

# How to Improve Measurement of Housing Costs

A Summary of Recommendations from  
Modernizing the Consumer Price Index for the 21<sup>st</sup> Century

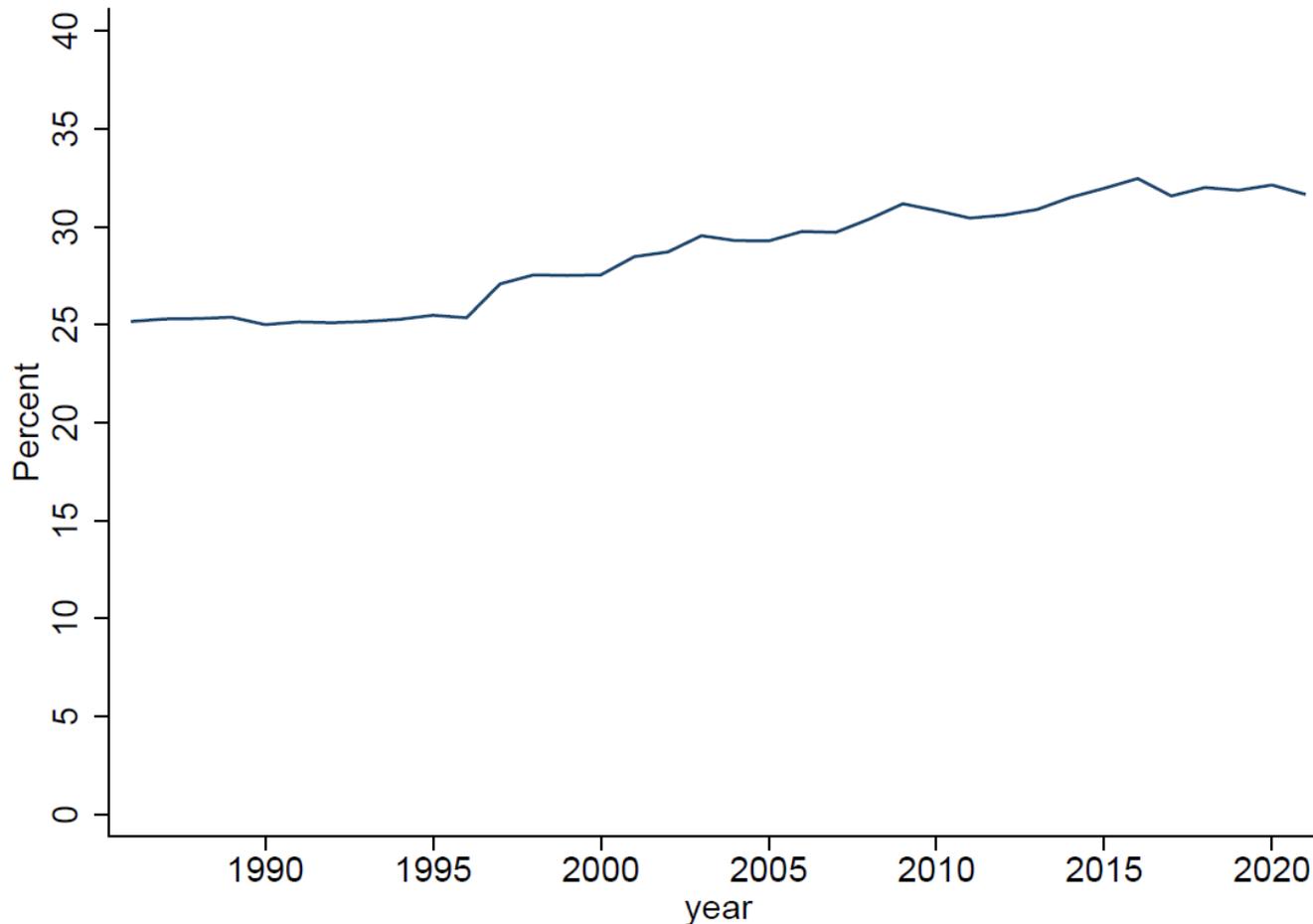
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# Housing services are a large fraction of household expenditures

Relative Importance Weight for Housing Services  
(Rent of Primary Residence + Owners' Equivalent Rent of Residence)



# The price of housing services is difficult to measure

- Housing services are unobserved for owner-occupied housing
  - Roughly 2/3 of households in the US
  - Multiple ways to impute price of housing services; none are perfect.
- For rental units, price of housing services = rent. But measurement remain.
  - CPI Housing Survey under-represents single-family rental (Poole, Ptacek and Verbrugge 2005)
  - CPI Housing Survey collects data on each unit every six months, so high-frequency rent changes are not observed.

# Goals of this chapter

- Review the method for imputing the price of housing services to owner-occupied housing.
- Consider whether new data sources could help improve measurement of the price of housing services.

# Methodologies for imputing price of housing services for owner-occupied housing

- **Rental equivalence**

- Use observed rents of nearby rental units and impute based on differences in observed characteristics between rental and owner-occupied units.
- Current BLS methodology
- Should work well for areas where rental markets are thick and owner-occupied units are similar to rentals.

- **User cost**

- Add up all costs of owning a home: mortgage interest, property taxes, homeowners insurance, maintenance, expected capital gains.
- Theoretically equal to price of housing services

- **Other approaches**

- Opportunity cost =  $\max(\text{rental equivalence, user cost})$  (Diewert 2008,2011; Diewert and Nakamura 2009)
- Payments approach = payments made by owners for ownership and upkeep

## R4.1 Continue using rental equivalence

- Method should work well for homes in many markets
- User cost too difficult to calculate—many components very difficult to observe, and estimates are highly sensitive to assumptions made.
- R4.6: pursue research estimating the price of housing services of individual housing units using various methods.
  - Such research could help identify types of homes/markets for which some approaches might be better than others.

## R4.2 Identify new data sources that would improve coverage

- Single-family rental
  - Rent payment data from large single-family landlords or property management companies
- Multifamily property management companies
  - Rent payment data on millions of MF rental units
- Private sources could provide *monthly* data, improving timeliness of rent growth estimates.
- Private sources could improve coverage of the US housing stock, but could never fully replace the CPI Housing Survey because they are not nationally representative.

## R4.3 Alternate data for estimating expenditure shares for owner-occupied housing

- Current method uses American Community Survey to impute rental expenditures based on housing characteristics
- But not many housing characteristics in ACS
  - Lacks information on unit square footage and lot square footage
- Explore using property tax records instead
  - More detailed characteristics; covers 99% of US housing
  - BEA already has the data!

## R4.4 Publish additional detail

- Structure type: would have been very useful to assess effects of the pandemic on changes in demand for different types of housing units.
- Larger number of geographic areas.
  - Currently BLS only publishes data for 23 metro areas.
  - Housing costs vary more across locations than the prices of many other goods and services, so it could be useful to publish price indexes for a larger number of locations.
- Research series using alternate methods of imputing price of housing services for owner-occupied units.

# Summary

- The Panel likes the general method used by BLS.
- New data sources have the potential to improve coverage, timeliness, and expenditure weights.
- We also encourage BLS to publish more detail on the price of housing services.