

AXIOMA FUND ALLOCATION MODEL (AXFAM4)

Designed specifically for portfolios of ETFs and mutual funds, the multi-asset class Axioma Fund Allocation Equity Factor Risk Model ('Fund Allocation Model') is built to capture fund investment risk through exposures to a curated set of fund category risk factor returns and fund specific risks. This flexible model supports:

- Tax efficient transition proposals
- Model portfolio construction and rebalancing
- Asset allocation
- Portfolio optimization
- Risk attribution
- Fund manager differentiation

ADDRESSING FUND-OF-FUND MODELING CHALLENGES

1. *Maximize workflow efficiency and consistency:* Multi-asset class fund performance data-wrangling and category classification are handled automatically.
2. *Capture economic insight:* The intuitive factor structure is both transparent and sufficiently detailed to provide meaningful risk decomposition analysis, as opposed to other statistical models that provide limited insight.
3. *Avoid unwieldy integration:* Through daily flat file downloads in a format compatible with the Axioma Portfolio Optimizer, portfolio construction is straightforward and easy to implement.
4. *Minimize operational risk:* Exhaustive and growing coverage of single stocks, mutual funds and ETFs of all fund types means you run more efficient internal processes.

KEY BENEFITS

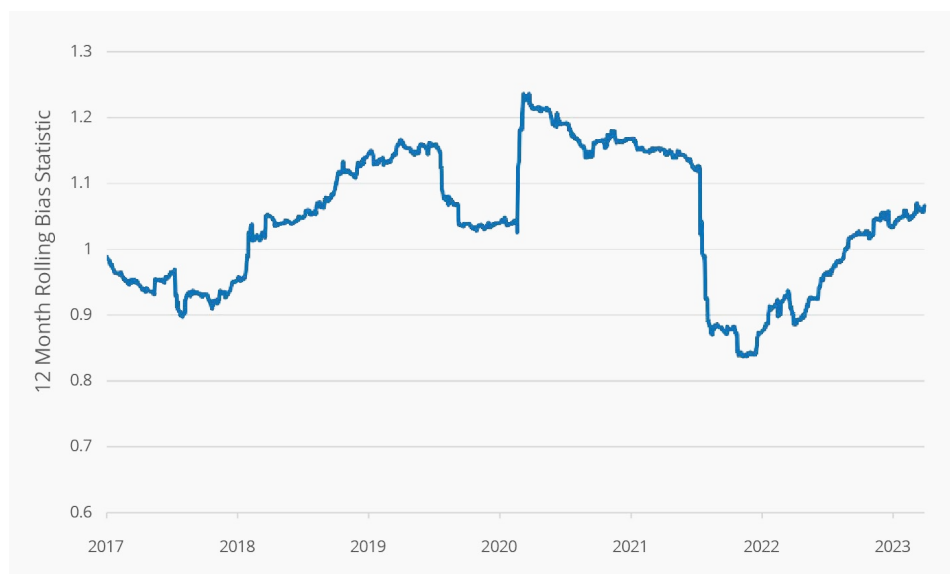
1	Intuitive fund mapping and portfolio risk decomposition	Funds automatically map to a single fund category risk factor from a categorization hierarchy designed to be sufficiently granular to differentiate risk but parsimonious enough for meaningful risk decomposition.
2	Full multi-asset class fund coverage	From US Large Caps to Global Treasury funds to ETFs tracking International Equity, Emerging Market Equity, Mortgage-backed Funds, Total Return Funds, Investment Grade Corporate Funds, High Yield Corporate Fund and International Fixed Income, all fund types are modeled.
3	Strategy alignment	The model provides insight into portfolio risk exposures for better alignment with specific investment objectives including transition management, model portfolio building, asset allocation and benchmark targeting.
4	Systematic risk and fund-specific risks capture	Funds have a beta exposure to both a systematic category factor representing the average performance of the funds cohort and idiosyncratic risk estimated from the fund's return time series. This helps differentiate risks associated with individual fund managers for portfolios tracking a benchmark.

AXIOMA FUND MODEL IS FOR:

- Private wealth managers investing in a broad range of ETFs and Mutual Funds
- High net worth investment advisors
- Fund-of-fund investment managers
- Solutions groups managing risk allocation and exposure

FIGURE 1: PERFORMANCE OF DIVERSIFIED PORTFOLIO OF FUNDS

The rolling bias statistic (root mean square of ratio of portfolio return to model predictive volatility) shows how well the model measures the risk of upcoming returns. A value close to one indicates a highly predictive model.



Source: Axioma Fund Allocation Factor Risk Model

This is a ratio of daily returns to predicted risk for a canonical portfolio of 196 equally-weighted funds, each representing a different fund category estimated over a one year rolling window.

MODEL DELIVERY AND ACCESS

- Delivery is available through SFTP file download.
- Covariance, specific risk and exposure matrices are available with daily updates and monthly histories from March 2021.