Analysis of the Commercial Real Estate Market in a post COVID-19 World

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Abstract. – Do this last to summarize research

1 Introduction

- **Problem Statement**: The US Real estate market, both commercial and residential, is highly impacted by various factors. Demographics, interest rates, economic growth, unemployment, and government policies are just a few of these factors. 2020 has had an additional factor that will influence the market for years to come, COVID-19. The COVID-19 pandemic has had a sudden and significant impact on all aspects of people's lives. Determining what the 'new normal' for the real estate market to provide guidance to buyers and sellers. Additionally, we are proposing to identify and/or predict potential long-tail considerations for investors, builders, and/or consumers interested in future real-estate market.

- Introduce reader to the problem statement above
- Define why the research is beneficial to the reader
- Outline what's we expect to achieve

2 Literature Review

- **Hypothesis:** The future real-estate market will be severely impacted due to the effects following COVID-19 lockdowns and societal changes. Future investment dollars will be more tightly controlled and financial and economic impacts will resonate far into the future – causing some degree of downturn in this sector. The impact of COVID-19 will reach far beyond the typical

boom and bust nature of the cyclical real-estate market resulting in large swings in investments, profitability, availability, and supply chain.

- Provide an overview of the literature that is listed in the reference section.
- Currently have approximately 20 sources, not all fully reviewed by project team. Of those, 10 are peer reviewed.
- Need to add references to COVID-19 modeling.
- Focus on how real estate models are developed using the various methods defined in the research.
- Focus on any current research around COVID-19 and areas that impact research. Note: Need to be careful on sources around COVID-19 as we will have to watch for contradictory articles given the "newness" of the subject area.

3 Methods

- Outline the methods utilized for analysis
- Initial methods we may use based on preliminary analysis
  - Time-Series Analysis
    - Forecasting price and occupancy rates for real estate
    - Forecasting prices for Real Estate Investment Trusts
  - ANOVA/Classification Analysis
    - Changes in consumer purchasing behavior
- Define the data sources that were used. Currently investigating:
  - Real Estate Web Data – Zillow.com, RedFin.com, Loopnet.com
  - US Census Bureau – includes reporting permit data for new 'starts' and/or builds by county, state, region both monthly and annually
  - Bloomberg.com – financial data on publicly traded companies
  - Experian – consumer credit card purchasing
  - Foot traffic and movement data
  - Mobile application download data
  - John Hopkins COVID-19 – contains information on the COVID-19 pandemic down to zip code level as well as state closing/openings

4 Results

- Graphs and Figures go here
- Ensure discussion is about results only and not overall outcomes
- Accept or reject the hypothesis based on the available data and models created
- Clarify study scope

5 Discussion

- Cover answers to questions such as:
  - Why we chose to look at this aspect of the COVID-19 impact?
  - What do we expect the audience to do with our findings? Is there a call to action?
  - Were we able to predict what we expected?
  - What stood out as interesting/unique/unexpected?
  - What challenges occurred during analysis?
  - Are there areas of research that are immediately useful?
  - Are there areas of research where others can pick up and go deeper?
- Discuss ethics impact of this research

6 Conclusion

- Overall wrap-up on how this specific research is useful

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Appendix:

Leave here if needed for additional information.