Assessment of the real estate benefits due to accessibility gains brought by a transport project: the impacts of a light rail infrastructure improvement in the Hauts-de-Seine department

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Abstract

This paper estimates the real estate benefits due to accessibility gains brought by a light rail infrastructure (the T2 tramway, in the Hauts-de-Seine). According to Urban Economics, the accessibility improvements resulting from a transport project will influence the residential location choices of households, and eventually the land rents at equilibrium will include the valuation of accessibility gains made by these households.

Apart from accessibility, housing choice also depends on other characteristics: internal characteristics and external (environmental) characteristics. To take into account all these determinants, we have estimated a hedonic price function of residential properties econometrically.

The data used are sales of residential dwellings in the Hauts-de-Seine department, population census and other sources, from 1993 to 2004, to take into account anticipation and learning effects.

The hedonic price function obtained allows us to measure implicit or “hedonic” prices of dwellings with a given group of characteristics, and isolates the pure effect of each characteristic on the price of a dwelling.

The results show that the T2 tramway accessibility improvements are capitalized into the housing prices. To measure this capitalization into real estate, we calculate the prices of dwellings with and without these accessibility gains. For the whole department, we estimate a capitalization around 3%.

Keywords: Accessibility; Hedonic function; Real estate values; Transport infrastructure.

1. Introduction

The purpose of this paper is to analyse the role of transport infrastructures in the formation of residential property values in urban areas. It focuses on the impact of...