

# A Test of The Disparity of The Employment Mobility between Permanent Workers and Temporary Workers in Japan \*

Hiroyuki Motegi †

## Abstract

This paper investigates the disparity of the employment mobility between permanent workers and temporary workers from the view point of labor demand adjustment cost by Japanese firm level panel data set. It constructs a rich model of adjustment cost, which cooperates various elements such as convex and non-convex factor as well as labor demand irreversibility. We analyzed the labor demand in the same framework as a capital investment theory. Applying shadow value of labor stock can derive the analytical form solution of optimal policy, and we measure it directly without using the stock value for the estimation. As a result of estimation, we find that adjustment cost of permanent workers is significant for convex term, but is not significant for non-convex term. Adjustment cost of temporary workers is also significant for quadratic term. There is the possibility that firms can adjust temporary workers continuously with much less adjustment costs for permanent workers. In addition to this, the cost of firing permanent workers is much larger than that of hiring them.

JEL code: J23, J08 and E24

Keywords: labor mobility in Japan, permanent workers, temporary workers, dynamic labor demand, adjustment cost, q theory, direct measurement of shadow value of labor stock.

---

\*I would like to give thanks to Prof. Hidehiko Ichimura(The University of Tokyo) and Prof. Michio Suzuki(The University of Tokyo) whose enormous support and insightful comments were invaluable during the course of my study. I would also like to express my gratitude to Prof. Kazuya Kamiya(The University of Tokyo), Prof. Yasuyuki Sawada, participants of the seminar of Prof. Ichimura and some friends for their comments and advices. I have benefited from comments made by seminar at the University of Tokyo. All remaining errors are my own.

†Graduate School of Economics, University of Tokyo, Japan. email: motegihiro@gmail.com