

An Arbitrage Opportunity in Thai Gold Futures Markets

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ABSTRACT

This study investigates outright and inter-month spread arbitrage opportunities using cost-and-carry model. Dataset consists of 10-minute gold futures prices series traded in Thailand Futures Exchange (TFEX) during August 28, 2011 to February 29, 2012. Cointegration test is applied to prove long-run relationship between gold futures and gold spot as well as distant-maturity and nearby-maturity gold futures contracts; however, the futures prices sometimes deviate from the cost-and-carry fair value. This is also occurring in both outright and inter-month arbitrage positions as mispricing, and arbitrageurs will enter into the market when the mispricing is sufficiently large to compensate for transaction costs and associated interest rate risks. Then an estimate of non-arbitrage bounds in the incomplete market by direct and indirect method is applied as guidance to find arbitrage opportunities. In conclusion, the existences of arbitrage opportunities and limitations in Thai gold futures markets have been proved in both outright and inter-month spread arbitrage positions. However, the results in both direct and indirect method are different due to their particular perceptions in estimate non-arbitrage bounds.

Keywords: Thailand Futures Exchange, gold futures, cointegration, non-arbitrage bounds