The MSCI Multi-Asset Class Factor Model MAC Tier 2

The MSCI MAC Factor Model provides high to low granularity in looking at systematic strategy factors through an integrated and consistent framework

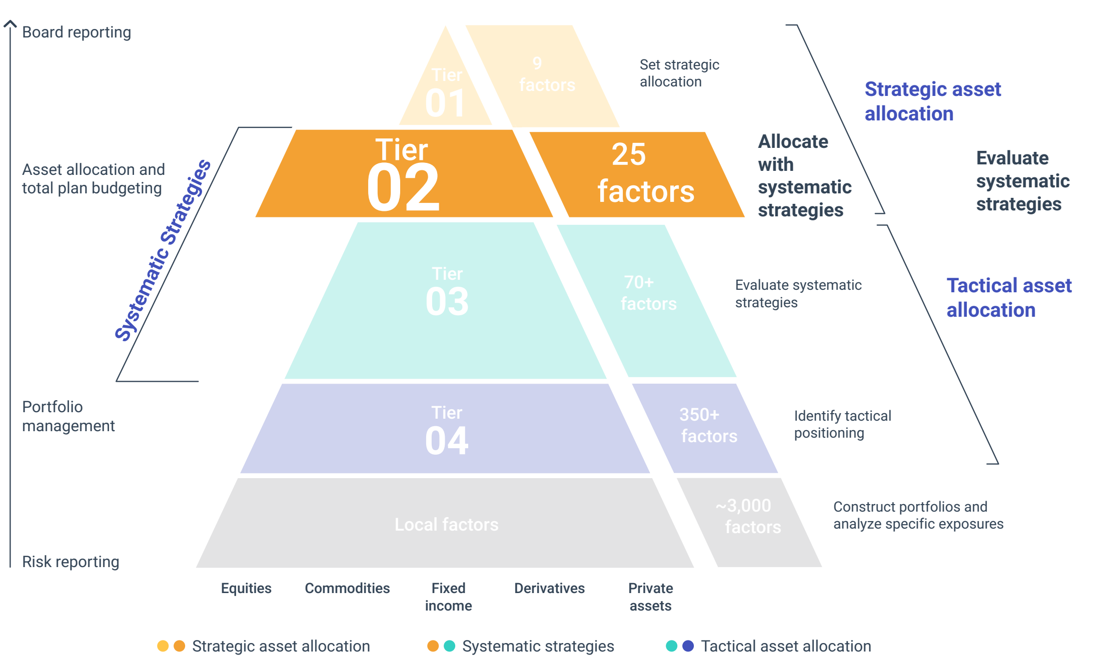
Better manage total portfolio investment objectives

Investors are seeking outcome-oriented strategies to help balance risk profiles with return targets. The MSCI Multi-Asset Class Factor Model provides insight into factor-based asset allocation to target key drivers of risk and return. The MAC model allows for the identification of systematic strategies in equities, fixed income, commodities, and currencies and improves communication of portfolio exposures at different levels of granularity for different audiences.

MAC Tier 2 - Allocate with Systematic Strategies

Expanding on the factors for strategic asset allocation, Tier 2 introduces additional factors to reflect common tilts away from market-weighted portfolios. These include both traditional tilts such as cyclical vs. defensive sectors, and systematic strategy factors reflecting common forms of smart beta investing.

Tier 2 in the MSCI Multi-Asset Class Factor Model



25 factors to attribute the key drivers of global risk and return across the investible marketplace

Available in multiple horizons from ultra-short to extra-long

Supports factor premia allocations including emerging market and multi-asset class systematic strategies

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Tier 2 Factors

Systematic Strategies
- Identify common style strategies across asset classes to spotlight intended and unintended tilts

Emerging Market Equity
- Reflects the currency-hedged return of emerging and frontier equity markets relative to the developed markets

Cyclical vs. Defensive
- Reflects the return of cyclical sectors relative to defensive equity sectors

DM and EM Currency
- Reflects the return of a global basket of foreign, developed-market currencies relative to the portfolio numeraire currency

Steepener
- Similar to the second principal component of interest rate changes, but it is instead defined by a fixed parametric shape

Emerging Market Hard Currency Credit
- Captures the return of investible EM sovereign bonds, broadly aligning with major EM local currency debt indexes

Emerging Market Rates
- Captures the return of investible EM sovereign bonds, broadly aligning with major EM local currency debt indexes

Pure Hedge Fund Strategy
- Additional component of return intermediate to aggregate hedge fund returns explained by traditional and systematic strategy factors

Tier 2 Factor Correlations (as of May 29, 2020)

	Equity	USA Credit	USD Rates Level	USD Rates Steepener	USD Inflation	USA Home Bias	Equity Implied Volatility	Commodities	Real Estate
Equity									
USA Credit	0.72								
USD Rates Level	-0.34	-0.30							
USD Rates Steepener	-0.16	-0.32	-0.50						
USD Inflation	-0.70	-0.68	0.48	-0.01					
USA Home Bias	0.14	0.09	0.01	0.01	-0.08				
Equity Implied Volatility	-0.81	-0.79	0.40	0.23	0.69	0.02			
Commodities	0.59	0.59	-0.29	-0.06	-0.67	0.05	-0.59		
Real Estate	0.72	0.57	-0.12	-0.26	-0.49	0.13	-0.61	0.44	

Tier 2 Model Horizon: ○ Short (MAC.S) ◉ Long (MAC.L)

Source: The MSCI Multi-Asset Class Factor Model (MAC).

Note: The MAC model adopts the following sign conventions for rates, inflation and credit factors. For rates factors, positive returns correspond to positive Treasury-bond returns and negative interest-rate changes; for inflation factors, positive returns correspond to positive returns of inflation-linked bonds (everything else equal) and negative changes in inflation expectation; and for credit factors, positive returns correspond to positive credit-asset returns (everything else equal) and negative changes in credit spreads.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 45 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.

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