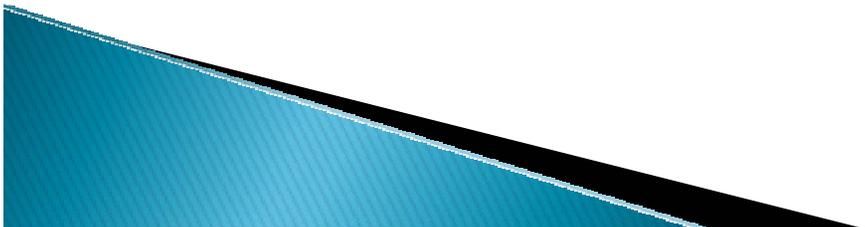


Residential tenure and Labour market outcomes

Sejeong Ha

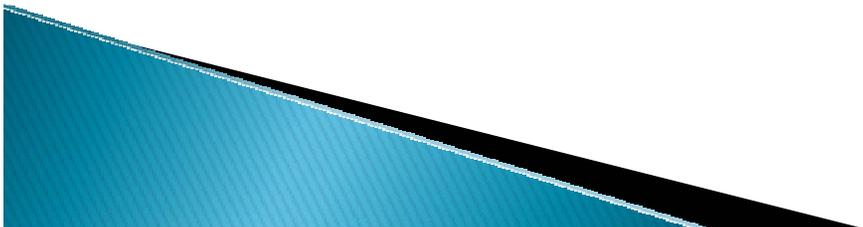
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1. Introduction

- ▶ Studies on homeownership generally reveal its positive influences.
(e.g. Child bearing, Home maintenance, Social capital)
- ▶ Continuing debates on its effects on labour market outcomes.
- ▶ Oswald (1996, 1997, 1999): Homeowners are unemployed due to low mobility.
- ▶ Munch et al.(2006): Less mobile but not necessarily unemployed but may accept local wage.



2. Proposition

- ▶ Homeowners may have a strong incentive to maintain job stability due to immobility.
- ▶ When immobility is combined with the pressure to meet mortgage payments, the incentive may become even stronger.
 - Costs of failing to pay for mortgage may be more painful than for rents. (e.g. repossession)
 - Accommodation alone often accounts for the largest share of household spending.



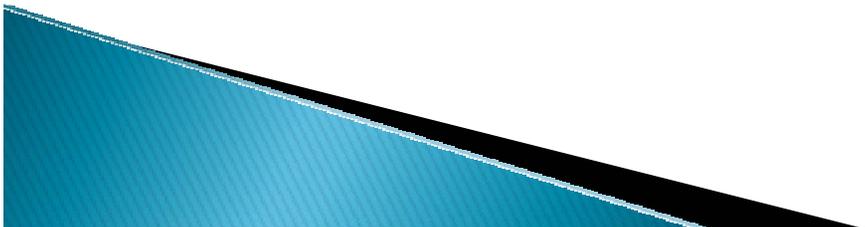
3. Empirical Analysis

- ▶ Labour market outcomes

1. Employment status
2. Length of time with one employer
3. Work efforts
4. Job transfer behaviour

- ▶ British Household Panel Survey

- Rich sets of variables on housing and job characteristics
- Advantageous in controlling for unobservable heterogeneity of individuals
- Helpful in constructing instrumental variables with detailed geographical location.

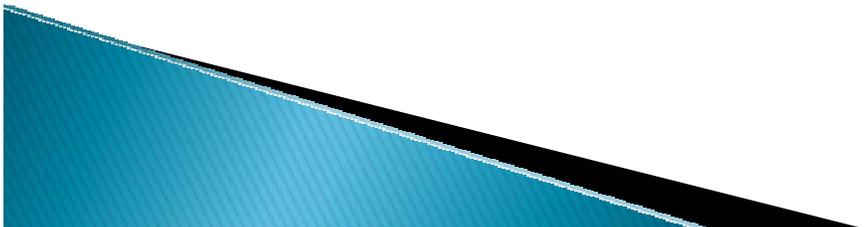


Employment status

- ▶ Whether just being a homeowner can affect employment status.
- ▶ Dummy dependent model

$$\text{EMP} = f(\text{TEN}, \text{other controls})$$

- EMP: 1 if employed, 0 unemployed (economic inactive excluded)
- TEN: 4 tenure types (OO, MO, PB, PR)
- others: demographics, education



OLS estimation

| | (1) OLS (W1) | (2) OLS (W1) | (3) OLS (W1) |
|-------------------------|-----------------|-----------------|-----------------|
| Tenure (MO omitted) | | | |
| Outright HO | -.034*** | -.001 | -.001 |
| Pub. renter | -.183*** | -.149*** | -.134*** |
| Priv. renter | -.089*** | -.061*** | -.057*** |
| Demographics | | Yes | Yes |
| Education | | | Yes |
| Region | Yes | Yes | Yes |
| Adjusted R ² | 0.0590 | 0.0933 | 0.0989 |
| Obs. | 5790 | 5790 | 5790 |

Role of mortgage payment

- ▶ No significant difference between OO and MO implies that the mortgage payment may not play a role in determining employment status.
- ▶ Need to test explicitly the effect of mortgage payment.
- ▶ Three types of mortgage variables
 - Mortgage value in nominal term
 - Mortgage value/ housing value (LTV ratio)
 - Remaining years for mortgage payment

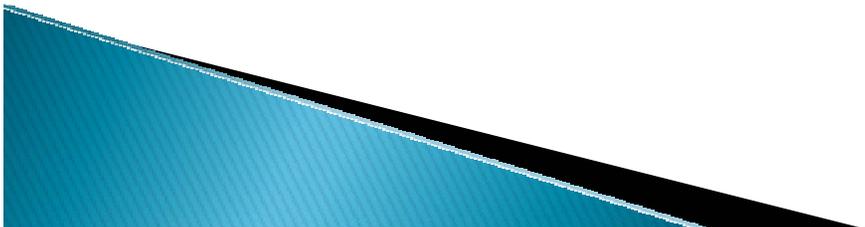


Role of mortgage payment

| | (1) Mortgage value | (2) LTV ratio | (3) Years to pay mortgage |
|-------------------------|--------------------------|------------------|---------------------------------|
| Tenure (MO omitted) | | | |
| Outright HO | -.001 | -.005 | -.009 |
| Pub. renter | -.143*** | -.130*** | -.120*** |
| Priv. renter | -.076*** | -.054*** | -.041* |
| Mortgage variable | 0.0001*** | .005 | .001** |
| Demographics | Yes | Yes | Yes |
| Education | Yes | Yes | Yes |
| Region | Yes | Yes | Yes |
| Adjusted R ² | 0.0968 | 0.0968 | 0.0976 |
| Obs. | 5790 | 5790 | 5790 |

Endogeneity issue

- ▶ Homeowners are generally correlated with higher probability of employment.
- ▶ No guarantee that this relationship is entirely causal.
- ▶ Homeownership is an endogenous variable as jointly determined by a number of individual and HH characteristics.
- ▶ If important characteristics are omitted, the OLS estimates of tenure variables are biased and inconsistent (Omitted variable bias).
- ▶ Partial mitigation of inconsistency by Fixed and Random effect models which control for time-constant heterogeneity of individuals.

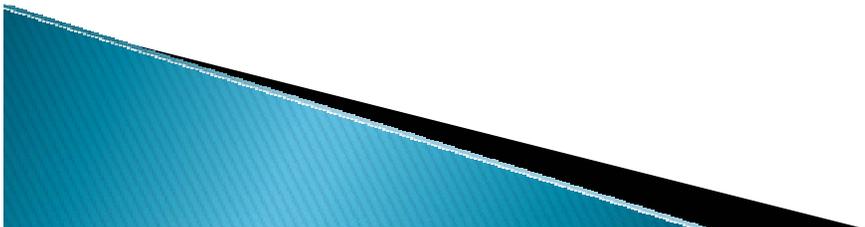


Fixed & Random effect model

| | (1) Pooled OLS | (2) FE | (3) RE |
|-------------------------|-------------------|-----------|-----------|
| Tenure (MO omitted) | | | |
| Outright HO | -.009*** | -.001*** | .005* |
| Pub. renter | -.140*** | -.014*** | -.073*** |
| Priv. renter | -.044*** | -.0003 | -.016*** |
| Demographics | Yes | Yes | Yes |
| Education | Yes | Yes | Yes |
| Region | Yes | Yes | Yes |
| Within R ² | | 0.0112 | 0.0085 |
| Between R ² | | 0.0522 | 0.1418 |
| Adjusted R ² | 0.0909 | 0.0349 | 0.0837 |
| Obs. | 122082 | 122082 | 122082 |

Fixed & Random effect model

- ▶ Different estimate results between FE and RE.
- ▶ Hausman test supports FE model.
- ▶ Generally both estimators indicate that OLS overestimates the effect of homeownership on employment.



Instrumental variable approach

- ▶ The endogeneity is also caused by simultaneity of HO and employment, which cannot be mitigated by FE and RE estimation.
- ▶ IV approach uses a part of variation in endogenous variable (HO) explained by exogenous variable (IV).
- ▶ IV should be correlated with HO and uncorrelated with error terms (any individual and HH variables not included in the regression).
- ▶ In the previous research, homeownership rate in the neighbourhood area is often adopted as IV.

OLS & IV estimation

| | (1) OLS (W1) | (2) IV (W1) |
|-------------------------|-----------------|----------------|
| Tenure (MO omitted) | | |
| Outright HO | -.001 | -.043 |
| Pub. renter | -.134*** | -.200*** |
| Priv. renter | -.057*** | -.184*** |
| Demographics | Yes | Yes |
| Education | Yes | Yes |
| Region | Yes | Yes |
| Adjusted R ² | 0.0989 | 0.0830 |
| Obs. | 5790 | 5790 |

4. Conclusion

- ▶ Mixed results: FE model says HO does not affect EMP while IV approach it does.
- ▶ More IVs are needed to test the validity of homeownership rate as IV.

