Relaxing strict exogeneity

Many common panel data methods rely on the assumption that covariates are strictly exogenous. However, while convenient, strict exogeneity is economically restrictive. We show how to allow for sequential exogeneity, whereby past outcomes may affect future covariate values, in nonlinear panel data models. As a leading application of our framework we show how to relax proportionality in mixed hazard models of duration.