

1035-60-567

Damiano Brigo*, 101 Finsbury pavement, London, EC2A 1RS, England. *Default Correlation, Cluster Dynamics and Single Names: The GPCL Dynamical Loss Model.*

We extend the common Poisson shock framework reviewed for example in Lindskog and McNeil (2003) to a formulation avoiding repeated defaults, thus obtaining a model that can account consistently for single name default dynamics, cluster default dynamics and default counting process. This approach allows one to introduce significant dynamics, improving on the standard "bottom-up" approaches, and to achieve true consistency with single names, improving on most "top-down" loss models. Furthermore, the resulting GPCL model has important links with the previous GPL dynamical loss model in Brigo, Pallavicini and Torresetti (2006), which we point out. Model extensions allowing for more articulated spread and recovery dynamics are hinted at. Calibration to both DJi-TRAXX and CDX index and tranche data across attachments and maturities shows that the GPCL model has the same calibration power as the GPL model while allowing for consistency with single names. (Received September 11, 2007)