2018. Thank U, Next



by **Matthew Bartolini, CFA**Head of SPDR Americas Research
State Street Global Advisors

Key takeaways:

- The year ended with bonds flat, 71% of all global stocks in a bear market and the S&P 500 Index posting its worst December monthly return since 1931, ending a streak of nine consecutive years of positive annual total returns
- These negative returns completely offset 2018's \$314 billion of ETF inflows, resulting in ETF assets falling by \$26 billion since the end of 2017
- With the market in risk-off mode, fixed income ETFs posted their second highest monthly flow total of all time (\$16.2 billion) last month
- Defensive bond strategies fueled the inflows last month and in 2018, as while high yield ETFs lost 20% of their assets, ultra-short government bond ETF assets ballooned by more than 200% in 2018

Just like Ariana Grande getting over Pete Davidson and moving on to the next stage of her life, investors are likely done with 2018's rocky ride that sent 71% of global stocks into a bear market, culminating in 45 out of the 47 countries in the MSCI ACWI Index registering negative returns, with 28 returning less than -10%! Unfortunately, even if everyone is ready to turn the page, like any breakup, or shift in the cycle, disputes can linger and scars can be long lasting.

For investors, this means coming to grips with the fact that the issues that forced the S&P 500 Index's 15.7% December max drawdown after closing out November with the best weekly return in six years are not going anywhere. Concerns of slowing global growth, increased geopolitical tensions, and more restrictive monetary policies remain. Plus, technical indicators are still in the dumps, with all major indices trading below their 200-day moving averages.¹

But it's not all doom and gloom right now, or on the horizon.

First: Bonds buffered the downside. After posting negative returns for most of the year due to rising rates, the recent risk-off tone led US Treasuries to rally and drive returns on the Bloomberg Barclays U.S. Aggregate Bond Index (the Agg) to be barely positive on the year at 0.01%. Shorter duration strategies performed better in 2018ⁱⁱ; however, the 1 basis point return prevented broad based bonds and stocksⁱⁱⁱ from both being down in the same year, something that hasn't happened over the last 30 years.

Second: Markets move in cycles, and holding on to the notion that the US equity bull is still running is a big distraction. We covered this in a recent <u>blog post</u>, using the Ship of Theseus paradox to illustrate a cycle's transformative nature where a bull market can die many times without meeting the textbook definition. The S&P 500 didn't drop by more than 20% last month, but the bull is dead. Move on. Focus on what's next.

Third: Growth is positive. In the US, full year 2018 earnings and revenue growth is expected to come in at the highest rate (20.3%, 8.9%) since 2010 and 2011^{iv}, respectively. And all 11 sectors are forecasted to post positive growth in 2019, albeit at slower rates. While global manufacturing data has started to soften and global economic growth is also projected to slow, growth will still be positive^v. Therefore, a global recession in 2019 is highly unlikely.

Fourth: Valuations are more attractive now. Due to the selloff, forward price-to-earnings (P/E) ratios for US equities have fallen by the most in a year since 2009. VI Current levels now sit in the bottom 33rd percentile over the past 30 years. Outside the US, valuations are even more attractive, with price-to-earnings ratios in the bottom 10th percentile, on an absolute and relative to the US basis over the past 25 years.

Fifth: Credit is late cycle, not end of cycle. Everyone freaked out when high yield spreads widened by 108 basis points (bps) in December. But, let's have a sip of some settle down juice and keep in mind that high yield valuations were stretched throughout the year (at one point spreads were 36% below their 25 year median). Now, they sit just a touch above that median (520 vs. 490 bps). Viii Cracks have indeed emerged in the later stages of this credit cycle, but they are not canyons yet, and valuations (spreads) are no longer rich.

Corrections happen and since 1983 it has taken the S&P 500 168 days on average to recover its losses. ^{ix} If that holds, June 10, 2019 is the date when the market may get over the 2018 correction and say "thank u, next" to 2018. But the terrain ahead will be rocky and uneven as we return to normal levels of volatility in and ongoing oscillations between gains and losses should be expected given the many macro risks (Fed rate hikes, Brexit, US political brinksmanship, slowing growth and trade wars).

With this in mind, investors may want to ensure portfolios are appropriately diversified, with the right mix of low duration bonds and defensive equities, favoring lower volatility strategies focused on firms with high quality balance sheets that trade at inexpensive valuations, considering that high P/E stocks sold off more than low P/E stocks^{xii} in December's bout of volatility.



The Year that Went Nowhere?

For the ETF industry, 2018 could be considered the year that went nowhere, as assets fell by \$26 billion. The market's impact completely offset the \$314 billion of inflows during the year, ETFs' second consecutive year with over \$300 billion in flows — a first for the industry. Nonetheless, three out of the five major asset class focuses we track had a decrease in assets: Equities, Commodity and Specialty. Considering that equity focused ETFs made up 80% of all ETF assets to start the year, if their assets decline, so do the industry's.

But looking at the major asset classes might obfuscate all the positive trends beneath the surface, right? Nope. We track 24 sub-asset class focuses and 60% of them had a decline in assets in 2018. Now, what is interesting is that the ones that had a positive increase were largely concentrated in what some may consider risk mitigation tools or diversifiers, including alternative strategies, mixed allocation funds, inflation protection bonds, and basic fixed income funds like government and aggregate exposures. In fact, of the 10 that had a positive increase in assets, six were bond strategies.

While fixed income ETFs broke their consecutive monthly inflow streak (38 in a row) during the year and didn't surpass \$100 billion in total flows, 2018 was still a good year. As a result of the risk-off market sentiment, bond ETFs amassed a

staggering \$16 billion in the month of December – the second highest monthly flow total of all time. With November registering the sixth highest flow total ever, bond ETFs closed out 2018 with the largest back-to-back month hauls ever! As investors continue turning to ETFs for asset allocation, we expect fixed income assets to continue this ascent, irrespective of market sentiment.

Secular trends will benefit more than fixed income ETFs, however. The shift to indexing, lower costs, efficient use cases for strategic and tactical asset allocation, and the increased transparency into holdings, and therefore drivers of return, should continue supporting overall industry growth. This trend is evidenced by equity strategies still taking in more \$200 billion on the year, with \$34 billion even as the market was falling out of bed in December.

Overall, stripping out market impact, the industry continued growing in 2018 and taking share from mutual funds that witnessed both negative market returns and outflows. And for roughly half of US equity active strategies those December negative returns were also below the prospectus benchmark – a double whammy right before the holidays.

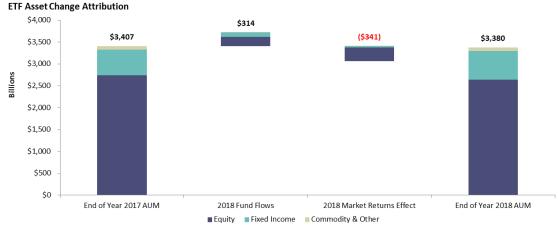
Figure 1: Asset Class Flows

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Equity	34,828	72,133	212,825	7.8%
Fixed Income	16,284	27,068	96,728	16.5%
Commodity	1,433	2,361	1,098	1.7%
Specialty	-177	-642	163	4.5%
Mixed Allocation	998	1,453	2,715	28.2%
Alternative	330	629	1,235	46.9%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Figure 2: ETF Asset Change Attribution

The below chart depicts how ETF asset levels were negatively impacted by the rough 2018 return environment where equities were down bigly, credit exposures sold off and broad bonds barely eked out gains.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.



Go Big or Go Home

Broad-based US and international exposures took in the most inflows in December. However, geographical flows are likely clouded by year-end rebalancing where investors were parking assets over year-end, before selecting a new strategy or going back to an old one in 2019, after any potential tax related time period ended. This is evidenced by the fact that both US and International category December flows were 47% and 62% of their respective fourth quarter flows. Paying attention to the seasonality of these broader exposures is important to deciphering market sentiment noise versus some sort of signal of investors' positioning.

From a full year perspective, global funds witnessed the most growth with 2018 flows equating to over 20% of their start-of-year assets. This growth is likely a result of an increase in strategic asset allocation models using basic building blocks to construct customized solutions.

There are three other trends worth mentioning from a geography perspective:

- Single country funds had the third highest growth rate for 2018, driven by China focused funds which accounted for 64% of all single country flows in 2018. However, their influence has waned; of the \$1.3 billion deposited in December, China focused funds accounted for only \$139 million. Brazilian focused funds drove flows in December, as investors positioned for populist driven fiscal stimulus.
- 2) Regional funds saw a 10% reduction in assets from flows in 2018, predominantly led by European regional funds (\$9 billion of outflows in 2018) that have had nine consecutive months of outflows – two months shy of the record (11 months). Given the uncertainty of Brexit negotiations, a new record may be set in 2019.
- Currency hedged ETFs continue bleeding assets, a sign investors are no longer considering the impact currencies can have on returns. \$14 billion left even as hedged international exposures outperformed unhedged in 2018. xiv

Figure 3: Equity Geographical Flows

				2018 Flows as % of Start-of-Year
In Millions	December	Q4 2018	2018	AUM
US	17,916	38,069	143,388	7.4%
Global	2,430	4,214	17,670	21.4%
International-Developed	11,564	18,615	49,994	15.0%
International-Emerging Markets	3,629	8,901	16,516	9.2%
International-Region	35	-780	-9,901	-14.6%
International-Single Country	1,308	6,736	9,900	11.2%
Currency Hedged	-2,053	-3,622	-14,743	-36.2%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Sectors Wiped Out

Sector related strategies had net outflows of \$7 billion in December, pushing the fourth quarter total to over \$17 billion of net outflows. The negativity was felt most by cyclical sectors, while defensive areas were sought, a trend not uncommon in a risk-off market. Out of the cyclical sectors, Financials were hit the hardest in December, followed by trade war impacted Industrials.

Financials lost nearly \$5 billion in assets last month as investors feared slowing growth and a flattening yield curve would weigh on banks' profitability. Implied volatility on the sector is in the top 94th percentile over the past year, xv underscoring the concerns investors have with the sector. But the yield curve negative sentiment may be overblown, as even with the curve flattening in 2018, net interest margins continued expanding, as banks repriced rates on their assets

at a faster rate and in a greater amount than liabilities, elevating return-on-asset ratios to the highest level since 1986. xvi

Out of the sectors that received positive flows, Energy funds led the way in December but 80% of that flow came in the last week as oil prices spiked. Bond proxy Utilities took in the second most, pushing its Q4 total to be the highest of any sector, followed by two other defensive exposures: Consumer Staples and Health Care. Those three sectors were the top performers from a return perspective in 2018.

Looking ahead, Health Care looks like it may be able to carry its momentum (currently ranks first based on a quantitative momentum screen)^{xvii} into 2019. Considering that, while analysts have downgraded S&P 500 earnings for 2019, its



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growth prospects remain intact on the back of stable demand and a strong product pipeline. Additionally, as financial conditions become tighter and economic growth decelerates,

Health Care's high quality balance sheet^{xix}, and noncyclical growth may be better positioned to navigate a rocky climb.

Figure 4: Equity Sector Flows

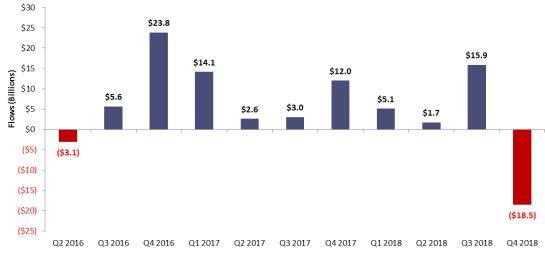
In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Technology	-543	-4,550	9,699	7.3%
Financial	-4,697	-8,334	-8,869	-13.4%
Health Care	-1,406	983	6,953	13.3%
Consumer Discretionary	-1,032	-2,752	-2,657	-11.5%
Consumer Staples	453	1,316	1,960	12.2%
Energy	1,079	897	-281	-0.5%
Materials	-192	-1,232	3,214	9.0%
Industrials	-1,412	-3,599	-2,667	-9.3%
Real Estate	-235	-2,580	-3,085	-4.5%
Utilities	544	1,503	1,767	14.8%
Communications	-220	1,201	3,737	178.4%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Figure 5: Sector Deluge

Not since the market was gripped by the risk-off sentiment percolating from an unexpected Brexit decision have sector outflows been so voraciously negative. The chart below signifies how many tactical sector rotation strategies have likely rotated out of the "market" and into a more defensive exposure. A chart later on provides insight into the type of defensive exposure.

Quarterly US Equity Sector Flows



Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Value Bias

Similar to the trends into US equities mentioned earlier, the flows into large-cap US equities are also masked by year-end rebalancing impacts. The rotation into value, however, is a different story. In November, we witnessed the second biggest rotation from growth to value ever, and it didn't slow down in December.

Value strategies took in \$7 billion last month, raising their 2018 total to \$27 billion, nearly \$10 billion more than growth funds. Perhaps some investors are positioning for value to get its groove back after a lost decade of underperformance relative to the market.



Figure 6: US Size and Style

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Broad Market	6,960	13,551	31,125	16.7%
Large-Cap	16,209	30,763	54,897	11.3%
Mid-Cap	1,897	3,411	12,369	7.3%
Small-Cap	1,019	592	22,078	12.5%
Growth	1,619	2,050	17,197	10.2%
Value	7,734	16,351	27,331	14.7%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Back to the Basics

It was back to the basics in fixed income, with bland vanilla exposures with low correlations to equities taking in the lion's share of flows in December and in 2018. With investors seeking to mitigate equity drawdowns and unwilling to take on direct credit risk, Government and Aggregate bond exposures took in 144% and 155% of December and Q4 flows, respectively. Government funds saw their asset base increase by 72% just from inflows. Staggering figures. Adding to this notion of investors seeking downside risk mitigation, interest rate sensitive mortgage-backed strategies were the only other sector to have inflows over the same time periods.

Conversely, high yield debt was sold significantly in Q4 and really throughout all of 2018 with 20% of their start-of-year assets heading out the door. Given the pervasiveness of the risk-off sentiment, bank loan strategies also began to witness outflows over the last quarter. Even with the negative sentiment gripping credit, floating rate senior loans were still able to produce a positive return in 2018^{xx} and vastly outperformed fixed rate high yield, continuing the historical performance trend of loans outperforming the latter when spreads widen due to their seniority in the capital structure. A potential valuable trait as credit endures late cycle shifts.

Figure 7: Fixed Income Sectors

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Aggregate	10,044	14,492	34,978	19.8%
Government	13,425	27,589	52,841	71.6%
Inflation Protected	-1,217	-1,683	3,297	8.4%
Mortgage-Backed	973	944	4,778	26.1%
IG Corporate	-2,470	-3,767	6,175	4.7%
High Yield Corp.	-2,489	-6,882	-9,545	-19.4%
Bank Loans	-1,743	-3,138	-1,862	-15.2%
EM Bond	-1,089	-275	2,212	11.1%
Preferred	-1,092	-3,009	-3,041	-9.6%
Convertible	-190	-317	203	4.6%
Municipals	2,131	3,114	6,695	21.9%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Shorter the Better

Within the Government sector, the lion's share of the allocation has been to ultra-short and short-term exposures. The rationale is twofold. First, US 3-month T-Bills yield more than US stocks, ^{xxi} indicating the increased potential for income generation on the short end, without taking on added duration (as T-Bills only have 0.11 years of duration). The second is the need for defense.

The risk-off move in equities has fueled the majority of the flows, and can be seen by examining a very common trend following indicator: the S&P 500 Index last price relative to the S&P 500 Index 200-day moving average. If the last price dips below the 200-day moving average, then more often than not trend following strategies rotate into ultra-short cash equivalent exposures.

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Once the S&P 500 broke through the 200-day moving average in November, there was a significant increase in ultra-short duration government flows. Given the market fell even harder in December, the flows persisted.

This is important for two reasons:

- If the market has a hard time finding its footing after such a sizeable drawdown, look for this trend to continue in 2019 as more trend following strategies rebalance^{xxii} or attract new capital.
- 2) If the market rallies bigly, ultra-short duration government bond ETFs will have outflows.

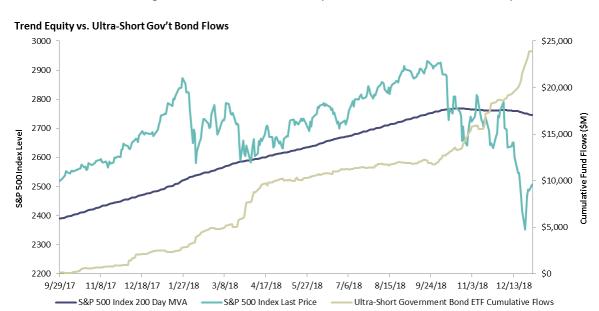
Figure 8: Fixed Income Maturity Flows

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Ultra-Short	5,386	12,209	22,003	203.0%
Short-Term	5,559	12,413	21,009	72.9%
Intermediate	1,551	3,003	7,352	35.3%
Long Term (>10 yr)	1,245	539	3,553	36.4%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Figure 9: Ultra-Short is a Trend's Friend

All funds listed as ultra-short within the Government category were used in this calculation. As shown, the rotation witnessed was significant. This chart was featured last month as well, and is a key indicator to monitor to gauge sentiment. If we start to see outflows from ultra-short government bond ETFs it's likely a result of a sustained risk-on rally.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.

Finding Gold in the Drawdown Hills

Perhaps seeking a diversifier or a way to mitigate a potential rise in inflation, broad based commodities were the most heavily allocated to in 2018 in the commodity segment. With equity markets in freefall, however, investors steadfastly sought out the defensive properties in gold related exposures.

After having outflows for nearly the entire year, as the price of gold increased by 7% as a result of the market environment, gold-backed ETFs amassed \$1.4 billion in December, pushing the 2018 flow total positive.

Figure 10: Commodity Flows

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Precious Metals	1,440	2,416	207	0.4%
Industrial Metals	1	-14	-84	-26.0%
Energy	164	674	-919	-21.1%
Broad Based	-96	-643	1,956	34.6%
Agriculture	-77	-73	-61	-7.8%

Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.



Defensive Beta

Smart beta funds, which have taken in nearly \$40 billion this year, continue to see elevated interest. Within factors, the allocations have been consistent with other positioning trends above, with defensive oriented factor exposures with dividend yield and minimum volatility taking in the most in December and over the last quarter.

Active funds also continue amassing assets, with \$1 billion of inflows last month. The \$27 billion that has come in during the year represents a 60% increase in assets and signals that actively managed funds may be a growth area for the ETF industry. From a strategy perspective, active fixed income is driving the flows, given it represents 78% of the 2018 total.

Figure 11: Strategy Type

In Millions	December	Q4 2018	2018	2018 Flows as % of Start of Year AUM
Active	1,075	7,441	27,607	59.9%
Smart Beta	8,752	18,503	39,324	11.5%
Sector Smart Beta	-329	-1,219	-1,149	-8.7%
ESG	237	624	2,025	26.9%

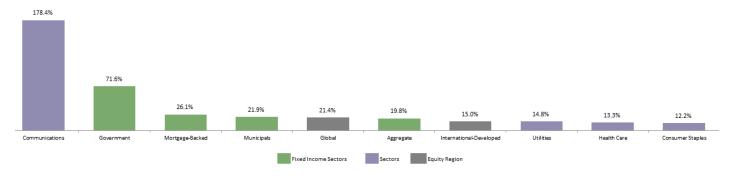
Top two and bottom two categories per period are highlighted. Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018

A Mixed Bag of Leaders

When dissecting flow patterns, flow as a percent of assets helps us discern noticeable shifts in buying behavior. Figure 12 summarizes the top 10 areas that witnessed the largest flow totals as a percent of start-of-year assets in 2018 in the Equity Region, US and Fixed Income Sectors categories.

Communications had the highest growth as a result of the GICS sector re-map in September. Government bond strategies had the highest growth rate as result of market sentiment driven activity. Even more interesting, although sectors were hit with a deluge of negativity, three (not including Communication services) show up in the chart below, underscoring the shift towards defensive exposures.

Figure 12: Flows as a Percentage of AUM (2018 Flows as % Start of Year AUM)



Source: Bloomberg Finance L.P., State Street Global Advisors, as of December 31, 2018.



Definitions

BofA Merrill Lynch US High Yield Master II Index

The BofA Merrill Lynch US High Yield Index tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch).

Bloomberg Barclays U.S. Aggregate Bond Index

The Bloomberg Barclays U.S. Aggregate Bond Index is a market weighted index, meaning the securities in the index are weighted according to the market size of each bond type. Most US-traded investment grade bonds are represented. Municipal bonds and Treasury Inflation-Protected Securities are excluded, due to tax treatment issues. The index includes Treasury, government agency bonds, mortgage-backed bonds, corporate bonds and a small amount of foreign bonds traded in the US.

Bloomberg Commodity Index

A broadly diversified commodity price index distributed by Bloomberg Indexes that tracks 22 commodity futures and seven sectors. No one commodity can compose less than 2 percent or more than 15 percent of the index and no sector can represent more than 33 percent of the index.

Bloomberg Dollar Spot Index (DXY)

The Bloomberg Dollar Spot Index tracks the performance of a basket of 10 leading global currencies versus the US Dollar.

Bloomberg Barclays Corporate US High Yield Bond Index

A rules-based, market-value-weighted index to measure the performance of publicly issued non-investment grade USD fixed-rate, taxable and corporate bonds.

CBOE SPX Volatility Index (VIX)

A measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices.

The MSCI EAFE US Dollar Hedged Index

Designed to represent a close approximation of the return that can be achieved by hedging the currency exposures of the index in the one-month Forward market at each end of month.

Earnings Per Share (EPS)

A profitability measure that is calculated by dividing a company's net income by the number of shares outstanding.

MSCI EAFE Index

An equities benchmark that captures large- and mid-cap representation across developed market countries around the world, excluding the US and Canada.

MSCI Emerging Markets Index

The MSCI Emerging Markets Index captures large and midcap representation across 23 emerging markets countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI ACWI Index

The MSCI ACWI Index captures large and mid-cap representation across developed and emerging markets countries.

MSCI ACWI Ex-US Index

The MSCI ACWI Ex-US Index captures large and mid-cap representation across developed and emerging markets countries outside of the USA.

Russell 2000 Index

The Russell 2000 Index is comprised of the smallest 2000 companies in the Russell 3000 Index, representing approximately 8% of the Russell 3000 total market capitalization.

S&P 500 Index

Standard and Poor's 500 Index is a capitalization-weighted index of through changes in the aggregate market value of 500 stocks representing all major industries.

S&P/LSTA Leveraged Loan Index

The S&P/LSTA Leveraged Loan Index is a market valueweighted index designed to measure the performance of the U.S. leveraged loan market based upon market weightings, spread and interest payments.



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State Street Global Advisors Worldwide Entities

Abu Dhabi: State Street Global Advisors Limited, Middle East Branch, 42801, 28, Al Khatem Tower, Abu Dhabi Global Market Square, Al Mayah Island, Abu Dhabi, United Arab Emirates. Regulated by ADGM Financial Services Regulatory Authority. T: +971 2 245 9000.

Belgium: State Street Global Advisors Belgium, Chaussée de La Hulpe 120, 1000 Brussels, Belgium. T: 32 2 663 2036. F: 32 2 672 2077. State Street Global Advisors Belgium is a branch office of State Street Global Advisors Limited. State Street Global Advisors Limited is authorised and regulated by the Financial Conduct Authority in the United Kingdom.

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Hong Kong: State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong • Telephone: +852 2103-0288 • Facsimile: +852 2103-0200

Japan: State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan, Telephone +81-3-4530-7380 Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association

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Playing Offense and Defense

Unless otherwise noted, all data and statistical information were obtained from Bloomberg LP and SSGA as of December 31, 2018. Data in tables have been rounded to whole numbers, except for percentages, which have been rounded to the nearest tenth of a percent.

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2362148.1.1.GBL.RTL Exp. Date- 1/31/2020



Based on the Russell 3000 Index, MSCI EAFE Index, and MSCI Emerging Market Index as of 12/31/2018 per Bloomberg Finance L.P.

For the first time since 2006, US 1-3 Month Treasury Bills produced a positive return while also outperforming the Bloomberg Barclays US Aggregate Index ("the Agg")

iii Based on the Bloomberg Barclays US Aggregate Bond Index and the MSCI ACW Index per Bloomberg Finance L.P. as of 12/31/2018

iv FactSet as of 12/31/2018 based on consensus analyst estimates

^v Bloomberg Finance L.P. as of 12/31/2018 based on economist consensus forecasts

vi FactSet as of 12/31/2018

vii Valuations for US and Non-US equities based on the S&P 500 Index and the MSCI ACWI-Ex US Index as of 12/31/2018 per Bloomberg Finance L.P.

viii Based on the Bloomberg Barclays Corporate US High Yield Index as of 12/31/2018

FactSet as of 12/31/2018 based on the 12 market corrections of more than 10% on the S&P 500 Index since 1983

x Based upon the bottom of the correction on December 24, 2018

^{xi} On 25% of the trading days in 2018 the S&P 500 Index either posted a positive or negative 1% return. Long-term median back to 1927 is 23%.

^{xii} Based on quintile 1 and 5 spread returns for the Earnings-to-Price factor in the month of December per Bloomberg Finance L.P. as of 12/31/2018

xiii Morningstar as of 12/31/2018 based upon active manager returns for US equity categories in the month of December

xiv Based on the MSCI EAFE Index and the MSCI EAFE US Dollar Hedged Index per Bloomberg Finance L.P. as of 12/31/2018

xV Bloomberg Finance L.P. as of 12/31/2018

xvi FDIC Quarterly Banking Profile, November 20, 2018

xvii Bloomberg Finance L.P. as of 12/31/2018, calculations by SPDR Americas Research

xviii Based on consensus analyst estimates per FactSet as of 12/31/2018

xix As exemplified by its Free-Cash-Flow-to-Debt ratio and lower Debt-to-EBITDA ratios per FactSet as of 12/31/2018

xx Based on the S&P LSTA Leverage Loan Index and the Bloomberg Corporate US High Yield Index

^{xxi} Based on the US 3 Month T-Bill yield and the dividend yield on the Russell 3000 Index

xxii Not all trend following strategies rebalance on the same day or use the same signals