Common Failings: How Corporate Defaults Are Correlated

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ABSTRACT

We test the doubly stochastic assumption under which firms’ default times are correlated only as implied by the correlation of factors determining their default intensities. Using data on U.S. corporations from 1979 to 2004, this assumption is violated in the presence of contagion or “frailty” (unobservable explanatory variables that are correlated across firms). Our tests do not depend on the time-series properties of default intensities. The data do not support the joint hypothesis of well-specified default intensities and the doubly stochastic assumption. We find some evidence of default clustering exceeding that implied by the doubly stochastic model with the given intensities.

WHY DO CORPORATE DEFAULTS CLUSTER IN TIME? Several explanations have been explored. First, firms may be exposed to common or correlated risk factors whose co-movements cause correlated changes in conditional default probabilities. Second, the event of default by one firm may be “contagious,” in that one such event may directly induce other corporate failures, as with the collapse of Penn Central Railway in 1970. Third, learning from default may generate default correlation. For example, to the extent that the defaults of Enron and WorldCom revealed accounting irregularities that could be present in other firms, they may have had a direct impact on the conditional default probabilities of other firms.

Our primary objective is to examine whether cross-firm default correlation that is associated with observable factors determining conditional default probabilities (the first channel on its own) is sufficient to account for the degree of time clustering in defaults that we find in the data.

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