Trade Signing and Nearly-Gamma Random Variables

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ABSTRACT

Many financial events involve delays. I consider data delays and propose metrics for other phenomena: the mean time to deletion from a financial index, the weighted-average prepayment time for a loan portfolio, and the weighted-average default time for a loan portfolio. Under reasonable conditions, these are all nearly-gamma distributed; thus various small-sample approximations are examined. This approach also yields a metric of loan portfolio diversity similar to one used in rating collateralized debt obligations. Finally, the approximations are used to create a model for signing trades. The model is flexible enough to encompass the midpoint, tick, and EMO methods and yields probabilities of correct predictions.

Information about building access for persons with disabilities may be obtained in advance by calling Karen Gonzalez (Department Administrator and Assistant to Chair) at 773.702.8335 or by email (karen@galton.uchicago.edu).