BRATISLAVA ECONOMIC SEMINAR

June 22, 2015

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Decomposing Duration Dependence in a Stopping Time Model

Abstract

We develop a simple dynamic model of a worker's transitions between employment and non-employment. Our model implies that a worker finds a job at an optimal stopping time, when a Brownian motion with drift hits a barrier. The model has structural duration dependence in the job finding rate, in the sense that the hazard rate of finding a job changes during a non-employment spell for a given worker. In addition, we allow for arbitrary parameter heterogeneity across workers, so dynamic selection also affects the average job finding rate at different durations. We show that our model has testable implications if we observe at least two completed non-employment spells for each worker. Moreover, we can nonparametrically identify the distribution of a subset of our model's parameters using data on the duration of repeated non-employment spells. We use a large panel of social security data for Austrian workers to test and estimate the model. Our model is not rejected by the data, while a mixed proportional hazard model with arbitrary heterogeneity and an arbitrary baseline hazard rate is rejected using the same data set. Our parameter estimates indicate that dynamic selection is important for the decline in the job finding rate at short durations, while structural duration dependence drives most of the decline in the job finding rate at long durations.

Venue: FMFI UK, Mlynská dolina, Room C, Bratislava

Date: June 22, 2015

Program: 15:00 Katarína Borovičková: Decomposing Duration Dependence in a
Stopping Time Model
16:30 Coffee