Ponente

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Título de la presentación

"Estimating Financial Networks by Realized Interdependencies: A Restricted Autoregressive Approach"

Abstract

We develop a network-based vector autoregressive approach to uncover the interactions among financial assets by integrating multiple realized measures based on high-frequency data. Under a restricted parameter structure, our approach allows the capture of cross-sectional and time dependencies embedded in a large panel of assets through the decomposition of these two blocks of dependencies. We propose a block coordinate descent (BCD) procedure for the least square estimation and investigate its theoretical properties. By integrating realized returns, realized volume, and realized volatilities of 1095 individual U.S. stocks over fifteen years, we illustrate that our approach identifies a large array of interdependencies with a limited computational effort. As a direct consequence of the estimated model, we provide a new ranking for the systemically important financial institutions (SIFIs) and carry out an impulse-response analysis to quantify the effects of adverse shocks on the financial system.