

## **The analysis of risk models for Malaysia's non-financial sectors**

### **Abstract**

The research highlights three Value-at-Risk (VaR) representations that are integrated with GARCH-based models to estimate the Malaysian stock exchange market risk. The methodology covers the quantifications of expected maximum losses at 95% level of confidence for six non-financial sectors namely the construction, consumer product, industrial product, plantation, property and trade and services from the year of 1993 until 2006. Further analyses are conducted using Kupiec, Christoffersen and Lopez backtests. The results in particular based on Lopez's Quadratic Loss Function test proved that when the basic VaR is integrated with GARCH model under the assumption of t-distribution, the model is found to be at the most accurate level. Thus consideration on non-normal behaviour of the market is important to determine financial risk quantifications.