1099-60-14 **Rabi N Bhattacharya*** (rabi@math.arizona.edu), The University of Arizona, Department of Mathematics, Tucson, AZ 85721, **Mukul K Majumdar** (mkm5@cornell.edu), Cornell University, Department of Economics, Uris Hall, Ithaca, NY 14853, and **Lizhen Lin** (lizhen@stat.duke.edu), Duke University, Statistical Science, Durham, NC 27708. *Two problems of ruin and survival in economics: applications of limit theorems in probability.*

We compare the probabilities of bank default when the same total amount of loan is distributed among a small number of borrowers versus when it is distributed to a large group of borrowers, with all borrowers having the same probability of default. The computations by different probabilistic tools, such as large deviations and their refinements and the central limit theorem, are assessed for their accuracy. Although this is of direct relevance for Grameen banks in developing countries, the model can be extended to include partial payments with collaterals and correlated defaults. A second problem looks at the so-called Lindley-Spitzer process in the context of management of a renewable resource, and explores its mathematical equivalence to another widely studied theme of much importance, namely, the ruin problem in insurance. A third problem, technically equivalent to the two cited above, concerns queuing, which will also be touched upon. (Received November 06, 2013)