UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

INFLATION EFFECTS ON RISK MINIMISING PORTFOLIO OF FOOD AND BEVERAGES ASSETS IN MALAYSIA BY USING MEAN-CVAR MODEL

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This study aims to see the effect of inflation rate on the food and beverage industry by applying the Mean-CVaR model. This industry was chosen for the study since it is one of the prosperous businesses which offer human necessities, which makes it a major contributor to the country's economy. Thus, we want to find out whether there is a significant impact on losses in this industry for ten years, from January 2013 to December 2022, when inflation occurs. Daily closing prices dataset of food and beverage assets from Datastream is used to generate the scenario returns for each portfolio. This dataset is simulated from the year 2013 to 2022 and implemented in Microsoft Excel Version 16.0. The CVaR calculation is used as a risk measure to obtain the optimal portfolio of the assets. The optimal portfolios are observed and assessed over three different target returns, which are low risk-low returns, medium risk-medium returns, and high risk-high returns portfolios. A variety of expected return and risk levels are observed for a period of ten years. The formulation and detailed explanations of this calculation have been explained in Chapter 3. The 35 risky assets in the in-sample portfolio are validated using an out-of-sample portfolio which in total has 250 scenarios. The result shows that low target return will give a low risk while high target return will also come with high risk during investment. Low target return will also minimised the risk of investment in the in-sample. This study also proves that high inflation causes low risk while still obtaining expected return at the same time.