

Housing regimes and the distribution of wealth: A comparison of Austrian regions

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III/LIS Comparative Economic Inequality Conference

25.02.2023

Argument

Are regional housing policy institutions associated with national and sub-national wealth inequality?

Use heuristic regime typology to classify regional housing institutions in Austria and examine whether wealth outcomes associated previously with regimes differ across regions

- The wealth premium of homeownership varies across places - with implications for national level estimates of horizontal inequality and inequality decompositions groups
- Differences in regional wealth inequality are partly attributable to regional differences in housing choices

Comparative housing studies

In comparative social science, housing (welfare) regime typologies reflect the institutional setup of housing policies

Regimes are also associated with different wealth stratification outcomes (horizontal inequality renters-owners, vertical inequality)

Mechanisms:

- affecting the distribution of housing tenure choices
- shaping the wealth premium associated with different tenure choices

Literature and contributions

Correlates of wealth inequality across countries (Causa, Woloszko, and Leite 2020; Kaas, Kocharkov, and Preugschat 2019; Pfeffer and Waitkus 2021):

- How to account for stratification within different groups of housing tenants (i.e. owners vs. renters)?
- What institutions can explain distributional outcomes?

Housing regimes (Kemeny 1981; Hoekstra 2009):

- Housing regimes and wealth inequality (Bryant, Spies-Butcher, and Stebbing 2022; Christophers 2021; Wind, Lersch, and Dewilde 2017)
- Discussion on the merits of using regional (housing) regimes as an analytical tool Hoekstra 2020; Stephens 2020; Blackwell and Kohl 2018.

Housing regime(s) in AT



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Lessons from Vienna: a housing success story 100 years in the maki...

As world cities suffer from crippling rent rises, the Austrian capital's radical housing policy is inspirational

Austria considered to be archetypical example of unitary rental markets.

- Low levels of homeownership
- Decent affordability - competition between private and non-profit providers
- Small differences in quality across tenure types

Housing regime(s) in AT

But...

- Rent regulation depends on age of housing stock - older dwellings are more tightly regulated (rent levels, contract duration, ...) - regional differences in age of housing stock
 - ▶ Housing stock age
- Non-profit sector: large state-level variation in mix between municipal providers and housing associations
- Moreover,
 - Subsidising of new construction at state level (predominantly direct construction subsidies) - balance between supply and demand side subsidies
 - Spatial development planning at state/municipal level

Hypotheses

Wealth premium (tenure wealth gap) varies across regions (higher premium where rental markets are less regulated)

Regional regimes also feed into regional inequality:

- Through regional differences in the share of renters in combination with homeownership wealth premium (higher renter share where rents are more regulated and higher prevalence of municipal vis-à-vis associations)
- Through different impact of a marginal owner on the distribution of wealth

Dataset I

- ECB Household Finance and Consumption Survey (HFCS) - Wave 3 (2017) for Austria
- Financially knowledgeable person provides information on household assets and debt, by asset class
- N total (Vienna) 3072 (802)
- No oversampling of the rich
- Complex survey design: all implicates used, survey (replicate) weights taken into account where appropriate

Dataset II

- HFCS Core
 - (Marketable) Wealth: Net wealth, non-housing wealth, inverse hyperbolic sine transformation (ihs)
 - Based on respondent's assessment of their wealth
 - Housing: "If you sold your house today, what price would it fetch?"
 - Extensive plausibility checks
 - Housing: Tenure structure, rent payments (excl. utilities)
 - Demographic data, income (gross)
- In addition from paradata:
 - Detailed regional stratification, by federal states and urbanisation
 - Information on landlords (private, subsidised, council)
 - Housing quality (condition, type of construction, ...)

Methodology I

First step: "Tenure wealth gap"

Object of interest: differences in coefficients-"coefficient effects"
(Kaas, Kocharkov, and Preugschat 2019; Christelis, Georgarakos, and Haliassos 2013)

- Net wealth/non-housing net wealth with inverse hyperbolic sine transformation
- Difference in mean net wealth between homeowners and renters
- Use OLS to compute mean difference between different types of tenure net of other characteristics

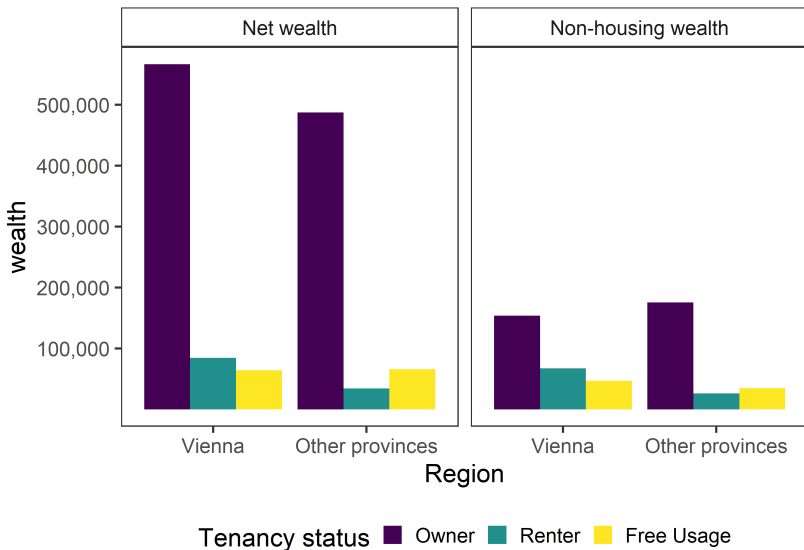
Methodology II

Second step: RIF regressions (Fortin, Lemieux, and Firpo 2011)

- Explaining by how much a function of the marginal outcome distribution is affected by changes in the covariate distribution
- IF gives the relative change in a distributional statistic of interest if there is a marginal increase in the probability mass of one specific element in the distribution
- The influence function of the Gini Coefficient is given by (Choe and Van Kerm 2018):

$$\begin{aligned}
 IF(y, Gini, F) = & - \frac{\mu(F) + y}{\mu(F)} Gini(F) + 1 \\
 & - \frac{y}{\mu(F)} + \frac{2}{\mu(F)} \int_0^y F(x) dx
 \end{aligned} \tag{1}$$

Tenure wealth gap



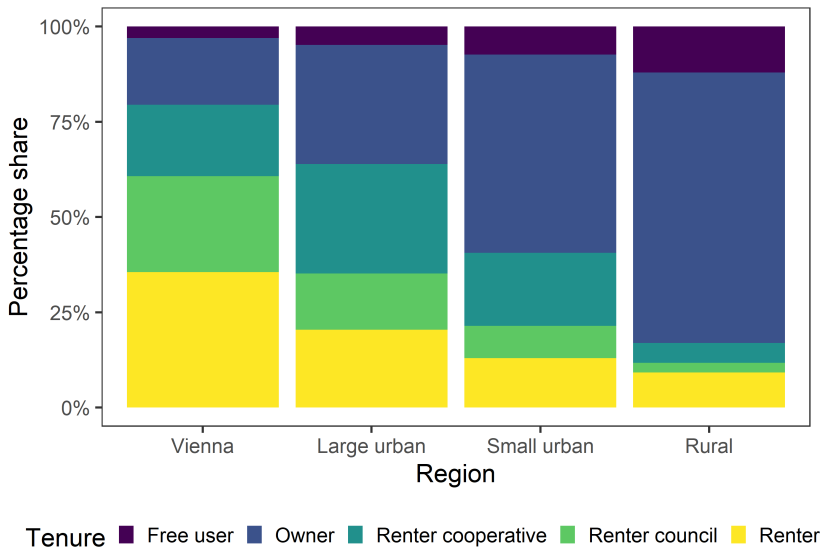
Tenure wealth gap

Table: Tenure and wealth accumulation

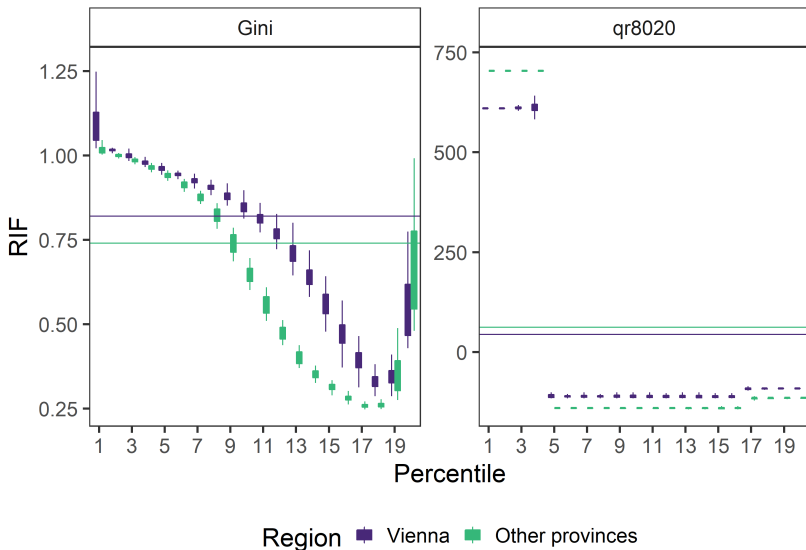
	Net wealth		Non housing net wealth	
	estimate	std.error	estimate	std.error
Intercept	-2.457	0.648***	-10.227	0.526***
Renter	-3.078	0.172***	-0.574	0.145**
Free	-2.574	0.229***	0.236	0.18
Large urban	0.062	0.227	0.575	0.175**
Small urban	0.195	0.106	0.877	0.07***
Rural	0.322	0.128*	0.892	0.111***
Renter × Large urban	-0.791	0.16***	-1.065	0.222***
Free × Large urban	1.169	0.349**	0.530	0.272*
Renter × Small urban	0.205	0.142	-0.337	0.108**
Free × Small urban	0.173	0.3	-0.611	0.245**
Renter × Rural	-0.416	0.19*	-0.791	0.203**
Free × Rural	0.615	0.354	-0.279	0.274

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Source: HFCS 2017. Survey weights and multiple imputations taken in to account. Control variables: education, age, foreign nationality, married, inherited, income, household size, other real estate

Housing tenure structure



Influence function



RIF regression

Table: Tenure and inequality

	Gini (net wealth)		p80p20 ratio (net wealth)	
	estimate	std.error	estimate	std.error
Intercept	-1.305	0.629*	3164.633	198.09***
Renter	0.339	0.075**	6.163	14.487
Free	0.365	0.067***	-171.241	21.398***
Large urban	-0.047	0.018**	-1006.774	91.618***
Small urban	0.061	0.047	-57.802	9.693***
Rural	0.012	0.023	-37.169	13.613**
Renter × Large urban	0.121	0.057*	1546.108	140.831***
Free × Large urban	0.028	0.061	840.524	97.982***
Renter × Small urban	-0.031	0.066	60.045	9.767***
Free × Small urban	-0.043	0.06	262.123	23.405***
Renter × Rural	0.046	0.07	11.040	16.296
Free × Rural	0.006	0.053	192.075	21.094***

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Source: HFCS 2017. Survey weights and multiple imputations taken in to account. Control variables: education, age, foreign nationality, married, inherited, income, household size, other real estate

Discussion

Evidence on differences in the tenure wealth gap at the subnational level

- considering the tenure wealth gap nationally obscures systematic variation in household wealth within different groups of tenants
- Sub-national differences comparable to international findings on the tenure wealth gap (for example, comparing Austria with Finland or Germany)

Regional inequality and housing: cross-regional variance is substantial – in particular in view of tenure choices feeding into inequality → Counterfactual wealth inequality in Vienna with the housing tenure structure of other regions ranges 6.6% below the actual Gini coefficient in Vienna.

Conclusion

The sub-national comparison points towards important role of tenure in accounting for national wealth inequality and differences in the distribution of wealth across regions in Austria

Differences in taxation and other social policy institutions are be less important at the sub-national level

The findings highlight the value of analysing the relationship between institutions and regional inequality within countries

Future research may draw on causal designs to investigate in more detail the mechanisms at work (Goffette-Nagot and Sidibé 2016)

References I

- [1] Timothy Blackwell and Sebastian Kohl. “The Origins of National Housing Finance Systems: A Comparative Investigation into Historical Variations in Mortgage Finance Regimes”. In: *Review of International Political Economy* 25.1 (Jan. 2, 2018), pp. 49–74.
- [2] Gareth Bryant, Ben Spies-Butcher, and Adam Stebbing. “Comparing Asset-Based Welfare Capitalism: Wealth Inequality, Housing Finance and Household Risk”. In: *Housing Studies* (Mar. 30, 2022), pp. 1–22.
- [3] Orsetta Causa, Nicolas Woloszko, and David Leite. *Housing, Wealth Accumulation and Wealth Distribution: Evidence and Stylized Facts*. LWS Working paper 30. LIS Cross-National Data Center in Luxembourg, Feb. 2020.
- [4] Chung Choe and Philippe Van Kerm. “Foreign Workers and the Wage Distribution: What Does the Influence Function Reveal?” In: *Econometrics* 6.3 (3 Sept. 2018), p. 41.

References II

- [5] Dimitris Christelis, Dimitris Georgarakos, and Michael Haliassos. “Differences in Portfolios across Countries: Economic Environment versus Household Characteristics”. In: *Review of Economics and Statistics* 95.1 (Mar. 2013), pp. 220–236.
- [6] Brett Christophers. “A Tale of Two Inequalities: Housing-wealth Inequality and Tenure Inequality”. In: *Economy and Space* 53.3 (2021), pp. 573–594.
- [7] Nicole Fortin, Thomas Lemieux, and Sergio Firpo. “Chapter 1 - Decomposition Methods in Economics”. In: *Handbook of Labor Economics*. Ed. by Orley Ashenfelter and David Card. Vol. 4. Elsevier, Jan. 1, 2011, pp. 1–102.
- [8] Florence Goffette-Nagot and Modibo Sidibé. “Housing Wealth Accumulation: The Role of Public Housing”. In: *Regional Science and Urban Economics* 57 (Mar. 1, 2016), pp. 12–22.

References III

- [9] Joris Hoekstra. “Comparing Local Instead of National Housing Regimes? Towards International Comparative Housing Research 2.0.”. In: *Critical Housing Analysis* 7.1 (June 2020), pp. 74–85.
- [10] Joris Hoekstra. “Two Types of Rental System? An Exploratory Empirical Test of Kemeny’s Rental System Typology”. In: *Urban Studies* 46.1 (Jan. 2009), pp. 45–62.
- [11] Leo Kaas, Georgi Kocharkov, and Edgar Preugschat. “Wealth Inequality and Homeownership in Europe”. In: *Annals of Economics and Statistics* 136 (2019), pp. 27–54.
- [12] J. Kemeny. *The Myth of Home-Ownership : Private versus Public Choices in Housing Tenure*. Routledge Direct Editions. London : Routledge & Kegan Paul, 1981. ISBN: 978-0-7100-0634-9.
- [13] Fabian T Pfeffer and Nora Waitkus. “The Wealth Inequality of Nations”. In: *American Sociological Review* (2021), p. 36.

References IV

- [14] Mark Stephens. “How Housing Systems Are Changing and Why: A Critique of Kemeny’s Theory of Housing Regimes”. In: *Housing, Theory and Society* 37.5 (Oct. 19, 2020), pp. 521–547.
- [15] Barend Wind, Philipp Lersch, and Caroline Dewilde. “The Distribution of Housing Wealth in 16 European Countries: Accounting for Institutional Differences”. In: *Journal of Housing and the Built Environment* 32.4 (Dec. 2017), pp. 625–647.

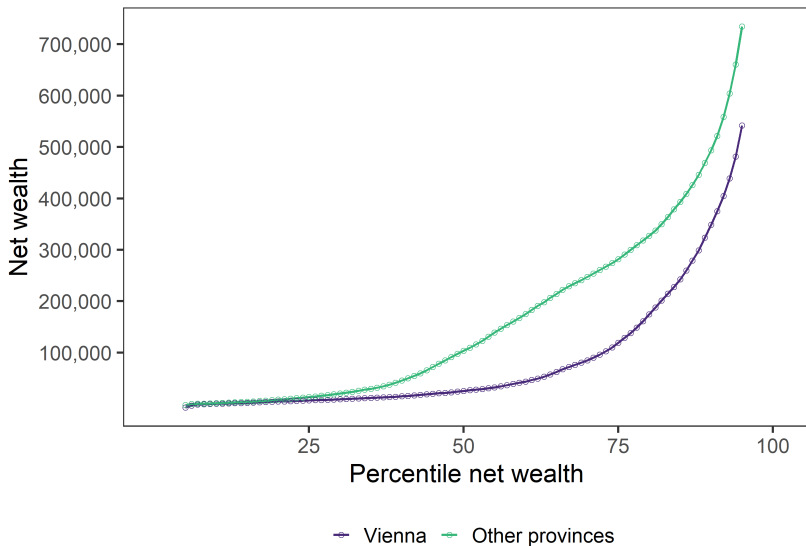
Descriptive statistics: Core variables ◀ Data II

Table: Descriptive statistics

Variable	Mean	Standard deviation
net wealth - ihs	10.841	4.619
non housing net wealth -ihs	9.777	4.540
renter	0.468	
free user	0.072	
other provinces	0.770	
vocational education	0.475	
other education	0.377	
age	52.980	16.951
foreign national	0.091	
married	0.505	
inherited	0.379	
income	10.586	0.692
household size	2.136	1.230
other real estate	0.870	

Note: Source: HFCS 2017. Survey weights and multiple imputations taken in to account.

Descriptive statistics: Wealth distribution

[Data II](#)

Indicators: Wealth distribution ◀ Data II

Table: Summary indicators

Index	Vienna	Other provinces
Mean net wealth	176897.721	272230.292
Mean non-housing wealth	86512.445	98098.416
Gini net wealth	0.809	0.703
Gini non-housing wealth	0.814	0.802
Top 20% share net wealth	0.834	0.700
Top 20% share non-housing wealth	0.821	0.818

Note: Source: HFCS 2017. Survey weights and multiple imputations taken in to account.

Age of housing stock

◀ Housing regime(s) in AT

