

# Margin math

## A \$1.2 trillion expense propagates through supply chains in 2025

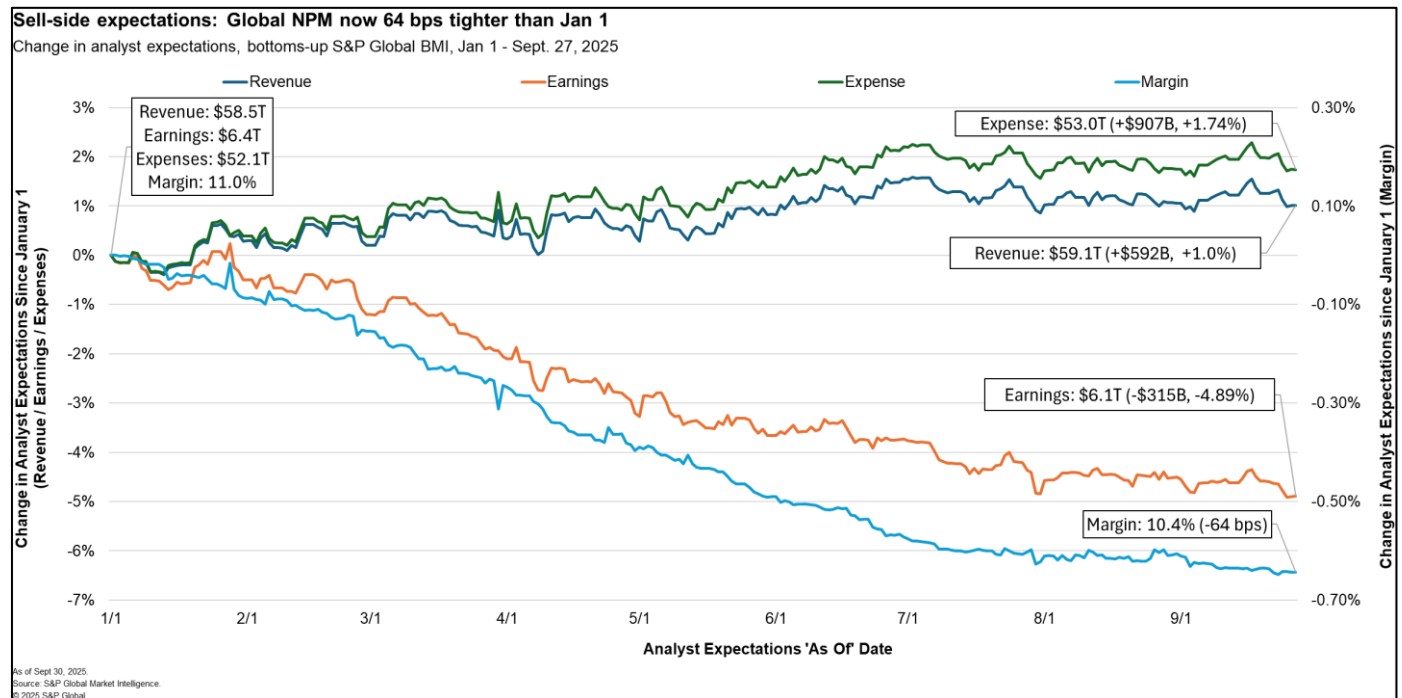
October 2025

**Drew Bowers**, Senior Quantitative Research Analyst, [Drew.Bowers@spglobal.com](mailto:Drew.Bowers@spglobal.com)

**Daniel J. Sandberg, PhD, CFA**, Managing Director, QRS, [Daniel.Sandberg@spglobal.com](mailto:Daniel.Sandberg@spglobal.com)

[View Sample Code \(With S&P Global Marketplace Login\)](#)

Companies are now expected to pay at least \$1.2 trillion more in 2025 expenses than was anticipated on Jan. 1. Revenue expectations have risen — but earnings expectations have fallen — producing a 64-basis-point contraction in margin, according to 15,000 sell-side analysts contributing to the S&P Capital IQ and Visible Alpha Estimates. If the pattern holds for firms without sell-side coverage, the cost shock would exceed \$1.2 trillion in lost profit.



- **Global margin compression:** A \$907 billion expense shock is passed on at least two-thirds to consumers (\$592 billion in higher prices) and the remainder absorbed by companies.
- **Stronger together:** Margin stress spreads through supply chains. Firms with “supply chain tailwinds” (partners outperforming) were 10% less likely to see margin compression (57% vs. 67%) than firms facing headwinds.
- **Closing the pressure relief valve:** The de minimis rule (\$800 parcel exemption) ended mid-2025, squeezing tariff-exposed sectors as shipments per container fell by half, marking a clear inflection in global trade costs.
- **Tariff vs. tech tug of war:** In 2025, AI lifted margins; tariffs pulled them down. Sell-side analysts rewarded balance: neutral-tone firms saw favorable margin revisions 73% of the time vs. 16% for those negative on both.
- **Oh, Canada is winning 2025:** Regionally, Canada (+9 bps) and China (–2 bps) held margins steady; US and Europe (–54 bps) sat mid-pack, Asia ex-China (–61 bps), MEA (–75 bps) and Latin America (–91 bps) lagged.
- **The road ahead:** Current belief curves imply faith in temporary shocks or successful cost mitigation, not structural decline. Margins recover from –64 bps to within 8-10 bps of Jan. 1 expectations by 2027.

**Quantitative Research & Solutions**

**S&P Global**  
Market Intelligence

### Disclaimer

*This whitepaper has been created by S&P Global Market Intelligence. S&P Global Market Intelligence’s opinions, quotes and credit-related and other analyses are statements of opinion of S&P Global Market Intelligence (and not any other S&P Global division) as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security.*

# 1.Global margin compression

Global corporate margin expectations have contracted sharply in 2025 — by an estimated 64 basis points, or \$907 billion in lost profit among firms covered by sell-side analysts. The analysis aggregates forecasts from more than 15,000 sell-side analysts across roughly 9,000 public companies, representing \$111 trillion of the \$130 trillion global equity market. These specialists produce forward revenue and earnings estimates that, when combined into consensus, form one of the most precise, real-time indicators of corporate performance.

**Since Jan. 1, 2025, consensus fiscal year 2025 revenue forecasts have risen by \$600 billion, while earnings expectations have fallen by \$300 billion, creating a \$907 billion “wedge.” The divergence implies that firms are relinquishing profit margin to offset rising costs, with part of the burden passed on to customers.**

Because analyst estimates are expressed in nominal terms, revenue captures both price inflation and real output. Integrating S&P Global Purchasing Manager Index™ (PMI™) global composite data helps separate the two. Throughout 2025, both PMI Prices and PMI Output remained above 50 — signaling expansion — but their month-to-month movements diverged: revenue upgrades tracked rising PMI Prices, while earnings downgrades mirrored falling PMI Output.

Statistically, revenue revisions correlate 79% ( $t \approx 15$ ) with PMI Prices, and earnings revisions 71% ( $t \approx 10$ ) with PMI Output. After first-differencing to remove shared trends, the correlations remain significant — 26% and 29% ( $t \approx 2$ ) — supporting that the 2025 margin squeeze reflects both higher inflation expectations and weaker real output expectations.

Figure 2

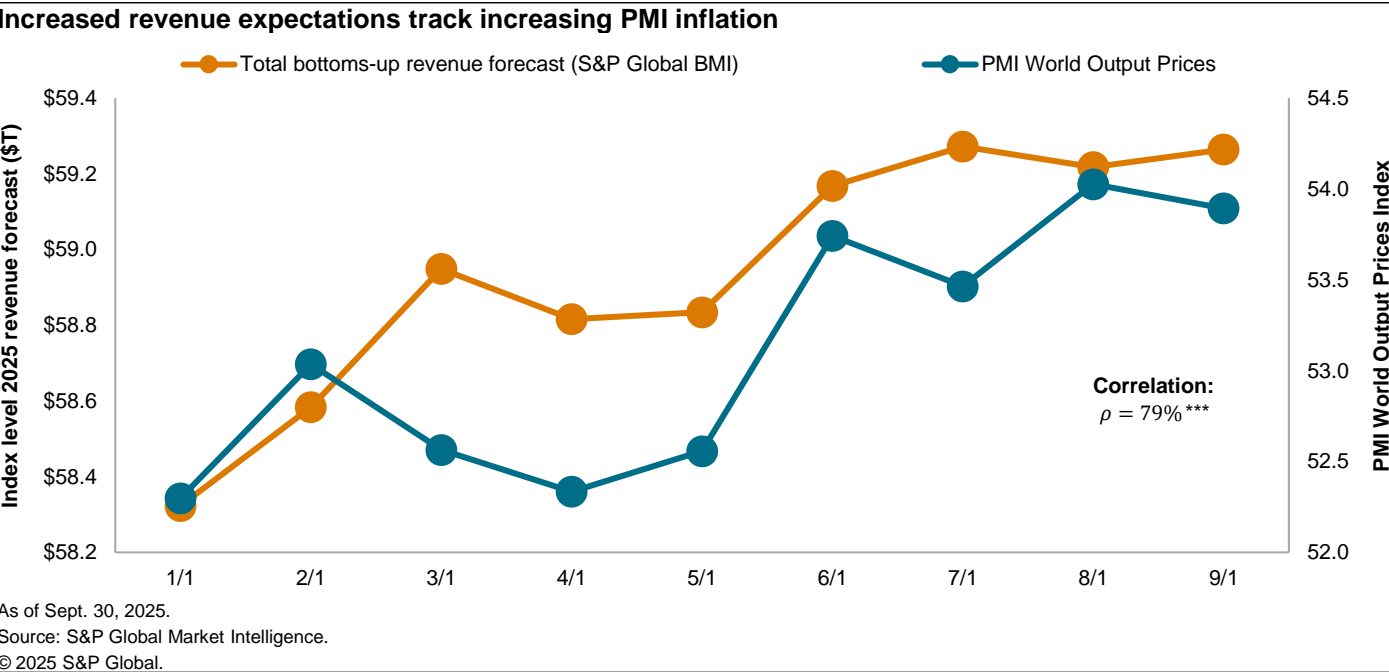
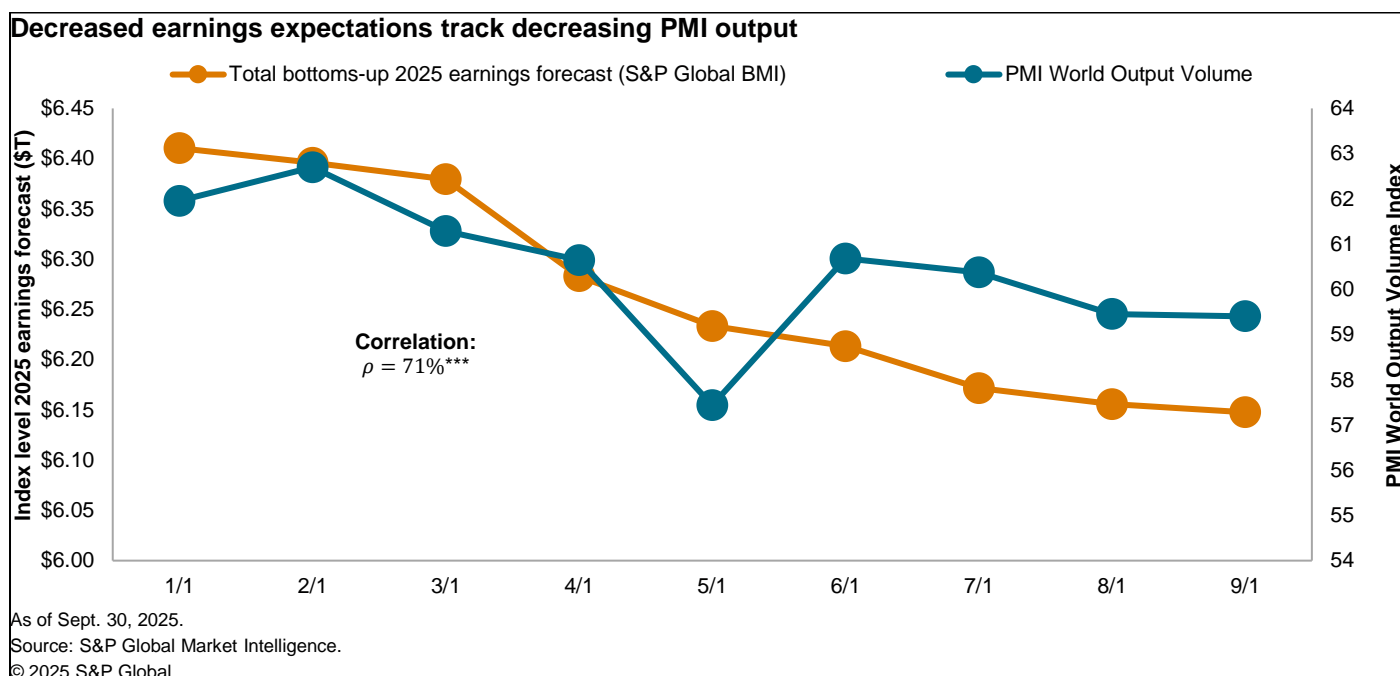


Figure 3



Under a constant-output assumption, roughly two-thirds (\$592 billion) of the incremental cost burden is being passed to consumers via higher prices, while one-third (\$315 billion) is absorbed internally through lower earnings. With real output declining, consumers are paying more for less, suggesting that this two-thirds share represents a lower bound on their true burden.

Extending the analysis beyond covered firms — scaled by market capitalization — adds approximately \$155 billion for uncovered public firms (the remaining \$19 trillion of the S&P Global BMI) and \$123 billion for private equity-, and venture capital-backed firms (\$15 trillion in the S&P Global Private Company database). Together, this brings the total incremental cost to \$1.2 trillion in 2025.

That estimate is highly conservative. The scaling excludes listed securities outside the S&P Global BMI and privately held firms not backed by institutional capital. Moreover, it assumes proportional impact across firm sizes, whereas smaller companies are empirically more exposed to tariffs and supply-chain costs. Among covered small caps, the implied margin contraction exceeds 165 bps — triple the 56 bps observed for large firms. Because firms without analyst coverage tend to be smaller and less diversified, the \$1.2 trillion should be viewed as a floor, not a ceiling.

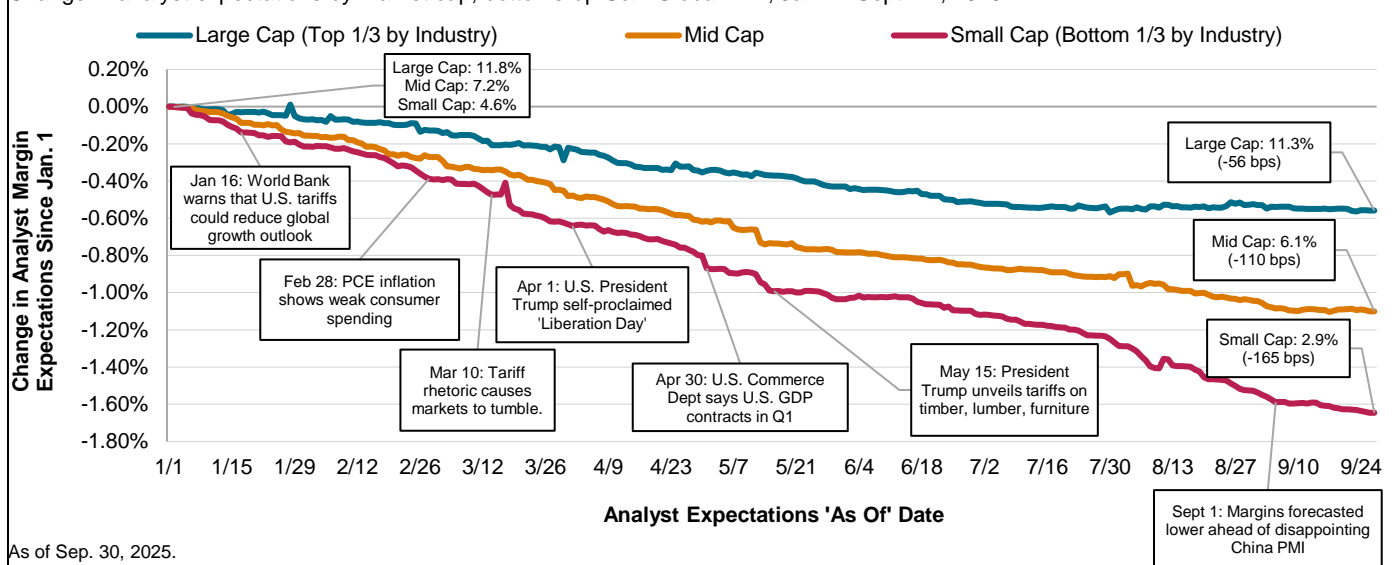
The sources of this trillion-dollar squeeze are broad. Tariffs and trade barriers act as taxes on supply chains and divert cash to governments; logistics delays and freight costs compound the effect. Wage inflation and energy prices transfer income to labor and producers. Rising capital expenditure, particularly in AI infrastructure, redirects corporate cash flow toward investment. Collectively, these forces represent a systemic transfer of wealth from corporate profits to workers, suppliers, governments, and infrastructure investors.

The next section examines how these pressures propagate through global supply chains, vary by region and reshape corporate strategies amid this historic margin compression.

Figure 4<sup>1-8</sup>

## Margins under pressure with smaller names disproportionately impacted

Change in analyst expectations by market cap, bottoms-up S&P Global BMI, Jan 1 - Sept. 27, 2025



As of Sep. 30, 2025.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

## 2. Stronger together, weaker together

Profit pressure doesn't arrive randomly. Costs move through the same supply chains that move goods and services. Shocks to one firm transmit to its partners; resilience works the same way. This supply chain contagion explains why margin pressure spreads through networks rather than staying inside a single company or industry.

The pattern isn't new. A 20-year backtest (see companion study<sup>9</sup>) shows that firms with strong customers tend to outperform across cycles, while firms with strong suppliers gain added resilience in stress. The 2025 data echo this: shocks to inputs or demand ripple through entire commercial ecosystems. The case below shows how.

### 2.1 A tailwind case study of supply chain contagion

KLA Corp. sits in the middle of the semiconductor stack, selling inspection and process-control systems to chipmakers such as Samsung and TSMC, and sourcing lasers and optics from upstream suppliers like Coherent and Lumentum. Since Jan. 1, expectations for KLA's downstream customers strengthened in ways that matter for tool demand. TSMC's 2025 wafer shipments rose from an expected 10.7 million to 13.0 million (Jan. 1 to Sept. 27), a step-up consistent with ordering more inspection and metrology systems from KLA. On the upstream side, Coherent's capital spending expectation increased from \$377 million to \$412 million over the same period — an explicit capacity signal.

<sup>1</sup> World Bank warns that US tariffs could reduce global growth outlook, <https://www.reuters.com/business/finance/world-bank-warns-that-us-tariffs-could-reduce-global-growth-outlook-2025-01-16/>

<sup>2</sup> Markets Tumble on Concerns About China's AI Advances; Tech Sector Has Worst Day Since 2020, <https://www.investopedia.com/dow-jones-today-01272025-8780724>

<sup>3</sup> Fed's favorite core inflation measure hits 2.6% in January, as expected, <https://www.cnbc.com/2025/02/28/pce-inflation-january-2025-.html>

<sup>4</sup> Markets tumble after Trump's response to recession question; Congress barrels toward shutdown deadline, <https://www.nbcnews.com/politics/politics-news/live-blog/live-updates-trump-government-shutdown-china-tariffs-labor-ukraine-rcna195479>

<sup>5</sup> U.S. economy shrank 0.3% in the first quarter as Trump policy uncertainty weighed on businesses, <https://www.cnbc.com/2025/04/30/gdp-q1-2025-.html>

<sup>6</sup> Where trade talks stand with major US partners ahead of tariffs-hike deadline, <https://www.reuters.com/business/autos-transportation/where-trade-talks-stand-with-major-us-partners-ahead-tariffs-hike-deadline-2025-06-30/>

<sup>7</sup> China's factory activity seen shrinking again on soft demand, job woes - Reuters poll, <https://www.reuters.com/world/china/chinas-factory-activity-seen-shrinking-again-soft-demand-job-woes-2025-08-29/>

<sup>8</sup> <https://finance.yahoo.com/news/live-trump-tariffs-live-updates-trump-unveils-tariffs-on-timber-lumber-furniture-pfizer-set-for-relieve-175804808.html>

<sup>9</sup> Quantitative Research & Solutions landing page (forthcoming article as of this publication, 'Follow the Flow: Supply Chain Positioning Doubles Momentum Alpha').

<https://www.spglobal.com/market-intelligence/en/news-insights/topics/quantitative-research>; or Subscribe for email alerts,

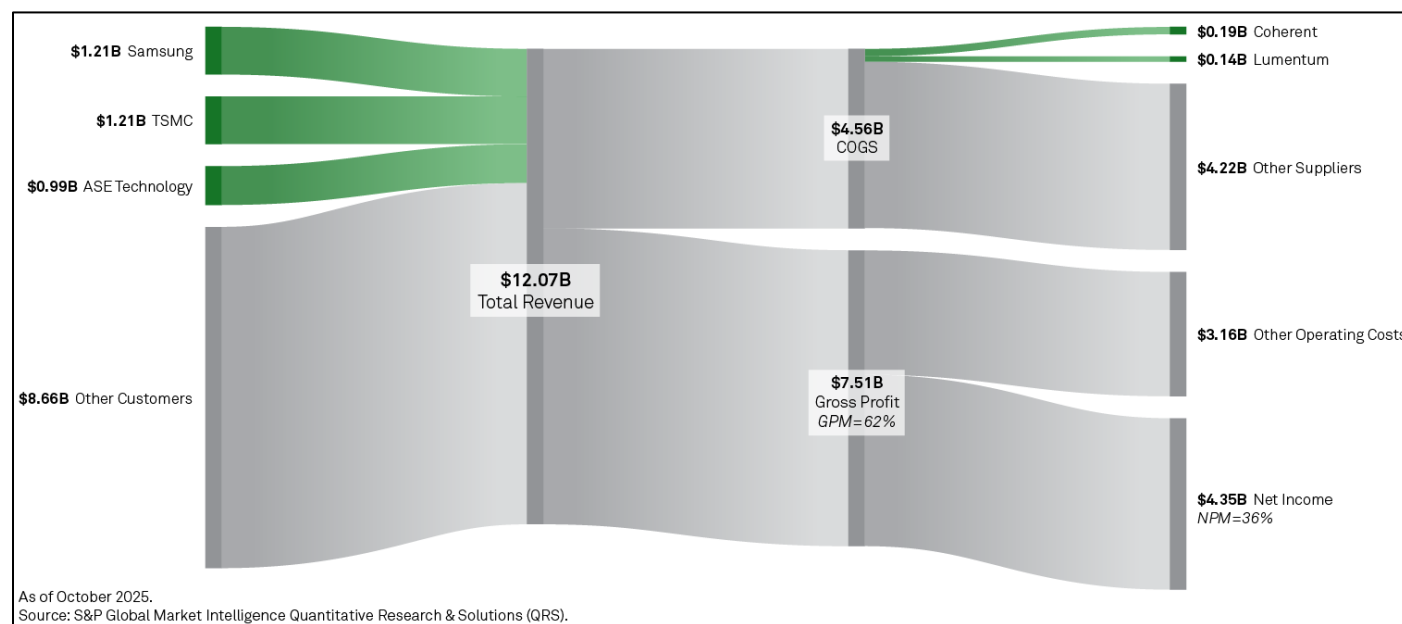
<https://www.spglobal.com/market-intelligence/en/campaigns/quantamental-research-subscription>

spglobal.com

Within KLA's own book, Visible Alpha data show KLA revenue from Taiwan up 5.9%, mirroring that increase in fab activity. Management commentary aligns with these signals. CEO Rick Wallace says:

"Gross margin is forecasted to be 62%, plus or minus 1 percentage point, reflecting a slightly weaker systems revenue mix and a 50 to 100 basis-point impact from announced global tariffs...We continue to assess the impact [of tariffs] across our business and identify potential mitigation actions to reduce our exposure to this headwind over time." — KLA Q2 2025 call

Figure 5



Operations adjusted in parallel. Panjiva import data show KLA shipments from China down from 90 (2024) to 16 (2025 YTD) — about an 82% drop — while shipments from Singapore doubled from 9 to 18, consistent with deliberate routing to reduce tariff exposure. CEO Wallace's commentary supports the interpretation of deliberate adjustment:

"How do we leverage free-trade zones... to reduce leakage of tariffs where you pay a tariff, but then when you export you can reclaim or claw back the tariff... There are some opportunities to go do some things on the process side." - KLA Q2 2025 call

Talent investment points the same way. Headcount Analytics indicates KLA maintains a strong international presence in Israel, India, Singapore, and Taiwan, which together account for an estimated 45% of their employees. These locations are tied to high-value engineering and AI-driven process control. Combined with robust US headcount (approximately 32% of full time employees), KLA can leverage its global footprint to respond nimbly to a shifting tariff landscape.

Taken together: analyst revisions (demand), trade flows (routing) and hiring (capacity) tell a single story — network flexibility can blunt macro headwinds and convert them into relative strength.

## 2.2 From intuition to evidence: Aggregate supply chain contagion analysis

Using machine-readable supply chain network data<sup>10</sup> extends the case study logic to the global universe. For each firm, upstream and downstream exposures are weighted by their share of revenue or cost. A company supplied 70% by one partner and 30% by another inherits those partners' fortunes in proportion to those weights. Grouping firms by the weighted year-to-date performance of their counterparties yields nine buckets formed from the combination of three performance categories (outperform, inline, underperform) across customer and supplier dimensions. Outperformance (underperformance) was defined as a YTD stock return at least 10% above (below) the firm's own industry median return.

Figure 6

### Firms with outperforming supply chains are also outperforming in 2025

Contemporaneous returns, Jan. 1–Aug. 31, S&P Global BMI

		Customer YTD weighted stock return		
		Underperformed	In line	Outperformed
Supplier YTD weighted stock return	Outperformed > 10% + industry median	Own stock performance YTD <b>+12%***</b> (t=3) (53% of 162 beat)	Own stock performance YTD <b>+10%***</b> (t=6) (58%*** of 556 beat)	Own stock performance YTD <b>+23%***</b> (t=12) (68%*** of 759 beat)
	Inline +/- 10% of the industry median	Own stock performance YTD <b>-4%**</b> (t=2) (38%*** of 343 beat)	Own stock performance YTD <b>+4%***</b> (t=3) (49% of 1,018 beat)	Own stock performance YTD <b>+8%*</b> (t=5) (57%*** of 545 beat)
	Underperformed < -10% + industry median	Own stock performance YTD <b>-9%***</b> (t=6) (29%*** of 475 beat)	Own Stock performance YTD <b>-5%***</b> (t=3) (38%*** of 429 beat)	Own stock performance YTD <b>+2%</b> (t=1) (47% of 196 beat)

As of Sept. 30, 2025.

Source: S&P Global Market Intelligence.

© 2025 S&P Global.

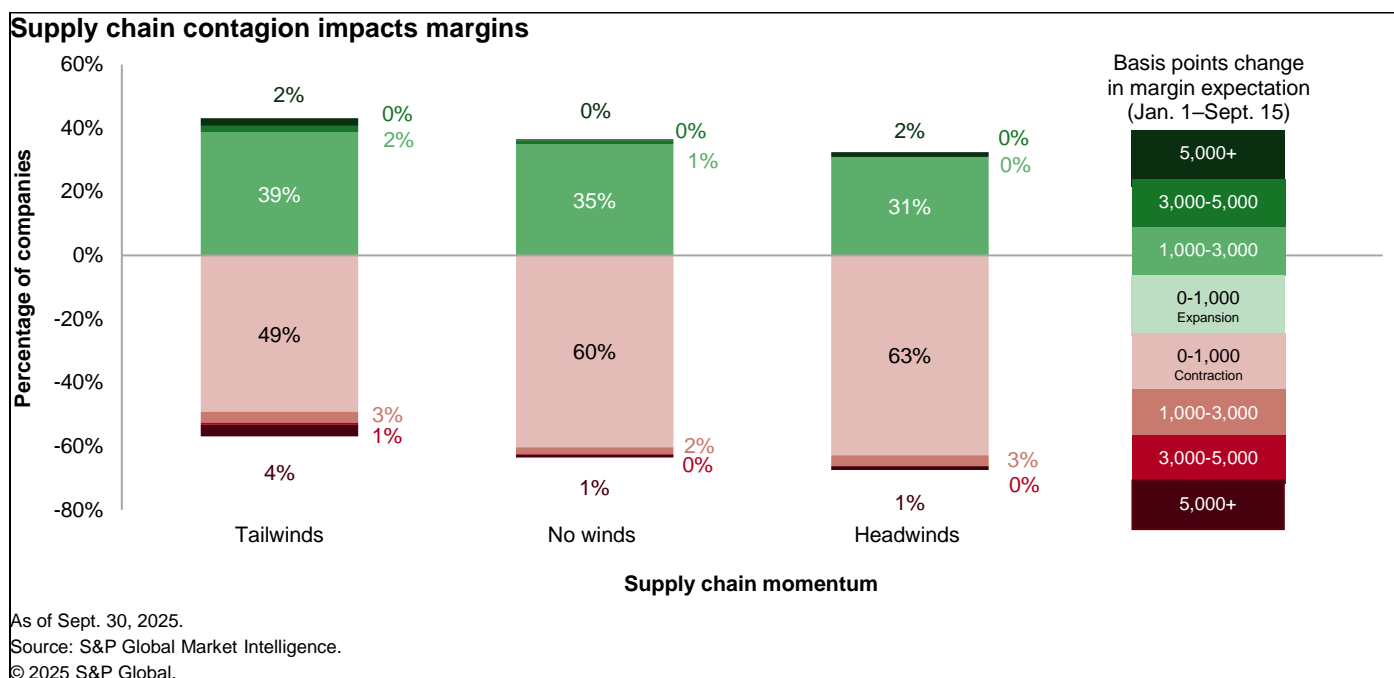
The pattern in Figure 6 is clear. Companies with strong suppliers and customers delivered the best returns (moving up and right), while those tied to weaker partners fell behind (moving down and left). Supplier strength mattered most: performance declined more sharply when supplier quality weakened (bottom row) than when customer demand softened (far left column).

The contagion extended from prices to profits. Margin revisions (Figure 7) show that 43% of “tailwind” firms (upper-right box in Figure 6) recorded margin expansion, compared with only 33% of “headwind” firms (lower-left box in Figure 6). Conversely, 67% of headwind firms saw margin contraction. The gap is both material and statistically significant. Tailwind firms also show greater dispersion — more large gains and large losses — suggesting that strong networks amplify volatility as well as resilience.

Not all links carry equal weight. The magnitude of a relationship — how much revenue or cost a counterparty represents — determines how shocks propagate. Firms with heavy exposure to a single supplier or customer experience sharper transmission when that partner weakens, while diversified firms buffer the effect through many smaller connections. The results underscore that in complex networks, it is not just who a company is connected to, but how much those connections matter.

<sup>10</sup> Business Relationship Analytics (BRA).  
spglobal.com

Figure 7



### 3. Closing the pressure relief valve

When the 2025 tariff cycle began, many investors assumed the measures were tactical — a negotiating lever for President Trump rather than a structural shift in trade policy.<sup>11</sup> That view faded quickly. By the end of the first quarter, sell-side forecasts were already signaling stress: revenue up roughly 33 bps, earnings down 210 bps, and margins lower by 27 bps — less than half the eventual move for all three key performance indicators (KPIs).

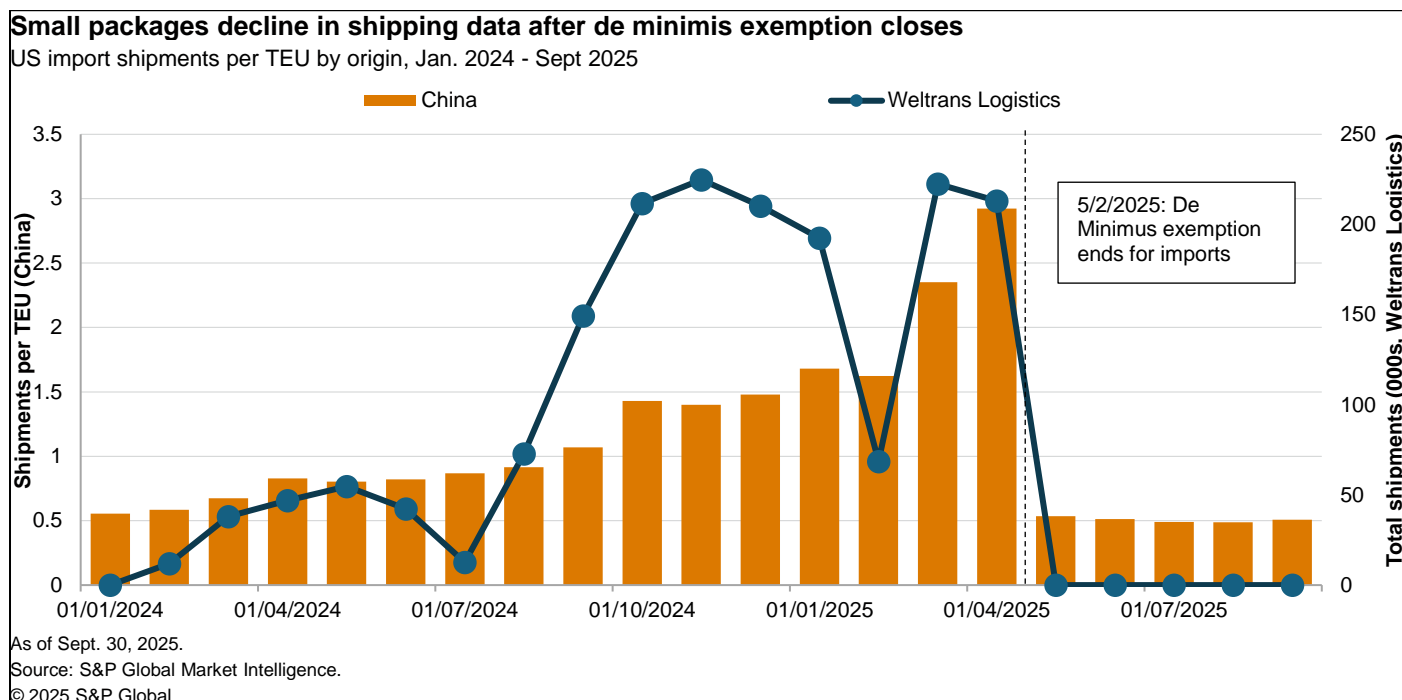
The shutdown of the de minimis exemption proved to be the real inflection point. For years, the rule had quietly acted as a pressure-relief valve for global trade, allowing billions of dollars in low-value parcels — mostly consumer goods — to enter the US duty-free, keeping prices low and softening tariff impacts. By 2025, its scale had become politically untenable. When the exemption closed, the shock rippled through shipping data, earnings reports, and executive commentary. As Tapestry Inc. warned on its fourth-quarter 2025 earnings call “..we are facing greater-than-expected profit headwinds from tariffs and duties, with the earlier-than-expected ending of the de minimis exemption being a meaningful factor.” A technical rule had become a structural turning point for global cost dynamics.

Between third-quarter 2024 and April 2025, Chinese freight forwarder Weltrans Logistics shipped nearly 1.8 million parcels into the US — about 6.5% of all inbound packages by number of packages, but less than 1% by volume or weight over the period. In March and April alone, they shipped more than 1 million packages in 7 twenty-ft. equivalent units (TEU) shipping containers. Shipments were small, frequent, and anonymized — indicating individual recipients rather than corporate importers. Panjiva data show identical goods split across multiple declarations to stay below the \$800 limit: package counts surged while container volumes (TEUs) stayed flat. When the exemption was removed on shipments from China in May, packages-per-TEU fell by more than half, confirming a sharp contraction in low-value parcel traffic. Weltrans has not appeared on any U.S. Bill of Lading since. Firms relying on this channel lost a crucial cost buffer, turning a diffuse macro friction into a direct expense.

<sup>11</sup> Markets are shrugging off Trump's tariffs. Experts explain why. <https://abcnews.go.com/Business/markets-shrugging-off-trumps-tariffs-experts-explain/story?id=123766414>  
spglobal.com

The de minimis rule had long absorbed tariff pressure; its removal forced those costs back onto corporate ledgers. This lag partly explains why early-2025 margin compression trailed the re-imposition of tariffs — many companies continued shipping under the exemption until mid-year. With that valve now shut and inventories dwindling, the forces driving global margins are fully exposed. The next section examines how two competing currents — tariff pressure and technological acceleration — are reshaping the balance between cost and productivity worldwide.

Figure 8



## 4. Tariff vs. tech tug of war

The mid-2025 closure of the de minimis exemption ended a major route for tariff avoidance. Companies shifted from circumvention to mitigation — repricing, rerouting, reinvesting. Their adaptation is clearest in language: how executives talk about cost pressure versus technological relief. Using ProntoNLP<sup>12</sup>, all earnings calls for S&P Global BMI firms were scanned for eight margin-relevant topics — tariffs, inflation, AI, labor, regulation, FX, energy, and geopolitics — and each mention classified as positive, neutral, or negative.

Separately, firms were split into “margin winners” and “margin losers” based on year-to-date consensus revisions, enabling tone to be compared against outcomes. Within each industry, firms above the median change were labeled margin winners, those below the median margin losers. For example, in Auto Components, the median firm experienced a 107-basis-point margin contraction across 158 companies. XPEL, a manufacturer of automotive protective films, saw its consensus 2025 margin fall 760 bps from 17.3% to 9.7% — well above the median contraction, and thus a margin loser (despite having an absolute margin above the industry median, this study focuses on the change in 2025 expectations). Meanwhile in Aerospace and Defense, the median margin change across 91 firms was a 52-bps contraction. GE Aerospace posted forecast revisions from 14.3% to 15.6%, a 127-bps improvement, placing it 179 bps above the industry median and thus a margin winner. This structure creates an equal-

<sup>12</sup> ProntoNLP now a part of S&P Global Market Intelligence, <https://prontonlp.ai/>  
spglobal.com

weight benchmark: If commentary tone had no relationship to analysts' revisions, the share of winners and losers should balance out at zero.

The results show a clear pattern: firms that struck a neutral tone were most rewarded by analysts. Of firms discussing both topics, 73% saw improving margin expectations (+23% vs. an even split), compared with only 16% (-34% vs. even split) of firms that were negative on both tariffs and AI. The preference for neutrality held whether companies discussed both topics or just one.

Fully disentangling this preference is left for future work, but two hypotheses stand out. On tariffs, investors may have favored firms that treated tariffs as manageable costs — not existential risks or competitive advantages. On AI, the most optimistic firms are likely making the largest investments in 2025; even if those pay off later, they may weigh on short-term margins now.

Figure 9

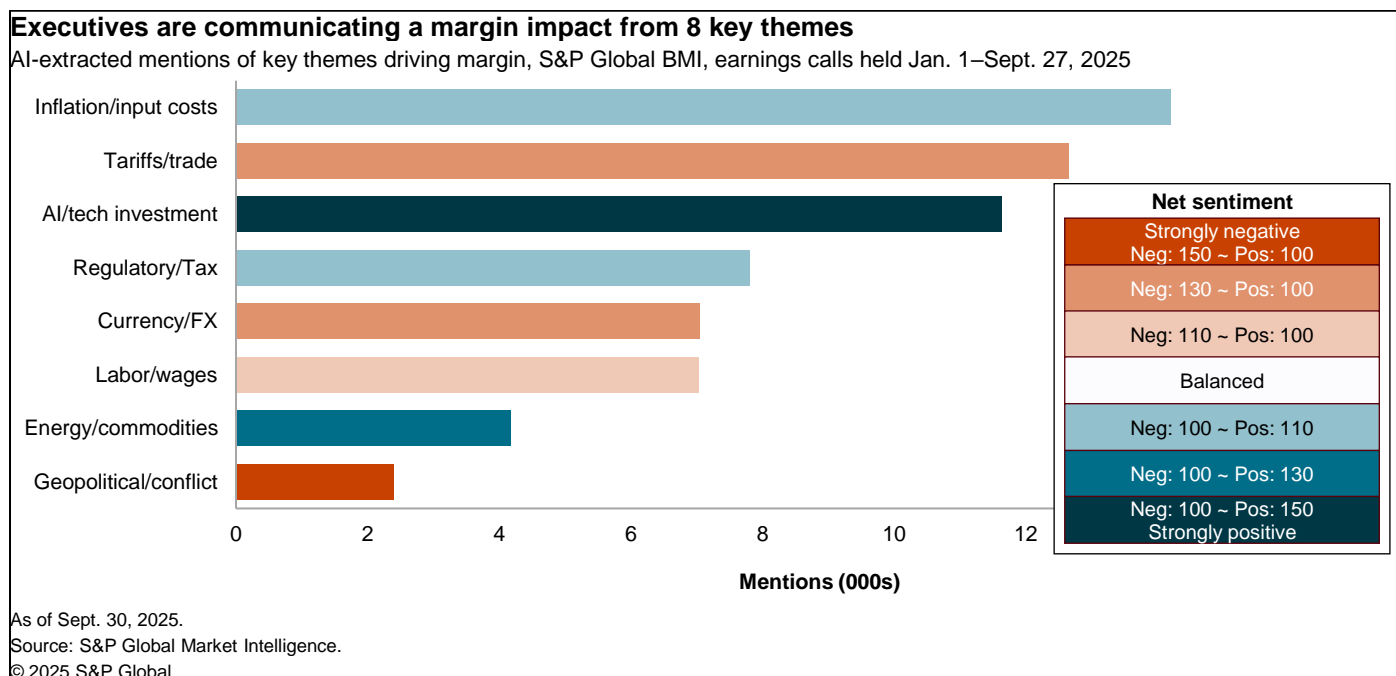


Figure 10

### Neutral firms are biggest margin winners

AI-extracted mentions of tariff and AI margin impact vs. sell-side margin expectation change, Jan. 1–Sept. 27

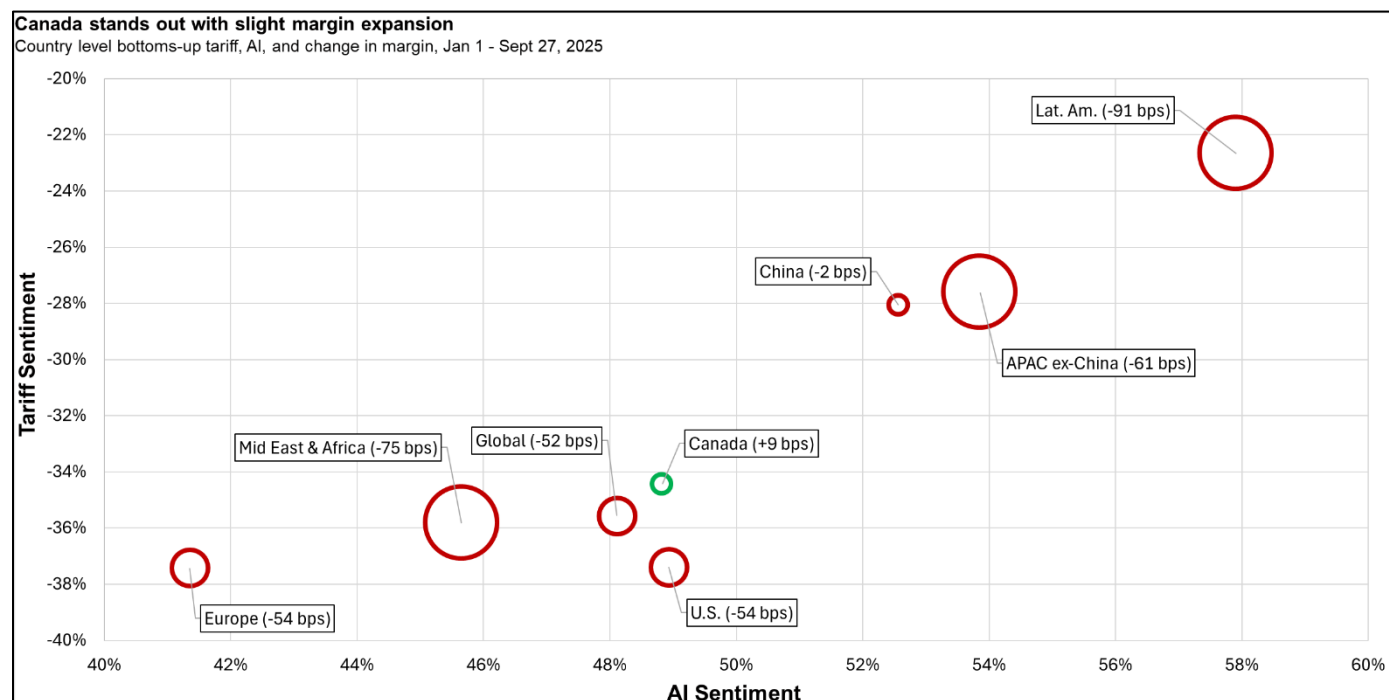
% margin winners - % margin losers		Tariff sentiment		
		Negative	Neutral	Positive
AI sentiment	Positive	1%	17%	15%
	Neutral	-12%	23%	13%
	Negative	-34%	-5%	5%
No AI mention		Tariff sentiment		
		Negative	Neutral	Positive
		-15%	9%	-10%
No tariff mention		No tariff / AI mention		
		No earnings call		
		-9%		
		7%		

As of Sept. 30, 2025.  
Source: S&P Global Market Intelligence.  
© 2025 S&P Global.

## 5. Oh, Canada is winning 2025, so far...

Across the major S&P Global indices, 2025 revealed stark geographic divergence. Canadian and Chinese firms showed relative margin stability, while Latin America, the Middle East & Africa, and Asia ex-China bore the brunt of the margin compression. The U.S. and Europe tied in the middle for 4th and 5th, at 54 bps.

Figure 11



In today's economy, few firms remain purely domestic. Headcount Analytics data show that less than 10% of companies in the S&P Global Broad Market Index operate in a single country. Panjiva shipping data reveal supply chains that span continents, and Business Relationship Analytics and Visible Alpha estimates trace customer and supplier linkages across dozens of jurisdictions. Globalization ensures that nearly every firm bears some degree of international exposure — whether through its own operations or its dependencies.

Amid this complexity, firms in the Canada BMI stand out in 2025 as the relative outperformers. This stronger performance for Canadian companies is likely tied to the tariff-free nature of most products under the USMCA trade rules compliance. This performance also aligns with Canada's middle-of-the-pack sentiment on both AI and tariffs noted in Section 4 —measured, adaptive and credible rather than extreme. The lesson is not that Canada “won” the year through national policy, but that its firms are positioned within networks that absorb rather than transmit shocks.

Meanwhile, while Chinese firms have faced some of the highest tariffs, they also have among the most diverse downstream sales with the ability to reorient sales into Europe and Asia even as the US became less attractive. This allows their margin expectations to remain relatively stable.

## 6. The road ahead

As 2025 draws to a close, the contours of the year's margin compression are becoming clear. Across the global equity universe, sell-side forecasts as of Sept. 27, 2025, imply 64 bps of margin erosion for fiscal 2025 relative to where

expectations stood on Jan. 1 (Figure 12). The damage is measurable but not catastrophic; higher revenues have failed to offset rising costs, and companies have absorbed a share of the burden.

Figure 12

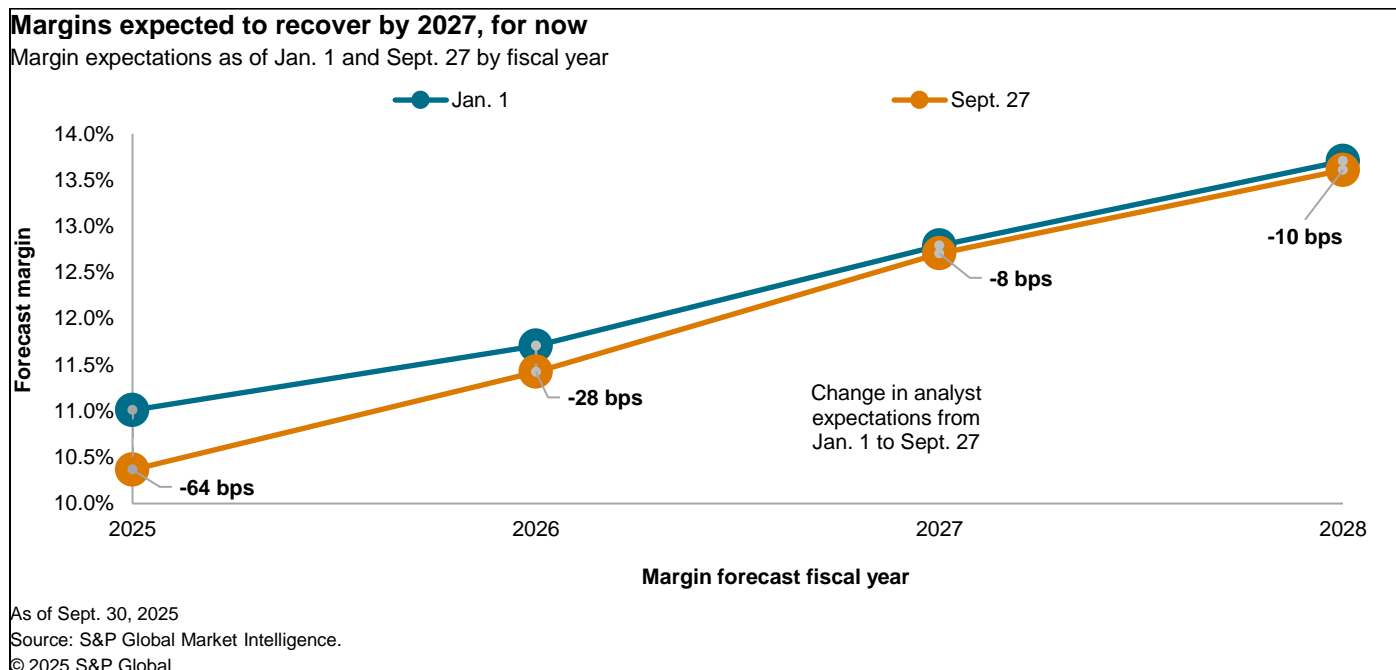
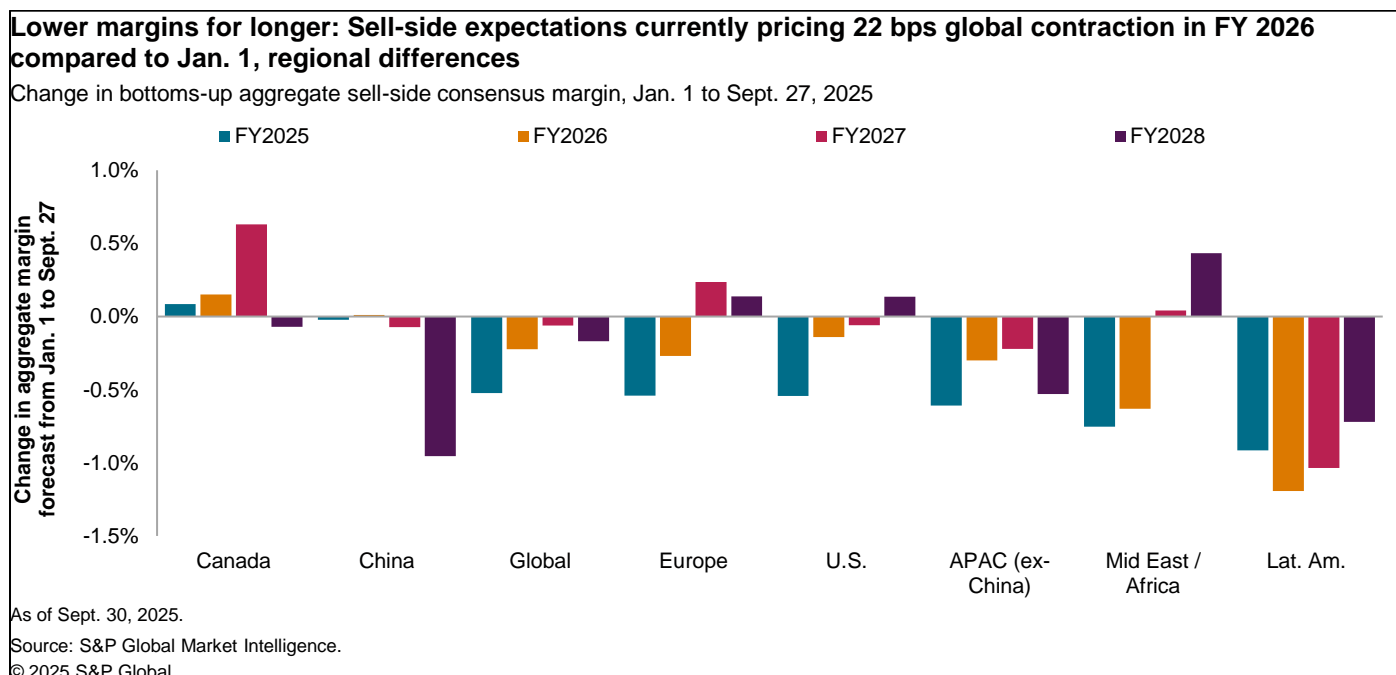


Figure 13



What happens next is less about absolutes and more about belief. The “belief curves” constructed from January and September forecasts show that, at least for now, analysts expect the drag to fade over time. Margins projected for 2026 stand within 28 bps of where they were at the start of the year, narrowing further to 8-10 bps by 2027–2028. There are three potential explanations: the sell side has not yet fully revised its long-run outlooks, the current turbulence will prove temporary, or tariff adaptation strategies will become more effective in the long term. In the optimistic scenario that this turbulence is temporary, the Trump administration’s tariff agenda and the resulting supply

chain realignments are viewed as transitory frictions, not permanent structural taxes on profitability. In the scenario where tariff adaptation strategies begin to bear fruit in the long term, the many mitigation strategies which executives have discussed on earnings calls play out, including price increases, cost cutting negotiations with suppliers, and a return on longer-term reshoring investments.<sup>13</sup>

Regional patterns reinforce this interpretation (Figure 13). Canada continues to stand out as a relative winner, buoyed by trade alignment under USMCA and resilient auto and aerospace sectors. Europe and the US show moderate near-term pressure but steady recovery by 2027. China, Latin America and Developed Asia ex-China remain under greater strain, their margins projected to stay lower for longer as demand uncertainty, energy intensity and tariff exposure persist. The Middle East and Africa region occupies a middle ground where commodity tailwinds offset geopolitical cost drag.

In effect, 2025 locked in the hit; 2026 and 2027 will test whether the market's optimism about re-equilibration is warranted. For now, consensus envisions a world where margins eventually recover to pre-tariff trajectories. Whether that faith proves justified will depend on how firms adapt through technology, cost discipline and reshaped global value chains that have defined this cycle.

## 7. Data

S&P Global's data assets capture the economy in motion — from how firms operate, to how they trade, to how they speak. Panjiva follows the movement of goods through customs and shipping records, revealing the physical arteries of global trade. BRA traces the movement of money across supply-chain networks, linking customers and suppliers through disclosed and inferred financial ties. Headcount Analytics tracks the movement of people — the human capital that drives production and innovation — across millions of companies worldwide. Together, these three pillars form a living map of the economy's core circulations: goods, money, and people. Layered on top are the signals that show how those flows evolve and how markets perceive them. Purchasing Manager Index™ (PMI™) data capture the real-time temperature of economic activity — production, pricing, employment, and demand. Visible Alpha Estimates and S&P Capital IQ Estimates translate those conditions into the expectations of thousands of sell-side analysts, quantifying how anticipated revenues and earnings adjust to changing fundamentals. Machine-readable earnings call transcripts processed by ProntoNLP then provide the behavioral dimension — parsing the language executives use to describe cost pressures, technology investment, and strategy.

Viewed together, these datasets offer a uniquely comprehensive system for observing global commerce: a synchronized view of how goods move, how money flows, how people work, how expectations shift, and how leaders explain it all. This integration gives S&P Global an empirical pulse of the world economy — not as a static snapshot, but as a dynamic network of interactions continually responding to policy, technology, and human decision-making.

### Purchasing Manager Index™ (PMI™)

PMI™ data are compiled by S&P Global for more than 40 economies worldwide. The monthly data are derived from surveys of senior executives at private sector companies and are available only via subscription. The PMI dataset features a headline number, which indicates the overall health of an economy, and sub-indices, which provide insights into other key economic drivers such as GDP, inflation, exports, capacity utilization, employment and inventories. The

---

<sup>13</sup> Chris Rogers, Vania Alvarez Murakami, Ines Nastali, Eric Oak, "Uncertainty is the new certainty: Q4 2025 supply chain outlook," October 2, 2025. <https://connect.spglobal.com/document/show/phoenix/6090257>  
spglobal.com

PMI data are used by financial and corporate professionals to better understand where economies and markets are headed, and to uncover opportunities.

## **Panjiva**

The Panjiva dataset leverages machine learning technologies to surface key insights from semi-structured customs import & export shipping data and resolves entities to their parent company. Panjiva standardizes trade data by normalizing units and categorizing products into Harmonized Tariff System (HTS) codes for seamless analysis. It ensures accuracy in profiles, standardizes data for comparison, and classifies products effectively for universal search and analysis.

## **Business Relationship Analytics**

The BRA dataset, jointly developed by S&P Global and Redgraphs Inc., captures disclosed business-to-business relationships from regulatory filings. It includes information on partnerships, supplier relationships and customer connections, providing insights into the dynamics that influence corporate performance and strategy. The dataset is enhanced through a patented process to estimate the economic significance of relationships, when that information is non-disclosed.

## **Visible Alpha Estimates and S&P Capital IQ Estimates**

The S&P Capital IQ and Visible Estimates dataset combines the forecasts, assumptions, and logic from full working sell-side models with a comprehensive global contributor network and deep history to provide the most powerful estimate platform in the market. Through S&P Capital IQ Estimates breadth and Visible Alpha Estimates granularity, the data provide both scale and precision, enabling better forecasting, benchmarking, and decision-making.

Visible Alpha's deep consensus data provide a quick understanding of the sell-side view on a company or industry at an unprecedented level of granularity, timeliness, and interactivity, leading to a deeper understanding of what is driving a company's future performance through complete product, segment, and industry forecasts. S&P Capital IQ estimates complement this depth with the breadth of an extensive broker contributor network for a broader consensus view, additional company coverage, and historical data back to 1996 allowing for consistent and accurate historical analysis across different regions and economic cycles.

## **ProntoNLP & Machine-Readable Earnings Call Transcripts**

The ProntoNLP dataset processes earnings call transcripts to extract vital insights and generate key performance indicators for corporate performance. It utilizes natural language processing (NLP) and an optimized Large Language Model to analyze textual data, identifying and scoring important phrases while filtering out irrelevant information. The dataset includes tagged paragraphs from earnings calls worldwide.

## **Headcount Analytics**

The Headcount Analytics dataset provides a comprehensive view of a company's workforce composition, trends and metrics. It includes detailed insights into over 220 million employees worldwide, with monthly updates since 2010 covering more than 4.5 million entities. The dataset features geographic distribution of headcount, employee tenure and talent flow, enabling users to assess the operational structure of companies.

## 8. Appendix

The Quantitative Research & Solutions (QRS) team makes [source code available](#) for S&P Global marketplace users. No purchase necessary, [request a login now](#).

### 8.1 Global margin compression

#### Methodology

Aggregate revenue and earnings expectations were calculated as the sum of company-level sell-side consensus estimates across any chosen portfolio — whether the S&P Global BMI, regional or sector subsets, or classifications by market cap, supply-chain exposure, or sentiment. The implied incremental cost is defined as the difference between the change in aggregate revenue and the change in aggregate earnings from January 1 to September 27:

$$\begin{aligned} \text{Implied incremental cost}_{\text{covered public market}} \\ = \sum_{i \in \text{portfolio}} \{(\text{rev\_exp}_i^{\text{Sept } 27} - \text{rev\_exp}_i^{\text{Jan } 1}) - (\text{earn\_exp}_i^{\text{Sept } 27} - \text{earn\_exp}_i^{\text{Jan } 1})\} \end{aligned}$$

where  $\text{rev\_exp}_i^t$  and  $\text{earn\_exp}_i^t$  are the consensus revenue and earnings expectations for company  $i$  at time  $t$ . This “difference-of-differences” isolates how much more revenue than profit the market expects each firm to generate over the year. Equal movements in revenue and earnings imply no incremental cost; a larger revenue than earnings increase implies higher costs absorbed by firms.

To extend the analysis beyond firms with sell-side coverage, aggregate cost estimates were scaled by market capitalization to approximate uncovered public and private companies. Using the S&P Global BMI as a \$130 trillion proxy for global public equity, of which \$111 trillion is covered by analyst consensus, proportional scaling adds roughly \$126 billion for uncovered firms:

$$\begin{aligned} \text{Implied incremental cost}_{\text{noncovered public market}} \\ = \text{Implied incremental cost}_{\text{covered public market}} \circ \left( \frac{\text{Market size}_{\text{noncovered public market}}}{\text{Market size}_{\text{covered public market}}} \right) \\ = \$907B \circ \left( \frac{\$19T}{\$111T} \right) = \$155B \end{aligned}$$

and \$123 billion for the \$15T in private, PE- and VC-backed companies<sup>14</sup>:

$$= \$907B \circ \left( \frac{\$15T}{\$111T} \right) = \$123B$$

Aggregate margin was computed as the ratio of total earnings to revenue, and change in margin was taken as the absolute difference in net profit margin represented in percent.

$$\begin{aligned} \text{Margin}_t^{\text{portfolio}} &= \frac{\sum_{i \in \text{portfolio}} \text{earn\_exp}_i^t}{\sum_{i \in \text{portfolio}} \text{rev\_exp}_i^t} \\ \Delta \text{Margin} &= \text{Margin}_t^{\text{portfolio}} - \text{Margin}_{t-n}^{\text{portfolio}} \end{aligned}$$

<sup>14</sup> How does the size of private markets compare to public markets?, <https://www.harbourvest.com/insights-news/insights/cpm-how-does-the-size-of-private-markets-compare-to-public-markets/>  
spglobal.com

## Alternative interpretation: vertical disintegration

In this paper we argue that the \$907 billion wedge between higher revenues and lower profits in 2025 reflects mounting external costs: macroeconomic headwinds such as tariffs, wages and input price pressures. This is the leading hypothesis, and it is consistent with observable events, sector divergences and prior cycles of margin compression. But it is not the only possible explanation.

What we know for certain is that the expectation among sell-side analysts for net profit margins (NPM) across the S&P Global BMI were down about 64 bps between Jan. 1 and Sept 15. This translates into \$315 billion less in expected earnings, despite \$592 billion more in expected revenues, or \$907 billion in “higher expenses.”

What we don't know is whether those higher expenses represent true externalities — value leaving the corporate sector (to labor, governments, creditors, etc.) — or whether they reflect a shift in how business is organized, specifically, an increase in intra-corporate transactions that inflate aggregate revenues without increasing profits.

Because revenue is double and triple counted each time money changes hands along a supply chain, aggregate revenues are not a pure measure of global spending. If firms are increasingly outsourcing, partnering or transacting at arm's length rather than keeping activities in-house, then the same underlying activity will show up as multiple layers of revenue.

Concretely, consider two hypothetical companies in the same business, both bring in \$100 in revenue and keep \$10 in net profit, implying that each company has \$90 of net expenses. Now, let's say one of the two companies decides to contract work to one another, splitting the profits, they would each continue to take in \$100 from independent customers, then each would pay the other \$95 to complete the work and keep \$5. The two firms continue to collect \$200 from end customers and generate profit of \$20, but in the pass-through work example, company A is now recording \$100 in revenue from customers and another \$90 in revenue from contract work, dropping their margin from 10% to 7.9%; computed as  $\$10 \text{ customer earnings} + \$5 \text{ contract earnings} \div \$100 \text{ customer revenue} + \$90 \text{ contract revenue}$ . Company B's margin drops to 5%. In this world, margins would appear to contract not because costs are rising in the macro sense, but because more low-margin, pass-through business is being recorded. Each firm in the chain books its own small slice of profit, but the aggregate denominator (revenues) swells faster than the numerator (profits).

This dynamic would be consistent with vertical disintegration — the process by which large, integrated firms unbundle into networks of specialized providers. Technological shifts, including the rise of AI, could accelerate this process by reducing coordination costs and enabling smaller firms to compete effectively. If true, the 64-bps margin contraction would not primarily reflect macroeconomic headwinds, but rather a structural change in how corporate activity is organized and reported. The aggregate “missing” \$907 billion would still be real in accounting terms, but less interpretable as a measure of value leakage from the corporate sector. Instead, it would highlight a world where supply chains lengthen, specialization deepens and intra-corporate transactions proliferate.

**For this period, the alternative explanation appears less likely: the scale of the margin move over the last 9 months, the divergence between resilient mega-cap firms and pressured broader indices, and the coincidence with known macro shocks and executive communication all point toward cost pressures as the dominant driver.** Nonetheless, the vertical disintegration hypothesis underscores the limits of aggregate analysis and the importance of considering multiple “worlds” when interpreting global financial data.

## 8.2 Stronger together, weaker together

Supply chain linkages were sourced from Business Relationship Analytics (BRA), which identifies customer–supplier pairs and estimates each relationship's economic significance. For each firm, the weighted performance of

counterparties was calculated as the return of its upstream suppliers and downstream customers, weighted by those estimated revenue or cost shares.

$$\text{Weighted Supplier Return}_j = \sum_{i \in \text{portfolio}} w_{ij}^{\text{COGS}} R_i^{\text{ind-rel}}$$

$$\text{Weighted Customer Return}_k = \sum_{l \in \text{portfolio}} w_{lk}^{\text{REV}} R_l^{\text{ind-rel}}$$

where  $w_{ij}^{\text{COGS}}$  is the percentage of focal firm  $j$ 's total cost of goods sold attributed to payments made to supplier  $i$ ;  $w_{ik}^{\text{REV}}$  is the percentage of focal firm  $k$ 's revenue generated from customer  $l$ , and  $R_l^{\text{ind-rel}}$  is the YTD return of firm  $l$  minus the median YTD return of all firms in the same industry as firm  $l$  (that is, industry de-median-ed return).

Firms were then grouped into nine cohorts formed by the intersection of supplier and customer performance breakpoints — outperforming industry median by 10%, inline, or underperforming industry median by 10%. Each cohort's outcomes were evaluated through two dimensions: contemporaneous stock performance, computed in the standard way, and margin-revision sensitivity.

For margin revision sensitivity, each company was labeled a “margin winner” or “margin loser”; where margin winners saw a smaller contraction (or larger expansion) than the firm's own industry median.

$$\text{Margin Outcome}_i = \begin{cases} \text{if } \Delta \text{Margin}_i > \text{Margin}_i^{\text{industry}} & | \text{ MARGIN WINNER} \\ \text{if } \Delta \text{Margin}_i < \text{Margin}_i^{\text{industry}} & | \text{ MARGIN LOSER} \end{cases}$$

Because the breakpoint was the industry median for each firm, this protocol 1) produces an equal number of winners and losers and 2) produces an equal representation across industries. That is, half of the constituents in each industry should be winners and losers, so that we are not capturing industries that are more or less tariff exposed, but instead relative positioning within an industry

### 8.3. Tariff vs. tech tug of war

Earnings call transcripts were analyzed using ProntoNLP, S&P Global's proprietary natural language processing engine. Of roughly 9,000 firms with sell-side coverage, 4,980 held at least one earnings call after January 1, 2025. Each transcript was parsed for paragraphs containing language related to margins, tariffs, and technology, as identified by curated keyword taxonomies capturing both direct terms and close synonyms.

- **Margin and expense terms** — *margin, profit, earnings, cost, expense, spending, overhead, COGS, compression, expansion, pressure, investment, leverage, growth.*
- **Tariff and macro terms** — *tariff, trade, import, export, customs, regulation, inflation, interest rates, demand, supply, volatility, FX, geopolitical, slowdown, headwind, tailwind.*
- **AI and technology terms** — *AI, artificial intelligence, automation, machine learning, generative, language model, robotics, analytics, productivity, efficiency, algorithm, modernization, transformation.*

Each paragraph was classified by topic and sentiment polarity (positive, neutral, or negative). Firms were then grouped into margin “winners” and “losers” based on year-to-date consensus revisions, enabling tone–outcome comparisons. The resulting cross-matrix quantifies how executive commentary on tariffs and technology aligned with analysts' margin expectations—revealing the competing forces of cost pressure and productivity relief that defined 2025.

# Our recent research

For our full catalog of published research, click [here](#).

- [\*\*September 2025: Familiar signal, new context:\*\*](#) Large language models (LLMs) have garnered widespread attention for their ability to understand natural language. Their application in equity investing, however, remains in its infancy due to novelty and cost. This study leverages LLM-extracted features from earnings call transcripts and transforms them into actionable stock selection signals. These features are significantly correlated with their traditional (rules-based) NLP counterparts — the lexicon-driven approach that flags and scores individual phrases as positive or negative — confirming that both approaches measure the same ‘ground truth’. The added computational cost and opaqueness of the LLMs appear justified: a fine-tuned LLM-based sentiment strategy would have delivered twice the long-short return performance (LLM 8.4% versus lexicon 4.2%), with a notable advantage in recent years as mispricing opportunities have narrowed.
- [\*\*July 2025: When Headcount counts: How Investors are Pricing Scale and Story:\*\*](#) While headlines fixate on AI replacing workforces, investors are betting big on the people building and using it. Venture capital and corporate buyers are backing late-stage AI firms at steep premiums. This research introduces a new framework for decomposing deal value into three components: industry enthusiasm, workforce scale and firm-specific differentiation. By tracking how these drivers have evolved over time, the analysis reveals shifting investor priorities, growing premiums for thematic exposure and early signals of momentum embedded in deal value outliers.
- [\*\*April 2025: Tariff Tools in Action: Tracking Impact with Data:\*\*](#) Tariffs have dominated investor discourse since April 2, 2025, when US President Trump announced sweeping tariff reform. This nowcasting report leverages real-time data from S&P Global's proprietary datasets to generate 11 visualizations, providing a snapshot of evolving market risks in a volatile tariff landscape, with updates to follow as the situation progresses.
- [\*\*January 2025: Three Tools for Trump Tariffs 2.0:\*\*](#) Tariffs create uncertainty for investors, executives, and policymakers. In an unpredictable environment, leveraging data effectively offers a competitive advantage. This paper explores three tools designed to monitor and anticipate the impacts of potential tariffs enacted during President Donald Trump's second term in office.
- [\*\*January 2025: Questioning the Answers: LLMs Enter the Boardroom:\*\*](#) Earnings call Q&A sessions offer a unique lens into executive behavior. This paper analyzed 192,000 earnings calls using Large Language vector embeddings to evaluate executive proactiveness and alignment with discussion topics. The finding highlights the long-term value created by transparent and well-prepared response. A long/short strategy, based on firms with proactive/reactive and on/off topic executives, generated statistically significant alpha, with low correlation to other NLP-derived factors.
- [\*\*January 2025: Banking on Industry Data: Navigating the Ebbs and Flows of the Banking Sector:\*\*](#) Over the past two decades, the U.S. banking sector has experienced periods of both exuberance and turbulence, shaped by historic events such as the 2000s housing boom, the subsequent subprime crisis, the passage and eventual easing of Dodd-Frank, regional bank runs, and, more recently, expectations of a more favorable regulatory environment and pro-growth policies.
- [\*\*December 2024: From Compliance to Competitive Edge: How Tech CEOs Changed Their Tune on Sustainability Initiatives:\*\*](#) Technology is transforming at a breakneck speed. Artificial Intelligence (AI) is everywhere, and every firm wants a bigger slice of the market. But there is another conversation unfolding in parallel, less glamorous yet just as urgent: sustainability. Data centers gulp down energy. New tech initiatives come with a cost to the planet. An analysis of earnings calls from U.S. and European technology giants over the

last eight years reveals a shift in mindset. Sustainability is no longer a checkbox—it's a strategy, and it's shaping the future of tech.

- [\*\*October 2024: Goldilocks and the Three Market Trends Shaping Q3 2024: Earnings, AI Adoption, Price Stability Take Center Stage\*\*](#): Q2 2024 marked the light at the end of the tunnel. Inflation fears subsided, and the economy stabilized. Deflation concerns and contraction risks appeared to be under control. Sentiment across S&P 500 firms hovered at a 15-year high. As the Q3 earnings season commences, key market trends to monitor are: i) Will the overall sentiment continue to hover at a 15-year high? ii) Can firms meet the robust financial outlook from the Q2 earnings season? iii) Will AI deliver the promised economic boost, or will geopolitical unrest and exogenous shocks -- such as the ILA port strike and its temporary postponement -- take the U.S. economy on a detour from entering a Goldilocks state?
- [\*\*August 2024: Bonding with Style Investing: Value and Momentum in Corporate Bonds\*\*](#): The application of 'smart beta' strategies is expanding into corporate bonds, beyond its equity roots. This paper explores value, momentum, and short-term reversal styles in fixed income, highlighting the potential to enhance returns and diversify portfolios. The analysis shows that value and momentum strategies in iBoxx U.S. investment-grade (USIG) and high-yield (USHY) bonds generated statistically significant alpha, with low correlations to the comparable equity styles and markets premia.
- [\*\*July 2024: Calm Markets, Confident PE Executives: Private Equity Earnings Calls Reflect Renewed Optimism in Q1'24\*\*](#): Stable public markets are the secret to private equity (PE) optimism. An NLP analysis of publicly-traded PE firms' Q1'24 earnings call transcripts reveals a significant rebound in PE confidence over the last two years. After peaking in Q3'21, PE executives' sentiment declined in 2022 as inflation, geopolitics and fed-driven volatility ended a post-COVID calm. However, with rates finding footing, Global PMI at a 12-month high and volatility subsiding, PE sentiment in Q1'24 reflects renewed optimism. This quarter, PE executive sentiment surged to its second-highest level in 57 earnings seasons, underscoring the inverse relationship between market turbulence and PE industry morale.
- [\*\*April 2024: Data Arbitrage with Proprietary Dividend Forecasts - Historically Precise Updates Led to U.S. Outperformance\*\*](#): Sell-side forecasts tend to focus on the top- and bottom-line and are often slow to reflect new dividend policies. Our empirical results have shown that S&P Global Market Intelligence's Dividend Forecasting dataset has historically captured these dividend revisions in both a precise and timely manner, providing investors with an informational edge. This publication details how practitioners can leverage the dataset for equity investing in the U.S. market when the in-house FQ1 forecasts diverge from their sell-side counterparts.
- [\*\*March 2024: Executives Exuberant Amid "Rightsizing" Workforce - An NLP Analysis of the Q4'23 Earnings Season\*\*](#): AI, geopolitics, labor 'rightsizing' (and other layoff euphemisms), and a sanguine tone characterized the Q4'23 earnings season. Nvidia is riding the AI wave and pulling its connected network along with it. An NLP analysis of earnings call transcripts was used to quantify the discussion.
- [\*\*March 2024: Elusive Parity: Key Gender Parity Metric Falls for First Time in 2 Decades\*\*](#): The growth in women's representation among senior corporate positions, once a bright spot for gender parity, potentially faces an alarming turning point. Exponential growth over a decade is showing signs of losing momentum. Growth no longer appears exponential. A waning focus on diversity initiatives suggests a potential inflection point and calls our previous gender parity estimates into question.
- [\*\*February 2024: Deal Sourcing: A Data Science Approach - Impact of Financial Characteristics on Acquisition Likelihood\*\*](#): Deal sourcing is hard. Finding a target for acquisition has been likened to finding 'a needle in a haystack'. Firm financials are a valuable starting point for systematic identification of acquisition targets. This publication provides actionable insights and a detailed blueprint on how practitioners can leverage computational finance for deal sourcing. Specifically, five firm-level financial dimensions are identified that differentiate targets from their comparable non-targets based on global data from the most recent 10 years.

## CONTACTS

**Europe, Middle East, Africa:** +44 (0) 134 432 8300

**Americas:** +1 800 447 2273

**Japan:** +81 3 6262 1887

**Asia-Pacific:** +60 4 291 3600

[www.spglobal.com/marketintelligence/en](http://www.spglobal.com/marketintelligence/en)

[www.spglobal.com/en/enterprise/about/contact-us.html](http://www.spglobal.com/en/enterprise/about/contact-us.html)

Copyright © 2025 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON “AS IS” BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT’S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global Market Intelligence’s opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global keeps certain activities of its divisions separate from each other to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its websites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge) and [www.ratingsdirect.com](http://www.ratingsdirect.com) (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).