# UNIVERSITI TEKNOLOGI MARA

### TECHNICAL REPORT

COVID-19 AND POLITICAL CRISIS EFFECTS ON RISK MINIMISING PORTFOLIO FOR MALAYSIA'S STOCK MARKETS USING MEAN-CVAR MODEL

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IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL.

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#### **ABSTRACT**

COVID-19 pandemic and current political crisis have a major impact on Malaysia's stock markets. The purpose of this research is to determine the efficiency of the mean-CVaR model when applied to Malaysia's stock market portfolio to minimize risks. Hence, the mean-CVaR-model will be applied to portfolio assets before COVID-19, political crisis and during COVID-19, political crisis. The asset's closing prices are obtained via DataStream. From December 2010 through December 2021, the study involved 28 companies from the top 30 companies that listed in KLCI Bursa Malaysia. 10 in-sample portfolios are constructed using the scenario returns. An optimum portfolio is created by minimizing risk using mean-CVaR model and three target returns of 0.85%, 1.50%, and 2.00%, respectively, to indicate low, medium, and high returns. The out-sample is then used to validate the in-sample results, obtaining the realized return. The contributions of this study are the mean-CVaR model is able to minimize risk for a portfolio of Malaysia's stock markets and COVID-19 along with political crisis has a significant impact on the portfolio during COVID-19 and political crisis compared to the portfolio before COVID-19 and political crisis, and finally, out-sample analysis could validate in-sample portfolios. To minimize the risk of the assets, this study may be expanded by utilizing other optimization models.