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BUSI 275 Business Statistics

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Proposal

The U.S. housing crisis in 2008 caught the world’s attention when more than 2.3 million homeowners faced foreclosure proceedings. Many economists made predictions about the US housing market, like the Federal Reserve Bank of Philadelphia president optimistically predicted the economy to start recovering in the second half of 2009 (“Housing Crisis”). A few years have passed since the collapse of the housing bubble, so our group is interested in analyzing the factors that led to this crisis and assessing the current U.S. housing market situation.

Our population of interest is the U.S. homeowners from 1987-2011 and the key dependent variable is the U.S. housing market prices. This is important to those interested in entering the real estate industry, as well as all Americans, because housing is a necessity. The variables that we predict influence on the U.S. housing market are location, demographics, and interest rates, and the overall health of the economy. Our sampling strategy will be measuring the variables per-year with time-series sampling.

We predict that locations with a bigger population, especially in urban regions, will have higher housing market prices because there is a greater demand, so we will use ratio measurements to compare the population of a city to the average housing prices. Demographics will also influence housing market prices because they impact individuals’ decisions about the size and type of home to buy. Also, we think that changes in mortgage interest rates have a major impact on the housing market, because when the interest rates fall, the cost to obtain a mortgage to buy a home decreases, creating a greater demand for real estate, which increases prices. We will research the following question: To what extent do mortgage interest rates impact the housing market prices? We also know that the economy was struggling during the 2008 housing crisis, so we think that when the health of the economy is a predictor. When the economy is struggling, fewer people purchase homes, so the real estate prices will be lower because of real demand. We will measure the health of the economy by studying the GDP of the U.S. over the time interval to discover how a country’s GDP relates to the housing market prices.

We plan to use existing data for this project and our primary source of data will be the Standard & Poor’s/Case-Shiller Home Price indices, since they are the leading measure of U.S. residential real estate prices and it will allow us to measure how location impacts the value of a home over time. We will also consult the U.S. Census Bureau website, which provides data about homeownership demographics and housing characteristics over the past 60 years. Other sources of data for GDP and mortgage interest rates are included in the bibliography.

We plan to divide the work evenly among the three of us, and decided that it would be best for the three of us to be involved with each stage, but each of us will have a separate primary responsibility where we will lead the other group members through each task. Miranda will be responsible for organizing the data and creating charts. Nicole will be responsible for making the PowerPoint and creating an outline for the presentation. Marie will be responsible for writing the paper for the project. We will all work together to collect and analyze the data.

In Luke 6:48 Jesus tells the parable about the wise man who built his house upon the rock. Through this project we plan to analyze the U.S. housing market prices so that we can identify which factors need to be stable in order to build a solid foundation for the real estate industry so that the housing market will be able to withstand the next recession.

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