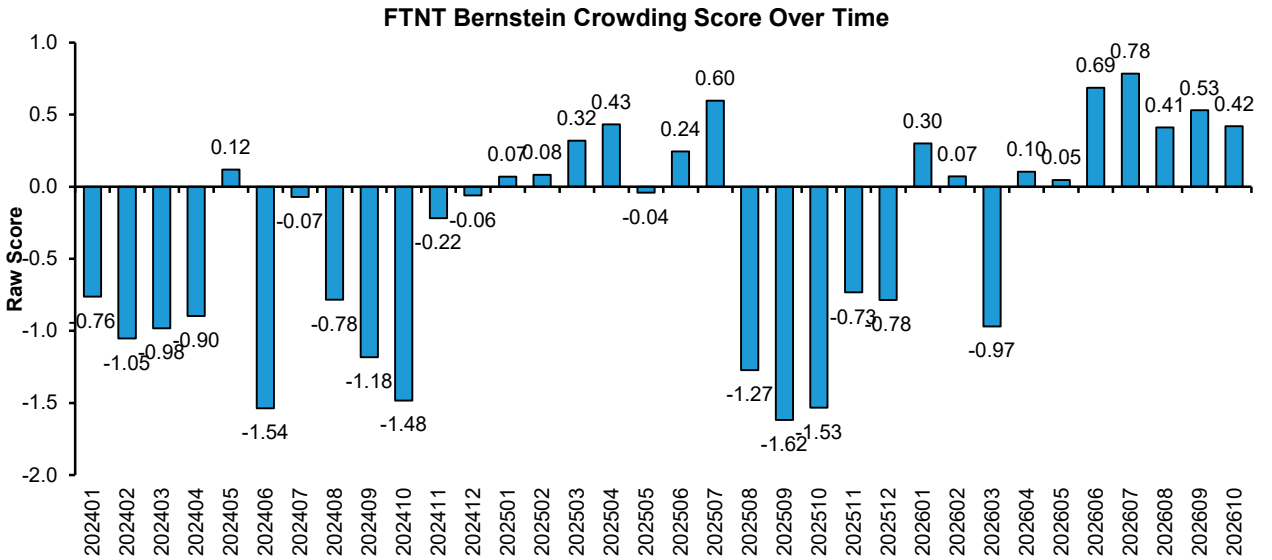

Source: MSCI, Factset, Bernstein analysis

## Fortinet

Fortinet remains one of the few hardware centric security players in our coverage and thus, the stock's fortunes are highly dependent on the hardware refresh cycles. Fortinet was a beneficiary of the COVID chaos as customers scampered around to reinforce their cybersecurity defenses. Fortinet's in-house development teams and supply chain strengths meant that it was less impacted vs. peers from some of these operational disruptions. Then, Fortinet gained share in the firewall market and grew at 30%+ in FY22 and maintained 25%+ YoY growth leading up to H2'23. But its growth rate decelerated in 2024, with top-line growth slowing to early teens. Therefore, it is no surprise that the crowding score trended down in this period.

In 2025, management's comments that we're already halfway in the refresh cycle brought down the importance of one of the major catalysts for the stock. However, more recently following the emphasis on OT investments and additional cyber spend by companies (especially given the hardware exposure of the business), crowding has turned positive for the business. The company has also implemented price increases on its hardware firewall products to offset higher component costs, particularly memory chips, while accelerating data center buildouts have created an additional source of firewall demand. Together, these tailwinds helped drive Fortinet's revenue growth above 20% in 1H26 and contributed to a sharp increase in its crowding score.

EXHIBIT 26: **Fortinet crowding score since Jan 2023**



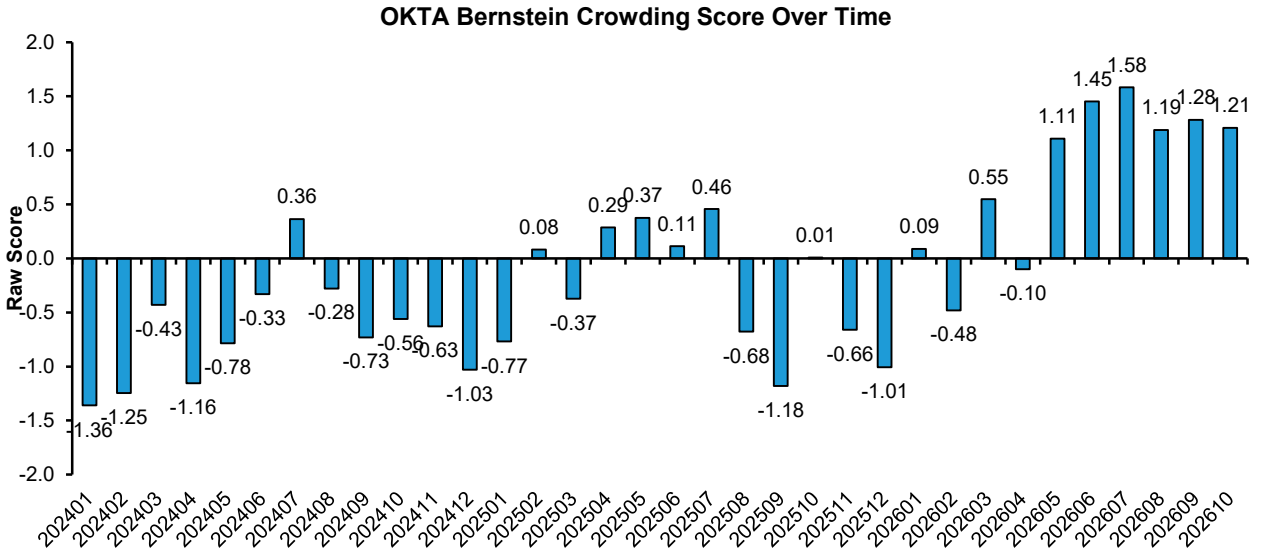

Source: MSCI, Factset, Bernstein analysis

## Okta

Okta was a strong growth story entering and through COVID... but then in March 2021 the company announced its agreement to acquire Auth0, shattering the confidence from investors in the company's ability to drive organic growth. Moreover, the company began facing weaker margins than a growth investor would like to see. 2022 then introduced the additional weight of macro risk, as a decent portion of Okta's business is consumer-exposed (the CIAM business), as well as a sharp drop in revenue growth in the quarters announced in July and October. As 2023 started we heard more investors attempting to get more constructive on Okta, with the company announcing more efforts to reduce costs and increase margins again at earnings in March; as well as a belief the company's mid-to-high teens growth guidance is too conservative, and there is line of sight to 20%+ growth, particularly built on reported strength in the CIAM product. This may have generated some improvement (if we can call it that) to less negative levels of crowding. But come October'23 there was a major cybersecurity breach reported and the shares gave back those gains — this caused the stock's crowding to sharply decline as both the sell side and buy side became less constructive on the stock, hitting bottom around January 2024.

Since then, and up to a few months ago, OKTA had failed to deliver strong results. However, with lapping COVID cohort and the effects of DOGE, results turned positive. This was further supported by additional identity investments due to AI. As coding agents have gained adoption among software engineers and enterprises prepare for broader deployment of workplace AI agents among knowledge workers, managing agent identities, permissions, and access has become increasingly top of mind for CIOs and CISOs. The emergence of consumer-facing agents such as Instinct and Muse also points to potential identity-management use cases for e-commerce and retail companies. Okta has positioned itself for this opportunity with Okta for AI Agents and Auth0 for AI Agents, which help enterprises manage agent identities and secure their GenAI stacks. While the AI agent identity market remains early and evolving, investors have increasingly viewed Okta as a potential winner in the category, contributing to the rise in its crowding score since May 2026.

EXHIBIT 27: **Okta Crowding Since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

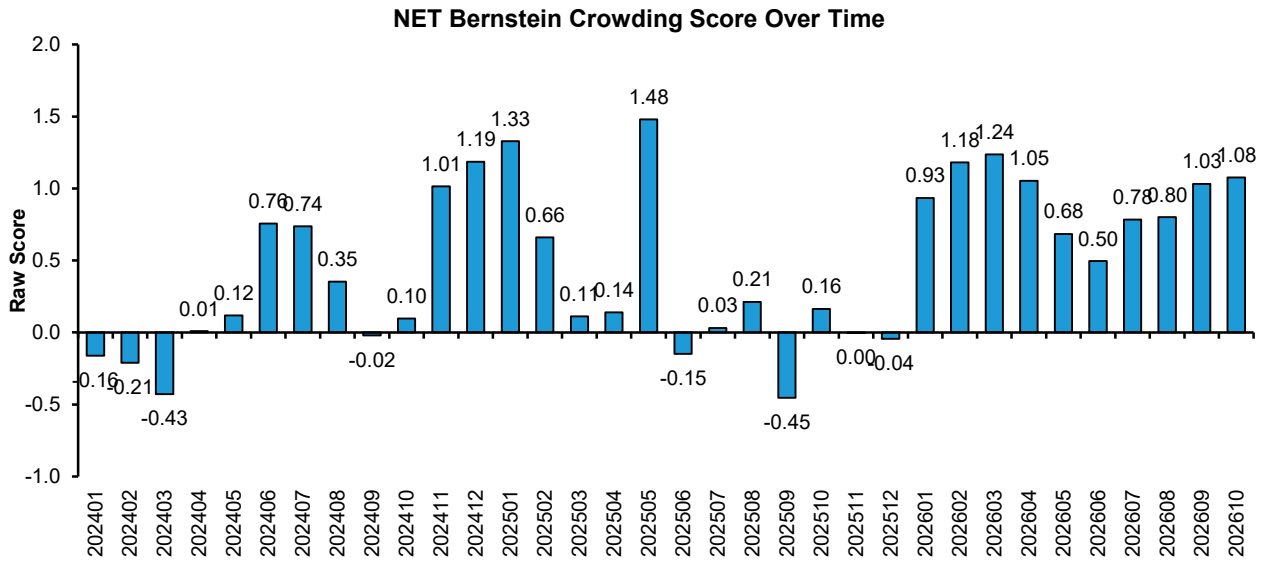
## Cloudflare

Cloudflare IPO'd in 2019 and its developer focused GTM with a unique architectural approach to building out a global CDN (optimized for delivering web applications, not streaming content like other CDNs are better suited for) and building additional services on top of it at minimal incremental cost resonated well with the investor base. Cloudflare has built an impressive underlying architectural stack which lends itself well to build security services on top. Cloudflare has focused on doubling down on the network security services offering firewalls, SASE offerings. However, its offerings are early from a product maturity perspective as compared to some mature standalone SSE players. Investor community has rewarded the stock for the promise it holds by unlocking value for customers by delivering SSE services. Further, its workers platform promises to be the application development platform of choices for applications built on the edge. As a result crowding remained generally positive in first few quarters of 2023. But crowding started to decline in the end of 2023 as this enthusiasm eroded in the face of continuously declining NRR that seemed to be contrary to the upsell thesis that the management was pitching.

By Q1'24 the top-line growth slowed to ~30% YoY, a new low. This was despite concerted efforts from management to revamp the go-to-market team and perhaps led to incremental investor pessimism leading to an even further declining crowding score. This started turning around by summer of 2024 as tailwinds from AI native application development appear to have resulted in developers adopting the edge platform to build their initial iterations of applications leveraging inference capabilities.

As we sit here in 2026, the AI thesis has become a far more significant component of the Cloudflare story than most investors anticipated. Management increasingly describes AI as a fundamental re-platforming of the Internet, and Cloudflare has positioned itself as critical infrastructure enabling AI applications, agents and inference workloads at the edge. The company has expanded Workers AI, AI Gateway and a broader suite of AI-focused services while leveraging its global network footprint as a competitive advantage. While we believe Cloudflare still needs to prove that it'll win this space, investors are excited about this opportunity as seen by its massive multiple, contributing to its positive crowding scores.

EXHIBIT 28: **Cloudflare crowding score since Jan 2023**




Source: MSCI, Factset, Bernstein analysis

## WHY TECH INVESTORS SHOULD BE CONCERNED WITH CROWDING

Based on research by our Quant Team, we see that investors can overestimate their portfolio's diversification when only considering traditional metrics such as market cap, sector, geography, etc. or other common factors such as valuation or momentum. In brief, reasons why we believe crowding is an important mis-priced risk factor include:

- Crowded stocks, while often performing inversely to the market, exhibit high levels of pair-wise correlation to other crowded trades during inflection points, volatility spikes, or de-risking events.
- Crowded stocks react less positively to good news but more negatively to bad news compared to un-crowded stocks.
- Traditional backward-looking risk metrics (e.g., trailing vol, beta) underestimate the future volatility of crowded stocks in many cases because crowded stocks are the consensus trade. They are very stable in the near term, but volatility can go substantially higher later when investors with shared beliefs about the stock head for the exits en masse if a crack in the common thesis develops. Illiquidity on exit exacerbates the speed and magnitude of drawdowns.

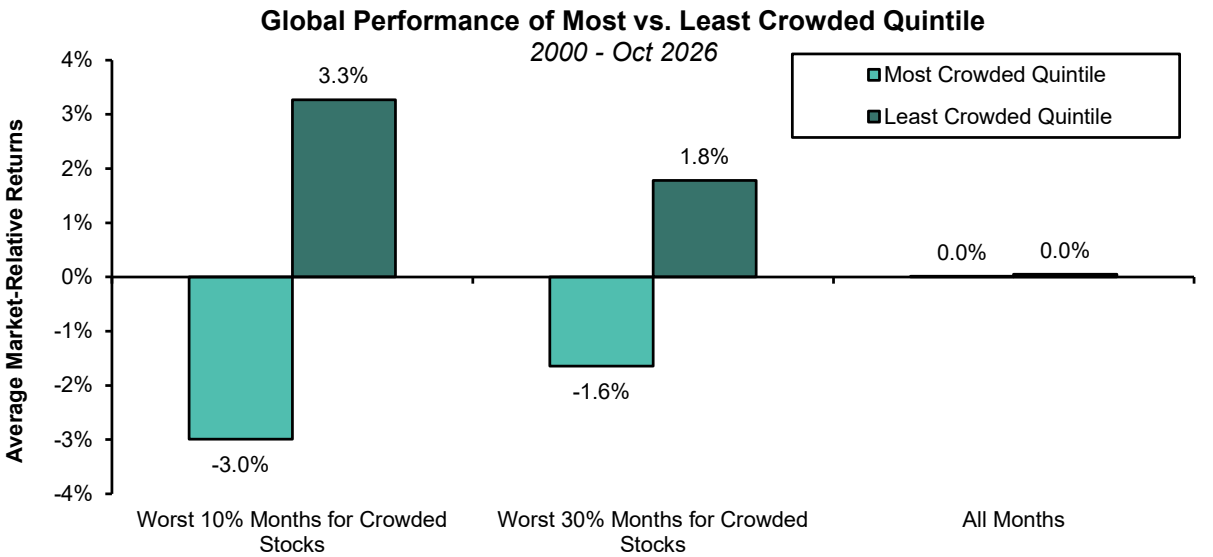
As a result, we believe it's important for investors to include crowding as a consideration in their portfolio, in order to improve diversification, mitigate downside risk from news flow, and potentially enhance returns as out-of-favor stocks benefit comparatively from good news.

## UNDERSTANDING THE IMPORTANCE OF CROWDING

### Historical Performance of Crowded vs. Uncrowded Stocks

Exhibit 29 shows the performance of stocks ranked at the top and bottom quintiles of the Bernstein Crowding Model. Crowding is a risk factor, not an alpha factor. That is, the level of crowding itself does not have immediate implications on the timing of potential future underperformance. What's worth noting is that although the underperformance of crowded trades is episodic, in months when drawdowns in crowded trades are the most severe, the least crowded stocks offer protection in the form of negatively correlated returns. Exhibit 29 shows that in the 10% of months over the last 25 years that produced the largest underperformance of crowded trades, the most crowded quintile returned an average of -3% relative to market. During these same months, the least crowded quintiles outperformed the market by 3.3%.

EXHIBIT 29: **Historically, in months when drawdowns in crowded trades are most severe, the least crowded stocks offer protection in the form of negatively correlated returns**




Source: MSCI, Factset, Bernstein analysis

Losses associated with crowding are episodic. The key is volatility. Times of market stress or uncertainty can trigger de-risking and simultaneous selling of crowded trades, with illiquidity on exit exacerbating drawdowns. In months when the VIX rises to above average levels, the most crowded trades underperform the least crowded by -0.4% a month (Exhibit 30). On average, these spikes in volatility happen three times a year. We would recommend continuing to exercise caution with crowded trades.

EXHIBIT 30: **The underperformance of crowded trades is consistent with periods of elevated volatility**

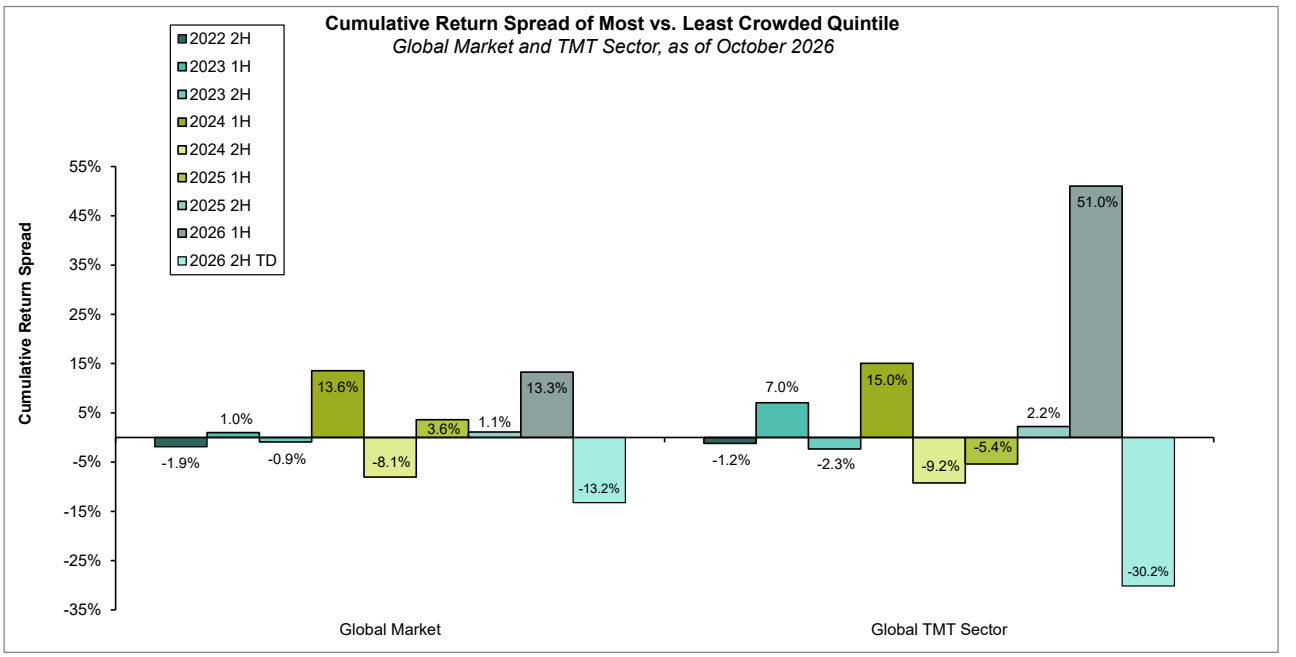
Performance of Most vs. Least Crowded U.S. Stocks
In Months When VIX Spiked Above 20

| | Number of Months with Vix Spike | Average Returns (%) | |
|---|---|---|---|
| | | High VIX Months | All Months |
| 2011 | 6 | -0.5 | -0.1 |
| 2012 | 3 | -1.4 | -0.6 |
| 2013 | 0 | - | 0.1 |
| 2014 | 0 | - | -0.6 |
| 2015 | 1 | 0.4 | 0.8 |
| 2016 | 2 | -2.0 | -1.9 |
| 2017 | 0 | - | 0.9 |
| 2018 | 2 | 2.0 | 0.3 |
| 2019 | 0 | - | 0.3 |
| 2020 | 10 | 0.9 | 1.6 |
| 2021 | 4 | -3.4 | -0.7 |
| 2022 | 12 | -1.4 | -1.4 |
| 2023 | 3 | -0.2 | -0.7 |
| 2024 | 0 | - | 0.8 |
| 2025 | 3 | 1.6 | 0.9 |
| 2026 | 1 | -0.2 | 0.3 |
| Average | 3 | -0.4 | 0.0 |

*2026 is through Sep 30, 2026

Source: MSCI, Factset, Bernstein analysis

EXHIBIT 31: **While the most crowded names in the TMT sector have meaningfully outperformed the least crowded ones in the first half of this year, the momentum has reversed in the second half with the least crowded names outperforming.**

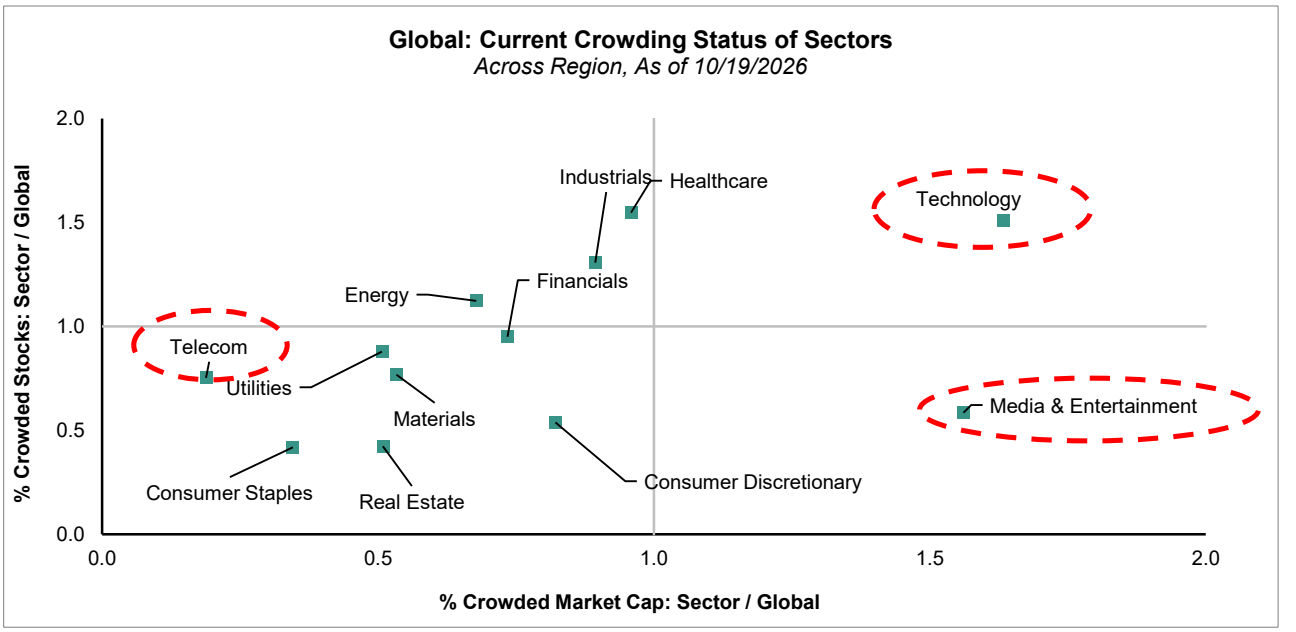



Source: MSCI, Factset, Bernstein analysis

## CROWDING BY SECTOR

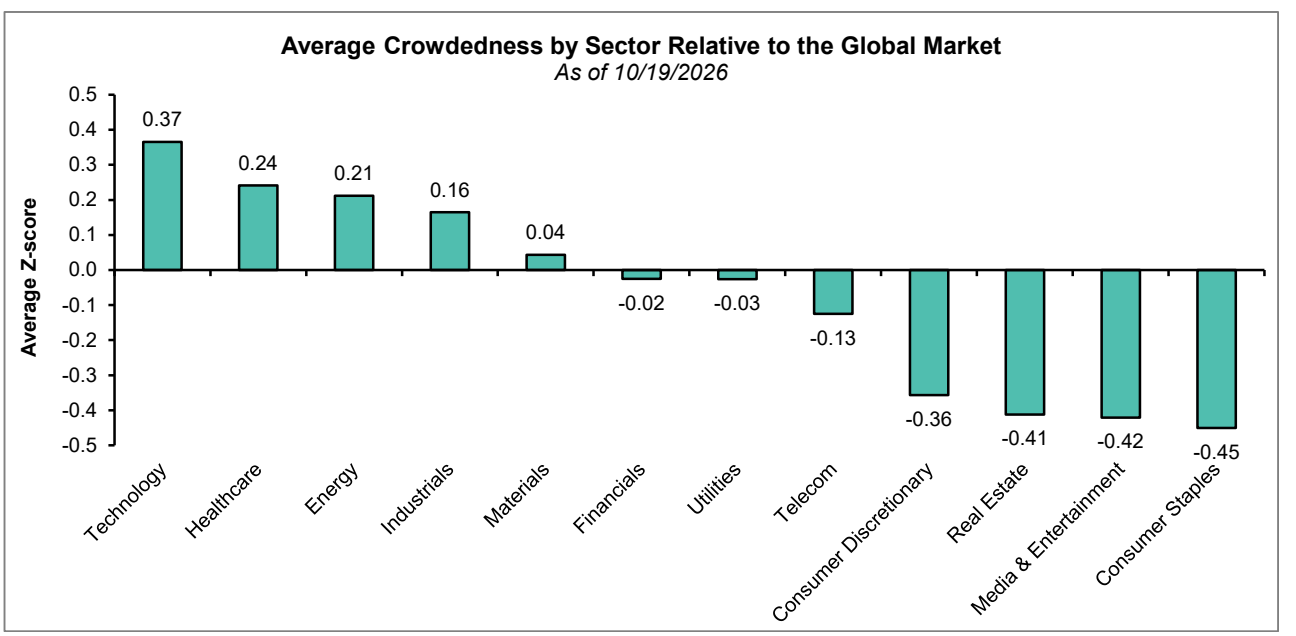
Exhibit 32 illustrates the relative crowding of stocks by sector globally, both on an equally weighted basis (i.e. each stock counts equally within the sector) on the y-axis and based on market cap weighted crowding on the x-axis. On an equal weight basis, Technology is one of the most crowded sectors cross-sectionally both in terms of the number of crowded stocks and their market cap. Note this methodology looks at how heavily concentrated stocks in the top quintile of crowding are in each sector. Put differently, it illustrates which sectors have the highest concentrations of crowded stocks, rather than providing an average crowding for the sector as whole. An average would not be as useful because crowding is a tail risk, so it doesn't matter across the whole distribution. Exhibit 33 presents the z-score of each sector's crowding score relative to the global market.

EXHIBIT 32: **Concentration of Most Crowded Stocks by Sector**




We define a stock as "crowded" if it has a raw crowding score in the top quintile of global stocks. Here we plot the ratio of each sector's crowding percentage relative to that of the overall market (i.e., 20% for overall market since we define 'crowded' as top quintile). In this analysis the Communications sector is split into 'Media & Entertainment' and 'Telecom' based on GICS subsectors.
Source: MSCI, Factset, Bernstein analysis

EXHIBIT 33: **Technology is also the most crowded sector measured by average raw crowding score**

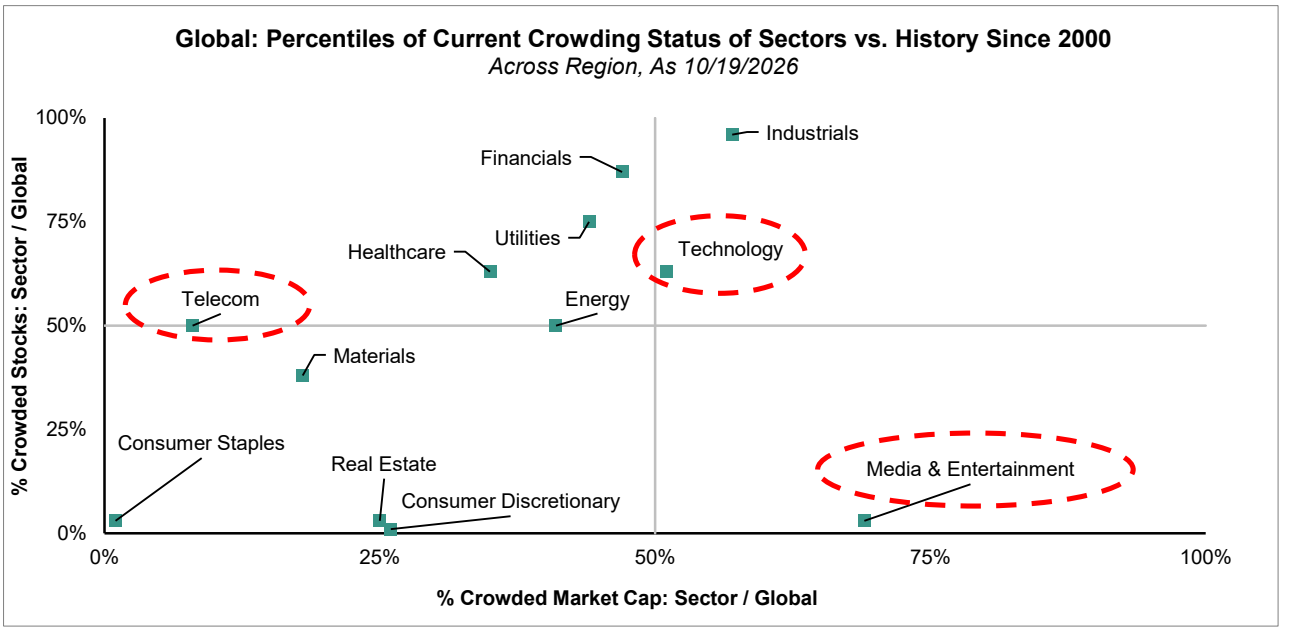



We first calculate the z-score of each stock's raw crowding score relative to the global market (i.e. number of standard deviations from market average), and then calculate the equal-weighted average z-score for each sector.
Source: MSCI, Factset, Bernstein analysis

While understanding sector crowding relative to the market is important, we believe it is equally important to look at the historical context, given that some sectors tend to be perpetually crowded versus others but may not be crowded when compared to their own history. Usually, high dispersion sectors like technology tend to be crowded more often than low dispersion sectors like utilities because higher return dispersion means better stock picking opportunities for active managers. In analyzing the last 24 years of crowding data, presented in Exhibit 34, we illustrate that technology is above the average level

of crowding relative to its own history by share of crowded stocks but is around the average level of crowding relative to its own history by market cap of stocks.

EXHIBIT 34: **Technology is at an average level of crowding relative to its own history based on the number of crowded stocks, but near historical lows when measured by the market cap of crowded stocks.**




We define a stock as "crowded" if it has a raw crowding score in the top quintile of global stocks. Here we plot the ratio of each sector's crowding percentage relative to that of the overall market (i.e., 20% for overall market since we define 'crowded' as top quintile) and compare to its own history since 2000. In this analysis the Communications sector is split into 'Media & Entertainment' and 'Telecom' based on GICS subsectors.
Source: MSCI, Factset, Bernstein analysis

## I. REQUIRED DISCLOSURES

References to "Bernstein" or the “Firm” in these disclosures relate to the following entities: Bernstein Institutional Services LLC (April 1, 2024 onwards), Sanford C. Bernstein & Co., LLC (pre April 1, 2024), Bernstein Autonomous LLP, BSG France S.A. (April 1, 2024 onwards), Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司, Sanford C. Bernstein (Canada) Limited, Sanford C. Bernstein (India) Private Limited (SEBI registration no. INH000006378), Sanford C. Bernstein (Singapore) Private Limited, Sanford C. Bernstein Japan KK（サンフォード・C・バーンスタイン株式会社）and analysts employed by Société Générale Africa Technologies & Services to produce Bernstein research under a Global Services Agreement in place between Bernstein and Société Générale.

Bernstein is part of a joint venture between Société Générale (SG) and AllianceBernstein, L.P. (AB). Unless specifically noted otherwise, for purposes of these disclosures, references to Bernstein’s “affiliates” relate to both SG and AB and their respective affiliates.

### VALUATION METHODOLOGY

This research publication covers six or more companies. For valuation methodology and other company disclosures:
Please visit: https://bernstein-autonomous.bluematrix.com/sellside/Disclosures.action.
Or, you can also write to the Director of Compliance, Bernstein Institutional Services LLC, 245 Park Avenue, New York, NY 10167.

### RISKS

This research publication covers six or more companies. For risks and other company disclosures:
Please visit: https://bernstein-autonomous.bluematrix.com/sellside/Disclosures.action.
Or, you can also write to the Director of Compliance, Bernstein Institutional Services LLC, 245 Park Avenue, New York, NY 10167.

### RATINGS DEFINITIONS, BENCHMARKS AND DISTRIBUTION

### EQUITY RATINGS DEFINITIONS

#### Bernstein brand

The Bernstein brand rates stocks based on forecasts of relative performance for the next 12 months versus the S&P 500 for stocks listed on the U.S. and Canadian exchanges, versus the Bloomberg Europe Developed Markets Large and Mid Cap Price Return Index EUR (EDME) for stocks listed on the European exchanges and emerging markets exchanges outside of the Asia Pacific region, versus the Bloomberg Japan Large and Mid Cap Price Return Index USD (JPL) for stocks listed on the Japanese exchanges, and versus the Bloomberg Asia ex-Japan Large and Mid Cap Price Return Index (ASIAX) for stocks listed on the Asian (ex-Japan) exchanges -unless otherwise specified.

The Bernstein brand has three categories of ratings:

- Outperform: Stock will outpace the market index by more than 15 pp
- Market-Perform: Stock will perform in line with the market index to within +/-15 pp
- Underperform: Stock will trail the performance of the market index by more than 15 pp

Coverage Suspended: Coverage of a company under the Bernstein research brand has been suspended. Ratings and price targets are suspended temporarily, are no longer current, and should therefore not be relied upon.

Not Rated: A rating assigned when the stock cannot be accurately valued, or the performance of the company accurately predicted, at the present time. The covering analyst may continue to publish research reports on the company to update investors on events and developments.

Not Covered (NC) denotes companies that are not under coverage.

Bernstein brand stock ratings are based on a 12-month time horizon.

#### Autonomous brand – common stocks

The Autonomous brand rates common stocks as indicated below. As our benchmarks we use the Bloomberg Europe 600 Financials Price Return Index (E600BK) and Bloomberg Europe Dev Mkt Financials Large and Mid Cap Price Ret Index EUR (EDMFI) index for developed European banks and Payments, the Bloomberg Europe 600 Insurance Price Return Index (E600IN) for European insurers, the S&P 500 and S&P Financials for US banks and Payments coverage, S5LIFE for US Insurance, the S&P Insurance Select Industry (SPSIINS) for US Non-Life Insurers coverage, the Bloomberg Emerging Markets Financials Large, Mid and Small Cap Price Return Index (EMLSF) for emerging market banks and insurers and Payments, and the Bloomberg Japan Financials Large & Mid Cap Price Return Index (JPFILM) for Japanese Financials. Ratings are stated relative to the sector (not the market).

The Autonomous brand has three categories of common stock ratings:

- Outperform (OP): Stock will outpace the relevant index by more than 10 pp
- Neutral (N): Stock will perform in line with the market index to within +/-10 pp
- Underperform (UP): Stock will trail the performance of the relevant index by more than 10 pp

Coverage Suspended: Coverage of a company under the Autonomous research brand has been suspended. Ratings and price targets are suspended temporarily, are no longer current, and should therefore not be relied upon.

Not Rated: A rating assigned when the stock cannot be accurately valued, or the performance of the company accurately predicted, at the present time. The covering analyst may continue to publish research reports on the company to update investors on events and developments.

Those denoted as 'Feature' (e.g., Feature Outperform FOP, Feature Under Outperform FUP) are our core ideas.

Not Covered (NC) denotes companies that are not under coverage.

Autonomous brand common stock ratings are based on a 12-month time horizon.

**Autonomous brand – preferred stocks**

The Autonomous brand has three categories of preferred stock ratings:

- Outperform (OP): The total return of the preferred instrument is expected to outperform preferred securities of other issuers operating in similar sectors or rating categories over the next six months.
- Neutral (N): The total return of the preferred instrument is expected to perform in line with preferred securities of other issuers operating in similar sectors or rating categories over the next six months.
- Underperform (UP): The total return of the preferred instrument is expected to underperform preferred securities of other issuers operating in similar sectors or rating categories over the next six months.

Autonomous preferred stock ratings are based on a 6-month time horizon.

## AUTONOMOUS CREDIT RESEARCH

Where this report contains investment recommendations for credit instruments, as defined in article 3(1)(35) of the Market Abuse Regulation, the information below is presented to comply with its disclosure requirements.

The report may also include reference(s) to published opinions by other Autonomous or Bernstein analysts covering the equity securities of the issuer(s) referenced herein. Please note an investment recommendation for credit instruments published by the author(s) of this report may differ from the published view of the analyst covering equity securities for the issuer(s) contained in this report and vice versa.

## CREDIT RATINGS DEFINITIONS

The Autonomous brand has three categories of credit ratings:

- Credit Outperform (C-OP): The total return of the Reference Credit Instrument is expected to outperform the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.

- Credit Neutral (C-N): The total return of the Reference Credit Instrument is expected to perform in line with the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.

- Credit Underperform (C-UP): The total return of the Reference Credit Instrument is expected to underperform the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.

Autonomous credit ratings are based on a 6-month time horizon.

A list of all investment recommendations produced by the author(s) of this report alongside credit ratings history are available upon request.

It is at the sole discretion of the Firm as to when to initiate, update and cease research coverage. The Firm has established, maintains and relies on information barriers to control the flow of information contained in one or more areas (i.e. the private side) within the Firm, and into other areas, units, groups or affiliates (i.e. public side) of the Firm

**DISTRIBUTION OF EQUITY RATINGS/INVESTMENT BANKING SERVICES**

| Equity Rating | Market Abuse Regulation (MAR) and FINRA Rating Category | Global Rating Distribution | Investment Banking Relationships* |
|---|---|---|---|
| Outperform | BUY | 52.3% | 14.2% |
| Market-Perform (Bernstein Brand)<br>Neutral (Autonomous Brand) | HOLD | 35.6% | 16.1% |
| Underperform | SELL | 12.1% | 13.6% |

* These figures represent the percentage of companies within each equity rating category for which affiliates of Bernstein have provided investment banking services within the previous 12 months.
As of September 30, 2026. All figures are updated quarterly.

Prior to April 1, 2024, Sanford C. Bernstein & Co., LLC. issued the ratings and price target information in the graph(s) below for the following companies: Adobe Inc, Microsoft Corp, Oracle Corp, Salesforce.com Inc, Snowflake Inc, Workday Inc, ServiceNow Inc, Atlassian Corp PLC, Datadog Inc, Zoom Video Communications Inc, Okta Inc, Twilio Inc, MongoDB Inc, GitLab Inc, Palo Alto Networks Inc, Cloudflare Inc, Crowdstrike Holdings Inc, Fortinet Inc, SentinelOne Inc and Zscaler Inc.

**PRICE CHARTS/ RATINGS AND PRICE TARGET HISTORY**

This research publication covers six or more companies. For price chart and other company disclosures, please visit https://bernstein-autonomous.bluematrix.com/sellside/Disclosures.action or you can write to the Director of Compliance, Bernstein Institutional Services LLC, 245 Park Avenue, New York, NY 10167.

**CONFLICTS OF INTEREST**

SG and/or its affiliates beneficially own 0.5% or more of [the total issued share capital/any class of common equity securities] with a net [long/short] position of: Workday Inc, Zoom Video Communications Inc, Okta Inc, Twilio Inc and HubSpot.

Bernstein and/or affiliates have received compensation for investment banking services in the past twelve months from Adobe Inc, Microsoft Corp and Zscaler Inc.

Bernstein and/or affiliates have received compensation for non-investment banking securities-related products or services in the previous twelve months from the following clients: Adobe Inc, Microsoft Corp, SAP SE, Palo Alto Networks Inc and SentinelOne Inc.

Bernstein has received compensation for non-investment banking securities-related products or services in the previous twelve months from the following clients: Microsoft Corp.

An affiliate of Bernstein has received compensation for non-investment banking securities-related products or services in the previous twelve months from the following clients: Microsoft Corp.

Bernstein and/or affiliates expect to receive or intend to seek compensation for investment banking services in the next three months from Microsoft Corp.

Affiliates of Bernstein managed or co-managed in the past twelve months a public offering of securities of Adobe Inc and Zscaler Inc.

Bernstein and/or affiliates had an investment banking client relationship during the past twelve months with Adobe Inc, Microsoft Corp and Zscaler Inc.

Certain affiliates of Bernstein act as market maker or liquidity provider in the equities securities of: Adobe Inc, Microsoft Corp, Oracle Corp, Salesforce.com Inc, SAP SE, Snowflake Inc, Workday Inc, ServiceNow Inc, Atlassian Corp PLC, Datadog Inc, Zoom Video Communications Inc, Okta Inc, Twilio Inc, Cloudflare Inc, Fortinet Inc and HubSpot.

Certain affiliates of Bernstein act as market maker or liquidity provider in the debt securities of: Oracle Corp, Salesforce.com Inc, SAP SE and SentinelOne Inc.

Mark L. Moerdler has a financial interest in the equity or debt securities of Adobe Inc, Salesforce.com Inc and Workday Inc (ADBE, CRM and WDAY).
Shelly Tang has a financial interest in the equity or debt securities of Microsoft Corp and Snowflake Inc (MSFT and SNOW).

**OTHER MATTERS**

The legal entity(ies) employing the analyst(s) listed in this report, and their location, can be determined by the country code of their phone number, as follows:

+1 Bernstein Institutional Services LLC; New York, New York, USA

+44 Bernstein Autonomous LLP; London UK

+212 Société Générale Global Solution Center Morocco, Casablanca, Morocco

+33 BSG France S.A.; Paris, France

+34 BSG France S.A.; Madrid, Spain

+41 Bernstein Autonomous LLP; Geneva, Switzerland

+49 BSG France S.A.; Frankfurt, Germany

+91 Sanford C. Bernstein (India) Private Limited; Mumbai, India

+852 Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司; Hong Kong, China

+65 Sanford C. Bernstein (Singapore) Private Limited; Singapore

+81 Sanford C. Bernstein Japan KK; Tokyo, Japan

Where this report has been prepared by research analyst(s) employed by a non-US affiliate, such analyst(s), is/are (unless otherwise expressly noted below) not registered as associated persons of Bernstein Institutional Services LLC or any other SEC-registered broker-dealer and are not licensed or qualified as research analysts with FINRA. Accordingly, such analyst(s) may not be subject to FINRA's restrictions regarding (among other things) communications by research analysts with a subject company, interactions between research analysts and investment banking personnel, participation by research analysts in solicitation and marketing activities relating to investment banking transactions, public appearances by research analysts, and trading securities held by a research analyst account.

Where this report has been prepared by research analyst(s) employed by Société Générale Africa Technologies & Services (part of the Société Générale group of companies), it has been prepared on behalf of a Bernstein company under a Global Services Agreement in place between Bernstein and Société Générale.

**CERTIFICATION**

Each research analyst listed in this report, who is primarily responsible for the preparation of the content of this report, certifies that all of the views expressed in this publication accurately reflect that analyst's personal views about any and all of the subject securities or issuers and that no part of that analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views in this publication.

## II. ADDITIONAL GLOBAL CONFLICT DISCLOSURES

It is at the sole discretion of the Firm as to when to initiate, update and cease research coverage. The Firm has established, maintains and relies on information barriers to control the flow of information contained in one or more areas (i.e., the private side) within the Firm, and into other areas, units, groups or affiliates (i.e., public side) of the Firm.

## III. OTHER IMPORTANT INFORMATION AND DISCLOSURES

Separate branding is maintained for “Bernstein” and “Autonomous” research products.

- Bernstein produces a number of different types of research products including, among others, fundamental analysis and quantitative analysis under both the “Autonomous” and “Bernstein” brands. Recommendations contained within one type of research product may differ from recommendations contained within other types of research products, whether as a result of differing time horizons, methodologies or otherwise. Furthermore, views or recommendations within a research product issued under one brand may differ from views or recommendations under the same type of research product issued under the other brand. The Research Ratings System for the two brands and other information related to those Rating Systems are included in the previous section.

- Autonomous operates as a separate business unit within the following entities: Bernstein Institutional Services LLC, Bernstein Autonomous LLP, Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司 and Sanford C. Bernstein (India) Private Limited. For information relating to “Autonomous” branded products (including certain Sales materials) please visit: www.autonomous.com. For information relating to Bernstein branded products please visit: www.bernsteinresearch.com.

Analysts are compensated based on aggregate contributions to the research franchise as measured by account penetration, productivity and proactivity of investment ideas. No analysts are compensated based on performance in, or contributions to, generating investment banking revenues.

This report has been produced by an independent analyst as defined in Article 3 (1)(34)(i) of EU 596/2014 Market Abuse Regulation (“MAR”) and the same article of MAR as it forms part of United Kingdom domestic law by virtue of the European Union (Withdrawal) Act 2018.

**To our readers in the United States**: Bernstein Institutional Services LLC, a broker-dealer registered with the U.S. Securities and Exchange Commission (“SEC”) and a member of the U.S. Financial Industry Regulatory Authority, Inc. (“FINRA”) is distributing this publication in the United States and accepts responsibility for its contents. Where this material contains an analysis of debt product(s), such material is intended only for institutional investors and is not subject to the US independence and disclosure standards applicable to debt research prepared for retail investors.

Bernstein Institutional Services LLC may act as principal for its own account or as agent for another person (including an affiliate) in sales or purchases of any security which is a subject of this report. This report does not purport to meet the objectives or needs of any specific individuals, entities or accounts.

**To our readers in Canada:** If this publication pertains to a Canadian domiciled company, it is being distributed in Canada by Sanford C. Bernstein (Canada) Limited, which is licensed and regulated by the Canadian Investment Regulatory Organization. If the publication pertains to a non-Canadian domiciled company, it is being distributed by Bernstein Institutional Services LLC, which is licensed and regulated by both the SEC and FINRA, into Canada under the International Dealers Exemption.

This document may not be passed onto any person in Canada unless that person qualifies as "permitted client" as defined in Section 1.1 of NI 31-103.

**To our readers in Brazil:** This report has been prepared by Bernstein Institutional Services LLC, and Banco BTG Pactual S.A. ("BTG") is responsible for the distribution of this report in Brazil.

**To readers in the United Kingdom**: This publication has been issued or approved for issue in the United Kingdom by Bernstein Autonomous LLP, authorised and regulated by the Financial Conduct Authority and located at 60 London Wall, London EC2M 5SH, +44 (0)20-7170-5000. Registered in England & Wales No OC343985.

This document is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations, etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

**To our readers in the member states of the EEA**: This publication is being distributed by BSG France SA, which is authorised and regulated by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and Autorité des Marchés Financiers (AMF).

**To our readers in Hong Kong:** This publication is being distributed in Hong Kong by Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司, which is licensed and regulated by the Hong Kong Securities and Futures Commission (Central Entity No. AXC846) to carry out Type 4 (Advising on Securities) regulated activities and subject to the licensing conditions mentioned in the SFC Public Register (https://www.sfc.hk/publicregWeb/corp/AXC846/details)). This publication is solely for professional investors, as defined in the Securities and Futures Ordinance (Cap. 571). The purpose of this report is solely to provide an analysis of the issuers referred to in this report and is not intended for any purpose contrary to the laws of Hong Kong.

**To our readers in Singapore:** This publication is being distributed in Singapore by Sanford C. Bernstein (Singapore) Private Limited, only to accredited investors or institutional investors, as defined in the Securities and Futures Act 2001 of Singapore ("SFA"). Recipients in Singapore should contact Sanford C. Bernstein (Singapore) Private Limited in respect of matters arising from, or in connection with, this publication. Sanford C. Bernstein (Singapore) Private Limited is regulated by the Monetary Authority of Singapore and licensed under the SFA as a capital markets services licence holder for dealing in capital markets products that are securities and collective investment schemes and an exempt financial adviser for advising on, issuing and promulgating analyses and reports on securities. Sanford C. Bernstein (Singapore) Private Limited is registered in Singapore with Company Registration No. 20213710W and located at 8 Marina Boulevard, #12-01, Marina Bay Financial Centre, Singapore 018981, +65-6326-7000.

**To our readers in the People's Republic of China:** The securities referred to in this document are not being offered or sold and may not be offered or sold, directly or indirectly, in the People's Republic of China (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan, the "PRC") in contravention of any applicable laws of the PRC.

This document does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC to any person to whom it is unlawful to make the offer or solicitation in the PRC.

We do not represent that this document may be lawfully distributed, or that any securities may be lawfully offered, in compliance with any applicable registration or other requirements in the PRC, or pursuant to an exemption available thereunder, or assume any responsibility for facilitating any such distribution or offering. In particular, no action has been taken by us which would permit a public offering of any securities or distribution of this document in the PRC. Accordingly, the securities are not being offered or sold within the PRC by means of this document or any other document. Neither this document nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with any applicable laws and regulations.

**To our readers in Japan**: This publication is being distributed in Japan by Sanford C. Bernstein Japan KK (サンフォード・C・バーンスタイン株式会社), which is registered in Japan as a Financial Instruments Business Operator with the Kanto Local Finance Bureau (registration number: The Director-General of Kanto Local Finance Bureau (FIBO) No.3387) and regulated by the Financial Services Agency. It is also a member of Investment Management Association of Japan. This publication is solely for qualified institutional investors in Japan only, as defined in Article 2, paragraph (3), items (i) of the Financial Instruments and Exchange Act.

For the institutional client readers in Japan who have been granted access to the Bernstein website by Daiwa Securities Group Inc. ("Daiwa"), your access to this document should not be construed as meaning that Bernstein is providing you with investment advice for any purposes. Whilst Bernstein has prepared this document, your relationship is, and will remain with, Daiwa, and Bernstein has neither any contractual relationship with you nor any obligations towards you.

**To our readers in Australia:** Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司 is responsible for distributing research in Australia. It is regulated by the Securities and Exchange Commission under U.S. laws, by the Financial Conduct Authority under U.K. laws, which differs from Australian laws. Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司 is exempt from the requirement to hold an Australian financial services license under the Corporations Act 2001 in respect of the provision of the following financial services to wholesale clients:

- providing financial product advice;
- dealing in a financial product;
- making a market for a financial product; and
- providing a custodial or depository service.

**To our readers in India:** This publication is being distributed in India by Sanford C. Bernstein (India) Private Limited (SCB India) which is licensed and regulated by Securities and Exchange Board of India ("SEBI") as a research analyst entity under the SEBI (Research Analyst) Regulations, 2014, having registration no. INH000006378 and as a stock broker having registration no. INZ000213537. SCB India is currently engaged in the business of providing research and stock broking services. Please refer to www.bernsteinresearch.in for more information.

- SCB India is a Private limited company incorporated under the Companies Act, 2013, on April 12, 2017 bearing corporate identification number U65999MH2017FTC293762, and registered office at Level 3A, 4th Floor, First International Financial Centre, Plot Nos C-54 and C-55, G Block, Near CBI Office, Bandra Kurla Complex, Bandra (East), Mumbai 400098, Maharashtra, India (Phone No: +91-22-68421401).
- For details of Associates (i.e., affiliates/group companies) of SCB India, kindly email MUM-BERNSTEIN-InCompliance@bernsteinsg.com / scbincompliance@bernsteinsg.com.
- SCB India does not have any disciplinary history as on the date of this report.
- Except as noted above, SCB India and/or its Associates (i.e., affiliates/group companies), the Research Analysts authoring this report, and their relatives
  - do not have any financial interest in the subject company
  - do not have actual/beneficial ownership of one percent or more in securities of the subject company;
  - is not engaged in any investment banking activities for Indian companies, as such;
  - have not managed or co-managed a public offering in the past twelve months for any Indian companies;
  - have not received any compensation for investment banking services or merchant banking services from the subject company in the past 12 months;
  - have not received compensation for brokerage services from the subject company in the past twelve months;
  - have not received any compensation or other benefits from the subject company or third party related to the specific recommendations or views in this report; and
  - do not currently, but may in the future, act as a market maker in the financial instruments of the companies covered in the report.
  - do not have any conflict of interest in the subject company as of the date of this report.
- Except as noted above, the subject company has not been a client of SCB India during twelve months preceding the date of distribution of this research report. Neither SCB India nor its Associates (i.e., affiliates/group companies) have received compensation for products or services other than investment banking, merchant banking or brokerage services from the subject company in the past twelve months.
- The principal research analyst(s) who prepared this report, members of the analysts' team, and members of their households are not an officer, director, employee or advisory board member of the companies covered in the report.
- Our Compliance officer / Grievance officer is Ms. Rupal Talati, who can be reached at +91-22-68421451, or MUM-BERNSTEIN-InCompliance@bernsteinsg.com / Scbin-investorgrievance@bernsteinsg.com / scbincompliance@bernsteinsg.com.

- Kindly refer to the Research investor charter and Research Most Important Terms & Conditions (MITC) available at (https://bernsteinresearch.in/)

- Disclaimer: Registration granted by SEBI, and certification from NISM, is in no way a guarantee of performance of the intermediary or provide any assurance of returns to investors. Investments in securities market are subject to market risks. Read all the related documents carefully before investing.

**To our readers in Switzerland:** This document is provided in Switzerland by or through Bernstein Autonomous LLP, and is provided only to qualified investors as defined in article 10 of the Swiss Collective Investment Scheme Act ("CISA") and related provisions of the Collective Investment Scheme Ordinance and in strict compliance with applicable Swiss law and regulations. The products mentioned in this document may not be suitable for all types of investors. This document is based on the Directives on the Independence of Financial Research issued by the Swiss Bankers Association (SBA) in January 2008.

**To our readers in the Middle East:** Bernstein Autonomous LLP, DIFC branch has its principal office at Gate Village 06, DIFC, Dubai, UAE. Bernstein Autonomous LLP, DIFC branch is regulated by the Dubai Financial Services Authority (DFSA) with the registration number CL10040 and is provisioned for Arranging Deals in Investments and Advising on Financial Products. All communications and services are directed at Professional Clients and Market Counterparties only (as defined in the DFSA rulebook). Persons other than Professional Clients and Market Counterparties, such as Retail Clients, are not the intended recipients of our communications or services.

**LEGAL**

All research publications are disseminated to our clients through posting on the firm's password protected websites, bernsteinresearch.com and autonomous.com. Certain, but not all, research publications are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience.

This publication has been published and distributed in accordance with the Firm's policy for management of conflicts of interest in investment research, a copy of which is available from Bernstein Institutional Services LLC, Director of Compliance, 245 Park Avenue, New York, NY 10167. Additional disclosures and information regarding Bernstein's business are available on our website www.bernsteinresearch.com.

The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors where that permission profile is not consistent with the licenses held by the entities noted herein. This document is for distribution only as may be permitted by law. This publication is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of, or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject any of the entities referenced herein or any of their subsidiaries or affiliates to any registration or licensing requirement within such jurisdiction. This publication is based upon public sources we believe to be reliable, but no representation is made by us that the publication is accurate or complete. We do not undertake to advise you of any change in the reported information or in the opinions herein. This publication was prepared and issued by entity referred to herein for distribution to eligible counterparties or professional clients. This publication is not an offer to buy or sell any security, and it does not constitute investment, legal or tax advice. The investments referred to herein may not be suitable for you. Investors must make their own investment decisions in consultation with their professional advisors in light of their specific circumstances. The value of investments may fluctuate, and investments that are denominated in foreign currencies may fluctuate in value as a result of exposure to exchange rate movements. Information about past performance of an investment is not necessarily a guide to, indicator of, or assurance of, future performance.

This report is directed to and intended only for our clients who are "eligible counterparties", "professional clients", "institutional investors" and/or "professional investors" as defined by the aforementioned regulators, and must not be redistributed to retail clients as defined by the aforementioned regulators. Retail clients who receive this report should note that the services of the entities noted herein are not available to them and should not rely on the material herein to make an investment decision. The result of such act will not hold the entities noted herein liable for any loss thus incurred as the entities noted herein are not registered/ authorised/ licensed to deal with retail clients and will not enter into any contractual agreement/arrangement with retail clients. This report is provided subject to the terms and conditions of any agreement that the clients may have entered into with the entities noted herein. All research reports are disseminated on a simultaneous basis to eligible clients through electronic publication to our client portal.

The information in this report was prepared by Bernstein solely for the internal business use of our clients. Clients may store, display, analyze, reformat and print the information in this report for this limited use only. Clients may not copy, alter, create derivative works, resell, reverse engineer, commercially exploit, share or distribute any part of the information contained herein for any purpose without Bernstein's express written consent. These restrictions include extracting data or using the content to develop indices or other products. Further, you may not use this report, or any portion of this report, to train or finetune any third-party machine learning or artificial intelligence system, or as a prompt or input into any such system. You also may not, without

Bernstein's express written consent, do any of the foregoing in connection with your own internal machine learning or artificial intelligence system.

Bernstein may use artificial intelligence tools in the preparation of its materials. Any such materials are reviewed by Bernstein's research analysts prior to publication.

This report has been prepared for information purposes only and is based on current public information that we consider reliable, but the entities noted herein do not warrant or represent (express or implied) as to the sources of information or data contained herein are accurate, complete, not misleading or as to its fitness for the purpose intended even though the entities noted herein rely on reputable or trustworthy data providers, it should not be relied upon as such. Opinions expressed are the author(s)' current opinions as of the date appearing on the material only and we do not undertake to advise you of any change in the reported information or in the opinions herein.

Any references to Societe Generale herein are purely factual, based upon publicly available information, and included for comparative purposes only. They do not constitute an opinion or recommendation with respect to the securities of Societe Generale.

This publication was prepared and issued by the entity referred to herein for distribution to eligible counterparties or professional clients. The information in this report is intended for general circulation and does not constitute an offer to buy or sell any security, investment, legal or tax advice nor a personal recommendation, as defined by any of the aforementioned regulators. It does not take into account the particular investment objectives, financial situations, or needs of individual investors. The report has not been reviewed by any of the aforementioned regulators and does not represent any official recommendation from the aforementioned regulators. The investments referred to herein may not be suitable for you. Investors must make their own investment decisions in consultation with advice sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of any recipient of the recommendation, before the recipient makes a commitment to purchase the investment product.

The analysis contained herein is based on numerous assumptions. Different assumptions could result in materially different results. The information in this report does not constitute, or form part of, any offer to sell or issue, or any offer to purchase or subscribe for shares, or to induce engagement in any other investment activity. The value of any securities or financial instruments mentioned in this report may fluctuate subject to market conditions. Information about past performance of an investment is not necessarily a guide to, indicative of, or assurance of future performance. Estimates of future performance mentioned by the research analyst in this report are based on assumptions that may not be realized due to unforeseen factors like market volatility/fluctuation. In relation to securities or financial instruments denominated in a foreign currency other than the clients' home currency, movements in exchange rates will have an effect on the value, either favorable or unfavorable. Before acting on any recommendations in this report, recipients should consider the appropriateness of investing in the subject securities or financial instruments mentioned in this report and, if necessary, seek independent professional advice.

The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors where that permission profile is not consistent with the licenses held by the entities noted herein. This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject the entities noted herein to any regulation or licensing requirement within such jurisdiction.

Source: Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). Bloomberg or Bloomberg's licensors own all proprietary rights in the Bloomberg Indices. Neither Bloomberg nor Bloomberg's licensors approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

No part of this material may be reproduced, distributed or transmitted or otherwise made available without prior consent of the entities noted herein. Copyright Bernstein Institutional Services LLC Bernstein Autonomous LLP, BSG France S.A., Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司, Sanford C. Bernstein (Canada) Limited, Sanford C. Bernstein (India) Private Limited (SEBI registration no. INH000006378), Sanford C. Bernstein (Singapore) Private Limited and Sanford C. Bernstein Japan KK（サンフォード・C・バーンスタイン株式会社）. All rights reserved. The trademarks and service marks contained herein are the property of their respective owners. Any unauthorized use or disclosure is strictly prohibited. The entities noted herein may pursue legal action if the unauthorized use results in any defamation and/or reputational risk to the entities noted herein and research published under the Bernstein and Autonomous brands.