# SSGA Market Regime Indicator Update

Strategy Update
**Multi-Asset Solutions**

**Q3 2023**

The Market Regime Indicator (MRI) is a proprietary macro indicator developed by the SSGA Investment Solutions Group (ISG). Based on forward-looking market information, it is designed to identify the level of risk aversion/appetite in the market. The factors utilized to generate the signal include implied equity and currency volatility as well as spreads on fixed income.

The Investment Solutions Group uses the MRI as one of the inputs into its global tactical asset-allocation decision-making process.

The MRI is the result of over twelve months of rigorous testing by the Investment Solutions Group. The test results showed that the MRI tracked historical market stress events and trading strategies based on the level of outperformance generated by the indicator. By design, the MRI signal varies between 0% and 100%. On this scale, a high level is often characterised by market tensions, such as a significant increase in volatility and a drop in Risky asset prices.

## We Have Identified Five Different Market Regimes:

**Crisis (level close to 100%)** — Extreme Risk aversion ('Fear/Panic')

**High Risk Aversion (level above the average)** — Aversion toward Risky assets

**Normal (level oscillating around the mean)** — Characterised by neutral market sentiment

**Low Risk Aversion (level below the average)** — Appetite toward Risky assets

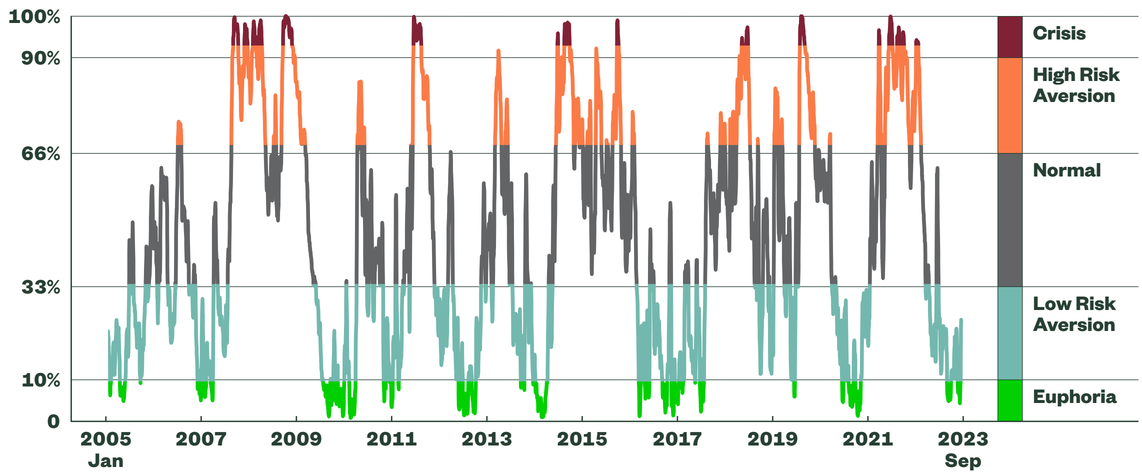
**Euphoria (level close to 0%)** — Extreme Risk appetite ('Greed/Complacency')

Figure 1 **Market Regime Indicator**

| Market Regime Indicator | 30/06/2023 | 30/09/2023 |
|---|---|---|
| Average — Equity Implied Volatility | Euphoria | Nomal |
| Average — Risky Debt Spreads | Low | Low |
| Average — Currency Implied Volatility | Euphoria | Low |
| MRI Level | Euphoria | Low |

Source: State Street Global Advisors Investment Solutions Group, 30 September 2023.

Figure 2 **Market Regime Indicator (MRI) Evolution**




Source: As of September 30, 2023. The data displayed is not indicative of the past or future performance of any State Street Global Advisors product. The portion of results through March 31, 2011 represents a back-test of the MRI model, which means that those results were achieved by means of the retroactive application of the model which was developed with the benefit of hindsight. Data displayed beyond this date is not backtested but is still generated by the model referenced. All data shown above does not represent the results of actual trading, and in fact, actual results could differ substantially, and there is the potential for loss as well as profit. The Market Regime Indicator (MRI) is a quantitative framework that attempts to identify the current market risk environment based on forward-looking market indicators. We believe the factors used, equity implied volatility, currency pairs implied volatility and bond spreads, are good indicators of the current risk environment as they are responsive to real-time market impacts and in theory should include all current and forward views of those markets. These factors are combined to create a single measure and used to identify one of five risk regimes: Euphoria, Low Risk, Normal, High Risk, and Crisis. A slight calculation change was made as of June 28, 2019.

**Market Commentary**

The third quarter of 2023 saw a shift in the market narrative — from a feeling that central banks could perhaps be closing in on the end of the rate hiking cycle to an increasing sense that instead rates would remain higher for longer. Yields moved to multi-year highs amid more hawkish messaging, and inflation fears also contributed to what was a poor quarter for risk assets. While the MRI moved higher over the period, there was no sense of panic, with the signal beginning in Euphoria regime and moving into Low Risk regime in early July, where it remained for much of the quarter. September did see the MRI move briefly lower into Euphoria regime before moving back higher into Low Risk regime at the end of the quarter.

The Implied Volatility on Equities factor began Q3 in Euphoria regime, following the US Federal Reserve pause and the debt ceiling deal. However, early July saw an almost immediate move higher into Low Risk regime as poor data in China and Europe dented risk appetite. This was followed by a significant sell-off of bonds as employment data in the US suggested the economy was faring better than expected, leading investors to price in higher rates.

Amid this backdrop, equities struggled and volatility moved higher with the CBOE Volatility Index (VIX) moving to its highest level since the end of May. Late in the month, a number of promising inflation reports, including the US monthly Consumer Price Index (CPI) at just 0.18% in June, improved sentiment, with the Implied Volatility on Equities factor reversing and moving back into Euphoria regime.

August began with a surprise US credit rating downgrade as the rating agency Fitch moved the US to AA+ from AAA, citing 'expected fiscal deterioration over the next three years'. Markets were also concerned with the increased US Treasury supply, with risk assets moving lower and the Implied Volatility on Equities factor moving from Euphoria regime at the start of the month into Normal regime within a week. Moody's downgrade of ten US banks — alongside concerning inflation data, an upside surprise in UK wage growth and higher European natural gas prices — saw equities remain under pressure for much of the month.

August closed with the Implied Volatility on Equities factor moving lower again, first into Low Risk regime, and then back into Euphoria regime in early September. This came alongside weakening US data that showed a softening in the labour market and consumer confidence which combined with a dovish tone from Bank of England officials, led to a lower market expectation for further rate hikes. However, the second half of the month saw a hawkish hold from the Fed, and longer-dated yields across countries hitting multi-year highs. The Implied Volatility on Equities factor moved higher into Normal regime at the end of the quarter.

The Risky Debt Spread factor shifted from being the most elevated of the three MRI inputs over the second quarter to the lowest in the third. The factor began July in Low Risk regime but swiftly moved lower into Euphoria, spending over 85% of the quarter in this regime. Both high yield (HY) and emerging market debt (EMD) spreads closed September at levels similar to the start of July, and the ranges they traded in were also very tight, at approximately 39 bp and 24 bp, respectively. For context, the Q1 and Q2 figures were 128 bp and 86 bp for HY, and 65 bp and 41 bp for EMD, so it was a subdued quarter for spreads.

The Implied Volatility on Currencies factor entered the quarter after spending the longest period in Euphoria regime since 2014. However, this run did not extend much further, into July, with the factor moving higher into Low Risk regime early in the month. An increase in Japanese yen volatility was a key dynamic as speculation increased that the Bank of Japan (BoJ) could adjust its yield control program. In addition, data releases continued to cause significant moves in the foreign exchange market, with the US Dollar Index moving to 15-month lows shortly after the CPI release in July. Late in the month, the BoJ loosened its Yield Curve Control, allowing more fluctuation in yields, leaving investors wondering if this could be the start of a significant tightening cycle.

The Implied Volatility on Currencies factor remained largely steady throughout August and September, only moving briefly into Euphoria regime on two occasions, before closing the quarter in Low Risk regime. However, there was a significant shift in the US dollar narrative over this period as the risk-off environment and expectations of 'higher for longer' US interest rates saw markets turn bullish on the currency, with the US Dollar Index surging more than 6% from its mid-July lows.

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