

The Le Chatelier Principle in dynamic models of the firm

Robert J. Rossana

Department of Economics, 2074 FAB, Wayne State University, Detroit MI 48202, USA

Received: August 16, 2007 Revised: December 5, 2007

JEL classification: D21, E22

Mathematical Subject Classification (2000): 49K30

Abstract. This study examines the Le Chatelier Principle in intertemporal models of the firm with a delivery lag for capital. Adjustment costs are attached to labor and capital. Dynamic demands for labor and capital investment obey the principle when short-run and delivery-period factor price responses are compared. If own-adjustment parameters for quasi-fixed inputs are between zero and minus unity, a form of the principle holds when comparing delivery-period and steady-state factor price responses. Adding variable factors, the principle arises for quasi-fixed and variable factors in response to quasi-fixed factor prices but not to variable factor demands and variable factor input prices.

Key words: Le Chatelier Principle, Adjustment Costs, Marshallian Short Run, Dynamic Demands, Investment