

## INTISARI

### OPTIMISASI PORTOFOLIO MENGGUNAKAN METODE *MEAN-SEMIVARIANCE* DENGAN PENDEKATAN HEURISTIK DAN *LOWER PARTIAL MOMENT* DERAJAT 2

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Tesis ini membahas mengenai optimisasi portofolio saham menggunakan metode *mean-semivariance* heuristik dan *mean-LPM* derajat 2 serta dibandingkan dengan metode *mean-variance*. Variansi mengukur *return* di atas dan di bawah target *return* sebagai risiko. Semivariansi dan *Lower Partial Moment* merupakan alat pengukuran risiko *downside*, yaitu risiko terjadinya *return* di bawah target *return*, karena bagi investor, risiko yang sebenarnya adalah risiko terjadinya *return* di bawah target. Penentuan proporsi bobot masing-masing saham dalam portofolio menggunakan *quadratic programming*. Ketiga metode tersebut diaplikasikan pada data harga saham yang masuk dalam indeks LQ-45 pada tahun 2014. Hasil yang diperoleh menunjukkan bahwa portofolio *mean-semivariance* dan *mean-LPM* derajat 2 lebih baik dari portofolio *mean-variance* pada saat kondisi ekonomi yang kurang baik. Dalam hal ini, diperoleh metode *mean-semivariance* dan *mean-LPM* derajat 2 menghasilkan nilai *risk adjusted return* yang lebih besar dari *mean-variance*.

Kata kunci: portofolio saham, risiko *downside*, *mean-variance*, *mean-semivariance*, *mean-LPM* derajat 2, *quadratic programming*.

## ABSTRACT

### ***PORTFOLIO OPTIMIZATION USING MEAN- SEMIVARIANCE METHOD WITH HEURISTIC APPROACH AND LOWER PARTIAL MOMENT 2-DEGREE***

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This thesis discussed about stock portfolio optimization using mean-semivariance heuristic and mean-LPM 2-degree methods, and compared with the mean-variance method. Variance measures the return above and below the target return as a risk. Semivariance and Lower Partial Moment are the downside risk measurement tool, namely the risk of a return below the target return, because for the investors, the real risk is the risk of a return below the target. Determining the proportion of the weight of each stock in the portfolio used quadratic programming. Three of these methods that will be applied to the stock price data that included in the LQ-45 index in 2014. The results showed that the mean-semivariance portfolio and mean-LPM 2-degree are better than the mean-variance portfolio when economic condition is unfavorable. In this case, the results obtained that the methods of mean-LPM 2-degree and mean-semivariance generate the value of risk adjusted return greater than the mean-variance.

Keywords: stock portofolio, downside risk, mean-variance, mean-semivariance, mean-LPM 2-degree, quadratic programming.