Tracking Error versus Co-integration Models for Index Tracking and Market Neutral Strategies: Empirical Evidence from Thai Stock Market

Prasit Sutthikamolsakul
5302042279

Master of Science Program in Finance (International Program) Faculty of Commerce and Accountancy Thammasat University, Bangkok, Thailand

May 2012

ABSTRACT

This paper presents the comparative study about two applications of the Tracking Error Variance (TEV) and Co-integration models in the area of investment strategy: a simple index tracking strategy and a long/short equity market neutral strategy. The first strategy is a kind of passive investment targeted to replicate the predetermined benchmark index in terms of returns and volatility. The other one, on the contrary, is a kind of active strategy aimed to generate steady returns under all market conditions. We use both of the TEV and co-integration models to form index tracking portfolios and apply the same methodology to track the over- and under-perform artificial benchmark to construct the long/short market neutral strategy. Our results show that both models can be applied into the index tracking strategy with tracking performance, but the Co-integration-optimal portfolios tends to dominate the TEV portfolios in terms of Sharpe ratios when applying in the long/short strategy. This finding shows the clearly benefit of co-integration relationships that ensures a stationary spread between the portfolio value and even the adjusted index.

Keywords: Index Tracking; Market Neutral; Passive Investment; Active Investment; Co-integration