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The interest rate sensitivity of the housing sector around the financial crisis

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ABSTRACT

The purpose of this study is to examine the relationship between various measures of interest rates and the value of U.S. common stock prices in the housing sector. It is well known that the housing sector, in general, is sensitive to changes in long term interest rates. The purpose of this study is to specify the relationship between various interest rates and an index of housing related stock prices before, during and after the financial crisis. An index of week ending values of housing related stock prices is used as a proxy for the housing sector. The weekly closing interest rates for the 13-week Treasury Bill, 5-year Treasury Note, 10-year Treasury Note and the 30-year Treasury Bond are used as independent variables. Included in the study are the S&P 500 stock index and various calculated measures of the yield curve. Data is taken from October 2002 through August 2014. Therefore, a total of approximately 620 cases of weekly observations are included in the study. The data set is divided into three parts of about four years in each segment, i.e. the period before the financial crisis, the period during the crisis, and the period after the crisis. All variables are converted to a stationary series by taking first differences of the prices of each series to obtain a normal distribution of the data. Multiple linear regression techniques are then used to find the variables that best explain the housing sector stock prices in each period. Preliminary results indicate that interest rates had varying effects on

the stock prices in each of the three time periods. The results of the study have practical implications for investors and for housing related company managers.