A new hedonic rent index methodology for Canada

Abstract

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As part of the efforts to continuously improve the quality of the Consumer Price Index (CPI) at Statistics Canada, the official CPI rent index methodology is currently under review. The current Canadian rent index is a matched model index based on rent data collected through the Labor Force Survey (LFS). The LFS uses a rotating multi-stage stratified sample. Households in the sample are surveyed for a period of 6 months; each month one-sixth of the sample is replaced. Following the review of different methods, a characteristics approach hedonic index is proposed to replace the current one. A hedonic model is estimated using a monthly cross-section of LFS data at the national level. Indices are constructed at the lowest geographical levels using average characteristics as quantities and estimated coefficients as prices.

The proposed hedonic model is a log-linear regression in which the explanatory variables include observed unit characteristics, such as number of bedrooms, as well as locational characteristics captured by postal codes. Overall, based on all monthly cross-sectional data available, the model estimation results are quite satisfactory; for instance the coefficients for the major unit characteristics are mostly significant and stable over time with the expected signs. In addition, the results of the locational characteristics support the claim that conurbation matters.

The new proposed hedonic index properly tracks the market movements on both national and lower geographical levels, and reflects the economic turning points and trends. Another advantage of the proposed hedonic method is the ability to construct superlative indices (based on average characteristics). Also, the resulting indices can be broken down into each coefficient's contribution to the index change as well as the contribution of each geography to the movement of the index at higher geography levels.