

Abstract: The dynamic Nelson-Siegel (DNS) model and even the Svensson generalization of the model have trouble in fitting the short maturity yields and fail to grasp the characteristics of the Japanese government bonds (JGBs) yield curve, which is flat at the short end and have multiple inflection points. Therefore, a closely related generalized Nelson-Siegel model (GDNS) with two slopes and curvatures is considered and compared empirically to the traditional DNS in terms of in-sample fit as well as out-of-sample forecasts. Furthermore, the GDNS with time-varying volatility component, modelled as standard EGARCH process, is also considered to evaluate its performance in relation to the GDNS. The GDNS models unanimously outperforms the DNS in terms of in-sample fit as well as out-of-sample forecasts. Moreover, the extended model that accounts for time-varying volatility outpace the other models for fitting the yield curve and produce relatively more accurate 6- and 12-month ahead forecasts, while the GDNS model comes with more precise forecasts for very short forecast horizons.