Analysis of cross-correlations in South African financial market data

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We investigate the correlation structure of shares traded on the Johannesburg Stock Exchange (JSE). Our data set is comprised of daily data for a representative subset of shares traded from 1993 to 2003. We estimate eigenvalue distributions for correlation matrices and adapt the random matrix approach to obtain an analogous "null hypothesis" for the given data set. We find some agreement between the estimated correlation structure and adapted RMT predictions. We briefly considered cluster structure of the correlation matrices in relation to the economic sectors.