AN EMPIRICAL TESTING OF CONTRARIAN AND MOMENTUM INVESTMENT STRATEGIES FOR BRICKS MARKETS

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ABSTRACT

Portfolio managers and investment analysts want to diversify their portfolios across mature as well as emerging markets. Competition in capital markets requires continuous and cost effective trading strategies. The emerging markets play an increasingly important role in global economic development and financial systems. BRICKS (Brazil, Russia, India, China, S.Korea and S.Africa) countries have taken advantage of their abundant natural and human resources on the whole achieving very high growth rates, thus attracting investors to these prominent economies other than developed countries.

Prior return patterns in stock returns has been one of the most puzzling asset pricing anomalies in financial economics literature over the last three decades. Broadly, there are two trading strategies based on prior returns, contrarian and momentum. Contrarian strategies are based on price reversal (i.e. past losers are future winners) while momentum strategies are based on price continuation (i.e. past winners remain future winners). DeBondt and Thaler (1985, 1987) and Jegadeesh and Titman (1993) were the first to document contrarian and momentum strategies respectively.

Despite the universal evidence on momentum and contrarian profits, the source of such profits still remains an academically debated issue. Some attribute it to missing risk factors in asset pricing benchmark like Capital Asset Pricing model (CAPM) which could be captured by more comprehensive multifactor models like the Fama French three factor model. Others attempt to provide a behavioral explanation to this phenomenon.

The main aim of the study was to carry out a systematic and extensive empirical investigation for testing of contrarian and momentum trading strategies for short-term (6-6 and 12-12) and long-term (24-12-12, 36-12-12, 48-12-12 and 60-12-12) windows in stock and sector returns for BRICKS markets. More specifically, prior return patterns for portfolios were formed on style characteristics by combining company characteristics (size, price-to-book, price-to-earnings, dividend yield, and past sales growth) and past excess returns applying double and triple sorted criteria. Moreover, it was inspected if
some asset pricing model, such as one-factor (CAPM) or multi-factor model (Fama French three-factor model) could capture return patterns in stock returns. Further, prior return patterns in sector returns were tested at three levels, sector, industry group and industry level to distinguish if the patterns were different at all the three levels. Lastly, the information about sector returns was used to construct a sector factor to form an augmented Fama French model with the three factors (market, size and value) of Fama French and the constructed sector prior return factor.

The study was conducted in three broad phases. Phase one analyzed short-term prior return patterns in stock and sector returns for India and then the study was extended for BRICKS emerging markets. In phase two, long-term (24-60 months) prior return patterns for stock and sector returns for India and BRICKS countries were evaluated. Finally, in the last phase of analysis, sector, industry group and industry based prior return patterns were tested for BRICKS and also how these patterns differ for short-term (6-12 months) and long-term (24-60 months) portfolio formation windows was studied.

Overall results suggest that there are strong momentum patterns for 6-6 portfolio formation/holding strategies, with exception of China. Elongation of formation windows to 12 months, reversals patterns emerge for some countries. On the other hand, for long term formation windows Brazil, Russia and South Africa report momentum behavior while India, China and South Korea exhibit reversal patterns. Stylized portfolios based on company characteristics and past returns enhance profits for some of the portfolios in the study. CAPM is able to explain profits on prior return based trading strategies for some countries; however it is a poor descriptor in case of India and South Korea. Fama French model failed to capture prior return patterns in stocks for 6-6 strategies, however it is able to explain most of the extra normal returns for 12-12 and long-term strategies with exception of a few strategies in case of China, South Africa and India. There are strong prior returns patterns in sector returns for the sample countries with exception of some strategies of China, S.Korea and S.Africa. The sector factor represents an additional risk dimension to the extent that winner sectors are riskier than loser sectors owing to differences in demand/supply conditions as well as environmental factors including government policies and foreign competition.
The findings of this study have some strong implications for both academicians and portfolio managers. The findings imply that sector prior return patterns account for a major part of stock prior return patterns and hence sector selection seems more important than security selection while developing prior return based trading strategies. The sector factor, which mimics the growth risk differences between corner portfolios, provides a better explanation based on short-term prior return formation. In case of long-term portfolio formation, the sector factor absorbs cross-section of average returns in case of Brazil, Russia and India. A large part of prior return patterns in stock returns is absorbed by similar patterns in sector returns. Finally, from academic point of view, it is recommended that a four-factor model comprising of three Fama French factors and an additional sector momentum factor should be used as a benchmark for performance evaluation of professionally managed portfolios.