

# **Do futures improve risk-return portfolio? Evidence in Thailand market**

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## **ABSTRACT**

This paper is divided into two sections. The first section is the in-sample testing to test whether futures, either SET50 futures or gold futures, is spanned by traditional portfolio that consists of stock, bond and risk-free asset. If the spanning exists, it can be implied that futures does not help improve portfolio performance and vice versa. The finding implies that there is no significant benefit of including futures into traditional portfolio if investors' utility is mean-variance utility (MV). If investors' utility is non-MV, the result suggests that SET50 futures help improve portfolio performance but gold futures does not.

We also employ the out-of-sample testing in section two in order to test whether the result obtained from the first section is robust. We found that mostly the traditional portfolio has better performance than expanded portfolio with futures contract. Still, there exists one exception which is incorporating SET50 futures in portfolio yields a better performance if investors obtain portfolio using equal weight strategy. In other words, for naïve or retail investors who has not managed their portfolio with optimization method, including SET50 futures in their portfolio benefits to them.

Keywords: futures; spanning; full scale optimization