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 BPR and ROE at some future point, 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. A large coefficient implies a strong mean-reverting effect on BPR and ROE (i.e., 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 (i.e., the market is under-reacting 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 S&P 500 component stocks to examine the effectiveness of the GVM during the period 1998-2008. Conclusions include: (1) the value and growth factor both are 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 fit 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 factor, value factor, mean-reverting, factor model