Authors

Anna Ballantyne S&P Global Market Intelligence Platform & Channels anna.ballantyne@spglobal.com

Jamie Gallagher S&P Global Market Intelligence Platform & Channels jamie.gallagher@spglobal.com

Temi Oyeniyi, CFA S&P Global Market Intelligence Quantamental Research 312-233-7151 toyeniyi@spglobal.com

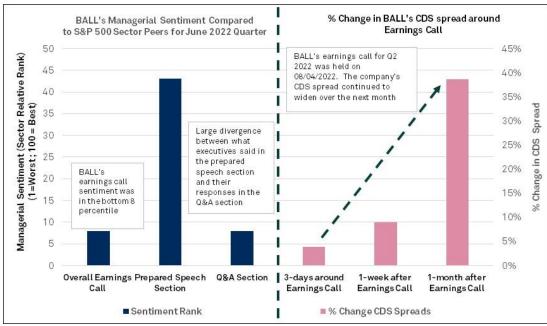
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Watch Your Language: Executives' Remarks on Earnings Calls Impact CDS Spreads

The effect of earnings call sentiment on equity prices is well documented.¹ However, issues that impact the credit risk of companies are discussed on earnings calls as well. For example, on Ball Corporation's (NYSE: BALL) Q2 earnings call held on August 4, 2022, the company's CFO said, "*the earnings impact of volume deceleration and a higher use of working capital have led to lower-than-anticipated operating cash flow*". Credit facilities are repaid from cash flows and debt covenants typically include leverage provisions tied to earnings (e.g., debt / EBITDA) to protect the lender's interests. BALL's Q&A section sentiment score was in the bottom decile of earnings calls for all the companies in the S&P 500 materials sector (Figure 1, left chart).² In the month following the call, BALL's 5-year credit default swap (CDS) spread widened by 86 basis points to 299 basis points (Figure 1, right chart).

The findings in this report indicate there is a relationship between the level of earnings call sentiment and changes in CDS spreads. The mean percentage CDS spread change for companies with the worst sentiment is three times larger than that of companies with the best sentiment, 1-month post earnings call (3.11% vs 1.11%), Figure 2.

Figure 1: BALL's Managerial Sentiment and CDS Spread Percentage Change for June Q2 2022 Fiscal Quarter



Source: S&P Global Market Intelligence Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as at 01/06/2023

¹ See Zhao, F. "<u>Natural Language Processing - Part II Stock Selection</u>". S&P Global Market Intelligence Quantamental Research, September 2018.

² Sentiment was calculated as the number of positive words minus number of negative words scaled by the total number of words in the earnings call. Positive and negative words were determined using the Loughran-McDonald dictionary. Average number of securities in each decile was 26.

Overall, the mean percentage change in CDS spread is smaller for companies with the best sentiment readings across all three measurement windows.

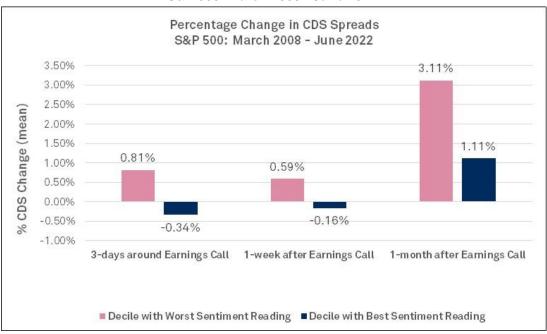


Figure 2: Percentage Change in CDS Spreads S&P 500: March 2008 - June 2022³

Source: S&P Global Market Intelligence Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as at 01/06/2023

1. Conclusion

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.

2. Data

The data sets used in this research include the following:

S&P Global Market Intelligence CDS Pricing Data

The CDS Pricing dataset provides independent pricing and liquidity metrics on CDS single names, indices, tranches, options and sector curves. It is the most extensive source of credit default swap data available on the market. This includes live, same-day and end-of-day price

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³ The results are still in the same direction across all three measurement windows when the most illiquid CDS contracts are excluded from the analysis.

updates, driven by over 4M+ data points from all market makers in the form of official books of record, live quotes and clearing submissions. Historical data starts in 2001.

S&P Global Market Intelligence Textual Data Analytics (TDA)

TDA is a suite of 800+ predictive and descriptive signals derived from earnings call transcripts. It includes sentiment scores on over 11,000+ active securities. Sentiment scores is provided for individual sections and speaker types in earnings calls.

Our Recent Research

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

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: <u>Hanging on Every Negative Word: Natural Language Processing</u> <u>Analysis of Credit Rating Action Reports</u>

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

The gender wage gap describes the disparity in compensation between women and men doing the same work. Progress on this issue is commonly measured by comparing the median compensation for women to men. This research demonstrates that firms are catering to the focus on median compensation and are paying women in a tighter range around the median, compared to men in equivalent positions. Effectively, women have been given a glass floor as redress for the still-present glass ceiling. This 'Gender-Based Compensation Management' not only undermines the goal of equitable pay; but because the high end of the compensation range can be much farther from the median than the low end, this paradigm is a net disadvantage for women.

September 2021: The Board Matrix: The (ESG) Value of Well-Connected Directors

Corporate boards are responsible for shaping and overseeing environmental, social and governance (ESG) policies for their organizations. This report examines the relationship between companies connected through shared board members and ESG performance. It finds that companies with strong board networks (companies with directors who serve on more than one corporate board or are well-connected) have better certain ESG outcomes than firms with weak board networks. Well-connected directors can utilize their network for information on emerging ESG trends/best practices and share this knowledge with their companies. Given their roles on multiple boards, well-connected directors are also better informed about the needs of different stakeholders (governments, communities, ESG activists) than directors with little or no network. This awareness of stakeholder management translates to better ESG performance for companies with well-connected directors.

August 2021: Technology Momentum: Peer Networks from Patents

Companies with similar patent portfolios exhibit peer group momentum. A strategy that buys (sells) stocks of focal companies in the Russell 3000 with outperforming (underperforming) technology peers produces an annualized risk-adjusted return of 5.23% in a historical backtest. The strategy returns are more pronounced for smaller companies. In the Russell 2000, the strategy demonstrates more efficacy with annualized long-short return of 7.32%. The strategy is distinct from sector momentum strategies. After controlling for sector momentum, 3.60% excess return in the Russell 3000 can be attributed to technology peer group momentum.

July 2021: Branching Out: Graph Theory Fundamentals

May 2021: U.S Filings: No News is Good News

March 2021: Hiding in Plain Sight - Risks That Are Overlooked

January 2021: Leadership Change That Matters: A Value and Momentum Story

December 2020: Warranted Optimism: Sentiment vs. Supply Chain

December 2020: A Dark Winter for REITS: Trouble Brewing

October 2020: <u>Sweet Spots in the C-Suite: Executive Best Practices for Shareholder</u> <u>Friendly Firms</u>

October 2020: <u>Just the (Build)Fax: Property Intelligence from Building Permit Data</u> August 2020: <u>The Analyst Matrix: Profiting from Sell-Side Analysts' Coverage Networks</u> June 2020: <u>The Information Supply Chain Begins Recovering From COVID</u> May 2020: <u>Never Waste a Crisis: Following the Smart Money Through Beneficial</u>

Ownership Filings

May 2020: Risky Business: Foot Traffic, Vacancy Rates and Credit Risks

May 2020: Finding the Healthy Stocks in Health Care During Lockdown

May 2020: No More Walks in the (Office) Park: Tying Foot Traffic Data to REITs

May 2020: <u>Do Markets Yearn for the Dog Days of Summer: COVID, Climate and</u> <u>Consternation</u>

April 2020: Cold Turkey - Navigating Guidance Withdrawal Using Supply Chain Data

April 2020: Data North Star - Navigating Through Information Darkness

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March 2020: Long Road to Recovery: Coronavirus Lessons from Supply Chain and Financial Data

February 2020: <u>Ship to Shore: Mapping the Global Supply Chain with Panjiva Shipping</u> Data in Xpressfeed[™]

January 2020: <u>Natural Language Processing – Part III: Feature Engineering Applying</u> <u>NLP Using Domain Knowledge to Capture Alpha from Transcripts</u>

December 2019: <u>The "Trucost" of Climate Investing: Managing Climate Risks in Equity</u> Portfolios

October 2019: <u>#ChangePays: There Were More Male CEOs Named John than Female</u> <u>CEOs</u>

June 2019: <u>Looking Beyond Dividend Yield: Finding Value in Cash Distribution</u> <u>Strategies</u>

June 2019: The Dating Game: Decrypting the Signals in Earnings Report Dates

May 2019: <u>Bridges for Sale: Finding Value in Sell-Side Estimates, Recommendations,</u> <u>and Target Prices</u>

February 2019: U.S Stock Selection Model Performance Review

February 2019: International Small Cap Investing: Unlocking Alpha Opportunities in an Underutilized Asset Class

January 2019: Value and Momentum: Everywhere, But Not All the Time

November 2018: Forging Stronger Links: Using Supply Chain Data in the Investing Process

September 2018: <u>Their Sentiment Exactly: Sentiment Signal Diversity Creates Alpha</u> <u>Opportunity</u>

September 2018: <u>Natural Language Processing – Part II: Stock Selection: Alpha</u> <u>Unscripted: The Message within the Message in Earnings Calls</u>

July 2018: A Case of 'Wag the Dog'? - ETFs and Stock-Level Liquidity

June 2018: The (Gross Profitability) Trend is Your Friend

May 2018: Buying the Dip: Did Your Portfolio Holding Go on Sale?

March 2018: In the Money: What Really Motivates Executive Performance?

February 2018: The Art of the (no) Deal: Identifying the Drivers of Canceled M&A Deals

January 2018: U.S Stock Selection Model Performance Review

September 2017: Natural Language Processing - Part I: Primer

July 2017: Natural Language Processing Literature Survey

June 2017: <u>Research Brief: Four Important Things to Know About Banks in a Rising</u> <u>Rate Environment</u>

April 2017: Banking on Alpha: Uncovering Investing Signals Using SNL Bank Data

March 2017: Capital Market Implications of Spinoffs

January 2017: U.S. Stock Selection Model Performance Review 2016

November 2016: Electrify Stock Returns in U.S. Utilities

October 2016: <u>A League of their Own: Batting for Returns in the REIT Industry - Part 2</u>

September 2016: <u>A League of their Own: Batting for Returns in the REIT Industry - Part 1</u>

August 2016: <u>Mergers & Acquisitions: The Good, the Bad and the Ugly (and how to tell</u> them apart)

July 2016: Preparing for a Slide in Oil Prices -- History May Be Your Guide

June 2016: Social Media and Stock Returns: Is There Value in Cyberspace?

April 2016: <u>An IQ Test for the "Smart Money" – Is the Reputation of Institutional</u> <u>Investors Warranted?</u>

March 2016: <u>Stock-Level Liquidity – Alpha or Risk? - Stocks with Rising Liquidity</u> Outperform Globally

February 2016: U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2015

January 2016: <u>What Does Earnings Guidance Tell Us? – Listen When Management</u> <u>Announces Good News</u>

November 2015: Late to File - The Costs of Delayed 10-Q and 10-K Company Filings

October 2015: Global Country Allocation Strategies

September 2015: Research Brief: Building Smart Beta Portfolios

September 2015: <u>Research Brief – Airline Industry Factors</u>

August 2015: Point-In-Time vs. Lagged Fundamentals – This time i(t')s different?

August 2015: Introducing S&P Capital IQ Stock Selection Model for the Japanese Market

July 2015: Research Brief – Liquidity Fragility

May 2015: Investing in a World with Increasing Investor Activism

April 2015: <u>Drilling for Alpha in the Oil and Gas Industry – Insights from Industry</u> <u>Specific Data & Company Financials</u>

February 2015: U.S. Stock Selection Model Performance Review - The most effective investment strategies in 2014

January 2015: <u>Research Brief: Global Pension Plans - Are Fully Funded Plans a Relic</u> of the Past?

January 2015: <u>Profitability: Growth-Like Strategy, Value-Like Returns - Profiting from</u> <u>Companies with Large Economic Moats</u>

October 2014: <u>Lenders Lead, Owners Follow - The Relationship between Credit</u> <u>Indicators and Equity Returns</u>

July 2014: Factor Insight: Reducing the Downside of a Trend Following Strategy

May 2014: Introducing S&P Capital IQ's Fundamental China A-Share Equity Risk Model

April 2014: <u>Riding the Coattails of Activist Investors Yields Short and Long Term</u> <u>Outperformance</u>

March 2014: Insights from Academic Literature: Corporate Character, Trading Insights, <u>& New Data Sources</u>

February 2014: Obtaining an Edge in Emerging Markets

February 2014: U.S Stock Selection Model Performance Review

January 2014: <u>Buying Outperformance: Do share repurchase announcements lead to</u> <u>higher returns?</u>

October 2013: Informative Insider Trading - The Hidden Profits in Corporate Insider Filings

September 2013: <u>Beggar Thy Neighbor – Research Brief: Exploring Pension Plans</u>

August 2013: Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets: The Foundations of Outperformance

July 2013: Inspirational Papers on Innovative Topics: Asset Allocation, Insider Trading & Event Studies

June 2013: <u>Supply Chain Interactions Part 2: Companies – Connected Company</u> <u>Returns Examined as Event Signals</u>

June 2013: Behind the Asset Growth Anomaly – Over-promising but Under-delivering

April 2013: <u>Complicated Firms Made Easy - Using Industry Pure-Plays to Forecast</u> <u>Conglomerate Returns</u>.

March 2013: <u>Risk Models That Work When You Need Them - Short Term Risk Model</u> <u>Enhancements</u>

March 2013: Follow the Smart Money - Riding the Coattails of Activist Investors

February 2013: <u>Stock Selection Model Performance Review: Assessing the Drivers of</u> <u>Performance in 2012</u>

January 2013: <u>Research Brief: Exploiting the January Effect Examining Variations in</u> <u>Trend Following Strategies</u>

December 2012: <u>Do CEO and CFO Departures Matter? - The Signal Content of CEO and</u> <u>CFO Turnover</u>

November 2012: 11 Industries, 70 Alpha Signals -The Value of Industry-Specific Metrics

October 2012: Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models

September 2012: <u>Factor Insight: Earnings Announcement Return – Is A Return Based</u> <u>Surprise Superior to an Earnings Based Surprise?</u>

August 2012: <u>Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag</u> <u>Industry Relationships</u>

July 2012: <u>Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk</u> <u>Models</u>

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June 2012: Riding Industry Momentum – Enhancing the Residual Reversal Factor

May 2012: <u>The Oil & Gas Industry - Drilling for Alpha Using Global Point-in-Time</u> <u>Industry Data</u>

May 2012: <u>Case Study: S&P Capital IQ – The Platform for Investment Decisions</u>

March 2012: Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data

January 2012: <u>S&P Capital IQ Stock Selection Model Review – Understanding the</u> <u>Drivers of Performance in 2011</u>

January 2012: Intelligent Estimates – A Superior Model of Earnings Surprise

December 2011: Factor Insight – Residual Reversal

November 2011: Research Brief: Return Correlation and Dispersion – All or Nothing

October 2011: <u>The Banking Industry</u>

September 2011: Methods in Dynamic Weighting

September 2011: <u>Research Brief: Return Correlation and Dispersion</u>

July 2011: <u>Research Brief - A Topical Digest of Investment Strategy Insights</u>

June 2011: <u>A Retail Industry Strategy: Does Industry Specific Data tell a different story?</u>

May 2011: Introducing S&P Capital IQ's Global Fundamental Equity Risk Models

May 2011: Topical Papers That Caught Our Interest

April 2011: Can Dividend Policy Changes Yield Alpha?

April 2011: CQA Spring 2011 Conference Notes

March 2011: How Much Alpha is in Preliminary Data?

February 2011: Industry Insights – Biotechnology: FDA Approval Catalyst Strategy

January 2011: US Stock Selection Models Introduction

January 2011: Variations on Minimum Variance

January 2011: Interesting and Influential Papers We Read in 2010

November 2010: Is your Bank Under Stress? Introducing our Dynamic Bank Model

October 2010: Getting the Most from Point-in-Time Data

October 2010: Another Brick in the Wall: The Historic Failure of Price Momentum

July 2010: Introducing S&P Capital IQ's Fundamental US Equity Risk Model

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