



GradientFactor

G4 SUITE™

GRADIENT

SCOTTSDALE ARIZONA ☎ 800.823.1973 www.gradientanalytics.com

The Gradient International Earnings Quality Model (EQM-I) is our latest alpha-generating quantitative product. Framed by more than a decade of research experience modeling the relationship between earnings-quality metrics and stock returns using non-linear, statistically-based approaches, EQM-I provides a platform to yield profitable investment and trading strategies on a global scale.

Methodology

The Gradient EQM-I is the first quantitative factor that uses kernel estimation and smoothing techniques to model the relationship between earnings quality and returns¹.

- A> Consistent with all prior Gradient models, EQM-I was developed using a scientific approach characterized by variable specification and proper scaling, linear and non-linear regression, sensitivity analysis, and control for common threats to validity.
- B> Acknowledging the disparate accuracy of accounting figures between nations, EQM-I covers only developed countries to ensure that consistent variables obtained are sensitive to earnings-quality methodology.
- C> The model defines broad sectors via accounting similarities, resulting in three different accounting sectors: service, merchandising, and manufacturing, which allows for companies to be compared on a relatively level field in terms of accounting.

Performance

The scores of EQM-I range from 10 to 1, where higher scores indicate a higher quality of earnings. There are approximately an equal number of companies for each score, with 20% of firms falling in the tail scores of 10 and 1. The modeling process (in-sample) was conducted over the time period of 1999 to 2004 and has been able to produce compelling spreads year after year in the out-of-sample period from 2005 to present²:

- D> Score 10 vs. Score 1 raw (excess) return spreads averaged 13.6% (8.7%) on a 12-month basis.
- E> Excess return spreads for EQM-I are compelling across all countries, market capitalizations, and time periods studied.

Universe of Coverage

EQM-I delivers quantitative signals on over 4,300 equities, ranging from small to large capitalization, across 25 developed countries spanning four continents:

Australia	Germany	Japan	Portugal
Austria	Great Britain	Korea	Singapore
Belgium	Greece	Luxembourg	Spain
Canada	Hong Kong	Netherlands	Sweden
Denmark	Ireland	Norway	Switzerland
Finland	Italy	New Zealand	Taiwan
France			

¹ We also offer a version of the model which, instead of using static in-sample parameters it re-estimates them at the end of every year to ensure currency and to maximize all available data in the estimation process.

² Raw returns are computed using compounded, dividend-inclusive returns. Excess returns are calculated for each score by subtracting the equally weighted mean return for the appropriate country and size category from the raw return for the related security.