

March 7, 2019

SEASONAL ROTATIONS

Like whitewater rafting, let the market take you where it wants to go

Sam Stovall

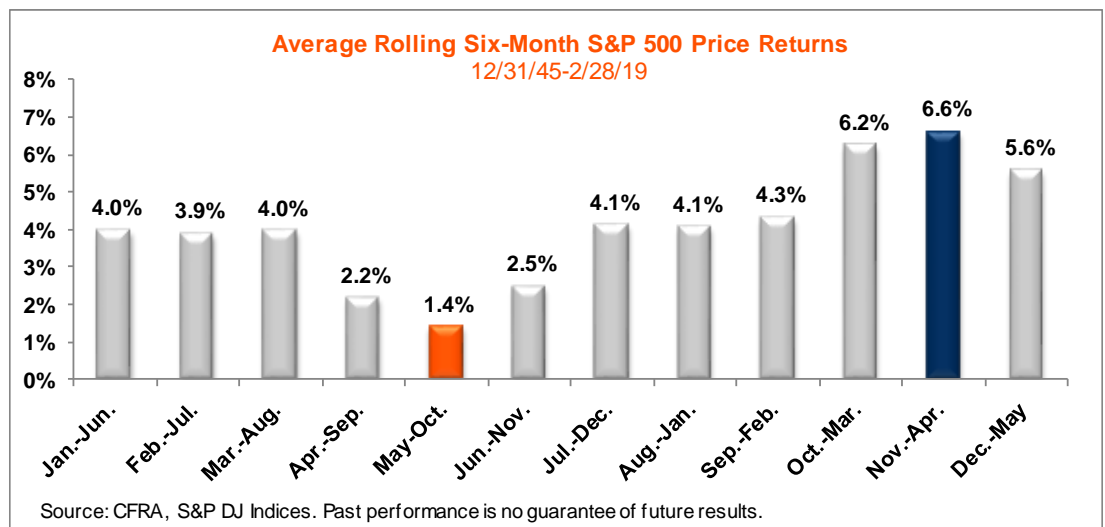
Chief Investment Strategist
CFRA

Author of
The Seven Rules of Wall Street
&
Sector Investing

To everything there is a season, and the same goes for the stock market. Most investors are familiar with the old Wall Street axiom “Sell in May and go away.” This adage has been around for decades and maybe even centuries. Search the web and you may find reference to an Old English saying “Sell in May and go away. Do not return until St. Leger’s Day.” From the perspective of a U.S. investor, however, tradition holds that the stock market registered the weakest six-month return from May through October (M-O) and the strongest from November through April (N-A). As seen in the chart below, showing 12 rolling average six-month price returns, the S&P 500 posted an average gain of 6.6% during N-A since 1946, but only 1.4% from M-O. Taking this analysis one step further, the S&P 500 posted a positive six-month return 76% of the time N-A, but only 64% of the time M-O. Finally, the market’s return in N-A outpaced the return in the subsequent M-O period in seven out of every 10 years.

As seen in the chart on the following page, this pattern of seasonal strength and weakness is not just a U.S. large-cap phenomenon. The S&P Equal Weight 500, S&P SmallCap 600 and S&P Global 1200 also recorded their weakest six-month returns in the M-O periods and the highest average six-month gains N-A. Specifically,

- The S&P Equal Weight 500 posted an average 9.5% return N-A, and an 89% frequency of a positive return since 1990, while eking out a 0.9% average increase in M-O, though rising 69% of the time. In addition, the N-A return beat the M-O results 71% of the time.
- The S&P SmallCap 600 also saw its best rolling six-month return in N-A, averaging 9.0% since April 30, 1995, while rising 91% of the time. Yet in M-O, its weakest six-month period, the average gain was 2.5% and the index rose in price 67% of the time. And like its two domestic siblings, the N-A return was higher than the following M-O result 70% of the time.



One New York Plaza
34th Floor
New York, NY 10004
(646) 517-2993

sam.stovall@cfraresearch.com

This report is for information purposes and should not be considered a solicitation to buy or sell any security. Neither CFRA nor any other party guarantees its accuracy or makes warranties regarding results from its usage. Copyright © 2019 CFRA. Redistribution, reproduction and/or photocopying in whole or in part is prohibited without written permission. All rights reserved.
FOR FINANCIAL PROFESSIONAL USE ONLY. NOT FOR USE WITH THE INVESTING PUBLIC

- Finally, this rotation of strength and weakness held true overseas as well. In particular, the S&P Global 1200, of which 80% of the holdings come from outside the U.S., recorded its highest average six-month return in the N-A period, with a 6.3% gain and an 83% frequency of advance, but posted its weakest six-month return in M-O, gaining only 0.6% and rising in price 67% of the time. Once again we see that the S&P Global 1200's N-A return beat the next M-O results 77% of the time.

Index	Nov.-April (N-A)		May-Oct. (M-O)		N-A Beat
	Avg. %	Up?	Avg. %	Up?	M-O?
S&P 500 (Since 1946)	6.7	77%	1.4	64%	70%
S&P Equal Weight 500 (1990)	9.5	89%	0.9	69%	71%
S&P SmallCap 600 (1995)	9.0	91%	2.5	67%	70%
S&P Global 1200 (1995)	6.3	83%	0.6	67%	77%

Source: CFRA, S&P DJ Indices. Past performance is no guarantee of future results.

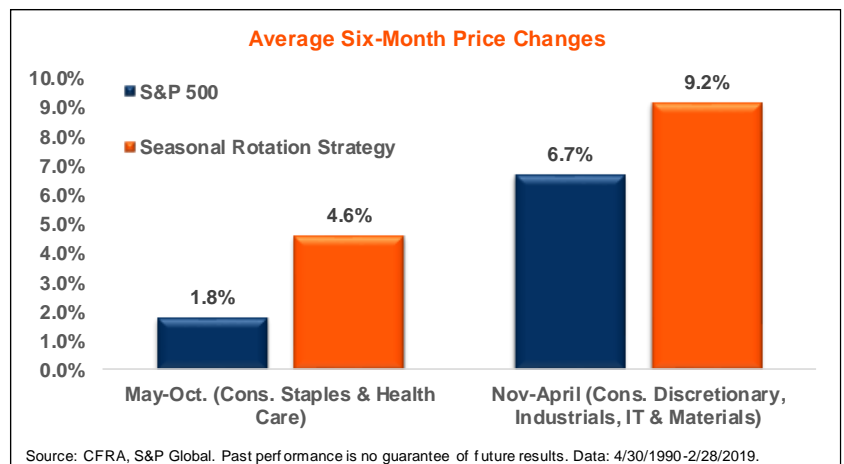
Should You Really Go Away?

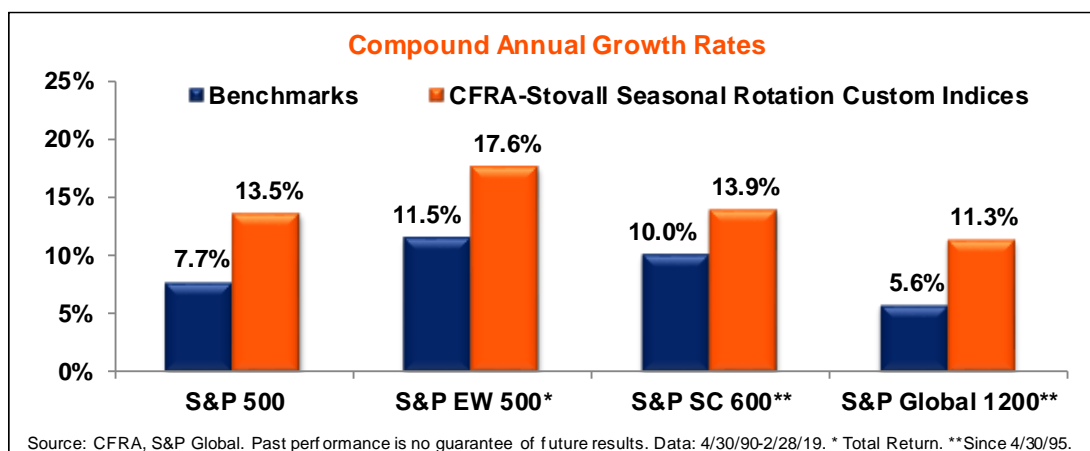
Even though the average advance of 1.4% for the S&P 500 from M-O is the weakest of all 12 rolling six-month periods, it delivered an annualized return of nearly 3%. This is still better than what an investor would have received from a money market fund. Also, the market has risen in more than two out of every three years. Retreating from the "500" in that six-month period would have caused investors to miss out on unexpected summertime surges of 14.1% in 1997, 14.6% in 2003 and 18.7% in 2009, just to name a few. Besides, investors need to consider transaction costs and the tax consequences of selling out. Therefore, wouldn't it be better to identify a more attractive alternative approach to retreating from stocks altogether during this seasonally slow period?

Rotate, Don't Retreat!

Some sectors have their day in the summertime sun, while others skate along smoothly in winter. Since 1990, which is as far back as S&P DJ Indices has sector-level data, while the overall market was eking out an anemic advance of only 1.8% from M-O, the S&P 500 consumer staples and health care sectors recorded price gains of 4.4% and 4.9%, respectively. In addition, these two sectors posted 62% frequencies of beating the S&P 500 during this traditionally low-rising period for the overall market. It's not that people prefer to get hip replacements in the summer, but health care and consumer staples likely do better during challenging times for the overall market, since investors prefer to rotate into more defensive sectors than bail out of stocks altogether.

Conversely, as the S&P 500 recorded its strongest six-month return in the N-A period, it should come as no surprise that the cyclical sectors also outperformed the defensive ones during these months. Indeed, since 1990, above-average price gains came from the consumer discretionary, industrials, materials and technology sectors. What's more, these sectors consistently racked up benchmark-beating returns across the large-cap, equal weight, small-cap and global index spectrum. Knowing this, wouldn't it be more advantageous to rotate among defensive sectors during the "Sell in May" months, and then into the cyclical sectors during the remainder of the year?





Hypothetical Portfolios

From 1990 through February 2019, a hypothetical portfolio that owned an equal weighting of consumer staples and health care sectors from M-O, but then rotated into an equal exposure to the consumer discretionary, industrials, materials and tech sectors from N-A would have seen an increase in compound annual growth rates (CAGRs), as well as a reduction in annual volatility, vs. its benchmark, all while beating its bogey from 67% to 76% of the time.

- The S&P 500 posted a CAGR of 7.7%, while the semi-annual seasonal rotation strategy returned 13.5%. In addition, this strategy experienced lower annual volatility as the standard deviation of annual returns was 15.6% vs. 16.5% for the S&P 500 Index itself.
- This seasonal rotation strategy delivered 600 basis points of outperformance using the S&P Equal Weight 500 sectors since 1990 and beat its benchmark in 76% of all calendar years since 1990, while posting a lower standard deviation of annual results.
- The outperformance by the S&P SmallCap 600 and Global 1200 Seasonal Rotation Strategies since 1995 ranged from 390 basis points per year for small-caps and a doubling for global stocks, while beating their benchmarks in two out of every three years. Again, both the small-cap and global strategies experienced a reduction of annual volatility relative to its benchmark. Of course, past performance is no guarantee of future results.

S&P Dow Jones Indices is the custom calculation agent for the CFRA-Stovall Seasonal Rotation indices, which embrace this investment strategy by owning cyclical sectors N-A and defensive groups M-O in the S&P 500, Equal Weight 500, SmallCap 600 and Global 1200. For information, please visit:

Indices	% Returns				Beat Benchmark	Standard Deviation
	2019		2018	Since 4/1990		
	MTD	YTD				
S&P 500	3.0	11.1	(6.2)	7.7	NA	16.5
Seasonal Rotation Large Cap.	4.0	12.8	0.6	13.5	72%	15.6
S&P Equal Weight 500*	3.7	13.9	(7.6)	11.5	NA	17.8
Seasonal Rotation Equal Weight*	5.0	15.3	(2.4)	17.6	76%	16.1
S&P SmallCap 600**	4.2	15.2	(9.8)	10.0	NA	16.2
Seasonal Rotation SmallCap**	5.7	18.8	(2.9)	13.9	67%	15.6
S&P Global 1200**	2.6	10.3	(10.5)	5.6	NA	14.8
Seasonal Rotation Global**	3.3	11.9	(3.5)	11.3	67%	13.8

Source: S&P DJ Indices. Returns: 4/30/1990-2/28/2019. *Total Return. Others are price changes.

**Since 4/30/1995. Past performance is no guarantee of future results.

https://customindices.spindices.com/?custom_client_name=cfra

Also visit: Pacerefs.com

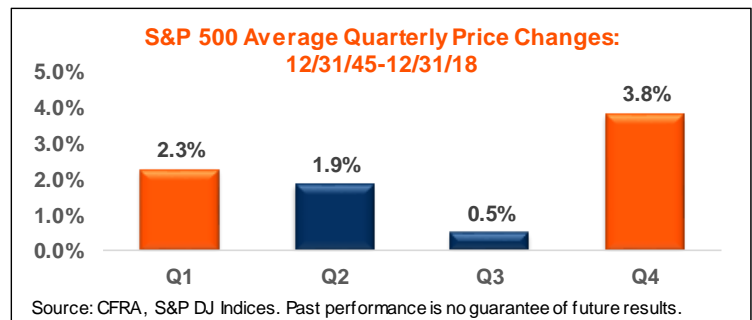
https://customindices.spindices.com/?custom_client_name=cfra

Rotation Rationale

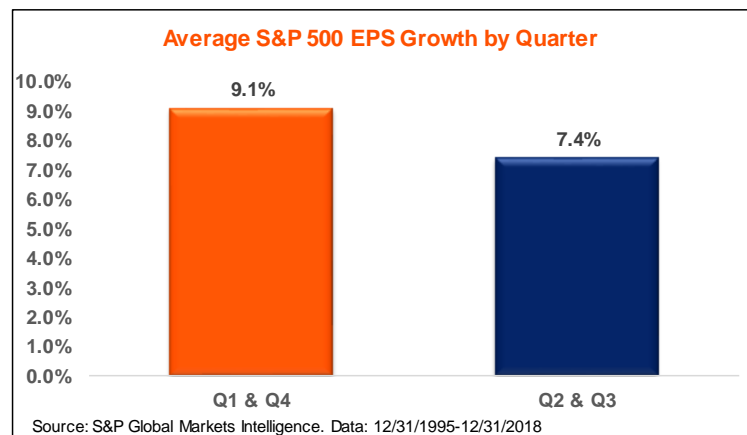
Just because the Seasonal Rotation Strategy has worked in the past, doesn't guarantee that it will continue to do so. Price weakness during the M-O period is likely the result of a combination of reduced capital inflows, investor vacations, Q3 earnings reality, and Mutual Funds' fiscal year-end window dressing. In turn, the above-average strength in the N-A stretch may be aided by an increase in cash infusions, particularly during the beginning of each calendar year from pension fund additions, bonuses, 401K contributions, IRAs, and tax refunds.

Capital Infusions – The above-average strength in the November-April stretch may be aided by large cash infusions into the market, particularly during the beginning of each calendar year. Bonuses are typically paid by March. After taxes from these bonuses are paid, and 401(k) contributions are withdrawn, some of the residual is likely invested in the market. Next, should someone be due a tax refund, they will likely file their returns early. This will allow them time to invest their proceeds before the end of April. Third, IRAs for the prior tax year need to be funded by April 15th of each year. Finally, full-year 401K contribution limits are typically fulfilled early, aided by bonuses. As a result, it should come as no surprise that there is a first-quarter income bump.

Vacations – From the perspective of seasonal sluggishness, history shows that the S&P 500 posted its weakest three-month average return in the third quarter, as investors may be focusing more on their vacations than their investments. Since 1946, the S&P 500 recorded its strongest quarterly returns in Q4, which jumped 3.8% on average and Q1, which gained 2.3%. However, the S&P 500 climbed only 1.9% on average in Q2 and only 0.5% in Q3.



Earnings – End-of year earnings revisions may also be a reason the market performs poorly in the third quarter. An investor may be forgiving of soft Q1 and Q2 EPS on their way toward solid full-year estimates. Should Q3 look like it's going to miss as well, investors usually don't wait around. Like a veteran retailer, they'll "mark 'em down, and move 'em out." As a result, this could be one reason September has been the worst performing month of the year since 1928, 1945 and 1970, particularly as Mutual Funds engage in some end-of-quarter window dressing ahead of their fiscal year end. What's more, let's not forget that five of the last 10 bear markets ended in October, as did the near-bear of April through October 2011. Therefore, the S&P 500 has traditionally entered November at a fairly low price point when compared with other months. In addition, November is also around the time of year that analysts begin looking toward next year's earnings estimates, or five quarters ahead, rather than just focusing on the final one of the current year.



Glossary

★★★★★ 5-STARS (Strong Buy):

Total return is expected to outperform the total return of a relevant benchmark, by a wide margin over the coming 12 months, with shares rising in price on an absolute basis.

★★★★☆ 4-STARS (Buy):

Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months, with shares rising in price on an absolute basis.

★★★☆☆ 3-STARS (Hold):

Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months, with shares generally rising in price on an absolute basis.

★★☆☆☆ 2-STARS (Sell):

Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months, and the share price not anticipated to show a gain.

★☆☆☆☆ 1-STAR (Strong Sell):

Total return is expected to underperform the total return of a relevant benchmark by a wide margin over the coming 12 months, with shares falling in price on an absolute basis.

CFRA Ranking Definitions:

Overweight rankings are assigned to approximately the top quartile of the asset class.

Marketweight rankings are assigned to approximately the second and third quartiles of the asset class.

Underweight rankings are assigned to approximately the bottom quartile of the asset class.

Disclosures

S&P GLOBAL™ is used under license. The owner of this trademark is S&P Global Inc. or its affiliate, which are not affiliated with CFRA Research or the author of this content.

Stocks are ranked in accordance with the following ranking methodologies:

STARS Stock Reports

Qualitative STARS recommendations are determined and assigned by equity analysts. For reports containing STARS recommendations refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports

Quantitative recommendations are determined by ranking a universe of common stocks based on 5 measures or model categories:

Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative recommendations refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

STARS Stock Reports and Quantitative Stock Reports

The methodologies used in STARS Stock Reports and Quantitative Stock Reports (collectively, the "Research Reports") reflect different criteria, assumptions and analytical methods and may have differing recommendations. The methodologies and data used to generate the different types of Research Reports are believed by the author and distributor reasonable and appropriate. Generally, CFRA does not generate reports with different ranking methodologies for the same issuer. However, in the event that different methodologies or data are used on the analysis of an issuer, the methodologies may lead to different views or recommendations on the issuer, which may at times result in contradicting assessments of an issuer. CFRA reserves the right to alter, replace or vary models, methodologies or assumptions from time to time and without notice to clients.

Analyst Certification

STARS Stock Reports are prepared by the equity research analysts of CFRA and its affiliates and subsidiaries. All of the views expressed in STARS Stock Reports accurately reflect the research analyst's personal views regarding any and all of the subject securities or issuers. Analysts generally update stock reports at least four times each year. No part of analyst, CFRA, or its affiliates or subsidiaries compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in a STARS Stock Report.

About CFRA Equity Research's Distributors

This Research Report is published and originally distributed by Accounting Research & Analytics, LLC d/b/a CFRA ("CFRA US"), with the following exceptions: In the UK/EU/EEA, it is published and originally distributed by CFRA UK Limited ("CFRA UK"), which is regulated by the Financial Conduct Authority (No. 775151), and in Malaysia by CFRA MY Sdn. Bhd. (formerly known as Standard & Poor's Malaysia Sdn. Bhd.) Company No. 683377-A, which is regulated by Securities Commission Malaysia, No. CMSL/A0181/2007 ("CFRA Malaysia"), under license from CFRA US. These parties and their subsidiaries maintain no responsibility for reports redistributed by third parties such as brokers or financial advisors.

General Disclosure

Notice to all jurisdictions:

Where Research Reports are made available in a language other than English and in the case of inconsistencies between the English and translated versions of a Research Report, the English version will

control and supersede any ambiguities associated with any part or section of a Research Report that has been issued in a foreign language. Neither CFRA nor its affiliates guarantee the accuracy of the translation. The content of this report and the opinions expressed herein are those of CFRA based upon publicly-available information that CFRA believes to be reliable and the opinions are subject to change without notice. This analysis has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While CFRA exercised due care in compiling this analysis, CFRA AND ALL RELATED ENTITIES SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, to the full extent permitted by law, regarding the accuracy, completeness, or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. No content (including ratings, credit-related analyses and data, valuations, 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 CFRA. The Content shall not be used for any unlawful or unauthorized purposes. CFRA and any third-party providers, as well as their directors, officers, shareholders, employees or agents do not guarantee the accuracy, completeness, timeliness or availability of the Content.

Past performance is not necessarily indicative of future results.

This document may contain forward-looking statements or forecasts; such forecasts are not a reliable indicator of future performance.

This report is not intended to, and does not, constitute an offer or solicitation to buy and sell securities or engage in any investment activity. This report is for informational purposes only. Recommendations in this report are not made with respect to any particular investor or type of investor. Securities, financial instruments or strategies mentioned herein may not be suitable for all investors and this material is not intended for any specific investor and does not take into account an investor's particular investment objectives, financial situations or needs. Before acting on any recommendation in this material, you should consider whether it is suitable for your particular circumstances and, if necessary, seek professional advice.

CFRA may license certain intellectual property or provide services to, or otherwise have a business relationship with, certain issuers of securities that are the subject of CFRA research reports, including exchange-traded investments whose investment objective is to substantially replicate the returns of a proprietary index of CFRA. In cases where CFRA is paid fees that are tied to the amount of assets invested in a fund or the volume of trading activity in a fund, investment in the fund may result in CFRA receiving compensation in addition to the subscription fees or other compensation for services rendered by CFRA, however, no part of CFRA's compensation for services is tied to any recommendation or rating. Additional information on a subject company may be available upon request.

CFRA's financial data provider is S&P Global Market Intelligence. THIS DOCUMENT CONTAINS COPYRIGHTED AND TRADE

SECRET MATERIAL DISTRIBUTED UNDER LICENSE FROM S&P GLOBAL MARKET INTELLIGENCE. FOR RECIPIENT'S INTERNAL USE ONLY.

The Global Industry Classification Standard (GICS®) was developed by and/or is the exclusive property of MSCI, Inc. and S&P Global Market Intelligence. GICS is a service mark of MSCI and S&P Global Market Intelligence and has been licensed for use by CFRA.

Other Disclaimers and Notice

Certain information in this report is provided by S&P Global, Inc. and/or its affiliates and subsidiaries (collectively "S&P Global"). Such information is subject to the following disclaimers and notices: "Copyright © 2019, S&P Global Market Intelligence (and its affiliates as applicable). All rights reserved. Nothing contained herein is investment advice and a reference to a particular investment or security, a credit rating or any observation concerning a security or investment provided by S&P Global is not a recommendation to buy, sell or hold such investment or security or make any other investment decisions. This may contain information obtained from third parties, including ratings from credit ratings agencies. Reproduction and distribution of S&P Global's information and third party content in any form is prohibited except with the prior written permission of S&P Global or the related third party, as applicable. Neither S&P Global nor its third party providers guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such information or content. S&P GLOBAL AND ITS THIRD PARTY CONTENT PROVIDERS GIVE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE AND ALL S&P INFORMATION IS PROVIDED ON AN AS-IS BASIS. S&P GLOBAL AND ITS THIRD PARTY CONTENT PROVIDERS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, EXEMPLARY, COMPENSATORY, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, COSTS, EXPENSES, LEGAL FEES, OR LOSSES (INCLUDING LOST INCOME OR PROFITS AND OPPORTUNITY COSTS OR LOSSES CAUSED BY NEGLIGENCE) IN CONNECTION WITH ANY USE OF THEIR INFORMATION OR CONTENT, INCLUDING RATINGS. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice."

Certain information in this report may be provided by Securities Evaluations, Inc. ("SE"), a wholly owned subsidiary of Intercontinental Exchange. SE is a registered investment adviser with the United States Securities and Exchange Commission (SEC). SE's advisory services include evaluated pricing and model valuation of fixed income securities, derivative valuations and Odd-Lot Pricing that consists of bid- and ask-side evaluated prices for U.S. Municipal and U.S. Corporate Securities (together called valuation services). Such information is subject to the following disclaimers and notices: "No content (including credit-related

analyses and data, valuations, 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 SE. The Content shall not be used for any unlawful or unauthorized purposes. SE and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively SE Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. SE Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. SE 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 SE 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. Credit-related and other analyses and statements in the Content 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. SE 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. SE's opinions and analyses do not address the suitability of any security. SE does not act as a fiduciary or an investment advisor. While SE has obtained information from sources it believes to be reliable, SE does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Valuations services are opinions and not statements of fact or recommendations to purchase, hold or sell any security or instrument, or to make any investment decisions. The information provided as part of valuations services should not be intended as an offer, promotion or solicitation for the purchase or sale of any security or other financial instrument nor should it be considered investment advice. Valuations services do not address the suitability

of any security or instrument, and securities, financial instruments or strategies mentioned by SE may not be suitable for all investors. SE does not provide legal, accounting or tax advice, and clients and potential clients of valuation services should consult with an attorney and/or a tax or accounting professional regarding any specific legal, tax or accounting provision(s) applicable to their particular situations and in the countries and jurisdictions where they do business. SE has redistribution relationships that reflect evaluated pricing, derivative valuation and/or equity pricing services of other unaffiliated firms with which SE has contracted to distribute to its client base. Pricing and data provided by these third-party firms are the responsibilities of those firms, and not SE, and are produced under those firms' methodologies, policies and procedures. Valuations services provided by SE and products containing valuations services may not be available in all countries or jurisdictions. Copyright © 2019 by Intercontinental Exchange Inc. All rights reserved."

Any portions of the fund information contained in this report supplied by Lipper, A Thomson Reuters Company, are subject to the following: "Copyright 2019 © Thomson Reuters. All rights reserved. Lipper shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon."

For residents of the European Union/European Economic Area

Research reports are originally distributed by CFRA UK Limited (company number 08456139 registered in England & Wales with its registered office address at PO Box 698, Titchfield House, 69-85 Tabernacle Street, London, EC2A 4RR, United Kingdom). CFRA UK Limited is regulated by the UK Financial Conduct Authority (No. 775151).

For residents of Malaysia

Research reports are originally produced and distributed by CFRA MY Sdn. Bhd. (formerly known as Standard & Poor's Malaysia Sdn. Bhd.), Company No. 683377-A which is regulated by Securities Commission Malaysia (License No. CMSL/A0181/2007).

For residents of all other countries

Research reports are originally distributed Accounting Research & Analytics, LLC d/b/a CFRA.

Copyright © 2019 CFRA. All rights reserved. CFRA and STARS are registered trademarks of CFRA.