

Hedonic price methods and real estate price index: an explanatory study for apartments market in Belo Horizonte, Brazil from 2004 to 2015.

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Brazil has not yet an official real estate price index. However, due to the great valuation of real estate prices in the last years and the 2008's subprime crisis, the demand for such indexes has increased. A 2011 presidential decree stipulated for IBGE the assignment to create and spread a real estate price index for Brazil. As a result, attention has turned to study both methods and database affordable for a future Brazilian official real estate price index.

Most official statistics institutes around the world have used the hedonic price regression to estimate real estate price index, since this methodology is appropriate to deal with composed goods. In this paper, we test some different hedonic model methods to estimate monthly, quarterly and annual price indexes for apartments in Belo Horizonte, Brazil, from January 2004 to December 2015. The data set comprises all apartments' transactions in the analyzed period from Belo Horizonte's real estate transmission tax.

Our goals are: i) to measure and compare the different hedonic methods; ii) to present some results that will contribute to the discussion towards the development of an official real estate price index in Brazil. The empirical results corroborate the idea of intense apartment prices valuation in Belo Horizonte, mainly between 2007 and 2011, when the annual price growth rates remained above 20%. However, in the two last years of the analyzed period, the annual growth rate has decrease below 5%. These results shed light on the potential use of both hedonic methods and administrative data base to construct an official real estate price index for Brazil.