Multi-Period Stress Testing in BarraOne

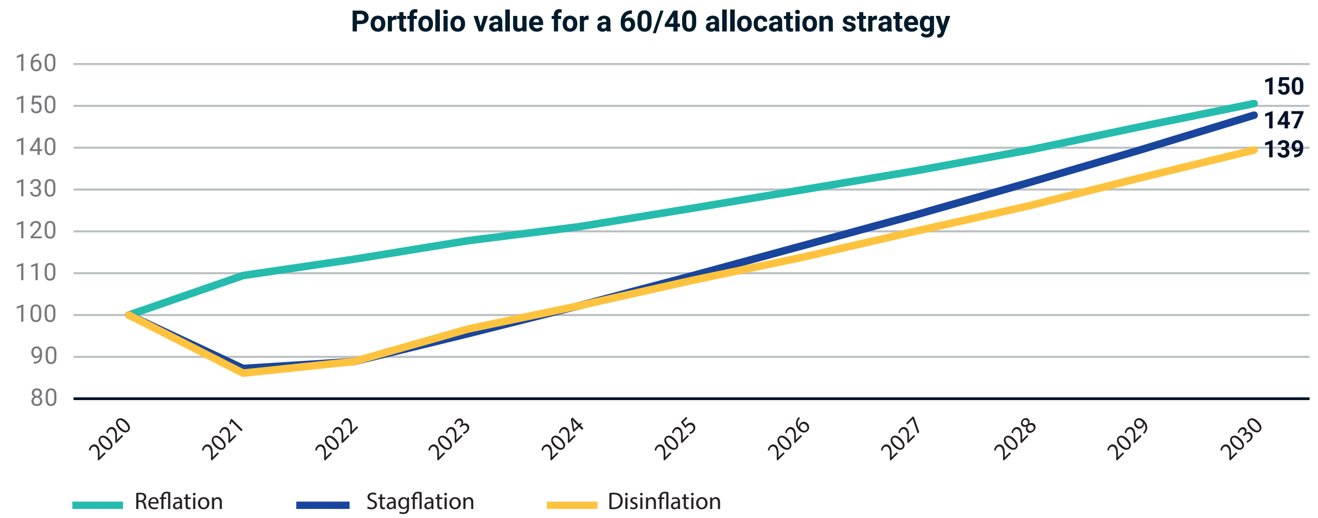
A new lens for risk management and better investment decisions

Multi-Period Stress Testing (MPST) is a new risk management innovation, powered by MSCI's industry-recognized pricing models and factor analytics.

What is Multi-Period Stress Testing?

MPST allows investors to understand the impact of scenarios that can occur over multiple market cycles. It innovates on the original concept of stress testing by delivering more realistic, long-horizon scenario analysis for risk management and portfolio construction.

With MPST, investors can stress test portfolios by creating forward-looking scenarios or replaying historical events over long horizons and multiple market cycles.



Benefits

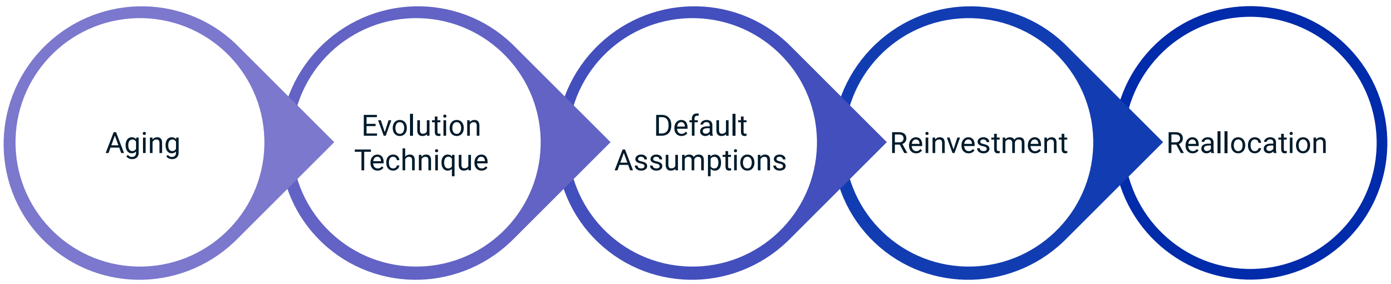
- Go beyond instantaneous repricing to analyze the impact of scenarios that take longer horizons and multiple market cycles to play out.
- Produce realistic portfolio P&L paths to empirically inform asset allocation.
- Balance trade-offs between short-term drawdowns and long-horizon returns.

Multi-Period Stress Testing for Long Horizons

MPST offers a direct link between successive changes in market conditions over a long horizon, asset aging, and the repricing of the portfolio. With MPST, both the scenario shocks and the passage of time are accounted for when repricing assets.

Reflect portfolio rebalancing approaches by:

- Incorporating **reinvestment rules** into the analysis, including how gains or income will be reinvested in each period back into the portfolio.
- Creating **custom rebalancing profiles** to reflect portfolio construction views of asset class, country, or manager allocations.
- **Applying reinvestment and rebalancing profiles** to asset groups or to a portfolio tree structure comprising composite strategy or total plan.



Key features

- Create forward-looking scenarios or replay historical events over long horizons.
- Include custom rebalancing profiles that reflect portfolio construction view.
- Create multi-period stress testing scenarios based on historical dates or user-defined market scenarios.
- Account for passage of time of positions with pricing models such as bonds or derivatives.
- Customized probabilities of default and recovery rates for different credit grades to account for the expected losses due to defaults.

About BarraOne© performance analytics

BarraOne is a research-driven platform that helps asset managers identify and manage risk exposures to make more informed investment decisions. A multi-asset class, multi-currency risk and performance analytics platform BarraOne enables investors to use its risk forecasting model, correlated stress test engine and performance analytics together in an integrated fashion.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.

MSCI