

Case Study: London House Prices Analysis

(1998 ~ 2020)

Overview and Objective



32 Boroughs in Greater London (Wiki)

- Data comes from <https://data.london.gov.uk/>: a free, open-source data-sharing portal for London-oriented datasets.
- Objective: To find out ***which boroughs of London have seen the greatest increase in housing prices, on average, over the last two decades?***

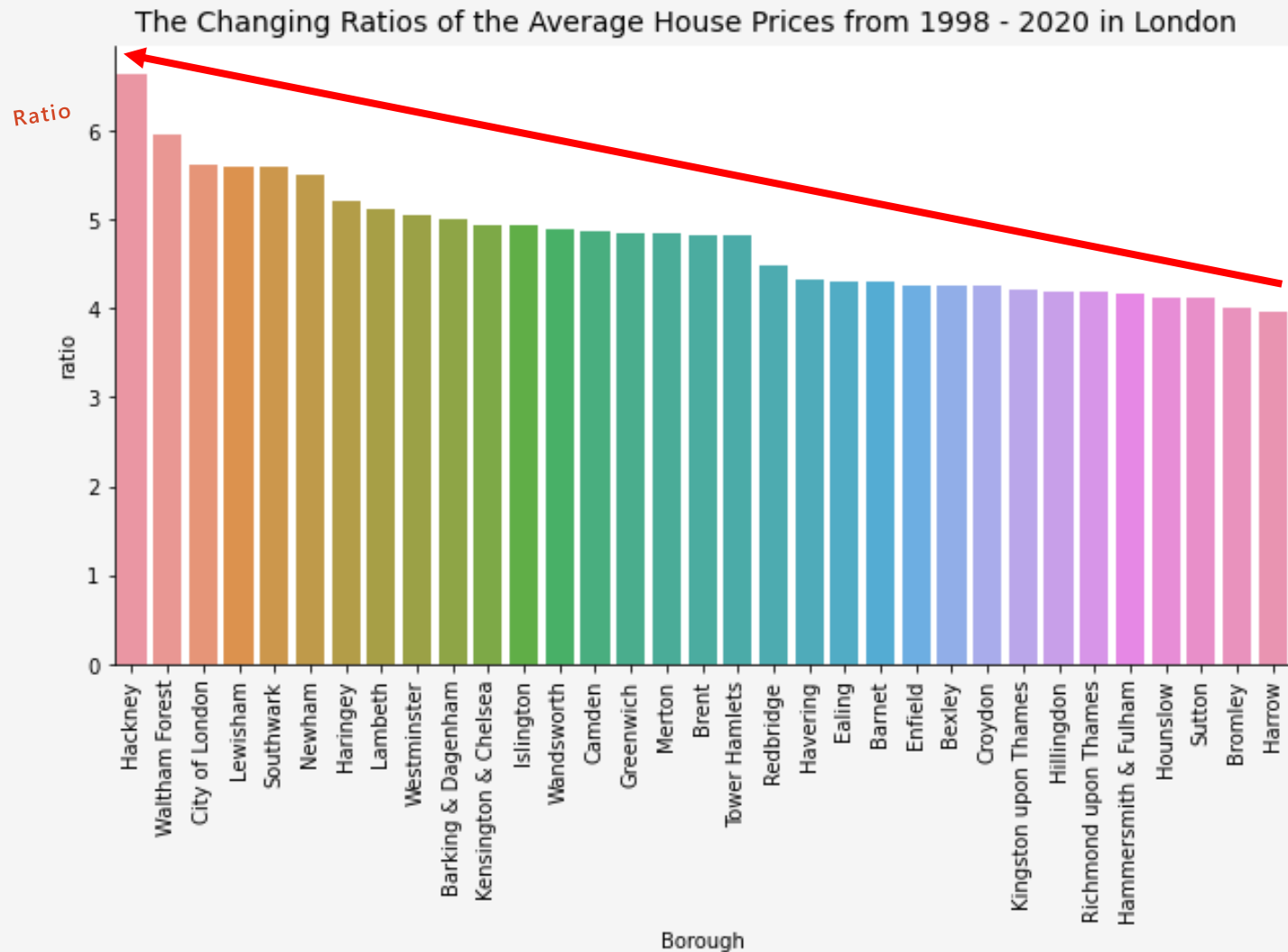
Data Information

- Raw Data (321x49)
 - Time period: 1998 ~ 2020
 - Records: house prices in rows (321)
 - Fields: Dates (yyyy-mm-dd) in columns (49)

- Data Preparation (cleaning and transformation)
 - Check and drop null values (960/15360, about 6%)
 - Aggregate and average the house prices per borough by year
 - Calculate the ratio of the average house prices of 2020 over 1998 to represent the increase of house prices over time

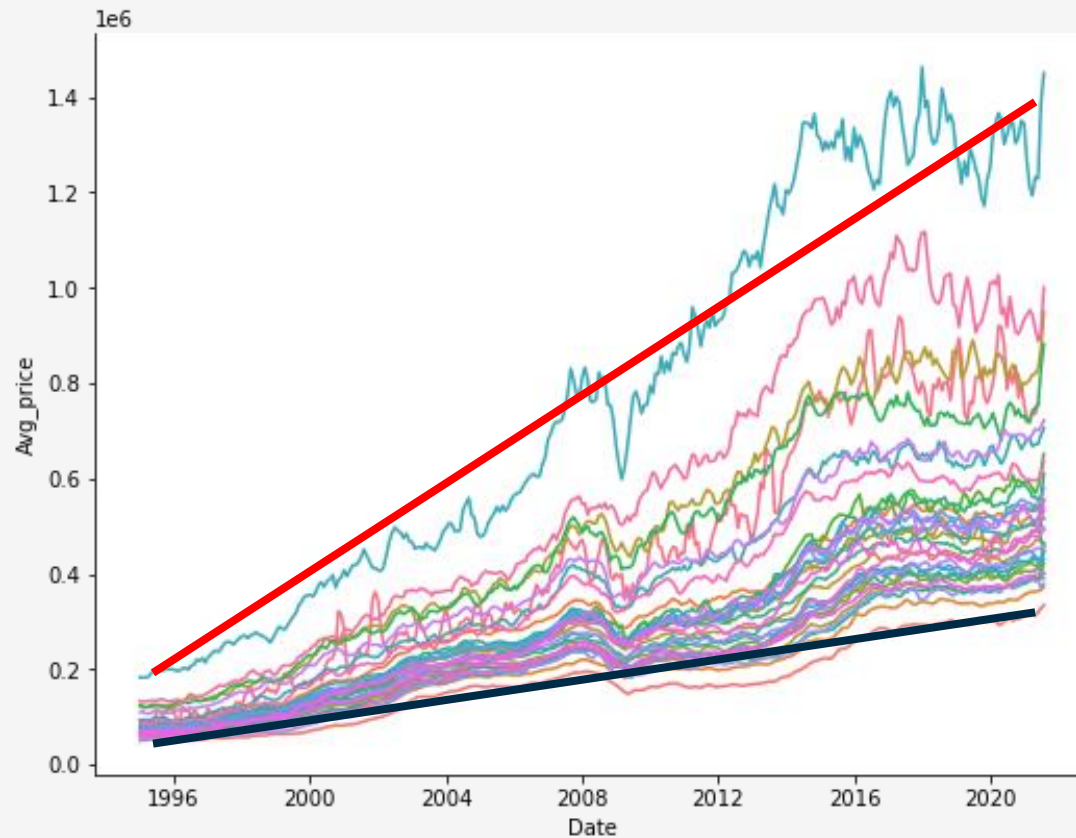
- Final Clean Data (14398 x 4)
 - Row: total 14398 records for 32 Boroughs in London
 - Columns: total 4 fields with the increasing ratios over the past 22 years

Data Analysis & Visualization #1



Data Analysis & Visualization #2

Average House Prices (£) from 1998 - 2020 in London



- London_Borough
- City of London
 - Barking & Dagenham
 - Barnet
 - Bexley
 - Brent
 - Bromley
 - Camden
 - Croydon
 - Ealing
 - Enfield
 - Greenwich
 - Hackney
 - Hammersmith & Fulham
 - Haringey
 - Harrow
 - Havering
 - Hillingdon
 - Hounslow
 - Islington
 - Kensington & Chelsea
 - Kingston upon Thames
 - Lambeth
 - Lewisham
 - Merton
 - Newham
 - Redbridge
 - Richmond upon Thames
 - Southwark
 - Sutton
 - Tower Hamlets
 - Waltham Forest
 - Wandsworth
 - Westminster

Conclusions

- Bar chart helps to see that the average house prices has been pushed up from 3.95 times (blue line) to 6.63 times (red line) across all the boroughs of London during the past two decades.
- Line chart show that Harckney has the highest house prices and the fastest increase rate among 32 boroughs, and it must be more desirable than the rest of boroughs.
- To apply the analysis to forecast the future prices of houses, it is assumed that at sometime in the future, nothing has changed. More data, such as house inventory, population, and location etc. may help gain better understanding of the data and provide better estimation of the house prices.