



**Validity of the Classical Black-Scholes Model and Derivative Warrant Pricing:
Case Study of the Stock Exchange of Thailand**

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ABSTRACT

This paper aims at examining the validity of the classical Black-Scholes model, with historical volatility, in the Thai derivative warrant (DW) market. By empirically testing the daily movement of 184 call and 37 put market prices, this study finds that call and put prices do not always move in the opposite direction. Daily market price changes of any derivative warrants and their underlying stocks are not perfectly correlated. Delta hedging by DW issuers provides positive returns. The evidence can be interpreted that the Black-Scholes pricing model is not fully supported in the Thai market. Positive profits made by DW issuers suggest that imperfect competition in the DW market might be the main cause of the problem.

Keywords: Black-Scholes model, Derivative warrants, Thai market, Delta hedging