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On the characteristics of dynamic correlations between asset pairs☆

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ABSTRACT

Recent research provides considerable evidence that correlations between assets change significantly over time and diversification benefits of correlations may vary substantially based on the time-varying measure of correlation used for different asset types. Our study evaluates and compares alternative time-series correlation modeling techniques according to both statistical and economic metrics, focusing specifically on individual asset pairs. We identify the moving correlation structure that best tracks the dynamic conditional correlation estimates using a large set of different financial time series encompassing 467 asset pairs in nine different asset classes. Results from our direct, statistical loss function based, and indirect, portfolio mean-variance based, forecast evaluations provide optimal window-length ranges for 36 asset-class pairs which should help in portfolio construction as well as risk management. Furthermore for robustness tests, we implement the model confidence set approach which, without a benchmark specification,

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