

How Do Housing Price Changes Affect Rent Affordability Across U.S. Cities?

Yulin Li

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- **Research Question:**

Do rising home prices lead to higher rents?

- **Data:**

Zillow ZHVI & ZORI (1996–2024), metro-level time series

4 sample cities: San Francisco, Austin, Pittsburgh, Atlanta

- **Model:**

$$\text{rent_growth} = \beta_0 + \beta_1 \cdot \text{home_price_growth} + \varepsilon$$

- **Finding:** Positive relationship ($R^2 = 0.47$, $p < 0.001$)

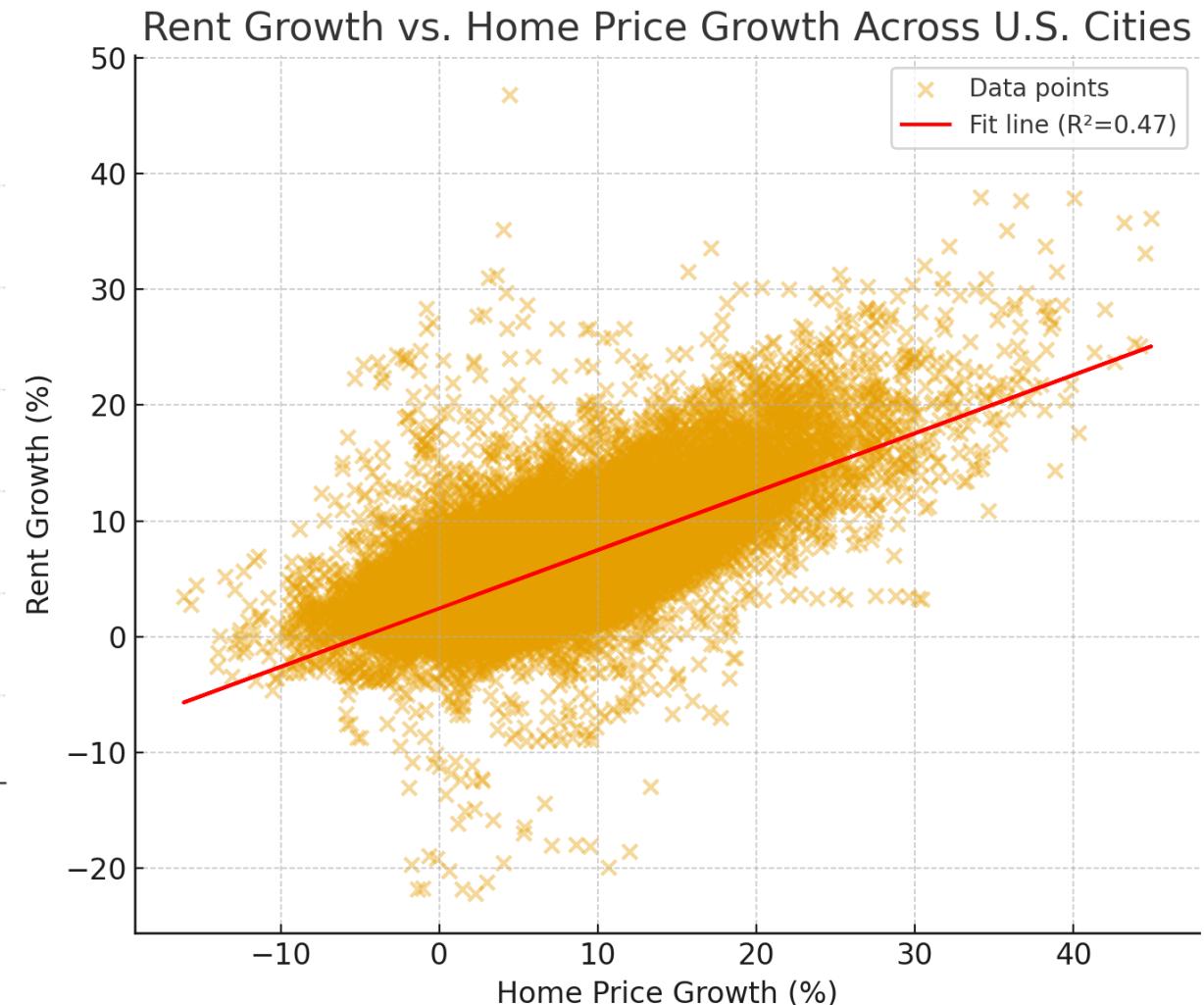
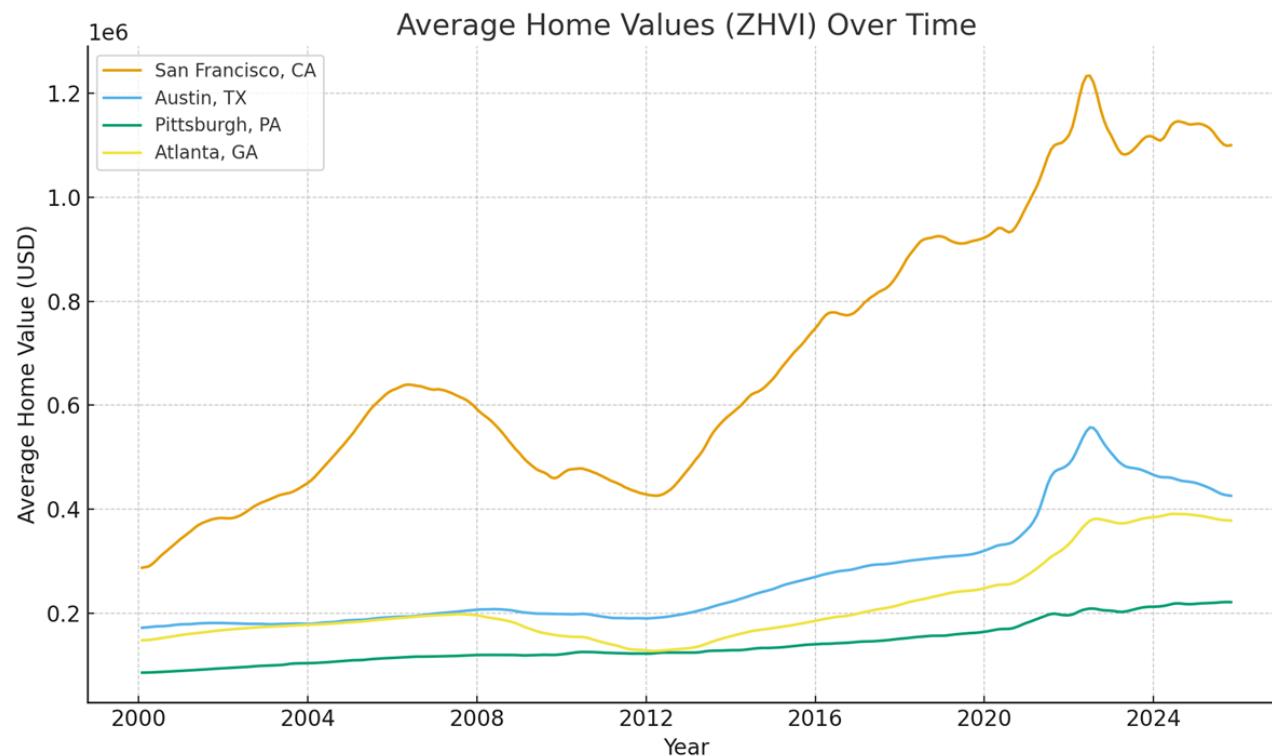
- Each 1% ↑ in home price → ≈ 0.4–0.5% ↑ in rent

- **Interpretation:** Rising home prices worsen rent affordability

- **Regional Differences:** Stronger in Austin & San Francisco

- **Next Steps:** Add controls (income, housing supply, migration)

Rent Growth vs. Home Price Growth



“Affordability pressures spill over from ownership to rental markets.”

Note: Because the data are time-series by metro, residuals may be autocorrelated. Future work could use robust standard errors (e.g., Newey–West) to account for this.