Does the Market Have the Right Stuff?

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

Key takeaways:

- Global equities got a "Powell-ful" boost in June, leading to the best June return *ever,* with 55% of the stocks now above their 50-day moving average, up from 30% in May
- A month after having their worst monthly outflows ever, investors put $20 billion back to work with equity ETFs
- Led by Energy ETFs' first month of inflows in 2019, sector flows bounced back to the tune of $3 billion
- Despite the risk-on tone, bond ETFs took in a record $25 billion – beating their previous record by more than 45%

Three, two, one… **Blast off!**

That was the reaction from global equities following a "Powell-ful" boost of positive sentiment stemming from frequent dovish FedSpeak and an increasing probability of future rate cuts later this summer. And just like that, one month after posting a 6% loss, global equities rocketed to a 6% gain in June, their best June return *ever.* Nearly 60% of global stocks now trade above their 50-day moving average, up from just 30% at the end of May.

Global stocks weren't the only ones sent soaring in June. Another $1.9 trillion of global debt's yields were pushed into negative territory. The US 10-year yield briefly went below 2%, a level it had not been at since prior to the 2016 US presidential election. Taken together, global bonds returned 2.2% in June, their best monthly return in over three years, and are now off to their sixth-best start to a year since 1990.

With trade tensions cooling and global central bankers turning the accommodative policy thrusters on full blast, global risk assets appear to have landed in a Sea of Tranquility. Fifty years ago this July, Neil Armstrong and Buzz Aldrin definitely did. Navigating past an area littered with boulders, Armstrong landed the lunar module *Eagle* down safely on the moon in the area known as the Sea of Tranquility.

Much like the first men on the moon, policymakers are trying to navigate their way past a few objects and conduct a soft landing for the global economy, despite the sharp boulders of slow growth dynamics and heightened geopolitical risk. Not to mention global equity markets that lately have become far too prone to the 3 G-force[i] level whipsaw-like volatility, with the May-to-June reversal the most recent example.

The big question as the summer gets underway, however, is does the market have *The Right Stuff* to keep this rally going?

Two events in July will determine whether or not the market calls out, "Houston, we have a problem" or "All systems go": the Federal Reserve's (Fed) July meeting and second-quarter earnings season. Trade will be the Michael Collins, the infrequently mentioned third man on the Apollo 11 mission. Trade will impact the market and be a determinant of success, much as if Collins wasn't able to pick up Aldrin and Armstrong as they made their way back to the command module, *Columbia*. But the Fed and earnings will get top billing for a number of reasons:

First, the US second-quarter earnings season will bring updated news on how trade tensions have *already* impacted corporate sentiment, cash flows and guidance. Irrespective of the trade truce, the impact has already been felt, with non-US earnings-centric firms being the Tang[ii] to domestic companies' fresh-squeezed OJ. Companies with more than 50% of revenue derived from foreign sources have seen Q2 estimates fall by over 3% – twice as much as firms with less than 50% of foreign revenue. With growth for S&P 500 firms overall projected[iii] to be negative for the second straight quarter, for the first time since Q2 2016, any inkling of weak earnings sentiment may derail the rally.

But would a weak earnings season be a bad thing? If earnings growth comes in at a lackluster pace, culminating in an earnings recession (two consecutive quarters of negative growth), will this be the last softening growth data point the Fed needs to pull the ripcord and cut rates at their July meeting? Right now, economic momentum has definitely waned, evidenced by all five regional Fed manufacturing indexes falling in June – their first simultaneous drop in six months. Inflation is below target, and while Q1 GDP grew at 3%, domestic demand grew at its slowest pace since 2013.

But what if the Fed doesn't act even though the economy's jet engines are potentially running on fumes, US stocks are at all-time highs, financial conditions have loosened considerably and unemployment is at record lows?

A non-action by the Fed could be the summer surprise that has investors glued to their television sets like the world was back at 10:56 p.m. EST on July 20, 1969. With so many unknowns and the trade truce with China a truce and not a treaty, investors should continue to expect more whipsaw volatility. As a result, investors may want to seek out exposures that allow for upside participation but can mitigate downside volatility. After all, Neil Armstrong used both rocket thrusters and shock absorbers to land the *Eagle*.

Bond Flows Are out of This World

Even with a 6% rally in global equities, investors allocated a record amount to fixed income ETFs. Equity ETFs did garner $20 billion of inflows. However, inflows to bonds were truly out of this world with over $25 billion – a more than 45% increase over the prior record from October of 2014.

Bonds' record June haul pushed the first-half figure to $74 billion, which is also a record amount for a first half. This surpassed the $70 billion bond ETFs amassed in 2017, a time period that was aided by regulatory tailwinds emanating from the fiduciary rule that led to all ETFs having a record amount of fund flows once the year was over.

While the $25 billion and $74 billion are record amounts for a month and a first half on a notional basis, they are not records on a relative basis when calculated as a percent of start of period assets. Those records were achieved in the early days of the fixed income ETFs, when the asset bases were smaller. Yet, the $25 billion represents 4% of June's starting asset base – the highest relative percentage figure since January 2016. That month investors sought out fixed income exposure to buffer against the worst start of year for global equities since the financial crisis.

That begs the question, why are investors buying so many bonds right as the S&P 500 Index hits new all-time highs and global equities are testing levels not seen since the December 2018 drawdown.

This all goes back to the question if whether the rally has the right stuff to keep going. After all, we continue to experience whipsaw volatility requiring investors to have shock absorbers within a portfolio. Bonds are the type of shock absorbers investors have been using since before the time of Project Mercury[iv], and the record flows are evidence of their continued use.

Remember that this is a trade truce, not a trade treaty. And given the sizable amount of macro risk in today's market combined with less-than-robust fundamental and economic momentum, the path ahead is as visible as the dark side of the moon. Don't forget, trade is not the only macro and geopolitical risk facing the market. Iran just blew through the previously set caps on enriched uranium in a clear intentional violation of the 2015 agreement. This uncertainty, along with the price appreciation from declining rates adding a bit of a performance boost, should keep the bond flows coming.

Bonds were not the only asset class to benefit from the current macro risks and declining rate environment. With a weaker US dollar and over $12 trillion of negative yielding debt saturating the market, gold prices broke through key resistance levels. As a result, gold-backed ETFs took in $2.8 billion in June – their highest inflow since June 2016. At that time, the world was whipsawed from the Brexit results and there was also over $12 trillion of negative yielding debt.

Figure 1: Asset Class Flows

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Equity	20,598	42,100	25,525	179,627	1.6%
Fixed Income	25,978	74,089	40,892	126,263	11.2%
Commodity	2,998	-100	-45	-1,244	-0.2%
Specialty	-22	363	-33	-118	12.8%
Mixed Allocation	146	433	514	2,366	3.9%
Alternative	-119	-361	-153	483	-9.7%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019

Figure 2: Great First Half Stats

The chart below depicts the first half of year fund flows into fixed income ETFs.

Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019. Past performance is not a guarantee of future results.

American Made, For Now?

With the news of a US-China trade truce coming late in the month, investors focused more on US exposures than on exposures from other regions. Given the truce's positive impact on sentiment, however, it would not be a surprise to see investors turn the thrusters back on within the non-US allocations – particularly in emerging markets (EM) which remain in the lead for all non-US exposure fund flows for the year. A relaxation of US central bank policy should also aid EM, as the change in policy may result in a weaker dollar and lower funding costs for companies that raise debt in hard currency form.

Single-country funds had outflows once again this month, which is evidence of investors unwilling to take sizable country-specific risk given the idiosyncratic nature of our current macro environment. Rather, investors have preferred staying at the broad-based level and benefitting from country diversification. As a result, international developed exposures had inflows in June and pushed their year-to-date total to over $6 billion. That figure represents 2% of their start-of-year assets, the second-best figure of any geographical area analyzed.

At the regional level, outflows from European-focused strategies dragged the broader category down, continuing a multi-month trend as geopolitical instability along with sluggish growth has not provided many reasons for investors to allocate capital to the region with confidence. Valuations are attractive, but some things may be cheap for a reason.

It will be interesting to see if sentiment turns around for the region after European Central Bank ("ECB") policymakers expressed in June their commitment to remain ultra-accommodative to spur positive economic momentum, with deeper negative interest rates being their first stimulus move if they need to act[v]. Interestingly enough, while European regional exposures had outflows, and while single-country funds overall had outflows, the two countries with the most inflows in June were France and Spain.

Figure 3: Equity Geographical Flows

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
U.S.	19,303	33,562	23,593	132,923	1.8%
Global	887	-1,918	488	4,411	-2.2%
International-Developed	2,516	6,437	7,304	28,472	2.0%
International-EM	-393	12,103	-1,123	22,619	7.3%
International-Region	-429	-1,095	-216	-3,743	-2.3%
International-Single Country	-937	-2,524	-3,148	5,204	-3.1%
Currency Hedged	-350	-4,465	-1,372	-10,259	-20.7%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019

Are Sectors Saying "Ready, Jet, Go!"?

Sector flows were anomalously negative heading into the month at a time when the broader equity market had rallied back to new all-time highs. However, activity in June made it clear that the "Central Bank Put" was alive and well. As a result, investors put risk back to work with sectors, allocating over $3.5 billion. This came just one month after sector strategies posted the worst month of outflows ever. Maximum G-force whipsaw-like volatility strikes again.

These inflows have also occurred with a return of the options market. Open interest is higher (based on percentile ranking over the past two years) across all sectors from where we were earlier in the year, underscoring the tactical and sophisticated nature of ETF investors. This also signifies investors' willingness to express risk with a bit of leverage, a positive sign with respect to how investors are positioning heading into the back half of 2019.

Another positive sign is that the fund flows had a bit of depth to them and were not concentrated in one specific segment. As opposed to prior months when multiple sectors had outflows, only two sectors (Materials and Technology) had outflows in June. Technology had the greatest outflows, resulting from its trade tension-related exposure. But that doesn't mean the entire Technology sector is impacted by trade, as pointed out here. While there are areas of lesser trade sensitivity within the sector, Technology holistically will likely be an immediate beneficiary of any trade truce headlines. So the negative flows witnessed in June may be short-lived.

Counterbalancing the positivity and the notion that sectors are ready to proclaim "ready, jet, go," the inflows for June were within the more defensive/bond proxy type sectors. Real Estate, Consumer Staples, and Utilities ETFs took in nearly $3 billion, an aspect of a "search for yield" mindset in a world awash with negative debt.

Energy, a very tactical sector position, is the outlier in the defensive preference trend. Energy was pulled out of its stupor as a result of Iran sanctions fueling a 10% run-up in oil prices on the month. With energy stocks up a similar 9% in June, investors greeted the sector with its first month of inflows in 2019.

News as the calendar flips from June to July regarding the potential for additional production cuts from OPEC+ will likely throw more gasoline on this rally in the energy sector. Yet, earnings season is around the corner and the sector's fundamentals are less than stellar. Macro will likely be a bigger driver of near-term performance than anything else, requiring investors to have a bit of a steel stomach to endure the volatility that may ensue.

Looking ahead, Communication Services is a sector to watch. Bellwether names reside in the segment and earnings season is upon us. Last season, the sector saw the second-highest magnitude of earnings beats, and it is only one of the three sectors that have witnessed more upgrades relative to downgrades to their full-year 2019 earnings estimates[vi] as of late. Based on our method of using continuous flow momentum (as described below), there is also positive sentiment from a flow perspective.

Figure 4: Equity Sector Flows

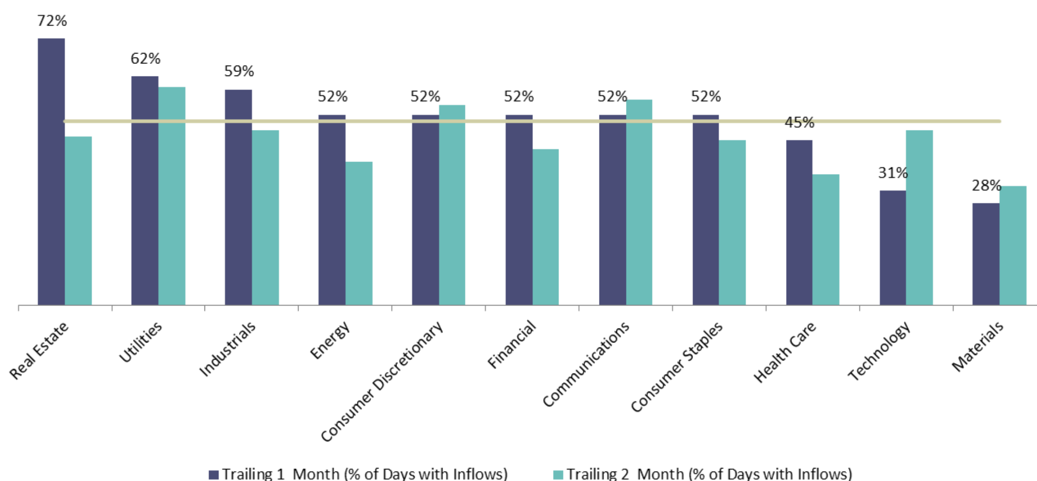
In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Technology	-1,412	-1,398	702	-4,396	-1.9%
Financial	143	-5,053	-277	-15,339	-10.8%
Health Care	357	-1,857	-3,272	6,308	-3.3%
Consumer Discretionary	232	-214	797	-1,647	-1.1%
Consumer Staples	1,000	1,491	1,127	3,589	9.2%
Energy	1,338	-4,710	-1,102	-6,084	-11.9%
Materials	-736	-3,810	-1,853	-3,060	-11.6%
Industrials	417	-1,780	-351	-4,879	-8.0%
Real Estate	1,119	2,945	-267	2,289	5.0%
Utilities	723	2,356	1,586	4,100	17.3%
Communications	431	3,084	529	6,609	62.3%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019.

Figure 5: Sector Frog-in-Pan Flow Momentum

We are showcasing a new process of examining flows, basing the analysis on the well-regarded frog-in-pan ("FIP") momentum[vii] theory, which discusses targeting areas of the market with a series of frequent gradual changes (e.g., daily positive returns). The FIP theory finds that this continuous information induces strong, persistent return continuation that does not reverse in the long run. So, rather than just looking at flows on a net basis (e.g.. best flows over the past month which could just be the result of one big inflow on one specific day), we examined sectors based on the number of days with positive inflows (e.g., gradual, frequent changes) to understand where there may be agreement within a sector from multiple investors. This is not to dissect the sector with potential to outperform, but to identify where there may be current consensus from consistent inflows over a time period.

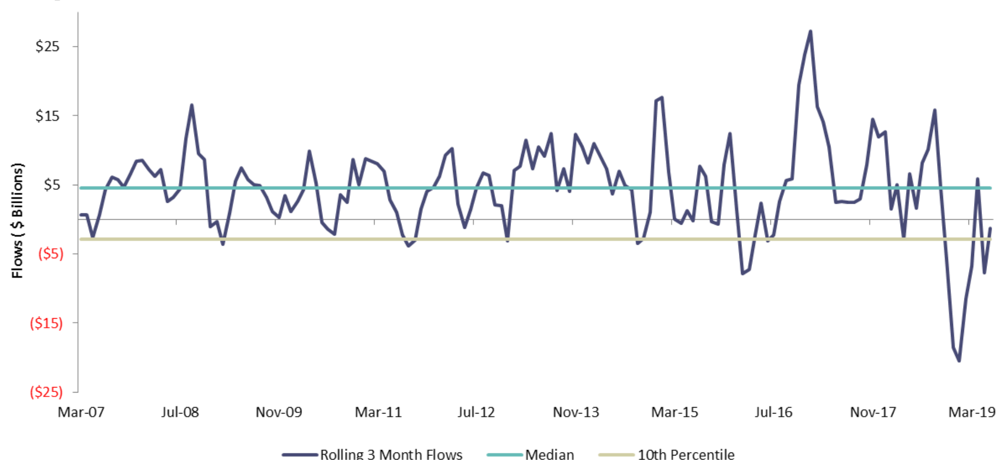
The key takeaway from the chart below is that many sectors (eight out of eleven) had inflows on more than 50% of the days in June. That sign of positive sentiment reinforces our depth argument above. Real Estate saw inflows on over 70% of the days in the past month. But it's not totally "all system go" for sectors; only two sectors (Communication Services being one of them) had inflows on more than 50% of the days over the past one or two months.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019. Past performance is not a guarantee of future results.

Figure 6: Sector Flows Rebound

We'll be sticking with sectors for one more chart to signify how anomalously low flows were heading into this month. Not to mention how investors have been positioning alongside this whipsaw volatility regime. The chart below shows the rolling three-month flow totals. Coming into June, flows were in the bottom few percentiles. With the $3 billion of inflows this past month, sectors were able to eke back above the 10th percentile. That's a positive sign, but they are not ready to say "ready, jet, go" just yet.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019. Past performance is not a guarantee of future results.

Few Bonds Left in the Space Dust

The record flows for fixed income have gone predominantly into the more interest rate-sensitive sectors of the bond market (i.e., Government, Aggregate, Mortgage-Backed, and IG Corporate), as investors continue to position for more episodic periods of volatility and seek to mitigate the equity risk within portfolios. In short, investors were letting bonds be bonds.

But that's not to say the credit, or more risk-on, types of bond exposures were left in the space dust. High yield ETFs took in a staggering $4 billion during the month of June, pushing their year-to-date total to almost $10 billion. The June flows equated to almost 10% of the start-of-month assets – the highest figure for any bond sector we track. High yield ETFs have clearly rebounded from a dismal 2018, taking in 25% of their start-of-year assets. And similar to the broad bond category, high yield ETFs took in the most flows for a first half ever.

But once again, these flows underscore the "whippiness" of current market sentiment. The month of May saw high yield ETFs post $3 billion of outflows. The inflows in June relative to the outflows from May represent the largest turnaround difference (+$7 billion) ever for high yield ETFs.

Looking ahead, high yield exposures fundamentals are similar to those of equities. Amid this rally, spreads have compressed to the second-lowest quintile over the past 25 years, and cracks in the credit foundation continue to reveal themselves with the number of credit rating downgrades outpacing upgrades by the most since 2009[viii]. Yet, for investors seeking a way to participate in a rally that may or may not have the *right stuff*, high yield credit remains one way to position while getting paid income to do so via a 5.8% yield. The only caveat is that, given the fervent rally's impact so far on spreads, most of the future returns may come from the coupon and not so much from price appreciation.

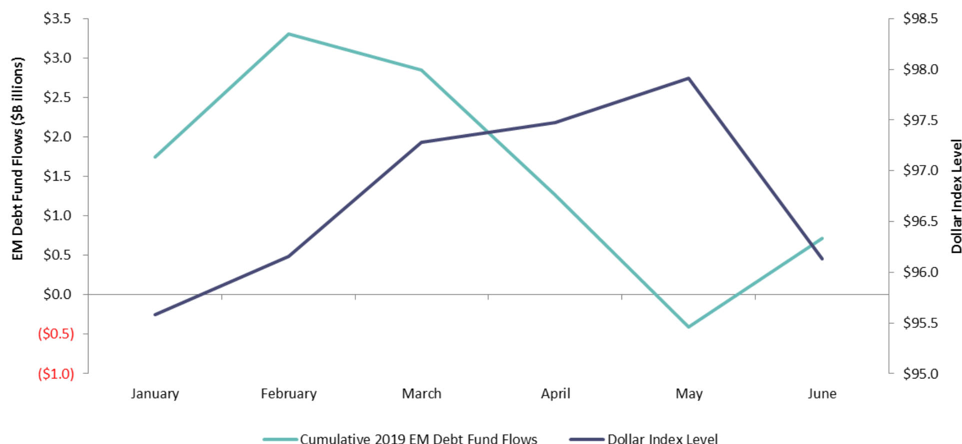
Figure 7: Fixed Income Sectors

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Aggregate	4,938	13,586	11,347	34,012	6.6%
Government	7,517	21,604	17,253	54,239	18.1%
Inflation Protected	469	-1,707	-1,452	-2,875	-4.2%
Mortgage-Backed	1,589	7,138	2,464	9,348	31.4%
IG Corporate	5,602	19,694	7,434	21,049	15.2%
High Yield Corp.	4,001	9,349	2,694	5,563	25.6%
Bank Loans	-397	-1,537	-975	-4,663	-15.7%
EM Bond	1,120	715	-2,177	2,822	2.8%
Preferred	664	2,038	2,000	-425	8.0%
Convertible	-134	-388	-176	-380	-9.2%
Municipals	610	3,597	2,481	7,572	9.8%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019.

Figure 8: EM Debt Flows versus the Dollar

High Yield was not the only "risk-on" type of bond exposure to witness a reversal. Fresh off posting the greatest outflows for any two-month period over the past 10 years, EM debt registered over $1 billion of inflows – continuing its trend versus the dollar.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019. Past performance is not a guarantee of future results.

Growth Rockets

Given that US equities were in net inflows, the size and style category was largely the same with inflows throughout. Growth funds outpaced value, as flows followed returns.

Growth is outperforming value by 6% in 2019, even though value beat growth in June given the late month rally in value-laden energy names.

Figure 9: US Size and Style

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Broad Market	3,225	13,641	8,436	33,637	6.8%
Large-Cap	11,552	24,441	17,804	92,580	4.3%
Mid-Cap	423	4,017	664	12,164	2.5%
Small-Cap	1,008	-1,398	-1,688	6,997	-0.8%
Growth	4,379	4,167	6,063	10,940	1.7%
Value	2,324	1,467	2,868	24,915	0.8%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019.

Barbell Flag Planted

With the Government category receiving the lion's share of the total fixed income flows, certain maturity buckets within the Government space had inflows. As shown below, the flows were skewed toward the ultra-short end and the belly portion (Intermediate) of the curve.

These flows represent a modest barbell position that allows investors to participate in a potential further decline in longer date rates, but without uncompensated duration risks if monetary policy actions end up not going the way the markets expect.

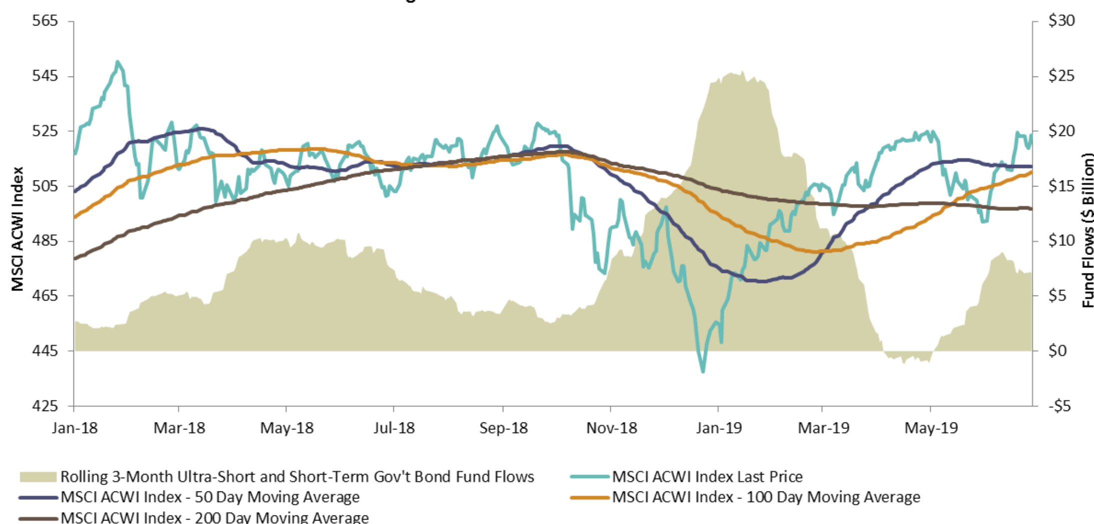
Figure 10: Fixed Income Maturity Flows

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Ultra-Short	4,944	4,678	6,424	17,500	14.5%
Short-Term	-1,692	4,185	852	18,576	9.6%
Intermediate	3,683	7,193	5,290	10,730	25.7%
Long-Term (>10 yr)	448	5,879	4,640	8,678	45.7%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019.

Figure 11: Ultra-Short and Short-Term Flows Still Indicate Caution

A key chart to gauge tactical sentiment is the MSCI ACWI's performance relative to its moving averages, juxtaposed with flows into ultra-short and short-term government bond ETFs. Flows into the combined categories moderated from the sizable spike during May's drawdown but remain in net positive territory.



Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019. Past performance is not a guarantee of future results.

Same Smart Flight Plan

Smart beta flows continued their 2019 trend of averaging $4 billion of inflows a month. Like previous periods, the majority of the flows have gone to defensive-oriented factor exposures, such as Dividend Yield and Minimum Volatility.

ESG strategies have taken in the most flows out of a percent of assets within this category, largely from two specific funds that received strategic cornerstone investments at launch. Outside of those flows, there has been little interest relative to Smart Beta and Active mandates.

Figure 12: Strategy Type

In Millions	June	Year to Date	Trailing 3 Months	Trailing 12 Months	2019 (% of Start of Year AUM)
Active	1,884	9,417	5,390	24,617	13.5%
Smart Beta	4,279	29,145	12,659	55,815	8.4%
Sector Smart Beta	-72	-29	-102	-1,380	-0.3%
ESG	521	3,238	1,524	5,071	33.1%

Top two and bottom two categories per period are highlighted. Past performance is not a guarantee of future results. Source: Bloomberg Finance L.P., State Street Global Advisors, as of June 30, 2019.

Definitions

Basis point
1/100th of 1 percent

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 Global Aggregate Bond Index
A flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Growth
Characterized by higher price levels relative to fundamentals, such as earnings.

Value
Characterized by lower price levels relative to fundamentals, such as earnings.

Dividend Yield Factor
Characterized by stocks, or a basket of stocks, with a high dividend yield

Minimum Volatility Factor
Characterized by stocks, or a basket of stocks, with a low standard deviation of returns or a lower risk than the market

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

Moving Average
A succession of averages derived from successive segments (typically of constant size and overlapping) of a series of values.

Smart Beta
A term for rules-based investment strategies that don’t use conventional market-cap weightings.

Trailing three-month average
Average over the prior three months.

GDP
Gross Domestic Product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. As a broad measure of overall domestic production, it functions as a comprehensive scorecard of the country’s economic health.

Brexit
A term for the withdrawal of the United Kingdom from the European Union.

FedSpeak
Comments from Federal Reserve officials

Bloomberg Barclays US Corporate High Yield Index
The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded.

OPEC+
An abbreviation for Organization of Petroleum Exporting Countries, which is a union of oil producing countries that regulate the amount of oil each country is able to produce, along with Russia who is not in the union.

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 Brus sels, 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 UK

Dubai: State Street Global Advisors Limited, DIFC Branch, Central Park Towers, Suite 15-38 (15th floor), P.O Box 26838, Dubai International Financial Centre (DIFC), Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority (DFSA). T: +971 (0)4-4372800, F: +971 (0)4-4372818.

France: State Street Global Advisors France. Authorised and regulated by the Autorité des Marchés Financiers. Registered with the Register of Commerce and Companies of Nanterre under the number 412 052 680.Registered office: Immeuble Défense Plaza, 23-25 rue Delarivière-Lefoullon, 92064 Paris La Défense Cedex, France. Telephone: (+33) 1 44 45 40 00.Facsimile: (+33) 1 44 45 41 92.

Germany: State Street Global Advisors GmbH, Brienner Strasse 59, D-80333 Munich. Authorised and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. Telephone +49 (0)89-55878-400. Facsimile +49 (0)89-55878-440. www.ssga.com

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

Ireland: State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Incorporated and registered in Ireland at Two Park Place, Upper Hatch Street, Dublin 2. Registered Number: 145221. Member of the Irish Association of Investment Managers. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300.

Italy: State Street Global Advisors Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Limited, a company registered in the UK, authorised and regulated by the Financial Conduct Authority (FCA), with a capital of GBP 71'650'000.00, and whose registered office is at 20 Churchill Place, London E14 5HJ. State Street Global Advisors Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 06353340968 - R.E.A. 1887090 and VAT number 06353340968 and whose office is at Via dei Bossi, 4 - 20121 Milano, Italy • Telephone: 39 02 32066 100 • Facsimile: 39 02 32066 155.

Netherlands: State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. Telephone: 31 20 7181701. SSGA Netherlands 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

Singapore: State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore) • Telephone: +65 6826-7555 • Facsimile: +65 6826-7501 • Web: www.SSGA.com

Switzerland: State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered with the Register of Commerce Zurich CHE-105.078.458. Telephone +41 (0)44 245 70 00. Facsimile Fax: +41 (0)44 245 70 16. www.ssga.com

United Kingdom: State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. Telephone: 020 3395 6000. Facsimile: 020 3395 6350.

United States: State Street Global Advisors is the investment management arm of State Street Corporation; State Street Global Advisors Funds Distributors, LLC is an indirect wholly owned subsidiary of State Street Corporation. State Street Global Advisors, One Iron Street, Boston, MA 02110.

Important Risk Information

This material or any portion thereof may not be reprinted or redistributed without the written consent of State Street Global Advisors.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs' net asset value. Brokerage commissions and ETF expenses will reduce returns.

The views expressed here are those of the SPDR Americas Research Team of State Street Global Advisors and are subject to change based on market and other conditions. It should not be considered a solicitation to buy or an offer to sell any security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. There is no representation or warranty as to the current accuracy of such information, nor liability for decisions based on such information. Past performance is no guarantee of future results.

Unless otherwise noted, all data and statistical information were obtained from Bloomberg LP and SSGA as of June 30, 2019. Data in tables have been rounded to whole numbers, except for percentages, which have been rounded to the nearest tenth of a percent.

The research and analysis included in this document have been produced by SSGA for its own investment management activities and are made available here incidentally. Information obtained from external sources is believed to be reliable and is as of the date of publication but is subject to change. This information must not be used in any jurisdiction where prohibited by law and must not be used in a way that would be contrary to local law or legislation. No investment advice, tax advice, or legal advice is provided herein.

Standard & Poor's, S&P and SPDR are registered trademarks of Standard & Poor's Financial Services LLC (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation. State Street Corporation's financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index.

State Street Global Advisors Funds Distributors, LLC, member FINRA, SIPC, One Iron Street, Boston, MA 02110.

STATE STREET GLOBAL ADVISORS
SPDR

[i] Astronauts normally experience a maximum g-force of around 3gs during a rocket launch. This is equivalent to three times the force of gravity humans are normally exposed to when on Earth but is survivable for the passengers
[ii] Tang is an artificially flavored drink mix. Sales of Tang were poor until NASA used it on John Glenn's Mercury flight in February 1962, and on subsequent Gemini missions. Since then it has been closely associated with the U.S. manned spaceflight program, and created the misconception that Tang was invented for the space program
[iii] FactSet as of June 30, 2019 based on consensus analyst estimates
[iv] The first human spaceflight program of the United States, running from 1958 through 1963. An early highlight of the Space Race, its goal was to put a man into Earth orbit and return him safely, ideally before the Soviet Union
[v] "ECB Rate Cut Is Weapon of Choice as Draghi Threatens Action", Bloomberg June 18, 2019
[vi] FactSet as of June 30, 2019 based on consensus analyst estimates
[vii] Frog in the Pan: Continuous Information and Momentum, Da, Gurun and Warachka (2013)
[viii] Based on rating actions complied by Bloomberg ratings analysis as of June, 30 2019

2617250.1.1.GBL.RTL

Exp. 7/31/2020