

Influence of Covid restrictions on real estate prices in Australia

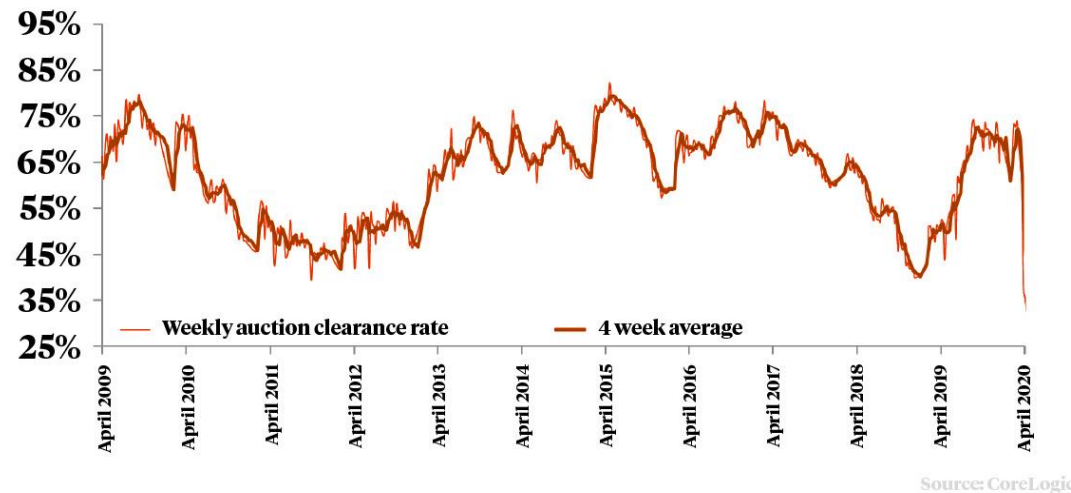
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The Data Incubator – Capstone Project

Objective

Weekly clearance rate, combined capital cities



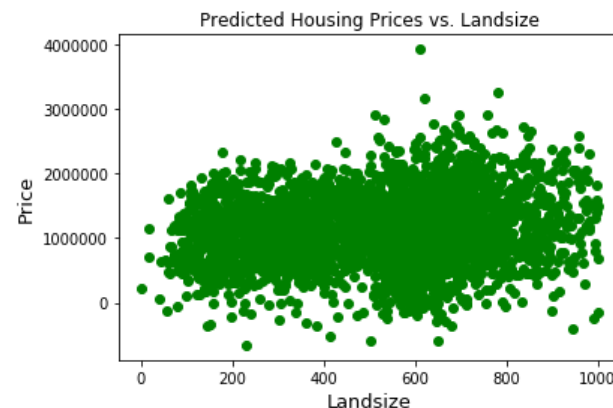
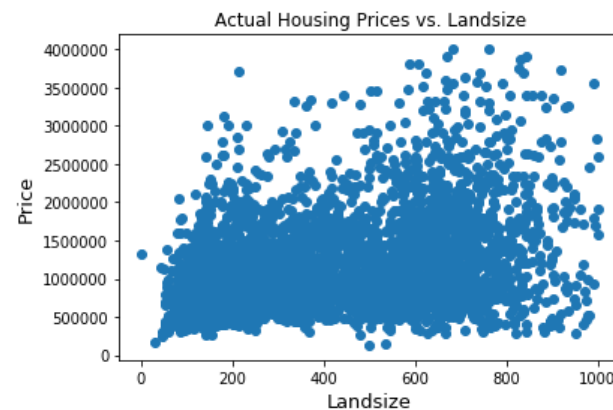
- Covid pandemic changed our lives and housing market
- Due to social distancing measures national residential listings were down 33 % in April 2020, weekly clearance rate dropped
- revenue loss for **real estate agents** and **mortgage brokers**
- My objective is to disentangle relationship between restrictions on house inspections and real estate auctions with number of listed properties and housing prices

Exploratory Data Analysis and Machine Learning

Data columns (total 21 columns):

#	Column	Non-Null Count	Dtype
0	Suburb	34857 non-null	object
1	Address	34857 non-null	object
2	Rooms	34857 non-null	int64
3	Type	34857 non-null	object
4	Price	27247 non-null	float64
5	Method	34857 non-null	object
6	SellerG	34857 non-null	object
7	Date	34857 non-null	object
8	Distance	34856 non-null	float64
9	Postcode	34856 non-null	float64
10	Bedroom2	26640 non-null	float64
11	Bathroom	26631 non-null	float64
12	Car	26129 non-null	float64
13	Landsize	23047 non-null	float64
14	BuildingArea	13742 non-null	float64
15	YearBuilt	15551 non-null	float64
16	CouncilArea	34854 non-null	object
17	Latitude	26881 non-null	float64
18	Longitude	26881 non-null	float64
19	Regionname	34854 non-null	object
20	Propertycount	34854 non-null	float64

dtypes: float64(12), int64(1), object(8)
memory usage: 5.6+ MB



- Kaggle dataset of Melbourne Housing prices from 2016 to 2018
<https://www.kaggle.com/anthonypino/melbourne-housing-market>
- Data cleanup
- Feature engineering
- Linear Regression to predict property prices
- <https://github.com/leonie-on-git/DataIncubator/blob/main/Capstone.ipynb>

Data access and Analysis



- Real estate listings and prices for the last 10 years from 4 Australian cities
- Sydney (strongly hit by first wave), Melbourne (restrictions during second wave), Adelaide (about to go into lockdown) and Perth (only mild restriction)
- Accessible through the `domain.com.au` API ~100 MB
- Data on social distancing measures and their dates of imposing
- Data on migration to and from Australia in last 10 years
- Forecast of change in listing availability and housing prices during Covid-19 lockdown
- Help real estate agents with fast pivots and decision-making to prevent revenue loss