The ExtractAlpha Risk Model (EARM) provides risk exposures, risk factor returns, and risk factor descriptors for global developed market equities in a daily datafeed delivery. EARM can be used for a variety of purposes including: to control the risk exposures of portfolios or of investment factors; to attribute portfolio returns to risk factors; or to track the performance of common risk factors.

EARM covers seven “fundamental” risk factors, each of which is calculated using one or more Descriptors, as listed below. These are factors which have been demonstrated to explain the cross-section of stock returns and are commonly included in commercial risk models from vendors such as MSCI Barra:

- **Growth:** Year over year Earnings and Sales growth
- **Leverage:** Debt to Equity ratio
- **Momentum:** 11 month stock return, lagged 1 month
- **Size:** Total Assets, log of Market Capitalization
- **Value:** Earnings Yield, Book Yield, Sales Yield
- **Volatility:** Daily standard deviation of returns
- **Yield:** Dividend yield

Each day, EARM provides the following information:

- The exposure of each stock to each of the seven risk factors, on a normalized scale (mean zero and standard deviation one)
- A flag indicating whether the stock was included in the model estimation universe on that day, based on minimum market cap, liquidity, and price thresholds
- Detailed descriptor values (such as earnings yields) which serve as inputs to the risk factors
- A time series history up to the prior day of the factor returns to each of the factors, calculated by regressing market-wide returns against the risk factor exposures within the estimation universe
- Industry membership of the stock

The data is disseminated daily prior to the market open in each of three regions (North America, Developed Europe, and Developed Asia/Pacific). Historical data is available for testing from 2000 in the U.S. and 2002 in other markets.

Use cases include:

- Including the risk exposures in an optimization in order to constrain a portfolio’s risk exposures
- Residualizing or bucketing an alpha factor by risk factors in order to capture a purer alpha
- Calculating residualized returns for alpha factor generation
- Attributing a portfolio’s returns to its risk factor and idiosyncratic components
- Tracking the returns of common risk factors to measure style or risk premium performance and to measure factor momentum