

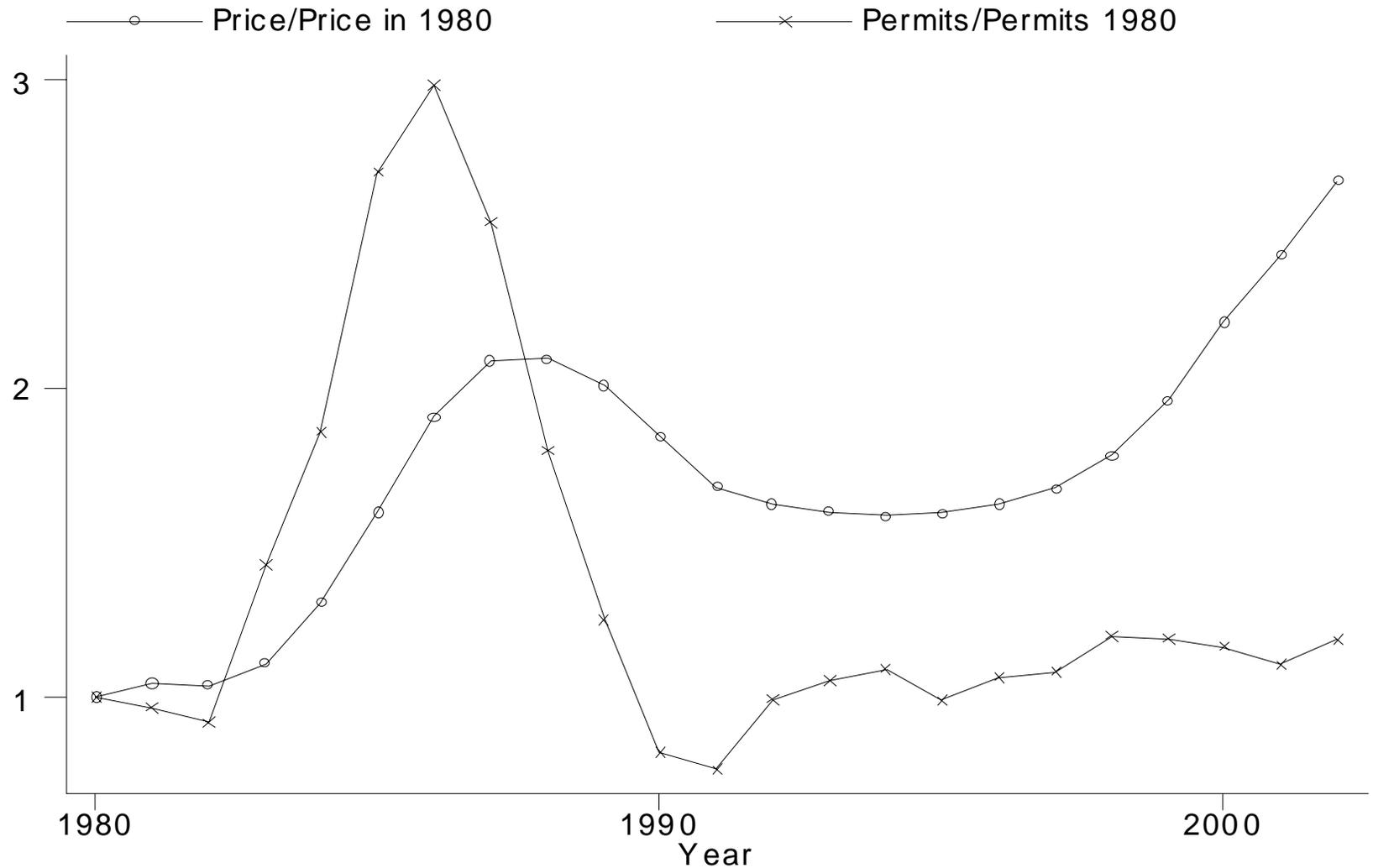
Housing Supply Restrictions and the Boston Economy

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Housing Quantity and Price in the Boston Metropolitan Area since 1980



Regulation vs. Land Area as a Barrier to New Development

- One extra acre per lot led to 38 percent fewer permits between 1980 and 2002; extra regulations depress development by 10 percent each (GSW).
- “The median lot size for new single-family houses was 0.91 acres, up from 0.76 between 1990 and 1998” (Jakabovics).
- Land densities are often not particularly high: there are 27 localities in greater Boston with less than one home for every two acres.
 - These allow fewer than 30 units per year.

The Economic Consequences of Restricting Housing Supply

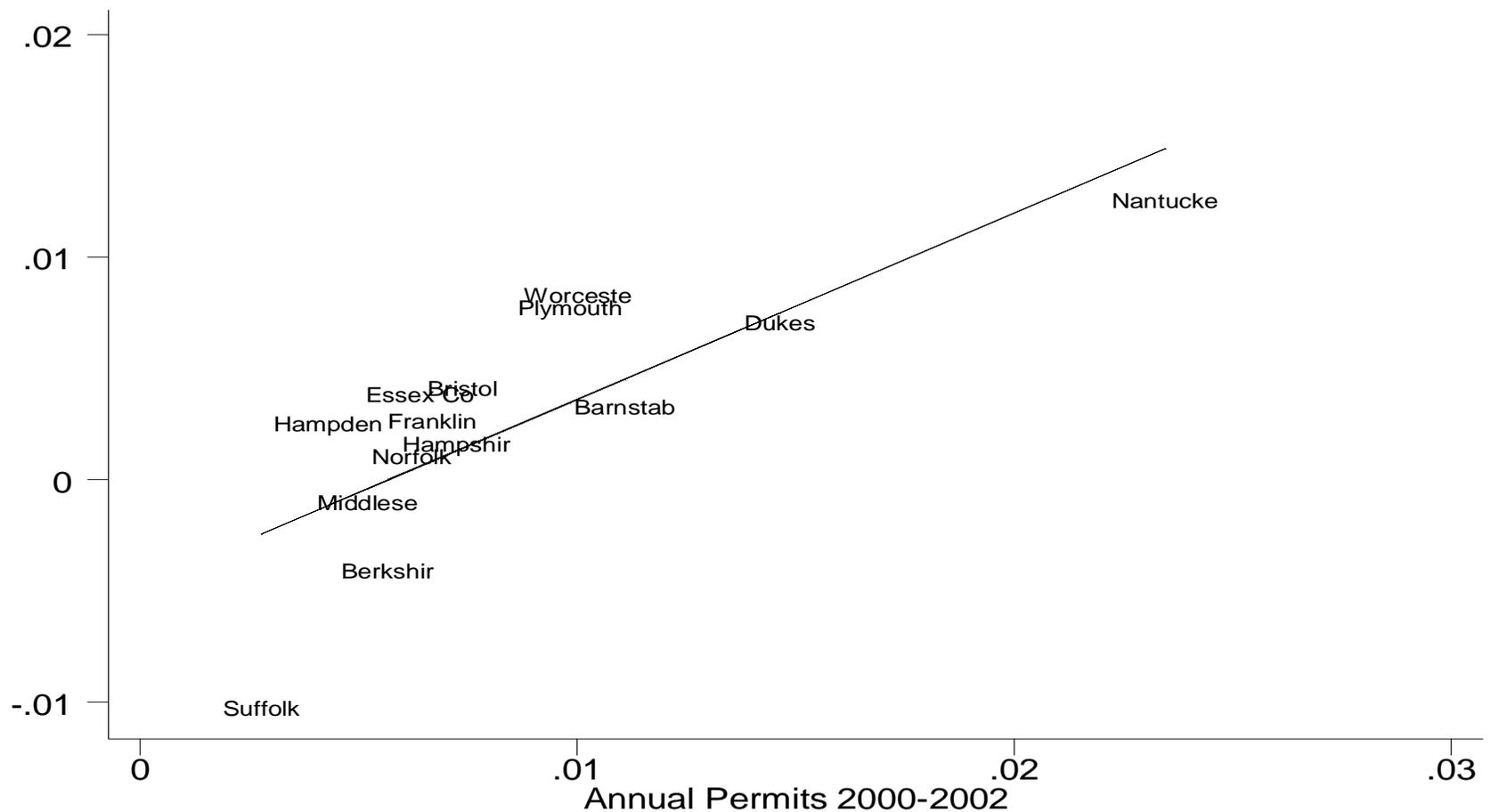
- No Homes, No People, No Jobs
- Restricted Supply Means Volatile Housing Prices
- Firms Eventually Do Leave High-Cost Areas and Wages Eventually Do Fall
- High Prices Change the Character of the City

Why is Population Declining in Greater Boston?

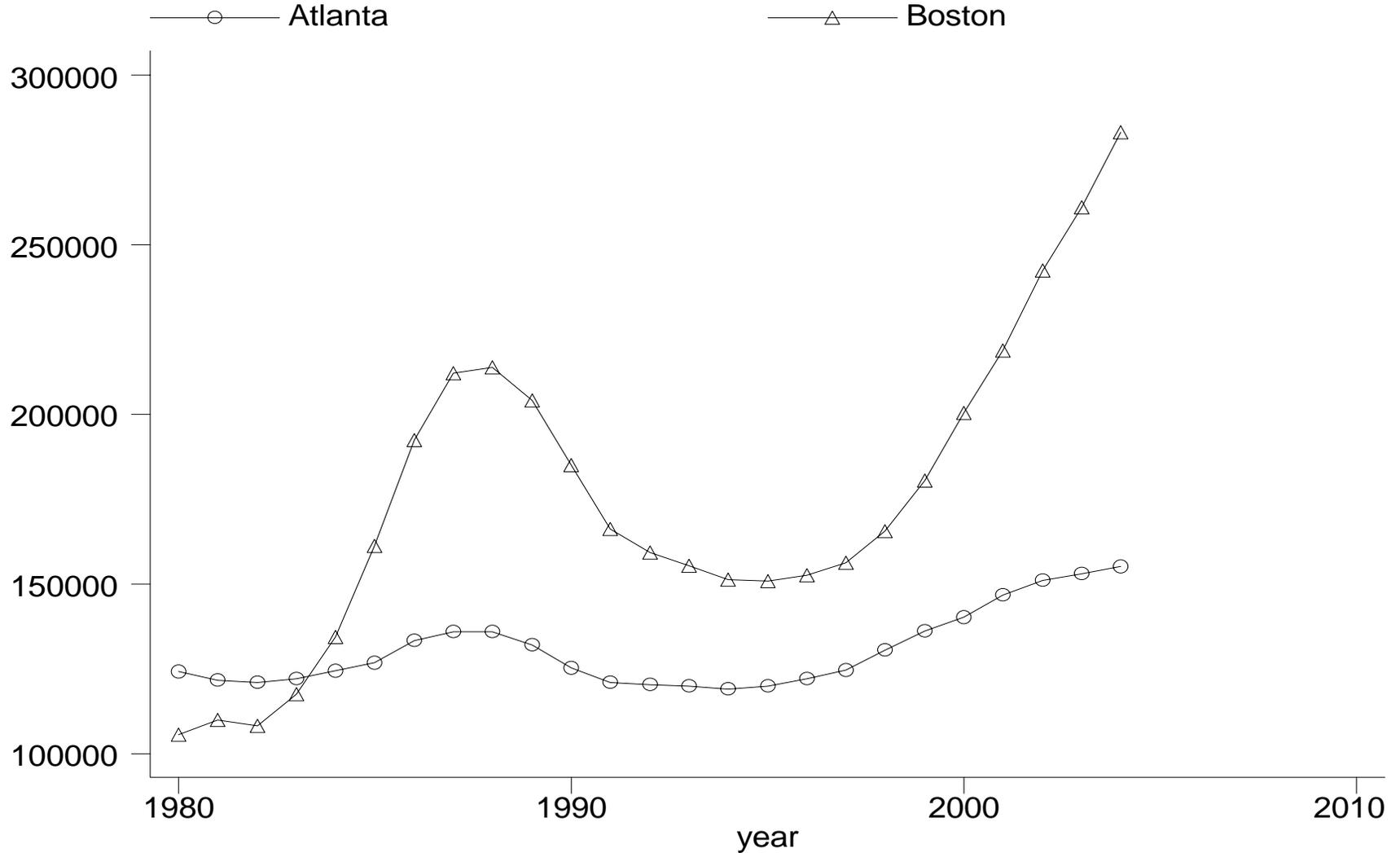
- Some claim this is a sign of economic decline or social exclusion.
- But these are both demand factors.
- If demand was falling, median house prices would not have risen from \$365,000 in mid-2003 to \$419,500 in mid-2005.
- Therefore, this is a supply problem.
- Without new units, places loses people
 - Housing depreciation and fewer people per unit
 - Permits/Housing Stock has to be .42 percent per year

Population Growth and Permits in Massachusetts' Counties since 2000

Annual Population Growth 2000-2002

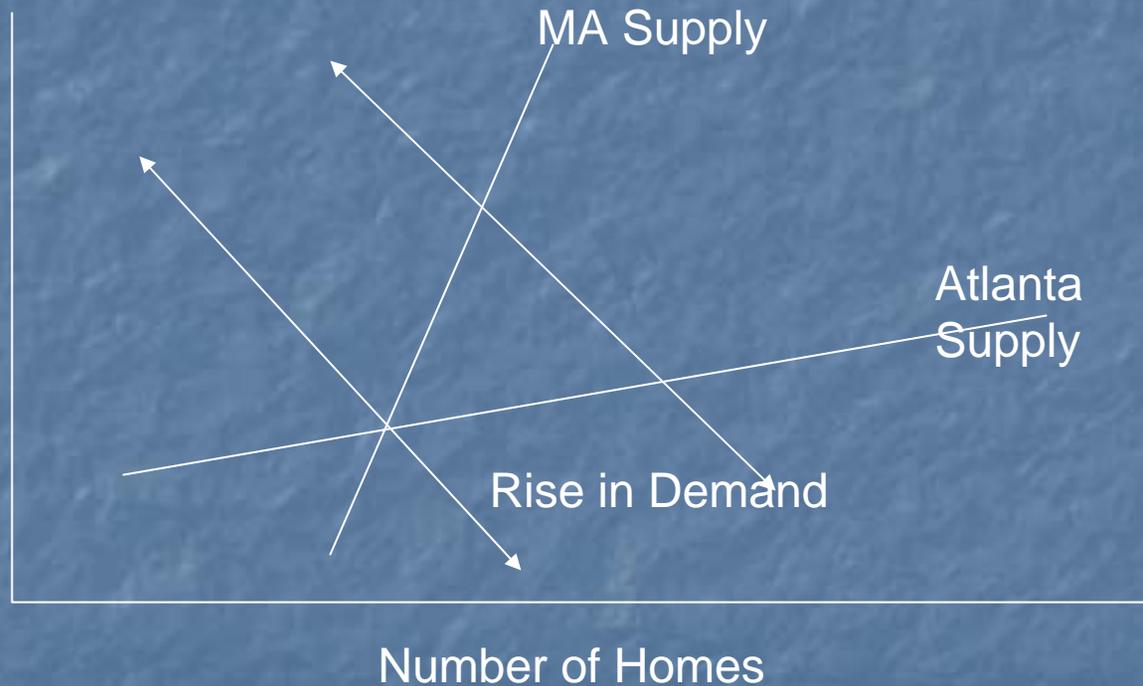


Limited Supply Leads to Volatility



Supply Elasticity and Price Volatility

Price



Price Volatility and Supply Across the U.S.

Housing Price Volatility

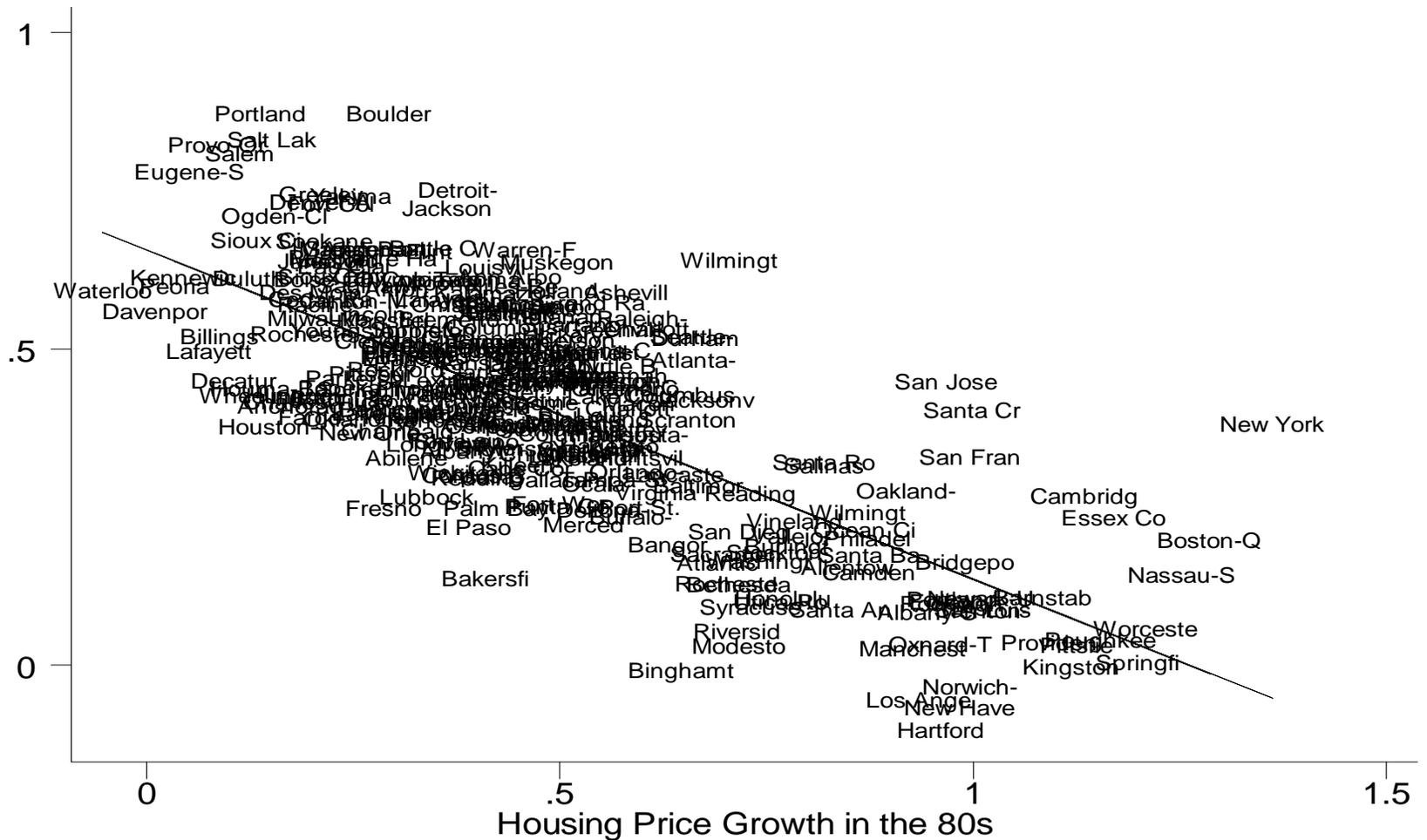


Why Does Volatility Matter?

- Net wealth changes rapidly, which can have effects on consumption.
- Related industries, like banking, may be buffeted by housing price shocks.
- In particular, do not judge the impact of housing restrictions by looking at today's price – mean reversion is extremely strong.

Price Growth in the 1980s and 1990s

Price Growth in the 90s



Mean Reversion

(Glaeser and Gyourko, forthcoming)

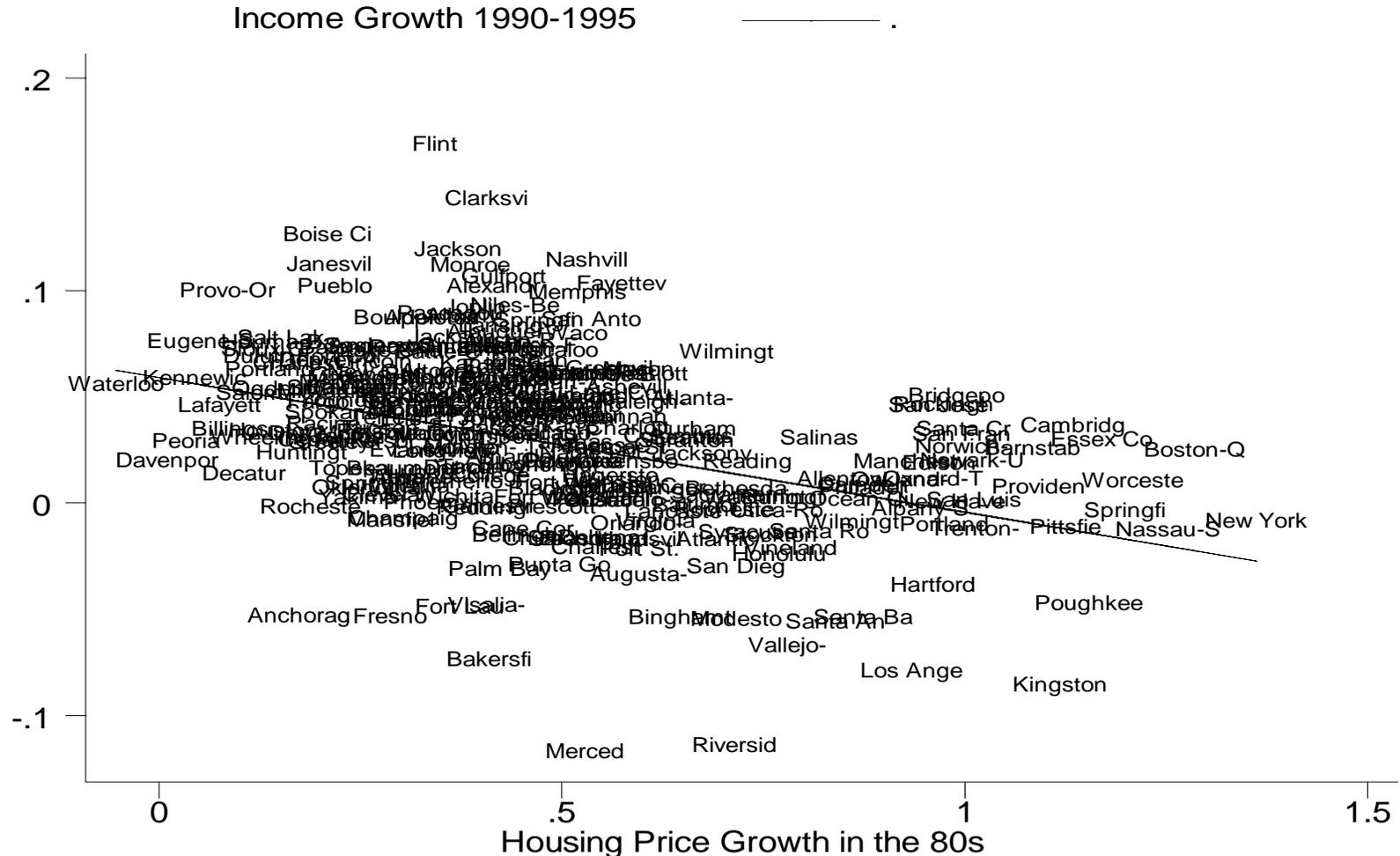
Relative to region trends and national prices:

- For every dollar increase in prices over five years, prices fall by 33 cents over the next five years.
- About one-half of this is related to declining incomes in high-cost areas.
- In “red states,” the other half comes from new supply.

Supply Restrictions and Income

- A productivity shock to a region will push up income and housing prices.
 - Using oil and tech shocks, we estimate \$1 of wage increases pushes up prices by \$6.50.
- Firms do seem, however, to be able to eventually leave high-cost regions.
- In a recent *Boston Globe* survey , 55 percent of the state's CEOs named the high cost of living as the biggest economic challenge facing the state.

Price Growth in the 1980s and Income Decline 1990-1995



Income and House Prices

(Glaeser and Gyourko, forthcoming)

Relative to area trends and national controls:

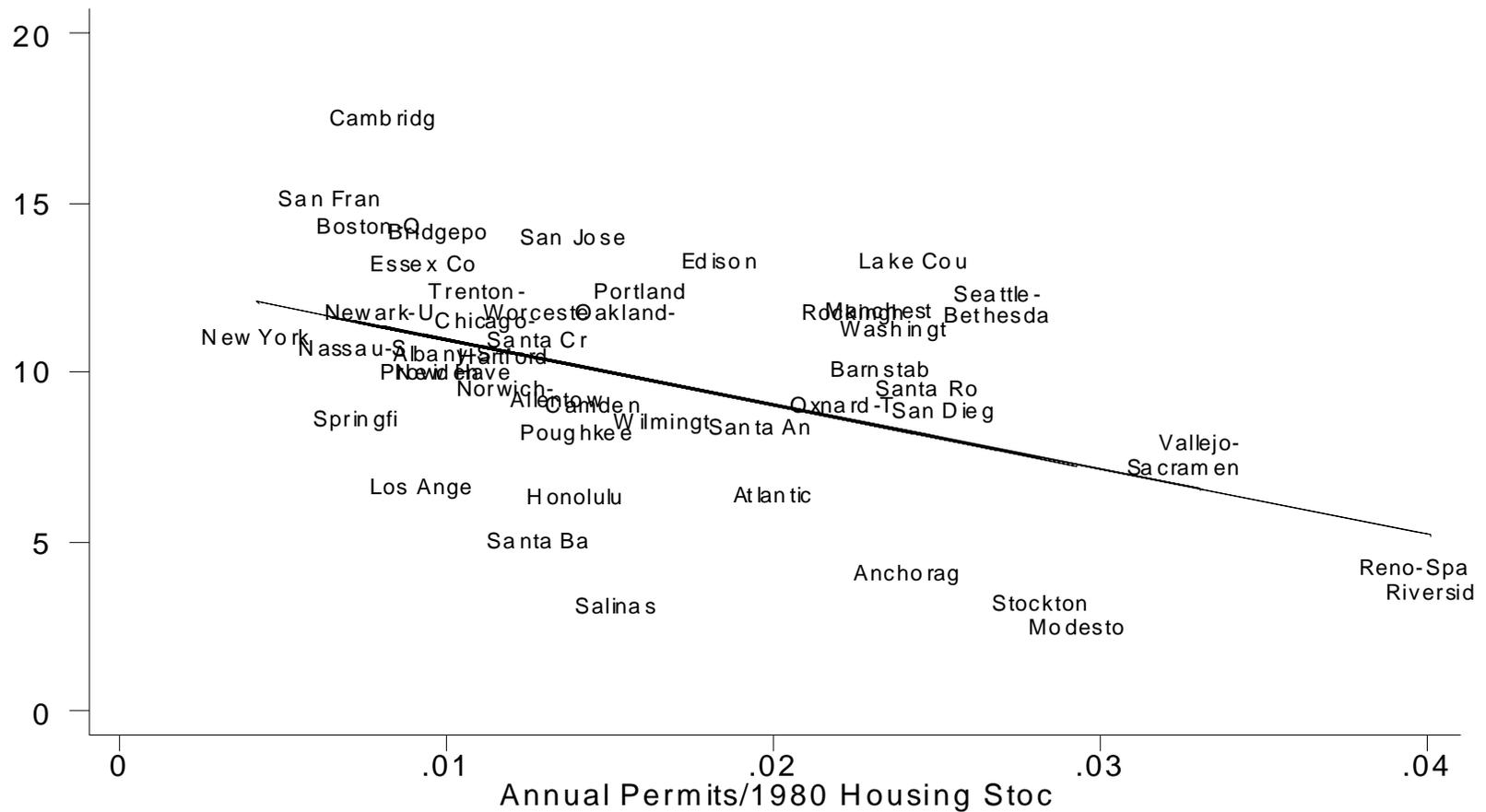
- If prices go up in one five-year period by \$50,000, incomes drop by \$1,500 during the next five-year period.
- Employment drops by five percent with that same increase.
- This does not necessarily mean that residents of greater Boston will become poorer.
- Rather, differences between wages in Boston and wages in other regions are likely to shrink over time.

Housing Supply and the Character of Greater Boston

- Restricting housing supply ensures that only wealthier people can afford to live in the region.
 - But it does not appear to make the region older or less inclusive of outsiders.
- This is easiest to see with the region's skill base.
- High skill levels are unlikely to hurt economic growth, but they do lead to less economic diversity.

Fewer Permits → A Boutique City (Higher Cost, Larger Cities)

Change in BA Graduates 1980-2000



The Economic Consequences of Housing Restrictions

- A smaller economy with volatile housing prices catering to elites.
- Wages and employment do eventually decline, relative to trends.
- The biggest economic losses are incurred by outsiders and the nation.
- The country loses when its most productive regions make it much harder for people and firms to take advantage of that productivity.