

Factors Affecting U.S Real Estate

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Problem Statement

To Determine the factors that would effect housing prices across the United States of America and present the same in a M.E.C.E framework.

The Real estate market is a vital social and economic concern for any country. The affects of such a market has its influence that ripple deep into the growth and welfare of the country. The market weighs in heavily on the quality of life in both urban and rural areas. Based on multiple factors as shown later in the M.E.C.E framework a linear regression model can be used to show the outcome that these factors have on the market.

Introduction

It looks like even post pandemic the great housing boom in the U.S. is continuing without any reduction in intensity after eight years of strong house price growth. It has been kept afloat by continued low interest rates and by the government's massive stimulus packages to cushion the impact of the pandemic. A limited supply of properties in the market has added to upward house price pressure.

- National home prices rose by 19.7% during 2021!
- Highest annual growth record till date.
- Housing prices have skyrocketed since the onset of the pandemic.
- 32-39% increase in the housing prices
- Median house prices in Q2 2022 was 428,700\$.

Factors Affecting the U.S Market

1.The Economy

A key and vital factor that affects the real estate market value is the health of the economy. This is generally measured by economic indicators such as GDP, external investors, unemployment rate etc.

The cyclical nature of the economy can have varying effects on different types of real estate.

Another important factor in the upcoming years related to the economy is the recession. Like the previous recession with a 5% drop in the market value every year the economy was down this time around predicting a similar drop seems most feasible.

2.Demographic

Demographics are the data that describes the composition of a population, such as age, race, gender, income, migration patterns, and population growth. These statistics are an often overlooked but significant factor that affects how real estate is priced and what types of properties are in demand. Major shifts in the demographics of a nation can have a large impact on real estate trends for several decades.

3.Amenities

A real estate market prices not being driven by its amenities it offers is not a real estate market after all.

Each feature a property brings to the table increases its value and thus neighboring prices tends to increase in a similar manner. In 2021 with the rapid advancement in quality of life it is no surprise with each new property the amenities that come with keep getting better.

Quantitative analysis

As mentioned earlier, this model can be based on a multiple linear regression model to find out exactly how the main factors influence the housing process.

$$y = a_0 + a_1x + a_2x^2 + \cdots + a_{\underline{k}}x^k \quad (k = 1, 2, \cdots, n)$$

where,

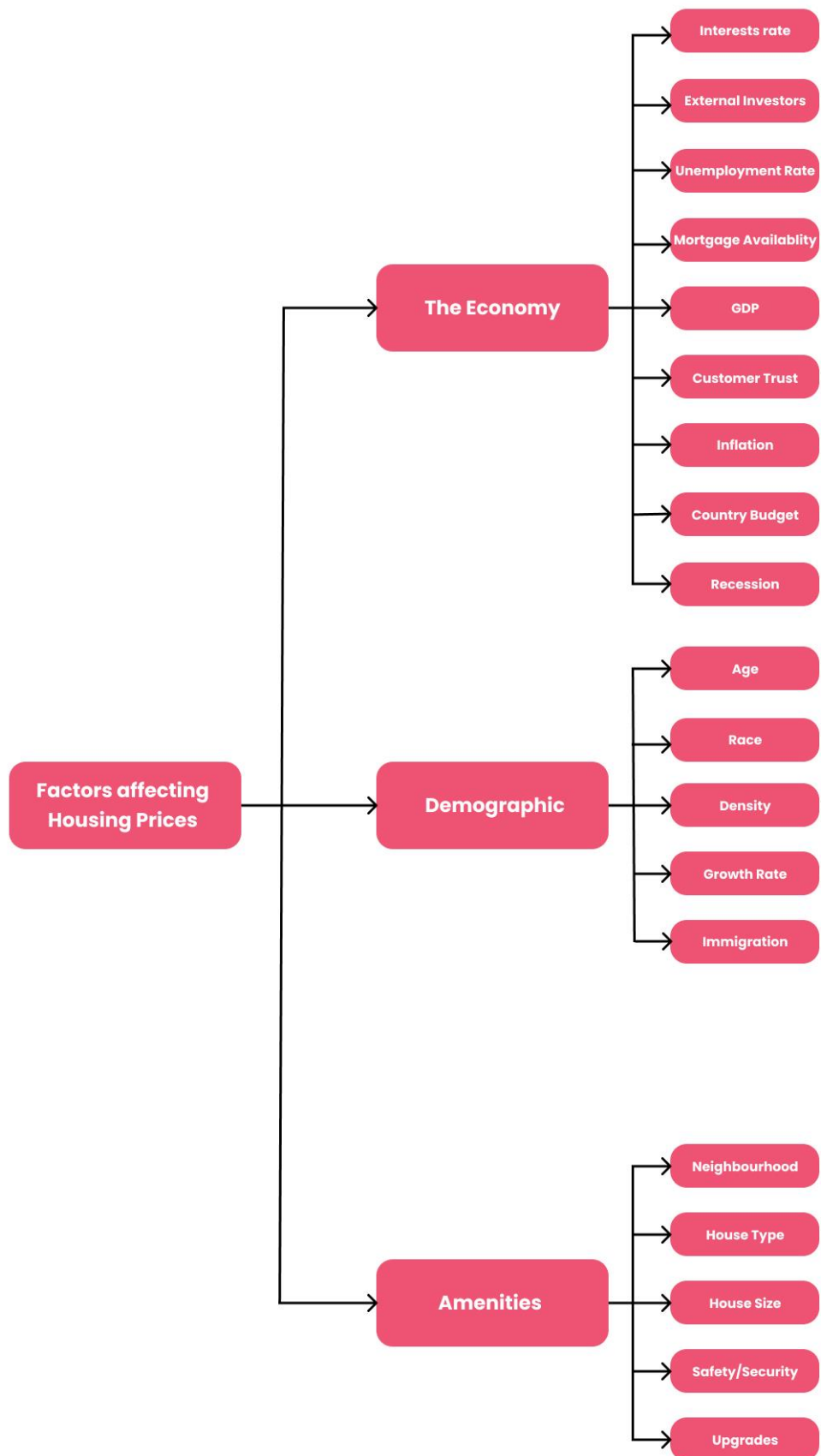
y denoted the housing prices

x and its exponentials denote the influencing factors

a₀ is a constant

a variables are the regression coefficients

Factors affecting United States Real Estate



Conclusion

The Economy:

Factors like the interest rate, external investors etc. all govern whether the market value can rise or fall. A factor that unfortunately isn't at the control of the customers.

Increasing customer trust through good governance of such interest factors only leads to better pricing in the market.

A recession would adversely affect the house market by dropping its value, given the last recession saw a hit of around 5%.

Demographic:

Factors that may not weigh in the same to affecting the market as the economic factors do, nonetheless they do play their part.

Race, caste. Sex, density all affect areas and their market value giving it their own trends.

Whilst most of it can be predicted and estimated accurately these trends have seen the same pattern over time.

Amenities:

Each property with increasing amenities will only increase in market value. More bedrooms, bathroom etc more the price will inflate.

More the merrier runs perfectly in this scenario.

Other amenities such as the community, security, neighborhood, locality etc. affect housing prices and such houses in areas with good facilities for everyday life around generally have a higher market cap.

