



Quantitative Finance > Risk Management

# Credit Default Swaps Drawup Networks: Too Tied To Be Stable?

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We analyse time series of CDS spreads for a set of major US and European institutions on a pe- riod overlapping the recent financial crisis. We extend the existing methodology of  $\{\epsilon\}$ -drawdowns to the one of joint  $\{\epsilon\}$ -drawups, in order to estimate the conditional probabilities of abrupt co-movements among spreads. We correct for randomness and for finite size effects and we find significant prob- ability of joint drawups for certain pairs of CDS. We also find significant probability of trend rein- forcement, i.e. drawups in a given CDS followed by drawups in the same CDS. Finally, we take the matrix of probability of joint drawups as an estimate of the network of financial dependencies among institutions. We then carry out a network analysis that provides insights into the role of systemically important financial institutions.

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