

# Axioma Worldwide Macroeconomic Projection Equity Factor Risk Model

**For insight into how macro factors ranging from interest rates to carbon emission prices impact portfolio risk**

Designed to capture the investment risk of a global equity portfolio through the lens of macroeconomic risk factors, the Axioma Worldwide Macroeconomic Projection Equity Factor Risk Model (AXWWMP4) decomposes the risk of the factors in the Axioma Worldwide Fundamental Equity Factor Risk Model (AXWW4) driven by interest rate, inflation, credit and commodities.

## Key benefits



### **Portfolio risk attribution to macroeconomic factors**

Understand how the risk of an equity portfolio can be explained by well-defined, transparent macroeconomic risk factors such as interest rate term spreads and inflation rates.



### **Factor risk interpretation**

Validate how key equity fundamental factors such as Market Sensitivity and Volatility are driven over time by macroeconomic factors.



### **Robust, stable, validated risk assessment**

Leverage the power and performance of the AXWW4 fundamental risk model with a macroeconomic model that has the same name-specific total systematic and idiosyncratic risk assessment across your portfolio.



### **Consistent macro and fundamental risk analysis**

Avoid misalignment between macroeconomic and fundamental models derived in different frameworks that lead to costly, inflexible side-by-side risk infrastructure.



### **Insights delivered daily**

Capture macroeconomic insight through factors derived from liquid traded bonds, futures and indices that form the basis of a daily model.

## Portfolio managers overseeing global equity portfolios can employ a macroeconomic view of risk for:

- > Asset and portfolio level macroeconomic factors exposure analysis
- > Macro strategy backtesting
- > Optimized portfolio construction to hedge or tilt toward risk exposure to macro factors
- > Performance and risk attribution to macroeconomic factors
- > Research on alpha construction incorporating asset-level macro exposures
- > Stress tests of portfolio performance against macro shock

### AXWWMP4 can be used by:

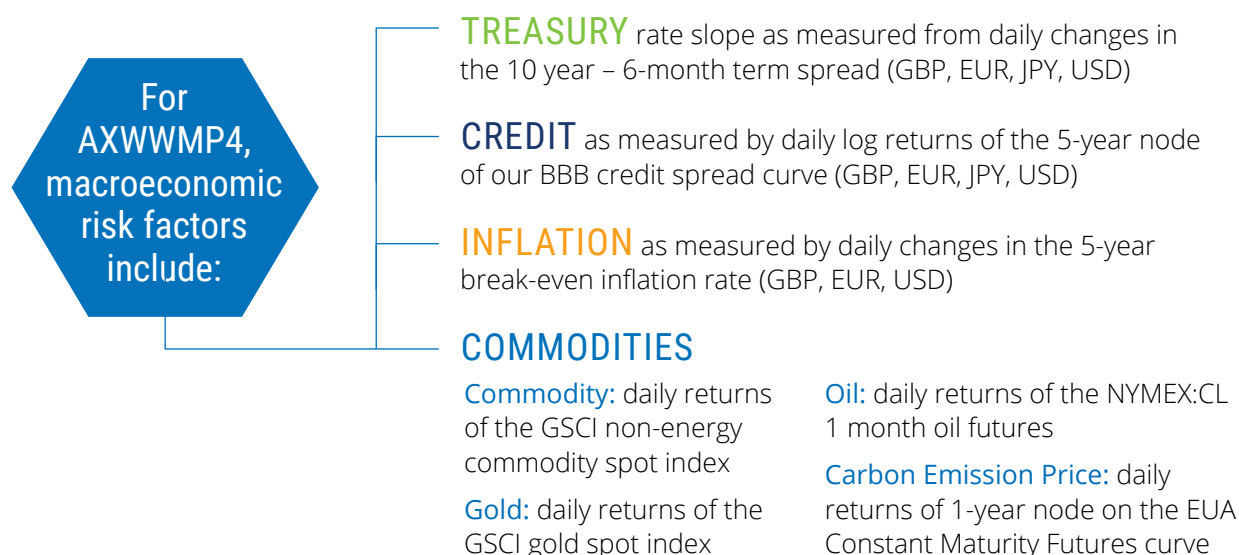
- Institutional equity portfolio managers
- Macro strategy hedge fund managers
- Performance and Reporting teams
- Research teams developing and analyzing investment strategies
- Risk Management teams
- Wealth managers balancing risk allocation

## Advantages over traditional macroeconomic time-series models:

- > Time-series regressions based on AXWW4 factor returns require no additional portfolio holdings and returns data to be defined and maintained
- > Macroeconomic factor exposures directly linked to standard AXWW4 fundamental factors resulting in stable and meaningful exposures
- > Increased macro-exposure stability as betas to fundamental factors are more stable than asset-level betas
- > Improved estimation accuracy from reduced number of exposure parameters

## Model factors

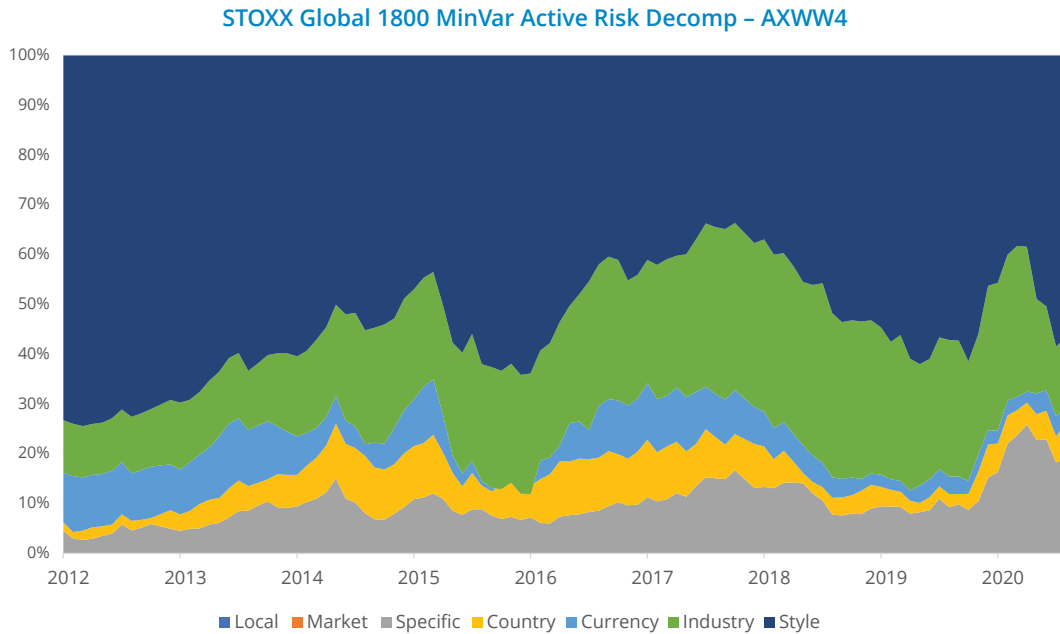
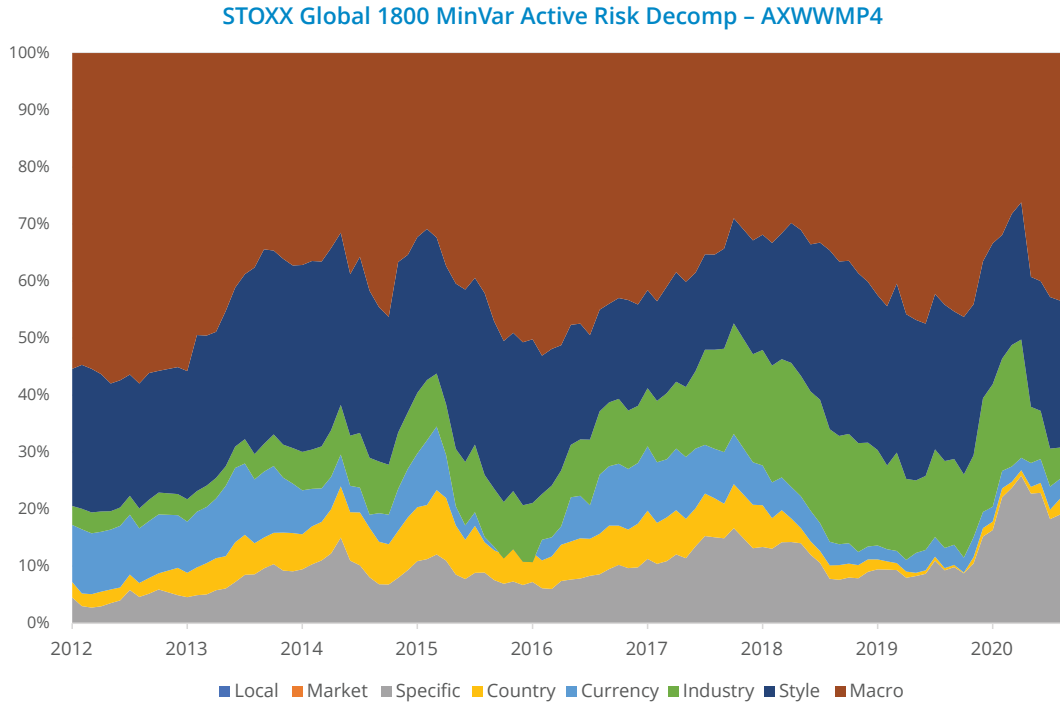
Our models are designed to separate and quantify systematic and idiosyncratic components of risk. For the Axioma Worldwide Macroeconomic Projection Equity Factor Risk Model, all systematic risk factors of the AXWW4 fundamental model other than currency factors are projected on a set of global rate, inflation, credit and commodity factors, while capturing the residual fundamental factor returns to ensure that total risk remains unchanged for both models.



## Model delivery and access

- > Daily updates are available as a flat file and application file format
- > Medium-term horizon variation of the Macroeconomic Projection model is available
- > AXWWMP4 can be integrated with Axioma Portfolio Optimizer™, Axioma Portfolio Analytics™, and Axioma Risk™
- > Flat files can be used with third-party portfolio construction, performance analytics, and risk management solutions

## AXWWMP4 vs AXWW4: Factor risk decomposition



Comparison of the factor risk decomposition by factor type of the STOXX Global 1800 Minimum Variance index under the Macroeconomic Projection Model (AXWWMP4 - top chart) and the Fundamental Model (AXWW4 - bottom chart).

To learn more about Qontigo, please contact us, or visit [qontigo.com](https://qontigo.com)

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