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Flexible Dynamic Conditional Correlation multivariate GARCH models for asset allocation

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Abstract

This paper introduces the Flexible Dynamic Conditional Correlation (FDCC) multivariate GARCH model which generalizes the Dynamic Conditional Correlation (DCC) multivariate GARCH model proposed by Engle (2002). The FDCC model relax the assumption of common dynamics among all assets used in the DCC model. In fact, we cannot impose that the correlation dynamics of, say, European sectorial stock indexes are identical to the corresponding US ones. We thus extend the DCC model introducing a block-diagonal structure; in the FDCC the dynamics are constrained to be equal among groups of variables. We present an application to a sectorial asset allocation problem.

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