

FEBRINA DEVITA | DATA ANALYST

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OPTIMAL PORTFOLIO
FORMATION AND RISK
MEASUREMENT

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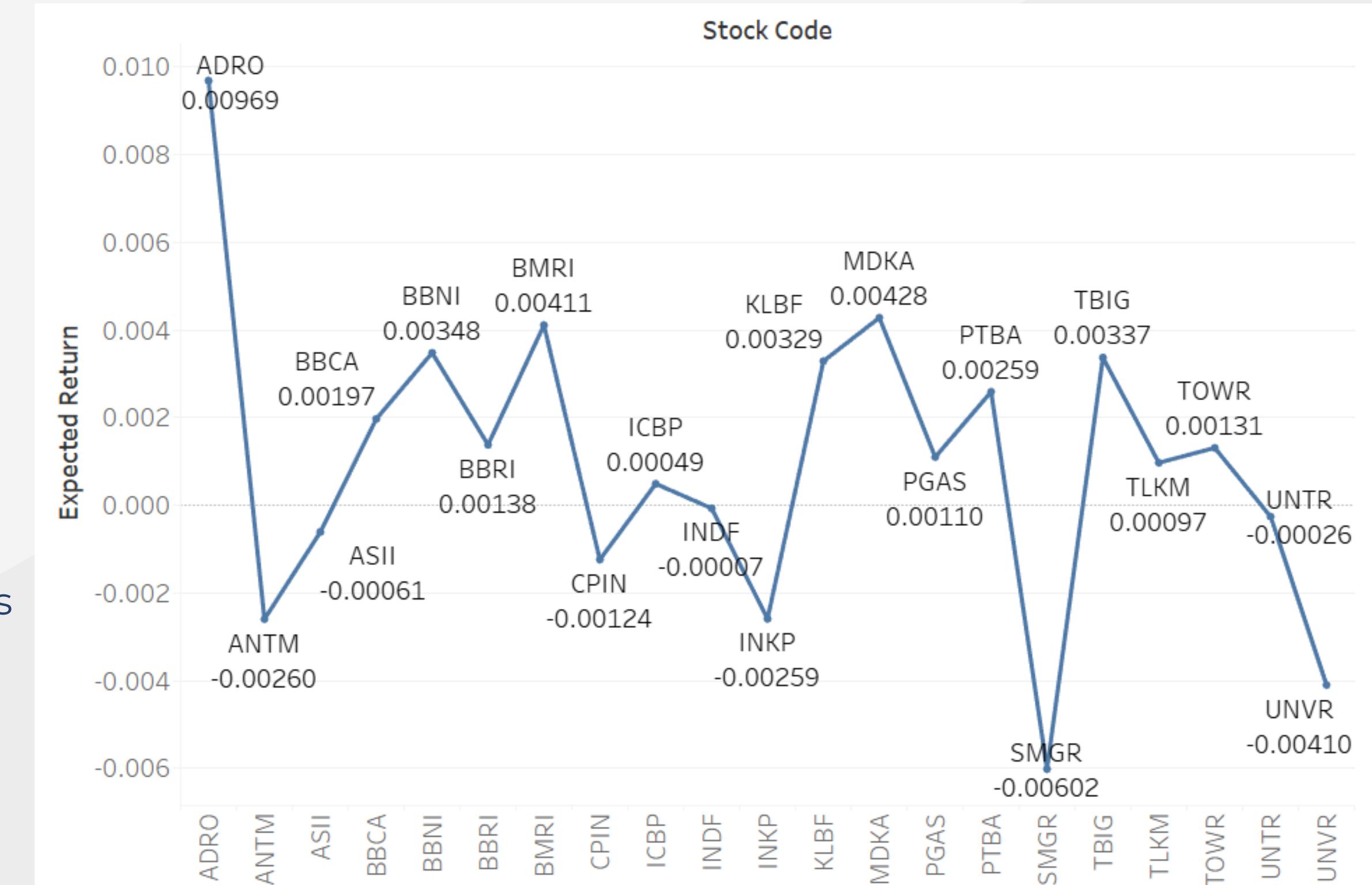


INVESTMENTS

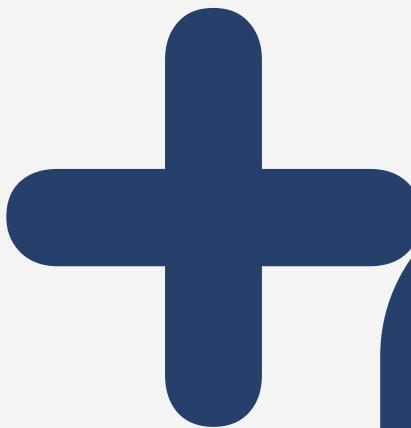
One investment option available is stock investment, where investors can diversify their holdings to mitigate investment risks. Stock diversification involves combining multiple stocks to create a portfolio. The CCM method primarily focuses on the correlation between stocks and the Excess Return to Standard Deviation (ERS) ratio. Portfolio risk assessment can be performed using the Expected Shortfall (ES) method, which measures losses exceeding the Value at Risk (VaR). This research applies optimal portfolio construction techniques to the IDX30 Index.



- Based on the calculation of R, it is known that the largest expected return value is owned by ADRO stock with a value of 0.00969. The smallest expected return value is owned by SMGR stock
- A negative return indicates a loss therefore stocks with negative return values will be excluded from the analysis process with a value of -0.00602.



STOCKS SELECTION



In this research, stocks with positive expected returns, univariate normal distribution, and low correlation are used. After processing with R, seven stocks are obtained that have positive expected returns, univariate normal distribution, and low correlation.

BMRI

ICBP

KLBF

MDKA

PGAS

TLKM

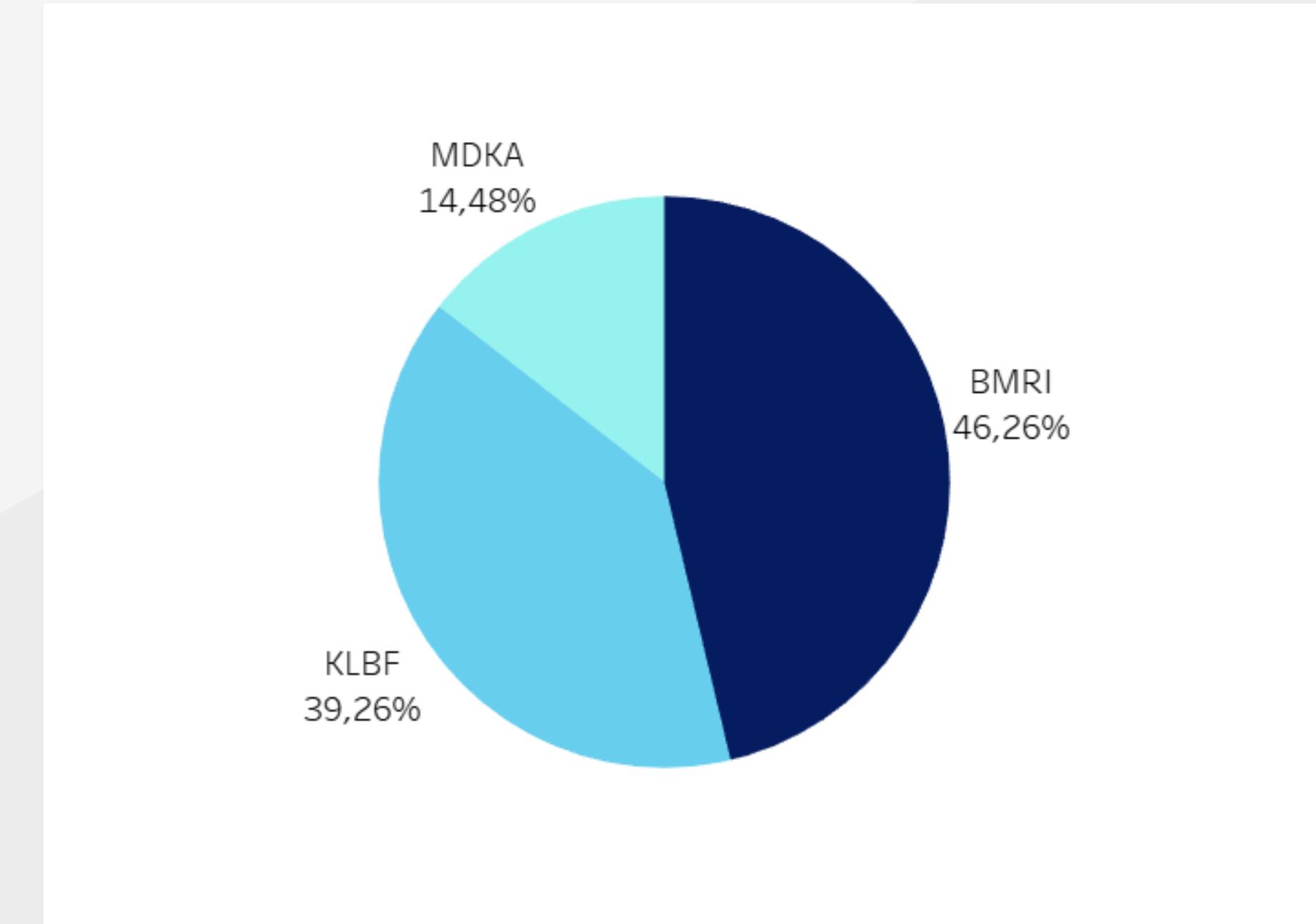
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PROPORTION OF EACH STOCK

BMRI has the largest composition of the initial investment capital in the portfolio

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RISK OF THE OPTIMAL PORTFOLIO

ES

5.408%

- Expected Shortfall value can serve as a measure of potential losses during severe adverse conditions.
- If an investor with an initial capital of 100,000,000.00 IDR, the maximum loss that will be received is 5,408,000.00 IDR for the next week prediction.

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SUGGESTION

This research serves as a valuable reference for prospective investors interested in the IDX 30 stocks. Investors can rely on the expected shortfall risk metric to proactively mitigate potential investment losses. Prior to making investments, it is advisable for investors to conduct comprehensive research on the profiles and financial reports of the companies managing the stocks they intend to invest in





THANK YOU



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