

Economic Question 1: Did real home prices realign with real rent prices after the Great Recession?

- Economic theory suggests that real rent and housing prices should track each other (Shiller 2006).
- Between 1997 and 2005, Shiller (2006) found housing prices to have spiked and anticipated that they would fall shortly thereafter.

Economic Question 2: Is there heterogeneity in housing and rental price changes by city, and has this pattern changed over time?

- Counties that experienced larger declines in **housing net worth** in 2006-2009 also experienced larger declines in non-tradable employment, suggesting declines in housing values were an important driver of the Great Recession (Mian and Sufi, 2013).

My Extensions:

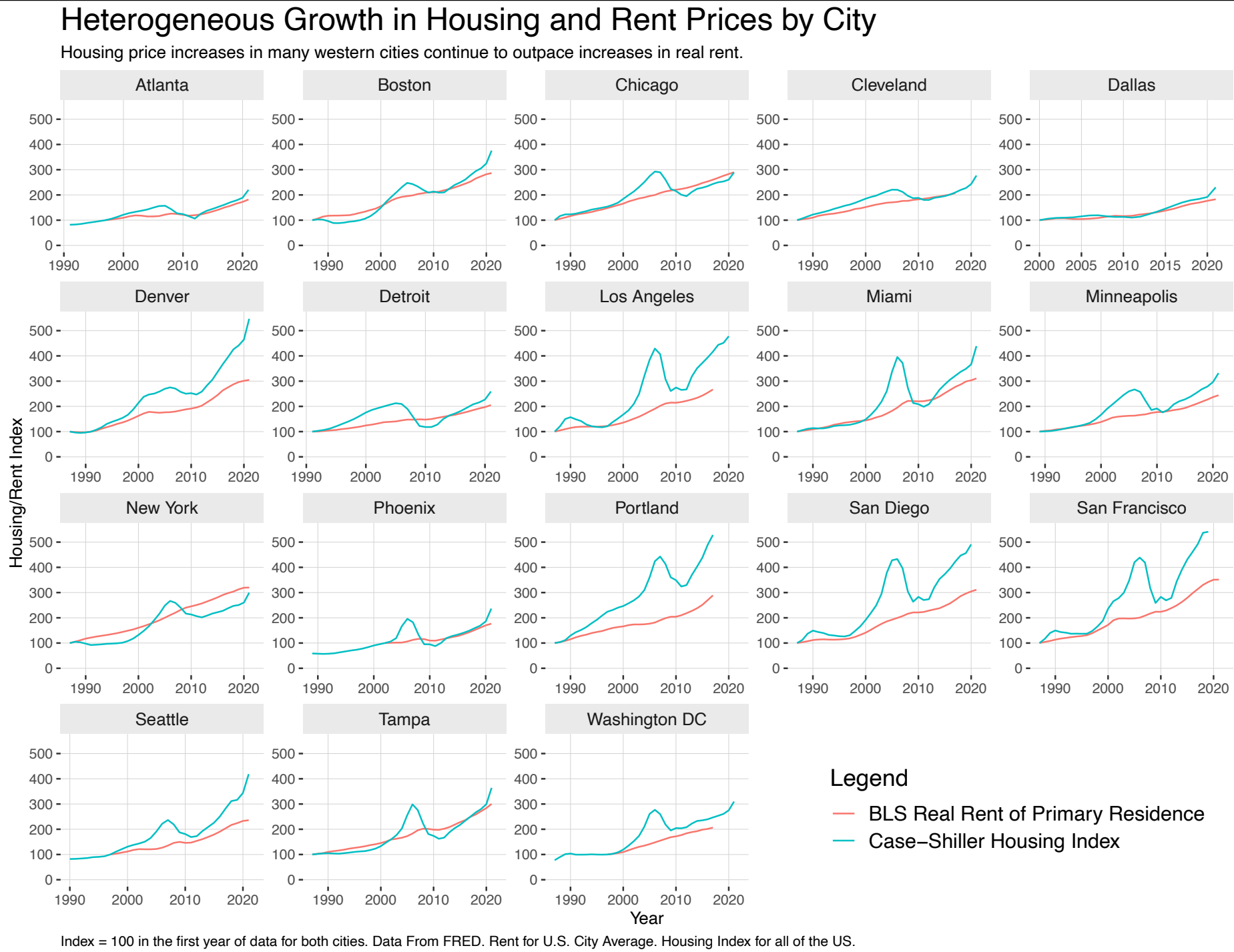
- Replicate Shiller’s chart with data through 2021
- Expand Shiller’s analysis to the metropolitan scale
- Assess extent to which the divergence in housing and rental prices was associated with declines in housing values: $\Delta HNW_{2009 - 2006} = \beta_0 + \beta_1 \frac{Housing\ Index_{2006}}{Rent\ Index_{2006}} + \epsilon$

Data:

Name	Source	Method Accessed
Case Shiller Housing Index	S&P CoreLogic	<i>fredr</i> R package
CPI Real Rent of Primary Residence	Bureau of Labor Statistics	<i>fredr</i> R package
Change in Housing Net Worth '06 – '09	Sufi and Mian (2014)	Mian’s website
2005-2009 Housing Units by County	5-year ACS	<i>tidycensus</i> R package
County CBSA Delineation Files	U.S. Census Bureau	Census Bureau Website

Limitations

- Some city-level data ended before 2022.
- Imprecise mapping between CBSA and county.
- 18 cities does not provide much heterogeneity.
- Other ACS data only begins in 2005.



Discussion

- Shiller was right.
- 1 unit increase in 2006 CS:rent index associated with 11 pp decline in housing value (06-09)
- Housing prices in West Coast cities have sky-rocketed since ~2010.
- In San Francisco, this could be explained by limited market-rate supply (>60% rent-controlled).
- Increases everywhere show need for more housing in cities.