Real Estate Forecasting

Time-Series Modeling
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Introduction

Overview

Overview

The Data Set

- Home Prices
- Zillow.csv
- US 1996-2018

The Market Scope

- USA
- 1 Area
- Connecticut

Business Results & Model Observations

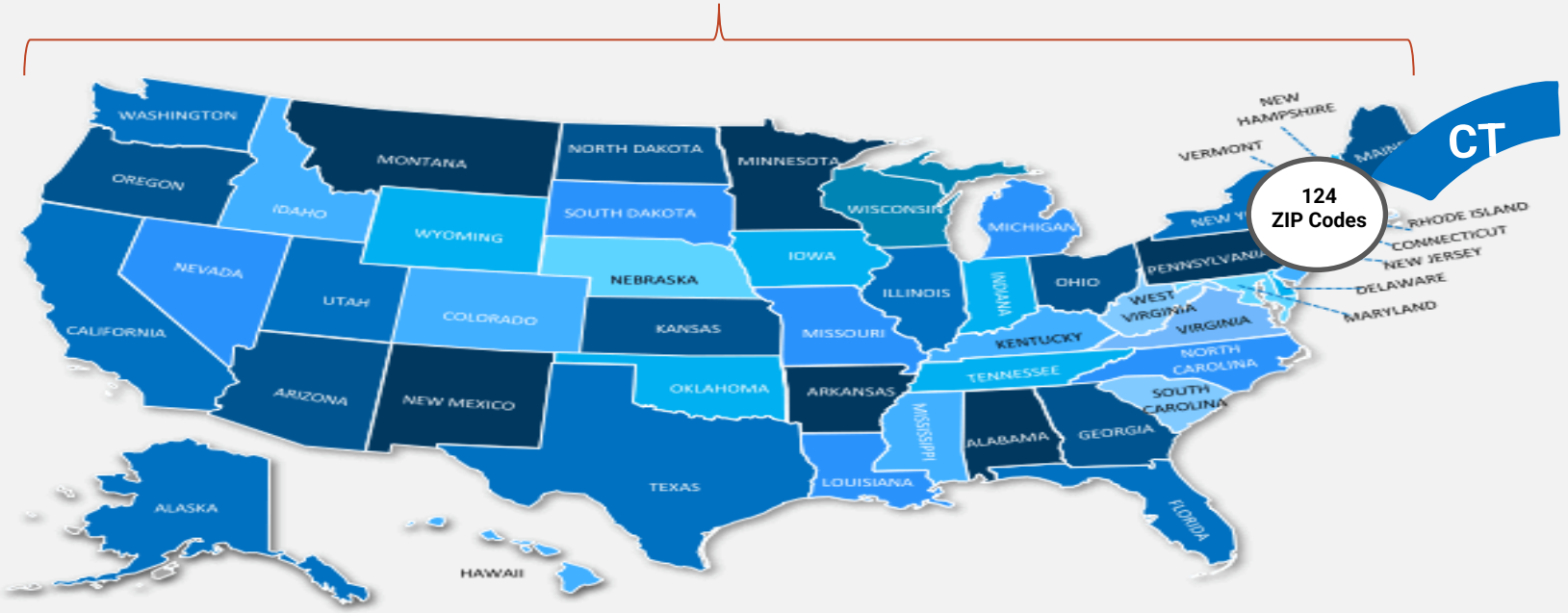
- Forecasting Models
- Mean Square Error
- ROI ZIP Codes

Part 1
The Data Set

Scope

Market Scope

USA
14,253 ZIP Codes



Part 2 – The Market

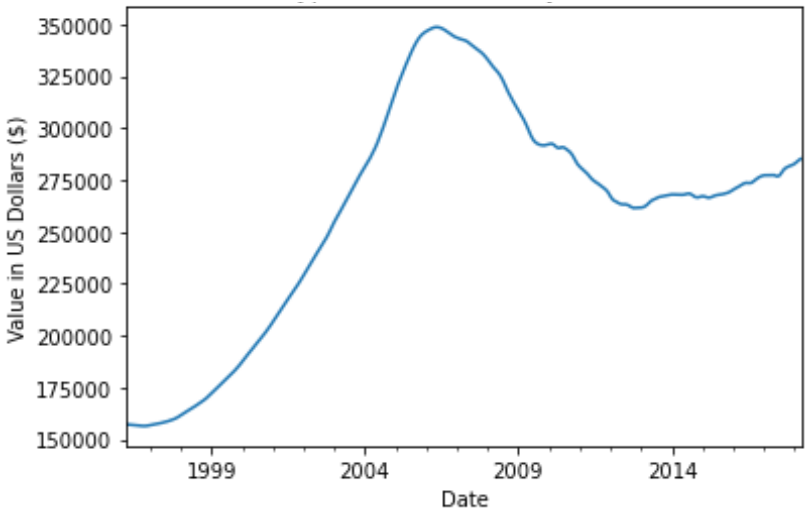
Focus

Data Set Key Facts for Analysis

1) 1996-2018

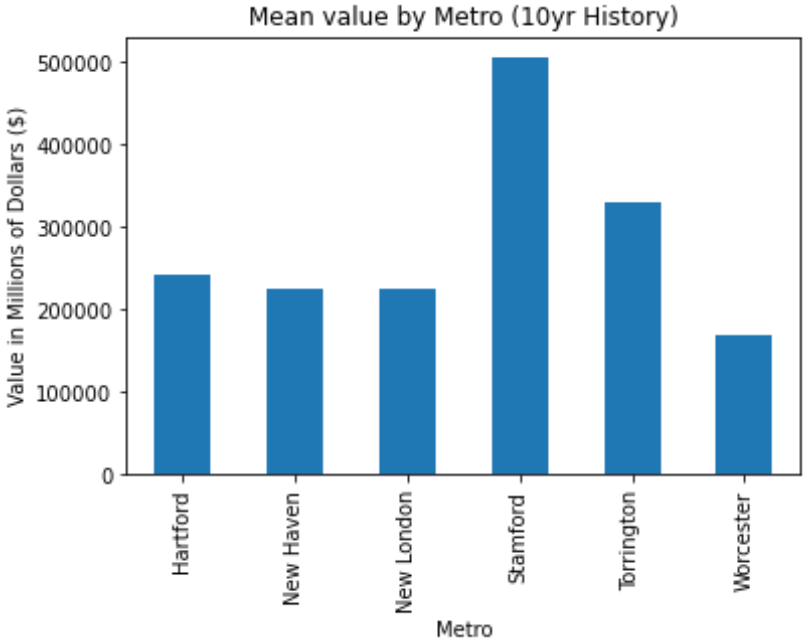
2) US 2008

Typical Home Value Declines



3) CT 2008-2018

Best Areas



Part 3-

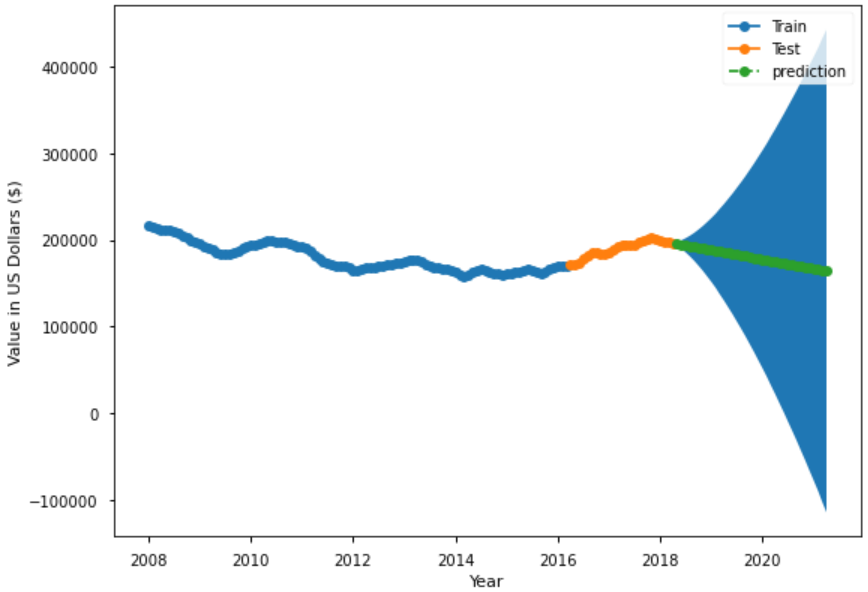
Business Results & Forecasting Model Observations

Modeling Results
Forecasting ZIP Codes
ROI

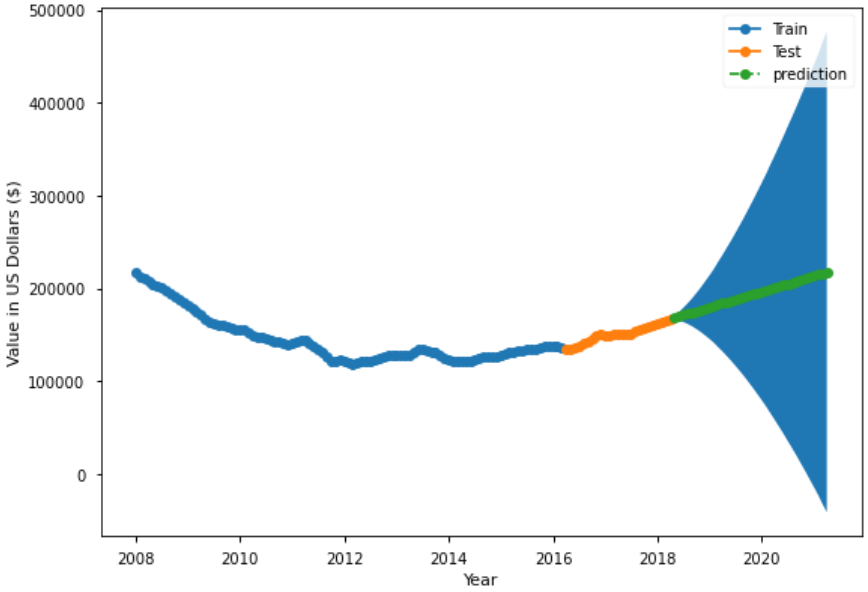
Bad

Good

Downward Predictive Trend



Upward Predictive Trend



Modeling Forecasts & Mean Square Errors FACTS

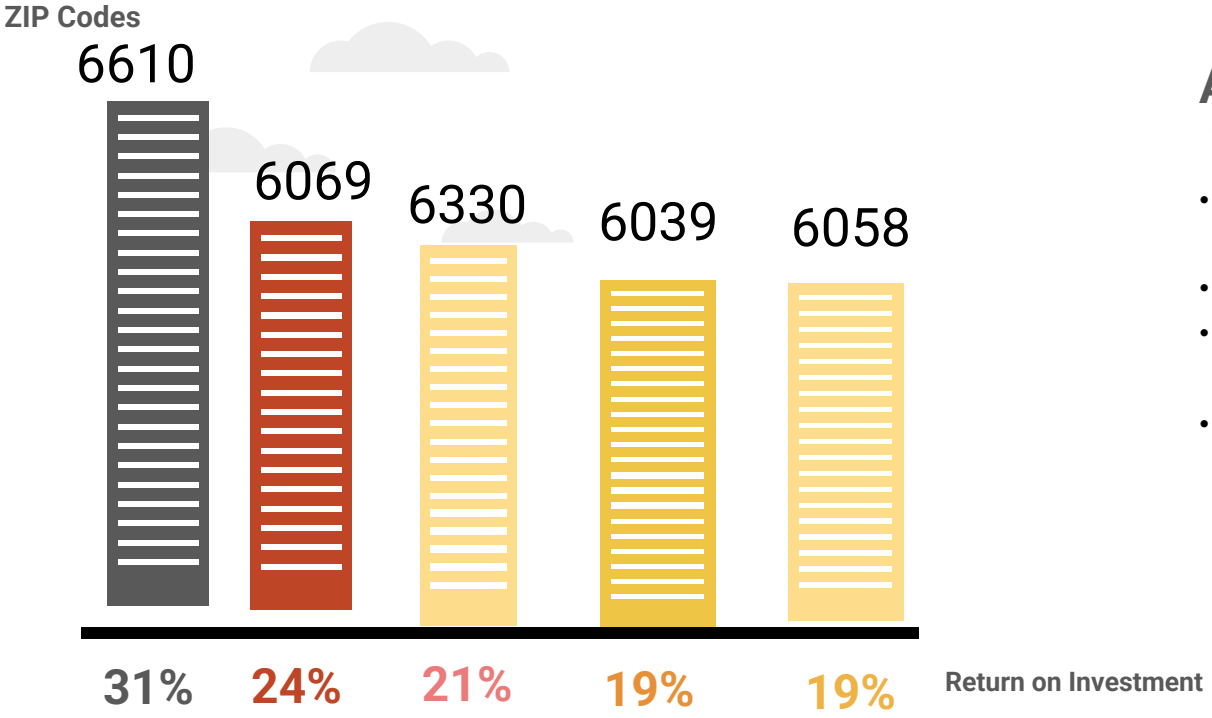
•Model Forecasting was accomplished on a per ZIP Code basis

•The Root Mean Square Error (RMSE) was calculated to evaluate the forecasted model's on a per ZIP Code basis

•There is room for improvement in the RMSE for the models, however we got a sense of what can actually be good investment opportunities

•On the Conclusion and Next Steps section of this presentation, we'll discuss what we can do to work with our current model and what can be done to improve model RMSE's even further as a next step

Business Results: Highest ROI's & Model Observations



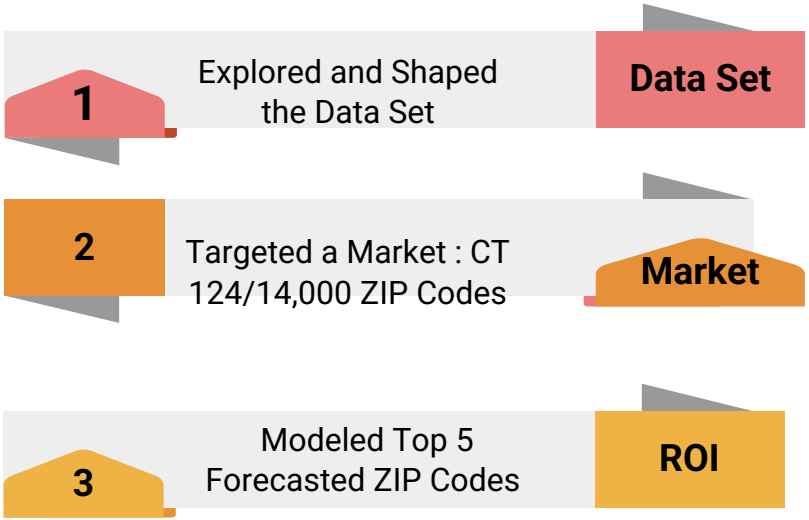
Avg. RMSE

73%

- Prediction Model overall have reliability above 70%
- Some ZIP Codes better than others
- Best ZIP Codes predicted highest RMSE 6039
- There's still room for improvement but this is a good base. Please see conclusions

Conclusion & Next Steps

What we did Today



What we can do next

Expand Market Areas
We can expand our Modeling Forecasting into more markets in the near future should you want to hire our services

Model Improvements
We can expand improve our Mean Square Error as we move forward so that we can be even more confident in our predictions.

Thank you!!
Hire us Again!!