# ABSTRAK

Penelitian ini bertujuan untuk mengidentifikasi dan menganalisis apakah ada perbedaan antara *mean* (μ) dan *variance* ($\sigma^2$ ) di rejim non-krisis dan *mean* (μ) dan *variance* ($\sigma^2$ ) di rejim krisis pada indikator-indikator yang di uji terhadap perubahan nilai tukar rupiah terhadap dolar AS. Serta menganalisis apakah perbedaannya signifikan. Juga membuktikan apakah analisis dengan menggunakan *markov-switching* mampu menjadi alat analisis bagi *early warning* di Indonesia atau tidak. Penelitian ini menggunakan 19 Indikator Independen yang bersumber dari 3 sektor, yaitu sektor ekonomi makro, sektor aliran modal, serta sektor kerapuhan sistem keuangan. Penelitian ini menggunakan alat analisis *Markov-Switching* dengan metode *time varying matrix transition probabilities.* Data yang digunakan adalah data bulanan dengan observasi waktu dari 2006.1-2014.12.

Hasil penelitian menunjukkan terdapat perbedaan nilai yang signifikan *mean* dan *variance* di rejim non-krisis dan kondisi krisis, hal ini menandakan terdapat perbedaan nilai rata-rata, volatilitas, guncangan atau *shock*, serta *jumping* pada seluruh indikator yang diteliti terhadap indikator nilai tukar di rejim yang berbeda. Berdasarkan hasil matriks dalam penelitian juga bisa dijadikan landasan dalam pembuatan sistem pendeteksian dini, namun perlu penambahan perhitungan *durations* agar diketahui hasil yang lebih akurat.

Kata kunci: Nilai tukar, *Markov-Switching, Mean, Variance*, Volatilitas, sistem pendeteksian dini.

# ABSTRACT

This study aims to identify and analyze if there is a difference between the mean (μ) and the variance (σ2) in the regime of non-crisis and the mean (μ) and the variance (σ2) in the regime of the crisis on indicators were tested against changes in rupiah exchange rate against the US dollar. And to analyze whether the difference is significant. Also prove whether the analysis using a Markov-switching capable of becoming an analysis tool for early warning in Indonesia or not. This study uses 19 indicators Independent sourced from three sectors, sector macroeconomic, sector capital flows, as well as the sector fragility of the financial system. This study uses a Markov-Switching analysis tool with the method of time varying matrix transition probabilities. The data used are monthly data with the observation time from 2006.1 to 2014.12.

The results showed differences significant value mean and variance of the regime of non-crisis and crisis conditions, it indicates there is a difference in the average value, volatility, shocks, as well as jumping on all indicators examined for indicators of exchange rate regime different. Based on the results of the research matrix can also be used as a foundation in the manufacture of early detection systems, but need additional calculation note durations so that more accurate results.

Keywords: Rupiah exchange rate, Markov-Switching, Mean, Variance, volatility, early warning systems.