

Modelling the Indonesian Government Securities Yield Curve Using Nelson-Siegel-Svensson and Support Vector Regression

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Abstract : The yield curve is the plot of the yield to maturity of zero-coupon bonds against maturity. In practice, the yield curve is not observed but must be extracted from observed bond prices for a set of (usually) incomplete maturities. There exist many methodologies and theory to analyze of yield curve. We use two methods (the Nelson-Siegel Method, the Svensson Method, and the SVR method) in order to construct and compare our zero-coupon yield curves. The objectives of this research were: (i) to study the adequacy of NSS model and SVR to Indonesian government bonds data, (ii) to choose the best optimization or estimation method for NSS model and SVR. To obtain that objective, this research was done by the following steps: data preparation, cleaning or filtering data, modeling, and model evaluation.

Keywords : support vector regression, Nelson-Siegel-Svensson, yield curve, Indonesian government

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