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Predicting Volatility and Correlations with Financial Conditions Indexes

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Abstract

We model the impact of financial conditions on asset market volatilities and correlations. We extend the Spline-GARCH model for volatility and DCC model for correlation to allow for inclusion of indexes that measure financial conditions. In our empirical application we consider daily stock returns of US deposit banks during the period 1994-2011, and proxy financial conditions by the Bloomberg Financial Conditions Index (FCI) which comprises the money, bond, and equity markets. We find that worse financial conditions are associated with both higher volatility and higher correlations between stock returns, especially during crises. Moreover, including the FCI in volatility and correlation modeling improves Value-at-Risk estimates, particularly at short horizons.

Keywords: Dynamic correlations, Volatility modeling, Financial Conditions Indexes, Bank holding companies.

JEL: G17, G23, E44.

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