

Abstract

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Finance and Control

Black-Litterman Model can use views that are generated endogenously from the data itself [Zhou (2009)]. We aim next in this thesis to create a framework through which asset mispricing can be exploited and modelled into a portfolio through endogenous view conditioning of BLM. The method is novel in its application of endogenous conditioning of BLM for Indian stock markets.

We implement short-term contrarian and momentum strategies through this methodology and find the resultant portfolios to outperform the broad based Indian market index CNX500. The superior performance can be attributed to combination of alpha (stock selection) and market timing for short term contrarian case and to market timing only for the case of momentum trading strategy. Net of transaction costs the portfolios outperform the market index as well as benchmark long-short zero cost (Rupee neutral) conventional contrarian and momentum portfolios drawn out of same set of stocks. A block-wise bootstrapping method and static sub-sampling tests are used for robustness and here too BLM portfolios show better risk adjusted return and lower VaR estimates.

We use daily data to show how powerful BLM can be in identifying arbitrage opportunities in the Indian market. The data is sourced from the National Stock Exchange of India (NSE) and covers the period from 2000 to 2015. The data is processed to extract daily returns for the CNX500 index and the individual stocks in the index. The BLM model is applied to the data to generate portfolios that are expected to outperform the market index. The performance of these portfolios is compared to the market index and a benchmark long-short zero cost (Rupee neutral) conventional contrarian and momentum portfolios. The results show that the BLM portfolios outperform the market index and the benchmark portfolios. The BLM portfolios also show better risk adjusted return and lower VaR estimates.