

## **The San Francisco House Rental Market and Airbnb over the years**

### **The Story:**

For the last two decades, San Francisco and the surrounding Bay Area have been a magnet for recent graduates, lured by numerous innovative companies and the continuing boom of the tech sector. But lately, only those who earn some serious money can afford to stay. San Francisco is cursed with the most expensive rental market in the US, mainly due to the previously mentioned Tech Industry nearby. According to Zillow, an online real estate company, the overall Median Rental Price skyrocketed from ca. 2500 USD\$ in 2011 to more than 4100 USD\$ in 2015. 94% of all rents are above 2000 USD\$.

Since San Francisco is also a popular tourist destination, the popularity and usage of the platform Airbnb has grown extensively since its creation. Airbnb is an online, short-term rental marketplace for houses, apartments, and private rooms. But as Airbnb has grown, so have the number of concerns about its effect on the traditional rental market.

### **The Emerging Proposal:**

The question “**What are the effects of Airbnb on San Francisco’s rental market?**” forms the basis of our research project. In essence, we will tell a story about potential interactions between San Francisco’s rental prices increase and the developing presence of Airbnb in this city.

### **Data:**

We will be working with two datasets: monthly, average [rental prices](#) for the general housing market for San Francisco (provided by Zillow - a real-estate/tech company), and [Airbnb rental data](#) (from Insideairbnb.com - a site that provides data scrapped from the Airbnb site). The Airbnb data contains information about the number of listings, prices, ratings, location, type of home, and more from the year 2015 onwards. We will focus on trends and attempt to reveal the relationship between these two markets as Airbnb gets more and more important over the years in analysis.

**Overview of the Main Analysis:**

We will start by some general (more descriptive) visualizations to show the evolution of Airbnb over the years. We will then move on to relate the trends in Airbnb with the trends in the general house renting market. Here we use the merger of the two data sets to work out a deeper understanding of the interconnections between these variables.

Our final analysis will also contain a deeper dive into the dynamics of Airbnb in San Francisco where we will explore COVID-19 as a structural shock to both markets.