Affordability, Financial Innovation, and the Start of the Housing Boom

(Dokko, Keys, & Relihan 2015)

Discussion by

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Overview

- **Important question**
  - What was the relationship between rising house prices and the use of alternative mortgage products during the last housing cycle?

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     Q: Is alternative mortgage usage higher in these months?
     A: Yes, especially in "late booming" markets
  2. Estimate structural breaks in growth of alternative mortgage share
     Q: Do these break points precede or follow house price breaks?
     A: They tend to follow

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- **Authors' takeaway**

  "Our results are most consistent with the view that borrowers turned to [alternative mortgage] products in order to afford increasingly more expensive homes, rather than the availability of these products precipitating a trend-break in house prices."

Comment #1

Why Focus on Only the Month the Boom "Begins"?

- Authors identify the beginning of a local housing boom by searching for structural breaks in the monthly time-series of house price growth rates

$$\delta P_{c,t} = \alpha_c + \beta_c \times \mathbb{1}_{t>t_j^*} + \epsilon_{c,t}$$

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- **Pedantic aside:**
  - $\widehat{t^*}$ has non-standard distribution under the null of no break point
  - Need to be careful in how you deem break points as "significant"
  - See Andrews (1993)

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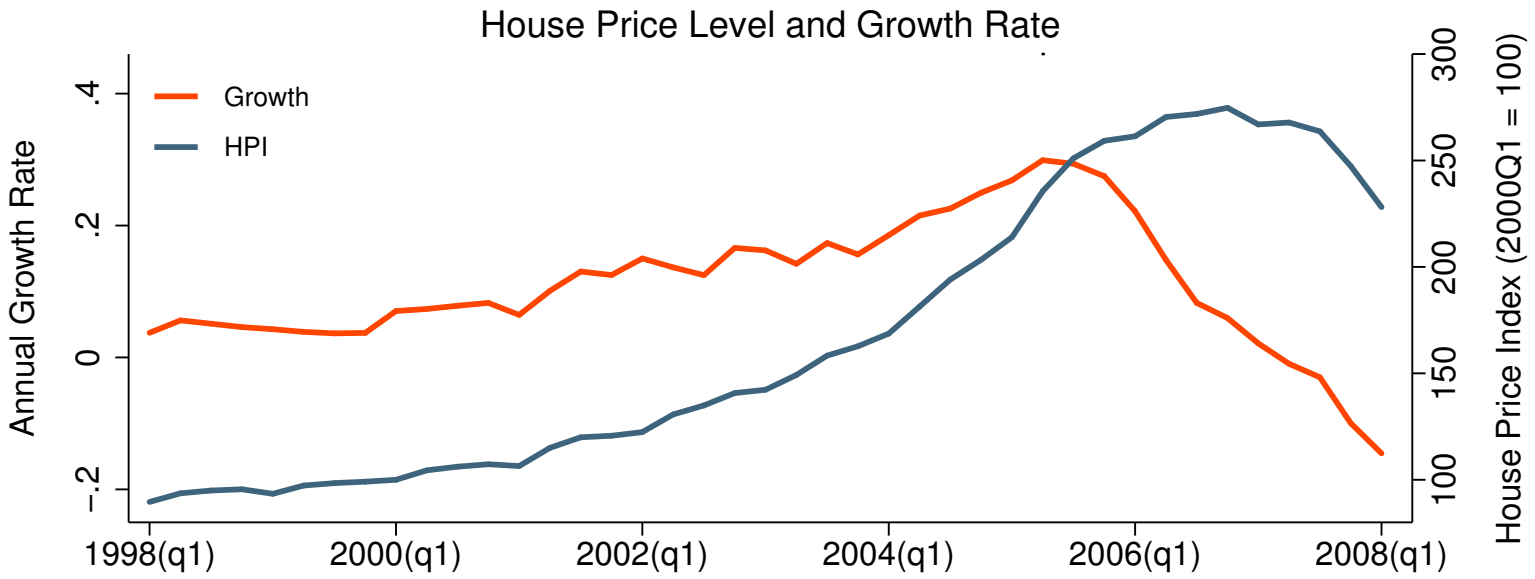
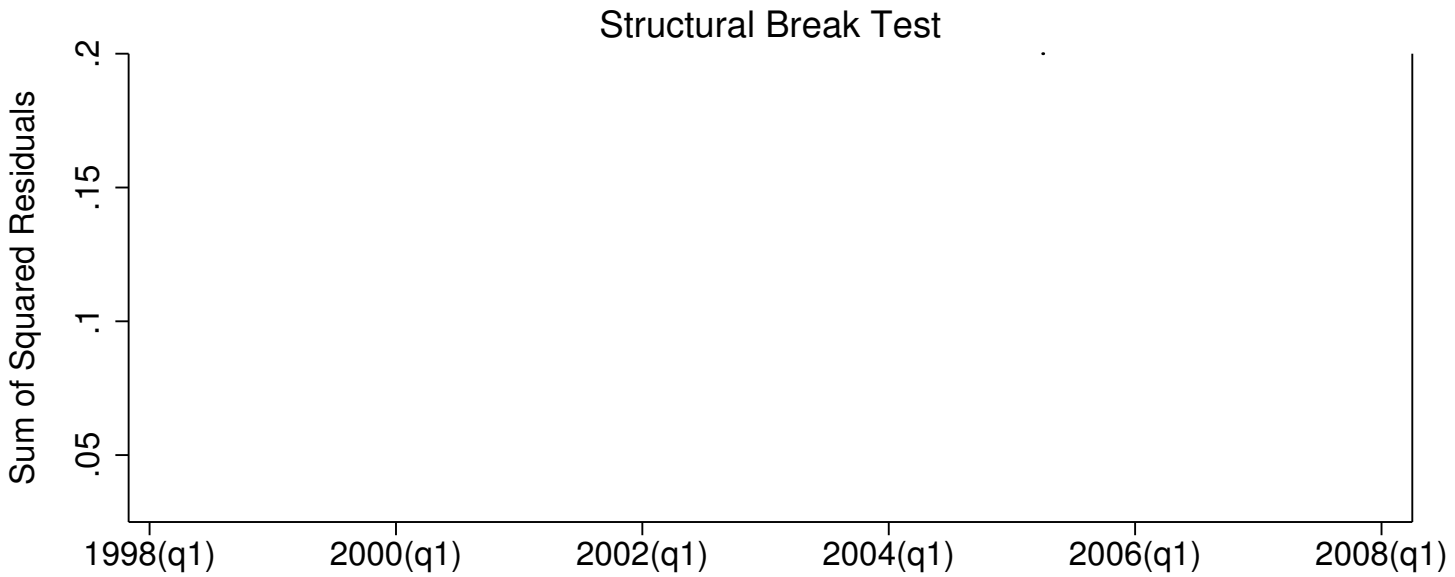
- **Actual questions:**
  - What about other months?
  - What does the full time-path around $\widehat{t^*}$ look like?
  - False monthly precision? (many t_j^* produce similar SSR $\rightarrow$ flat objective)

Miami, FL: Minimizing a Flat Objective Function?





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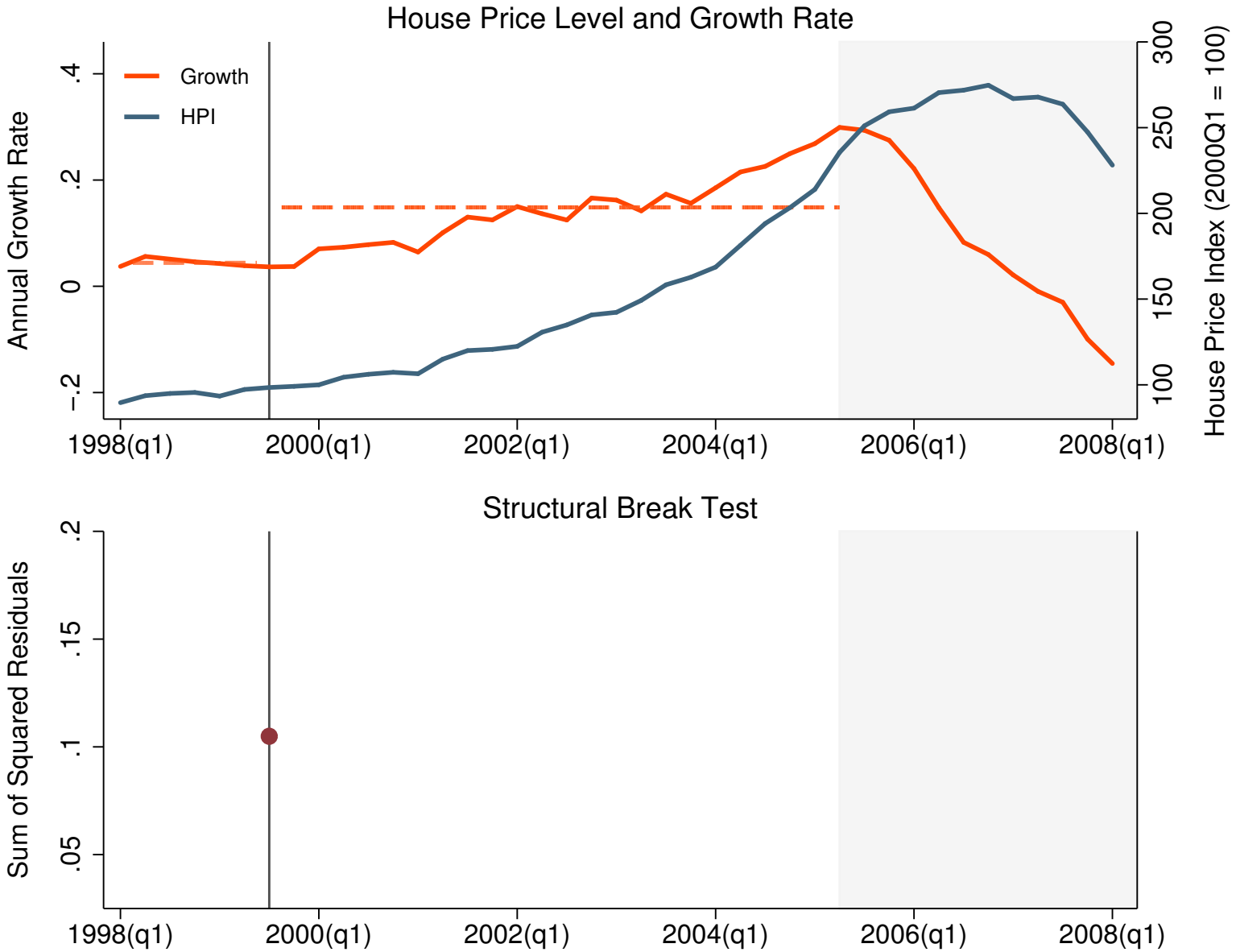

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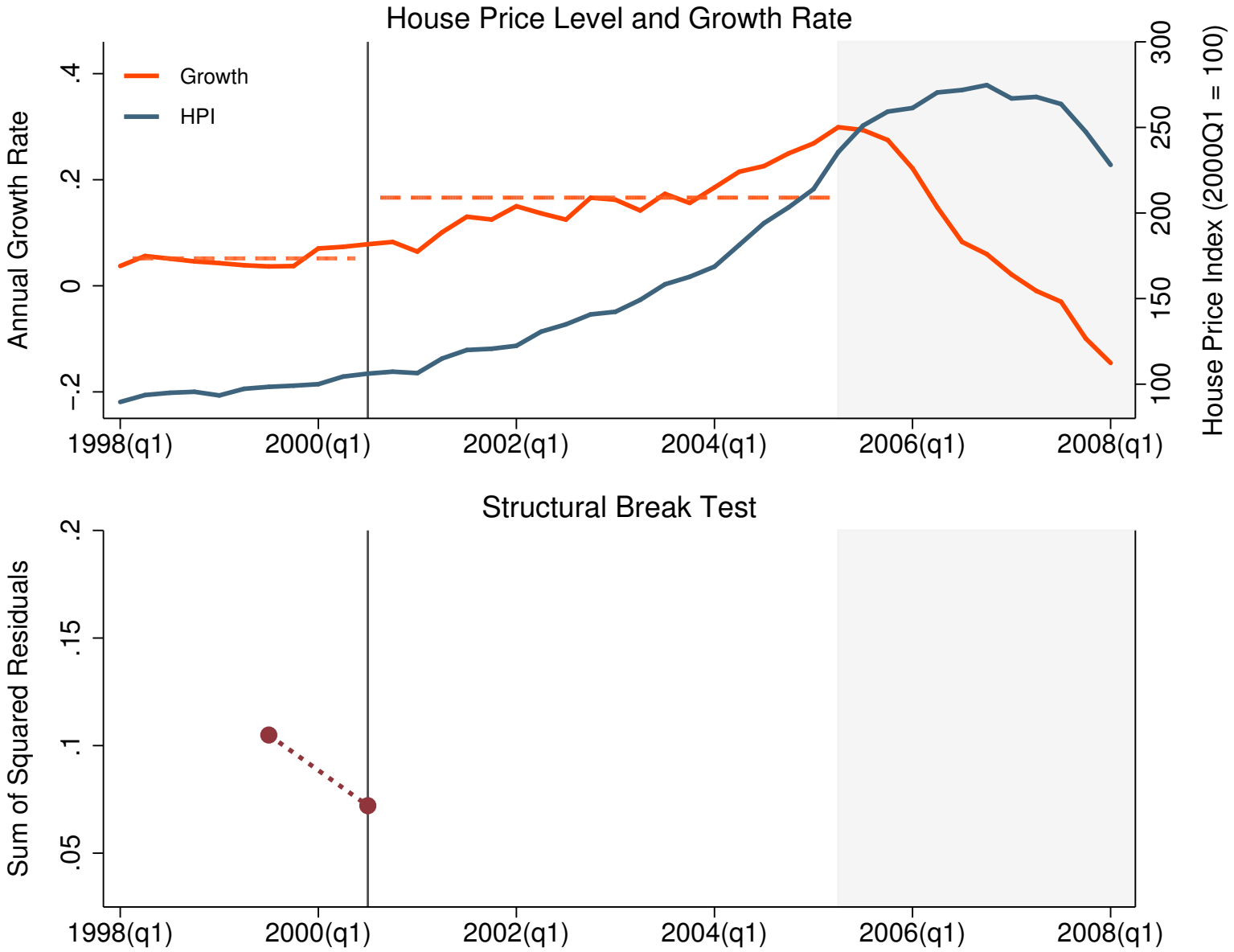

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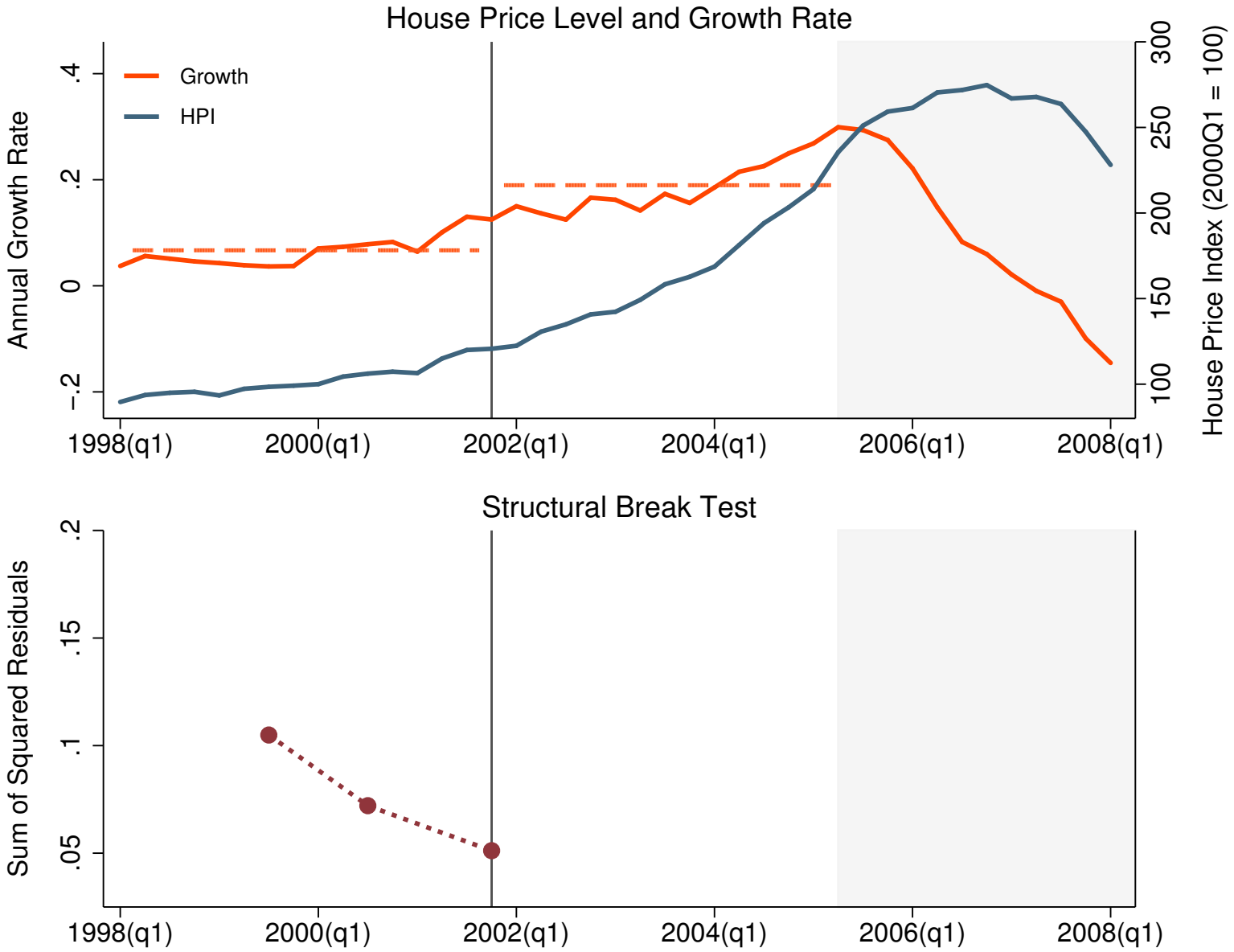

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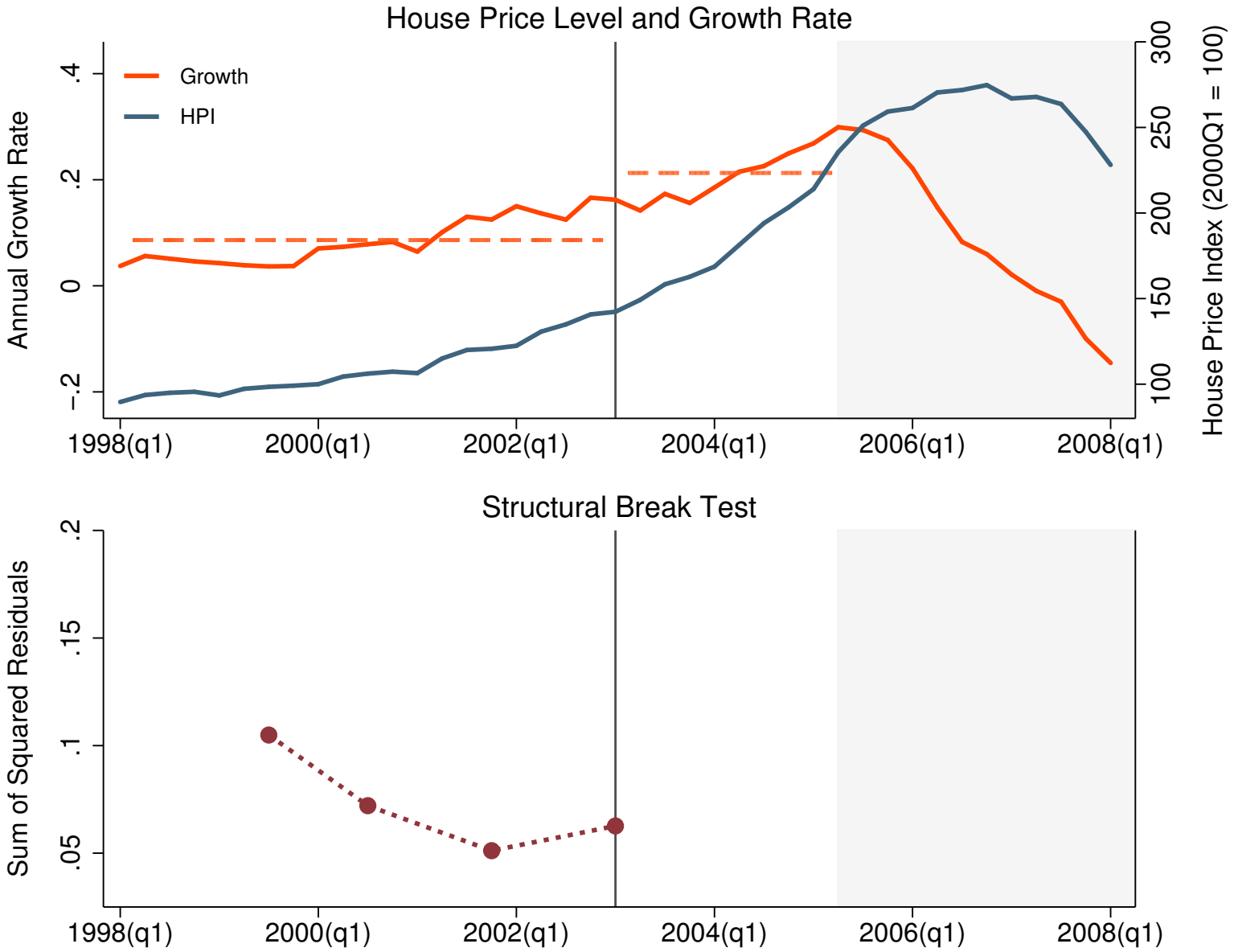

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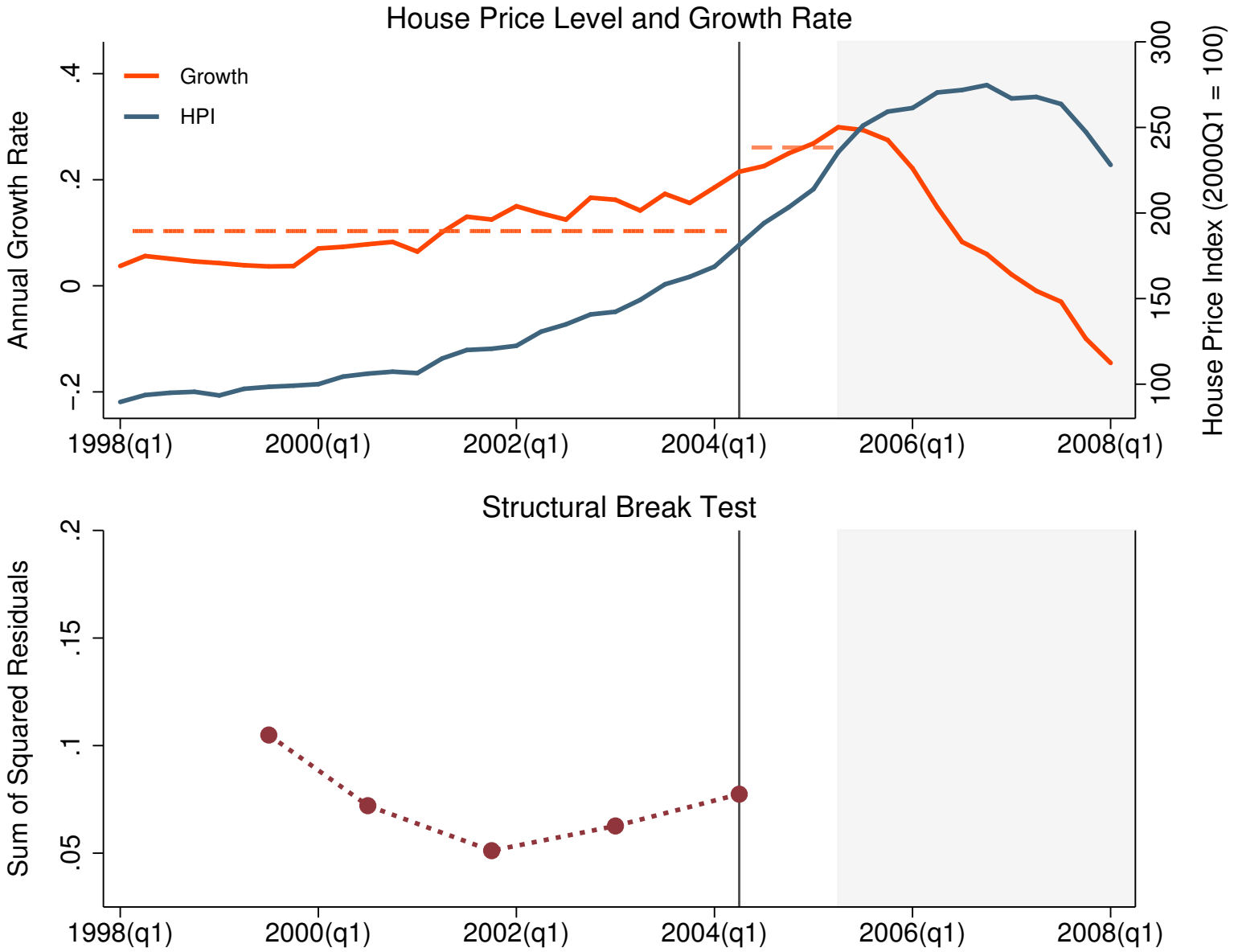

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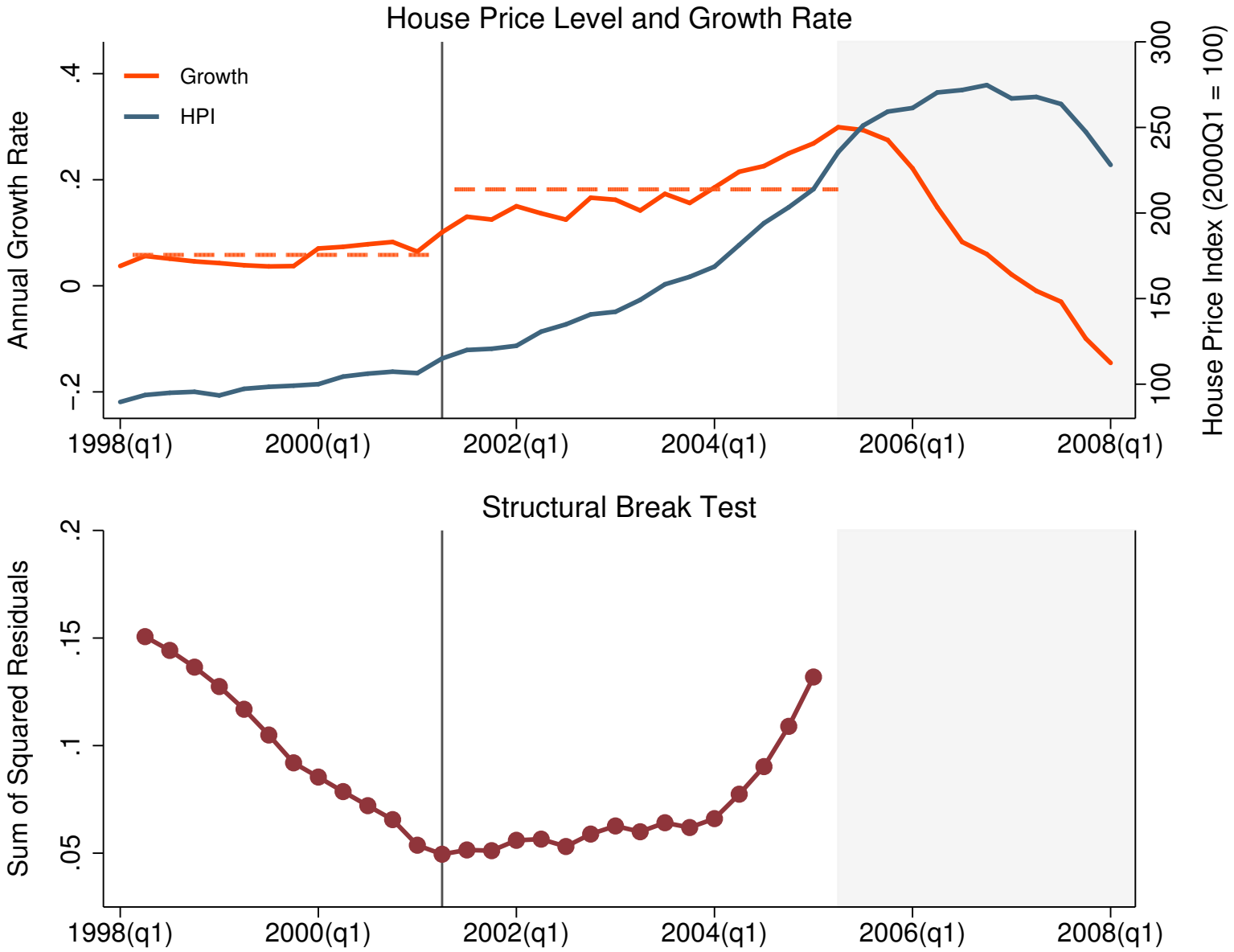


Comment #2

Early-vs-Late or just Multiple Booms?

- The authors distinguish between early and late booms

  "Our results suggest that in counties with early house price booms alternative mortgage products and deteriorating underwriting standards did not play as large of a role in house price growth."

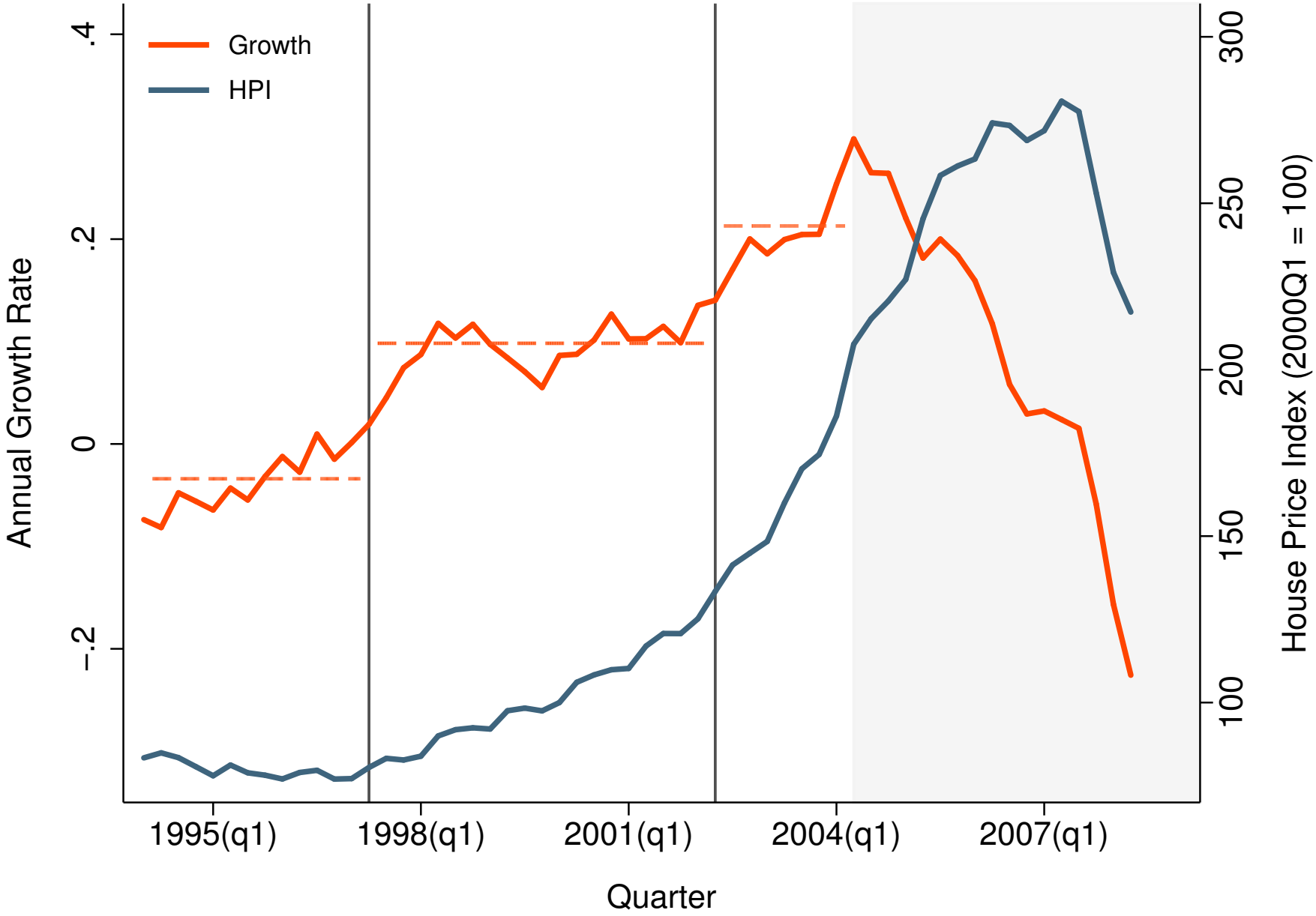
- Also examine the order of house price-vs-alternative financing breaks

  "At a minimum, the results in Table 4 suggest that the use of alternative financing features did not systematically precede the start of local house price booms."

- However, the data span potentially two distinct housing booms
  - The early to mid-2000s boom that preceded the Great Recession
  - The tech boom of late 1990s

- Only allowing for a single break point could affect these interpretations

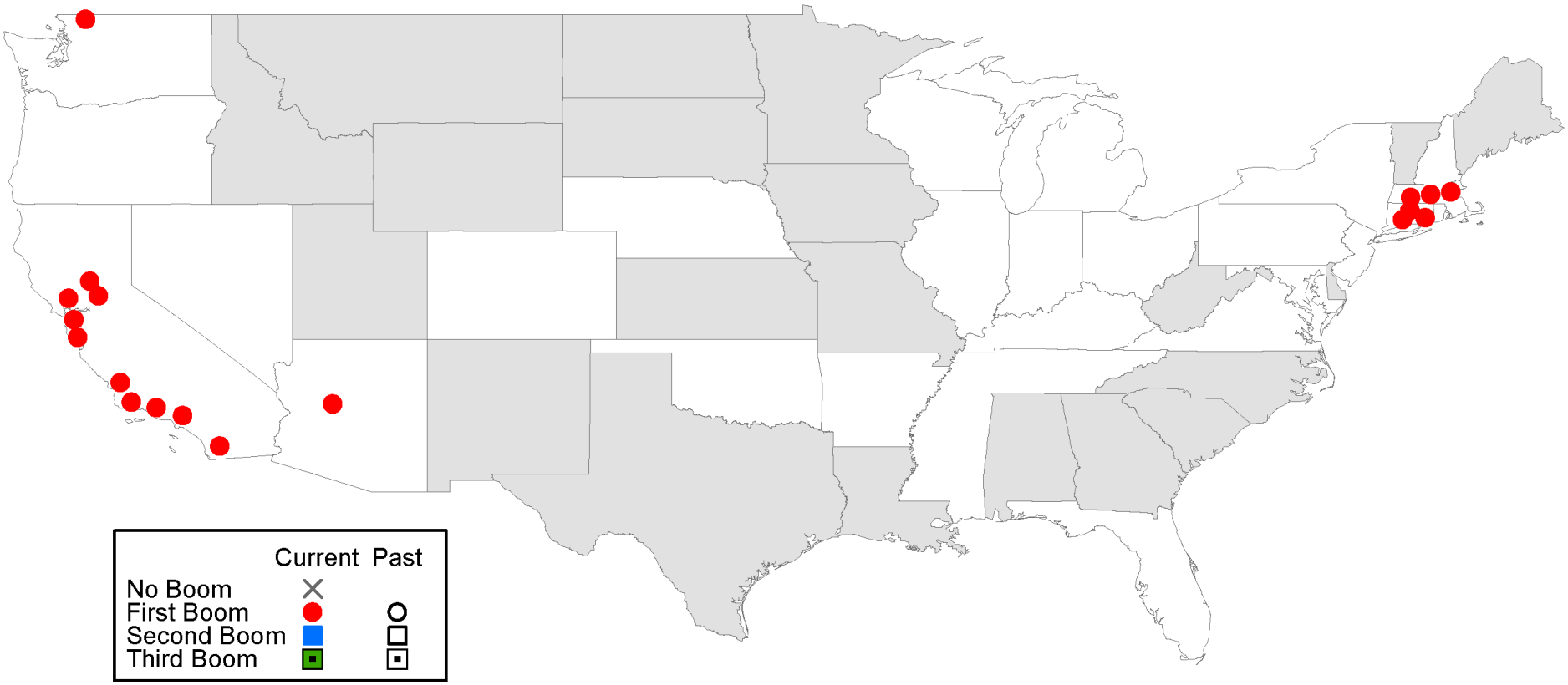
Los Angeles, CA: Early Boom or Multiple Booms?



The Timeline of Local Housing Booms: No Boom

Source: DeFusco, Ding, Ferreira, and Gyourko (2016)

The Timeline of Local Housing Booms: 1996–1997



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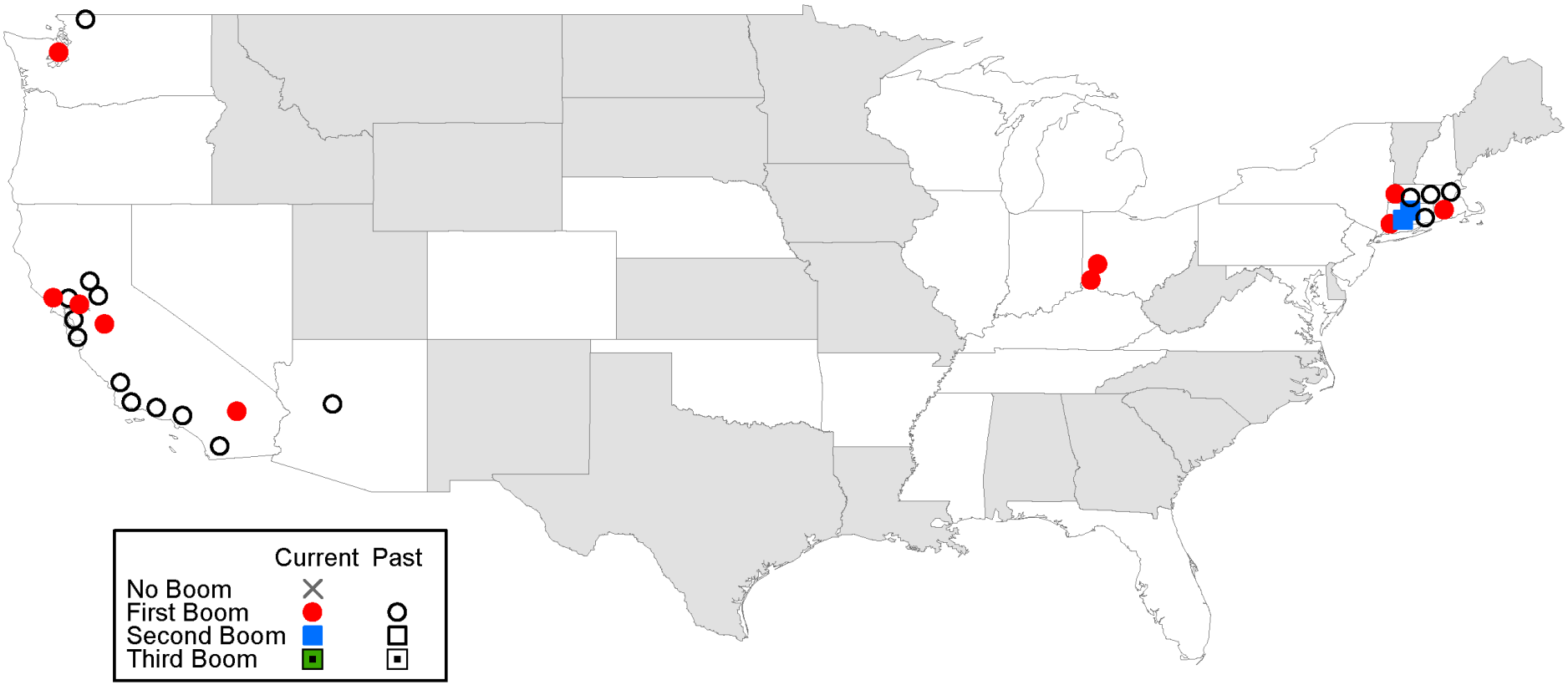
The Timeline of Local Housing Booms: 1998



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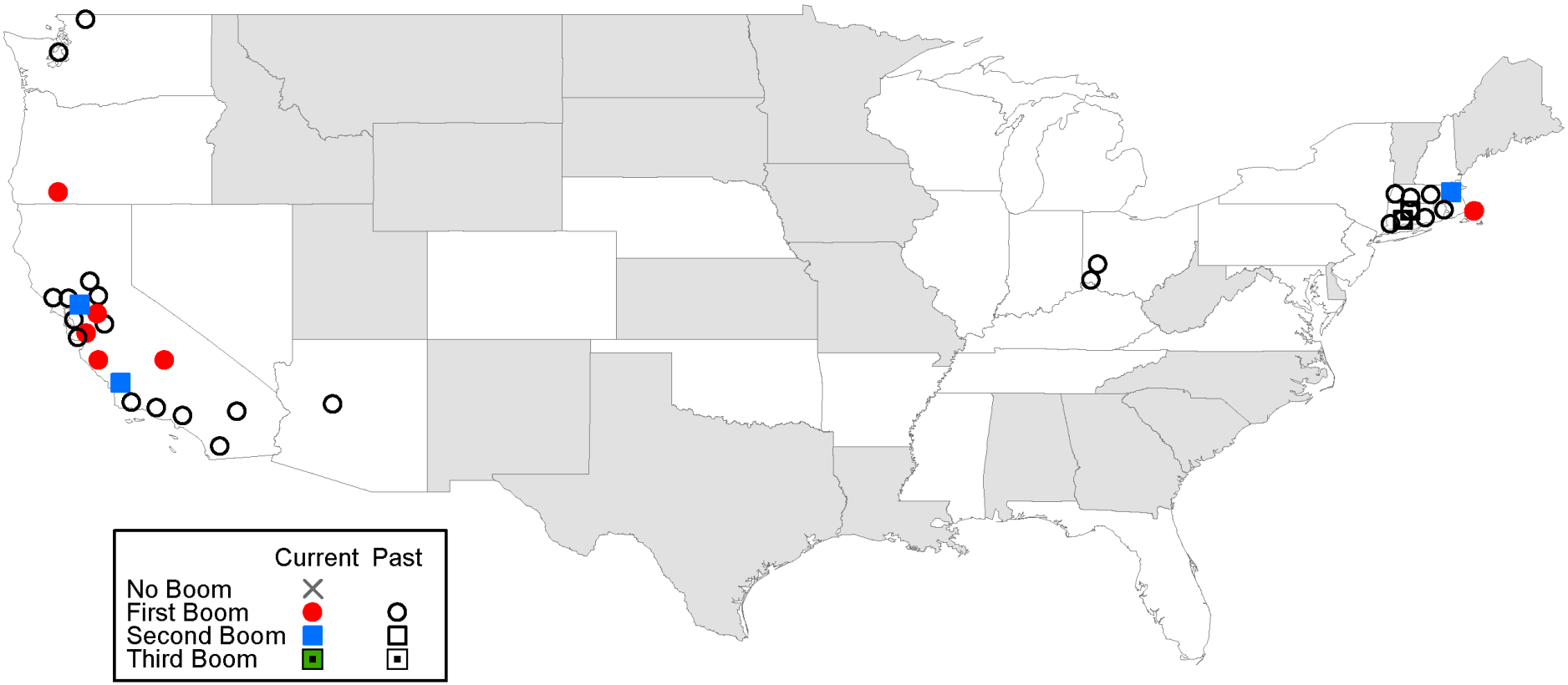

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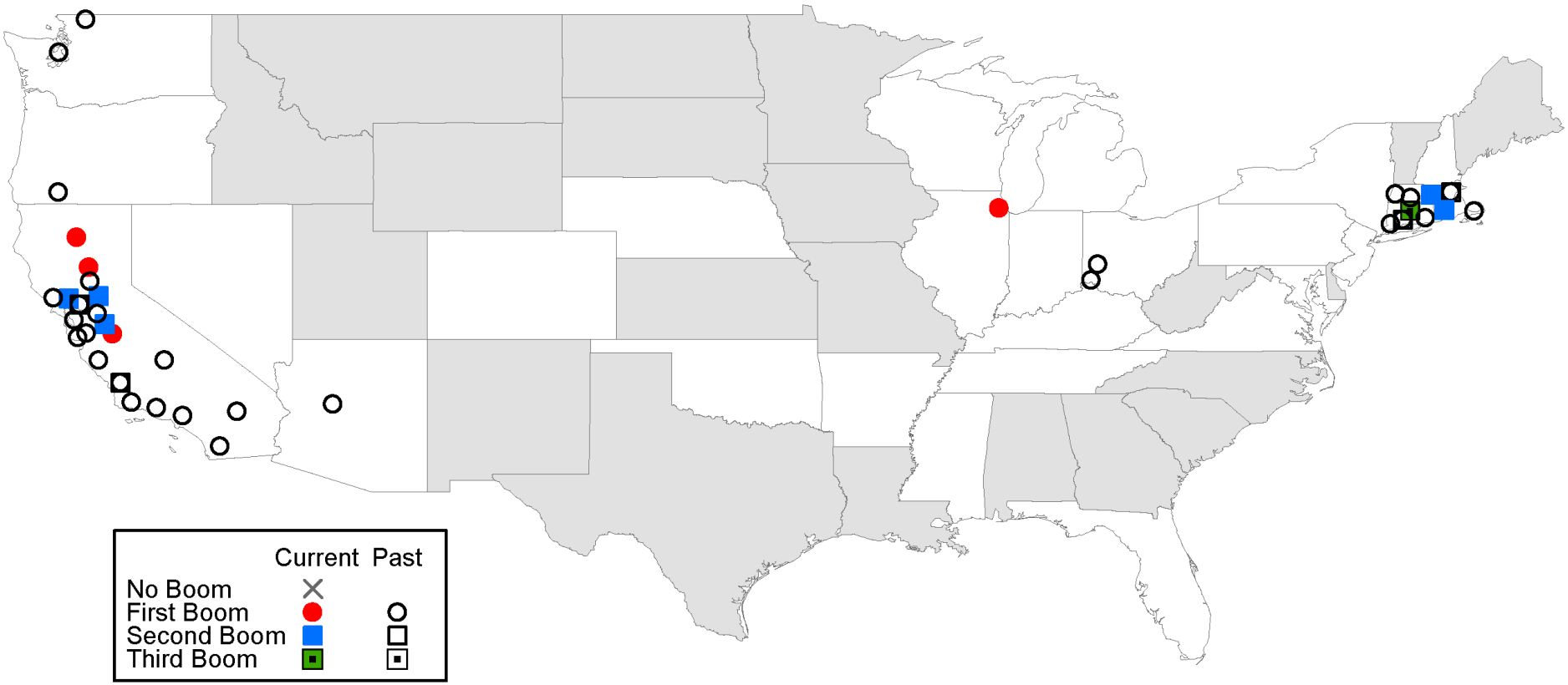

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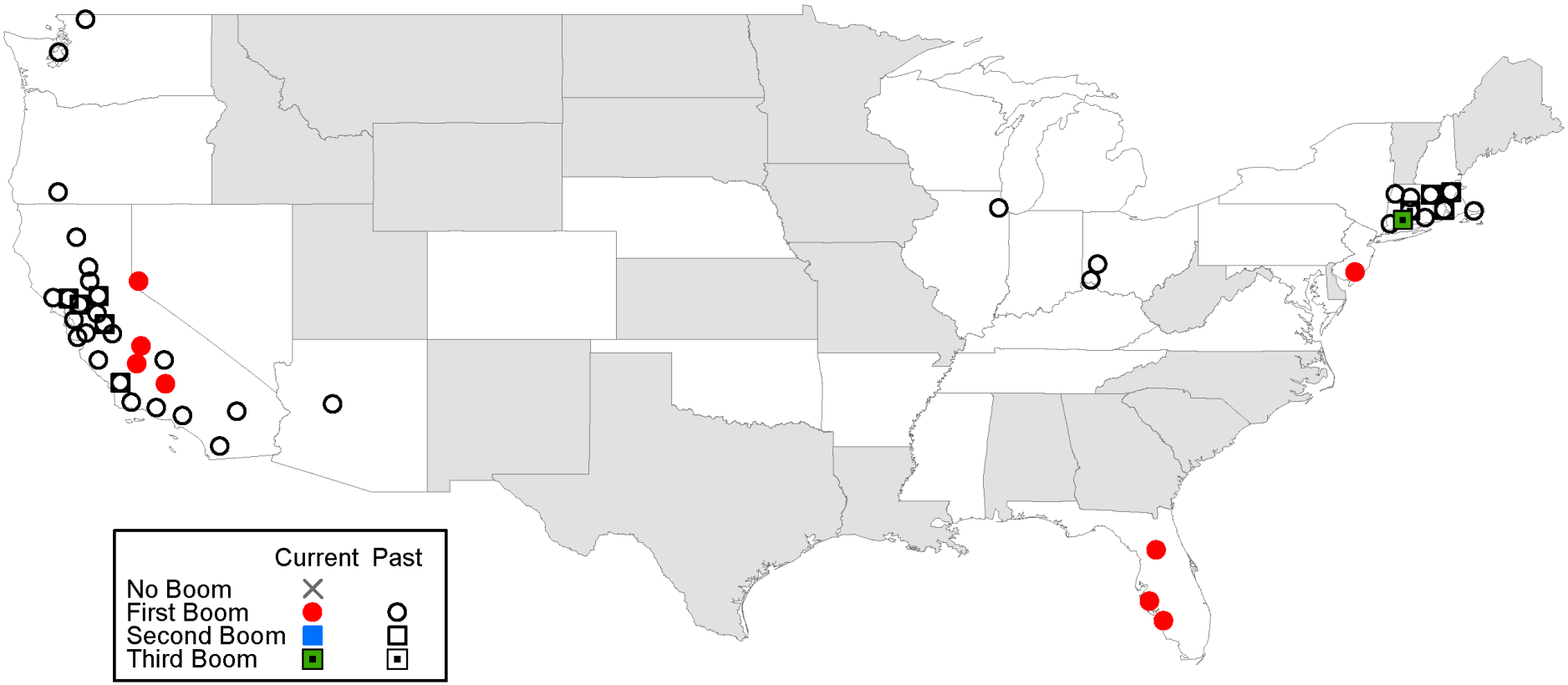

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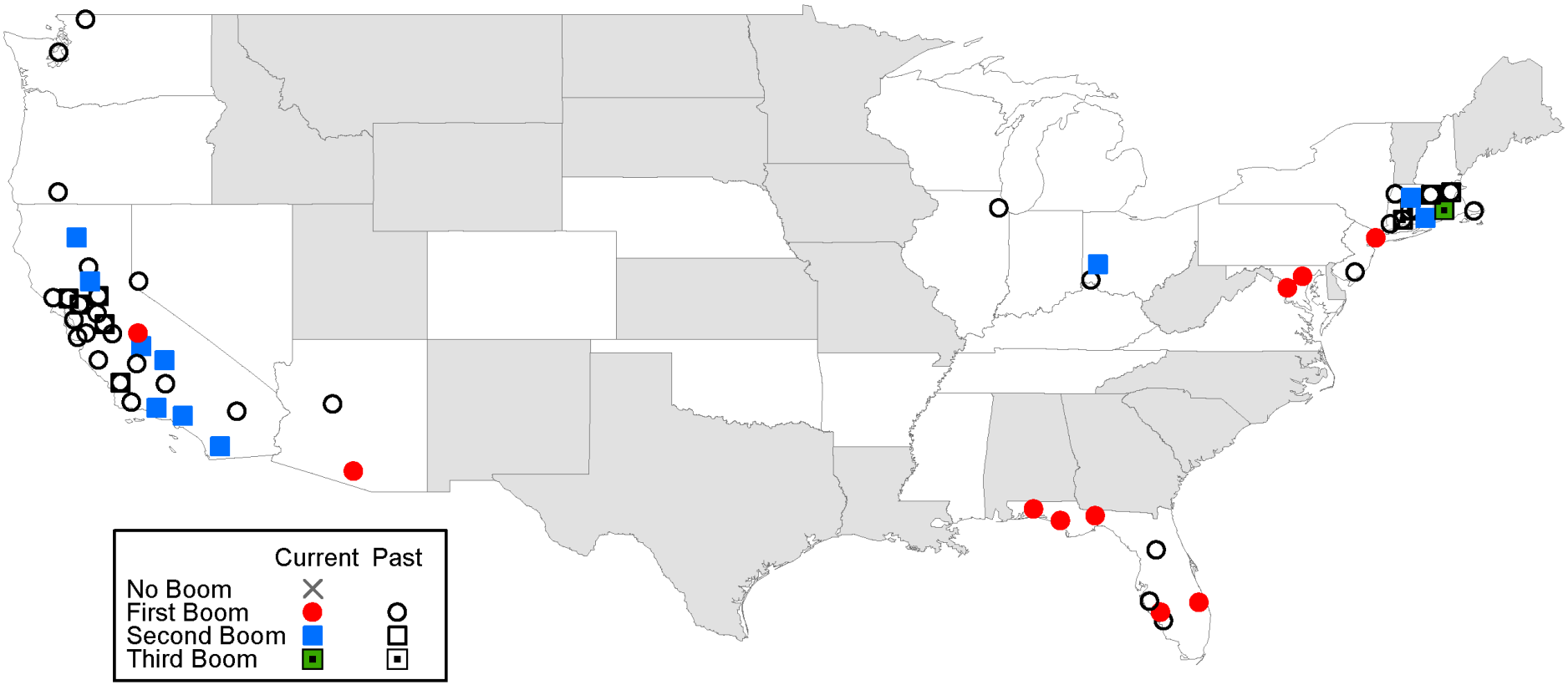

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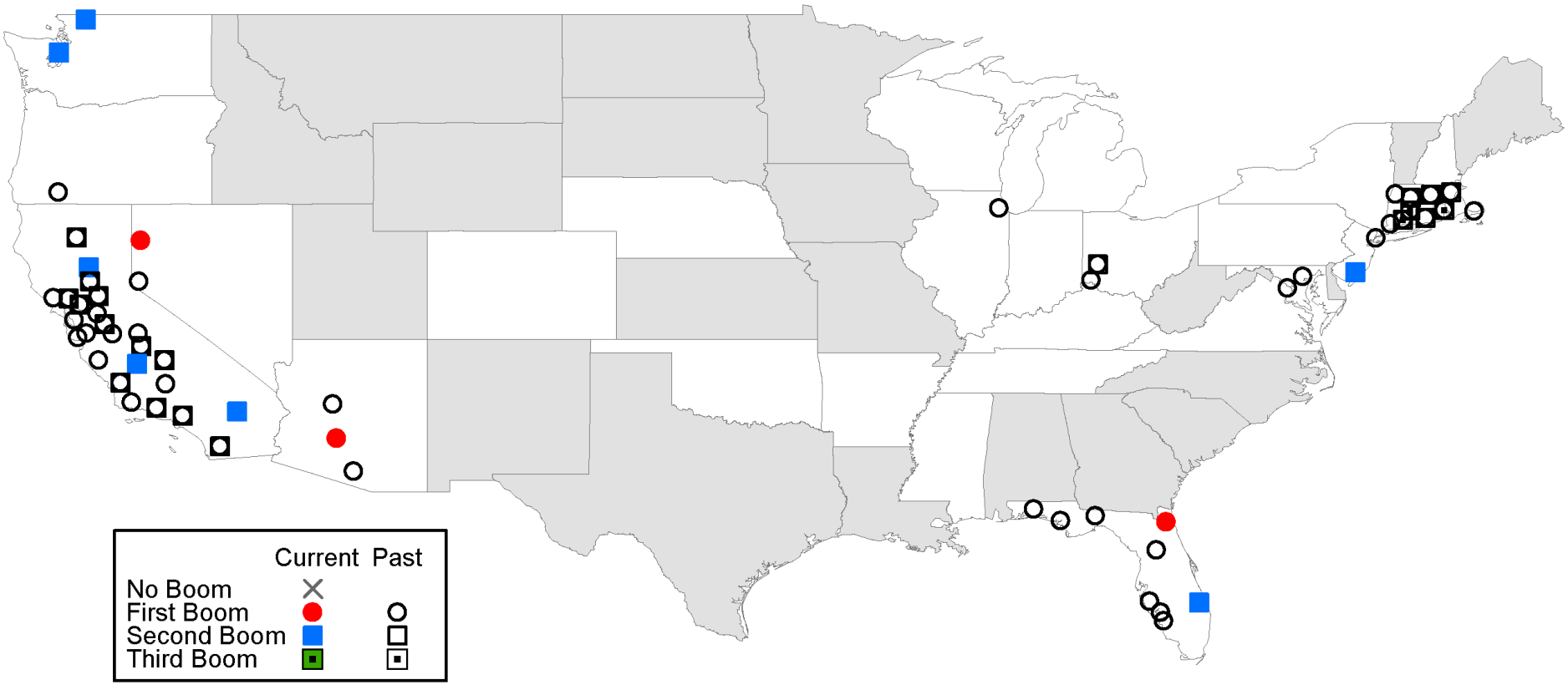

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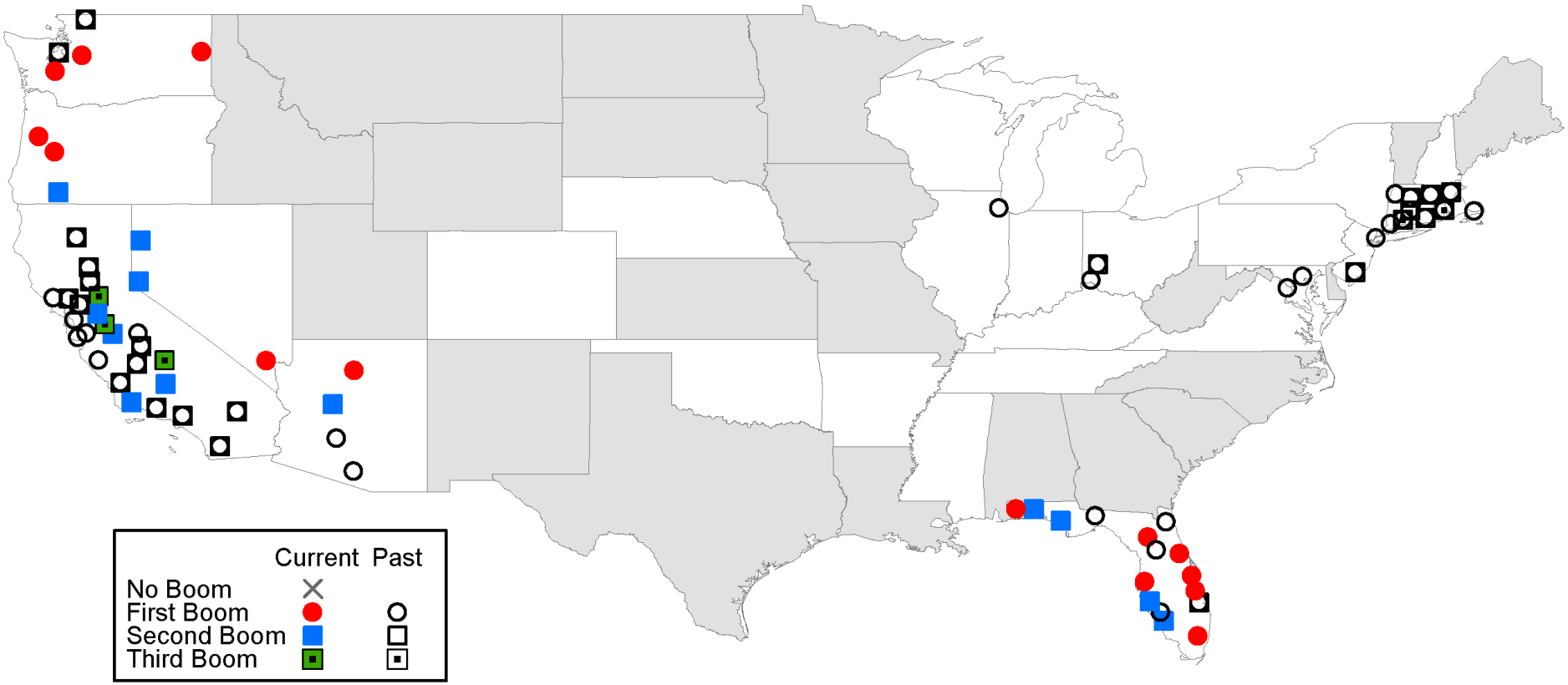

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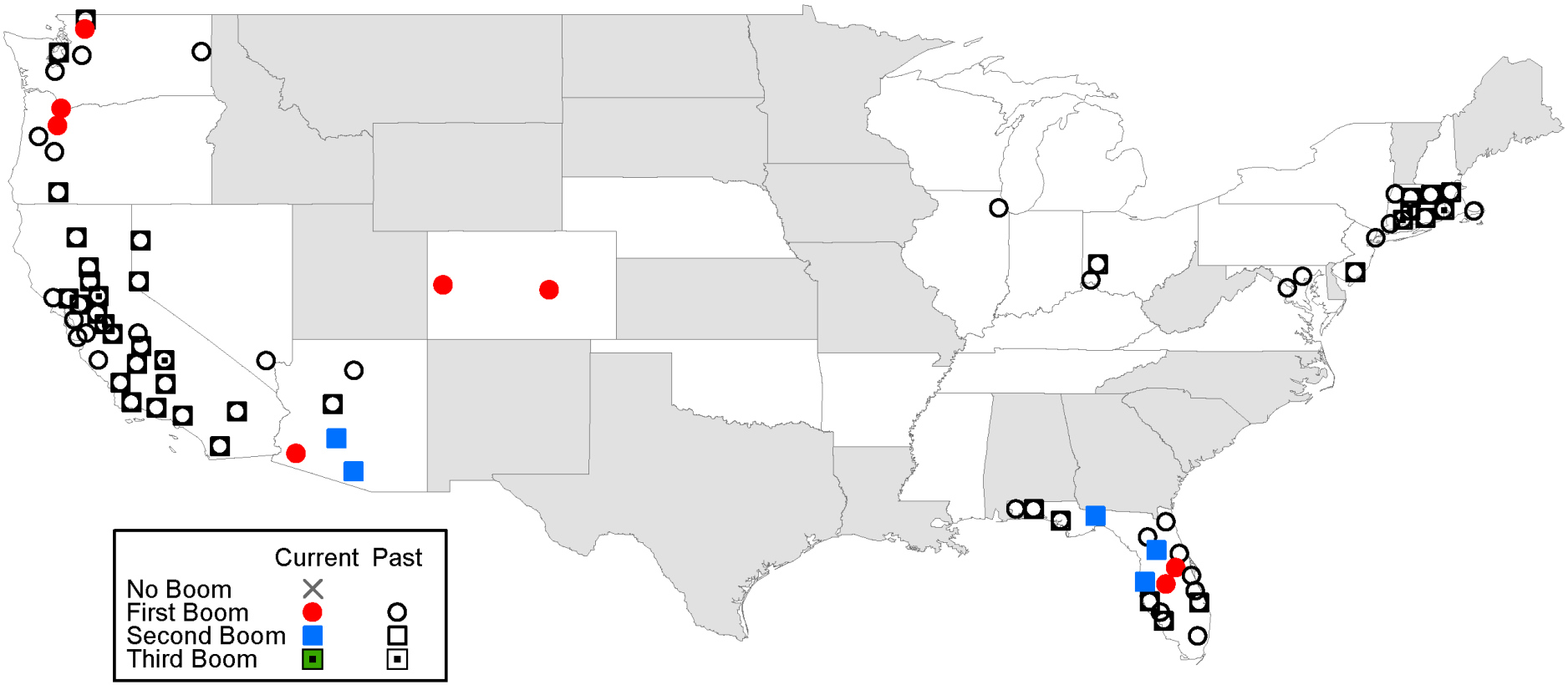

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Conclusion

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- **Discussant's cautions**
  - Conclusions that depend on "Granger"-style causality arguments may be susceptible to both uncertainty in the exact timing of the break points and the possible presence of multiple booms
  - Moving further beyond just the month of the break point and allowing for multiple breaks could potentially help.

Thanks!