Market Commentary
ETF Model Portfolios

Q2 2022

State Street ETF Model Portfolios

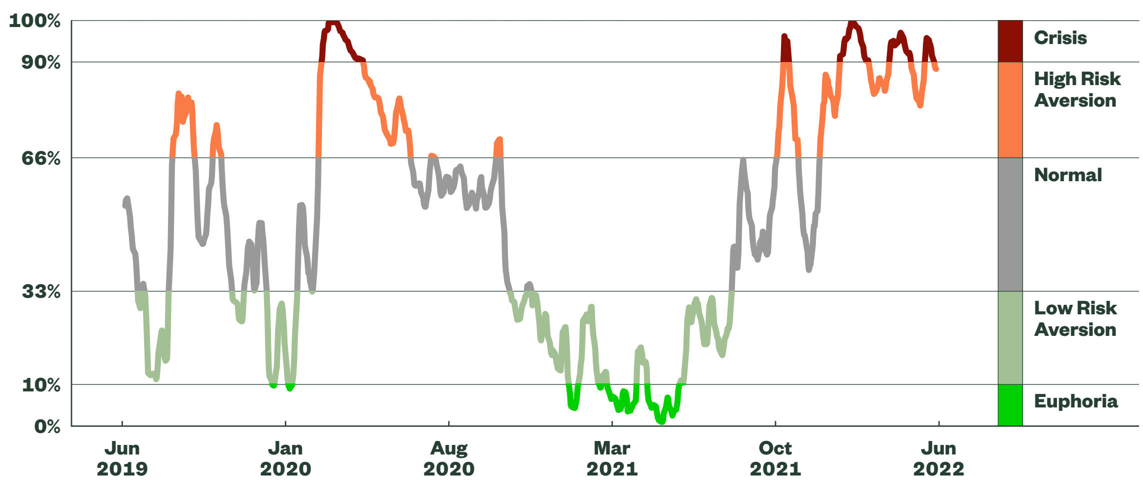
- Markets remained volatile in the second quarter of 2022. Both equities and bonds posted sharp declines.
- Concerns over persistent inflation and tightening monetary policy weighed heavily on sentiment.
- Geopolitical risks remained elevated amid the ongoing Russia-Ukraine War and continued escalations between the US and China over Taiwan.

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 started Q2 in the High Risk regime and moved up gradually into Crisis at the end of April, where it remained until the end of May. The MRI finished the quarter in the High Risk regime.
- Persistent inflation pressure forced central banks to accelerate tightening, risking a hard landing.
- Geopolitical risks remained elevated.

Figure 1
A 3-Year Look at the MRI



Source: Investment Solutions Group, as of June 30, 2022.

Key Market Events	
February 20, 2020–April 14, 2020	COVID-19 spreads into Europe and the US
February 24, 2022–Present	Russia-Ukraine War

US Equities

S&P 500 Index declined 16% over the quarter. Concerns over elevated inflation and tighter monetary policy negatively affected the US equity market during the second quarter.

- The S&P 500 Index declined by 16.10% during the quarter.
- All sectors in the region posted negative returns. Consumer discretionary (-26.16%) and communication services (-20.71%) were the weakest.
- Mid-cap companies performed in line with their larger counterparts during the quarter. The S&P Midcap 400 Index declined by 15.42% while small-cap companies (Russell 2000 Index) declined by 17.20%.
- The Chicago Board Options Exchange's (CBOE) Volatility Index (VIX) rose 46.25% over the quarter, indicating an increase in market volatility.
- Consumer sentiment dropped sharply despite lower levels of unemployment and stronger wage growth over the quarter.

International Equities

Global equity markets had a difficult quarter after what had already been a tough start to the year.

- The MSCI All Country World Index declined by 15.53%. Developed market (DM) equities had the worst first half of the year in over 50 years. The MSCI Emerging Markets Index returned -11.34%. The MSCI Europe Index fell by 14.17% during the quarter and MSCI Pacific Index declined by 14.41%.
- The expectations for the path of interest rates hikes, along with concerns about the growth outlook, contributed to a decline in equity valuations.
- The Chinese equity markets proved to be a bright spot as lockdowns were lifted in some major cities. The MSCI China Index returned 3.50%.

Fixed Income

Global bonds (Bloomberg Global Aggregate Bond Index — USD Hedged) posted negative returns for the second quarter in a row, closing out Q2 at -4.30%. Yields ended the quarter 76 basis points (bps) higher to print 2.91% versus 2.15% at the end of Q1.[1]

- Investment grade (IG) spreads (Bloomberg U.S. Aggregate Corporate Bond Index) widened by 39 bps during Q2, ending at 155 bps. IG supply during the quarter remained below average as market conditions remained poor and investors showed little appetite for bonds. US corporates posted negative returns in Q2 (-7.26%).
- High yield (HY) spreads (Bloomberg U.S. Corporate High Yield 2% Issuer Cap Index) widened during the quarter by 244 bps to end June at 570 bps over Treasuries, with returns of -9.84%.
- US Treasuries (-3.77%) performed better than US Treasury inflation-protected securities (TIPS) (-6.08%) by 231 bps. Inflation unexpectedly accelerated to 8.6% in May.[2]

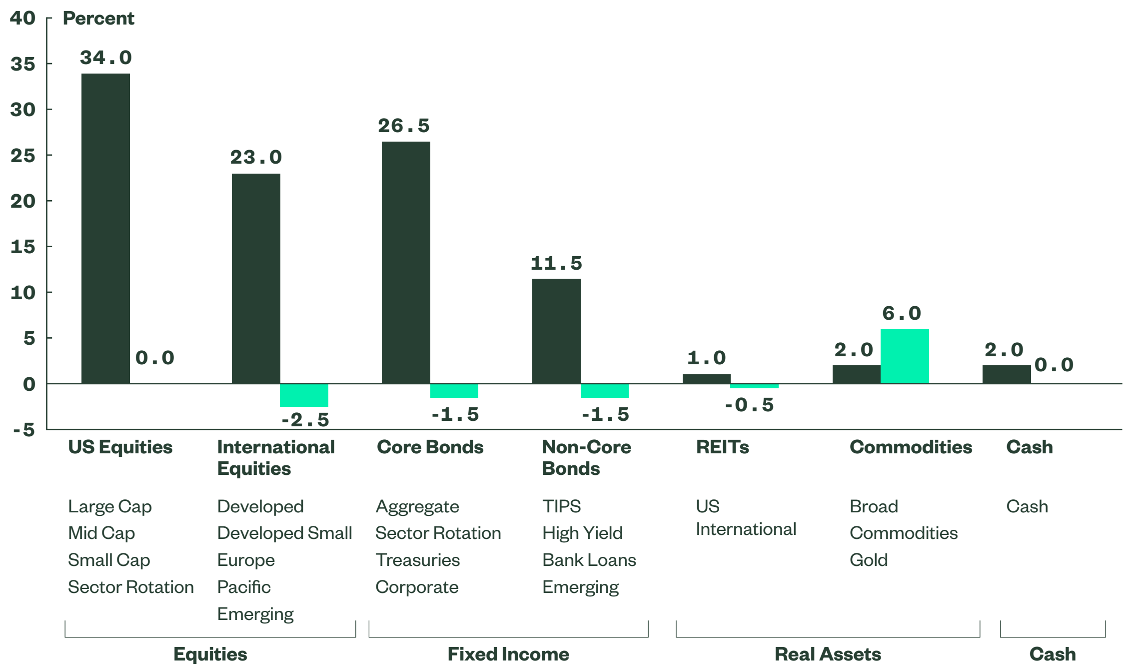
Real Assets

Commodities (Bloomberg Commodity Total Return Index) decreased by 5.7% in the second quarter. Real estate investment trusts (REITs) continued to decline.

- The Energy sector continued to lead the way, up 7.0%.
- The Bloomberg Precious Metals Subindex Total Return Index was down 10.5%, with gold and silver declining 7.6% and 19%, respectively. A strong US dollar and aggressive Central Bank policy action put a dent in the appeal for safe-haven assets.
- REITs, as indicated by the FTSE EPRA Nareit Developed Real Estate Index, fell 17.1%, while the Dow Jones U.S. Select REIT Index returned -18.1% for the quarter. All property sectors performed poorly. Office REITs was the worst performing sector, followed by industrials and lodging/resorts.

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

Strategic Weight
Active Tilt



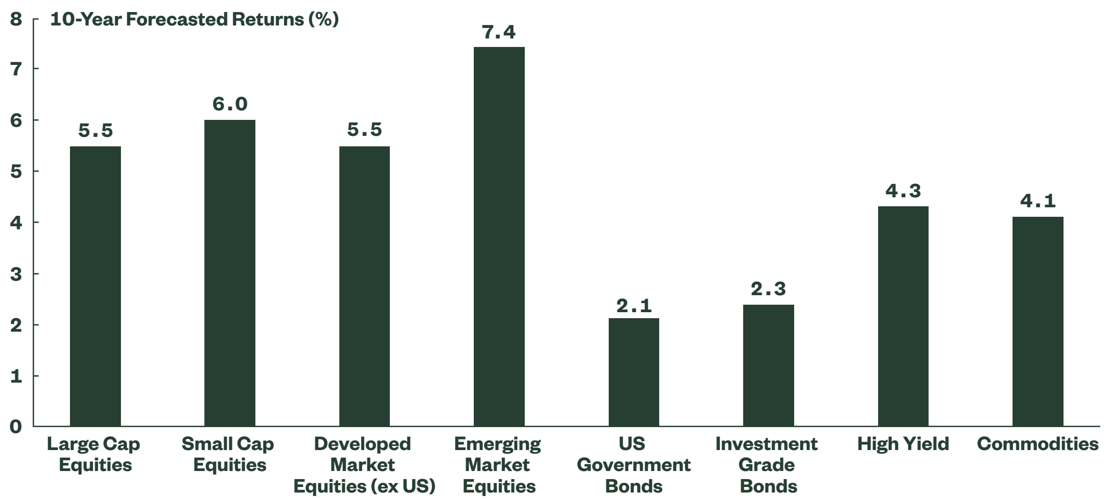
Source: State Street Global Advisors, as of June 30, 2022.
The Strategic Weight is based on a custom Active Asset Allocation Benchmark. The Active Tilt is based on the weights in the State Street Active Asset Allocation ETF Portfolio (Moderate). Positions are as of the date indicated, are subject to 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	QTD (%)	Prior 12 Months (%)
Large Cap Equities	-16.1	-20.0
Small Cap Equities	-17.2	-23.4
Developed Market Equities (ex US)	-14.3	-19.2
Emerging Market Equities	-11.5	-17.6
US Government Bonds	-3.8	-9.1
Investment Grade Bonds	-7.3	-14.4
High Yield	-9.8	-14.2
Commodities	-5.7	18.4

Source: Bloomberg Finance, L.P., as of June 30, 2022. **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. U.S. Large Cap: S&P 500 Index; U.S. Small Cap: Russell 2000 Index; Developed Ex-US: MSCI EAFE Index; Emerging Markets: MSCI Emerging Markets Index; IG Corp: Bloomberg U.S. Corporate Index; US Govt: Bloomberg U.S. Treasury Index; High Yield: Bloomberg U.S. Corporate High Yield Index; Commodities: Bloomberg Commodity Index.

Figure 4
Long-Term Asset Class Forecasts



Source: State Street Global Advisors Investment Solutions Group as of March 31, 2022. The forecasted returns are based on State Street Global Advisor's Investment Solutions Group's. 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. Please reference the Appendix for the assumptions used by SSGA Investment Solutions Group to create asset class forecasts.

Unless otherwise noted, the source for index returns is FactSet, as of June 30, 2022.

1 Bloomberg Finance, L. P., State Street Global Advisors as of June 30, 2022.

2 Bloomberg Finance, L. P., State Street Global Advisors as of June 30, 2022.

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.

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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.

S&P 500 Index A 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 MidCap 400 Index A benchmark that seeks to target the mid-cap portion of the US equities market. The index covers more than 7 percent of the U.S. equities market. Included in the index are companies with market cap in the range of $1 billion to $4.5 billion. This range is reviewed from time to time to ensure consistency with market conditions.

Russell 2000® Index A benchmark that measures the performance of the smallcapitalization segment of the U.S. equity universe. The Russell 2000® is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes about 2,000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000® Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set.

VIX, or CBOE Volatility Index The SPX Volatility Index, also called the VIX or the CBOE Volatility Index, is a measure of the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options.

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

MSCI Pacific Index An index that captures large and mid-cap representation across 5 Developed Markets countries in the Pacific region. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI China Index An equities benchmark that captures large- and mid-cap representation across China H shares, B shares, Red chips and P chips. It does not include A shares listed on the mainland.

MSCI Emerging Markets Index An index that captures large and mid-cap representation across 23 emerging markets countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

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.

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.

Bloomberg Precious Metals Subindex Total Return Index 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.

FTSE EPRA Nareit Global Real Estate Index A free-float adjusted, market capitalization-weighted index designed to track the performance of listed real estate companies in both developed and emerging countries worldwide. Constituents of the index are screened on liquidity, size and revenue.

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 June 30, 2022. 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.

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ETFs trade like stocks, are subject to investment 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.

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.

State Street Global Advisors
1 Iron Street, Boston, MA 02210-1641.
T: 1-866-787-2257.

ID1121207-4697379.2.2.AM.RTL 0722
Exp. Date: 10/31/2022