

Growth Value Two-Factor Model
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Abstract

This study developed and tested a stock return prediction model called the Growth Value Two-Factor Model (GVM). The proposed GVM considers beginning and ending book value-to-price ratios (BPRs) and future return on equity (ROE) during a given period. We also used a mean-reverting process to estimate future BPR and ROE, and derived a Growth Value Indicator (GVI) able to help select stocks that deliver better performance. The GVI includes one model coefficient, determined by fitting actual market data. In the GVI, a large coefficient value implies a strong mean-reverting effect on BPR and ROE (that is, the market is overreacting and stock returns are dominated by the value factor). Conversely, a small coefficient implies a weak mean-reverting effect on BPR and ROE (that is, the market is underreacting and stock returns are dominated by the growth factor). The GVM provides a reasonable theory to explain the long-debated issue of whether value stocks or growth stocks provide the best returns. We used Standard & Poor 500 component stocks to examine the effectiveness of the GVM during the period 1998–2008. Conclusions include: (1) value and growth factors are both critical to explaining and understanding stock return performance. As value stocks and growth stocks are not opposites of one another, they should be treated two-dimensionally. (2) BPR and $(1+ROE)$ are clearly affected by mean-reverting phenomena. The exponential-decay mean-reverting model fits well with actual stock data. (3) GVI performed better than traditional stock selection factors for selecting stocks with better performance, which indirectly demonstrated the effectiveness of the GVM.

Keyword : growth stock, value stock