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## Double Perspective Data Envelopment Analysis: One Approach to Estimate the " LOOP" Arbitrage

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### ABSTRACT

This paper introduces the application of real estate pricing DP DEA - Double Perspective Data - Envelopment Analysis to solve the LOOP (Law of One Price) arbitrage. A general equilibrium model of real estate values was developed to analyze price variation over digital map, and applied to the urban area of the city of Joinville. The power of real estate locational value assessment using DP-DEA is then compared with the usual MRA - Multiple Regression Analysis using a real case of land data. All computational generated results and data were subsequently geocoded on a GIS - Geographic Information System. The computational generated Price line Map is easily visualized in a real estate value chart that can enhance accuracy when compared to a conventional methodology, also a tool for immediate updates and testing the effects of new developments over urban areas.

### KEYWORDS

Double-Perspective Data Envelopment Analysis, Law of One Price, Spatial Model and GIS

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