What are the odds?

Development of homeownership of Austrian households since 1990 and the significance of intergenerational transfers

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Young Economists Conference 2024

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OVERVIEW

MOTIVATION

Volkspartei ✓
@volkspartei

• • •

Für junge Menschen ist #Eigentum die beste Maßnahme gegen #Altersarmut. @sebastiankurz #puls4 #nrw17 #kurz2017

10:14 nachm. · 25. Sep. 2017

💬 116   🔁 221   ♡ 76   🔖 5   ⬆️

⚙️ **Besonders relevant**   ⌄

Antwortet @volkspartei und @sebastiankurz

"For young people, homeownership is the best measure against old-age poverty." (Own Translation)
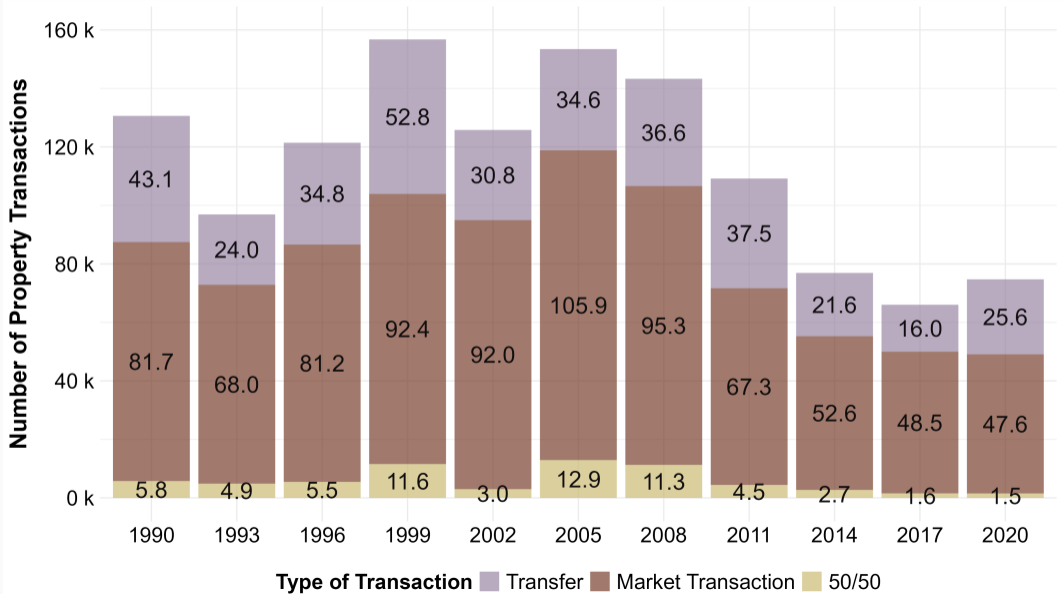
State of Research

➤ **Wagner (2014)**: Inheritance → key role in determining access to homeownership.
➤ **Biljanovska and Igan (2024)**: Income growth has not kept pace with skyrocketing property prices. Mortgage rates fell as interest rates fell, but were unable to offset the rise in prices.
➤ **Mathä et al. (2017)**: Without access to inheritance → odds of purchasing property remain low.
➤ **Mundt et al. (2024)**: Regional analysis further underscores these challenges. Research shows → homeownership rates among young adults under 35 have declined sharply since 2010.

Main Question

➤ In what way have the odds of a market transaction changed after 2009, and to what extent do property transfers contribute to these Developments?

Number of Real Estate Transactions in Austria

TRANSACTIONS IN ABSOLUTE NUMBERS POOLED WAVES 1-4

Stacked bar chart titled "Number of Property Transactions" (y-axis) by year (x-axis).

Year	Transfer	Market Transaction	50/50
1990	43.1	81.7	5.8
1993	24.0	68.0	4.9
1996	34.8	81.2	5.5
1999	52.8	92.4	11.6
2002	30.8	92.0	3.0
2005	34.6	105.9	12.9
2008	36.6	95.3	11.3
2011	37.5	67.3	4.5
2014	21.6	52.6	2.7
2017	16.0	48.5	1.6
2020	25.6	47.6	1.5

Type of Transaction: Transfer, Market Transaction, 50/50

Household Characteristics Market Transactions and Transfers

	Market Transaction		Transfer	
	Share (%)		*Share* (%)	
Unconditional	31.6		12.7	
Transfer before Transaction	6.2		3.1	
Transactions 1990-2009	19.8		8.4	
Transactions Post 2009[a]	4.6		2.4	
	Conditional Mean EUR	*Mean/Median Ratio* %	*Conditional Mean* EUR	*Mean/Median Ratio* %
Household Net Wealth[b]	126,941.7	1.9	345,367.5	3.8
Household Net Income[c]	24,446.7	1.2	21,616.9	1.1
Main Residence Valuation (CPI adj.)	194,477.1	1.5	165,594.9	1.5

Trends in Real Estate valuation of households' main residence

REAL ESTATE VALUATION PER m^2 CPI ADJUSTED

Real Estate Valuation in EUR

First value: €1,338.84

Legend Median Real Estate Valuation per Square Meter
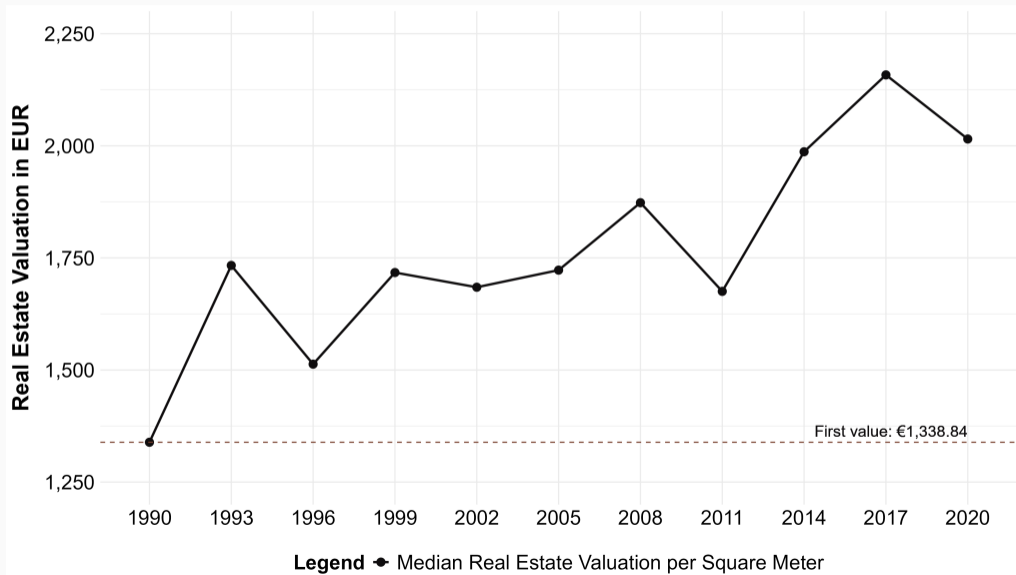
Trends of Household Net Income and Wealth over Time

TRENDS IN HOUSEHOLD INCOME IN AUSTRIA

Legend ● Median Disposable HH Income (SILC) ● Median Net HH Income (HFCS, Market Transaction)
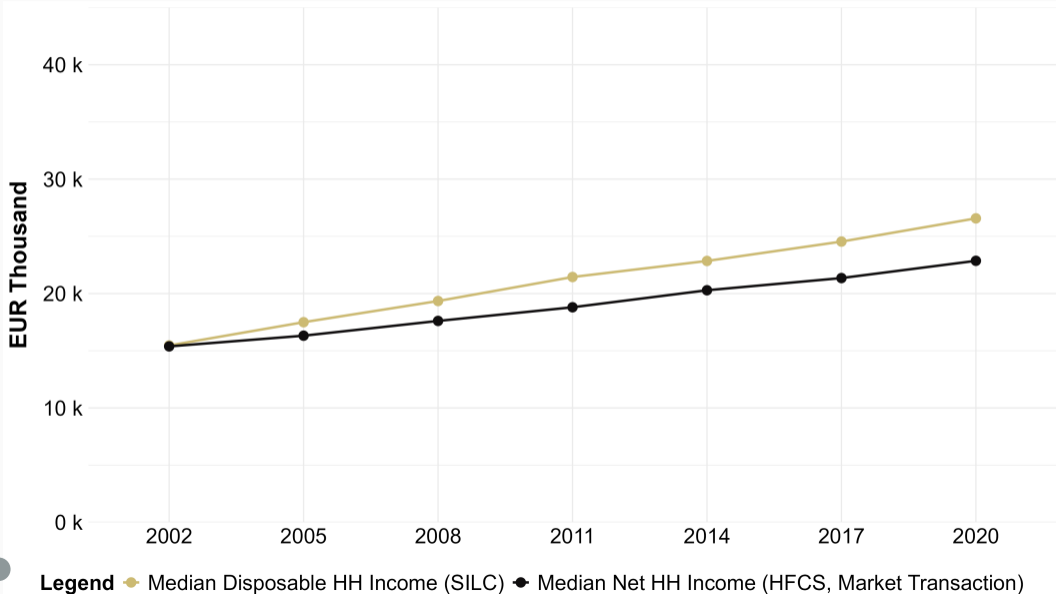
TRENDS IN HOUSEHOLD NET WEALTH IN AUSTRIA WITHOUT REAL ESTATE WEALTH (1)

EUR Thousand

Legend → Median Net Wealth Market Transaction → Median Net Wealth Transfer

Legend — Median Net Wealth Market Transaction — Median Net Wealth without Property
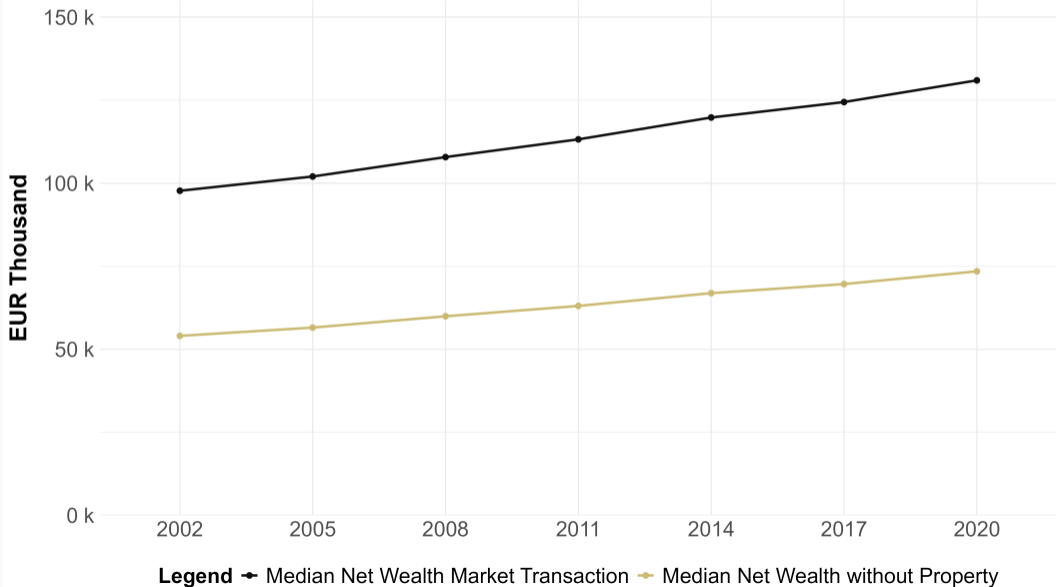
The Probability of a Market Transaction

Following Guris et al. (2011) using a logit regression, estimating the odds of market transaction.

$$P(y = 1|x) = G(\beta_0 + \beta_1 x_1 + \ldots + \beta_k x_k) = G(\beta_0 + x\beta) \tag{1}$$

G only assumes values between 0 and 1 for all real numbers z -> guarantees that only response probabilities between zero and one exist. G -> logistic model, which represents the cumulative distribution function for standard logistic random variables (Wooldridge, 2013, p. 584*f*).

$$G(z) = \frac{\exp(z)}{1 + \exp(z)} \tag{2}$$

Logit Regression Models with and without Controls

	Dependent Variable: **Market Transaction**							
	(1)[a]				**(2)**[b]			
	Odds Ratio	**Std. error**	**t**	**P>|t|**	**Odds Ratio**	**Std. error**	**t**	**P>|t|**
(Intercept)	2.0	0.0	22.2	0.0***	0.0	1.0	−6.0	0.0***
Post 2009	0.9	0.1	−2.2	0.0*	0.8	0.1	−2.3	0.0*
Transfer before transaction	1.9	0.2	4.1	0.0***	1.2	0.3	0.6	0.6
Log of Net Income					1.9	0.1	7.3	0.0***
Transfer before transaction x Secondary School, Matura					5.1	0.7	2.2	0.0*
Number Observations	914				914			

*Source: HFCS 2017.

[a] *Model 1*: Plain Model without controls.

[b] *Model 2*: Control Model with additional controls (Base in brackets) (*Real Estate Valuation per m² CPI adjusted, Age, Education (Apprenticeship, Vocational School), Gender (male), Occupation (Domestic Tasks), Income, Federal State (Vorarlberg), Household Size (One-Person Household)*).

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Main Contributions

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➤ Odds of purchasing or building real estate property over time.

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➤ Adding controls makes transfer before transaction insignificant, but the interaction with a secondary or high school diploma increases odds by 4.1%.
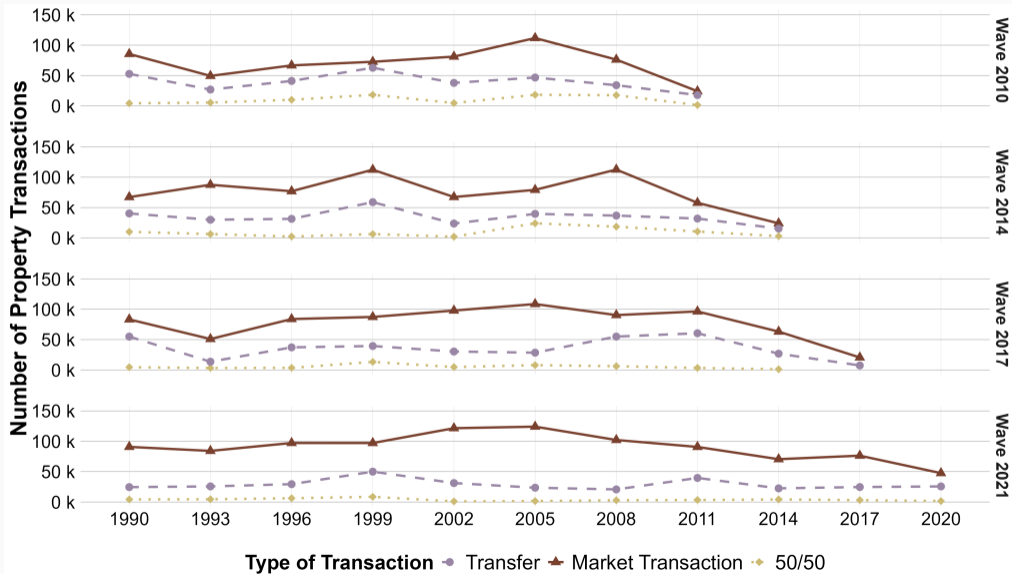
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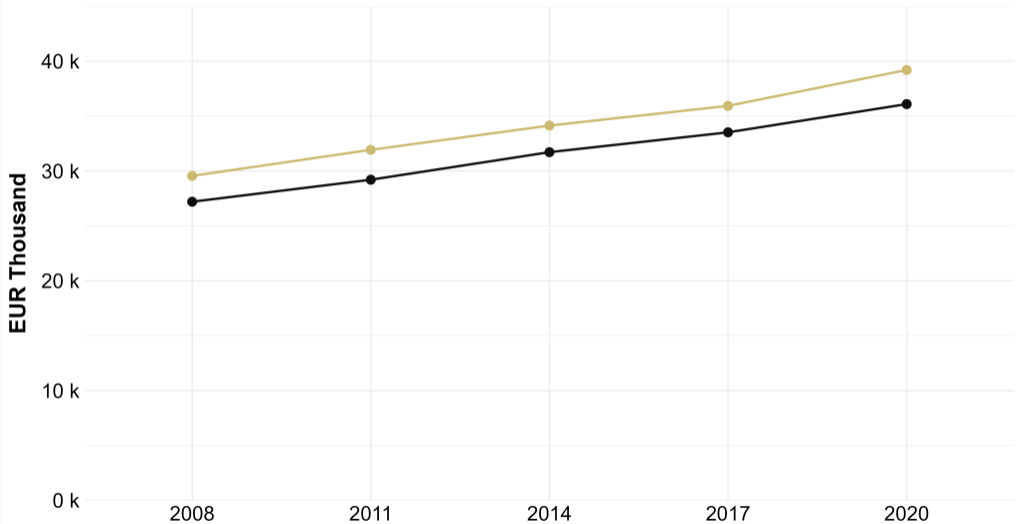
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Appendix

NUMBER OF REAL ESTATE TRANSACTIONS (WAVES SEPARATED)

Number of Property Transactions (y-axis)

Waves (right labels): Wave 2010, Wave 2014, Wave 2017, Wave 2021

X-axis years: 1990, 1993, 1996, 1999, 2002, 2005, 2008, 2011, 2014, 2017, 2020

Type of Transaction — Transfer · Market Transaction · 50/50

DEVELOPMENT OF HOUSEHOLD INCOME IN AUSTRIA (NOT EQUIVALISED)

EUR Thousand

| | 2008 | 2011 | 2014 | 2017 | 2020 |

Legend — Median Disposable HH Income (SILC) — Median Net HH Income (HFCS, Market Transaction)

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