**Momentum Monitor Methodology**

MSCI-Keybridge Momentum Monitors are meant to provide end market growth estimates for busy metals industry executives. The MMs are designed to predict rates of change in end market activity, not to produce point estimate forecasts. We believe that forecasting rates of change, being able to predict major swings in economic activity, is a more business-friendly, useful way to do a forecast. We're providing reliable data that allows metals company executives to manage better and improve company performance when trying to allocate resources and meet the demands of their customers.

Each Momentum Monitor consists of a series of independent variables whose rates of change are related in some way to the rates of change in the targeted end market time series. The independent variables combine to model the behavior (up, down or neutral) in the end market data series. Thousands upon thousands of Monte Carlo simulations are run to identify the most appropriate and significant independent variables for each forecast model. End market forecast estimates are then tested for predictive power using historical performance and statistical testing such as correlation, turning point false signals and lead times. The intent is to produce end market forecasts that are reliable and that do not miss turns in end market trends.

These models are then used to produce each of the quarterly Momentum Monitors. The process of validating each model is again performed on an annual basis to keep the models as predictive and reliable as possible.