

**Interrelated Factor Demand with Fixed Costs of Investment:
Consequences for Employment Dynamics**

Michael Polder

Department of Quantitative Economics, Maastricht University
m.polder@ke.unimaas.nl.

and

Gerard Pfann

Professor of Management Sciences and Organization, Maastricht University
and

Wilko Letterie

Professor, Department of Strategy and Organization, Maastricht University

A structural model of optimal investment and labor adjustment is derived and estimated. Investment is subject to adjustment costs with a fixed component, while labor has strictly convex adjustment costs. The system of factor demand equations is estimated together with the production function using threshold estimation techniques and Seemingly Unrelated Regression (SUR). Using generalized impulse response functions we investigate how the threshold behavior of investment can lead to apparent non-linear employment dynamics, even though employment changes can be described by a linear model.

JEL codes:

Keywords: investment, labor demand, interrelated factor demand, non-linear impulse response analysis, non-convex adjustment costs, seemingly unrelated regression