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Michael Arone, CFA Chief Investment Strategist US SPDR Business Matthew Bartolini, CFA Head of SPDR Americas Research

# MIDYEAR INVESTMENT OUTLONG

Global markets continue to spin on an axis of complexity, propelled by shifts in political dynamics and macro events. Meanwhile, equities bounce around all-time highs and volatility hovers close to record lows. This is the New Abnormal.

Recalibrate portfolios to generate income, find value and weather volatility.

STATE STREET GLOBAL ADVISORS. SPDR

# GREAT EXPECTATIONS REBUFFED

### What Are You Worried About?

The top three concerns of the nearly 750 investment professionals who responded to our survey1 are what you might expect given the saber rattling around the globe and political brinksmanship in D.C. However, respondents' bottom three concerns should not be dismissed. Seeing these idiosyncratic events come to fruition, as they have in the not-sodistant past, could pose real challenges to portfolios. The breadth of these worries underscores the need for diversification to position portfolios for the risks you anticipate — and the ones you don't.

### **Top 3 Concerns**

- · Geopolitical tensions
- · Stretched valuations in US equities
- Political gridlock in Washington and new administration

### **Bottom 3 Concerns**

- · Increase in high yield defaults
- · Currency volatility
- · Oil price declines

The year began with a hopeful bang but, as we near the midpoint, that energy has begun to fade. In the first few months of 2017, a recovery in earnings growth, better global economic data and great expectations for an increase in fiscal spending, tax reform and deregulation drove a rally in global risk assets. Today, the stock market continues to give the benefit of the doubt to the global economy and the Trump administration. However, amid a steady stream of scandalous headlines coming out of Washington, D.C., many investors are beginning to question how much longer the eight-year-old bull market can last.

Instead of trumpeting big league deals and legislative achievements, today's headlines read like a Tom Clancy novel—reality TV star elected president, Russian hackers rig US election and, of course, allegations of political interference at the FBI. Yet, despite the political sound and fury, global earnings are growing, populism is fading as demonstrated by the results of recent European elections and market volatility, as measured by the CBOE VIX Index, remains eerily calm, still supported by easy global monetary policy. And although valuations remain stretched, investors' appetite for risk assets continues to be insatiable.

The current turmoil in D.C. makes the second half of the year that much more difficult to forecast. We continue to expect slow global growth, low interest rates and modest inflation. But importantly, the timing of fiscal policy, infrastructure spending, tax reform and deregulation has become murky, meaning any impact on growth, rates and inflation may not materialize until at least the second half of 2018. In the meantime, although global growth has improved and investor sentiment remains strong, the long-term outlook for economic growth remains sluggish. And in the short term, there are few clear catalysts for a shift back into reflation Trump trades and related investments. To position for the continuation of the New Abnormal, we suggest investors:



Look beyond traditional sources to generate income, ensuring the yield is worth the risk



Pursue opportunities outside the US, at a reasonable price and a reasonable risk



Seek to mitigate episodic volatility due to policy uncertainty with an allocation to gold

A total of 721 investment professionals completed State Street Global Advisors' online midyear survey, the goal of which was to determine the investment concerns and client portfolio considerations that were top of mind for investment professionals. They survey was fielded in May 2017. Respondents represented a variety of investment professional segments holding a wide range of assets under management.

## TWO QUESTIONS FUEL MIXED MARKET EMOTIONS

There will be plenty to monitor and debate as the year continues to unfold, but investors must be forward-looking. These investment decisions should be informed by answers to two big questions we see weighing heavily on investors' minds:

### Where Is There Value?

The fact that US equities are well above their average valuations was not lost on our survey respondents who listed US valuations as a top concern. But how overvalued are US stocks? Figure 1 illustrates our examination of US equities across multiple valuation metrics over a more than 25-year time horizon, spanning three bull markets and two bubble bursts. Take a look at current valuations relative to history. Only dividend yield falls even close to the median, or the 50th percentile, a placement that is more likely a function of the rate environment rather than stocks' valuations. It is the clear outlier in this sample set, with the majority of the other metrics, except for the trailing 12- month Price/Earnings, trading in the top quartile of richness.

Figure 1: S&P 500 Index Valuation Metrics

	Price to Book (P/B)	Price Earnings (P/E)	CAPE Shiller P/E	Consensus	(EV/	to Sales	Cash	Dividend Yield
Current	3.1	21.3	29.2	18.4	12.8	2.1	13.1	2.0
25 Year Median	2.8	18.6	25.4	16.2	10.7	1.5	10.7	1.9
Current Percentile	75%	70%	81%	89%	78%	93%	73%	48%
% Abv/Below Median	10%	14%	15%	13%	19%	37%	22%	-1%

Source: Bloomberg Finance L.P. as of 05/18/2017. Characteristics are as of the date indicated and are subject to change. Past performance is not a guarantee of future results.

With such a backdrop, where should one look for value opportunities? There are some in the US, namely with Financials which trade below their 20-year average level of price-to-book² and represent a relative valuation play versus the broader S&P 500 Index. Tech stocks also warrant consideration. Even after a torrid start to 2017, they trade on par with their 20-year price-to-book relative valuation versus the S&P 500, but based on price-to-earnings, they carry a relative valuation that is 22 percent below their 20-year historical average to the S&P 500.3

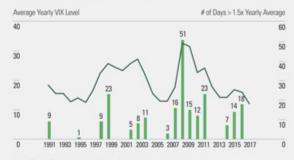
Greater value can potentially be found outside the US. We suggest those looking for capital appreciation at a reasonable price focus their sights across the pond.

### Will Low Volatility Continue?

Nearly halfway through 2017, the average level of the CBOE VIX Index, Wall Street's so-called "fear gauge," is 11.9, even when factoring in the May 17 spike to 16.30 after the report of a memo from former FBI director James Comey relating his conversations with President Trump. If the year ended today, the VIX would set a record for the lowest calendar year average in its 27-year history. This generationally low level of volatility amidst a climate of significant political uncertainty and low realized volatility for the S&P 500 Index suggests a low volatility anomaly.

It's unlikely that low volatility levels will persist, or that we will suddenly see an extended period of high volatility. Rather, expect periods of episodic volatility. As shown in Figure 2, even as the VIX has trended lower over the past few years, there have been an increasing number of days where the VIX traded one and a half times higher than the average on the year. With levels of political uncertainty, partisan conflict and geopolitical risk elevated, the prospect of a tranquil summer with no fireworks seems to be a pipedream. Especially with another congressional debt ceiling debate looming, look for market events to push the VIX higher at times in the second half of 2017.

Figure 2: What Has Caused Volatility Spikes?



# of Days Spent over 1.5x Yearly Average — Yearly Average

Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

<sup>&</sup>lt;sup>2</sup> As of 05/18/2017 FactSet.

<sup>3</sup> As of 05/18/2017 FactSet.

# WHERE IS THE HERD HEADED?

In the era of Facebook and Instagram, everyone wants to know what their neighbors are doing. The same holds true for how investors are allocating portfolios.

In response to our survey questions, investors provided insight on where they are taking portfolios and what their expectations are for the direction of various macro variables. This information may be useful as you position your portfolios.

Figure 3: How Do Investors Plan to Adjust Asset Class Exposures?



Source: State Street Global Advisors' Online Midyear Survey, 05/18/2017.

### **Factors**

Value and dividend exposures seem to be the most favored, with each garnering 20 percent of the votes. This is not a surprise given that the need for income remains vital to portfolios and that investors expressed concern over the level of equity valuations. However, 32 percent of respondents indicated that they are not targeting factor exposures at all, suggesting the need for more smart beta education to increase investors' comfort with implementing factor exposures in portfolios.

### Sectors

With first quarter US gross domestic product registering a paltry 1.2 percent increase, investors are seeking growth opportunities within sectors. Technology, Financials and Health Care are the most overweight sectors, while Utilities, Real Estate, and Energy are the most underweight. Notably, Tech, Financials, and Health Care had the most firms beating earnings expectations during the first quarter.

### **Asset Classes**

In the wake of the French election, the tides of investor sentiment look to be pulling assets across the Atlantic, with 46 percent of respondents overweighting their European allocations. With currency volatility, oil price declines, and the Chinese economy listed as some of the *least* concerning issues, it is not a surprise that 44 percent are looking to increase emerging markets (EM) exposure. US Treasuries and high-yield credit are the two segments where respondents planned to decrease exposure the most.

### Oil, Gold, the S&P 500 & 10-Year Yield

By next year, nearly 50 percent of respondents foresee the 10-Year US Treasury yield to be below 2.6 percent (2.3 percent as of 05/12/17), with the majority expecting it to be between 2.5 and 2.6 percent. So while there is an expectation of higher rates, nobody fears nosebleed altitudes. Beyond rates, 70 percent of respondents expect next year's price of oil to be between \$50 and \$60 a barrel (\$47.84 as of 05/12/17), and 60 percent anticipate the price of gold to be north of \$1,300 an ounce (\$1,228 as of 05/12/17).

More intriguing is the forecast laid out for the S&P 500 Index (S&P 500), with the majority expecting only a modest price gain between 2,400 and 2,500 from the level at the time of the survey (2,390 as of 05/12/17). This indicates that most see these key variables rising in tandem, something that has happened just seven times in the last 50 calendar years.<sup>4</sup> Therefore, the odds here are not in the respondents' favor.

<sup>&</sup>lt;sup>4</sup> Bloomberg Finance L.P., Federal Reserve Bank of St Louis as of 12/31/2016 based on calendar year price movements.

# 3 STRATEGIES FOR THE NEW ABNORMAL



### 1. Seek Income at a Reasonable Risk

Consider looking beyond traditional sources to structure fixed income allocations to provide diversification, stability and income. And pursue quality, not quantity of yield, with dividend-paying equities.

The Federal Reserve's recent rate hikes and the post-election wave of pro-growth, pro-cyclical and reflationary fiscal stimulus plans have pushed bond yields higher than they were a year ago. This uptick in rates has led most investors to be unconcerned about additional Fed rate hikes. In fact, only 7 percent of respondents to our survey listed rising rates as a top concern. However, investors did register their concerns about income generation, total return and mitigating volatility, underscoring the three major challenges facing the current bond market.

These challenges are quite apparent based on the roller coaster ride boring bonds have been on over the last eight months. Immediately after the election, bond markets were whipsawed with the Bloomberg Barclays US Aggregate Bond Index (Agg) posting the worst two-week period of returns since October 2008 when the financial crisis was unfolding. Of course, this spike in rates was more of a quick sugar high than a sustained

segments carry a yield much lower than historic averages, creating scarce opportunities for income generation. See

back where it was right around the election.

rush. Over the last few months, as distractions have delayed

policy decisions, the market has turned less than sanguine on

the prospects that all of the Trump administration's proposed

policy changes will be implemented. As a result, as shown in

Figure 4, measures of inflation expectations have trended

sideways, yields have fallen, the term premium has turned

negative once again and the yield curve, as measured by the

spread between the 10- and 2-year US yield, is essentially

So even though yields are higher than they were a year ago, there hasn't been a big uptick and yields still pale in comparison

US Treasuries and the Agg as well, as most traditional bond

to the average figure over the last 20 years. This extends beyond

Figure 4: Rates Markets Have Trended Sideways

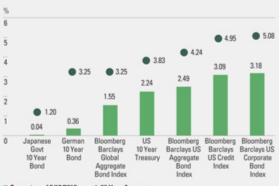


■ Adrian Crump & Moench 10 Year Treasury Term Premium

- 10 Year Breakeven Inflation Rate - 10 yr - 2yr Yield - US 10 Year Yield

Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

### Figure 5: Income Opportunities Are Scarce



■ Current as of 5/18/2017 ● 20 Year Average

Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

### Survey Says: Investors Understand They Cannot Just Reach for Yield

In fact, respondents listed high yield as the second highest exposure they would decrease an allocation to. A potential rationale? Credit spreads have become somewhat expensive, as shown in Figure 6, where they trade 29 percent below their 20-year median and currently rank as low as in the lowest 20th percentile. This richness occurs at a time when fundamentals have improved, but are not what we would consider completely healthy.

What's more, a modicum of recency bias remains toward the effect oil prices have on high-yield spreads, a notion crystalized by an increase in the correlation of high-yield bonds and the spot price of oil when energy prices fell in early April. SSGA's one-year forecast for high yield is still positive; however, the return will most likely come from the coupon and perhaps not meet investors' desire for total return, as there is potentially more downside than upside given these spread levels.

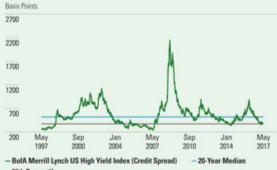
The tightening in spreads, the oscillation of bond yields and the stalled shift from monetary to fiscal stimulus over the past eight months underscore the challenge investors face constructing portfolios in this New Abnormal.

### How to Target Diversification, Stability and Income

In seeking income at a reasonable risk, we believe fixed income portfolios should be divided into three distinct buckets, aimed at three objectives - diversification, stability and income, with the core of the portfolio including all three. Therefore, in the core, we favor active over passive in order to balance interest and credit risks, while pursuing higher levels of income generation than offered by the Agg. Outside the core, we favor floating over fixed rates. And while we construct credit broadly for the income potential, investors may want to consider augmenting their credit allocation with senior loans, as they may benefit more than fixed-rate high yield in an era of rising rates, elevated defaults and less-than-stellar fundamentals.

In investors' short-duration bucket we again favor floating over fixed as a potential source of income that may also mitigate duration-induced price declines, similar to those witnessed

Figure 6: High Yield Spreads Are Tight



Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

after the US election when the fixed rate Bloomberg Barclays US Corporate 1-5-Year Index fell 1 percent through the end of November, while the floating rate Bloomberg Barclays US FRN < 5 yrs Index was up 0.1 percent over the same time frame.

To put this in historical context, when the two-year yield, the most sensitive rate to Fed policy, increases in a given month, the return on the one- to five-year slice of the fixed-rate corporate bond market has risen only 53 percent of the time, averaging 0.08 percent, while returns on investment-grade floating rate notes in the 5-year and below space increased 88 percent of the time with an average of 0.26 percent.5

### Implementation Ideas

TOTL SPDR® DoubleLine® Total Return Tactical ETF

SRLN SPDR Blackstone / GSO Senior Loan ETF

FLRN SPDR Bloomberg Barclays Investment Grade Floating Rate ETF

<sup>&</sup>lt;sup>5</sup> Bloomberg Finance L.P. as of 04/30/2017. Bloomberg Barclays US Corporate 1-5-Year Index (fixed-rate corporates)Bloomberg Barclays US FRN < 5 yrs Index</p> (floating rates). Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index performance is not meant to represent the performance of any exchange

### On the Equity Side, Focus on Dividend Growers

The payout ratio for S&P 500 firms has increased 38 percent over the last three years in a linear fashion, almost matching the amount of leverage in the system, as evident by a 33 percent increase in net debt to earnings before interest, tax, depreciation and amortization (EBITDA) over the same period. Payouts are now 31 percent higher than their 20-year median, and are potentially being financed by firms taking on more debt—a toxic cocktail if there ever was one.

Figure 7: Quality over Quantity for Income at a Reasonable Risk



- S&P High Yield Dividend Aristocrats Index (Dividend Growers)
- S&P 500 High Dividend Yield Index (High Yielders)

Source: Bloomberg Finance L.P. as of 05/18/2017. Characteristics are as of the date indicated and are subject to change.

For investors searching to add a portion of income generation to their equity bucket, dividend-paying stocks are one potential solution. But a thoughtful approach is warranted. If income at a reasonable risk is a key consideration, investors should place greater emphasis on the quality and not quantity of yield. By examining the difference between the underlying firm's fundamentals, as shown in Figure 7, it is evident that dividend growers have less leverage, higher growth prospects and lower payout ratios than high dividend yielders. Therefore, consider focusing on dividend growers, not the highest yielders in the market, as that yield may be here today but gone tomorrow.

### Implementation Ideas

SDY SPDR S&P Dividend ETF

### PAIR HYBRIDS TO PURSUE INCOME WITH AN EYE ON RISK

Just as hybrid cars provide drivers with efficiencies without sacrificing style or performance, investors may be able to pair two hybrids to do the same for portfolios. Convertibles are equity sensitive bonds and preferreds are bond sensitive stocks. When combined there is the potential to generate income while transforming risk and offering a low beta to both bonds and stocks. A 50-50 split of an index of convertible securities and preferred stock indexed exposures has produced a source of income generation, with an index weighted average current yield of 4.6 percent and a beta over the last 60 months of 0.42 to equities and 0.17 to bonds.<sup>6</sup>

### IMPLEMENTATION IDEAS TO CONSIDER

CWB SPDR Bloomberg Barclays Convertible Securities ETF

PSK SPDR Wells Fargo® Preferred Stock ETF

The performance assumes no transaction costs so actual results will differ. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index performance is not meant to represent the performance of any exchange traded fund.

Spdrs.com, FactSet as of 05/18/2017 as measured by the beta sensitivity of a combination of the Bloomberg Barclays U.S. Convertible Bond > \$500MM Index and Wells Fargo Hybrid and Preferred Securities Aggregate Index to the S&P 500 Index (equities) and the Bloomberg Barclays US Aggregate Bond Index (bonds). The returns and characteristics referenced above were achieved by mathematically combining the actual performance of the indices as outlined above.



# 2. Pursue Opportunities Outside the US, at a Reasonable Price and a Reasonable Risk

Valuations outside the US appear attractive, but geopolitical risks remain. Consider tactical and strategic positions outside the US to focus on capital appreciation at a reasonable price (CARP) and seize the day or "CARPe Diem."

By applying a similar framework that earlier showed valuations in the US at somewhat elevated levels, but with a singular metric, we see that value opportunities exist outside the US in eurozone, developed ex-US and EM equities. Based on price-to-book, each of these regions is trading near or below their 15-year median. Additionally, on a relative basis to the S&P 500 Index, each measure is trading at a larger discount than historically witnessed, as shown in Figure 8.

Figure 8: Relative Valuation Metrics for Ex-US



Source: Bloomberg Finance L.P. as of 05/18/2017. Characteristics as of the date indicated and are subject to change.

### Value in the Eurozone

Tactically, the eurozone appears to offer attractive valuations plus a backdrop where policy has become somewhat less uncertain following the results of the French election. Even after the market was gripped with "Macron Momentum," the eurozone still trades at a 17 percent discount to its 15-year median relative price-to-book to the S&P 500.7 Additionally,

tailwinds for growth may have emerged as last year marked the first time since 2008 that the eurozone's GDP grew faster than that of the US. Furthermore, after four years of trending below its 2 percent target, eurozone inflation is now picking up, which has led to better pricing power and higher profit margins for companies in the region.

Improving growth comes on the heels of continued consumer strength, buoyant economic sentiment and manufacturing gains, which may further boost earnings-per-share (EPS) growth for European companies. As shown in Figure 9, analyst expectations for eurozone equities have been upbeat all year, and improving, while the tide is just turning for the US. With "Frexit" fears abated, attractive valuations and upbeat earnings expectations now highlight the possibility to find value in developed ex-US exposures with a targeted emphasis on Europe — a rotation reinforced by our survey results.

Figure 9: EPS Growth Trends



- 2017 Analyst Consensus EPS Estimates for S&P 500 Index
- 2017 Analyst Consensus EPS Estimates for EuroSTOXX 50 Index

Source: Bloomberg Finance L.P. as of 05/18/2017. Characteristics are as of the date given and should not be relied upon as current thereafter. There is no guarantee that the estimates will be achieved.

### Developed ex-US and EM Opportunities

Our survey results also indicate a preference to look for reasonably-priced opportunities, beyond a targeted position in the eurozone, to include broad-based developed ex-US and EM allocations. Similar to those for the eurozone, analyst expectations for earnings growth for EAFE and EM stocks have been upbeat and improving all year. But there are some caveats to consider as, while policy uncertainty has been reduced, it is by no means gone, a fact underscored by the Global Economic Policy Uncertainty Index sitting 72 percent above its 20-year average.8 The Bank of Japan is still combating low levels of inflation and attempting to rejuvenate economic growth after a few lost decades. And while Brexit negotiations have yet to fully get underway, the Brexit effect has already been felt; Great Britain's GDP growth rose a meager 0.2 percent in the first quarter9 with trade as a drag and consumer spending weakened.

Of course, while extending portfolios to include EAFE and EM creates a much bigger opportunity pool, the water also gets murkier. So, as investors interested in broad-based core exposures wade back into international waters, a multi-factor smart beta approach may be ideal, as certain screens can be efficiently applied to potentially formulate a better buy-and-hold strategy for the core.

Screening can be even more critical for EM because macro events, as they have for the better part of two years, continue to influence performance. The Brazilian political scandal is the latest example. Remember, too, that EM's relative valuation figure is low because the commodity cycle bust led to years of negative returns in the region.

Nonetheless, although our survey respondents worry about geopolitical tensions, international growth prospects are encouraging and valuations are attractive in a world where value opportunities are scarce. To zero in on not only value, but value at a reasonable risk in broad-based developed ex-US and EM, applying a multi-factor smart beta approach to target low-volatility firms with quality and healthy balance sheets that trade at inexpensive valuations may warrant consideration.

### Implementation Ideas

FEZ SPDR EURO STOXX 50 ETF

QEFA SPDR MSCI EAFE StrategicFactors<sup>SM</sup> ETF

QEMM SPDR MSCI Emerging Markets StrategicFactors™ ETF

### HARNESS OTHER POTENTIAL "VALUABLE" TRENDS WITH SECTOR-BASED SOLUTIONS

With respondents indicating that US Large Cap will be the allocation they are most likely to maintain an exposure to, it may be time to re-evaluate positioning with sector-based solutions given that broad market valuations are elevated.

### RATES, REFORMS, AND VALUE

Banks are trading at a discount to the broader market based on price-tobook, <sup>10</sup> and may stand to benefit from the uptick in lending rates and the potential reduction of regulatory reforms. Consider:

KBE SPDR S&P Bank ETF

### INCREASING DEFENSE SPENDING

Ongoing saber rattling and the Trump administration's persistent requests to increase defense spending may provide tailwinds to EPS growth for defense firms. Consider:

XAR SPDR S&P Aerospace & Defense ETF

### **GROWTH AT A REASONABLE PRICE**

Tech stocks have surprised to the upside at the highest rate for four consecutive quarters and posted double digit growth rates in the last two, all the while trading at attractive valuations. Consider:

MTK SPDR Morgan Stanley Technology ETF

Bloomberg Finance L.P. as of 05/25/2017.

<sup>&</sup>lt;sup>9</sup> Bloomberg Finance L.P. as of 05/25/2017.

Bloomberg Finance L.P. as of 05/18/2017 20 year period analyzed. Broader market is represented by the S&P 1500 Index. Banks are represented by the S&P Bank Select Industry Index.



### 3. Look to Mitigate Episodic Volatility from Political Uncertainty

Consider an allocation to gold, which has a low historical correlation to stocks and bonds.11

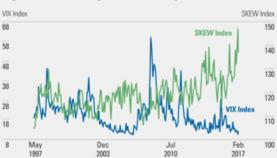
Thus far in 2017, the CBOE VIX Index has remained well below the long term average of 19.6; however, as discussed earlier, this doesn't mean it has been a low risk environment. In fact, the political uncertainty and gridlock emanating throughout the market has led to a divergence between risk level sentiment measures. An alternative measure of market sentiment on volatility, the CBOE SKEW Index — otherwise known as the Black Swan Index — presents a strikingly different picture than the VIX, clouding the current risk environment.

The CBOE SKEW Index uses out-of-the-money options to calculate a barometer for the probability of a tail risk event. This contrasts with the VIX, which uses a wide range of options, including at-the-money options to estimate implied volatility. Figure 10 illustrates that the SKEW Index has been elevated, even as the VIX has been contained to the low to mid-teens. With this, it is apparent that investors are willing to pay "up" in order to hedge tail risk and remain on edge.

Divergent levels of the VIX and SKEW indices have been observed historically. The last time was from 2004 to the summer of 2007, when investors became concerned with high levels of leverage in the economy. Markets subsequently corrected in 2008, marking the end of the US housing market bubble and the start of the global financial crisis. The issue today is that over the past few years the Federal Reserve has been the knight in shining armor, but is now on a path of tightening, not loosening, policy. And given the gridlock in D.C., it doesn't seem that fiscal stimulus is ready to pick up the or, rather, the lance. Therefore, don't be surprised if episodes of volatility occur and rock market sentiment, as we saw in mid-May. Additionally, as shown in Figure 11, long VIX positions (i.e. buyers of volatility) are in the lowest 5th percentile and long S&P 500 futures (i.e. long more equity upside) are in the 95th percentile. So, with positioning at extremes, there does appear to be a coiled spring mentality here, something investors should note if uncertainty spills over into fear.

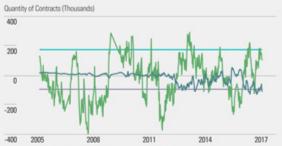
Against this backdrop of continued uncertainty, what tools are available for investors seeking to protect portfolios but remain invested? Investors may consider diversifying their portfolios by including a position to gold, which has a -0.06 correlation to stocks and a 0.15 correlation to bonds over the last 30 years. <sup>12</sup> During the recent spike in volatility on May 17, gold showcased its differing return patterns as the spot price rose by 1.95 percent while the S&P 500 posted its worst daily return in more than eight months. <sup>13</sup>

Figure 10: The Divergence of Volatility



Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

Figure 11: Coiled Spring on Positioning



- CFTC CME E-Mini S&P 500 Net Non-Commercial Futures Positions
- CFTC CBOE VIX Futures Non-Commercial Net Total/Futures Only
- VIX 5th Percentile S&P 95th Percentile

Source: Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results.

### Implementation Ideas

GLD® SPDR Gold Shares

- <sup>11</sup> The correlation coefficient measures the strength and direction of a linear relationship between two variables. It measures the degree to which the deviations of one variable from its mean are related to those of a different variable from its respective mean. Gold's correlation to the S&P 500 Index, the Bloomberg Barclays US Aggregate Index is -0.06, 0.15 over the last 30 years. Index returns reflect capital gains and losses, income, and the reinvestment of dividends. Source: Bloomberg and SSGA, as of 04/30/2017.
- <sup>12</sup> Bloomberg and SSGA, as of 04/30/2017.
- Bloomberg Finance L.P. as of 05/18/2017. Past performance is not a guarantee of future results. Performance is not meant to represent that of any particular exchange traded fund.

### Glossary

1 to 30 years.

large consequence.

Adrian Crump & Moench 10-Year Treasury Term Premium New York Fed economists Tobias Adrian, Richard Crump and Emanuel Moench (or "ACM") present Treasury term premia estimates for maturities from one to ten years from 1961 to the present. Data is available at daily and monthly frequencies, the latter being end-of-month observations.

**Beta** Measures the volatility of a security or portfolio in relation to the market, with the broad market usually measured by the S&P 500 Index. A beta of 1 indicates the security will move with the market.

Bloomberg Barclays U.S. Convertible Bond > \$500MM Index An index designed to represent the market of U.S. convertible securities, such as convertible bonds, with outstanding issue sizes greater than \$500 million. Convertible bonds are bonds that can be exchanged, at the option of the holder, for a specific number of shares of the issuer's preferred stock ("Preferred Securities") or common stock.

Bloomberg Barclays US Corporate 1-5 Year Index Designed to measure the performance of US corporate bonds that have a maturity of greater than or equal to 1 year and less than 5 years.

Bloomberg Barclays U.S. Aggregate Bond Index: A benchmark that provides a measure of the performance of the US dollar denominated investment grade bond market, which includes investment grade government bonds, investment grade corporate bonds, mortgage pass through securities, commercial mortgage backed securities and asset backed securities that are publicly for sale in the US.

Bloomberg Barclays U.S. Corporate High Yield Bond Index A benchmark that measures the US corporate market of non-investment grade, fixed-rate corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Bat/BB+/BB+ or below.

Bloomberg Barclays U.S. Corporate Investment Grade Bond Index A benchmark consisting of publicly issued U.S. Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB- or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

Bloomberg Barclays U.S. Dollar Floating Rate Note < 5 Years Index A benchmark consisting of debt instruments that pay a variable coupon rate, most based on 3-month LIBOR with a fixed spread. May include US-registered, dollar-denominated bonds of non-US corporations, governments and supranational entities Bloomberg Barclays U.S. Treasury Index An index that covers the entire U.S. government bond market by containing U.S. Treasuries with maturities ranging from

BofA Merrill Lynch US High Yield Index Tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US. CAPE Shiller P/E The cyclically adjusted price-to-earnings ratio is a valuation measure usually applied to the US S&P 500 equity market. Defined as price divided by the average of ten years of earnings (moving average), adjusted for inflation. CBOE SKEW Index: A benchmark designed to measure the perceived risk of extreme negative moves in US equity markets. SKEW values calculated from weighted strips of out-of-the-money S&P 500 options, rise to higher levels as investors become more fearful of a "black swan" event — an unexpected event of

CBOE VIX Futures is a futures contract that provides a pure play on implied volatility independent of the direction and level of stock prices.

CBOE Volatility Index (VIX) A measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices.

The views expressed in this material are the views of the SPDR ETFs and SSGA Funds Research Team and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. The information provided does not constitute investment advice and it should not be relied on as such. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. Actively managed funds do not seek to replicate the performance of a specified index. An actively managed fund may underperform its benchmark. Investments in asset backed and mortgage backed securities are subject to prepayment risk which can limit the potential for gain during a declining interest rate environment and increases the potential for loss in a rising interest rate environment. Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss. While the shares of ETFs are tradable on secondary markets, they may not readily trade in all market conditions and may trade

CFTC Net Non-Commercial Futures Positions The net of long and short futures positions reported to the U.S. Commodity Futures Trading Commission and held by traders who do not use the future contracts for hedging underlying financial instruments.

CME E-Mini S&P 500 Futures is a futures contract representing one fifth the size of standard S&P futures which are based on the underlying Standard & Poor's 500 index. Credit Spread The difference in yield between a U.S. Treasury bond and a debt security with the same maturity but of lesser quality.

Enterprise Value/EBITDA (EV/EBITDA) A popular valuation multiple used to measure the value of a company. It is the most widely used valuation multiple based on enterprise value and is often used in conjunction with, or as an alternative to, the P/E ratio to determine a company's fair market value

EuroSTOXX 50 Index A stock index of Eurozone stocks designed by STOXX, an index provider owned by Deutsche B\u00f6rse Group.

High-Yield Corporate Bonds Corporate debt with generally lower credit ratings and higher yields than investment grade corporate bonds.

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

MSCI Emerging Markets Index An equity benchmark that captures large and mid-cap representation across 23 emerging markets countries. Covers approximately 85% of the free float-adjusted market capitalization in each country.

Payout ratio The proportion of earnings paid out as dividends to shareholders, typically expressed as a percentage.

Price-to-Book, or P/B Ratio A valuation metric that compares a company's current share price against its book value, or the value of all its assets minus intangible assets and liabilities.

Price/Cash Flow (P/CF) A stock valuation measure calculated by dividing a firm's cash flow per share into its current share price. Financial analysts often prefer to value stocks using cash flow rather than earnings because earnings are more easily manipulated.

Price-to-Earnings Multiples, or P/E Ratio A valuation metric that uses the ratio of the company's current stock price versus its earnings per share.

Price-to-Sales P/S Ratio A valuation metric for stocks calculated by dividing the company's market cap by the revenue in the most recent year; or, equivalently, divide the per-share stock price by the per-share revenue.

S&P 500 Index A popular benchmark for U.S. large-cap equities that includes 500 companies from leading industries and captures approximately 80% coverage of available market capitalization.

S&P 500 High Dividend Yield Index An index is designed to measure the performance of 80 high yield companies within the S&P 500. It is equally weighted to best represent the performance of this group, regardless of constituent size.

S&P High Yield Dividend Aristocrats Index An index of companies in the S&P 500 who have increased their dividends for at least 25 consecutive years.

Smart Beta A set of investment strategies that use alternative index construction rules seeking to achieve outperformance over first-generation market capitalizationbased indices. Most smart beta indices isolate six particular "factors" — small size, value, high yield, low volstility, quality and momentum.

Wells Fargo Hybrid and Preferred Securities Aggregate Index A modified market capitalization weighted index composed of preferred stock and securities that are functionally equivalent to preferred stock.

at significant discounts in periods of market stress. Because of their narrow focus, financial sector funds tend to be more volatile.

Preferred Securities are subordinated to bonds and other debt instruments, and will be subject to greater credit risk. Issuers of convertible securities may not be as financially strong as those issuing securities with higher credit ratings and may be more vulnerable to changes in the economy. Other risks associated with convertible bond investments include: Call risk which is the risk that bond issuers may repay securities with higher coupon or interest rates before the security's maturity date liquidity risk which is the risk that certain types of investments may not be possible to sell the investment at any particular time or at an acceptable price; and investments in derivatives, which can be more sensitive to sudden fluctuations in interest rates or market prices, potential illiquidity of the markets, as well as potential loss of principal. Bond funds contain interest rate risk (as interest rates rise bond prices usually fall); the risk of issuer default; issuer credit risk; liquidity risk; and inflation risk. There are additional risks for funds that invest in mortgage-backed and asset-backed securities including the risk of issuer default; credit risk and inflation risk. A "value" style of investing emphasizes undervalued companies with characteristics for improved valuations. This style of investing is subject to the risk that the valuations never improve or that the returns on "value" equity securities are less than returns on other styles of investing or the overall stock market.

Although subject to the risks of common stocks, low volatility stocks are seen as having a lower risk profile than the overall markets. However, a fund that invests in low volatility stocks may not produce investment exposure that has lower variability to changes in such stocks" price levels. A "quality" style of investing empha s with high returns, stable earnings, and low financial leverage. This investing style is subject to the risk that the past performance of these companies does not continue or that the returns on "quality" equity securities are less than returns on other investing styles or the overall stock market. ETFs trade like stocks, are subject ment 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. Passively managed funds invest by sampling the index, holding a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index. Diversification does not ensure a profit or guarantee against loss. Equity securities are volatile and can decline significantly in response to broad market and economic conditions. Foreign (non-U.S.) Securities may be subject to greater political, economic, environmental, credit and information risks Foreign securities may be subject to higher volatility than U.S. securities, due to varying degrees of regulation and limited liquidity. These risks are magnified in emerging markets. Securities with floating or variable interest rates may decline in value if their coupon rates do not keep pace with comparable market interest rates. Narrowly focused investments typically exhibit higher volatility and are subject to greater geographic or asset class risk. The Fund is subject to credit risk, which refers to the possibility that the debt issuers will not be able to make principal and interest payments.

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such that they may offset any savings from low fees or costs.

Investing in commodities entails significant risk and is not appropriate for

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