

# SSGA Long-Term Asset Class Forecasts

December 31, 2017 | Market Commentary

## Summary

### Fixed Income

Given the current expected path of monetary policy, our long-term US cash return reflects a slight premium over our inflation projection. The US Treasury curve flattened in 2017 with short-maturity rates increasing and longer-maturity rates holding steady or decreasing, while US credit spreads have narrowed across maturities. Our longer-term return expectations for US government bonds and broad US investment-grade bonds are near unchanged at 2.4% and 3.0%, respectively. Our short-term return expectation for US long government bonds increased from last quarter as expectations for the long end of the yield curve to continue to decrease. Our long-term forecast for US high yield increased slightly, to 4.7%, as the yield on the Barclays US High Yield Index rose in the fourth quarter of 2017. Our short-term forecast for US Treasury inflation-protected securities (TIPS) declined to 0.9% while our long-term forecast for US TIPS increased slightly, to 2.5%, based on inflation expectations and the most recently available market yield data.

### Equities

Our long-term equity forecasts for large-cap developed equities and US large-cap equities slightly increased from last quarter, to 6.1% and 6.0%, respectively. The long-term forecast for developed markets outside the US remains unchanged at 6.2%. As price-to-earnings (P/E) ratios for developed markets remain broadly consistent with historical norms, we are not factoring in any expansion or contraction of this multiple over the longer term. Our long-term forecast for emerging markets has improved over the past quarter, to a 2.6% premium over developed markets with a forecast return of 8.7%. On a short-term horizon, our US and non-US equity forecasts have slightly decreased from the previous quarter on lower quantitative model scores. We are forecasting one-year returns of 4.7% for large-cap US equities and 4.6% for developed equity markets outside the US. Our short-term forecast for emerging markets remains nearly unchanged to at 7.0%.

### Alternative

We continue to expect that over the longer term private equity will provide a modest illiquidity premium coupled with a higher long-term risk level comparable to that of small-cap equities. Over the shorter term, our outlook for private equity has moderated from the previous quarter due to a reduced US small-cap return expectation. Our long-term forecast for global real estate investment trusts (REITs) has held steady from last quarter while our short-term forecast has improved slightly, though remains lower than the global equities forecast. Our long-term return forecast for commodities has modestly improved, to 5.3%, while our short-term forecast increased by a larger amount, to 5.9%, due to improved quantitative model scores.

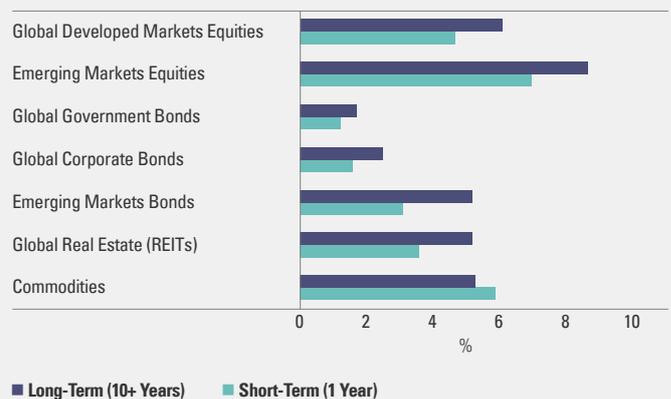
Our longer-term forecasts are forward-looking estimates of total return generated through combined assessment of current valuation measures, income payouts, economic growth, and inflation prospects, as well as historical risk premia. We also include shorter-term return forecasts that incorporate output from our tactical asset allocation models. Outlined below is the process we use to arrive at our return forecasts for the major asset classes, including recent modifications to our process for forecasting equity returns. Over the course of the past year we have enhanced our Global Developed ex US and Emerging Markets forecasts to incorporate country-specific information. Our annualized return forecasts are calculated for three horizons: short (1 year), intermediate (3–5 years), and long-term (10+ years).

## Inflation

The starting point for our nominal asset class return projections is an inflation forecast. We incorporate both consensus estimates of long-term inflation and the inflation expectations implied in current bond yields. US Treasury inflation-protected securities (TIPS) provide a market observation of the real yields that are available to investors. The difference between the nominal bond yield and the real bond yield at longer maturities furnishes a marketplace assessment of long-term inflation expectations.

Our outlook for inflation has increased somewhat with the US 10-year breakeven rate increasing to end the fourth quarter of 2017 at 1.96% compared to a yield of 1.84% at the end of the third quarter. The US 10-year breakeven rate eventually managed to end 2017 very close to where it started the year at 1.98%. The 12 basis points rise in breakeven yields coincides with a five basis points quarterly decline in real yields, resulting in a modest rise in nominal 10-year yields for the quarter. We anticipate three interest rate hikes by

Figure 1: Forecasted Long-Term Annualized Return (%)



Source: State Street Global Advisors (SSGA) Investment Solutions Group as of 12/31/2017.

Forecasted returns are based upon estimates and reflect subjective judgments and assumptions. These results were achieved by means of a mathematical formula and do not reflect the effect of unforeseen economic and market factors on decision-making. The forecasted returns are not necessarily indicative of future performance, which could differ substantially.

Federal Reserve in 2018, in line with the latest Fed dot plot, as economic data remains supportive and consistent with the continued normalisation of inflation toward the central bank target of 2%. Our current US long-term forecast for inflation is also 2.0%.

## Cash

Our long-term forecasts for global cash returns incorporate what we view as the normal real return that investors can expect to earn over time. Historically, cash investors have earned a modest premium over inflation; as such our long-term cash return forecast is 2.6% for the US, but by

design, current monetary policy priorities in many non US developed countries are dictating that cash returns stay below or in line with expected inflation rates. We expect that short-term interest rates will normalise, but without certainty on the timing, our long-term cash return forecast is 1.5% for the eurozone, reflecting a discount for the eurozone on our long-term inflation projections. Our long-term cash forecast for the US and the eurozone have remained unchanged from the previous quarter. Our short-term forecasts for cash returns derive from observed interbank rates, which indicate continued interest rate increases in the US and the UK. Led by the Federal Reserve (Fed), global central banks are expected to continue to progress from their long-standing accommodative stance toward monetary policy normalisation, underpinned by supportive economic data. We updated our projections to reflect a faster pace of convergence between our near-term cash return expectations and our longer-term forecasts. This is evident in our intermediate-term cash forecast for the US, which increased by 0.2% over last quarter. This comes as we anticipate three interest rate increases during 2018 as mentioned earlier. In the UK we foresee possibly two additional hikes in 2018 provided economic data remain supportive. As such we have increased our UK intermediate term cash forecast by 0.2% from last quarter.

### Bonds

Our return forecasts for fixed income derive from current yield conditions together with expectations as to how real and nominal yield curves will evolve relative to historical precedent. For corporate bonds, we also analyse credit spreads and their term structures, with separate assessments of investment-grade and high-yield bonds.

Our updated longer-term return expectations for fixed income have not changed much, with US government bonds expected to provide a long-run return of 2.4%. At shorter horizons we anticipate modestly higher returns in US government bonds from the prior quarter due to higher yields at the short end of the Treasury curve. Over the fourth quarter, the US Treasury curve further flattened, with a rise in yields on the short end of the curve driven by rising central bank rate hike expectations and declining yields on the long end of the curve. US corporate spreads further declined across maturities during the fourth quarter of 2017, contributing to modestly lower short-term forecasts for US corporate bonds. Our short-term forecast for eurozone government bonds is nearly unchanged from the previous quarter at 1.1%. As is the case with our cash return forecasts, our shorter-term bond return models incorporate the recent rise in short-term US yields as a result of central bank rate increases.

Spreads on high-yield bonds declined further in the fourth quarter. Despite this spread tightening, the yield on the Barclays US High Yield Index rose to 5.72%<sup>1</sup> at the end of December, 28 basis points above the level observed at the end of the third quarter. Corresponding yields in Europe were near unchanged. Our short-term return projection for

US high-yield bonds declined by 12 basis points from last quarter to 3.3%. Over longer horizons we are projecting a 4.7% return for US high-yield bonds, slightly higher than the projection from the prior quarter.

In the near term, given low real rates and inflation, and an expected rising real rate scenario, we reduced our one-year return forecast for US TIPS to 0.9%. Over the longest time frames, we are modeling increases in real yields, but we expect that inflation protection will provide enough income to produce a long-term return on US TIPS of 2.5%.

### Equities

The foundation for our long-term equity market forecasts are estimates of real return potential, derived from current dividend yields, forecast real earnings growth rates, and potential for expansion or contraction of valuation multiples. Our forecasting method incorporates long-run estimates of potential economic growth based on forecast labour, capital, and productivity inputs to estimate real earnings growth. Across both developed and emerging markets, variation in labour, capital, and productivity levels result in region-specific differences in our estimates for real earnings growth, allowing for more region-appropriate forecasts for both developed and emerging market equities.

Since the current dividend yield on the S&P 500 is 2.0%<sup>2</sup> and we anticipate a real earnings growth rate of roughly 2.0%, we forecast a real return of 4.0% for large-cap US equities. Combining this with our inflation forecast, we estimate long-term equity returns of 6.0%.

The trailing five-year price/earnings ratio for the S&P 500 rose from last quarter to 24.2x,<sup>3</sup> a level that is somewhat elevated though not extreme relative to historical averages. We are therefore not factoring in any expansion or contraction of this multiple over the long-term. We expect real earnings may grow at a pace slower than long-term historical averages. To envision a meaningful multiple expansion from current levels, we would like to see an improvement in long-term earnings growth potential.

Over the long-term, we expect US mid-cap and small-cap markets each to earn a modest premium of 0.25% to 0.50%, respectively, over large-cap stocks. Non-US small-cap and emerging markets should both provide higher earnings growth rates than developed large-cap markets and we therefore project that these asset classes will earn higher returns. It is important to note that we are not making an explicit currency call as part of our non-US forecasts. Over the long-term, the effects of short-term currency fluctuations should cancel out, producing a limited impact on returns. Furthermore, for our forecasts to be useful globally, we want to avoid a US-centric bias.

On a one-year horizon, our forecasts for large-cap US equities decreased by 18 basis points and global developed equities decreased by 40 basis points since last quarter. We are forecasting one-year returns of 4.7% for large-cap US equities, 4.7% for developed equity markets and 4.6% for developed equity markets outside the US.

### Smart Beta

The four smart beta strategies begin with the MSCI World universe and are then reweighted toward selected factors. These strategies include value-tilted, quality-tilted, managed volatility (minimum variance), and an equal-weighted portfolio (to capture the historical ‘small-cap’ premium). Empirically, exposure to valuation, quality, low volatility, and small size have generated positive excess returns over the cap-weighted index; we continue to expect there will be a premium to owning these factors over the long-term.

Over a one-to three-year forecast horizon, we look to see how cheap each factor is relative to its own history. Specifically, we focus on book/price spreads for each factor and relate that to their subsequent returns. We find that valuation ratios are useful for forecasting market returns. Using these relationships, we forecast a short-term return premium of 0.50% for the value-tilted portfolio, 1.10% for the quality-tilted portfolio, 1.55% for the minimum-variance portfolio, and 0.50% for the equal-weighted portfolio.

### Private Equity

Our long-term forecast for private equity is based upon past performance patterns of private equity funds relative to listed equity markets and our extrapolation of these performance patterns on a forward basis. According to several academic studies<sup>4,5</sup> the annualized rate of return of private equity funds over the long-term appears to be largely in line with that of listed equities, with outperformance relative to listed equities before fees, but relative underperformance after fees. Before fees, we believe that an average private equity fund can outperform large-cap listed equities by perhaps 0.5% over the long run. All else equal, this makes our long-term forecast for private equities reasonably comparable to our projections for small-cap stocks, but we also consider additional factors, including financial conditions and capital availability. Because private equity firms have enjoyed available and affordable capital, and have recently realised record-high valuation multiples, our return forecast continues to reflect a more competitive return environment. Since private equity funds tend to use ample leverage and are often much less liquid than publicly traded investments, we rate the long-term risk level of private equity as higher than that of small-cap equities.

### REITs

REITs have historically earned returns between bonds and stocks due to their stable income streams and potential for capital appreciation. Our long-term forecasts for US and global REITs are 5.4% and 5.2%, respectively, and are reflective of the current low to rising yield environment. In the shorter term, our expected return models have improved the outlook for US and global REITs. While the appeal of their income features seems likely to foster some continued support, the asset class may face headwinds from expected rate increases.

### Commodities

Our long-term commodity forecast is based on the level of world GDP, as a proxy for consumption demand, as well as on our inflation outlook. Additional factors affecting the returns to a commodities investor include how commodities are held (e.g., physically, synthetically, or via futures) and the various construction methodologies of different commodity benchmarks. Our shorter-term forecasts are based on the approach and weightings used in the Bloomberg Commodity Index, which reflects investing through futures. Futures-based investors have the potential to earn a premium by providing liquidity and capital to producers seeking to hedge market risk. This premium is greatest when the need for hedging is high, driving commodities to trade in backwardation, with future prices that are lower than spot prices. When spot prices are lower, however, the market is said to be in contango, and futures investors may realise a negative premium. Our long-term return forecast for commodities is 5.3%.

<sup>1</sup> FactSet 12/31/2017.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Phalippou, Ludovic and Olivier Gottschalg, 2009, “the Performance of Private Equity Funds.” *Review of Financial Studies*, vol. 22, no 4 (April) : 1747–1776.

<sup>5</sup> Kaplan, Steven N, and Antoinette Schoar. 2005. “Private equity Performance: Returns, Persistence and Capital Flows.” *Journal of Finance*, vol. 60, no 4 (August): 1791–1823.

**Figure 2: SSGA Tactical/Strategic Asset Allocation Returns Forecasts**

As of December 2017

Asset Class	Short-term 1 Year Return (%)	Intermediate-term 3–5 Years Return (%)	Long-term 10+ Years Return (%)	Long-term Risk (Std Dev) (%)
US Large Cap	4.7	6.1	6.0	15.5
US Mid Cap	4.0	6.4	6.2	17.0
US Small Cap	3.7	6.6	6.5	19.0
Global Developed ex US	4.6	6.3	6.2	15.5
Euro	4.4	6.5	6.4	18.0
Europe	4.6	6.8	6.7	15.5
Developed Pacific	4.7	5.1	5.0	16.5
Global Developed ex US Small Cap	5.2	7.0	6.9	19.0
Global Developed (World)	4.7	6.2	6.1	15.5
Global Equities (ACWI)	4.9	6.6	6.4	16.5
Global Equities (ACWI) ex US	5.2	7.1	6.8	16.0
Emerging Markets (EM)	7.0	9.5	8.7	20.5
EM Asia	7.4	10.0	8.7	21.0
EM LatAm	5.1	7.8	8.3	28.0
EM EMEA	6.3	8.5	8.9	20.0
Global Value Tilted	5.2	6.7	6.6	15.0
Global Quality Tilted	5.8	7.3	6.7	14.5
Global Equal Weighted	5.2	6.7	6.8	16.0
Global Minimum Variance	6.2	7.7	6.7	12.0
US Government Bond	1.9	2.0	2.4	5.0
US Investment Grade Bond	2.2	2.3	3.0	5.5
US TIPS Bond	0.9	1.2	2.5	5.5
US High Yield Bond	3.3	3.8	4.7	11.5
US Long Treasury STRIPS Bond	4.1	1.6	2.4	20.5
Non-US Government Bonds	0.8	0.2	1.3	5.0
Euro Government Bonds	1.1	0.4	1.8	4.0
UK Government Bonds	1.2	0.4	1.7	6.5
Japanese Government Bonds	0.0	-0.3	0.2	3.5
Non-US Corporate Bonds	1.1	0.7	1.9	9.5
Eurozone Corporate Bonds	1.0	0.9	2.5	4.0
UK Corporate Bonds	2.3	1.5	3.0	6.5
Japanese Corporate Bonds	0.1	-0.2	0.3	3.5
Global Government Bonds	1.2	0.8	1.7	4.5
Global Corporate	1.6	1.4	2.5	6.0
Euro High Yield Bonds	1.8	2.1	2.8	12.0
Emerging Markets Bonds	3.1	3.9	5.2	12.0
Hedge Funds (Market Neutral)	4.8	5.8	5.9	6.0
Global Real Estate (REITs)	3.6	4.9	5.2	18.0
Private Equity	5.0	7.4	7.3	25.0
Commodities	5.9	4.9	5.3	17.0
US Cash	1.6	2.3	2.6	1.5
UK Cash	0.6	1.5	2.0	1.0
Eurozone Cash	-0.4	0.4	1.5	1.0

The forecasted returns are based on SSGA's Investment Solutions Group December 31, 2017 forecasted returns and long-term standard deviations. The forecasted performance data is reported on a gross of fees basis. Additional fees, such as the advisory fee, would reduce the return. For example, if an annualized gross return of 10% was achieved over a 5-year period and a management fee of 1% per year was charged and deducted annually, then the resulting return would be reduced from 61% to 54%. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in the local (or regional) currency presented. It does not take into consideration currency effects. The forecasted performance is not necessarily indicative of future performance, which could differ substantially.

## Glossary

**Basis Point (bps)** A unit of measure for interest rates, investment performance, pricing of investment services and other percentages in finance. One basis point is equal to one-hundredth of 1 percent, or 0.01%.

**Bloomberg Barclays US Corporate High Yield Index** A fixed-income benchmark of US dollar-denominated, high-yield and fixed-rate corporate bonds. 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' emerging markets country definition, are excluded.

**Book to Price (B/P) Ratio** A valuation metric that takes the ratio of the book value of a company per share to its share price.

**Commodities** A generic, largely unprocessed, good that can be processed and resold. Commodities traded in the financial markets for immediate or future delivery include grains, metals, and minerals.

**Credit Spreads** The spread between Treasury securities and non-Treasury securities that are identical in all respects except for quality rating.

**Dividend Equities and Dividend Yield** Equity securities that pay dividends. A dividend is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Dividends can be issued as cash payments, as shares of stock, or other property. Equity, also known as stock, is a type of security that signifies ownership in a corporation and represents a claim on part of the corporation's assets and earnings. The dividend yield is the ratio of the dividend paid per share of issued equity over the share price.

**Inflation** An overall increase in the price of an economy's goods and services during a given period, translating to a loss in purchasing power per unit of currency. Inflation generally occurs when growth of the money supply outpaces growth of the economy. Central banks attempt to limit inflation, and avoid deflation, in order to keep the economy running smoothly.

**MSCI World Index** The MSCI World Index is a free-float weighted equity index. It includes about 1,600 stocks from developed world markets, and does not include emerging markets.

**Nominal Bond Yield** The annual income that an investor receives from a bond divided by the par value of the security. The result, stated as a percentage, is the same as the rate of interest the security pays.

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

**Private Equity** An umbrella term for large amounts of money raised directly from accredited individuals and institutions and pooled in a fund that invests in a range of business ventures.

**Real Interest Rates, or Real Yields** An interest rate that takes into consideration the actual or expected inflation rate, which is the actual amount of yield an investor receives. The real rate is the calculation of the "nominal" interest rate minus the inflation rate as follows: Real Interest Rate = Nominal Interest Rate — Inflation.

**REITs (Real Estate Investment Trusts)** Publicly traded companies that pool investors' capital to invest in a variety of real estate ventures, such as apartment and office buildings, shopping centers, medical facilities, industrial buildings, and hotels.

**Tactical asset allocation models** Illustrate a dynamic approach to asset management that emphasises exposure to asset classes that are poised to enhance returns or control drawdowns.

**Smart Beta** A rules-based investment strategy that seeks to capture specific factors in the marketplace that active managers have historically relied on to outperform. These include value, size, low volatility, quality and momentum.

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