

SSGA Long-Term Asset Class Forecasts

June 30, 2019 | Market Commentary

Summary

Fixed Income	Given our current long-term neutral interest rate expectations, our long-term US cash return forecast (2.5%) reflects a slight premium over our inflation projection (2%). Overall, we see a fall in long-term return forecasts across fixed income assets compared to the previous quarter, with sovereign yield curves having shifted downwards across most developed countries. Our long-term US government bond forecast has decreased by about 94 basis points (bps) compared to the previous quarter and stands at 2.0%, while in the short term, the return forecast is 1.8%. Similarly, the long-term return forecast for US investment-grade bonds fell by 105 bps to 2.4%. Our long-term forecast for US high yield is 4.3% and our forecast for Treasury Inflation-Protected Securities (TIPS) is 2.2%. We expect global government bonds and global corporate bonds to yield 0.8% and 2.4%, respectively.
Equities	Among equities, over the long run our forecasts have remained nearly the same compared to the previous quarter. Looking at the short-term one-year forecasts, the majority of our developed market country forecasts have increased from the previous quarter, while most of our emerging markets forecasts have decreased. Our long-term forecast for US large-cap equities stands at 6.4%, slightly below the previous quarter's forecast, while our short-term forecast has increased by 16 bps to 5.0%. Our long-term developed markets and global all-country equity forecasts have remained at 6.5% and 6.9%, respectively. We expect emerging markets equities to return 9.9% over the long term.
Alternative	Over the longer term, we continue to expect private equity to provide a modest illiquidity premium coupled with a higher long-term risk level comparable to that of small-cap equities, leading to a 7.4% return forecast. Over the shorter term, our outlook for private equity has decreased slightly from the previous quarter because of a decrease in our US small-cap return expectation. Real assets endured a mixed second quarter, with commodities, TIPS and REITs all struggling to match the returns seen elsewhere. We expect commodities to return 5.5% over the long run. Our global REITs forecast fell by about 50 bps to 4.8%, and our US REITs forecast fell by a similar amount, to 5.0%.

There can be no assurance that developments will transpire as forecasted and that the estimates are accurate.

Our longer-term asset class forecasts are forward-looking estimates of total return generated through a combined assessment of current valuation measures, economic growth, inflation prospects and yield conditions as well as historical risk premia. We also include shorter-term return forecasts that incorporate output from our multi-factor tactical asset allocation models. Outlined below is the process we use to arrive at our return forecasts for the major asset classes.

Inflation

The starting point for our nominal asset class return projections is an inflation forecast. We incorporate both 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.

Inflation was a hot topic throughout the second quarter after Bloomberg Businessweek ran an April cover story titled "Is Inflation Dead?", as core inflation readings in developed markets have spent the best part of the last decade at or below 2.0%. The US Federal Reserve's (Fed's) preferred inflation gauge, the personal consumption expenditures price index (PCE), registered a 1.5% annual increase in May and continues to languish below the Fed's 2.0% target. Fed Chair Jerome Powell noted that the inflation undershoot may be more persistent than the Fed had hoped, causing Fed officials to lower this year's outlook for headline PCE inflation and core PCE inflation to 1.5% and 1.8%, respectively. While realized inflation has firmed

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



Source: State Street Global Advisors Investment Solutions Group as of 06/30/2019. Forecasted returns are based upon estimates and reflect subjective judgements 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.

over the past three months on strength within the services and durable goods sectors, market-based inflation expectations measured by the five-year breakeven moved sharply lower during the quarter, particularly during May's escalation in trade tensions. The negative trade sentiment sent the five-year breakeven to a new year-to-date low of 1.4% on June 17, below the levels seen during December's equity market rout. Breakevens then rebounded along with oil prices and renewed trade optimism in the final week of June.

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 but we also take current and forward-looking global central bank policy rates into consideration in formulating our cash forecast. Our long-term cash return forecast is 2.5% for the US and 2.2% for the UK, providing a slight premium over inflation. However, current monetary policy priorities in many non-US developed countries are dictating that cash returns stay below expected inflation rates. To this end, our long-term cash return for the eurozone is 1.5%, reflecting a discount on our long-term inflation projections. Our long-term forecast for the US has come down by 25 bps from the previous quarter. Our long-term cash return forecast for the eurozone has remained unchanged and so has the forecast for UK, while the short-term cash forecast has decreased by 10 bps for both. Our short-term return forecasts for cash are derived from expected policy rates.

Bonds

Our return forecasts for fixed income are derived from current yield conditions together with expectations as to how real and nominal yield curves will evolve relative to historical precedent. We then build our benchmark forecasts from discrete analysis of relevant maturities. For corporate bonds, we also analyze credit spreads and their term structures, with separate assessments of investment-grade and high-yield bonds.

Equity and bond markets commenced the quarter on divergent paths as risk-on sentiment buoyed equity prices and pressured bond prices lower. However, fortunes quickly shifted across the risk-on/risk-off paradigm as May demonstrated a sharp rally in bond prices as global equity markets experienced a swift and steep decline. June ultimately proved kind to both global equities and bonds alike as they broadly made a correlated move higher. Global government bonds, as measured by the FTSE World Government Bond (WGBI) Index, followed May's strong performance with a solid June gain of 1.3% in local-currency terms (+2.3% in US dollar terms as the year-to-date strength of the greenback faded somewhat against a number of other currencies during June). The index finished 2.7% up for the quarter in local-currency terms and 3.6% higher when measured in US dollars. The benchmark 10-year US Treasury yield continued a rapid descent in June, finishing the quarter down nearly 40 bps and near 2%. Given the magnitude of the move lower in yields, longer-maturity Treasuries, as measured by the Bloomberg Barclays US Long Treasury Bond Index, were up 6.0% for the quarter with the index of intermediate maturities up a respectable 2.3%.

Our long-term return forecast for US government bonds is 2.0% and in the short term, our forecast stands at 1.8%. The long-term US investment-grade bond forecast is 2.4%, while high-yield bonds are expected to return 4.3%.

Across the G6 ex US issuers, bond yields largely moved lower in June, sustaining positive total returns for the quarter for all issuers in local-currency terms. The 10-year benchmark yield for German bunds plunged to an all-time low of approximately -0.3% and Japanese government bonds (JGBs) remained in negative territory. French issues hovered close to zero, nearly joining the notably large group of issuers including Germany, Japan, Switzerland and the Netherlands that can borrow at negative yields over a 10-year horizon. In fact, over the quarter, nearly US\$13 trillion in global debt offered sub-zero yields. The benchmark of Italian issues demonstrated the strongest total returns for the quarter, up nearly 3.7%; this was followed by the French benchmark return of 2.9%. Canadian and Japanese issues lagged, generating 1.6% and 0.9% returns, respectively, in local-currency terms.

As noted, German 10-year bund yields finished the quarter close to all-time lows, supported by dovish rhetoric from the Fed and European Central Bank (ECB) and softer economic data. German Purchasing Managers' Index (PMI) manufacturing indicators remained in contraction territory (levels below 50 suggest contracting activity) throughout the quarter, while industrial production plunged 1.9% in June versus expectations of 0.5%. The Bundesbank cut growth expectations for 2019 to 0.6% from 1.6%. Capping off indications of a weaker economy, the ZEW Business Survey of Economic Expectations continued to slide, finishing the quarter with a reading of -21.1.

Overall, the quarter's downward shift in sovereign yields across most of the globe brings current yields further below our long-term expected yields. This has resulted in a lowering of our long-term forecasts due to the price impact of rates needing to rise further to reach our long-term expected yields.

Equities

The foundation for our long-term equity market forecasts is 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 enhanced forecasting method incorporates long-run average estimates of potential economic growth based on forecasted labor, capital and productivity inputs to estimate real earnings growth. Across developed and emerging markets, variations in labor, 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 markets equities.

Given the current dividend yield on the S&P 500 of 2.05%¹ and an anticipated real earnings growth rate of roughly 2.40%, we forecast a real return of 4.45% for large-cap US equities. Combining this with our inflation forecast, we estimate long-term average equity returns of 6.43%.

The trailing five-year price/earnings ratio, defined as price divided by the average of five years of earnings, for the S&P 500 increased slightly from last quarter to 24.34,² a level that is somewhat in line with the historical average price/earnings ratio. We are therefore not factoring in any expansion or contraction of this multiple over the long term.

Over the long term, we expect US mid-cap and small-cap markets to each earn a modest premium of 0.25% to 0.50%, respectively, over large-cap stocks. Non-US small-cap and emerging markets equities 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 incorporating currency fluctuations as part of our 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 forecast for large-cap US equities increased by 16 bps and our forecast for global developed equities increased by 21 bps from the first quarter due to less negative internal Tactical Asset Allocation (TAA) Alpha scores, which measures expected return over the next one month. We are forecasting one-year returns of 5.0% for large-cap US equities and 5.4% for developed equity markets outside the US.

Smart Beta

The four smart beta factors begin with the MSCI World universe and are then reweighted toward selected factors. These factors 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 2.0% for the value-tilted portfolio, 1.6% for the quality-tilted portfolio, 1.3% for the minimum-variance portfolio, and 2.2% 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^{3,4} the annual 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. Some more recent academic studies⁵ find better results, especially for buyout funds. Before fees, we believe that an average private equity fund can outperform small-cap listed equities by perhaps 0.5% over the long run. All else equal, this makes our long-term forecast for private equities not considerably different 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 realized 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 5.0% and 4.8%, respectively, whereas in the shorter term, we expect the asset class to yield 4.7% in the US, and 4.5% in the global markets.

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 commodity investors include how commodities are held (e.g., physically, synthetically, or via futures) and the various construction methodologies of different commodity benchmarks. 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 realize a negative premium. Our long-term return forecast for commodities is 5.5%.

^{1,2} Factset 06/30/2019.

³ Phalippou, Ludovic and Olivier Gottschalg, 2009, "the Performance of Private Equity Funds". *Review of Financial Studies*, vol. 22, no 4 (April): 1747–1776.

⁴ 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.

⁵ Robert Harris, Tim Jenkinson, and Steven Kaplan. 2014. "Private Equity Performance: What Do We Know?" *Journal of Finance*, vol. 69, no 5: 1851-1882.

Figure 2: State Street Global Advisors Tactical/Strategic Asset Allocation Returns Forecasts

As of June 2019

Asset Class	Short-term 1 Year Return (%)	Intermediate-term 3–5 Years Return (%)	Long-term 10+ Years Return (%)	Long-term Risk (Std Dev) (%)
Global Equities (ACWI)	5.5	6.9	6.9	14.5
Global Equities (ACWI) ex US	6.2	7.5	7.6	15.2
Global Developed (World)	5.2	6.5	6.5	14.4
Global Developed ex US	5.4	6.5	6.7	15.1
Global Developed ex US Small Cap	6.2	7.3	7.5	15.8
US Large Cap	5.0	6.4	6.4	15.0
US Mid Cap	4.2	6.7	6.7	17.5
US Small Cap	4.2	6.9	6.9	19.1
Europe	6.2	6.9	7.1	15.7
Euro	5.7	6.5	6.6	19.4
Developed Pacific	3.8	5.7	5.9	17.8
Emerging Markets (EM)	8.3	10.0	9.9	21.0
EM Asia	8.6	10.4	10.2	22.2
EM EMEA	7.9	10.2	10.0	19.9
EM LatAm	6.4	7.6	8.0	27.6
Global Equal Weighted	7.4	8.7	6.9	15.3
Global Value Tilted	7.2	8.5	6.8	14.8
Global Minimum Variance	6.5	7.8	7.1	10.7
Global Quality Tilted	6.8	8.1	7.0	13.7
Global Government Bonds	0.5	0.1	0.8	3.6
Global Corporate	2.1	1.0	2.4	7.2
Non-US Government Bonds	0.0	-0.4	0.4	3.6
US Government Bond	1.8	1.4	2.0	4.9
US Investment Grade Bond	2.1	1.8	2.4	4.3
US High Yield Bond	2.1	2.8	4.3	8.6
US TIPS Bond	0.7	1.1	2.2	6.5
US Long Treasury STRIPS Bond	3.0	0.8	1.6	24.0
Euro Government Bonds	-0.1	-0.3	0.8	4.5
Euro Corporate Bonds	0.2	-0.3	0.9	3.8
Euro High Yield Bonds	0.3	0.3	2.1	12.3
Japanese Government Bonds	-0.4	-0.9	-0.4	4.0
Japanese Corporate Bonds	0.5	0.3	0.6	2.0
UK Government Bonds	0.8	-0.5	0.6	7.2
UK Corporate Bonds	2.1	1.4	2.3	6.9
Emerging Markets Bonds	3.6	4.4	5.6	13.4
Global Real Estate (REITs)	4.5	4.4	4.8	17.9
Commodities	6.2	4.8	5.5	15.1
Hedge Funds	5.4	5.8	6.0	5.7
Private Equity	5.2	7.4	7.4	24.7
US Cash	2.1	2.3	2.5	1.0
UK Cash	0.8	1.5	2.2	1.2
EMU Cash	-0.4	0.6	1.5	1.1

The forecasted returns are annual arithmetic averages based on State Street Global Advisors' Investment Solutions Group June 30, 2019 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 annualised gross return of 10% was achieved over a five-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 53%. 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 U.S. 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 designed 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.

US 3 Month Libor (Cash) Libor, or the London Interbank Offered Rate, is equivalent to the federal funds rate, or the interest rate one bank charges another for a loan. It is used as a reference figure for corporate financial transactions and, increasingly, for consumer loans as well.

Yield Curve (e.g., US Treasury Curve) A graph or line that plots the interest rates or yields of bonds with similar credit quality but different durations, typically from shortest to longest duration. When the yield curve is said to be "flat," it means the difference in yields between bonds with shorter and longer durations is relatively narrow. When the yield curve is said to be "steep," it means the difference in yields between bonds with shorter and longer durations is relatively wide.

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Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

The value of the debt securities may increase or decrease as a result of the following: market fluctuations; increases in interest rates; inability of issuers to repay principal and interest or illiquidity in the debt securities markets; the risk of low rates of return due to reinvestment of securities during periods of falling interest rates or repayment by issuers with higher coupon or interest rates; and/or the risk of low income due to falling interest rates. To the extent that interest rates rise, certain underlying obligations may be paid off substantially slower than originally anticipated and the value of those securities may fall sharply. This may result in a reduction in income from debt securities income.

Increase in real interest rates can cause the price of inflation-protected debt securities to decrease. Interest payments on inflation-protected debt securities can be unpredictable.

Investing in REITs involves certain distinct risks in addition to those risks associated with investing in the real estate industry in general. Equity REITs may be affected by changes in the value of the underlying property owned by the REITs, while mortgage REITs may be affected by the quality of credit extended. REITs are subject to heavy cash flow dependency, default by borrowers and self-liquidation. REITs, especially mortgage REITs, are also subject to interest rate risk (i.e., as interest rates rise, the value of the REIT may decline).

Investing in commodities entails significant risk and is not appropriate for all investors. Commodities investing entail significant risk as commodity prices can be extremely volatile due to wide range of factors. A few such factors include overall market movements, real or perceived inflationary trends, commodity index volatility, international, economic and political changes, change in interest and currency exchange rates.

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