

Assignment 4: Renting Costs in Stuttgart

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This is the final Assignment in the Coursera course “Applied Plotting, Charting & Data Representation in Python”. I do not mind if Coursera shares this solution.

1 Region and Domain

Stuttgart, Baden-Württemberg, Germany
Cost of Living / Inflation

2 Research Question

Is the increasing population, or the decreasing availability of living space in Stuttgart responsible for the increasing of the renting costs?

3 Links

- The data for the amount of houses and flats in Stuttgart: Statistik-BW, an website with table elements, that were downloaded with `pandas.read_html()`.
- The data for the population of Stuttgart: Statistik-BW, the same source like in the first link.
- The data for the rent prices in Stuttgart: Statista, this website provides the possibility to manually download an Excel file, which then was imported with `pandas.read_excel()`.

4 Image

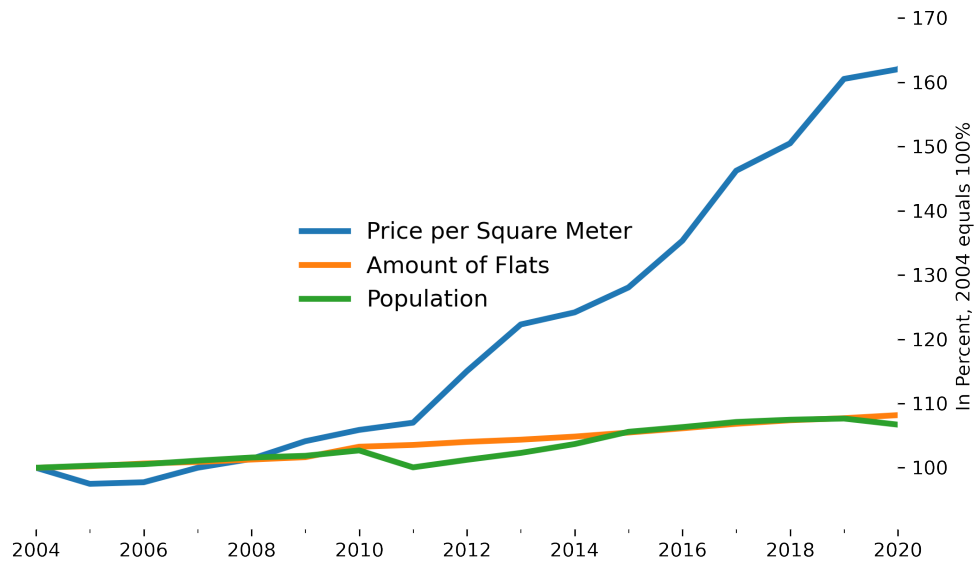


Figure 1: Population, Living Space and Square Meter Rent in Stuttgart, Germany

5 Discussion

The image in figure 1 shows a line graph of three different time series over a time span from the year 2004 to 2020. The lines represent the price per square meter (roundabout 10 square foot), the amount of flats and the population. All time series were normed in such a way, that the year 2004 represents 100 %. All Lines are from the City of Stuttgart.

The figure shows, that whereas the population of Stuttgart grew by roundabout 8 % in 16 years, and the amount of flats even exceeded that growth rate slightly with 9 %, the prices for renting an apartment in Stuttgart have risen by roundabout 62 %.

Therefore this data does not support the theory, that the prices for renting an apartment in Stuttgart have risen to to excess demand or supply shortage.