

Optimal technical trading rules on SET50 index: Support Vector Machine and econometrics approach

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ABSTRACT

This paper tries to compare semiparametric single index model with Support Vector Machine Regression (SVMR) by using them optimizing trading rules to predict SET50 index daily data. Support Vector Machine (SVM), logit model, and probit model are also included in this paper. The regressors of each model are technical indicators. The regressand is average future return of SET50 index for estimation models and average future return signal of SET50 index for classification models.

The study found that, without transaction cost, the average profit during 1999-2000 from every model beats buy-and-hold strategy but when 0.25% (+ 7% Vat) transaction cost is applied in both buying and selling, only semiparametric single index model can beat buy-and-hold strategy. Moreover, the estimation models, SVMR and semiparametric single index model, have higher overall profit than classification models, SVM, probit model, and logit model, both with and without the transaction cost.

Keyword: Support Vector Machine, SVM, Semiparametric single index model, Technical indicator, trading rules