Forward cap rate direction as a function of GDP and CPI interaction

Using real growth to explain cap rates at the national and metropolitan levels

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Abstract Purpose

To explain and forecast both national and market-level cap rate expansions as simply a binary interaction between Gross Domestic Product and Consumer Price Index.

Design/Methodology/Approach

We use a binary logistic regression with binary independent variables, trained on a minority over-sampling set, to explain cap rate expansion at the national level and at 20 US metropolitan areas.

Results

Both the national model and the market models have accuracy near 70% and capture about 40% of all cap rate expansion periods with a robust confusion matrix, such that implementing the recommendations of the models would result in significant outperformance versus a buy-and-hold strategy.

Originality

This model contributes to the existing corpus by 1) establishing a statistically significant relationship between the interaction effect of GDP and CPI versus cap rates which 2) holds explanatory power at the national and market levels, by 3) mapping the ground truth from a non-discrete to a binary variable.

Practical Implications

The accuracy of the model suggests a simpler and more robust explanation for understanding cap rates and navigating residential property markets in the present environment of rapidly fluctuating interest rates, not only at the national level but also at the market level.

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