The Gender Gap in Housing Returns

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Summary

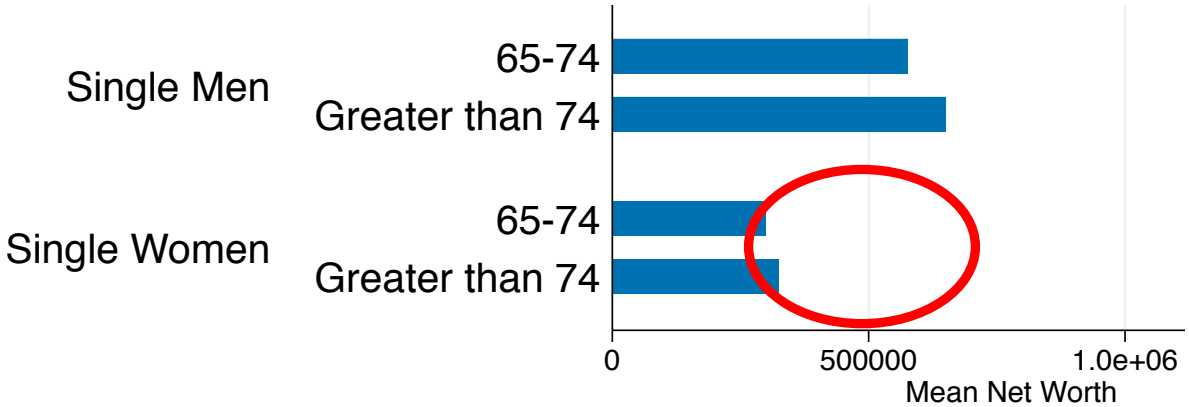
1. Single men earn **6 p.p./year** higher return on their investment in their primary residence than single women (ROE)
2. Not driven by men taking on more risk (leverage, downside, flipping)
3. Driven by **execution**: women pay more, list for less, softer w/ discounts
4. => for long holding periods, return gap inconsequential
5. Higher return when **same house** owned by man than woman
6. Role for preferences/family constraints? Location and timing matter
7. Gap not shrinking over time

Outline

1. Thoughts on Motivation
2. Measurement Error
3. Beliefs
4. Qualitative Evidence
5. Conclusion

1. Motivation

- Initially struggled with this. Descriptive. Curious phenomenon but why so important?
- Answer: wealth gap!
  - First-order for retirement outcomes



- Immediate questions: preferences for risk/housing? Addressable?
- But then useful to have more connection + quantification
  - For example: given holding returns results, how impt is channel?

Descriptive Reporting vs. Interpreting

- Tricky subject to interpret without lazily invoking stereotypes
- Effort to not overinterpret is both sensible and unsatisfying
- But supported by rich literature documenting gender differences
- Could use more discussion of which of these consistent with estimates
- Example: demographics (price level, education, age, race…), location
- Decomposition useful precisely because sharpens contribution to understanding the wealth gap
- Tie to what we might *do* or *think* differently

Should we care about identification here?

- Reverse causality concerns can take the day off… ;-)
- Many omitted factors correlated with gender
- But do we want to control for these?
- Depends on application; motivation helps sharpen this exercise
  - The “true” gender gap in housing returns is unconditional
  - Understanding where it comes from requires controls
- Identification concerns not so much with doubting the unconditional gender gap numbers
- But in decomposition, some factors more/less interesting

2. Measurement Error

- Crux of paper is inferring gender and single-status from listed names
- Pretty cool to see names in behavioral finance
- Many reasons could get this wrong. Big deal?
- Evidence ME has a big effect?
- If it's random, does it matter?

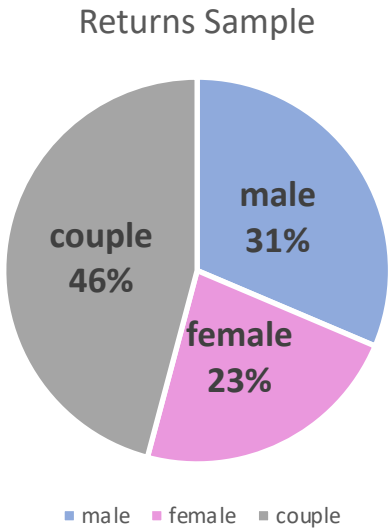
A close-to-home example

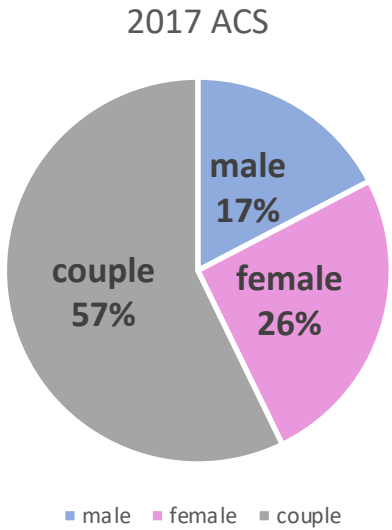
```
. list sr_date_filing sr_mail_zip sr_buyer sr_seller

     +-------------------------------------------------------------------+
     | sr_date~g   sr_mai~p              sr_buyer          sr_seller |
     |-------------------------------------------------------------------|
  1. | 20jul2007      91011   PALMER,BRIAN & LISA   LABARBERA,JOHN F |
     +-------------------------------------------------------------------+
```

```
     +-----------------------------------------------------------+
     | sr_date~r   sa_sit~p        sr_buyer           sr_seller |
     |-----------------------------------------------------------|
  1. | 03jan1996      02478   PALMER,LISA C   CRITTENDEN,GARY L |
  2. | 30apr1996      02478     CRAIG,DAVID      PALMER,BRIAN L |
     +-----------------------------------------------------------+
```

Really more single male homeowners?





- Deeds: single male homeowner 50% more likely than single female (Table 1)
- Census: single female homeowner 50% more likely than single male

Measurement Error Bias with Binary RHS

$$y = \beta \cdot \text{gender}^* + \varepsilon$$

$$\text{gender}^* \perp\!\!\!\perp \varepsilon$$

$$\text{gender} = \text{gender}^* + v$$

$$\boxed{\hat{\beta} = \frac{\text{Cov}(g, y)}{\text{Var}(g)} = \frac{\beta(\sigma^2_{g^*} + \sigma_{vg^*}) + \sigma_{v\varepsilon}}{\sigma^2_{g^*} + \sigma^2_v + 2\sigma_{vg^*}}}$$

$$\text{gender}^*, \text{gender} \in \{0, 1\}$$

$$v \in \{-1, 0, 1\}$$

$$v \not\perp\!\!\!\perp (\text{gender}^*, \varepsilon)$$

Ideas to Assess/Address Measurement Error

1. Benchmark with Census data. At city-level, scatter

   # single men owner in IPUMS vs. # CoreLogic single-men owner

2. Can also check what predicts deviation in cross-section ($\sigma_{v\varepsilon}$)
3. State-level variation in community property laws where buyers fastidious/not in including both names
4. Simulate to get bounds
5. Mixture model spirit of Hausman, Abrevaya, Scott-Morton (1998)

3. Beliefs

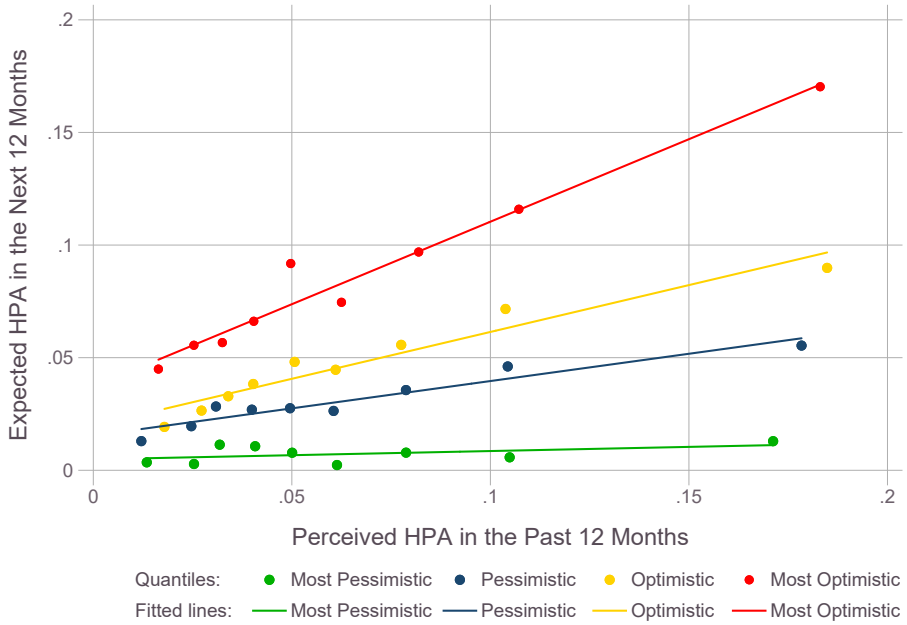
- Another class of explanations: different beliefs about house prices
- Methodology of Liu and Palmer (2019)

$$Q_{\hat{r}_{t+1}|\hat{r}_{it}}(\tau) = \beta_0(\tau) + \beta_1(\tau) \cdot \hat{r}_{it}$$

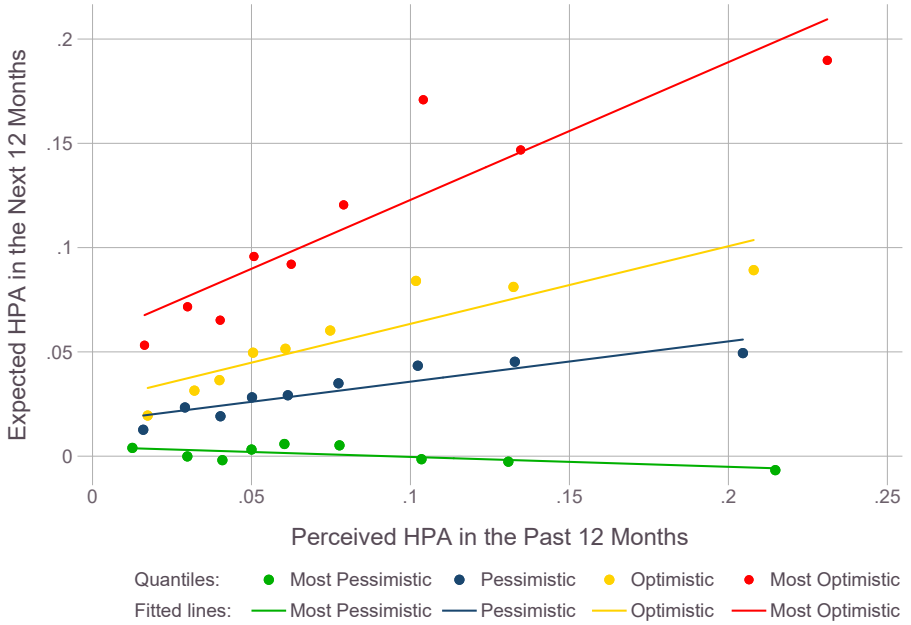
- Designed to assess whether optimists extrapolate more
- If β_1 increasing in τ then most optimistic are extrapolating most
- Most optimistic not necessarily buyers: Cov(beliefs, constraints) > 0

Optimistic Women Extrapolate More

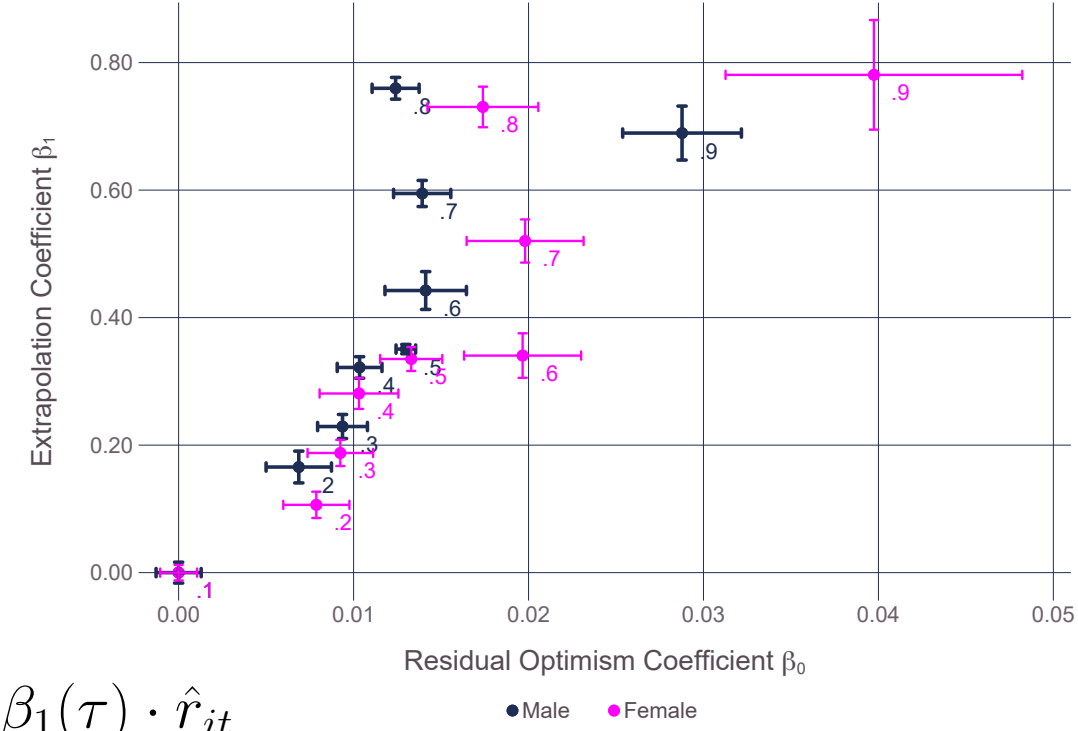
Men



Women



Optimistic Women More Bullish



$$Q_{\hat{r}_{t+1}|\hat{r}_{it}}(\tau) = \beta_0(\tau) + \beta_1(\tau) \cdot \hat{r}_{it}$$

4. Qualitative Evidence (Hypothesis Generation)

- Gender gap in expected horizon
- Listing only one name: mortgage qualification or liability issues
  - MDs and JDs particularly likely. Observable variation across zip codes
- Women's preferences more well defined
  => bid on higher number of houses, search longer
- Women higher standards for inspection stuff
- Trusts more likely to be sellers (check by gender @ purchase?)
- Divorced vs never married different dynamics
- Nonmonotonicity of age effects

Conclusion

- There is definitely a gender-gap in housing returns
- Wealth gap motivation is compelling: quantify and connect
  - Interesting to consider realized performance as asset class
- More interpretation would be useful for framing
- Measurement Error bias assessable and addressable
- Beliefs interesting dimension to explore