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Diagonal Vector Autoregressive Models and Their Properties

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Abstract : Diagonal Vector Autoregressive Models are special classes of the general vector autoregressive models identified under certain conditions, where parameters are restricted to the diagonal elements in the coefficient matrices. Variance, autocovariance, and autocorrelation properties of the upper and lower diagonal VAR models are derived. The new set of VAR models is verified with empirical data and is found to perform favourably with the general VAR models. The advantage of the diagonal models over the existing models is that the new models are parsimonious, given the reduction in the interactive coefficients of the general VAR models.

Keywords : VAR models, diagonal VAR models, variance, autocovariance, autocorrelations
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