

Global Equity Annual Program Review: Alternative Beta

Steve Carden, Investment Director
Sin Sai Vang, Investment Manager

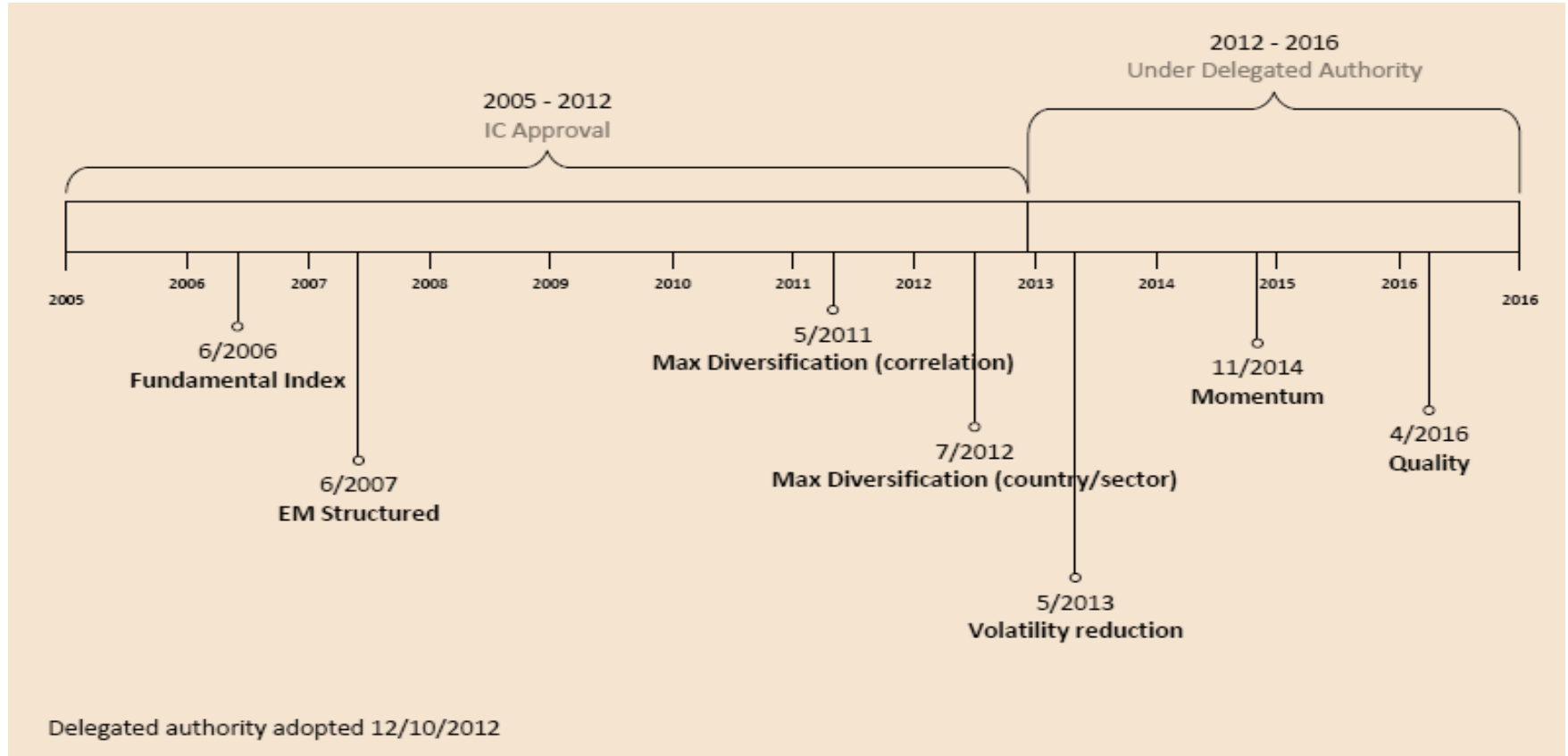
September 18, 2017

Definition of Alternative Beta

- An investment strategy that seeks to harvest the equity risk premium by constructing a portfolio based on specific security-level attributes other than market capitalization.
- Includes factor strategies (e.g. Value, Quality, etc.) and portfolio construction approaches that emphasize alternative diversification (e.g. *equal-weight*) and fundamental weightings (e.g. *revenues*).

Investment Belief 1: Liabilities must influence the asset structure.

Global Equity's Evolution in this Space



Investment Belief 2: A long time investment horizon is a responsibility and an advantage.

Current Strategies

- Fundamental Index (\$10.5 billion)
 - Security weight based on fundamental business activity measurers (sales, dividends, etc.).
 - Captures mean-reversion relative to cap-weighted benchmark.
 - Harvests long term expected premium to the Value factor.
- Maximum diversification (\$3 billion)
 - Intends to improve Sharpe Ratio by lowering portfolio risk with comparable level of return.
 - Focus on minimizing security-level correlation.
 - Diversifies country and sector risk.
- Volatility Adjusted (\$5.5 billion)
 - Reduces volatility by shifting portfolio weights to lower volatility securities.
 - Captures the volatility anomaly.

Current Strategies (cont.)

- Momentum (\$2 billion)
 - Over-weights securities with recent outperformance.
 - Diversifies exposure to Value.
 - Harvests long term expected premium to the Momentum factor.
- Quality (\$2 billion)
 - Over-weights securities with strong profitability, capital deployment, and earnings stability.
 - Complements existing exposures to Value and Momentum attributes.
 - Harvests long term expected premium to the Quality factor.

Implementation

- Model Provision (Internal or External)
 - Internal management using existing Portfolio Implementation Framework
 - Internal trading and crossing opportunities
 - Systematic capture of factor premiums
 - Attractive fee and value proposition

Investment Belief 8: Costs matter and need to be effectively managed.

Investment Belief 10: Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives.