

Stickiness in Housing Rents: New Evidence from Shukan Jutaku Joho

Tsutomu Watanabe

Research Center for Price Dynamics Hitotsubashi University

Abstract

My talk is based on some tentative results from the ongoing project with Chihiro Shimizu of Reitaku University, and Kiyohiko Nishimura of the Bank of Japan. Our main findings are summarized as follows.

First, we construct indices for housing rents and selling prices in the Tokyo metropolitan area using a new data set taken from a widely-circulated housing advertisement magazine, Shukan Jutaku Joho (Housing Information Weekly), which is published by RECRUIT CO., LTD. It covers 1986 to 2006, containing about 720,000 listings for rents and 560,000 listings for selling prices. Our hedonic estimates indicate that rental and selling prices were highly correlated during the period of the bubble in the late 1980s, as well as during the collapse of the bubble in the early 1990s.

Second, we construct an index for the total flow of housing services: the sum of the service flow of owner-occupied housing and that of renter-occupied housing. This is done by estimating housing rent for each of the entire stock of renter- and owner-occupied houses in the Tokyo metropolitan area, which amounts to about 1,200,000 units. To do so, we used information about various attributes of each unit, including its location, floor space, usage (independent or communal housing), and structure (timbered or non-timbered), by making access to the micro data of “Basic Town Planning Survey” through Geographic Information System (GIS). We find that the total flow of housing services as of 2005 is 915 billion yen, which is significantly smaller than the official estimates reported in the SNA.

Third, we find that housing rents are extremely sticky; price duration is 223 weeks in average, and 177 weeks in median. Also, we find that the estimated hazard function is almost flat, suggesting that the change in housing rents is well approximated by a Poisson process. This result is easy to see if one notices that the change in housing rents tends to occur only when one tenant leaves and another one arrives, and that such a turnover of tenants is associated with almost purely random events like marriage, childbirth, and job transfer.