Market Commentary
Model Portfolios

Q4 2023

State Street ETF Model Portfolios

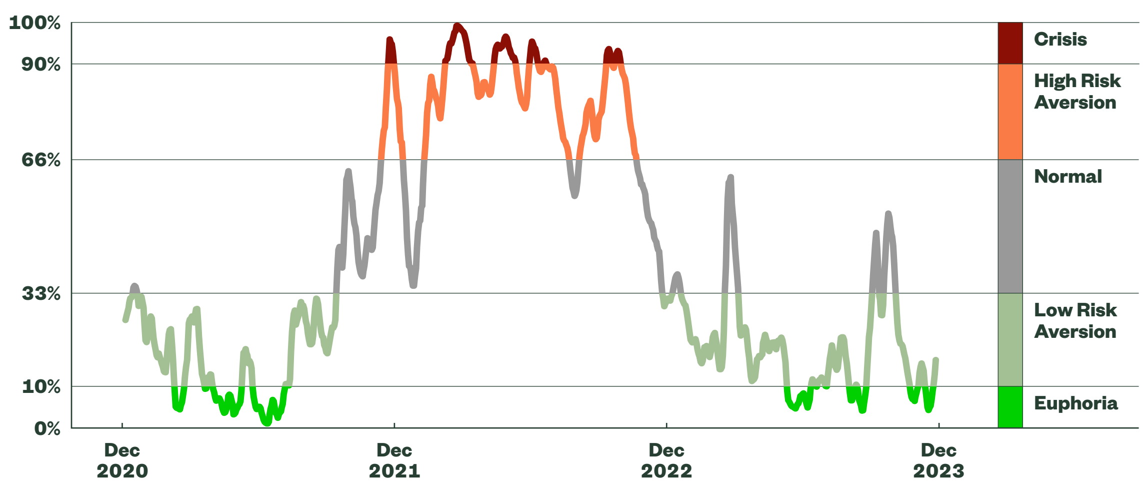
- Global economic activity edged higher toward the end of 2023. Service sector activity rose whereas manufacturing remained in decline.
- Inflation continued to decline during the fourth quarter.
- Interest rates were cut across fifteen economies in December 2023. All the major central banks held interest rates steady in December, including the US Fed, the European Central Bank, and the Bank of England.

The Market Regime Indicator

The Market Regime Indicator (MRI) employs a quantitative framework and forward-looking indicators to track risk appetite shifts in the market cycle.

- The MRI began October in the Low Risk regime and entered the Normal regime on October 19, where it remained until November 5. On November 6, the MRI decreased and moved into the Low Risk regime. It continued to trend lower and entered the Euphoria regime on November 24, before shifting into the Low Risk regime on December 6. The MRI moved back into Euphoria in the middle of the month and remained there until December 27 when it shifted and closed out the year in the Low Risk regime.

Figure 1
A 3-Year Look at the MRI



Source: Investment Solutions Group, as of December 31, 2023.

Key Market Events

February 20, 2020–April 14, 2020	COVID-19 spreads into Europe and the US
February 24, 2022–Present	Russia-Ukraine War
October 7, 2023–Present	Israel-Hamas War

US Equities

US stocks rallied in Q4, supported by prospects of rate cuts in 2024. While October's economic data shocked investors, things took a turn by November — inflation softened and the Fed Chair's supportive comments shored up investor sentiment. Q3 earnings also encouraged investors.

- The S&P 500 Total Return Index returned 11.69% over the quarter. The outlook for US equities remained positive with growth surprising to the upside, labor market resiliency, and inflation abating thanks to the aggressive monetary tightening.
- Most sectors rallied over the quarter, except for Energy, which was dragged down by weak crude prices.
- Headline inflation dropped to 3.10% in November from 3.20% in October and was expected to fall further in December. Core inflation remained at 4.00%.[1]

International Equities

Global equity markets ended 2023 with a rally, as recession concerns eased.

- The MSCI All Country World Index (MSCI ACWI) returned 11.15% over the quarter, bringing the year's tally to 22.81%.
- The MSCI Europe Index returned 11.10% in the fourth quarter. The eurozone recorded sharp declines in inflation, raising prospects of the rate cuts.
- The broad demand for risk assets helped Asia Pacific equities, with the MSCI All-Country Asia Pacific Index returning 8.00% in Q4. All the markets in the region had a strong showing, with the exception of China.
- Emerging market equities had a weak start to the quarter but quickly caught up. The MSCI Emerging Markets Index returned 7.90% over the quarter, bringing the year's tally to slightly over 10.27%, less than half of developed market equity returns. An improved inflation outlook and rate cut optimism helped shore up sentiment in the region.

Fixed Income

Global bonds (Bloomberg Global Aggregate Bond Index — USD Hedged) saw yields cool significantly (-71 basis points) as central banks appeared closer to cutting rates earlier than expected. Signs of economic moderation in the US, cooling global inflation, tightening corporate spreads, and a weaker US dollar supported positive returns.

- Investment grade bonds (Bloomberg U.S. Aggregate Corporate Bond Index) ended the quarter positively (8.50%). Spreads receded significantly during the quarter, falling by 98 basis points (bps).
- High yield spreads (Bloomberg U.S. Corporate High Yield 2% Issuer Cap Index) narrowed by 73 bps in Q4. The index posted a positive return of 7.15%. In December, high yield bond yields declined to their lowest level since August 2022, with lower quality outperforming.
- Market-based inflation expectations for the US, as measured by five-year breakevens, fell by 9 bps during the quarter to 2.15% as CPI-based headline and core inflation prints for the quarter were lower than expected. US Treasuries (5.66%) outperformed US Treasury-inflation-protected securities TIPS (4.71%) by almost a percent (95 bps) on the back of falling inflation and mixed economic activity in the US.[2]

Real Assets

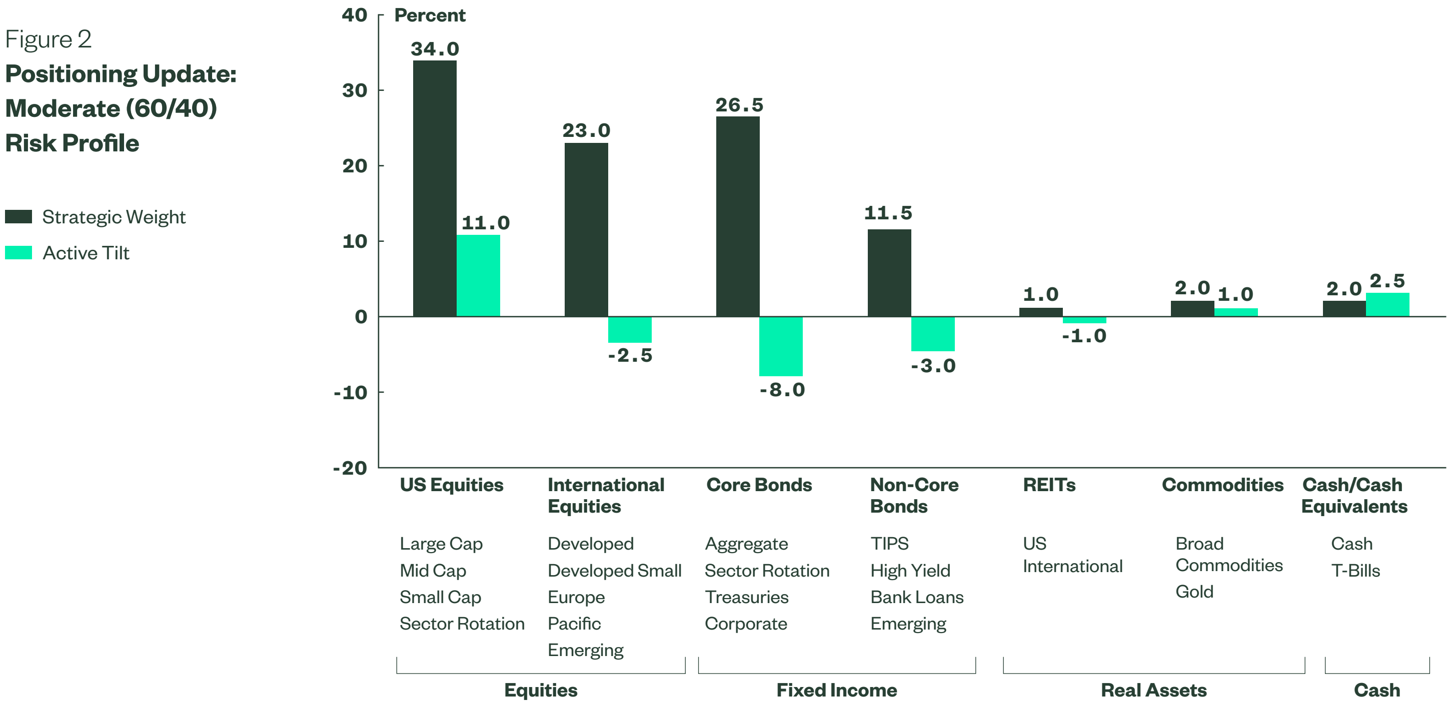
Commodities (as measured by the Bloomberg Commodity Total Return Index) was down 4.60% in Q4 and 7.90% for the year. Commodities was the only asset class to struggle, driven primarily by lower energy prices. Real estate investment trusts (REITs), as measured by FTSE EPRA Nareit Developed Real Estate Index, surged 15.70% as Treasury yields declined in the fourth quarter. The Dow Jones US Select REIT Index rose by 16.40%. Both indices rose 10.90% and 14.00% in 2023, respectively.

- The Energy sector fell significantly, down 18.20%, as both crude oil and natural gas prices declined. The Bloomberg Natural Gas Subindex declined by 24.60% for the quarter and 65.30% for the year, as higher inventory, combined with mild temperatures, put pressure on natural gas prices.

- The Bloomberg Precious Metals Subindex was the best performing sector, up 10.40%, with gold increasing by over 11.11%.

- All REITs sectors had positive returns for the fourth quarter, led by Self-storage and Retail REITs. REITs were broadly positive for 2023, led by Data Centers, followed by Lodging/ Resorts and Specialty.

Figure 2
Positioning Update: Moderate (60/40) Risk Profile



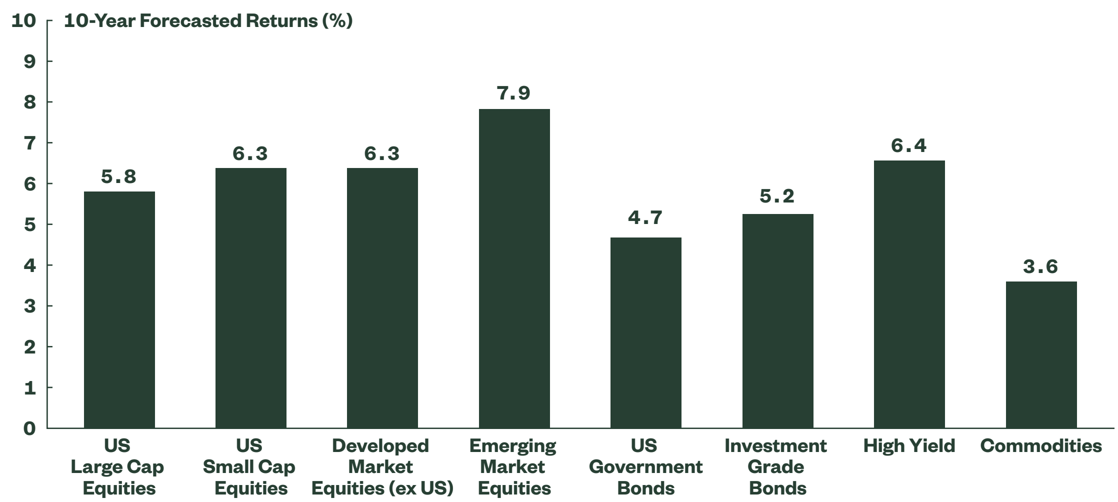
Source: State Street Global Advisors, as of December 31, 2023.
The Strategic Weight is based on a custom Active Asset Allocation Benchmark. The Active Tilt is based on the weights in the State Street Active Asset Allocation ETF Portfolio (Moderate). Positions are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. The model portfolio positions presented above are representative of ISG's market views and our positioning for our active portfolios as of the date given. The results shown were achieved by means of a mathematical formula and are not indicative of actual future results which could differ substantially. This information should not be considered a recommendation to invest in a particular sector or to buy or sell any security shown. It is not known whether the sectors or securities shown will be profitable in the future.

Figure 3
Asset Class Performance

Asset Class	Q4 2023	2023 (%)
Large Cap Equities	11.70	26.30
Small Cap Equities	14.00	16.90
Developed Market Equities (ex US)	10.40	18.20
Emerging Market Equities	7.90	9.80
US Government Bonds	5.70	4.10
Investment Grade Bonds	8.50	8.50
High Yield	7.20	13.50
Commodities	-4.60	-7.90

Source: Bloomberg Finance, L.P., as of December 31, 2023. **Past performance is not a reliable indicator of future performance.** Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Performance returns for periods of less than one year are not annualized. US Large Cap = S&P 500 Total Return Index, US Small Cap = Russell 2000 Total Return Index, Developed ex-US = MSCI EAFE Index, Emerging Markets = MSCI Emerging Markets Index, US Government Bonds = Bloomberg US Treasury Total Return Index, IG Corp = Bloomberg US Corporate Total Return Index, US High Yield = Bloomberg US Corporate High Yield Total Return Index, Broad Commodities = Bloomberg Commodity Total Return Index.

Figure 4
Long-Term Asset Class Forecasts



Source: State Street Global Advisors Investment Solutions Group as of September 30, 2023. The forecasted returns are annual arithmetic averages based on State Street Global Advisors' Investment Solutions Group September 30, 2023 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. Please reference the Appendix for the assumptions used by SSGA Investment Solutions Group to create asset class forecasts.

Appendix

Asset Class Forecast: Assumptions

Fixed Income	Our return forecasts for fixed income derive from current yield conditions together with expectations as to how real and nominal yield curves could evolve relative to historical averages. For corporate bonds, we also analyze credit spreads and their term structures, with separate assessments of investment-grade and high-yield bonds.
Equities	Our long-term equity forecasts begin with expectations for developed market large capitalization stocks. The foundation for these 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 labor and capital inputs to estimate real earning growth.
Factor Returns	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.
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.

Unless otherwise noted, the source for index returns is FactSet, as of December 31, 2023.

Endnotes

1 Bloomberg Finance, L. P., as of January 5, 2024.

2 Bloomberg Finance, L. P., State Street Global Advisors as of December 31, 2023.

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Glossary

Emerging Markets Developing countries where the characteristics of mature economies, such as political stability, market liquidity and accounting transparency, are beginning to manifest. Emerging market investments are generally expected to achieve higher returns than developed markets but are also accompanied by greater risk, decreasing their correlation to investments in developed markets.

Developed Markets Refers to countries or market areas with relatively high levels of economic growth, market liquidity and transparency as well as political stability, rule of law and safety.

High Yield A company or bond that is rated 'BB' or lower is known as junk grade or high yield, in which case the probability that the company will repay its issued debt is deemed to be speculative.

Real Assets Physical or tangible assets that have value and often are investable. Real assets include precious metals, commodities, real estate, agricultural land and oil, and their inclusion in most diversified portfolios is considered appropriate.

REITs or Real Estate Investment Trust Companies that own and operate commercial properties, such as office buildings and apartment complexes.

TIPS or Treasury Inflation-Protected Securities Treasury securities that are indexed to inflation in order to protect investors from the negative effects of inflation. TIPS are backed by the US government and are thus considered an extremely low-risk investment. The par value of TIPS rises with inflation, as measured by the Consumer Price Index, while the interest rate remains fixed.

MSCI ACWI Index, or MSCI All Country World Index A free-float weighted global equity index that includes companies in 23 emerging market countries and 23 developed market countries and is designed to be a proxy for most of the investable equities universe around the world.

Market Regime Indicator (MRI) A proprietary macro indicator developed by the SSGA Investment Solutions Group. The MRI is designed to identify a level of forward-looking, implied volatility. Factors utilized to generate the signal include implied equity and currency volatility as well as spreads on fixed income.

Bloomberg Natural Gas Subindex The index is a commodity group subindex of the Bloomberg CI composed of futures contracts on Natural Gas. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

Bloomberg Precious Metals Subindex Total Return The index is composed of futures contracts on gold and silver. It reflects the return on fully collateralized futures positions and is quoted in USD.

MSCI Europe Index A benchmark capturing large- and mid-cap representation across 15 developed market countries in Europe.

Bloomberg Global Aggregate Bond Index A benchmark that provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities, and USD investment-grade 144A securities.

Bloomberg U.S. Corporate High Yield 2% Issuer Cap Index The index measures the performance of high yield corporate bonds, with a maximum allocation of 2% to any one issuer.

Bloomberg U.S. Corporate Bond Index Measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Consumer Price Index, or CPI A widely used measure of inflation at the consumer level that helps evaluate changes in cost of living. The CPI is composed of a basket of consumer goods and services across the economy and is calculated by the US Department of Labor by assessing price changes in the basket of goods and services and averaging them. Core CPI is the same series, but excluding food and energy prices, which are considered to be volatile enough to distort the meaning and usefulness of so-called headline CPI. The absence of food and energy, means the core series reflects long-term inflation trends more accurately.

Core Inflation A measure of inflation that excludes certain items (food and energy) that move with more volatility that other price movements in the economy. Core inflation is considered to reflect the long-term trend in prices more accurately than so-called headline inflation that includes food and energy.

Treasuries The debt obligations of a national government. Also known as "government securities," Treasuries are backed by the credit and taxing power of a country, and are thus regarded as having relatively little or no risk of default.

Commodities A basic good used in commerce that is interchangeable, or "fungible," with other commodities of the same type. Commodities are most often used as inputs in the production of other goods or services For example, crude oil is a commodity that is used to make motor fuels, and heating oil and lubricants.

Bloomberg Commodity Total Return Index The index is composed of futures contracts and reflects the returns on a fully collateralized investment in the BCOM. This combines the returns of the BCOM with the returns on cash collateral invested in 13 week (3 Month) U.S. Treasury Bills.

FTSE EPRA Nareit Developed Index An index that is designed to track the performance of listed real estate companies and REITS worldwide. By making the index constituents free-float adjusted, liquidity, size and revenue screened, the series is suitable for use as the basis for investment products, such as derivatives and Exchange Traded Funds (ETFs).

Dow Jones U.S. Select REIT Index The index tracks the performance of publicly traded REITs and REIT-like securities and is designed to serve as a proxy for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate.

Important Risk Information

The views expressed in this material are the views of State Street Global Advisors' Investment Solutions Group (ISG) through the period ended December 31, 2023 and are subject to change based on market and other conditions.

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All performance cited is calculated in US dollars unless otherwise stated.

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Past performance is not a reliable indicator of future performance.

Index returns reflect capital gains and losses, income, and the reinvestment of dividends.

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Investing in commodities entail 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.

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

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).

The **index returns** are unmanaged and do not reflect the deduction of any fees or expenses. Investing involves risk including the risk of loss of principal.

Investing in **foreign domiciled securities** may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations. Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

Asset allocation is a method of diversification which positions assets among major investment categories. Asset allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect against loss.

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.

Commodities and commodity-index linked securities may be affected by changes in overall market movements, changes in interest rates, and other factors such as weather, disease, embargoes, or political and regulatory developments, as well as trading activity of speculators and arbitrageurs in the underlying commodities.

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