

Why Active Risk Management Is Challenged Without a Macro Layer

Evidence from recent regime shifts



Active risk management looks rigorous on paper. You have a factor model, a risk budget, position-level attribution and daily P&L decomposition. Then macro conditions shift sharply, and portfolios that appeared well-managed start bleeding in ways the model never flagged. The drawdown arrives, the attribution report runs, and the explanation falls flat: the model caught sector exposure, style tilts and idiosyncratic variance, but missed the thing that actually moved the market.

That gap is not a calibration problem. It is structural. Most active risk management frameworks were never built to detect, measure or respond to macro regime shifts at the single-security level. This guide explains why that matters, what recent regime transitions reveal about the challenge, and what a macro layer actually needs to do to be useful rather than decorative.

1. The core problem with traditional active risk management

Standard equity risk models decompose returns into style factors — value, momentum, quality, low volatility — sector exposures and a residual idiosyncratic term. That decomposition works well for understanding cross-sectional return variation in stable conditions. It becomes unreliable when macro forces are the dominant driver of returns.

The reason is structural. Factor models built on cross-sectional equity data treat macro as one input among many, or they proxy macro exposure through sector tilts and beta estimates. They are not designed to answer the question a portfolio manager actually needs answered during a macro-driven drawdown: how much of my loss today is explained by a shift in the macro regime, and how much is genuine stock-specific underperformance?

When you cannot answer that cleanly, two things go wrong.

First, you misattribute losses. A position that looks like an idiosyncratic mistake may simply carry high sensitivity to a macro factor that moved sharply. You exit a good stock at the wrong time because the attribution report told you the wrong story.

Second, you cannot size risk correctly. If your risk model does not distinguish between macro beta and alpha, you are almost certainly running more macro exposure than you intend and less genuine stock-picking edge than you believe. That imbalance compounds quietly until a regime shift makes it visible all at once.



2. What a regime shift actually looks like from inside a portfolio

The phrase 'regime shift' gets used loosely. For active risk management purposes, it has a specific meaning: a transition in the proportion of market returns explained by macro factors versus stock-specific fundamentals.

In a fundamentals-driven regime, stock selection works as expected. Earnings quality, valuation discipline and sector rotation generate differentiated returns. Your risk model's residual term is genuinely idiosyncratic. Alpha is real.

In a macro-driven regime, correlations compress, sector diversification stops working, and even high-conviction positions move together in ways that have nothing to do with company fundamentals. The residual term in your factor model is no longer clean — it is contaminated by macro sensitivity the model is not capturing.

The transition between these regimes is not gradual or well-signposted. It can happen over days. And the standard risk model does not tell you it is happening.

This is the challenge that has repeated across multiple market episodes. Portfolios that looked diversified by sector, style and geography turned out to be highly correlated when a macro shock arrived, because their underlying securities shared macro sensitivities that had never been measured.

3. Why macro as an overlay does not solve the problem

A common response is to add a macro commentary layer on top of an existing risk model. The portfolio manager reads a macro view, adjusts sector weights and considers the job done.

This approach runs into several challenges.

Commentary is not quantified exposure. Knowing that rates are rising does not tell you which specific positions in your book are most sensitive to rate moves, or by how much. That information needs to exist at the individual-security level, updated daily, to be actionable.

Sector proxies are too coarse. Rate-sensitive stocks exist in every sector. A healthcare company with significant floating-rate debt behaves differently from a cash-rich peer in the same sector. A tech stock with long-duration earnings has very different macro sensitivity from a profitable, short-cycle software business. Sector weights do not capture those distinctions.



Timing is wrong. By the time a macro view is formed, written up and distributed, the market has often already moved. Active risk management requires a daily measurement, not a weekly narrative.

A macro layer needs to be embedded in the risk model itself — not applied on top of it.

That means measuring macro factor sensitivities at the individual-security level, updating them continuously, and making the macro-versus-idiosyncratic decomposition available as a daily analytical output — not an occasional commentary product.

4. What the evidence from recent regime shifts shows

Across the macro transitions of the past several years, a consistent pattern has emerged. When the macro regime shifts, portfolios running standard factor models experience three predictable challenges.

Attribution challenge. The factor model explains a smaller proportion of return variance during the regime shift than it does in stable periods. The residual term spikes — which looks like idiosyncratic risk but is actually unattributed macro exposure. Managers cannot tell which positions are driving the drawdown or why.

Correlation surprise. Positions that appeared uncorrelated in the factor model move together during the shock. Long/short books that looked balanced by sector and style suffer simultaneous losses on both legs because both legs shared macro sensitivity that was never measured.

Recovery misjudgment. After the initial shock, managers often hold or add to positions that have moved against them, believing the move was idiosyncratic and therefore mean-reverting. If the move was actually macro-driven, that thesis is wrong. The position continues to underperform until the macro factor itself reverses.

Each of these challenges has the same root cause: the risk model did not separate macro-driven returns from stock-specific returns at the individual-security level, in real time.



5. What a macro layer actually needs to do

A genuine macro layer in an active risk management framework is not a dashboard showing interest rates and PMI readings. It needs to do three specific things.

Measure macro sensitivity at the single-security level

Every security in your portfolio has a different sensitivity to each macro factor — rates, credit spreads, inflation expectations, dollar strength, growth expectations and others. Those sensitivities change over time. A useful macro layer quantifies them daily, for every security, so you know exactly where your macro exposure sits before the market moves, not after.

Separate macro-driven returns from idiosyncratic returns

On any given day, a stock's return is a combination of macro factor movements and stock-specific news or sentiment. Decomposing those two components cleanly is the core analytical problem. When you can do it reliably, you know whether a position is working because of good stock selection or because of a macro tailwind — and whether an underperforming position is genuinely broken or simply carrying macro headwinds your thesis did not account for.

Detect regime transitions before they become obvious

The most valuable output of a macro layer is not the current reading but the early warning that conditions are changing. When the proportion of market returns explained by macro factors starts rising, that is a warning that the environment in which your stock-selection model was calibrated is shifting. Position sizing, hedging and gross-exposure decisions all depend on knowing whether you are in a macro-driven or fundamentals-driven regime.



6. How MFERM addresses the structural gap

Quant Insight's Macro Factor Equity Risk Model (MFERM) was built specifically around this decomposition problem. Rather than treating macro as one input within a broad factor library, MFERM is organised entirely around how macro forces drive returns at the individual-security level.

The model covers the S&P 500 and Qi's regional universes (US, Europe, APAC and Global) across equities and multi-asset classes, updated daily, and is validated on 11 years of daily data (January 2015 to December 2025). That history spans multiple macro regimes — rate cycles, credit dislocations, growth shocks — which means the model's macro factor sensitivities have been tested against exactly the kinds of transitions described above.

The Macro Share of Risk (MSR) provides a real-time reading of the proportion of S&P 500 risk currently explained by macro factors. When that proportion rises sharply, it points to a regime shift in progress, not in retrospect. That timing matters enormously for active risk management decisions.

The alpha isolation tools separate macro-driven returns from genuine stock-specific returns at the individual-security level — which is what makes attribution accurate during regime transitions, rather than producing a large unexplained residual at exactly the moment you need clarity most.

The Macro Valuation engine identifies divergences between a security's current price and its macro-implied fair value across the S&P 500 and Qi's regional universes, updated daily. In a regime shift, those divergences can widen rapidly as market prices reprice macro expectations faster than fundamental valuations adjust.

Quant Insight's research on dual macro and idiosyncratic risk premia finds that tilting toward macro or idiosyncratic premia using MFERM is associated with a +2.5% annual alpha benefit. That figure reflects a specific analytical application and should not be read as a guaranteed outcome, but it illustrates the directional value of separating the two sources of return rather than treating them as a single undifferentiated pool. Simulated and past performance is not a reliable indicator of future results.

Importantly, MFERM completes, rather than competes with, your existing risk-model stack. If you are already running Barra, Axioma or a similar factor model, adding a dedicated macro-decomposition layer fills the gap those models leave rather than requiring you to rebuild your risk infrastructure. Qi's solution runs on a daily data pipeline, so it integrates into daily workflows rather than requiring a separate analytical



process.

The solution was built by former macro portfolio managers, which shapes how the outputs are framed. The analytical questions it answers are the ones that arise in actual portfolio management during regime transitions — not the ones that arise in academic factor research.

7. The regime–detection problem is getting harder

One reason the macro-layer problem is becoming more acute is that regime transitions are happening faster and with less warning than historical patterns suggested.

The macro environment of the past several years has been characterised by rapid shifts between inflation-driven, growth-driven and credit-driven regimes — often within a single quarter. Central-bank policy has been less predictable. Cross-asset correlations have been less stable. The broadly stable macro environments with slow-moving factor sensitivities that traditional factor models were calibrated against have been the exception rather than the rule.

In that context, a risk model that updates macro sensitivities daily and provides a real-time regime reading is not a luxury. It is the minimum requirement for active risk management that actually reflects current market conditions.

The alternative is running a model calibrated to a macro environment that no longer exists, and discovering the mismatch during a drawdown.

8. Building a more complete active risk management framework

Closing the macro gap does not require replacing your existing risk infrastructure. It requires adding the specific analytical capability that standard factor models do not provide: daily macro factor sensitivity at the individual-security level, real-time regime detection, and clean separation of macro-driven and idiosyncratic returns.

For equity portfolio managers running long/short strategies, that capability changes how you size positions, how you interpret attribution, and how you manage gross exposure through macro transitions. For CROs and risk teams at multi-asset funds, it provides the daily macro-exposure monitoring that Bloomberg PORT and MSCI Barra are not specifically designed to deliver.



The starting point is understanding how much of your current portfolio's risk is macro-driven versus idiosyncratic. If you do not have a daily answer to that question at the individual-security level, your active risk management framework has a structural gap — regardless of how sophisticated the rest of your model stack is.

You can explore what that analysis looks like in practice at quant-insight.com.

9. Frequently asked questions

What is the difference between a macro layer and a standard factor risk model?

A standard factor risk model decomposes equity returns using style factors (value, momentum, quality), sector exposures and an idiosyncratic residual. A macro layer specifically quantifies how macroeconomic variables — interest rates, inflation expectations, credit spreads, growth indicators — drive returns at the individual-security level. Most factor models include macro-related factors but are not organised around the macro-versus-idiosyncratic decomposition as their primary output. A dedicated macro layer treats that decomposition as the core problem rather than one output among many.

How does a regime shift affect active risk management?

A regime shift is a transition in the proportion of market returns explained by macro factors versus stock-specific fundamentals. During a macro-driven regime, correlations compress, sector diversification becomes less effective, and positions that appeared uncorrelated move together. Standard risk models are often challenged to detect these transitions in real time, leading to attribution errors, correlation surprises and misjudged recovery trades. Active risk management without a real-time regime reading is operating with a significant blind spot.

Can I add a macro layer without replacing my existing risk model?

Yes. A macro factor layer like MFERM is designed to complete, rather than compete with, existing risk-model stacks. If you are already running Barra, Axioma or a similar factor model, the macro decomposition fills the gap those models leave at the single-security level. You do not need to rebuild your risk infrastructure to add daily macro-sensitivity analysis.



What is the Macro Share of Risk and why does it matter for active managers?

The Macro Share of Risk (MSR) is a real-time indicator measuring the proportion of S&P 500 risk currently explained by macro factors. For active managers, it functions as a regime reading: when the MSR rises sharply, macro forces are becoming the dominant driver of returns, which changes how you should interpret attribution, size positions and manage gross exposure. It provides the early warning that standard risk models do not generate.

What does macro-versus-idiosyncratic decomposition actually tell a portfolio manager?

It tells you whether a position is performing or underperforming because of stock-specific factors or because of macro sensitivity. That distinction is critical for two decisions: whether to hold or exit a position that has moved against you, and whether your apparent alpha is genuine stock selection or a macro beta that happens to be working in your favour. Without that decomposition, both attribution and forward-looking risk management are unreliable.

How frequently does the macro-sensitivity data need to be updated to be useful?

Daily. Macro factor sensitivities change as a company's financial structure, earnings composition and market positioning evolve. A model updated weekly or monthly will miss the sensitivity shifts that precede regime transitions. For active risk management, daily updates are the minimum standard for the output to be actionable.

Does a macro layer help with long/short equity strategies specifically?

Yes — and arguably more than for long-only strategies. In a long/short book, both legs of a trade can carry macro sensitivity in the same direction, meaning the hedge does not work as intended during a macro shock. A macro layer that measures sensitivity at the individual-security level allows you to construct pairs and hedges that are genuinely macro-neutral rather than simply sector-neutral — a meaningful difference when the regime shifts.



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