STRATEGIC AND TACTICAL ASSET ALLOCATION COMMITTEE

LPL Research

STRATEGIC ASSET ALLOCATION

LPL Research's Strategic and Tactical Asset Allocation Committee (STAAC) is pleased to provide our Capital Market Assumptions (CMA) and Strategic Asset Allocation (SAA) as of January 2024. The CMA and SAA provide guidance on our long-term asset allocation and insight into our strategic market views, which are forward looking over the next three-to-five years.

LPL Research evaluates asset classes for sensitivity to the following factors, which may influence the expected returns of equities, fixed income, diversifying strategies, and cash over a three-to-five-year investment horizon:

- Economic Growth
- Inflation
- Interest Rates
- Business Cycle
- Valuations
- Fundamentals
- Geopolitical Risk
- Volatility
- Dispersion

Executive Summary

LPL Research advises clients to reduce risk in portfolios with long-term investment horizons, as the risk-reward trade-off for stocks and bonds is increasingly well-balanced in today's slow growth, low inflation, and positive real-yield rate environment. In particular, the STAAC recommends:

- Decreasing exposure to equities to reflect more fairly-priced valuations relative to fixed income.
- Increasing core fixed income to reflect yields which are increasingly competitive relative to equities.
- Rotating alternatives toward lower-beta managed futures and global macro strategies.

Methodology

LPL Research brings a structured analytical approach to developing our strategic return outlook, which emphasizes quantitative fundamental drivers of long-term returns, and incorporates explicit financial market views from our investment committee (STAAC). We implement this approach through a team-based Black-Litterman[1] modeling exercise which combines multiple independent signal inputs into an optimized asset allocation that seeks to maximize risk-adjusted returns within each individual investment objective (IO). We then validate the outputs of this process to ensure consistency with the STAAC's team-based investment committee outlook.

STAAC Outlook

Despite looking out over a strategic horizon, there can be meaningful changes in our outlook from year to year if there are significant shifts in the drivers of long-term returns, a large structural change in the macroeconomic environment, or a change in asset class characteristics. As the end of the Federal Reserve's (Fed) aggressive rate-hiking campaign draws near, we have entered 2024 with an equity risk premium[2] near zero.

1 This approach "allows us to generate optimal portfolios that start at a set of neutral weights and then tilt in the direction of the investor's views". Black, Fischer, and Robert Litterman. "Global Portfolio Optimization." Financial Analysts Journal 48, no. 5 (1992): 28–43. http://www.jstor.org/stable/4479577

2 This statistic compares the earnings yield on the S&P 500 (the inverse of the P/E) to the 10-year U.S. Treasury yield. Essentially, an ERP compares the earnings generated by stocks to the income generated by bonds (in this case, the yield on the 10-year Treasury). By putting stocks and bonds in the same terms, they can be compared on an apples-to-apples basis to see if investors are getting enough earnings "compensation" for the additional risk they are taking by owning equities relative to lower-risk Treasury bonds.

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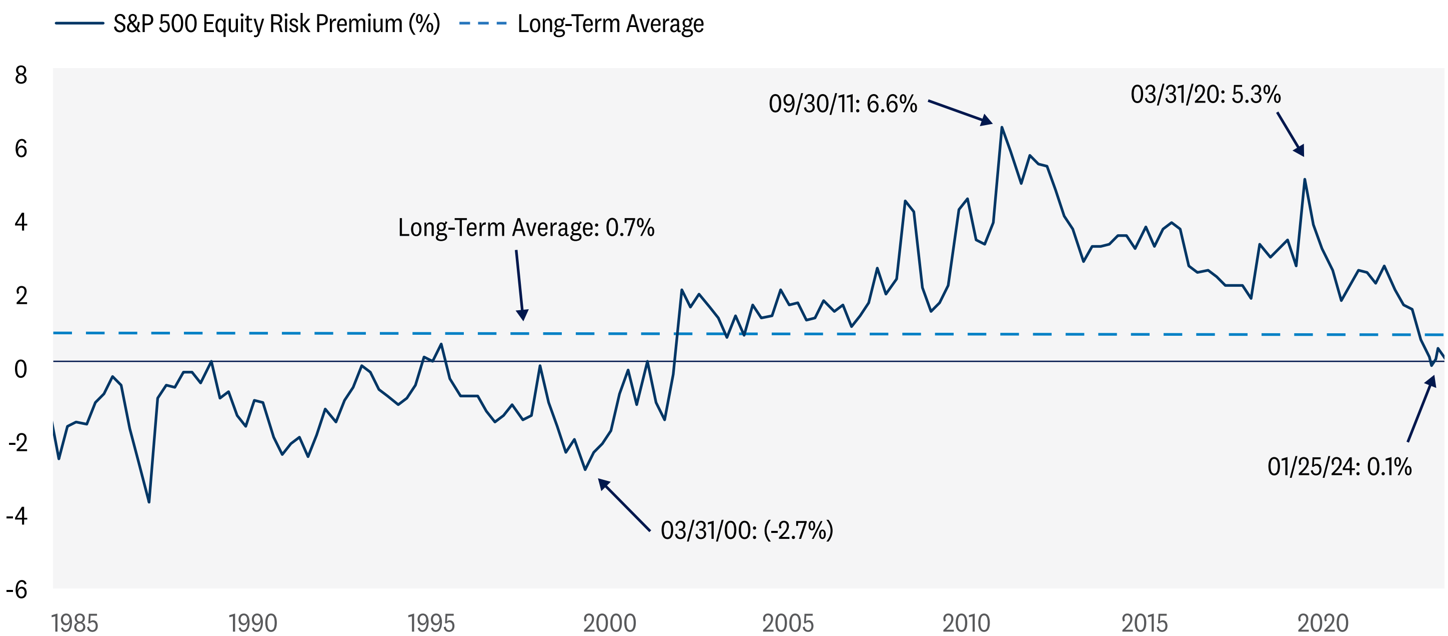
Comparing the equity risk premium to the long-term historical average below suggests stocks are near fairly-valued relative to bonds for the first time in nearly two decades.

STOCK VALUATIONS ARE FAIR RELATIVE TO BOND YIELDS BUT NOT ATTRACTIVE

Equity Risk Premium Slightly Above Zero Offers Marginal Compensation for Equity Risk



Source: LPL Research, FactSet, Refinitiv, Bloomberg 01/25/24
S&P 500 equity risk premium is the S&P 500 earnings yield (earnings divided by price) minus the US 10-year Treasury yield.
All indexes are unmanaged and cannot be invested in directly. Past performance is no guarantee of future results.

The STAAC continues to expect below average economic growth over the next few years due to structural factors (e.g., slow population growth, deficit spending, and increased cost of debt), but does anticipate inflation falling back to the Fed's target rate. Below we highlight the primary long-term thematic inputs into our strategic asset allocation process and model:

Long-Term Thematic Inputs	Implications for Strategic Asset Allocation
Systematic Rebalancing	▪ Large and mid-cap equities remain fairly-valued relative to core fixed income. ▪ Foreign equities are marginally more expensive relative to bonds than in 2023 but remain attractive. ▪ Quality small-cap equities remain attractive from a long-term valuation perspective.
Artificial Intelligence (AI)	▪ The profitability and durability of mega cap tech platform business' network effects remain robust. ▪ We are hesitant to materially tilt away from growth toward value, or from large to mid-cap equities. ▪ We seek more value exposure in Income with Moderate Growth (IMG) and Income with Capital Preservation (ICP) Investment Objectives (IOs) given correlations to their larger Treasury weights.
Return to a Normal Rate Environment	▪ Core fixed income is the most attractive relative to equities as we've seen in two decades. ▪ We expect bonds to provide multi-asset portfolios with diversification, liquidity, and income. ▪ Don't chase higher yields in non-core fixed income, as spreads remain historically tight.
Heightened Volatility and Cross-Asset Dispersion	▪ Geopolitical and macro uncertainty remain heightened amidst a lower return environment. ▪ We prefer less-correlated alternative strategies to real assets, given a slowing economy. ▪ Global macro and managed futures may hedge economic surprises & benefit from divergent trends.

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The chart below contains a summary of the capital market assumption (CMA) inputs into our strategic asset allocation (SAA) model.

	Asset Class	Capital Market Assumptions*		Correlation Matrix**																							
				Equity						Fixed Income									Diversifying Strategies								Cash
				US Equity				Foreign Equity		Core (Taxable)			Tax-Aware		Plus (Taxable)				Real Assets				Alternatives				
		Return	Volatility	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Large & Mid Cap Growth	7.6%	19.9%	1.00																							
2	Large & Mid Cap Value	7.0%	18.5%	0.83	1.00																						
3	Small Cap Growth	9.6%	25.1%	0.82	0.80	1.00																					
4	Small Cap Value	8.9%	24.8%	0.74	0.89	0.90	1.00																				
5	Developed International	7.8%	18.6%	0.77	0.85	0.69	0.71	1.00																			
6	Emerging Markets	8.9%	21.7%	0.59	0.64	0.54	0.56	0.76	1.00																		
7	US Government Treasuries	4.6%	5.7%	0.16	-0.05	0.04	-0.09	0.08	0.10	1.00																	
8	US Investment Grade Corporates	5.3%	8.2%	0.54	0.45	0.46	0.39	0.52	0.52	0.71	1.00																
9	US Mortgage-Backed Securities	5.1%	5.5%	0.36	0.24	0.26	0.21	0.35	0.30	0.83	0.74	1.00															
10	Investment Grade Municipal Bonds	3.7%	5.0%	0.34	0.26	0.27	0.21	0.39	0.35	0.70	0.79	0.78	1.00														
11	High Yield Municipal Bonds	5.1%	7.8%	0.36	0.31	0.30	0.28	0.40	0.40	0.52	0.75	0.62	0.88	1.00													
12	US TIPS***	4.4%	6.3%	0.47	0.33	0.32	0.28	0.40	0.37	0.71	0.76	0.68	0.65	0.58	1.00												
13	Emerging Market Debt	6.0%	9.2%	0.57	0.57	0.50	0.48	0.70	0.73	0.38	0.80	0.54	0.68	0.70	0.55	1.00											
14	International Aggregate	2.8%	9.9%	0.41	0.36	0.29	0.26	0.52	0.59	0.59	0.70	0.63	0.62	0.53	0.64	0.72	1.00										
15	US High Yield Credit	6.4%	9.1%	0.71	0.75	0.70	0.71	0.74	0.63	0.16	0.70	0.37	0.49	0.57	0.55	0.79	0.52	1.00									
16	Commodities	4.5%	22.6%	0.35	0.51	0.30	0.44	0.53	0.60	-0.15	0.17	0.04	0.10	0.20	0.28	0.43	0.44	0.52	1.00								
17	Precious Metals	6.5%	21.2%	0.15	0.09	0.02	-0.01	0.21	0.33	0.36	0.37	0.23	0.32	0.26	0.43	0.37	0.60	0.26	0.39	1.00							
18	Global REITS***	10.5%	20.0%	0.70	0.78	0.65	0.72	0.77	0.66	0.27	0.68	0.44	0.50	0.57	0.58	0.69	0.54	0.72	0.45	0.24	1.00						
19	Global Infrastructure	7.4%	16.0%	0.69	0.80	0.56	0.63	0.77	0.63	0.22	0.58	0.40	0.48	0.47	0.54	0.67	0.55	0.69	0.52	0.33	0.83	1.00					
20	Market Neutral	0.3%	5.0%	0.16	0.26	0.22	0.32	0.27	0.14	-0.19	0.12	-0.05	0.17	0.30	-0.05	0.24	0.04	0.29	0.12	-0.09	0.31	0.15	1.00				
21	Multi-Strategy	2.3%	5.2%	0.70	0.73	0.75	0.71	0.73	0.64	-0.09	0.43	0.07	0.17	0.34	0.26	0.58	0.29	0.72	0.46	0.17	0.64	0.54	0.30	1.00			
22	Global Macro	1.7%	6.3%	0.16	0.21	0.18	0.17	0.22	0.28	-0.25	-0.07	-0.28	-0.20	-0.09	-0.09	0.09	-0.14	0.14	0.18	-0.02	0.15	0.13	0.08	0.46	1.00		
23	Managed Futures	2.8%	10.4%	-0.09	-0.07	-0.05	-0.08	-0.15	-0.16	-0.13	-0.18	-0.30	-0.26	-0.19	-0.16	-0.24	-0.19	-0.23	-0.12	0.10	-0.03	-0.06	-0.06	0.14	0.28	1.00	
24	Cash	2.5%	0.6%	0.01	-0.06	-0.04	-0.07	0.04	0.00	0.10	0.05	0.08	0.05	-0.02	-0.05	0.08	0.10	0.02	-0.07	0.07	-0.05	-0.06	0.00	-0.04	0.02	-0.05	1.00

As a result of these changes in our assessment of the long-term return environment, in the January 2024 update to our SAA we have primarily:

- Decreased exposure to equities (particularly mid-cap**** and to a lesser extent, international) to reflect more fairly-priced valuations relative to fixed income.
- Increased core fixed income holdings, to reflect higher yields and expectations of a slow growth and low-inflation macroeconomic environment.
- Rotated our alternatives exposure to the managed futures and global macro categories, to reflect high volatility and dispersion expectations.
- Maintained exposure to U.S. small-cap equities, to reflect relatively low equity valuation levels.

The following page contains a summary of our updated core SAA model, which spans all five investment objectives (IOs) and may be implemented in both taxable accounts (via core fixed income) and tax-aware accounts (via core municipal bonds).

* LPL Research's expected 3-to-5-year compound annual growth rate (return) based on historical drivers of long-term returns, and 10-year historical standard deviation (volatility).
** Correlation is a measure of two assets' tendency to move together, and ranges from +1 to -1. A lower correlation indicates a greater potential diversification benefit.
*** Treasury Inflation Protected Securities (TIPS), Real Estate Investment Trusts (REITs)
**** Moving incrementally toward to a market-cap like relationship between mid-cap and large-cap equities.

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Asset Class	Aggressive Growth (AG)	Growth (G)	Growth with Income (GWI)	Income with Moderate Growth (IMG)	Income with Capital Preservation (ICP)
Equities	**95%**	**82%**	**60%**	**40%**	**22%**
US Equity	**74%**	**64%**	**45%**	**31%**	**18%**
Large & Mid Cap Growth*	32%	28%	18%	12%	6%
Large & Mid Cap Value*	23%	20%	15%	11%	8%
Small Cap Growth	10%	8%	6%	4%	2%
Small Cap Value	9%	8%	6%	4%	2%
Foreign Equity	**21%**	**18%**	**15%**	**9%**	**4%**
Developed International	14%	12%	11%	6%	4%
Emerging Market	7%	6%	4%	3%	0%
Fixed Income	**0%**	**11%**	**33%**	**53%**	**71%**
Core (Taxable)**	**0%**	**11%**	**33%**	**53%**	**71%**
US Government Treasuries	0%	6%	17%	27%	35%
US Investment Grade Corporates	0%	3%	10%	16%	22%
US Mortgage-Backed Securities	0%	2%	6%	10%	14%
Plus (Taxable)**	**0%**	**0%**	**0%**	**0%**	**0%**
US TIPS	0%	0%	0%	0%	0%
Emerging Market Debt	0%	0%	0%	0%	0%
International Aggregate	0%	0%	0%	0%	0%
US High Yield Credit	0%	0%	0%	0%	0%
Diversifying Strategies	**3%**	**5%**	**5%**	**5%**	**5%**
Real Assets	**0%**	**0%**	**0%**	**0%**	**0%**
Commodities	0%	0%	0%	0%	0%
Precious Metals	0%	0%	0%	0%	0%
Global REITs	0%	0%	0%	0%	0%
Global Infrastructure	0%	0%	0%	0%	0%
Alternatives***	**3%**	**5%**	**5%**	**5%**	**5%**
Market Neutral	0%	0%	0%	0%	0%
Multi-Strategy	0%	0%	0%	0%	0%
Global Macro	0%	2%	2%	2%	2%
Managed Futures	3%	3%	3%	3%	3%
Cash	**2%**	**2%**	**2%**	**2%**	**2%**
Cash	2%	2%	2%	2%	2%

Complementary insights into the STAAC's tactical views and asset allocation advice, which target a three-month to one-year time horizon, are available in our monthly Global Portfolio Strategy publication.

Source: LPL Research, 1/19/24

* Accounts with distinct mid-cap allocations may disaggregate "Mid" (M) from "Large & Mid" (in equal proportion across value (V) and growth (G), roughly in-line with relative market cap values) as follows: AG (6% MG, 6% MV), G (6% MG, 6% MV), GWI (5% MG, 5% MV), IMG (3% MG, 3% MV), ICP (2% MG, 2% MV).

** Tax-aware accounts may implement fixed income allocations by replacing the Core (Taxable) Fixed Income allocation with Investment Grade Municipal Bonds.

*** Accounts implementing without alternative investments may note that allocations to diversifying strategies were funded from cash (3%) and fixed income (2%).

IMPORTANT DISCLOSURES

Investing involves risks including possible loss of principal. No investment strategy or risk management technique can guarantee return or eliminate risk in all market environments.

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This material is for general information only and is not intended to provide specific advice or recommendations for any individual.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk.

Rebalancing a portfolio may cause investors to incur tax liabilities and/or transaction costs and does not assure a profit or protect against a loss.

Asset allocation does not ensure a profit or protect against a loss.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value.

ASSET DISCLOSURES

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price.

Municipal bonds are subject to availability and change in price. They are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise. Interest income may be subject to the alternative minimum tax. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply.

The market value of corporate bonds will fluctuate, and if the bond is sold prior to maturity, the investor's yield may differ from the advertised yield.

Treasury inflation-protected securities (TIPS) help eliminate inflation risk to your portfolio as the principal is adjusted semiannually for inflation based on the Consumer Price Index – while providing a real rate of return guaranteed by the U.S. Government. show less

Alternative investments may not be suitable for all investors and involve special risks such as leveraging the investment, potential adverse market forces, regulatory changes and potentially illiquidity. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses.

Managed futures are speculative, use significant leverage, may carry substantial charges, and should only be considered suitable for the risk capital portion of an investor's portfolio.

The fast price swings in commodities will result in significant volatility in an investor's holdings. Commodities include increased risks, such as political, economic, and currency instability, and may not be suitable for all investors. Precious metal investing involves greater fluctuation and potential for losses.

Mortgage backed securities are subject to credit, default, prepayment, extension, market, and interest rate risk.

Investing in Real Estate Investment Trusts (REITs) involves special risks such as potential illiquidity and may not be suitable for all investors. There is no assurance that the investment objectives of this program will be attained.'