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An Empirical Investigation of the Level Effect in Australian Interest Rates

by

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Abstract:

An extensive literature examines the dynamics of interest rates, with particular attention given to the positive relationship between interest-rate volatility and the level of interest rates—the so-called level effect. This paper examines the interaction between the estimated level effect and competing parameterisations of interest-rate volatility for the Australian yield curve. We adopt a new methodology that estimates elasticity in a multivariate setting that explicitly accommodates the correlations that exist between various yield factors. Results show that significant correlations exist between the residuals of yield factors and that such correlations do indeed impact on model estimates. Within the multivariate setting, the level of the short rate is shown to be a crucial determinant of the conditional volatility of all three yield factors. Measures of model fit suggest that, in addition to the usual level effect, the incorporation of GARCH effects and possible regime shifts is important.

Keywords:

TERM STRUCTURE; LEVEL EFFECT; SHORT RATE; GARCH; REGIME SHIFTING.

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