

# Executives Exuberant Amid “Rightsizing” Workforce

## An NLP Analysis of the Q4’23 Earnings Season

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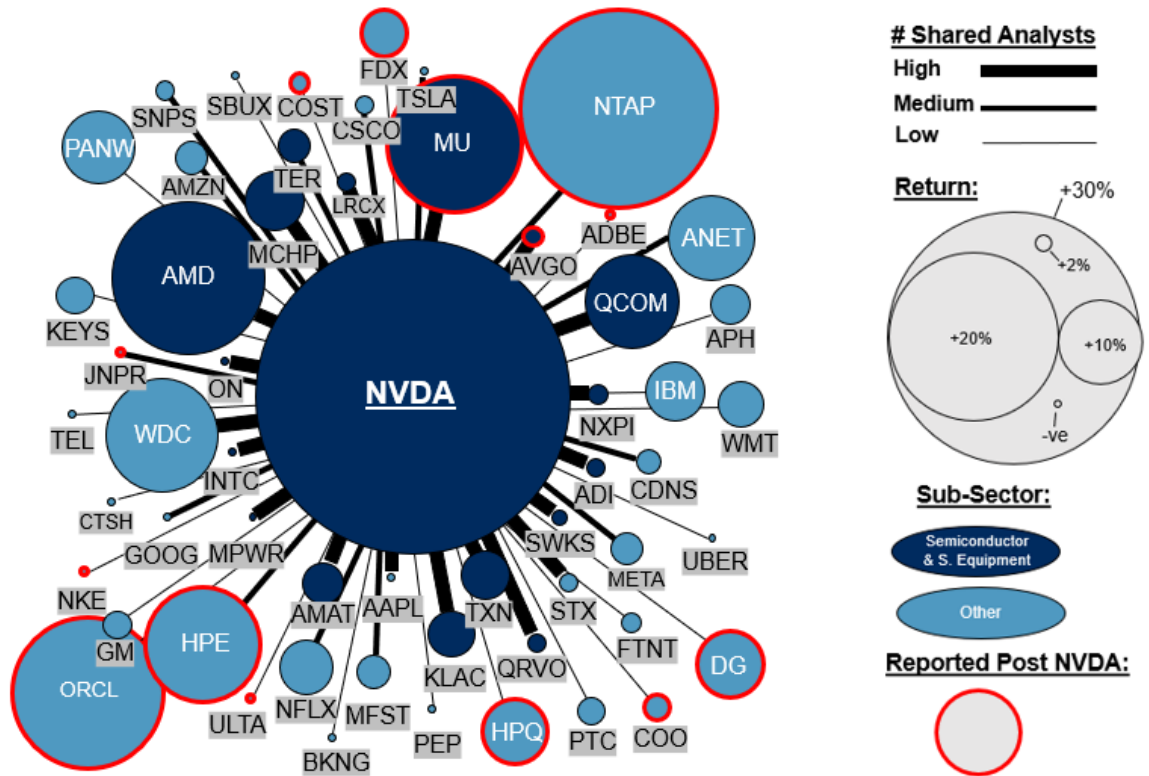
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AI, geopolitics, labor ‘rightsizing’ (and other layoff euphemisms), and a sanguine tone characterized the Q4’23 earnings season. Nvidia is riding the AI wave and pulling its connected network<sup>1</sup> along with it. An NLP analysis of earnings call transcripts was used to quantify the discussion.

Figure 1: NVIDIA's Connected Company Returns 3 weeks post Q4’2023 earnings



Source: S&P Global Market Intelligence Quantamental Research. Data as of 03/18/2024.

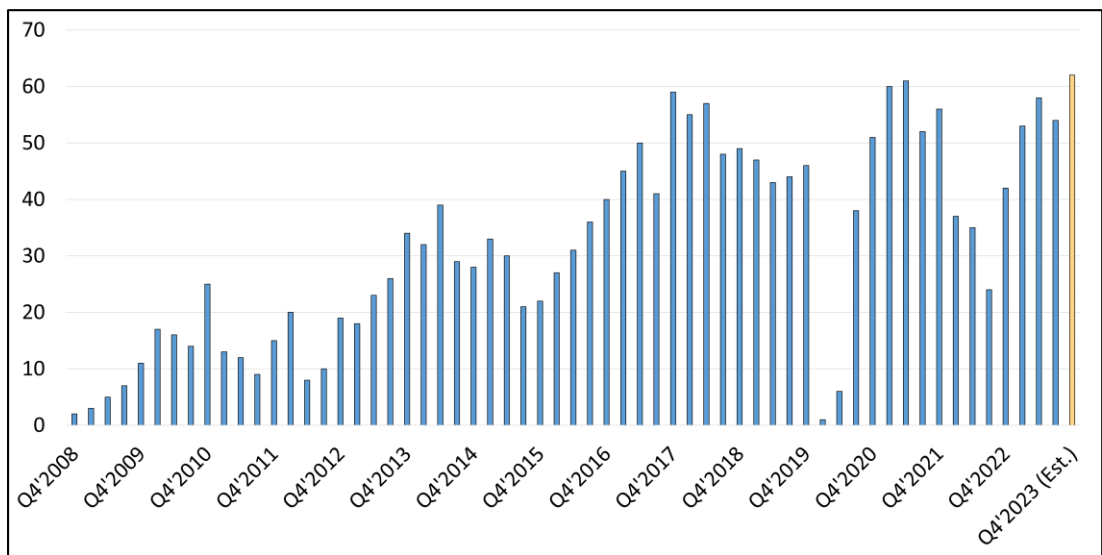
- Sentiment is on track to hit all-time highs,<sup>2</sup> beating the previous record post the Covid-19 pandemic in Q2’21. Talk of financials hit 5-year highs, while the topics of inflation and interest rates continued a multi-quarter decline. Profitability mentions may be related to cost cutting measures, as talk of layoffs (and related terms) increased by 24%.
- The geopolitical discussion has turned domestic on S&P 500 firms’ earnings calls. Mentions of the presidential election have increased 10-fold QoQ, while mentions of the Israel-Hamas conflict saw a commensurate 10-fold QoQ decrease.
- The AI hype is starting to calm. Mentions of the topic are steady for the third quarter, compared to the parabolic increase in Q2’23.

<sup>1</sup> Nvidia’s network is derived from S&P’s Company Connections Detailed Estimates dataset as of 02/21/2024.

<sup>2</sup> Over the history of the dataset, starting in 2008.

**1. Sentiment hits all-time high, as firms tout financials & hope for dovish fed**  
**Sentiment is on track to be the highest on record**, beating the previous record post the Covid-19 pandemic in Q2'21 by 0.7% and the all-time low in Q1'20 by 460%. Net sentiment increased by 10% compared to the previous quarter.

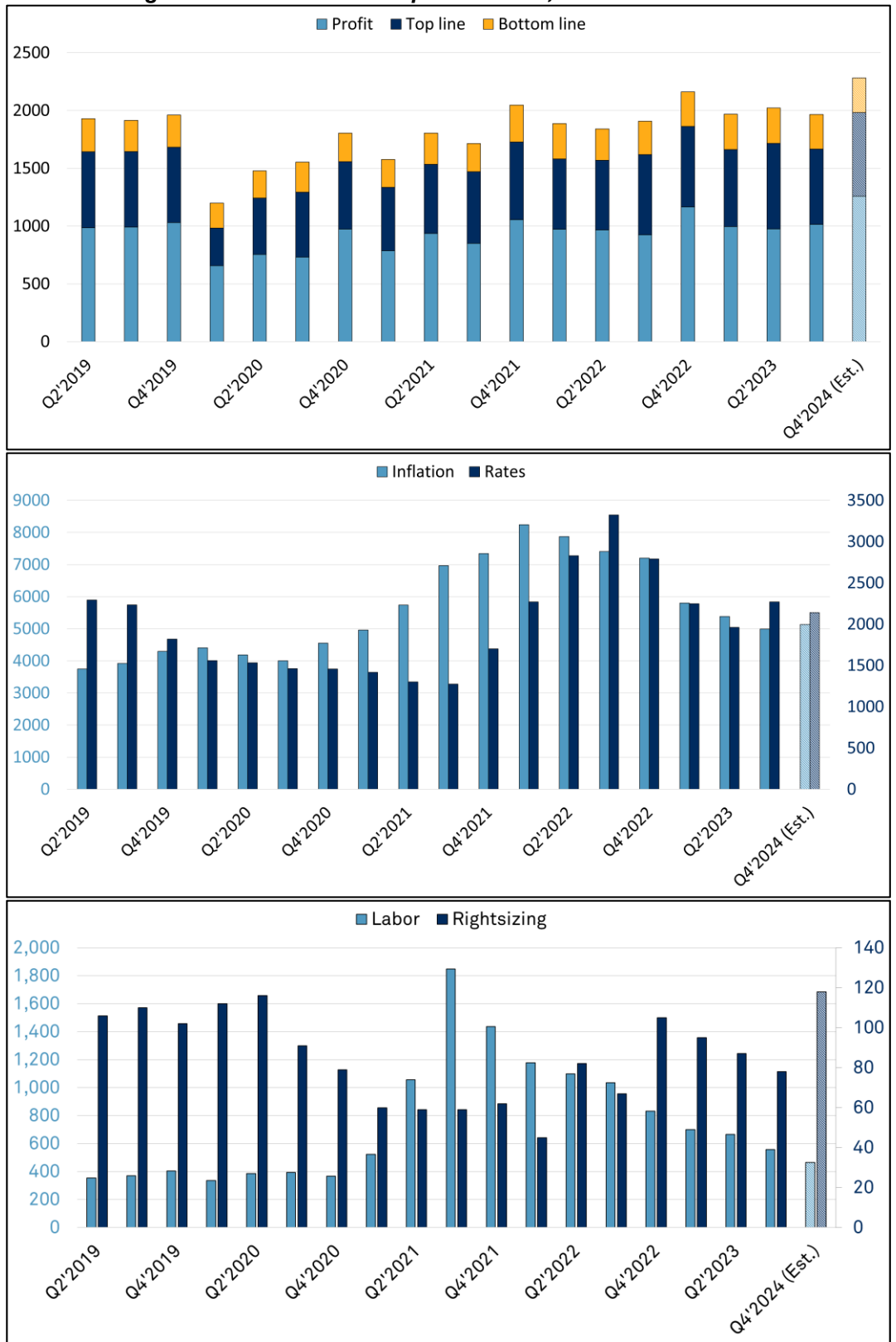
**Figure 2: Earnings Call Sentiment Rank, S&P 500 Index**



Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/08/2024.

Potentially driving the sentiment increase, was the discussion of financials. Firms spent more time discussing financials in Q4'23 than they have in the last 5 years; and less time talking about inflation and interest rates, which peaked in Q1'22 and Q3'22, respectively, and have been on a steady decline since. Both topics now hover near pre-pandemic levels. The improvement in financial outlook may come at a cost. While the topic of labor has been on steady decline since peaking in Q3'21, firms are talking 24% more about "rightsizing" the labor force in Q4'23. Mentions are projected to be approximately in-line with the recent Q4'22 high.

**Figure 3: Count of select topic mentions, S&P 500 Index firms**

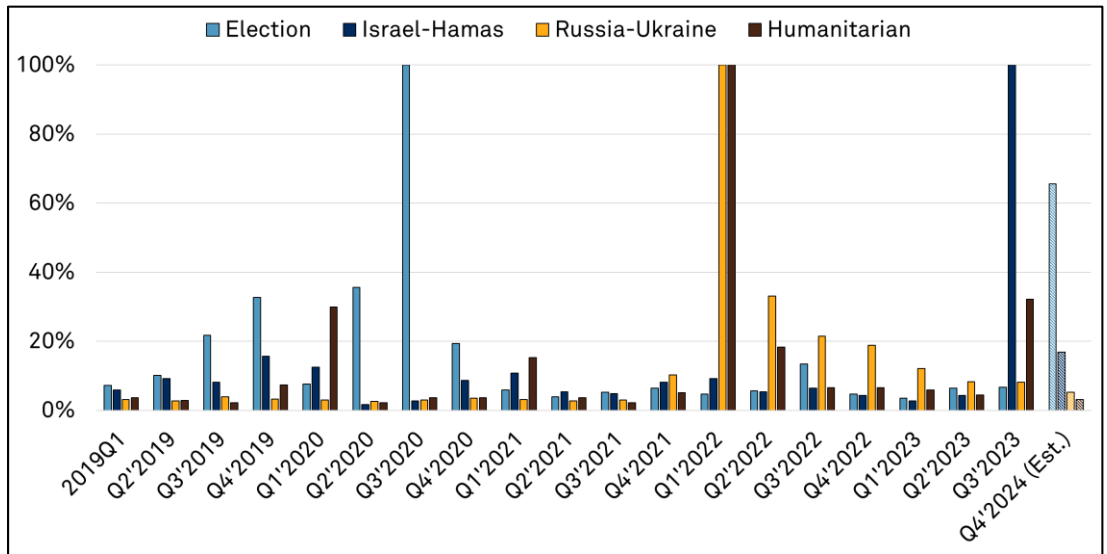


Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/08/2024.

## 2. Geopolitical discussion turns domestic, as U.S. election approaches

Firms have turned geopolitical discussion to the U.S. election with mentions of the election on track to have increased 10-fold quarter on quarter, up to 23% of the Q3'20 high compared to just 6.6% last quarter. The Israel-Hamas conflict saw a commensurate 10-fold quarter on quarter decrease from its peak last quarter. Likewise, the Russia-Ukraine war mentions saw a 23% decrease quarter on quarter. International events are giving way to increased domestic focus.

**Figure 4: Select topic mentions relative to recent highs, S&P 500 Index firms**

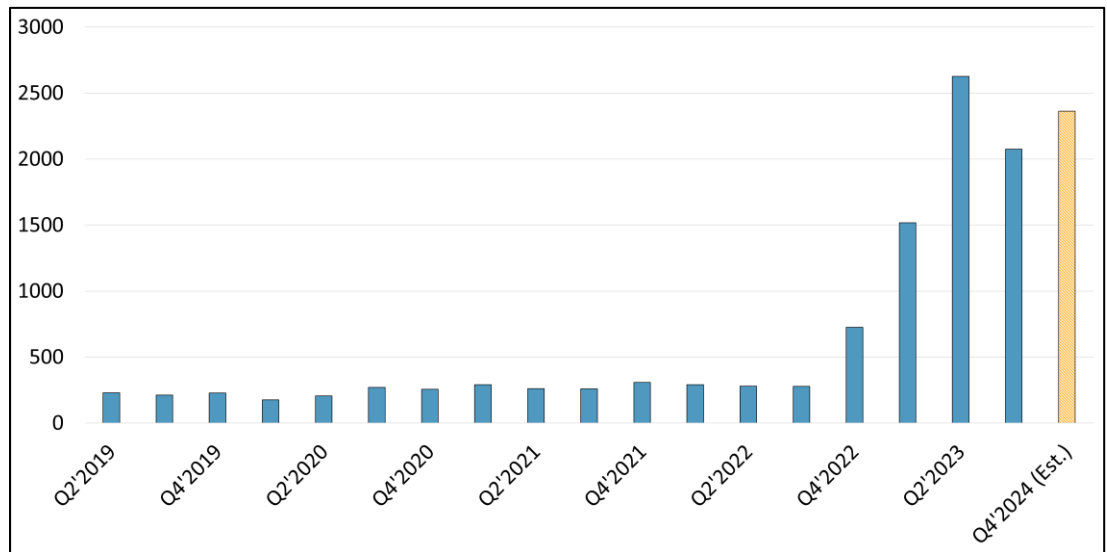


Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/08/2024.

## 3. AI finds its footing

Mentions of AI are stabilizing after a parabolic increase in Q2'23. Executives remain focused on developments in AI. Our estimate of 2,363 mentions in Q4'23 is a 14% increase compared to Q3'23, but 11% less than the peak at 2,627 in Q2'23. This indicates that we may have passed the peak of the hype (for now).

**Figure 4: Mentions of AI, S&P 500 Index firms**



Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/08/2024.

## 4. Methodology and Data

### Textual Data Analytics (TDA)

TDA was launched in October 2019 and is productized from Quantamental Research’s previous publications with an advanced suite of analytics and metrics added in May 2022. It is an off-the-shelf NLP solution that tailors to our Machine-Readable Transcripts and outputs 800+ predictive and descriptive analytics for equity investing and various data science workflows. The analytics could be accessed via SQL, Snowflake or (DataBricks) Workbench.

### Machine-Readable Transcripts

Transcripts is a global data set that was added to the S&P Global Market Intelligence’s Xpressfeed product in September 2017. Among its key features, the data set captures the different segmentations of earnings calls in the follow ways:

- Sections (e.g., prepared remarks, sell-side analyst questions, responses to questions)
- Speaker types (e.g., executives, sell-side analysts, shareholders etc.)
- Professionals (e.g., Tim Cook) where the individual professional identifiers serve as a unique key that connects the transcripts data set with the S&P Global Market Intelligence’s Professionals and Sell-side Estimates data sets.

### Current Quarter Projections

The following steps were applied to prepare the raw transcripts for analysis: i) removed all numbers and punctuations; ii) converted all words to lowercase; iii) removed stop words; iv) spelled out contractions.

The Q4’23 values were forecast by multiplying the Q3’23 values by the percentage change among the firms that have already held their earnings call for Q3’23. Specifically,

$$Q4'23\_Estimate_{Index} = Q3'23\_Actual_{Index} \cdot \left( \frac{Q4'23\_Actual}{Q3'23\_Actual} \right)_{Those\_That\_Announced} \quad \text{Eq.1}$$

the analysis was conducted on March 7<sup>th</sup>, 2024, at which time 473 firms in the S&P 500 had held an earnings call that was transcribed into the transcripts database.

See Section 3.1 in Zhao<sup>3</sup> (2018) for details on the sentiment 'Net Positivity' score. Select n-grams include {'rightsizing', 'streamlining operations', 'downsizing', 'voluntary separation', 'headcount reduction', 'workforce optimization', 'staff reductions', and 'outsourcing'} for 'rightsizing'; {'top line', 'bottom line', and 'profit'} for 'financials'; {'election', 'democrat', and 'republican'} for 'U.S. election'; {'Palestinian', 'Gaza', ' Hamas', 'Israel' and 'Israeli'} for the Israel-Hamas conflict; {'Russia' and 'Ukraine'} for the topic of the Russia-Ukraine conflict; {'AI', 'ChatGPT', 'Large Language Models' and 'LLM'} for 'AI mentions'.

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<sup>3</sup> Zhao, F. "Natural Language Processing – Part II: Stock Selection" (September 2018). <https://www.spglobal.com/marketintelligence/en/news-insights/research/natural-languageprocessing-part-ii-stock-selection>

## Our Recent Research

### **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.

### **February 2024: The Ripple Effect – Finding Company Estimates from Detailed Estimates**

Intel's (NASDAQ:INTC) share price jumped 9.3% on Friday, Oct 27th 2023, after the company reported strong earnings. Cadence Design Systems (NASDAQ:CDNS), which announced earlier in the week, was flat. Over the next 2 weeks (Oct 30 – Nov 14), CDNS would outperform INTC by 544 bps, as investors connected the dots between the two. INTC and CDNS do not share a GICS industry, however the two firms share something potentially more meaningful: sell-side analysts.

### **November 2023: Reading Between the Lines in Earnings Calls: 6 Things to Watch as the Q3'23 Earnings Season Unfolds**

#### **Watch for Q3'23 sentiment near 5-year highs, despite a quarter-on-quarter decline.**

Sentiment for Q3'23 is estimated to decline by 5% compared to last quarter; but remains on track to be the 7<sup>th</sup> most positive of the last 60 quarters. What a difference three quarters can make! As ranked by the sentiment of language on earnings calls, Q3'22 was one of the worst quarters of the last 5 years. Just 3 quarters later, Q2'23 sentiment improved 24% to make the season the 4<sup>th</sup> most positive over the period. Major drivers of positivity including abating supply chain disruption, declining inflation, and hope for a more dovish U.S. Federal Reserve roadmap.

### **August 2023: Breaking Boundaries: Women Poised for Milestone Achievement in Parity Amidst Otherwise Bleak Outlook**

Diversity in leadership has received increasing attention. However, most data show slow, incremental improvements at best. Yet in an otherwise bleak landscape, a bright spot has emerged: an analysis of 86,000 executives from 7,300 U.S. firms over 12 years found that

women could reach parity in senior leadership positions between 2030 and 2037, among companies in the Russell 3000.

**June 2023: Mixed Financials Diverge from Bullish Sentiment: A Textual Review of the Q1'23 U.S. Earnings Call Season**

A bullish sentiment during the Q1'23 season has taken hold. The excitement surrounding the '*iPhone Moment*' of AI, the resiliency in the labor market, the receding likelihood of a banking crisis and the end of the current rate hike cycle have all uplifted the prospects of the U.S. economy. However, the exuded level of sentiment may not be supported by the financials. The breadth of firms citing growth deteriorated on a quarterly and yearly basis. Forecasts for the next season have come down materially from their bullish Q1'23 levels. Ominous clouds are on the horizon as banks' commercial loan portfolios come under scrutiny. Vacancy rates for office buildings have hit all-time highs. For the first time in the past five seasons, banks are prominently discussing their exposures to the commercial real estate market.

**April 2023: Sentiment Rebounds While Regional Banks Tip Their Hand: A Textual Review of the Q4'22 U.S. Earnings Call Season**

The sentiment from S&P 500 firms' latest earnings calls rebounded for the first time in 2022. Earnings continued its recovery after hitting a trough two quarters ago. The headwind surrounding the strong dollar started to recede. Defensive sectors led the way while the cyclicals continued their struggle. The recent implosions of SVB Financial Group and Signature Bank have intensified this divergence. Other regional banks appear susceptible as the sentiment from their latest calls has turned negative, a rare historical occurrence that preceded the demise of the two, now FDIC seized, banks.

**March 2023: Singing the (Banking) Blues: Navigating the Current Volatility in the Banking Industry**

The collapse of Silicon Valley Bank (SIVB) led to a reassessment of liquidity and contagion risks across the banking industry. Regional banks have borne the brunt of the subsequent market sell-off. Month-to-date, regional bank stocks are down by 28%, versus 0% for the S&P 500. This report introduces a screen to help both equity and fixed income investors navigate the current volatility in the banking industry. The screen identifies regional banks with unfavorable exposures to liquidity, investor sentiment and management sentiment indicators.

**February 2023: Watch Your Language: Executives' Remarks on Earnings Calls Impact CDS Spreads**

While company earnings calls are targeted at equity analysts, information relevant to credit investors are discussed on these calls. This report documents that executive remarks have an impact on credit default swap spreads. The percentage change in CDS spreads of companies with the worst executive sentiment reading is larger than that of companies with the best sentiment reading post earnings call. Credit investors should consider using executive sentiment as an additional tool to gauge the direction of future CDS spread movements.



**January 2023: Machines Signal Q4'22 Guidance Not Falling Off a Cliff: An In-Depth Textual Review of Q3'22 Earnings Call Transcripts**

In Q3'22, the sentiment of S&P 500 firms has deteriorated to a level not seen since the IMF Greek Debt Default. Firms' focus has shifted away from pandemic-related concerns to interest rate-related ones. Financial growth is uneven. The breadth of firms citing profitability growth remains a bright spot yet the number of firms citing bottom-line growth has been mired in an "earnings recession" throughout 2022. Guidance for Q4'22 is far from falling off a cliff. This series demonstrates the richness and the intuitiveness of insights that could be surfaced algorithmically from textual data.

**October 2022: Hanging on Every Negative Word: Natural Language Processing Analysis of Credit Rating Action Reports**

Credit ratings are opinions about credit risk. When a credit rating changes, the analyst explains why, in a report. The 'why' is important. For an equity investor, a downgrade due to a rapid decline in a company's sales has a negative implication, whereas a downgrade due to an increase in leverage arising from a share buyback program may be viewed as positive. This study finds that the relative size of the price impact following a downgrade is dependent on the magnitude of the tone and the topics of focus in the report (Figure 1). Downgrades with strong negative sentiment underperform downgrades with positive sentiment by 2.7% over the following month.

**March 2022: The Sounds of Silence: No Response Speaks Volumes**

No simple remedy for gender discrimination exists. But the first step in solving any problem is collecting the data to understand it. This research shows firms that share their data on diversity, equity, and inclusion (DEI) have taken further steps to address gender equity concerns. The S&P Global Corporate Sustainability Assessment (CSA) is a premier benchmarking survey and litmus test for inclusion in the S&P Dow Jones Sustainability Index. Firms that participated in the CSA survey in 2021 had better DEI outcomes.

**October 2021: Glass Floors and Ceilings: Why Closing the Median Wage Gap Isn't Fair**

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