A Spatio-Temporal Model for Real Estate Investment Activity

Matthew Ross

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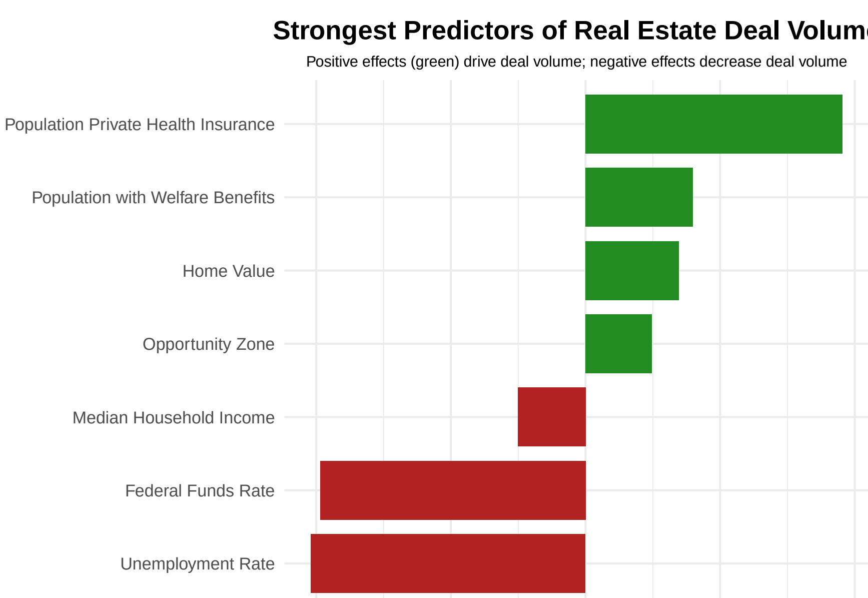
Opportunistic real estate investors seek out markets that present favorable conditions for achieving high returns on their investment. To identify these markets, an investor must look for property specific factors, like its price and condition, and future cash flows, a rather costly and time consuming. However, before this can even be done, an investor must identify opportunistic markets by broader characteristics, such as the economic health and demographic of a region. This project focuses on finding the broader market drivers behind real estate investment activity in California over the past 15 years.

This project makes use of historical real estate deal data from Preqin, combined with economic and demographic variables from the Bureau of Economic Analysis, U.S Census Bureau, IRS, Zillow, and the Federal Reserve. The project employs a statistical model that identifies the most important variables that drive deal volume over towns in California, while also capturing the spillover effect between neighborhoods, and how market momentum drives investor action.

Key findings from the project suggest the strongest drivers of investor activity in a town are macroeconomic, such as regional unemployment rates, and federal interest rates, which have negative effects on deal activity when they rise. However, several socioeconomic factors have significant negative and positive effects on deal activity. Variables like a town's population on welfare benefits, overall home value, and tax deductions for investment ("Opportunity Zones") contribute to deal activity. The project also finds that the spillover effect between towns is significant for towns near eachother, particularly within 20km.

Key finds can be visualized in the following:



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