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

Authors
Temi Oyeniyi, CFA
toyeniyi@spglobal.com

Samrudhi Kaulapure
Samrudhi.kaulapure@spglobal.com

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 500.¹ 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 three fundamental and sentiment indicators:

- Liquidity: The ratio of the fair value of held-to-maturity (HTM) securities to the carrying value of the HTM portfolio. This metric is an indication of losses a bank may incur if forced to liquidate its HTM portfolio to cover customer deposit withdrawals.
- Management Sentiment: Earnings calls not only provide context for current financial results, but also contain forward-looking information. For example, SIVB's executives discussed the future direction of deposit outflows and the bank's strategy for its available-for-sale and HTM portfolio during its Q4 2022 earnings call.
- Investor Sentiment: The securities lending market provides an opportunity for investors to express how pessimistic they are about the future prospect of a company.

Investor Sentiment White Tickers: Banks with forecasted dividend cuts or suspensions CAC Red Tickers: Banks with the worst **VLY** CBU readings on all three indicators **HOMB AMAL AMTB FRBA SFBS** RF **FNB** SBSI **PEBO CASH HBAN** WALUCBI PΒ HWC **EWBC CFR** COLB **PACW FCNCA IBTX** EBC PNC **DCOM LBAI FULT** TRMK PFBC **BOH MOFG** TFC **BMRC** KEY **HBNC FRME VBTX** SASR WTFC HMST **NBHC GNTY GBCI FFIC** ONB **SBCF PNFP** Management **HFWA BANC PPBI GSBC** Sentiment Liquidity **FIBK ABCB BOKF FCF** (\$) **AUB**

Figure 1: Stock Tickers of U.S. Regional Banks with the Worst Readings across Liquidity, Management Sentiment and Investor Sentiment Indicators

Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/16/2023. Liquidity data based on 2022 Q4 financials.

¹ The bank index used for this analysis is the Dow Jones U.S. Select Regional Banks Index. Data as at 3/21/2023

Figure 1 shows banks with unfavorable exposures to at least one of the three indicators. First Republic Bank (FRC), which received \$30 billion in deposits from 11 banks as part of a rescue package, scored poorly on both the liquidity and investor sentiment metrics.

Investors should also consider whether regional banks can maintain current shareholder payouts (dividends and share buybacks) during this market environment. Banks may have to pause or cut these payouts to conserve cash. Figure 1 (white tickers) and Table 1 show six banks with unfavorable exposures to at least two indicators and have had their forecasted dividend payouts suspended or revised downwards.²

Table 1: U.S. Regional Banks with Unfavorable Exposures to Two or More Indicators and Forecasted Dividend Payouts Paused or Revised Downwards

Bank Name	Ticker	Forcasted Dividend Action	Stock Return (02/28/2023 - 03/21/2023)
Pacwest Bancorp	PACW	Pause	-56%
Western Alliance Bancorp	WAL	Pause	-55%
Zions Bancorporation	ZION	Pause	-36%
Banner Corp	BANR	Revised Downwards	-11%
Columbia Banking System Inc	COLB	Revised Downwards	-24%
Huntington Bancshares	HBAN	Revised Downwards	-27%

Source: S&P Global Market Intelligence Quantamental Research. Data as at 03/21/2023.

1. Screen Construction

The screen was constructed using the following process:

- i) Liquidity: This ratio was calculated as the fair value of held-to-maturity securities divided by the carrying value of the held-to-maturity portfolio. This ratio is ranked in descending order (larger values are preferred).
- **ii) Management Sentiment:** Calculated as the number of positive words minus number of negative words scaled by the total number of words in the earnings call.³ The ratio is ranked in descending order.
- **iii) Investor Sentiment:** The ratio of shares lent out to the number of shares available to be borrowed. This ratio is ranked in ascending order.
- **iv)** Construct the screen using regional bank stocks in the worst tertile (rank equal to 3) of each indicator.

-

² Dividend suspension/cuts data was provided by the Dividend Forecasting team at S&P Global Market Intelligence. There are 27 banks in Figure 1 with forecasted dividend suspensions or cuts. Readers interested in the full list should contact their sales representative.

³ See Zhao, F. "Natural Language Processing - Part II Stock Selection". S&P Global Market Intelligence Quantamental Research, September 2018 for additional insights on using earnings call data for stock selection.

2. Data

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.

S&P Global Market Intelligence Securities Finance Data

S&P Global Market Intelligence Securities Finance dataset provides market leading analytics on short seller demand, supply and borrow costs. It delivers comprehensive daily and intraday data on global equity and fixed income securities lending flows to support investment decisions, asset allocation and risk management. With more than \$36 trillion of global securities in the lending programs, sourced from 20,000 underlying institutional funds, the Securities Finance dataset provides holistic transparency into short interest dynamics and institutional fund positioning. The daily dataset is sourced directly from industry participants with history from 2006.

S&P Global Market Intelligence SNL Data

The SNL bank database covers over 50,000 public and private companies (30,000 active), spanning all markets globally: the Americas, Asia Pacific, Europe, the Middle East, and Africa. The database includes 100-600+ data items (excluding ratios), depending on the bank's size and market. All items are hand-entered into a banking-specific template. Turnaround time averages 24 hours, and all data is updated within five days of publication. U.S. data generally begins in 1988, with international data beginning in 2005. Data types covered include:

- Balance sheet (gross and net loans, reserves, AFS, HTM and trading securities, derivative assets and liabilities, deposits, off-balance-sheet commitments etc.)
- Income statement, including comparable pre-impairment operating profit, impairment detail and yield/cost information
- Detailed credit quality metrics, including problem loans, impairments, and provisions
- Regulatory capital details, including core Tier 1, total capital, and risk-weighted assets, plus the associated capital ratios
- Consolidated as well as unconsolidated data available when relevant and applicable
- Standard ratios

S&P Global Market Intelligence Dividend Forecasting Data

S&P Global Market Intelligence Dividend Forecasting dataset contains independent dividend amount and date estimates for 28,000+ global companies, ADRs and ETFs up to five years in the future. A global team of 40 dividend analysts deliver precise forecasts of the size and timing of payments based on bottom-up fundamental research, advanced analytics and the latest company news. Derivatives traders, portfolio managers and quantitative analysts use these forecasts to make pricing and investment decisions, calculate portfolio dividend income and better understand dividend risk.

Appendix A: Tickers Linked to Bank Names

Bank Name	Ticker	Bank Name	Ticker
Ameris Bancorp	ABCB	Homestreet Inc	HMST
Amalgamated Financial Corp	AMAL	Home Bancshares Inc	HOMB
Merant Bancorp Inc	AMTB	Hilltop Holdings Inc	HTH
Associated Banc Corp	ASB	Hancock Whitney Corp	HWC
Atlantic Union Bankshrs Crp	AUB	Independent Bk Grp Inc	IBTX
Banc of California Inc	BANC	Keycorp	KEY
Banner Corp	BANR	Lakeland Bancorp Inc	LBAI
Bank of Marin Bancorp	BMRC	Metropolitan Bank Hldng	MCB
Bank of Hawaii Corp	ВОН	Midwestone Financial Group	MOFG
Bok Financial Corp	BOKF	National Bank Hldgs Corp	NBHC
Byline Bancorp Inc	BY	Old National Bancorp	ONB
Camden National Corp	CAC	Pacwest Bancorp	PACW
Pathward Financial Inc	CASH	Prosperity Bancshares Inc	PB
Cambridge Bancorp	CATC	Peoples Bancorp Inc/OH	PEBO
Community Bank System Inc	CBU	Preferred Bank Los Angeles	PFBC
Cullen/Frost Bankers Inc	CFR	PNC Financial Svcs Group Inc	PNC
Columbia Banking System Inc	COLB	Pinnacle Finl Partners Inc	PNFP
Capstar Financial Hldgs Inc	CSTR	Pacific Premier Bancorp Inc	PPBI
CVB Financial Corp	CVBF	RBB Bancorp	RBB
Dime Community Bancshares	DCOM	Regions Financial Corp	RF
Eastern Bankshares Inc	EBC	Sandy Spring Bancorp Inc	SASR
East West Bancorp Inc	EWBC	Seacoast Banking Corp/FL	SBCF
First Commonwlth Finl CP/PA	FCF	Signature Bank/NY	SBNY
First Citizens Bancsh -CL A	FCNCA	Southside Bancshares Inc SB	
Flushing Financial Corp	FFIC	Servisfirst Bancshares Inc SF	
First Hawaiian Inc	FHB	Simmons First Natl Cp -CL A	SFNC
First Interstate Bancsystem	FIBK	Silvergate Capital Corp	SI
F N B Corp/FL	FNB	SVB Financial Group	SIVB
First Bank	FRBA	Truist Financial Corp	TFC
First Republic Bank	FRC	Triumph Bancorp Inc	TFIN
First Merchants Corp	FRME	Trustmark Corp	TRMK
Fulton Financial Corp	FULT	United Community Banks Inc	UCBI
Glacier Bancorp Inc	GBCI	Veritex Holdings Inc	VBTX
Guaranty Bancshares Inc	GNTY	Valley National Bancorp	VLY
Great Southern Bancorp	GSBC	Western Alliance Bancorp WAL	
Huntington Bancshares	HBAN	Wintrust Financial Corp	WTFC
Horizon Bancorp Inc	HBNC	Zions Bancorporation NA	ZION
Heritage Financial Corp	HFWA		

Our Recent Research

February 2023: <u>Watch Your Language: Executives' Remarks on Earnings Calls Impact CDS Spreads</u>

Issues that impact the credit risk of companies are discussed on earnings calls. 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%).

January 2023: <u>Machines Signal Q4'22 Guidance Not Falling Off a Cliff: An In-Depth 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

August 2021: <u>Technology Momentum: Peer Networks from Patents</u>

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> Friendly Firms

October 2020: Just the (Build)Fax: Property Intelligence from Building Permit Data

August 2020: The Analyst Matrix: Profiting from Sell-Side Analysts' Coverage Networks

June 2020: The Information Supply Chain Begins Recovering From COVID

May 2020: Never Waste a Crisis: Following the Smart Money Through Beneficial 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 Consternation</u>

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

April 2020: <u>Data North Star - Navigating Through Information Darkness</u>

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

February 2020: Ship to Shore: Mapping the Global Supply Chain with Panjiva Shipping

Data in Xpressfeed™

January 2020: <u>Natural Language Processing – Part III: Feature Engineering Applying 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> CEOs

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

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, and Target Prices</u>

February 2019: U.S Stock Selection Model Performance Review

February 2019: <u>International Small Cap Investing: Unlocking Alpha Opportunities in an</u> 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> Unscripted: The Message within the Message in Earnings Calls

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>U.S Stock Selection Model Performance Review</u>

September 2017: Natural Language Processing - Part I: Primer

July 2017: Natural Language Processing Literature Survey

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

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

March 2017: Capital Market Implications of Spinoffs

January 2017: <u>U.S. Stock Selection Model Performance Review 2016</u>

November 2016: <u>Electrify Stock Returns in U.S. Utilities</u>

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

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

August 2016: Mergers & Acquisitions: The Good, the Bad and the Ugly (and how to tell 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> Investors Warranted?

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

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

January 2016: What Does Earnings Guidance Tell Us? - Listen When Management Announces Good News

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: Research Brief – Airline Industry Factors

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

August 2015: <u>Introducing S&P Capital IQ Stock Selection Model for the Japanese</u> 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 Specific Data & Company Financials</u>

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

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

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

October 2014: <u>Lenders Lead, Owners Follow - The Relationship between Credit 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: Riding the Coattails of Activist Investors Yields Short and Long Term Outperformance

March 2014: <u>Insights from Academic Literature: Corporate Character, Trading Insights,</u>
<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 higher returns?</u>

October 2013: <u>Informative Insider Trading - The Hidden Profits in Corporate Insider</u> Filings

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

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

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

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

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> Conglomerate Returns.

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

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

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

January 2013: Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies

December 2012: <u>Do CEO and CFO Departures Matter? - The Signal Content of CEO and 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 Surprise Superior to an Earnings Based Surprise?</u>

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

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

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 Industry Data</u>

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

March 2012: <u>Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data</u>

January 2012: <u>S&P Capital IQ Stock Selection Model Review – Understanding the 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: The Banking Industry

September 2011: Methods in Dynamic Weighting

September 2011: Research Brief: Return Correlation and Dispersion

July 2011: Research Brief - A Topical Digest of Investment Strategy Insights

June 2011: A Retail Industry Strategy: Does Industry Specific Data tell a different story?

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

May 2011: <u>Topical Papers That Caught Our Interest</u>

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

Copyright © 2023 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 Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. S&P Global keeps certain activities of its divisions separate from each other in order 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 non-public

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 Web sites, www.standardandpoors.com (free of charge) and 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