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Time Series Analysis of Recapture Agreements in McLean County, Illinois

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Oral Presentation O5.3

**TIME SERIES ANALYSIS OF RECAPTURE AGREEMENTS IN
MCLEAN COUNTY, ILLINOIS**

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This study concerns the number of monthly recapture agreements granted by the Illinois Affordable Housing Tax Credit Program. It is important to study the frequency of these agreements because their number indicates the amount of real estate purchased with the help of this program. I will conduct several different time series analyses: fitting linear trends, finding seasonal or cyclical effects, determining the presence of unit roots, and fitting an ARMA process to the series. The data obtained ranges from January of 1997 to December of 2010 with 168 observations. The data were obtained from the recorder's office in McLean County, Illinois, and are measured in the number of recapture agreements made each month. There are 2 clear breaks in the data, one in December of 2002 and the other in August of 2007. While the data before the first break and the data after the second break are relatively stationary, the middle segment has a positive slope that implies that there was a change in the frequency of housing purchased with the help of the Illinois Affordable Housing Tax Credit Program.