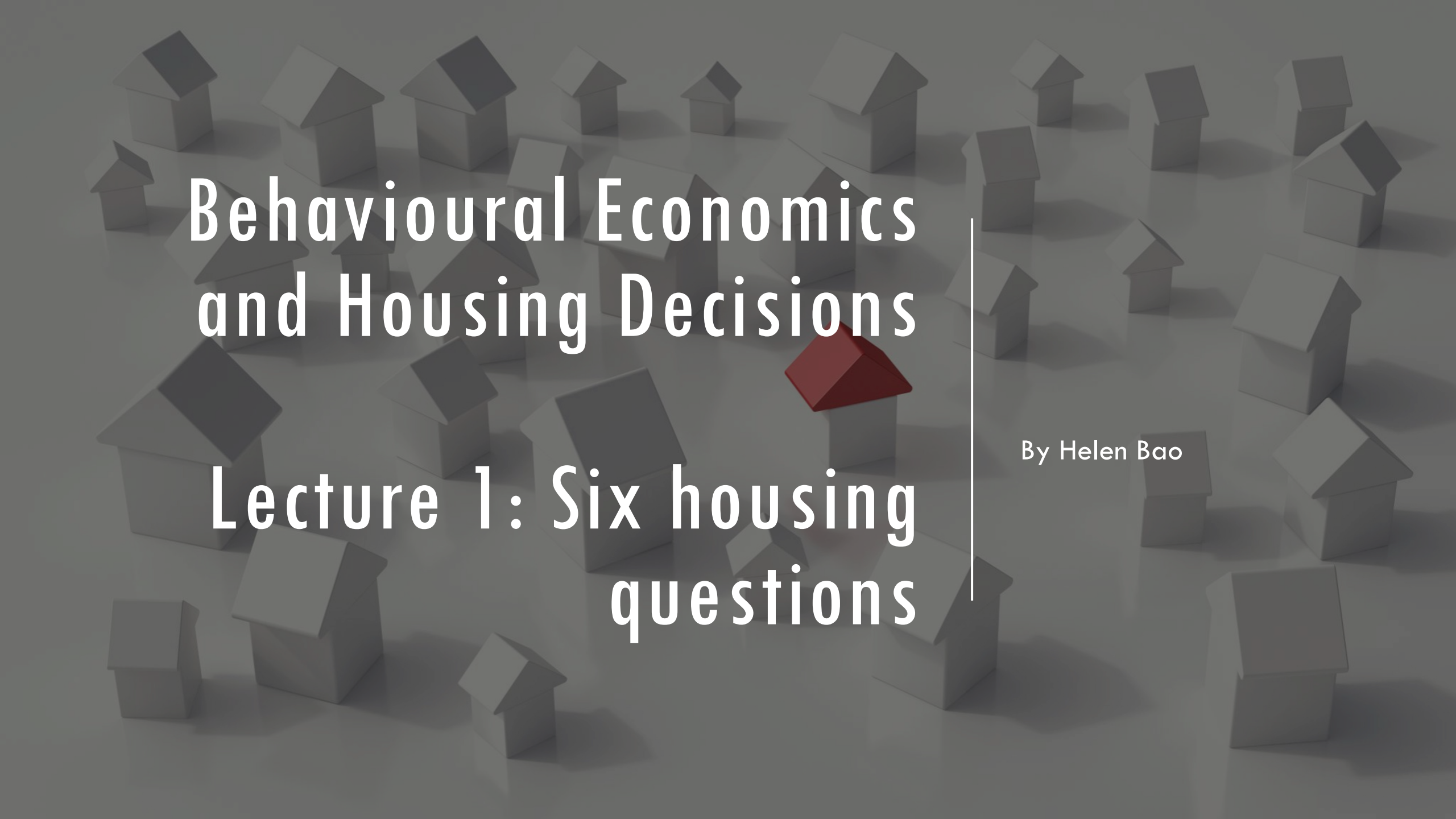


Behavioural Economics and Housing Decisions

Lecture 1: Six housing questions

By Helen Bao

ASSESSMENT

60% attendance, 40% examination

Examination:

- Take-home project
- A 1,000 words essay
- Questions will be distributed before the last lecture
- Submission deadline: 5pm 28 July 2023 (Beijing time)

OUTLINE

1. Introduction of land markets
2. The unique characteristics of landed properties
3. The homeownership paradox
4. Land and housing financialisation
5. Housing issues in high density cities
6. Six housing questions (topics)

WHAT IS LAND?

- Definition: physical space within which economic activity takes place
- Not physical earth and rock, but locational space: space and the occupation of that space over time
- Used to be one of the three factors of production (i.e., land, capital, and labour)
- It is considered as a form of capital, but land is not mobile
- When we talk about the prices of property or houses, it is really the prices of land that we are concerned about.

SHARE OF LAND IN TOTAL HOUSING VALUE, 1880 – 2010

	Australia	Canada	France	Germany	Japan	Netherlands	United Kingdom	United States
1880			0.25	0.13				
1890					0.40			
1900	0.54			0.18	0.40			0.21
1913–1914	0.43		0.30	0.20	0.43			0.20
1920								0.20
1930	0.40		0.30	0.17	0.52		0.23	0.20
1940				0.17	0.46		0.19	0.20
1950	0.49		0.32	0.17	0.65	0.15	0.17	0.13
1960	0.40		0.30	0.17	0.85		0.12	0.13
1970		0.48	0.30	0.25	0.86		0.15	0.19
1980	0.40	0.52	0.41		0.81		0.11	0.27
1990	0.62	0.47	0.42	0.36	0.90			0.40
2000	0.63	0.49	0.39	0.32	0.81	0.57		0.36
2010	0.71	0.53	0.59	0.37	0.77	0.53	0.54	0.38

Source: Knoll, K., Schularick, M., and Steger, T. (2017). No Price Like Home: Global House Prices, 1870-2012. American Economic Review, 107(2): 331-353.

CONTRIBUTION OF LAND PRICES TO NATIONAL HOUSE PRICE GROWTH

	Construction cost			Housing price			Land price			
	1950	2012	Anualised growth rate	1950	2012	Anualised growth rate	1950	2012	Anualised growth rate	Contribution of land price to housing price growth
Australia	81	109	0.39%	47	200	1.48%	28	367	2.38%	90%
Belgium	62	111	0.63%	48	217	1.58%	38	424	2.54%	81%
Denmark	71	116	0.59%	59	173	1.21%	48	256	1.80%	77%
Finland	86	100	0.20%	16	120	1.14%	3	144	1.41%	96%
France	78	117	0.52%	8	176	1.58%	1	266	2.08%	93%
Germany	63	134	0.85%	36	145	1.18%	20	157	1.38%	73%
Netherlands	61	110	0.64%	43	215	1.60%	31	419	2.55%	81%
Norway	101	129	0.39%	69	299	1.91%	47	695	3.24%	92%
Sweden	87	125	0.51%	73	185	1.20%	61	274	1.83%	81%
USA	104	108	0.07%	90	108	0.27%	77	108	0.42%	89%

Source: Knoll, K., Schularick, M., and Steger, T. (2017). No Price Like Home: Global House Prices, 1870-2012. American Economic Review, 107(2): 331-353.

THE UNIQUE CHARACTERISTICS OF LANDED PROPERTIES

Landed properties as a consumption good

- Landed properties provide a place for shelter and safety.
- Dietz, R. D. and D. R. Haurin (2003). "The social and private micro-level consequences of homeownership." Journal of Urban Economics 54(3): 401-450.
- Acolin, A. (2022). “Owning vs. Renting: the benefits of residential stability?” Housing Studies. 37(4): 644-667.

THE UNIQUE CHARACTERISTICS OF LANDED PROPERTIES

Acolin, A. (2022). "Owning vs. Renting: the benefits of residential stability?" Housing Studies. 37(4): 644-667.

- Outcomes between owners and renters in 25 European countries in 2015
- 1,496 to 17,892 households per country and a total of 164,949 observations
- Logistic regression
- Owners generally exhibit more desirable outcomes (including life satisfaction, civic participation, educational outcomes for children, and physical and mental health)
- Renters have outcomes that are more similar to owners in countries in which tenure length gaps are smaller

TENURE BY COUNTRY

	Homeownership (%)	Owner with a mortgage (%)	Owner without a mortgage (%)	Private renter (%)	Subsidized renter (%)	Free accommodation (%)	N
Overall	70.7	49.2	21.6	16.6	7.2	5.5	164,949
AT (Austria)	49.9	29.8	20.1	32.3	9.8	8.0	5,875
BE (Belgium)	66.2	33.3	32.9	23.8	8.5	1.5	5,977
BG (Bulgaria)	82.1	79.9	2.2	3.2	1.3	13.5	4,965
CY (Cyprus)	65.9	49.4	16.5	15.6	1.0	17.6	4,357
CZ (Czech republic)	75.5	61.5	14.0	17.6	2.0	5.0	7,914
DE (Germany)	43.9	24.8	19.1	46.7	6.7	2.7	12,927
EL (Greece)	72.9	62.2	10.7	21.3	0.4	5.3	1,496
ES (Spain)	77.3	49.9	27.4	13.1	2.5	7.1	12,312
FR (France)	60.9	38.4	22.5	22.0	13.9	3.1	11,200
HR (Croatia)	89.8	85.5	4.4	2.2	1.4	6.6	6,532
HU (Hungary)	85.7	71.4	14.3	4.9	3.5	6.0	7,755
IE (Ireland)	71.1	43.7	27.4	13.5	12.3	3.1	5,414
IS (Iceland)	73.4	18.1	55.4	13.4	10.9	2.3	2,867
IT (Italia)	72.0	58.3	13.8	15.3	3.7	9.0	17,892
LT (Lithuania)	89.7	84.0	5.7	1.4	2.0	7.0	4,849
LU (Luxembourg)	70.0	33.9	36.1	23.6	4.4	2.0	3,461
LV (Latvia)	78.4	70.9	7.6	9.1	5.0	7.5	682
MT (Malta)	76.5	58.6	17.9	3.2	14.9	5.4	4,204
NO (Norway)	75.4	23.4	52.0	14.5	1.0	9.1	6,278
PL (Poland)	81.2	71.5	9.7	5.3	1.4	12.1	1,266
PT (Portugal)	73.3	42.6	30.7	13.6	4.7	8.5	8,740
RO (Romania)	96.3	95.6	0.7	1.3	0.1	2.4	7,415
RS (Russia)	80.0	79.2	0.8	3.3	0.6	16.1	5,655
SK (Slovak republic)	89.1	79.5	9.6	9.2	0.3	1.4	5,607
UK (United Kingdom)	63.1	33.0	30.1	17.9	18.0		9,309

Source: Acolin, A. (2022). "Owning vs. Renting: the benefits of residential stability?" Housing Studies. 37(4): 644-667.

LENGTH OF RESIDENCY BY COUNTRY

	Average length of residence (year)	Average length of residence for owners (years)	Average length of residence for renters (years)	Tenure length gap (years)	Renters average length of residence/owners average length of residence (years)	N
Overall	23.3	9.4	−13.9	40.4%	164,949	
AT (Austria)	26.8	13.8	−13.0	51.5%	5,875	
BE (Belgium)	21.5	7.7	−13.8	36.0%	5,977	
BG (Bulgaria)	29.8	8.5	−21.3	28.5%	4,965	
CY (Cyprus)	18.9	4.6	−14.4	24.1%	4,357	
CZ (Czech republic)	22.8	12.0	−10.8	52.8%	7,914	
DE (Germany)	24.1	12.8	−11.3	53.0%	12,927	
EL (Greece)	29.2	7.0	−22.2	23.9%	1,496	
ES (Spain)	24.1	8.2	−15.8	34.2%	12,312	
FR (France)	20.0	8.6	−11.4	42.9%	11,200	
HR (Croatia)	33.8	16.2	−17.5	48.1%	6,532	
HU (Hungary)	27.1	10.6	−16.5	39.2%	7,755	
IE (Ireland)	21.7	6.1	−15.6	28.0%	5,414	
IS (Iceland)	14.5	3.5	−11.0	24.0%	2,867	
IT (Italia)	26.1	12.8	−13.3	49.1%	17,892	
LT (Lithuania)	25.6	11.6	−14.0	45.4%	4,849	
LU (Luxembourg)	19.0	6.8	−12.2	35.8%	3,461	
LV (Latvia)	24.8	13.4	−11.4	54.2%	682	
MT (Malta)	22.1	27.3	5.2	123.6%	4,204	
NO (Norway)	16.2	3.7	−12.5	23.0%	6,278	
PL (Poland)	20.9	10.3	−10.7	49.0%	1,266	
PT (Portugal)	22.3	18.2	−4.1	81.7%	8,740	
RO (Romania)	32.8	10.4	−22.4	31.8%	7,415	
RS (Russia)	22.4	8.2	−14.3	36.4%	5,655	
SK (Slovak republic)	25.6	13.4	−12.1	52.5%	5,607	
UK (United Kingdom)	17.9	7.8	−10.0	43.9%	9,309	

Source: Acolin, A. (2022). "Owning vs. Renting: the benefits of residential stability?" Housing Studies. 37(4): 644-667.

THE EFFECT OF HOMEOWNERSHIP ON WELLBEING

Variables	Poor health	Not depressed	Housing issue	Community environment issue
Age	1.050***	1.011***	0.992***	0.998***
	(0.000557)	(0.000482)	(0.000514)	(0.000469)
Sex (ref. = Male)	1.201***	0.734***	1.139***	1.108***
	(0.0162)	(0.00891)	(0.0156)	(0.0136)
Education (ref.= Primary)				
Secondary	0.653***	1.093***	0.687***	1.085***
	(0.0116)	(0.0183)	(0.0121)	(0.0198)
College	0.440***	1.238***	0.582***	1.127***
	(0.00914)	(0.0239)	(0.0122)	(0.0232)
Marital status (ref. = Never married)				
Married	0.920***	0.785***	0.922***	0.948***
	(0.0182)	(0.0137)	(0.0175)	(0.0161)
Long term union	0.935**	0.860***	1.153***	1.010
	(0.0276)	(0.0214)	(0.0312)	(0.0241)
Other (divorced, widowed or separated)	1.011	0.854***	1.057***	0.923***
	(0.0221)	(0.0169)	(0.0226)	(0.0180)
Log household income	0.744***	1.289***	0.593***	0.949***
	(0.00640)	(0.0106)	(0.00527)	(0.00752)
Employed (ref.= Not employed)	0.539***	1.021	0.893***	0.918***
	(0.00770)	(0.0140)	(0.0135)	(0.0126)
Density (ref. = >500)				
Moderate density (100–500)	1.016	1.027**	0.989	0.660***
	(0.0147)	(0.0136)	(0.0155)	(0.00901)
Low density (<100)	1.096***	1.031**	1.081***	0.444***
	(0.0157)	(0.0136)	(0.0162)	(0.00631)
Own (ref. = Rent)	0.618***	1.412***	0.505***	0.613***
	(0.0248)	(0.0508)	(0.0192)	(0.0212)
Tenure length gap	1.012***	0.956***	0.982***	1.031***
	(0.00312)	(0.00263)	(0.00263)	(0.00267)
Own*Tenure length gap	0.986***	1.010***	0.982***	0.985***
	(0.00321)	(0.00291)	(0.00278)	(0.00264)
Constant	0.396***	0.286***	25.71***	0.190***
	(0.0744)	(0.0515)	(4.479)	(0.0318)
Observations	161,046	161,046	164,949	164,949
Number of groups	25	25	25	25

Notes:
1. Odd ratios from logistic regression.
2. Standard error in parentheses.
3. Model includes country random effects and controls for country average income, age, and employment rate.
4. Health and depression are 2013 variables. Housing and community environment issues are 2015 variables.
5. ***: p<0.01, **: p<0.05, *: p<0.1.

Source: Acolin, A. (2022). "Owning vs. Renting: the benefits of residential stability?" Housing Studies. 37(4): 644-667.

THE EFFECT OF HOMEOWNERSHIP ON WELLBEING

Variables	Life satisfaction	Satisfaction with accommodation	Satisfaction with living environment	Satisfaction with green areas	Satisfaction with personal relations	Unsafe
Age	1.001**	1.011***	1.008***	1.008***	1.004***	1.014***
	(0.000557)	(0.000626)	(0.000586)	(0.000565)	(0.000696)	(0.000588)
Sex (ref. = Male)	1.046***	0.998	1.050***	1.063***	1.169***	3.047***
	(0.0154)	(0.0166)	(0.0163)	(0.0157)	(0.0215)	(0.0455)
Education (ref.= primary)						
Secondary	1.179***	1.392***	1.294***	1.145***	1.206***	0.872***
	(0.0215)	(0.0297)	(0.0250)	(0.0214)	(0.0283)	(0.0170)
College	1.925***	1.863***	1.748***	1.423***	1.524***	0.625***
	(0.0432)	(0.0484)	(0.0409)	(0.0316)	(0.0432)	(0.0144)
Marital status (ref. = Never married)						
Married	1.164***	1.122***	1.008	1.025	1.645***	1.036*
	(0.0243)	(0.0257)	(0.0217)	(0.0210)	(0.0412)	(0.0223)
Long term union	1.212***	0.960	1.064*	0.978	1.500***	0.987
	(0.0387)	(0.0313)	(0.0341)	(0.0294)	(0.0583)	(0.0312)
Other (divorced, widowed or separated)	0.795***	0.922***	0.951**	0.949**	0.936**	0.991
	(0.0181)	(0.0234)	(0.0231)	(0.0218)	(0.0253)	(0.0229)
Log household income	1.697***	1.609***	1.328***	1.298***	1.423***	0.866***
	(0.0165)	(0.0165)	(0.0127)	(0.0121)	(0.0157)	(0.00849)
Employed (ref.= Not employed)	1.456***	1.076***	1.122***	1.047***	1.064***	0.780***
	(0.0236)	(0.0195)	(0.0188)	(0.0168)	(0.0216)	(0.0131)
Density (ref. = >500)						
Moderate density (100–500)	1.023	1.097***	1.027	1.186***	1.121***	0.723***
	(0.0162)	(0.0200)	(0.0170)	(0.0183)	(0.0225)	(0.0114)
Low density (<100)	1.025	1.019	0.915***	1.319***	1.073***	0.448***
	(0.0159)	(0.0180)	(0.0148)	(0.0204)	(0.0211)	(0.00741)
Own (ref. = Rent)	1.822***	3.583***	1.122***	1.622***	1.546***	0.635***
	(0.0747)	(0.155)	(0.0475)	(0.0656)	(0.0814)	(0.0268)
Tenure length gap	0.976***	0.985***	1.000	1.009***	1.022***	0.969***
	(0.00293)	(0.00297)	(0.00310)	(0.00298)	(0.00393)	(0.00306)
Own*Tenure length gap	1.019***	1.022***	0.988***	1.015***	1.011***	0.981***
	(0.00326)	(0.00333)	(0.00322)	(0.00314)	(0.00401)	(0.00326)

Source:Acolin, A. (2022). "Owning vs. Renting: the benefits of residential stability?" Housing Studies. 37(4): 644-667.

THE UNIQUE CHARACTERISTICS OF LANDED PROPERTIES

Landed properties as an investment good

- Wealth accumulation, retirement plan, and income generation
- Goodman, L. S. and C. Mayer (2018). "Homeownership and the American Dream." Journal of Economic Perspectives 32(1): 31-58.
- French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.
- Hochstenbach, C., et al. (2021). “Resurgent landlordism in a student city: urban dynamics of private rental growth.” Urban Geography. 42(6): 769-791.

WEALTH ACCUMULATION: AN USA EXAMPLE

Goodman, L. S. and C. Mayer (2018). "Homeownership and the American Dream." Journal of Economic Perspectives 32(1): 31-58.

- 26 developed countries, national data between 1990 and 2015
- American Housing Survey data from 1985, 1995, 2005, and 2015
- Regression analysis & cashflow analysis
- The US homeownership rate is at the middle to lower end of the range relative to other developed countries: 63.7% in 2015
- Homeownership is a valuable institution: it allows families to build wealth and serves as a measure of financial security

WEALTH ACCUMULATION: AN USA EXAMPLE

Year	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*
Imputed rental "income" (Zillow)	**$11,611**	**$12,031**	**$12,452**	**$12,872**	**$13,293**	**$13,737**	**$14,294**	**$14,724**	**$14,986**	**$15,015**	**$15,021**	**$15,360**	**$15,699**	**$16,470**	**$16,833**
less: Annual maintenance (AHS)		$444	$445	$446	$470	$495	$510	$524	$519	$513	$501	$489	$493	$496	$506
less: Property taxes (AHS)		$1,564	$1,591	$1,619	$1,773	$1,928	$2,069	$2,210	$2,122	$2,034	$1,992	$1,950	$1,963	$1,976	$2,018
less: Homeowners insurance (AHS)		$461	$478	$495	$532	$570	$581	$592	$580	$569	$566	$564	$568	$571	$583
= **Net operating income**		**$9,563**	**$9,938**	**$10,313**	**$10,516**	**$10,744**	**$11,134**	**$11,397**	**$11,765**	**$11,899**	**$11,961**	**$12,357**	**$12,675**	**$13,427**	**$13,726**
less: Capital improvements (AHS)		$2,543	$2,815	$3,087	$3,472	$3,856	$3,604	$3,353	$3,332	$3,311	$2,974	$2,637	$2,655	$2,672	$2,728
less: Mortgage payments		$7,658	$7,658	$7,658	$7,658	$7,658	$7,658	$7,658	$7,658	$7,658	$5,171	$5,171	$5,171	$5,171	$5,171
= **Imputed cash flow (Net benefit)**		**–$639**	**–$536**	**–$433**	**–$613**	**–$770**	**–$128**	**$386**	**$775**	**$930**	**$3,817**	**$4,549**	**$4,850**	**$5,583**	**$5,827**
plus: Value of tax deduction (if itemize)		$2,371	$2,175	$2,159	$2,177	$2,193	$2,204	$2,213	$2,156	$2,097	$1,513	$1,483	$1,468	$1,453	$1,444
Imputed cash flow with tax benefit		**$1,732**	**$1,639**	**$1,726**	**$1,563**	**$1,423**	**$2,075**	**$2,599**	**$2,931**	**$3,028**	**$5,330**	**$6,032**	**$6,318**	**$7,036**	**$7,271**
Financial cash flows															
Value of home	$134,200	$141,900	$153,200	$169,500	$188,200	$195,600	$191,700	$177,900	$166,900	$157,900	$151,600	$155,400	$165,200	$172,200	$181,600
Cash to purchase	–$28,987														
Net sale proceeds (each year)		$26,006	$37,996	$54,722	$73,771	$82,408	$80,639	$69,771	$61,621	$55,452	$49,524	$54,882	$65,885	$74,354	$85,127
Annualized financial return on equity															
Internal rate of return on equity			12.6%	22.0%	24.9%	21.9%	17.3%	12.3%	9.1%	6.9%	5.8%	7.0%	8.4%	9.2%	10.0%
Internal rate of return with tax benefits			20.0%	28.4%	30.6%	27.2%	22.6%	17.8%	14.7%	12.7%	11.5%	12.3%	13.3%	13.8%	14.3%
Apartment Index after-tax returns			*23.1%*	*18.8%*	*21.5%*	*11.5%*	*5.7%*	*7.5%*	*10.1%*	*10.1%*	*9.5%*	*8.1%*	*9.5%*	*9.6%*	*9.0%*
S&P 500 Index after-tax returns			*14.1%*	*10.1%*	*10.5%*	*9.0%*	*0.4%*	*2.8%*	*3.8%*	*3.3%*	*4.1%*	*5.9%*	*6.3%*	*5.7%*	*5.9%*
Bond index after-tax returns			*5.2%*	*3.9%*	*3.6%*	*4.2%*	*4.0%*	*3.7%*	*3.7%*	*3.8%*	*3.6%*	*3.2%*	*3.2%*	*2.9%*	*2.8%*

Source: Goodman, L. S. and C. Mayer (2018). "Homeownership and the American Dream." Journal of Economic Perspectives 32(1): 31-58.

WEALTH ACCUMULATION: AN USA EXAMPLE

- Goodman, L. S. And C. Mayer (2018). "Homeownership and the American dream." Journal of Economic Perspectives 32(1): 31-58.
- Dependent variable: homeownership rate

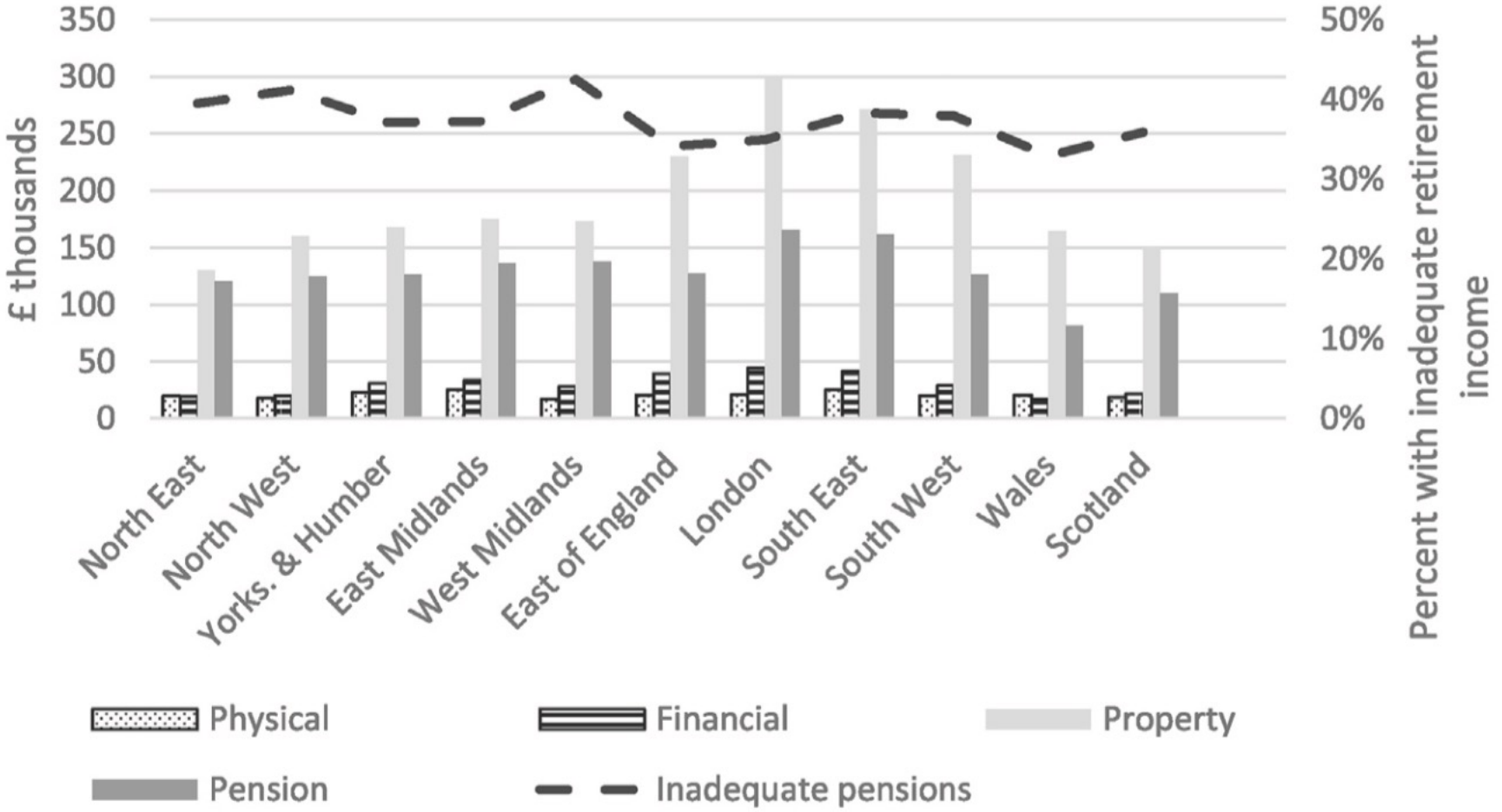
Intercept	0.66628***	(< 0.0001)
Non-Hispanic black	−0.15330***	(< 0.0001)
Hispanic	−0.18876***	(< 0.0001)
Asian/Pacific Islander	−0.15455***	(< 0.0001)
Other race	−0.14127***	(< 0.0001)
log of household income	0.02976***	(< 0.0001)
Aged 15–24	−0.56348***	(< 0.0001)
Aged 25–34	−0.38944***	(< 0.0001)
Aged 35–44	−0.22215***	(< 0.0001)
Aged 45–54	−0.12445***	(< 0.0001)
Aged 55–64	−0.04940***	(< 0.0001)
Aged 75–84	0.00685	(0.149)
Aged 85 or more	−0.03263***	(< 0.0001)
Less than high school	−0.10006***	(< 0.0001)
High school graduate	−0.04492***	(< 0.0001)
Some postsecondary	−0.01929***	(< 0.0001)
1995	0.02501***	(< 0.0001)
2005	0.05808***	(< 0.0001)
2015	−0.01427***	(< 0.0001)
Male living alone	−0.25886***	(< 0.0001)
Female living alone	−0.23834***	(< 0.0001)
Married, with kids	0.06418***	(< 0.0001)
Single male (kids/no kids)	−0.16952***	(< 0.0001)
Single female, with kids	−0.20112***	(< 0.0001)
Single female, no kids	−0.16962***	(< 0.0001)
R^2	0.260	

HOUSING WEALTH AND RETIREMENT PLANS: AN UK EXAMPLE

French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.

- Wealth and Assets Survey (WAS) for Great Britain 2006 – 2014
- Sample size: 8,065
- Logistic regression & simulation
- Releasing housing wealth would double household private pension wealth in the South of England and boost the regional economy by 30% in Wales, the South East and South West.

HOUSING WEALTH AND RETIREMENT PLANS: AN UK EXAMPLE



Source: French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.

HOUSING WEALTH AND RETIREMENT PLANS: AN UK EXAMPLE

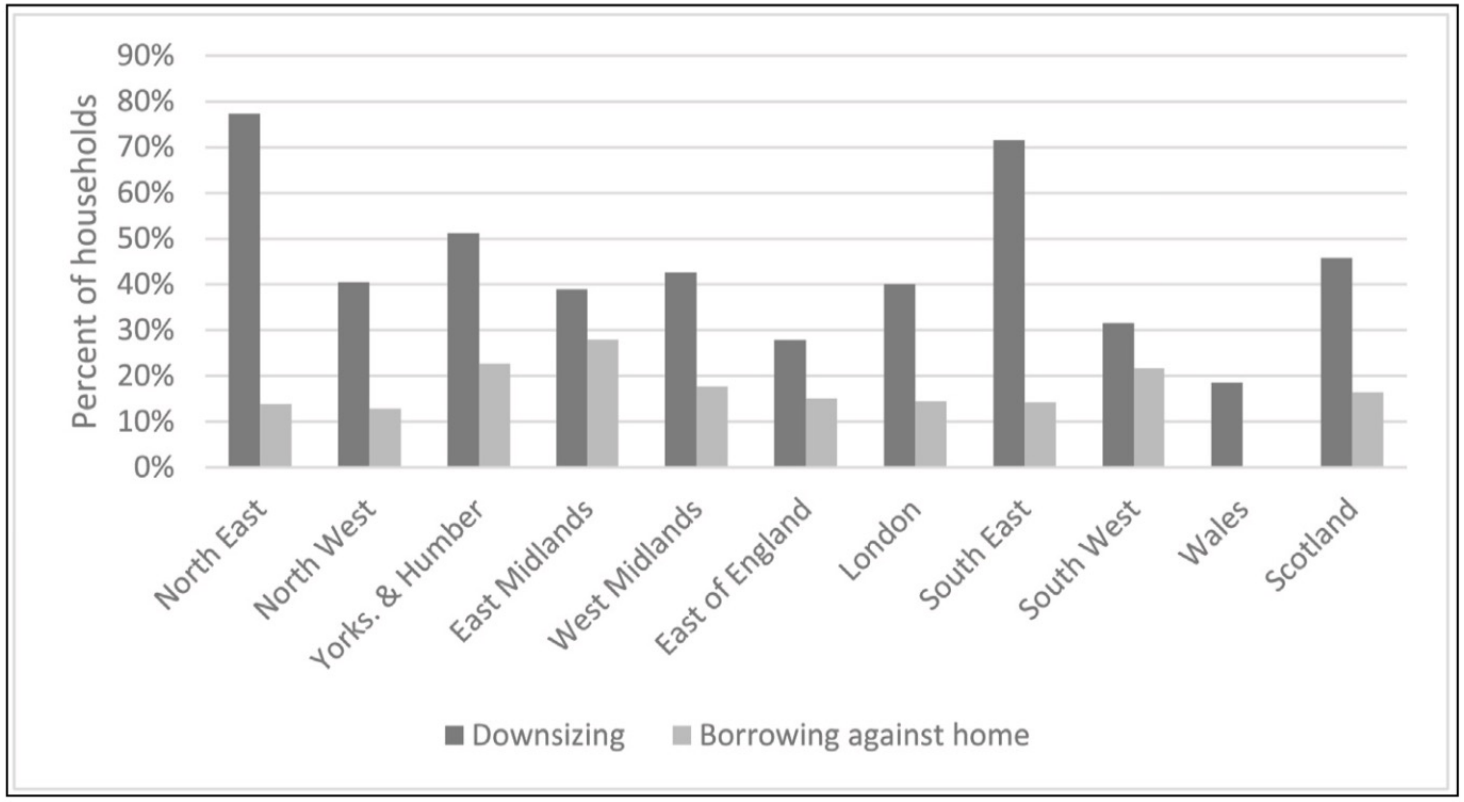


Fig. 2. Per cent of pre-retirement households in wave one expecting to use housing equity to provide money for retirement. Note: Responses of 'Downsizing/moving to a less expensive home' or 'Borrowing against the value of your home' to 'Which of the options on this card do you expect to use to provide money for your retirement?' Sample is homeowners within ten years of state pension age and not retired in wave one.

Source: French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.

HOUSING WEALTH AND RETIREMENT PLANS: AN UK EXAMPLE

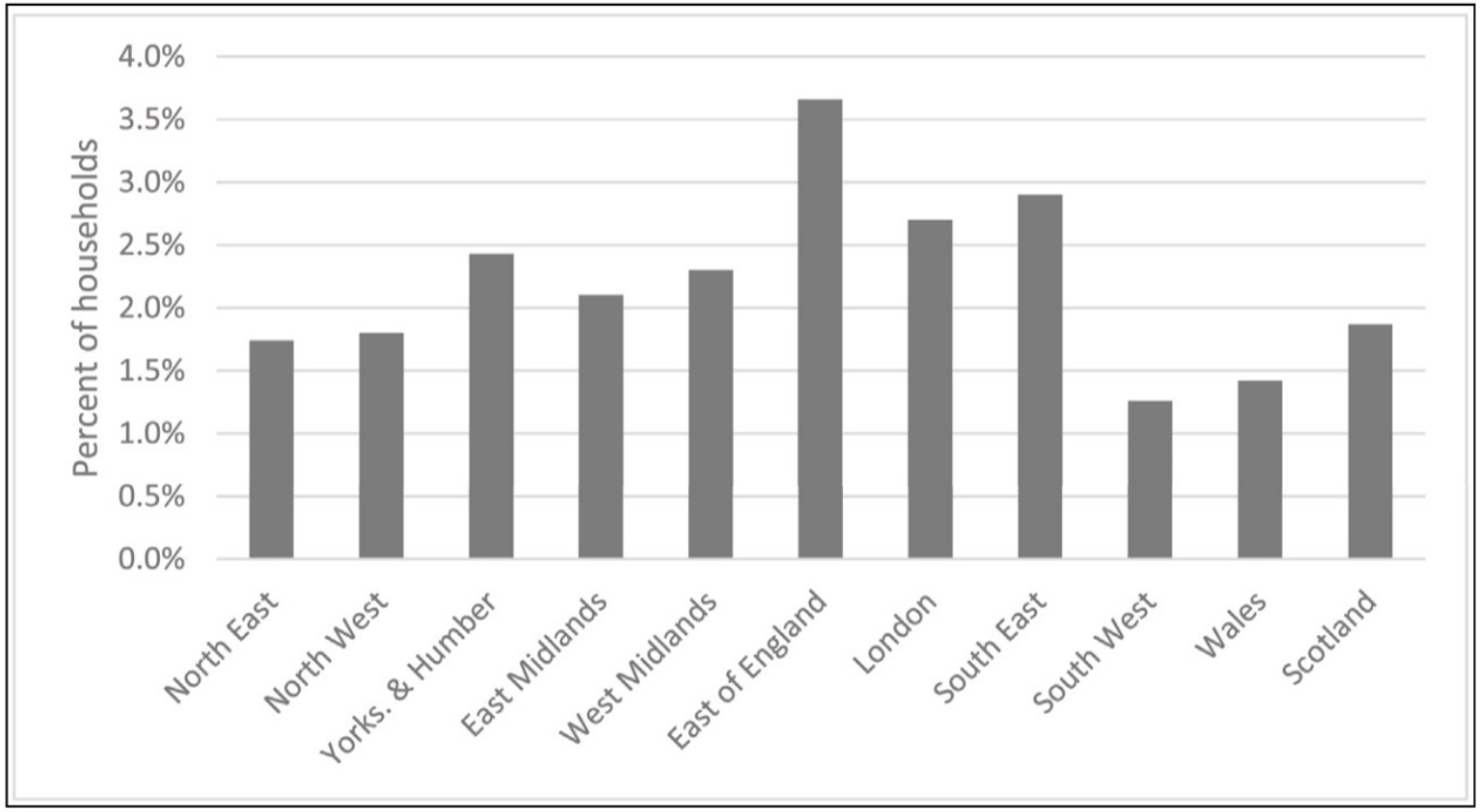


Fig. 3. Per cent of retired heads of household in wave one ever using equity release. Note : Sample is homeowners retired in wave one. Equity release is a response of 'yes' to 'It is possible to raise money for retirement based on the value of your home through an arrangement known as equity release. Have you (or your spouse/partner) ever raised any income or capital from the value of your current home (excluding any remortgage or top-up)?'.

Source: French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.

HOUSING WEALTH AND RETIREMENT PLANS: AN UK EXAMPLE

		Downsizing				Equity release			
Government Office Region (1)	Owner-ship rates (2)	Per cent eligible (3)	Median amount released (4)	Median amount/ pension wealth (5)	Total amount/ GVA (6)	Per cent eligible (7)	Median amount released (8)	Median amount/ pension wealth (9)	Total amount/ GVA (10)
North East	64.4	59.7	85,440	0.58	0.19	62.0	56,000	0.50	0.13
North West	73.6	68.9	92,000	0.82	0.21	72.3	63,750	0.62	0.15
Yorks. & Hum.	68.8	64.8	94,747	0.94	0.20	67.1	61,600	0.66	0.13
East Midlands	75.9	70.8	93,000	0.83	0.23	75.3	67,600	0.69	0.17
West Midlands	77.3	70.5	98,448	0.85	0.24	76.3	67,550	0.68	0.17
East	80.2	73.9	120,000	0.86	0.27	78.9	88,625	0.70	0.21
London	68.1	60.9	125,000	0.90	0.07	68.0	108,921	0.91	0.06
South East	82.9	76.6	160,000	0.96	0.32	81.6	103,500	0.79	0.22
South West	81.1	75.0	130,000	0.99	0.36	80.2	92,500	0.82	0.27
Wales	80.0	75.3	103,000	0.84	0.35	77.0	64,350	0.60	0.22
Scotland	68.7	62.2	84,778	0.57	0.16	65.2	52,650	0.40	0.10
GB	75.4	69.6	110,000	0.84	0.22	73.9	77,500	0.68	0.15

Note: Sample is homeowners aged 55 + retired in wave one. *Eligible households* is the percentage of households who can avail of downsizing or equity release under given assumptions (columns 3 and 7). *Median amount released* is the median potential amount released by downsizing or equity release (columns 4 and 8). *Median amount/pension wealth* is the median of the potential amount released divided by total household pension wealth (columns 5 and 9). In columns 6 and 10, the number of households where the household representative person is retired and aged 50 + is taken from tables DC4601EW and DC4601SC in the 2011 Census and multiplied by (*Per cent eligible* × *Median amount released* × APCE)/*GVA*. Regional *GVA* is 2011 gross value added (income approach) at current basic prices (www.ons.gov.uk/economy/grossvalueaddedgva).

Source: French, D., et al. (2018). "What determines UK housing equity withdrawal in later life?" Regional Science and Urban Economics 73: 143-154.

THE EVOLVEMENT OF PRIVATE LANDLORDISM

Hochstenbach, C., et al. (2021). "Resurgent landlordism in a student city: urban dynamics of private rental growth." Urban Geography. 42(6): 769-791.

- Groningen, Netherland. A university town. Hosting one of the oldest universities in the country
- Population size: 200,000 in 2018
- 89,857 dwellings in 2008, 95,779 dwellings in 2013, and 102,952 dwellings in 2018
- 2008 - Global Financial Crisis, 2013 - the low point of the Dutch housing crisis, and 2018 - a new period of rapidly increasing house prices
- Rapid private-rental growth - an outcome of macro-economic developments that have enhanced real estate's appeal as an investment object, increased demand for rental housing, as well as diminished alternative tenure options

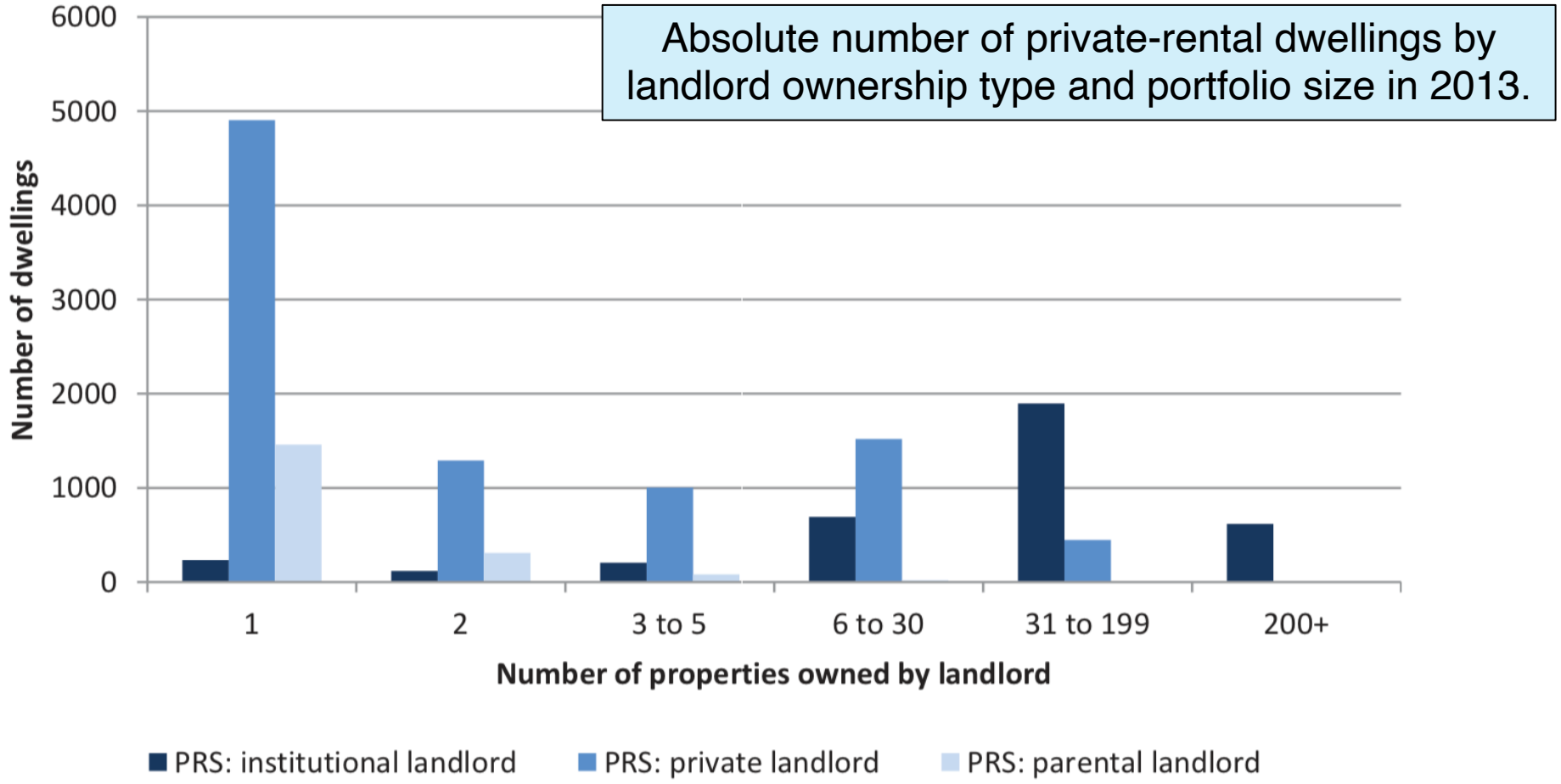
THE EVOLVEMENT OF PRIVATE LANDLORDISM

Table 1. Tenure structure of the Groningen housing stock in 2008, 2013 and 2018 (in %).

	2008	2013	2018
Owner occupied	37.5	44.0	43.1
Social rent	41.4	39.0	35.8
Private rent	16.9	15.4	19.5
– Institutional landlordism	*3.9*	*3.9*	*5.1*
– Private landlordism	*10.4*	*9.6*	*12.5*
– Parental landlordism	*2.5*	*1.9*	*1.9*
Unknown	4.2	1.5	1.5
Total	100.0	100.0	100.0
Total N	89,857	95,779	102,952

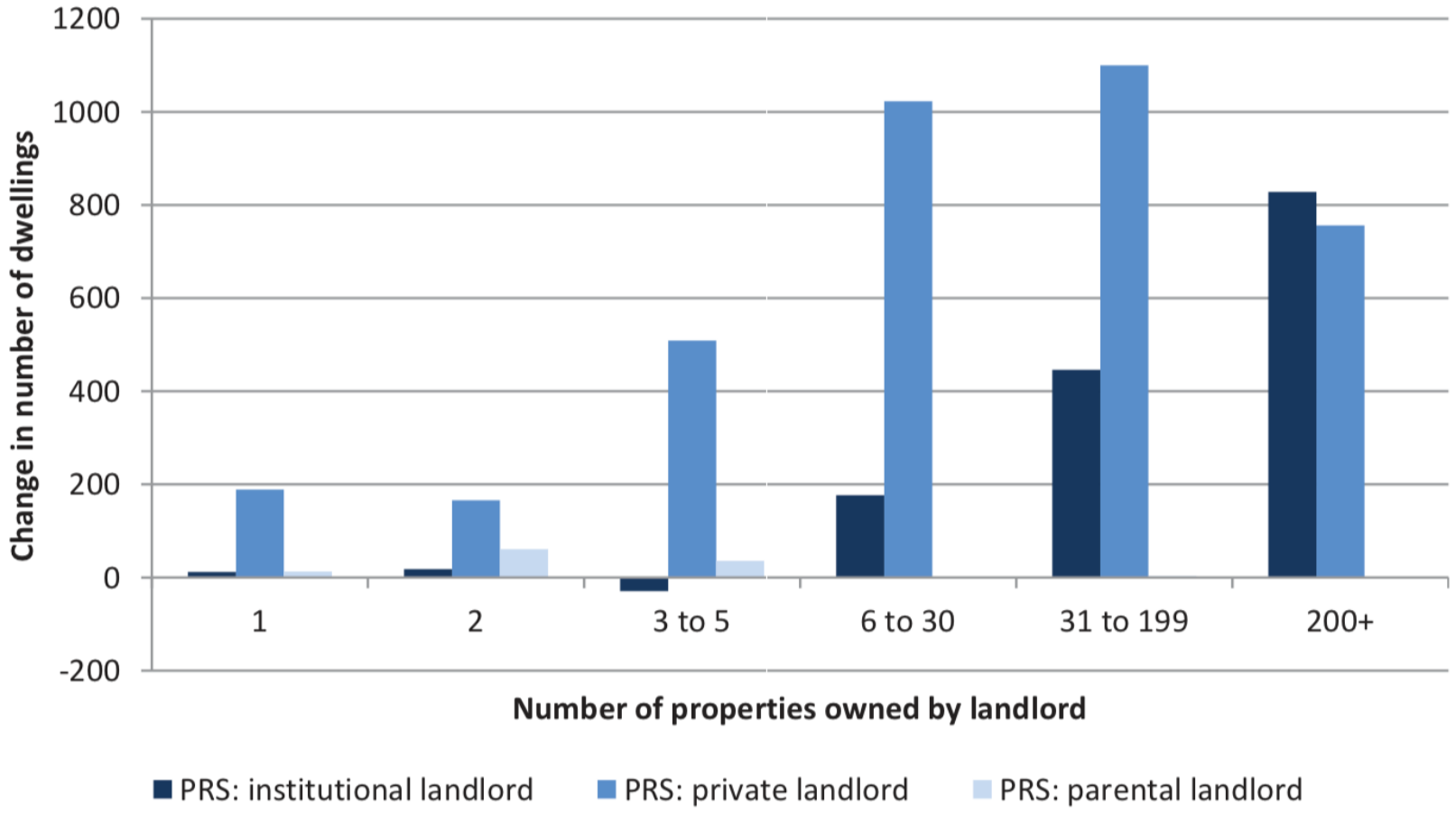
Source: Hochstenbach, C., et al. (2021). "Resurgent landlordism in a student city: urban dynamics of private rental growth." Urban Geography. 42(6): 769-791.

THE EVOLVEMENT OF PRIVATE LANDLORDISM



Source: Hochstenbach, C., et al. (2021). "Resurgent landlordism in a student city: urban dynamics of private rental growth." Urban Geography. 42(6): 769-791.

THE EVOLVEMENT OF PRIVATE LANDLORDISM



Absolute change in the number of private-rental dwellings by landlord ownership
type and portfolio size
between 2013 and 2018

Source: Hochstenbach, C., et al. (2021). "Resurgent landlordism in a student city: urban dynamics of private rental growth." Urban Geography. 42(6): 769-791.

THE EVOLVEMENT OF PRIVATE LANDLORDISM

Table 2. Mean housing value, total housing value and housing-value share per tenure in 2008, 2013 and 2018.

	Value (in €1000)			
	Mean	Sum total	Value %	Stock %
2018				
Owner occupied	218	9,662,000	55.9	43.1
Social rent	123	4,516,000	26.1	35.8
Institutional landlordism	146	763,400	4.4	5.1
Private landlordism	152	1,966,000	11.4	12.5
Parental landlordism	149	294,100	1.7	1.9
Unknown	43	68,835	0.4	1.5
Total	168	17,270,335	100.0	100.0
2013				
Owner occupied	209	8,795,000	55.2	44.0
Social rent	123	4,613,000	29.0	39.0
Institutional landlordism	157	589,600	3.7	3.9
Private landlordism	168	1,537,000	9.6	9.6
Parental landlordism	145	269,800	1.7	1.9
Unknown	84	124,200	0.8	1.5
Total	166	15,928,600	100.0	100.0
2008				
Owner occupied	214	7,228,000	47.0	37.5
Social rent	131	4,867,000	31.6	41.4
Institutional landlordism	165	579,200	3.8	3.9
Private landlordism	185	1,730,000	11.2	10.4
Parental landlordism	154	349,500	2.3	2.5
Unknown	167	630,000	4.1	4.2
Total	171	15,383,700	100.0	100.0

Source: Hochstenbach, C., et al. (2021). "Resurgent landlordism in a student city: urban dynamics of private rental growth." Urban Geography. 42(6): 769-791.

THE UNIQUE CHARACTERISTICS OF LANDED PROPERTIES

Landed properties as a positional good

Positional goods: things whose value depends relatively strongly on how they compare with things owned by others

- Foye, C., et al. (2018). "Home-ownership as a social norm and positional good: Subjective wellbeing evidence from panel data." Urban Studies 55(6): 1290-1312.
- Charles, S. L. (2019). "A quest for status or a desire to fit in? An examination of suburban "monster homes" as a positional good." Journal of Urban Affairs 41(4): 486-502.
- Foye, C. (2021). "Social construction of house size expectations: testing the positional good theory and aspiration spiral theory using UK and German panel data." Housing Studies. 36(9):1513-1532.

LANDED PROPERTIES AS A POSITIONAL GOOD

Charles, S. L. (2019). "A quest for status or a desire to fit in? An examination of suburban "monster homes" as a positional good." Journal of Urban Affairs 41(4): 486-502.

- Online visual preference survey, Chicago, USA
- Qualtrics Panels (Online panel data)
- 152 valid sample points, 11% response rate
- Monster homes: new large suburban single-family houses
- Monster homes are moderately positional
- Men are more likely than women to prefer a positional house to a nonpositional house
- Lower income individuals are more likely to choose a positional house

LANDED PROPERTIES AS A POSITIONAL GOOD

Question 6

Choose which of the two homes pictured below that you would prefer as your prize.

○ **House A**

○ **House B**

Source: Charles, S. L. (2019). "A quest for status or a desire to fit in? An examination of suburban "monster homes" as a positional good." Journal of Urban Affairs 41(4): 486-502.

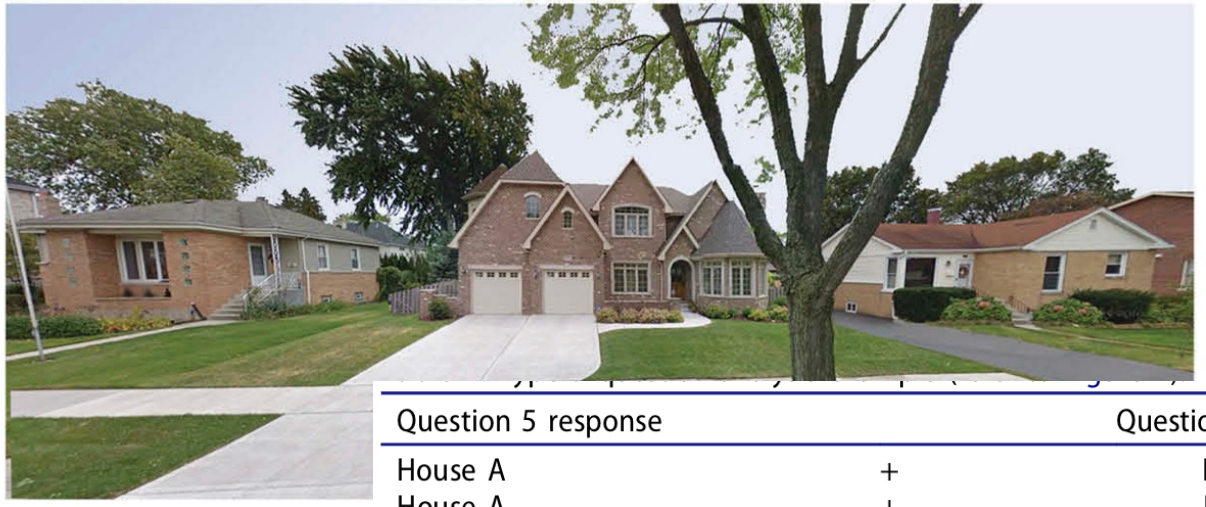
LAND (AND HOUSES) AS A POSITIONAL GOOD

Question 5

Choose which of the two homes pictured below that you would prefer as your prize.

○ **House A**

○ **House B**



Question 16

Choose which of the two homes pictured below that you would prefer as your prize.

○ **House A**

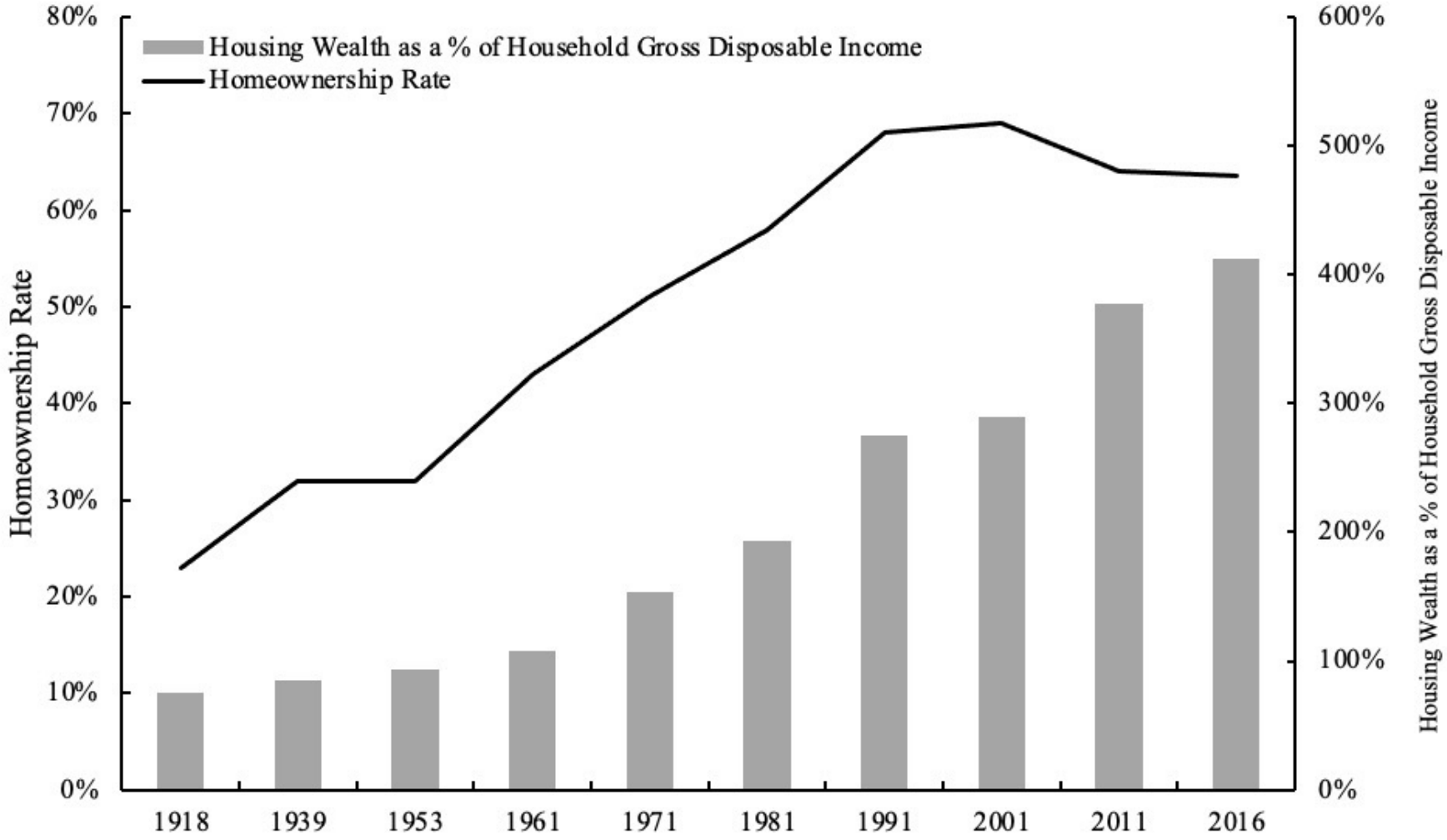
○ **House B**

Question 5 response		Question 16 response		Result
House A	+	House A	=	Nonpositional
House A	+	House B	=	House specific
House B	+	House A	=	House specific
House B	+	House B	=	Positional

Source: Charles, S. L. (2019). "

02.

THE LANDOWNERSHIP PARADOX



Source: Helen X. H. Bao and Colin Lizieri. Behavioural Housing Finance, in Ken Gibb edited, Handbooks for Housing Economics. Routledge, forthcoming.

LANDOWNERSHIP PARADOX

- "Property is liberty, property is theft." Ryan-Collins, J., et al. (2017)
- Land ownership is exclusionary. To become a landowner, one must exclude others from the use of that land for free
- Land ownership can promote economic development, boost productivity and reduce wealth inequality
- However, it can also get to the point to work in the opposite direction, when land is concentrated in a small number of owners

LANDOWNERSHIP PARADOX

Responses to the ownership paradox

- State acquisition, ownership and distribution of land
- Laws governing land tenure, trading and inheritance
- Planning regulations
- Subsidies to support certain type of land use or certain groups
- Taxation of property ownership, occupation and transfer
- …

LAND AND HOUSING FINANCIALISATION

Definition: land and houses are increasingly treated as liquid financial assets

Causes:

- Deregulation of financial markets
- Financial innovations (REITS, MBS, etc)
- Globalisation (e.g., free flow of international hot money)
- Reduced state interventions (e.g., provision of social housing and pension)
- Stagnated productivity

LAND AND HOUSING FINANCIALISATION

Consequences: far-reaching and multi-facet

- Zogul, S. and T. Tasan-Kok (2020). "One and the Same? A Systematic Literature Review of Residential Property Investor Types." Journal of Planning Literature 35(4): 475-494.
- Horton, A. (2021). "Liquid home? Financialisation of the built environment in the UK's "hotel-style" care homes." Transactions of the Institute of British Geographers. 46(1): 179-192.
- Fernandez, R., et al. (2016). "London and New York as a safe deposit box for the transnational wealth elite." Environment and Planning A - Economy and Space 48(12): 2443-2461.
- Buckley, M. (2019). "Between House and Home: Renovations Labor and the Production of Residential Value." Economic Geography 95(3): 209-230.

INVESTORS IN RESIDENTIAL PROPERTY MARKETS

- BASED ON 642 PAPERS BETWEEN 2000 AND 2019

Meta-category	Exemplary investor Types Mentioned in Articles	Key Topics Addressed in Set of Literature
Spatial scales of operation	• Local investors • Regional investors • International investors • Global investors • Foreign investors • Overseas investors	• Differences between local and international investors • The role of intermediaries in creating interscalar investment relations • Chinese investors • The interplay between local regulations and international investment channels
Size and social composition	• Individual investors • Super-rich and middle-class foreign investors • Mom-and-pop investors • Institutional investors	• Financialized subjectivities • The emergence of new types of investors and their characteristics • The effect of regulations on different types of investors (in terms of size) • The US foreclosure crisis related to the GFC • The connection between the GFC and institutional investors
Investment object and finance	• Buy-to-live, buy-to-rent, buy-to-leave investors • Low-tax bracket and high-tax bracket investors • Debt and equity investors • Private equity investors • Residential mortgage-backed securities investors	• Institutional investors and the ascendance of buy-to-rent • Source of investment finance and its effects on tenants • Mortgage securitization and the GFC • Institutional capital, bonds, and the financialization of social housing
Investment and social behavior	• Rational and irrational investors • Sophisticated and unsophisticated investors • Amateur investors • Predatory flippers, rehabbers, "milkers" • Predatory, transparent, and developmental investors	• Investor mindsets and risk aversion • Speculation and residential property bubbles • Investment ethics and time horizon • Relationships between investors and public-sector officials

zogul, S. and T. Tasan-Kok (2020). "One and the Same? A Systematic Literature Review of Residential Property Investor Types." Journal of Planning Literature **35**(4): 475-494.

LAND AND HOUSING FINANCIALISATION

Horton, A. (2021). "Liquid home? Financialisation of the built environment in the UK's "hotel-style" care homes." Transactions of the Institute of British Geographers. 46(1): 179-192.

- In the UK, more than 400,000 elderlies live in care homes, and the number is growing.
- Investment funds control most of these care homes. Their business models are risky (high debt level; clients are publicly funded; think about the pandemic…)
- A new business model: individual property wealth converted into care fees, and the returns from care companies' real estate assets (i.e., REITs)
- The number of care homes owned by REITs rose by 80% from 2016 to 2019
- Liquid tenants: financially solvent and sufficiently mobile to move to the increasingly centralised, large-scale care homes
- Hotel-style: care homes are treated as a subsector of commercial real estate. Space is thus standardised and made convertible. The rate is also higher.
- The fundamental illiquidity of residents, caring relationships, and situated real estate generates instabilities and constrains financialisation

RESIDENTIAL PROPERTY MARKET AS A SAFE DEPOSIT BOX

Fernandez, R., et al. (2016). "London and New York as a safe deposit box for the transnational wealth elite." Environment and Planning A - Economy and Space 48(12): 2443-2461.

- Transnational wealth elites: people who have their origin in one locality, but invest their wealth transnationally
- The research focuses on the agency of the wealth elite and their investment and legal networks
- Secondary data analysis and 69 interviews with real estate and finance professionals in London and New York in 2014 and 2015

RESIDENTIAL PROPERTY MARKET AS A SAFE DEPOSIT BOX

- Why do transnational wealth elites buy real estate in NY-LON?
  - Residential property markets in these cities are highly liquid
  - Low transaction costs and high property rights
  - Stable political environment (the instability at home make foreign real estate investment into an insurance policy for many of the non-OECD based plutocrats)
- Consequences for city residents
  - High vacancy
  - Raising property prices
  - Gentrification, displacements, socio-economic inequality

Source: Fernandez, R., et al. (2016). "London and New York as a safe deposit box for the transnational wealth elite." Environment and Planning A - Economy and Space **48**(12): 2443-2461

MOVING UP THE PROPERTY LADDER

Buckley, M. (2019). "Between House and Home: Renovations Labor and the Production of Residential Value." Economic Geography 95(3): 209-230.

- Cheap mortgage debt led to a growing gap between the use and exchange values of housing assets
- Buyer's gridlock: debt-saddled home buyers are unable to move up the property ladder by shouldering more mortgage debt or by using the equity gains from their current home
- Secondary data on housing sales and renovations activity between 2008 and 2017 with 22 in-depth interviews conducted with precarious renovations workers and 13 interviews with contractors associations, immigrant settlement agencies, and workers' rights organisations in Toronto, Canada
- Houses are not only financialised, value storing assets, but also composite commodities in which the paid and unpaid labour are combined to produce residential values and investment returns

MOVING UP THE PROPERTY LADDER

Buckley, M. (2019). "Between House and Home: Renovations Labor and the Production of Residential Value." Economic Geography 95(3): 209-230.

- The informal, or underground, renovations sector alone is a multibillion-dollar industry in Canada (4 to 5 billion Canadian dollars per year). In some areas, it takes up 40% to 50% of the residential renovations sector.
- Interviewed informal workers are paid about half of the former workers' wages
- Residential properties are the easiest sector to use informal workers (small scales, difficult to monitor, …)
- In 2010, 56 percent of Ontario homeowners admitted that they paid cash on their renovations
- This is, in a way, ameliorates the pressure on housing, by lowering the cost of upgrading houses

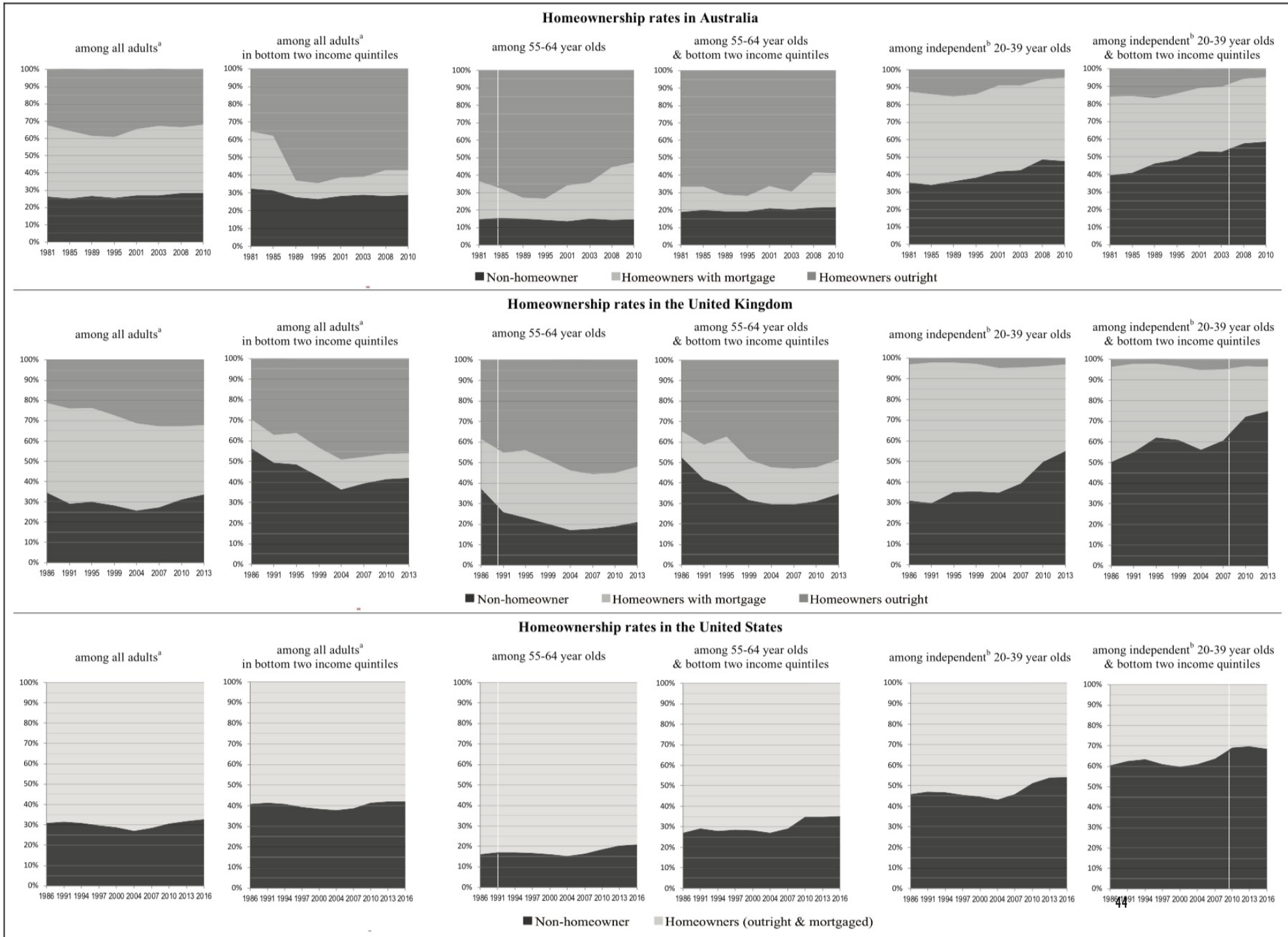
THE ROLE OF LANDED PROPERTIES IN ECONOMIC AND SOCIAL INEQUALITY

- Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies. 58(6): 1120-1140.
- Kuhn, M., et al. (2020). "Income and Wealth Inequality in America, 1949-2016." Journal of Political Economy 128(9): 3469-3519.
- Hauner, T. (2020). "Aggregate wealth and its distribution as determinants of financial crises." Journal of Economic Inequality 18(3): 319-338.

THE ROLE OF LANDED PROPERTIES IN ECONOMIC AND SOCIAL INEQUALITY

Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies. 58(6): 1120-1140.

- Data from the US, the UK and Australia.
- Declining access to homeownership, increasing inequalities in concentrations of housing wealth and intensifying house-price volatility undermining asset security
- Homeownership is a 'false promise': instead of serving as a means to acquire a stable home and to realise greater economic security via asset accumulation, it enhances inequality and insecurity



Source: Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies. 58(6): 1120-1140.

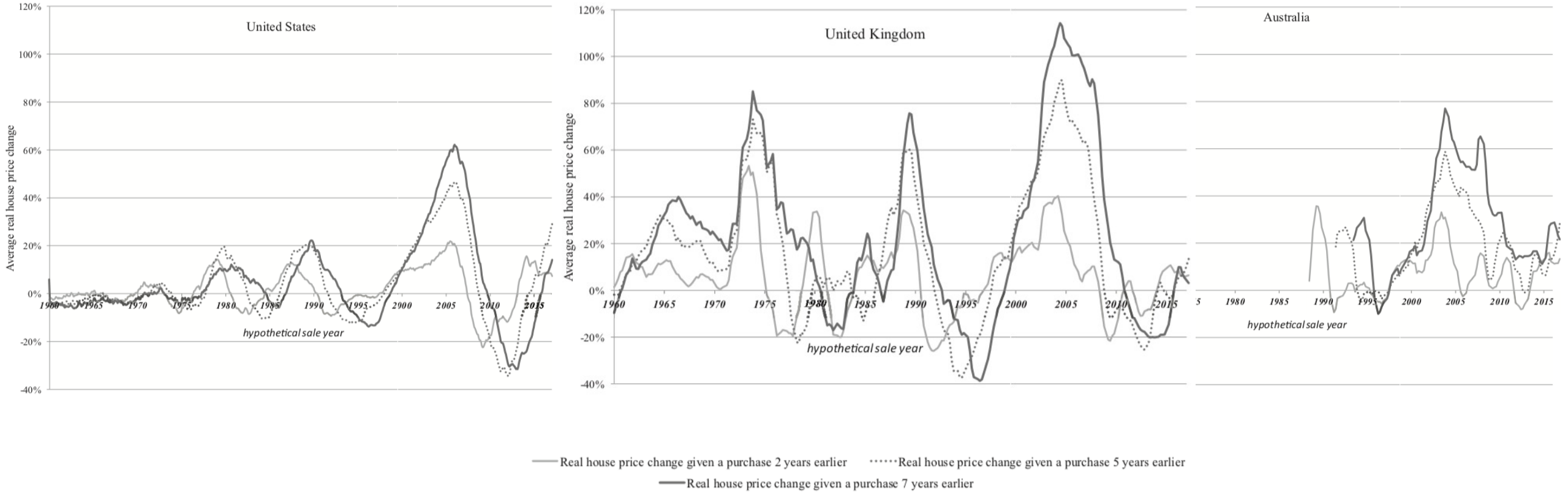
HOUSING AND WEALTH INEQUALITY

(a) Housing equity[a] inequality		1995	2001	2004	2007	2009	2010	2011	2013	2016
Australia	Share of top 40%						84.53%			
	Share of top 20%						62.40%			
	Ratio of average equity in top 10% versus bottom 50%						*28.1*			
United Kingdom	Share of top 40%					85.18%		87.45%		
	Share of top 20%					61.00%		62.12%		
	Ratio of average equity in top 10% versus bottom 50%.					*30.6*		*45.7*		
United States	Share of top 40%	93.15%	93.27%	93.40%	93.23%		96.42%		96.51%	95.64%
	Share of top 20%	74.83%	77.48%	77.84%	76.97%		81.89%		82.07%	82.22%
	Ratio of average equity in top 10% versus bottom 50%	*123.3*	*118.1*	*114.5*	*110.3*		*726.9*		*823.9*	*260.0*
(b) Housing value[b] inequality		1995	2001	2004	2007	2009	2010	2011	2013	2016
Australia	Share of top 40%						79.77%			
	Share of top 20%						57.76%			
	Ratio of average equity in top 10% versus bottom 50%						*16.6*			
United Kingdom	Share of top 40%					80.09%		79.71%		
	Share of top 20%					56.31%		54.95%		
	Ratio of average equity in top 10% versus bottom 50%					*17.4*		*16.3*		
United States	Share of top 40%	88.03%	88.84%	88.88%	89.02%		89.66%		90.53%	91.65%
	Share of top 20%	67.04%	70.52%	71.04%	70.68%		71.99%		72.89%	75.32%
	Ratio of average equity in top 10% versus bottom 50%	*47.6*	*48.5*	*48.7*	*49.5*		*56.5*		*67.9*	*84.5*

Notes: Calculated at household level. Weighted with appropriate survey weights. [a] Equity is based on total estimated housing value minus total outstanding mortgage debts.
[b] Based on total estimated housing values.

Source: Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies.

HOUSING AND WEALTH INEQUALITY



Source: Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies.

HOUSING AND WEALTH INEQUALITY

Table 2. House-price index volatility development: Standard deviation of price indices over five-year periods.

Period	Australia	United Kingdom	United States
1958–1962	n/a	3.54	1.19
1963–1967	n/a	3.29	1.32
1968–1972	n/a	10.43	2.13
1973–1977	n/a	11.28	2.95
1978–1982	n/a	10.23	4.51
1983–1987	n/a	9.68	6.63
1988–1992	3.04	18.47	5.61
1993–1997	1.14	3.68	0.92
1998–2002	6.98	20.16	9.96
2003–2007	4.72	18.56	14.94
2008–2012	4.47	12.45	12.19
2013–2017	6.52[a]	10.67	10.89
Trendline coefficient	0.977	0.298	0.689*

Data sources: Australia: HPI (1986–2003); RPPI (2003–2016); Australian Bureau of Statistics. UK: Nationwide Building Society (Nationwide, 2018). US: Case-Shiller House-Price Index (Shiller, 2017). *$p < 0.05$.

Source: Arundel, R. and R. Ronald (2021). "The false promise of homeownership: Homeowner societies in an era of declining access and rising inequality." Urban Studies.

WEALTH INEQUALITY AND FINANCIAL CRISES

Hauner, T. (2020). "Aggregate wealth and its distribution as determinants of financial crises." Journal of Economic Inequality **18**(3): 319-338.

- Aggregate national wealth and its distribution play together in contributing to financial crises: a country must be sufficiently wealthy before high wealth inequality can threaten financial and economic stability
- Wealth inequality (wealth concentration): net personal wealth held by the top 1% of households or individuals
- Aggregate wealth level: national wealth-income ratio (the sum of all marketable capital assets at their current price levels)

$$crisis_{it} = \beta_1 \Delta top1nw_{it-1} + \beta_2 \Delta \left(\frac{W}{Y}\right)_{it-1} + \beta_3 \left(\Delta top1nw \times \Delta \frac{W}{Y}\right)_{it-1} + \phi' \Delta \mathbf{X}_{it-1} + \alpha_i + \gamma_t + \varepsilon_{it}.$$

WEALTH INEQUALITY AND FINANCIAL CRISES

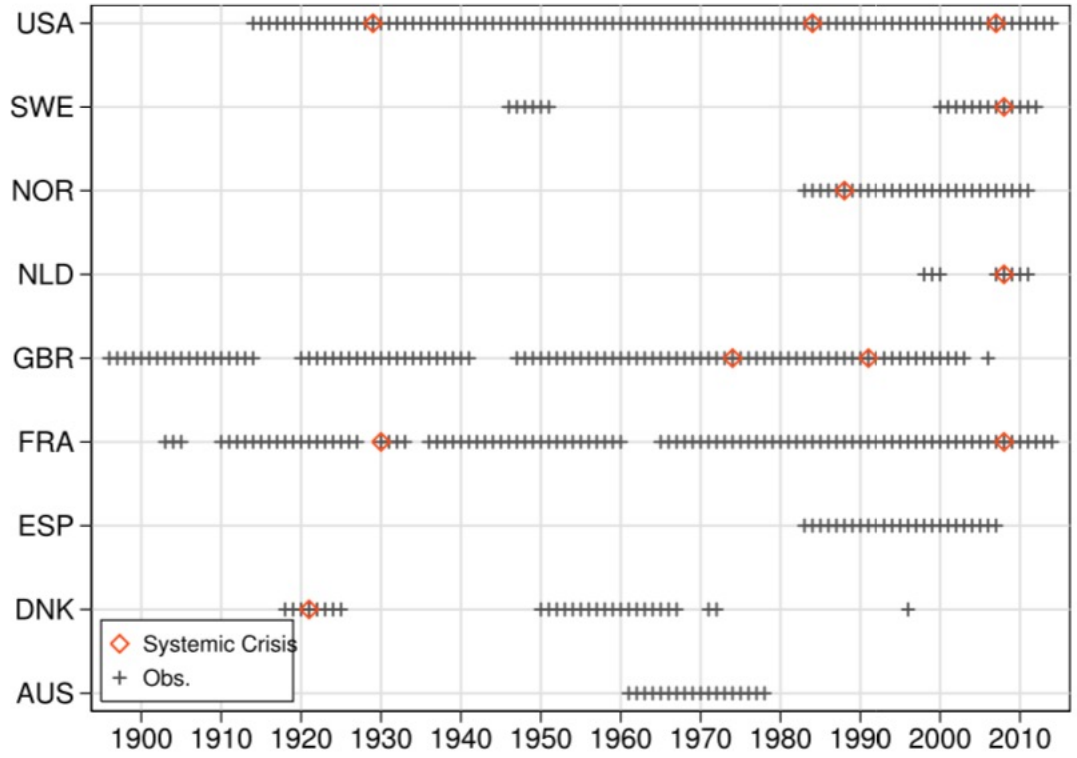


Fig. 1 Financial Crises and Data Observations. Note: Sub-sample restricted to country-year observations with data on both top 1% wealth shares and aggregate wealth-income ratios

Source: Hauner, T. (2020). "Aggregate wealth and its distribution as determinants of financial crises." Journal of Economic Inequality **18**(3): 319-338

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ Top 1% Shr Net Worth $_{t-1}$	-0.099	-0.075	0.090	-0.024	0.070	-0.095	0.057	0.308
	(0.664)	(0.650)	(1.006)	(0.677)	(0.636)	(0.593)	(0.602)	(1.016)
Δ Wealth-Income Ratio $_{t-1}$	-0.008	0.005	0.023	-0.006	-0.010	-0.001	0.002	-0.002
	(0.019)	(0.021)	(0.049)	(0.027)	(0.028)	(0.024)	(0.021)	(0.078)
(Δ Top 1 % Shr Net Worth $\times \Delta$ Wealth-Income Ratio) $_{t-1}$		3.808 *	6.249	3.986*	3.535**	4.172**	2.694 *	6.785**
		(1.915)	(3.449)	(1.938)	(1.356)	(1.599)	(1.360)	(2.427)
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Finance Share			✓					✓
Stocks, Housing, $\hat{g}$				✓	✓			✓
Current Account					✓			✓
Broad Money, Real Bank Loans						✓	✓	✓
Real Investment, Short Term Int. Rate							✓	✓
AIC	-532.5	-537.0	-340.6	-523.3	-523.8	-508.1	-531.0	-337.3
BIC	-500.0	-504.5	-310.5	-491.0	-491.8	-476.0	-499.0	-307.4
R^2	0.396	0.403	0.417	0.406	0.417	0.410	0.415	0.426
Countries	9	9	9	9	9	9	9	9
Obs	428	428	317	421	402	413	406	313

Clustered standard errors in parentheses

$^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$

Note: Dependent variable is a binary indicator of a systemic financial crisis event for a given country-year observation. The linear probability model is estimated with two-way fixed effects (2FE), controlling for country and year. Control variables are all lagged first differences and include the financial sector's share of GDP, the logs of stock price and home price indices, a growth proxy (real GDP per capita), the logs of the real current account, broad money and total real bank loans to the non-financial private sector, the log of real investment, and the short-term interest rate. All controls variables come from Jorda et al. (2017) with the exception the financial sector's share, which comes from Philippon and Reshef (2013).

Source: Hauner, T. (2020). "Aggregate wealth and its distribution as determinants of financial crises." Journal of Economic Inequality **18**(3): 319-338

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES

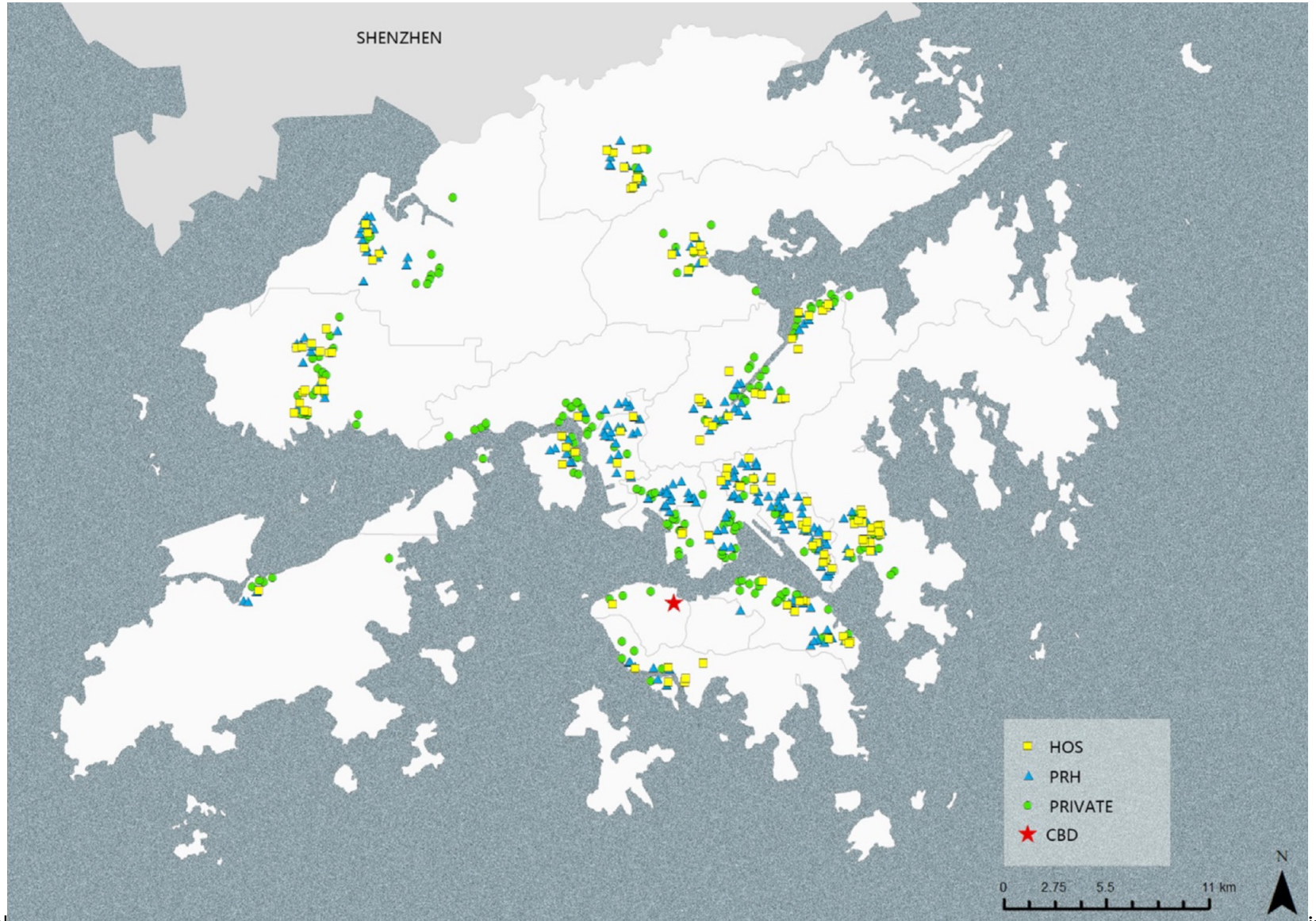
- Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment **76**: 111-122.
- Ley, D. and S. Y. Teo (2014). "Gentrification in Hong Kong? Epistemology vs. Ontology." International Journal of Urban and Regional Research **38**(4): 1286-1303.
- Rochelle, T. (2015). "Diversity and Trust in Hong Kong: An Examination of Tin Shui Wai, Hong Kong's 'City of Sadness'." Social Indicators Research **120**(2): 437-454.

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES

Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment 76: 111-122.

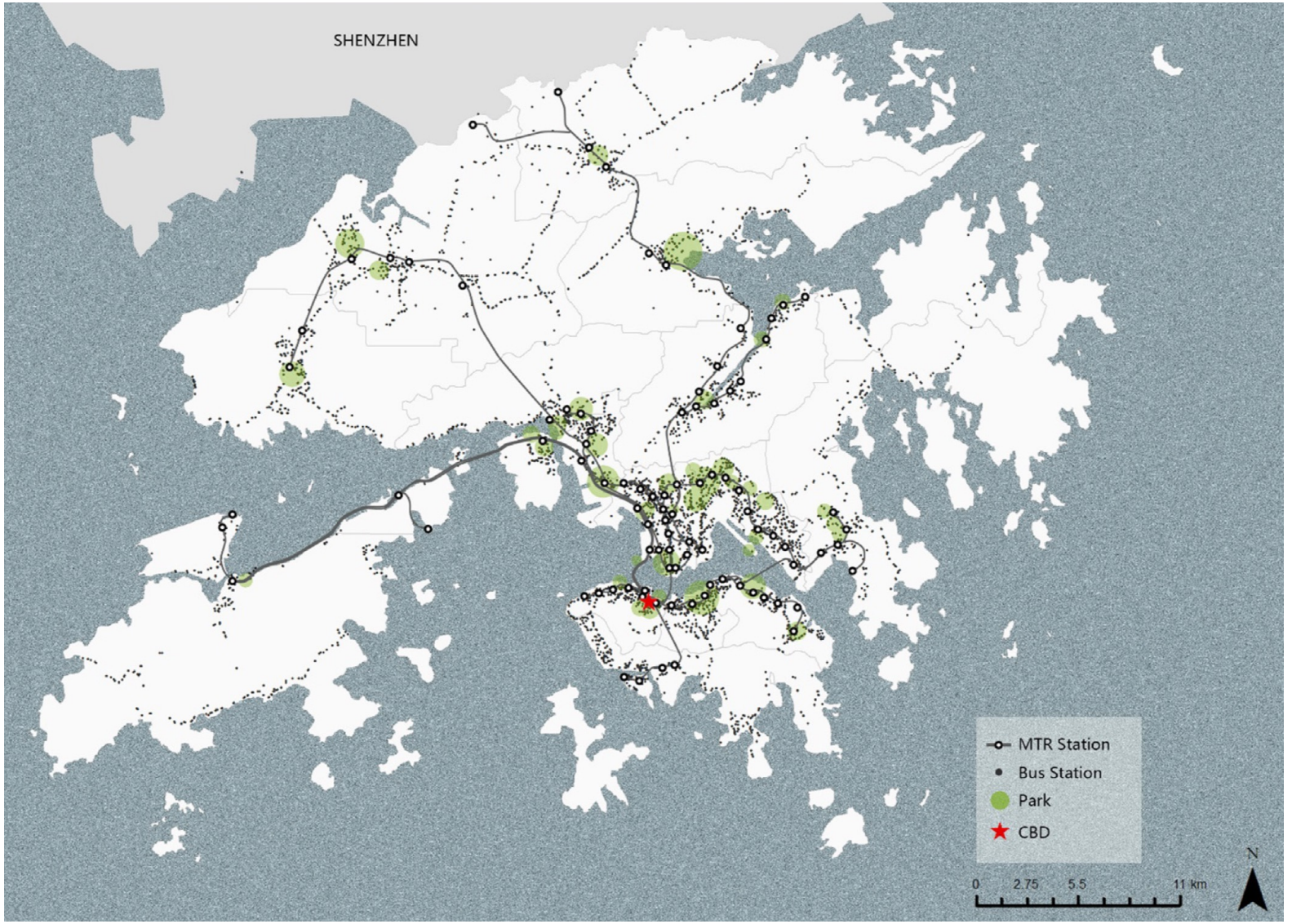
- "Ensuring a spatially equitable distribution of public goods between urban rich and poor residents is a fundamental responsibility of the public sector because spatial inequality of public services might exacerbate socioeconomic inequalities"
- Hong Kong's urban parks are spatially equitable when accessed on foot
- Public housing residents' travel time by buses or subways was almost 20% longer than that of the private housing residents
- Source of inequality: public housing residents' inferior ability to access and connect to urban parks via public transportation

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES



Source: Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment **76**: 111-122.

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES



Source: Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment **76**: 111-122.

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES

Urban park accessibility by housing type under different travel model.

Dependent:	log(A_Walk) (1)	log(A_Bus) (2)	log(A_Metro) (3)	log(A_Optimal) (4)	log(R_Walk) (5)	log(R_Bus) (6)	log(R_Metro) (7)	log(R_Optimal) (8)
HOS	−0.0826	−0.1546**	−0.2005***	−0.1347**	−0.1136	−0.1456**	−0.185***	−0.133**
	(0.1079)	(0.0659)	(0.0674)	(0.062)	(0.09)	(0.0582)	(0.0601)	(0.0555)
PRH	−0.1064	−0.1861**	−0.1938**	−0.1776**	−0.1312	−0.1732**	−0.1773**	−0.172**
	(0.1473)	(0.086)	(0.0889)	(0.0805)	(0.1217)	(0.0773)	(0.0804)	(0.0732)
log(Build_Age)	0.1543**	0.0875**	0.0495	0.0781**	0.1159**	0.071**	0.0384	0.0613**
	(0.0676)	(0.0353)	(0.0348)	(0.0329)	(0.0564)	(0.0314)	(0.0304)	(0.0293)
log(HH_Number)	−0.0593	−0.0484	−0.0301	−0.035	−0.0655	−0.0517*	−0.0329	−0.0356
	(0.0635)	(0.0343)	(0.0358)	(0.032)	(0.0515)	(0.0304)	(0.0316)	(0.0285)
log(HH_Income)	−0.176	−0.1816**	−0.1566**	−0.1626**	−0.1584	−0.1611**	−0.1372*	−0.1506**
	(0.1332)	(0.0763)	(0.0768)	(0.0711)	(0.1164)	(0.0714)	(0.0718)	(0.067)
log(Dis_CBD)	−0.0107	−0.2387*	−0.2098	−0.2656**	−0.6371***	−0.283**	−0.2974**	−0.3135***
	(0.2539)	(0.1258)	(0.1287)	(0.1133)	(0.2291)	(0.125)	(0.125)	(0.1109)
log(Dis_Bus)	−0.07	−0.0805***	−0.0559**	−0.0713***	−0.0589	−0.0706***	−0.0524**	−0.0617***
	(0.0512)	(0.0243)	(0.0252)	(0.0225)	(0.0448)	(0.0217)	(0.0229)	(0.0205)
log(Dis_Metro)	−0.2652***	−0.1303***	−0.2383***	−0.1817***	−0.2548***	−0.1313***	−0.2248***	−0.1766***
	(0.0505)	(0.0249)	(0.0253)	(0.023)	(0.0439)	(0.0229)	(0.0232)	(0.0213)
District Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R2	0.5163	0.4422	0.5143	0.4987	0.4993	0.4133	0.4916	0.4725
Observation	511	511	511	511	511	511	511	511

Source: Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment **76**: 111-122.

SOCIAL PROBLEMS IN PUBLIC HOUSING ESTATES

Magnitude of effects of public transportation.

Dependent:	Absolute accessibility			Relative accessibility		
	log(Bus- Walk) (1)	log(Metro - Walk) (2)	log(Optimal - Walk) (3)	Bus – Walk (4)	Metro – Walk (5)	Optimal –Walk (6)
HOS	−0.1587***	−0.2664***	−0.1424***	−0.1521**	−0.1641**	−0.1353*
	(0.0584)	(0.0649)	(0.0517)	(0.0707)	(0.0721)	(0.0701)
PRH	−0.2339***	−0.2054***	−0.2142***	−0.2488**	−0.2289**	−0.245**
	(0.0696)	(0.0675)	(0.0608)	(0.1037)	(0.098)	(0.1079)
log(Build_Age)	0.0482*	−0.0069	0.0432**	0.0185	0.0039	0.0162
	(0.026)	(0.0227)	(0.0204)	(0.0329)	(0.0316)	(0.0341)
log(HH_Number)	−0.0379	−0.0323	−0.0198	0.0074	0.025	0.0217
	(0.0256)	(0.0312)	(0.0221)	(0.0291)	(0.0278)	(0.0304)
log(HH_Income)	−0.2355***	−0.1613***	−0.2067***	−0.2288**	−0.1765*	−0.2203**
	(0.0645)	(0.0592)	(0.0545)	(0.1003)	(0.0929)	(0.106)
log(Dis_CBD)	−0.5022***	−0.4884***	−0.5327***	0.7672***	0.7694***	0.7547***
	(0.1043)	(0.0881)	(0.0755)	(0.2626)	(0.2709)	(0.284)
log(Dis_Bus)	−0.064***	−0.0379*	−0.0645***	0.0054	0.0178	0.0131
	(0.0211)	(0.0194)	(0.0158)	(0.0299)	(0.0287)	(0.0309)
log(Dis_Metro)	−0.0653***	−0.2335***	−0.1459***	0.0361	−0.029	0.0106
	(0.0244)	(0.0241)	(0.02)	(0.0301)	(0.0313)	(0.0312)
District Fixed Effect	Y	Y	Y	Y	Y	Y
R2	0.2637	0.4167	0.4406	0.3571	0.3284	0.3357
Observation	509	508	511	511	511	511

Notes: The dependent variable from column (1) to (3) is the change of absolute accessibility from walking to public transportation under natural logarithm format. The dependent variable from column (4) to (6) is the change of relative accessibility from walking to public transportation under linear format. The travel coefficient used to calculate urban park accessibility equals 2 ($\beta = 2$). The numbers in parentheses are standard errors.

Source: Chang, Z., et al. (2019). "Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong." Transportation Research Part D-Transport and Environment **76**: 111-122.

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The rising awareness of mental health issues in the urban environment

- Lederbogen, F., et al. (2011). "City living and urban upbringing affect neural social stress processing in humans." Nature *474*(7352): 498-501.
- Tost, H., et al. (2015). "Environmental influence in the brain, human welfare and mental health." Nature Neuroscience 18(10): 1421-1431.
- Woolston, C. (2018). "Why mental health matters." Nature *557*(7703): 129-129.
- Woolston, C. (2021). "'The problem is greater than it's ever been': US universities urged to invest in mental-health resources." Nature 590(7844): 171-172.
- Abbott, A. (2021). "Covid's mental-health toll: How scientists are tracking a surge in depression." Nature 590(7845): 194-195.
- Sloat, S. (2022). "Mental Health Care Should Be Available for All, Not a Luxury." Nature 605(7910): S12-S15.

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The recognition of the importance and complexity of subjective well being and mental health

- Poortinga, W., et al. (2021). "The role of perceived public and private green space in subjective health and wellbeing during and after the first peak of the COVID-19 outbreak." Landscape and Urban Planning 211:104092.
  - Subjective wellbeing measurement: 1) “Have you felt calm and peaceful?”, 2) “ Did you have a lot of energy?”, and 3) “ Have you felt downhearted and blue”.
- Wang, R., et al. (2021). "Dynamic greenspace exposure and residents’ mental health in Guangzhou, China: From over-head to eye-level perspective, from quantity to quality." Landscape and Urban Planning 215: 104230.
  - Mental health measurement: World Health Organization Well-Being Index (WHO-5). (1. I have felt cheerful and in good spirits, 2. I have felt calm and relaxed, 3. I have felt active and vigorous, 4. I woke up feeling fresh and rested, 5. My daily life has been filled with things that interest me)

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The recognition of the importance and complexity of subjective well being and mental health

- Ong, Z. X., et al. (2021). "Measuring Online Wellbeing: A Scoping Review of Subjective Wellbeing Measures." Frontiers in Psychology **12**: 616637.

TABLE 4 | Components of subjective wellbeing measured, $N = 38$.

Components measured	% of Scales
Negative affect only	21.1
Positive affect only	18.4
Life Satisfaction only	10.5
Positive affect and negative affect	23.7
Positive affect, negative affect, and life satisfaction	5.3
Positive affect, life satisfaction, and depression/anxiety symptoms	2.6
Depression/anxiety symptoms only	15.8
At researcher's discretion	2.6

TABLE 5 | Time periods covered by the scales, $N = 28$.

Time scale	% of Measures
5 years ago	3.6
Past year	3.6
Past 30 days	7.2
Last month	3.6
Past few weeks	3.6
Past 2 weeks	21.4
Past week	17.9
Past 3 days	3.6
Yesterday*	3.6
Past day*	3.6
Today	3.6
Instantaneous	1.7
Future	3.6
In the near future	3.6
5 years future	3.6
At researcher's discretion	3.6

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The recognition of the importance and complexity of subjective well being and mental health

- Hoisington, A. J., et al. (2019). "Ten questions concerning the built environment and mental health." Building and Environment **155**: 58-69.

Potential self-report measures relevant to mental health.

Measure	Description	Condition(s)/Factor(s) of Interest	Time to Administer (minutes)
Beck Depression Inventory (BDI-II)	Psychometrically-sound 21-item measure to assess depressive symptoms [11,12]	Depression-related symptoms	5
Insomnia Severity Index (ISI)	Reliable and valid 7-item instrument assessing the nature and severity of insomnia symptoms [13]	Insomnia symptoms	5
International Physical Activity Questionnaire (IPAQ) Short Form	Reliable and valid 7-item measure of physical activity [14]	Physical activity	5
36-Item Short Form Health Survey (SF-36)	36-item multi-purpose health survey that yields an 8-scale profile of functional health and well-being scores [15]	Perceived health (general, physical/ mental health)	10
National Health Interview Survey (NHIS) – Chronic Conditions	Chronic conditions [16] are used to query chronic health conditions [17]	Chronic health conditions	5
Outcome Questionnaire-45 (OQ-45)	45-item questionnaire designed to measure distress associated with key areas of functioning (e.g., interpersonal functioning, social role) [18]	Psychological distress	10
Patient Health Questionnaire-9 (PHQ)-9	Frequently used and psychometrically-sound measure of depression [19,20]	Depression-related symptoms	5
PTSD Checklist for DSM-5 (PCL-5)	20-item self-report measure used to assess PTSD symptom severity, based on DSM-5 diagnostic criteria [9]	Posttraumatic symptoms	5
Seasonality Pattern Assessment Questionnaire (SPAQ)	Screening tool extensively used in studies of seasonality of mood and behavior, and of Seasonal Affective Disorder [21]	Seasonality of mood and behavior; Seasonal Affective Disorder	5

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The rethinking of the role of built environment in these contexts

- We have learned about the role of nature in urban living.
  - Xue, T., et al. (2019). "Declines in mental health associated with air pollution and temperature variability in China." Nature Communications 10: 2165.
  - Lehberger, M., et al. (2021). “Self-reported well-being and the importance of green spaces-A comparison of garden owners and non-garden owners in times of COVID-19.” Landscape and Urban Planning 212: 104108.
  - McDougall, C. W., et al. (2022). "Blue space exposure, health and well-being: Does freshwater type matter?" Landscape and Urban Planning 224: 104446.
  - Lu, Y., et al. (2021). "Escaping to nature during a pandemic: A natural experiment in Asian cities during the COVID-19 pandemic with big social media data." Science of the Total Environment 777: 146092.

SOME RECENT DEVELOPMENTS IN URBAN STUDIES

The rethinking of the role of built environment in these contexts

- The physical aspects of urban environment are well studied
  - Clark, B., et al. (2020). "How commuting affects subjective wellbeing." Transportation 47(6): 2777-2805.
  - Lee, J. H. (2022). “Housing quality determinants of depression and suicide ideation by age and gender.” Housing Studies. Forthcoming.
  - Vallee, J., et al. (2022). "Everyday Geography and Service Accessibility: The Contours of Disadvantage in Relation to Mental Health." Annals of the American Association of Geographers 112(4): 931-947.
- The social aspects of urban environment are getting attention
  - Wang, S. Q., et al. (2022). "Effects of open space accessibility and quality on older adults' visit: Planning towards equal right to the city." Cities 125: 103611.
  - Kleeman, A., et al. (2023). The impact of the design and quality of communal areas in apartment buildings on residents‘ neighbouring and loneliness. Cities. 133.
  - Kuehnle, D., et al. (2023). JUE Insight: Making it home? Evidence on the long-run impact of an intensive support program for the chronically homeless on housing, employment and health. Journal of Urban Economics. 133.
  - Wang, X.Z. and T. Liu (2023). Home-made blues: Residential crowding and mental health in Beijing, China. Urban Studies. 60(3) 461-482.

SIX HOUSING QUESTIONS (TOPICS)

Housing tenure choice and homeownership

Gentrification

Place attachment

Housing bubbles

Housing wealth

Residential satisfaction

SESSION SUMMARY

- Landed properties are generally desirable
- Landed properties are complex
- Land and housing problems are geographical, economic, social, political, and psychological issues. A multi-disciplinary approach is helpful.
- Planners and researchers routinely use demographics to predict housing demand. This is a questionable approach and likely to under-estimate housing demand in large metropolitan areas