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A Decision of a Lifetime: Housing Tenure Choice
under Randomised Prices

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This paper studies how households react when property prices change. Using a randomised survey experiment in Austria, it shows that lower prices raise renters' willingness to buy and higher prices raise owners' willingness to sell. A dynamic model for renters helps explain these choices: the bigger the gap between a renter's reservation price and the offered price, the more likely the offer is accepted. Overall, willingness to transact remains limited.

JEL classification

D14, E43, G21, R21

Keywords

Household Finance, Tenure, Property, Randomised Control Trial, HFCS.

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Households respond to property prices

Households respond to price changes in the expected direction, but the overall willingness to transact remains limited. Even sizeable price changes lead to only modest changes in stated willingness to buy or sell.



Limited willingness to transact property

Even at a 20\% discount relative to market value, only a minority of renters are willing to buy, while owners' willingness to sell remains lower across the full price range.



Modelling implied gaps matter

The model links renter behaviour to a reservation price: the larger the reservation-price gap, meaning the more attractive the offer, the higher the probability that the renter accepts it.

A Decision of a Lifetime: Housing Tenure Choice under Randomised Prices*

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Abstract

Buying a primary residence is one of the most important financial decisions households make, yet there is little direct evidence on how willing households are to transact when property prices change. This decision is also central to policy debates on how to promote property ownership, for example through lower transaction costs, credit-market regulation, or targeted subsidies. We study this margin using randomised buy and sell offers embedded in the 2021 Austrian Household Finance and Consumption Survey, a representative household survey. Renters are asked whether they would purchase a property comparable to their current residence, and owners whether they would sell their current home, at experimentally varied prices equal to $\pm 10\%$ or $\pm 20\%$ around baseline values. Both renters' willingness to buy and owners' willingness to sell respond significantly to price variation in the expected direction. At the same time, the overall willingness to transact remains limited. Even at a 20 percent discount relative to market value, only a minority of renters are willing to buy, while owners' willingness to sell is lower across the full price range. Price responsiveness is stronger among lower-income renters, whereas older households display higher tenure inertia. We develop a parsimonious dynamic reservation-price framework for renters' purchase decisions showing that the model-implied reservation-price gap strongly predicts experimental acceptance. Affordability matters, but it explains only part of the micro-level tenure inertia we document.

JEL Classification: D14, E43, G21, R21

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Non-technical summary

Buying a home is one of the most important financial decisions most households make. It affects living conditions, wealth accumulation, financial security and social mobility. Yet we know surprisingly little about a basic behavioural margin in housing markets: how willing households are to buy or sell their main residence when the price changes.

This paper studies that question using a randomised survey experiment embedded in the 2021 Austrian Household Finance and Consumption Survey. Renters were asked whether they would buy a property similar to the one they currently live in, while owners were asked whether they would sell their current home. The prices shown to households were randomly varied around a household specific baseline value, allowing us to measure how willingness to buy or sell changes when prices become more or less favourable.

The main finding is that households do respond to prices, but only to a limited extent. Renters are more likely to buy when the offered price is lower, and owners are more likely to sell when the offered price is higher. However, even sizeable price changes generate only modest changes in willingness to transact. Even at a 20 percent discount relative to the baseline value, only a minority of renters say they would buy. Owners' willingness to sell is lower across the full price range. Lower-income renters are more responsive to price changes, while older households display stronger tenure inertia.

The paper then asks why willingness to buy remains low. Affordability constraints clearly matter: many renters lack sufficient funds or face credit constraints. But affordability is not the whole story. Some renters prefer to maintain their rental agreement, others may expect better opportunities in the future, and many households appear reluctant to change tenure status even when the price is favourable.

To interpret these patterns, the paper develops a simple economic model of the renter's decision. The model shows that buying is not just a comparison between today's rent and today's purchase price. Buying now also means conceding the option of waiting for a better opportunity later. This option value of waiting can make rejection rational even when the current offer appears attractive. The model produces a reservation price for each renter: the highest price at which buying becomes preferable to continuing to rent and waiting.

The key empirical result is that this model-implied reservation-price gap strongly predicts whether renters accept the offer in the experiment. In other words, renters are the more likely to buy the lower the experimental price is compared to their model-implied reservation price. This links the theoretical model directly to the observed survey responses and shows that the model captures an economically meaningful part of the decision.

The findings suggest that policies lowering transaction costs, relaxing financing constraints or providing targeted subsidies may increase access to owner-occupation for some households, particularly for renters close to the affordability margin. At the same time, the experimental and model-based evidence indicates that these measures are unlikely to generate large tenure transitions on their own. In the context analysed here, low willingness to buy reflects not only financial constraints, but also preferences for stability, satisfaction with current rental arrangements and the option value of waiting. The results therefore point to limits in the extent to which price and credit measures alone can affect tenure choice.

1 Introduction

How do households adjust their housing tenure choices when property¹ prices change? This question is central to housing economics and to policy debates on homeownership, affordability, and mobility. A broad class of policies—including transaction-tax reforms², credit-market regulation³, borrower-based macro-prudential measures⁴, and targeted subsidies for owner-occupation—implicitly assumes that households are responsive to changes in the terms of trade. Yet direct evidence on this behavioural margin remains scarce. Most existing empirical approaches rely either on realised market transactions, which are observed only after households have crossed an important decision threshold, or on structural models that infer willingness to transact indirectly.⁵ As a result, we still know relatively little about how households’ willingness to buy or sell their home and how it changes when prices change.

This paper studies this margin by combining a randomised price experiment embedded in a representative household survey with a dynamic model of tenure choice. We exploit the 2021 Austrian Household Finance and Consumption Survey (HFCS), which includes experimentally varied hypothetical buy and sell offers around household-specific baseline values. Renters are asked whether they would buy a property similar to the one they currently occupy at a randomised price equal to $\pm 10\%$ or $\pm 20\%$ around a baseline market value inferred from the rental cost of their current home. Owners are asked whether they would be willing to sell the property in which they live at a randomised price equal to $\pm 10\%$ or $\pm 20\%$ around their self-assessed market value. Because the offered price varies exogenously while the underlying household and the property remain unchanged, the design identifies local price-induced changes in willingness to buy and willingness to sell under otherwise constant conditions.

Austria provides an informative setting in which to study this question. With a homeownership rate just below 50%, Austria is one of the euro area countries with the largest rental sectors, including an important social and cooperative segment. The boundary between renting and owning is therefore particularly salient. While the level of the willingness to transact is shaped by Austrian institutions, the object of interest in this paper is a micro behavioural margin—the change in households’ willingness to transact when the price of a primary residence changes—which is relevant more broadly.

¹We use the term *property* exclusively—subsuming what is elsewhere termed “housing,” “home,” “real estate,” or “dwelling”—to avoid ambiguity and to emphasise the asset-based economic concept. Throughout, *property* refers to residential units relevant to our setting, i.e., properties used as, or intended to be used as, the household main residence (HMR). We do not discuss buy-to-let or purely investment properties unless explicitly stated.

²See e.g., [Cho and Francis \(2011\)](#); [Girshina et al. \(2024\)](#); [Poterba \(1984\)](#); [Rosen \(1985\)](#).

³See e.g., [Campbell et al. \(2011\)](#); [Mian and Sufi \(2010\)](#).

⁴See e.g., [Gatt \(2024\)](#); [Kuttner and Shim \(2016\)](#).

⁵See e.g., [Hanushek and Quigley \(1980\)](#); [Gahvari \(1986\)](#); [de Palma et al. \(2005\)](#); [San Juan \(2023\)](#); [Li et al. \(2019\)](#).

Two empirical findings stand out. First, willingness to transact is price responsive but limited. Renters are more likely to buy when the offered price is lower, and owners are more likely to sell when the offered price is higher, but the overall response remains modest. Even at a 20% discount relative to baseline value, only a minority of renters are willing to buy, while owners are even less willing to sell across the entire price range. The results therefore point to substantial tenure inertia—for renter households even when the property is kept similar—under sizeable price movements. Second, responses differ systematically across observable characteristics. Lower-income renters are more price responsive, whereas older households are markedly less likely to change their tenure status, as expected. Rich survey information on past tenure, financial conditions, expectations, and future plans further suggests that affordability constraints matter, but do not fully explain households’ reluctance to transact.

To interpret these findings, we develop a parsimonious dynamic reservation-price model of renters’ purchase decisions, in which households compare accepting a current offer with continuing to rent and waiting for future opportunities under uncertainty and impatience.⁶ The model delivers a household-specific reservation price and highlights the option value of waiting: renters compare the value of buying today not only with current rental costs, but also with the possibility of more favourable opportunities in the future. It predicts that willingness to buy increases with current rent and decreases with patience. We bring this structure to the data through the reservation-price gap, defined as the difference between the household-specific reservation price and the experimental offer. This gap is the empirical counterpart of the model’s cut-off rule: the larger the gap, the more attractive the offer should be. We show that it has significant explanatory power for experimental acceptance decisions. The model therefore provides a disciplined interpretation of the reduced-form evidence and helps explain why willingness to buy remains low even when offered prices are substantially below baseline market values.

This paper makes three contributions. First, it provides direct experimental evidence on a behavioural margin that is usually unobserved: households’ willingness to buy or sell the property when its price changes. Because each household faces an experimentally varied price while the underlying household and property remain fixed, the experiment identifies local responses regarding the willingness to transact and does not infer them from realised market transactions. This contribution speaks directly to the literature on housing demand, tenure choice, and household balance sheets. Buying a household main residence⁷ is often the largest financial decision in a person’s life, and owner-occupied property typically constitutes the dominant asset in households’ balance sheets, shaping

⁶This is consistent with classic tenure-choice frameworks (Henderson and Ioannides, 1983; Mills, 1990; Kiyotaki et al., 2011).

⁷The aspiration to own a home is almost universal, highlighting a property’s multiple functions as a consumption good, investment asset and status symbol (Poterba, 1992; Girouard et al., 2006; Ioannides and Ngai, 2025).

wealth distributions within and across countries (Rosen, 1985; Henderson and Ioannides, 1983; Mills, 1990). Property markets therefore play a central role in the wealth accumulation process, intergenerational (transmission of) inequality, and financial stability. In many OECD countries (OECD, 2022), the strong rise in property prices since the mid-1990s (Girouard et al., 2006; Melecky and Paksi, 2024) has intensified concerns about affordability and about the distributional consequences of housing policies. These property price developments are shaped by both supply- and demand-side dynamics, including limited land availability, political and regulatory constraints (Aura and Davidoff, 2008; Saiz, 2010; Murphy, 2018; de Palma et al., 2007), and variations in the structure of rental markets (Catte et al., 2004). Our experiment adds a new piece of evidence to this debate by measuring how households respond to price changes before property transactions are observed.

Second, the paper provides an economic interpretation of the low willingness to buy among renters. The dynamic model shows that a renter’s decision is not simply a comparison between today’s rent and today’s purchase price. Buying also means conceding the option of waiting for future opportunities. The model therefore maps each renter’s current rent, patience, and local ownership-cost environment into a household-specific reservation price. This reservation price summarises the price at which buying now becomes preferable to waiting. In this respect, the paper contributes to a growing literature on the frictions shaping households’ adjustments. The results suggest that changes in prices alone may be insufficient to generate large tenure transitions, even when those price changes are economically meaningful. This matters for how economists think about the effects of affordability shocks, taxation, and credit conditions on housing markets. If households exhibit substantial inertia in their willingness to transact, then reforms aimed at stimulating ownership or increasing mobility may have weaker short-run effects than frictionless benchmarks would suggest.

Third, and most importantly for the internal coherence of the paper, we take the model’s key object to the data. We compute a model-implied reservation-price gap, defined as the difference between the household-specific reservation price and the experimental offer. The gap is not an auxiliary descriptive variable: it is the empirical counterpart of the model’s cut-off rule. We show that this gap strongly predicts whether renters accept the randomised offer, even after controlling for affordability and other household characteristics. This provides direct empirical support for the model’s central implication and shows that affordability constraints, while important, do not fully account for existing tenure inertia.

The paper also contributes methodologically by extending the use of population-based survey experiments to housing and tenure choice (Mullinix et al., 2015; Alesina et al., 2018; Kuziemko et al., 2015; Albacete et al., 2025). Survey experiments have been widely used to study preferences and behaviour in other domains (Horton et al., 2011; Rand

and Nowak, 2011; Reynolds et al., 2019), but they are still rare in housing economics. Our design yields local, design-based measures of the willingness to transact—the renters’ willingness to buy and the owners’ willingness to sell—under exogenous price variation. These objects are not full market elasticities, nor do they capture equilibrium feedback, but they identify a behavioural margin that is central to many models of housing adjustment and policy transmission. In that sense, the paper complements rather than substitutes for structural and general-equilibrium approaches (Kiyotaki et al., 2024; Paz-Pardo, 2024; Albuquerque et al., 2024).

The remainder of the paper is organised as follows. Section 2 describes the HFCS data and the experimental design. Section 3 presents the empirical results on willingness to buy and sell, and documents tenure patterns together with information on past tenure status and future plans. Section 4 develops the model that mirrors the experimental set-up and outlines how we link model-implied reservation prices to experimental responses. Section 5 discusses policy implications. Section 6 concludes.

2 Experimental design

This section describes the dataset, as well as the survey experiment. It also provides an overview about household tenure choice in Austria (AT).

2.1 Household Finance and Consumption Survey (HFCS)

The Eurosystem Household Finance and Consumption Survey (HFCS) is a harmonised cross-country survey coordinated by the European Central Bank (ECB), collecting detailed household balance sheet data for euro area countries. In this paper, we use the 2021 wave⁸ for Austria. It includes around 2,300 successfully completed interviews and employs a two-stage stratified cluster sampling design for representative gross sample of the Austrian household population. Sampling weights are adjusted for unit non-response and post-stratification, and missing items are imputed using a Bayesian multiple imputation method.⁹ It aspires to the highest quality standards¹⁰ in terms of methodology applied in all steps of data production. The HFCS collects detailed household-level data on wealth (assets and liabilities), income, consumption, and includes individual-level information of household members (some restricted to adults aged 16 and over). The section on real

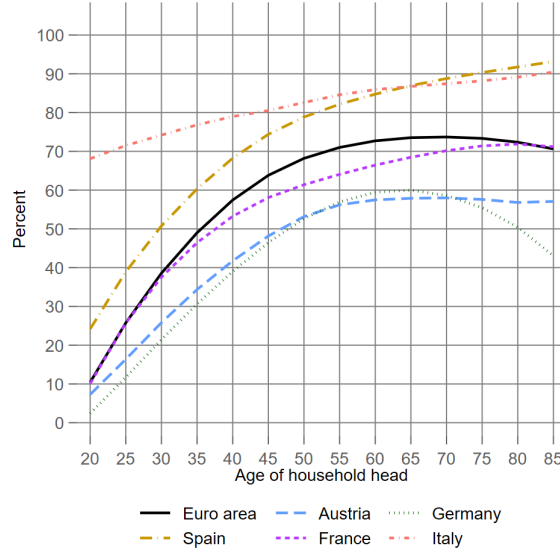
⁸According to Austrian Central Bank (OeNB), the number of residential property transactions in Austria remained broadly stable around the period relevant for our analysis, increasing by 1.2% in 2019, declining marginally by 0.2% in 2020, and rising more markedly by 9.1% in 2021 (see <https://www.oenb.at/dam/jcr:d9b733fa-f255-432e-8f83-1c4bba1b3904/property-market-review-q4-22.pdf> [accessed 21/5/2026]).

⁹See: Albacete et al. (2023); Fessler et al. (2023); Household Finance and Consumption Network (2023a,b).

¹⁰Usually regarded as the methodology implemented by the Survey of the Consumer Finances (SCF) of the U.S. Federal Reserve Board.

assets and tenure status contains our embedded randomised experiment, in which the financially knowledgeable person (FKP) was asked to answer hypothetical questions about buying or selling a property similar to their main residence under varying price scenarios.

Figure 1: Homeownership by age in selected euro area countries



Notes: This figure shows the smoothed homeownership rate by age of household head.

Source: HFCS 2021, ECB, OeNB.

Why Austria? Austria presents a compelling setting for examining tenure choices. With a homeownership rate falling just short of 50%, it is one of the countries in the euro area with the lowest homeownership rates.¹¹ As shown in Figure 1, homeownership in Austria (as well as in Germany) is comparatively low. In countries, such as Spain or Italy, it exceeds 80% for households aged 55+. The homeownership rate in Austria is lower than in the euro area throughout the age profile comparable to what can be seen for Germany.¹² Table A.1 in Appendix A compares owners and renters with regard to some key characteristics (personal characteristics always relate to the household head or FKP).¹³ It shows that renting households tend to be younger, more likely to be living alone, and less affluent than owners – both in terms of wealth and income. Renting households are less likely to hold a university degree, while owner-occupied households typically consist of two or more members, and have higher household income and financial assets.

¹¹Note, that we do not consider the small share of households using their HMR for free. Within the remaining sample of owners and renters, the ownership share comes to 51%.

¹²This relatively low rate is likely to be at least partly due to the widespread availability of subsidised rental housing (see e.g. [Statistics Austria, 2025](#)) and a generous public pension system in Austria, reducing the need for housing wealth accumulation to secure financial security in old age.

¹³The gross sample initially contained 1,131 households renting their current property, two of which were excluded due to missing information in the experiment.

2.2 Price experiment

We implemented a randomised price experiment within the HFCS real assets section.¹⁴ *Prior* to data collection, we designed a stratified randomisation procedure. Households were randomly assigned to one of five groups (one control and four treatment groups), depending on the FKP’s month of birth and with stratification by region.

Table 1: Mean characteristics over control and treatment groups - renter

	All	P*0.8	P*0.9	P*1.0	P*1.1	P*1.2
Age	52.9	53.2	52.6	54.6	53	51.4
Income (in EUR 1000s)	42.7	42.9	42.8	41.9	41.4	44.5
Financial assets (in EUR 1000s)	29.9	28.8	32.4	29.5	25.3	33.1
Household members age 14+	1.7	1.6	1.7	1.7	1.6	1.8
No. of children (0-13)	0.2	0.2	0.2	0.1	0.2	0.3
Size of property (in m ²)	69.8	69.4	68.9	71.9	68.6	70.9
Received inheritance/gift (in %)	24.6	31.3	26.8	19.8	23.4	21.1
Was denied credit (in %)	5.9	7	4.4	6.2	5.6	6.8
No. of observations	1129	201	278	177	256	217

Notes: This table displays some socio-economic information across the control and treatment groups for renters in Austria. The household head is chosen according to Canberra definition.

Source: HFCS 2021, ECB, OeNB.

Table 2: Mean characteristics over control and treatment groups - owner

	All	P*0.8	P*0.9	P*1.0	P*1.1	P*1.2
Age	59	59	61.6	59.1	57.3	57.9
Income (in EUR 1000s)	61.2	57.7	57.6	65.5	65.7	58.6
Financial assets (in EUR 1000s)	65.6	52.5	63.3	68	84.2	51.4
Household members age 14+	2.1	2.1	2.1	2	2.3	2
No. of children (0-13)	0.2	0.2	0.1	0.3	0.3	0.2
Size of property (in m ²)	139.1	131.6	137	135.5	152.3	133.4
Received inheritance/gift (in %)	54.1	53.4	52.9	55.9	55.9	51.7
Was denied credit (in %)	0.7	0.8	0.2	0	2	0
No. of observations	973	186	231	158	253	145

Notes: This table displays some socio-economic information across the control and treatment groups for owners (including partial owners) in Austria. The household head is chosen according to Canberra definition.

Source: HFCS 2021, ECB, OeNB.

Tables 1 and 2 show the outcome of the randomisation procedure with regard to key household parameters, such as income, finances, and socio-economic characteristics

¹⁴Further details on experimental design and questionnaire wording are provided in Appendix B.

for renter and owner-occupied households, respectively. Treatment groups are comparable across the dimensions analysed. While meaningful socio-economic differences exist between renters and owner-occupiers (see Table A.1), these do not affect the interpretation of the treatment effects, since the empirical analysis compares treated and untreated households within the respective tenure groups.¹⁵

All owners were first asked to self-assess the market value of the property used as their HMR. Subsequently, they received a hypothetical offer to sell at a randomised price (80%, 90%, 100%, 110%, or 120% of the self-assessed value).¹⁶ Renters were shown a similar purchase scenario: they reported their monthly rent (excluding utilities), from which a hypothetical market price ($Price_c$) for property c is calculated using a simple capitalisation method:

$$Price_c = Rent_c \cdot \frac{12}{0.03}$$

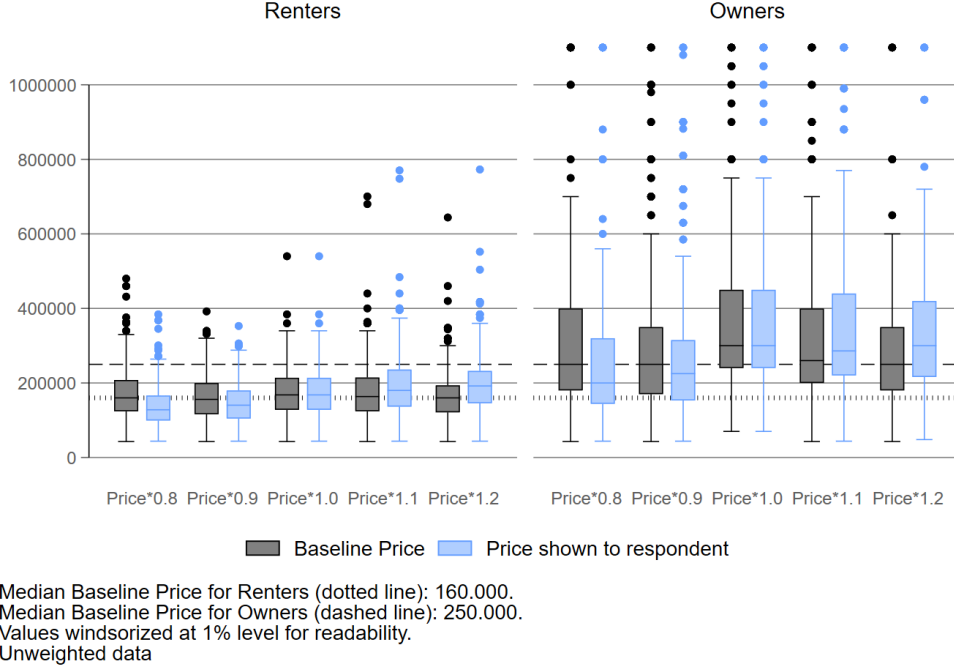
They were then asked if they would buy a comparable property at a randomised price (again, $\pm 0\%$, $\pm 10\%$, or $\pm 20\%$ of $Price_c$). We deliberately focus on moderate price deviations around the baseline value, namely $\pm 10\%$ and $\pm 20\%$. More extreme price changes would almost mechanically generate stronger responses: if a property were offered at a very small fraction of its value, nearly all renters would wish to buy, whereas an extremely high offer price would induce most owners to sell. Such cases are not informative about the margins that are typically relevant for policy. Our design instead targets the range in which discussions about transaction costs, credit conditions, taxation, or moderate price corrections are most likely to matter. By exogenously varying the price of the property (similar to the one used as HMR) while holding all other attributes constant, the experimental design enables a clean identification of the impact of the price on the willingness to buy or sell, minimising concerns about confounding factors such as unobserved heterogeneity in property characteristics, location or household-specific conditions.

Figure 2 summarises the distribution of prices shown to households in the experiment. The dark grey boxes refer to the baseline (i.e. 100%) price. The light blue boxes refer to the distribution of prices actually shown to the respondents. For the control group ($1.0 * Price_c$), this means distributions coincide – they are exactly the same. For the treatment groups $0.8 * Price_c$ and $0.9 * Price_c$, the average prices shown to respondents are lower and for treatment groups $1.1 * Price_c$ and $1.2 * Price_c$, average prices are higher.

¹⁵Austria’s unit response rate in the fourth HFCS wave was around 40%, which is favourable relative to other euro area countries, where response rates ranged from about 10% to almost 60%. This figure refers to participation in the survey overall, not to response to the experimental module conditional on interview completion where all successfully interviewed households participated. Item-non response (included in the analysis with multiple imputation) on the main variable of the experiment was below 2% for owner and just above 2% for renter households respectively.

¹⁶For owners, the experimental question deliberately leaves open whether selling would be followed by the purchase of another property, a move to rental accommodation, or another housing arrangement. This simplification is intentional: the aim is to isolate the willingness to sell at a given price, rather than to model the full sequence of post-sale tenure choices.

Figure 2: Prices shown to renters and owners by treatment group



Notes: This figure shows box plots of prices shown to renters and owners for each treatment group.
Source: HFCS 2021, ECB, OeNB.

Figure 2 shows that the baseline prices are similar within the two groups. However, the prices shown to owners are in general higher than those shown to renters, which likely reflects that owners tend to live in larger and higher quality properties. The short dashed line shows that the median baseline price for renters is 160,000 euro, whereas the median baseline price for owners (the long dashed line) is 250,000 euro. Overall, Figure 2 also indicates no systematic property price / valuation differences between treatment groups (dark grey boxes) but the designed change in offered prices (light blue boxes) for the respective property.

This experiment enables us to estimate the (causal) effect of price variation on the willingness to transact, under otherwise constant conditions, i.e., given the distribution of property characteristics, including locational information. We deliberately frame the treatment effects as changes in the willingness to buy or sell — i.e., changes in the probability that a household accepts a purchase (or sale) offer — rather than as conventional “price elasticities.” First, our experimental variation consists of discrete, randomised price steps ($\pm 10\%$ and $\pm 20\%$ around a baseline), and each household is provided with one offer. Under this design, we cleanly identify the local change in acceptance probability at those price points, conditional on observed characteristics — not a continuous derivative of demand with respect to price. Second, the outcome is binary (accept/reject), so AMEs (average marginal effects) in a regression model correspond to changes in probability at the observed support, whereas elasticity requires a ratio of percentage changes in quantity

to percentage changes in price. With a single binary decision and no intensive margin, translating into an elasticity would require additional structure (e.g., a distributional assumption over heterogeneous reservation prices and a smooth mapping from price to market quantities). To avoid over-interpretation, we therefore refer to our estimates as local acceptance responses (for renters) and local sale responses (for owners). Conceptually, these responses are tightly linked to the reservation price framework developed in our model (see Section 4). Empirically, reporting willingness to buy/sell respects the experimental variation, maintains a transparent behavioural interpretation, and avoids the false precision that would come from forcing an elasticity where the design does not identify one.

Our evidence is from Austria—a low-homeownership setting with a large social/co-operative rental sector, specific transaction taxes/fees, and macro-prudential limits at the time of interviews—so levels reflect Austrian institutions. We are convinced, however, that two features support external validity: (i) our object is a micro response—the willingness to accept a randomised buy/sell price holding other conditions fixed—usable across contexts; and (ii) the renter model (reservation price/acceptance under search and impatience) is institution-agnostic. Yet, we are limited as we do not identify general-equilibrium feedbacks, multi-offer search, or medium-run tenure transitions. Policy implications are therefore illustrative and anchored to local willingness-to-transact with sensitivity to financing and transaction costs.

The limitation of an experimental set-up to only observe willingness of transactions of existing – instead of newly built – housing stock is minor, as over 80% of residential transactions in Austria concern existing properties.¹⁷ In general, people also tend to stay in their house/flat for a long time, once they bought it. Up-scaling in the form of selling a house to buy another one is relatively rare in Austria.

3 Empirical Results

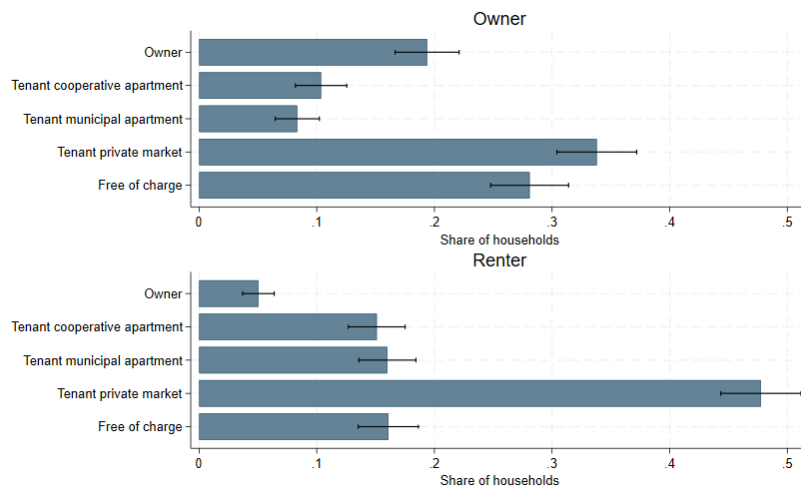
We now turn to the empirical results from the survey experiment. Using randomised price variations, we examine how renters’ willingness to buy and owners’ willingness to sell respond to changes in offered prices. First, we present descriptive evidence on the entire trajectory of past, present, and future housing situations. Then, we estimate multivariate models that account for household and property characteristics. Our goal is to determine the extent to which price variations influence tenure choices in the current market.

¹⁷See Figure C.1 in Appendix C.

3.1 Descriptive Evidence

Starting with past tenure status, Figure 3 illustrates households' tenure status prior to their current housing situation. About half of today's homeowners either already owned a property or lived free of charge (e.g., in their parents' home) before acquiring their current home. Around 30% of current homeowners previously rented in the private housing market, while roughly 10% each rented in the cooperative or municipal housing market. Among current renters, around 80% had also been renters previously, primarily in the private rental sector. Transitions from ownership to renting are relatively rare, with only about 5% of current renters having previously owned their home. Overall, these patterns suggest that prior ownership or periods of living rent-free facilitate the accumulation of savings required for a down payment, and thus play a crucial role in enabling subsequent property ownership. An alternative route to home ownership without the need to save for the down-payment are transfers, such as inheritance or gifts.

Figure 3: Past tenure status



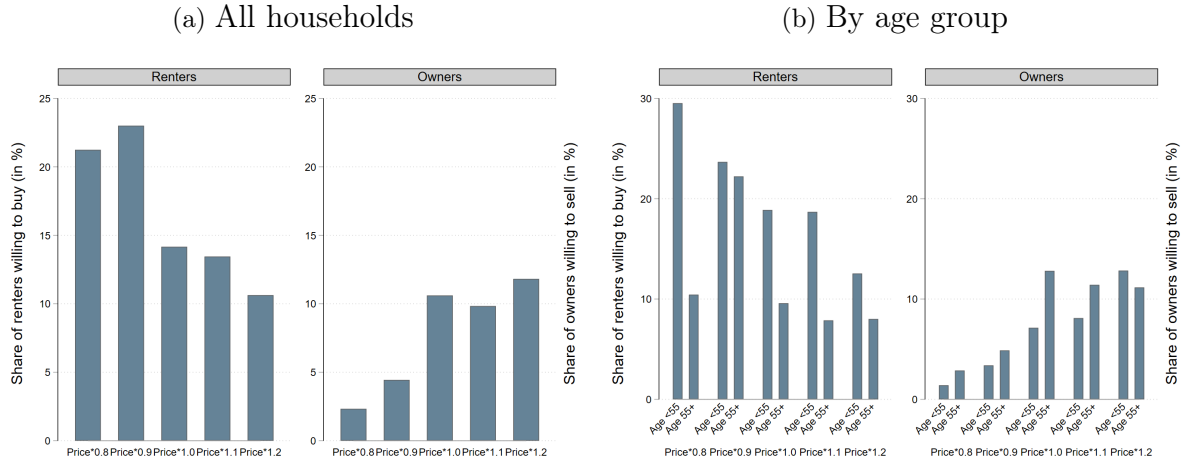
Notes:

- i) This figure shows the past tenure status for current owners and renters.
- ii) Estimates use household weights provided in the HFCS. Standard errors take the multiple imputation structure into account. Error bars are based on a symmetric 95% confidence interval.

Source: HFCS 2021, ECB, OeNB.

Figure 4 provides an overview of the unconditional willingness to buy and sell. Renters exhibit a higher willingness to buy compared to owners' willingness to sell. Depending on the price variation, between 23% and 10% of renters express willingness to buy a property similar to their current HMR, while only between 2% and 10% of owners express willingness to sell. As expected, the willingness to buy increases the lower the price, and willingness to sell increases the higher the price. However, even when prices are altered by 20% relative to the market value, the majority of households prefer to maintain their current tenure status. This highlights the existing inertia of tenure decisions and points to potential limitations of policies relying solely on price incentives to alter tenure status.

Figure 4: Unconditional shares of renters and owners willing to buy and sell



Notes:

i) This figure displays the unconditional willingness to buy (renters) or sell (owners) by treatment group. Panel (A) shows the results for all households in the sample, while Panel (B) shows results by age group, where households are separated into two groups, those with household heads younger and those older than 55+ years of age.

ii) Estimates use household weights provided in the HFCS.

Source: HFCS 2021, ECB, OeNB.

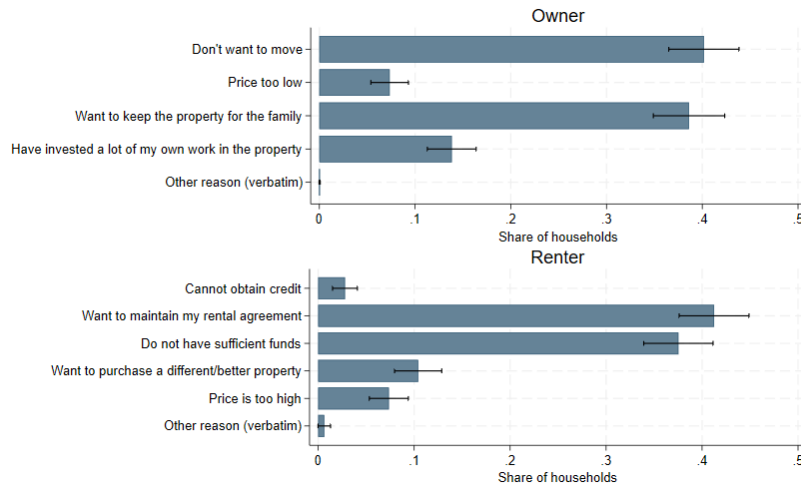
The observed pattern closely resembles a local, implicit demand and supply schedule: the willingness to buy declines as prices increase, while the willingness to sell rises. Yet, demand from renters consistently exceeds supply from owners for most of the price ranges exceeding and falling below the market value¹⁸ – at least up to the treatment group offering prices exceeding 20% of the market value, pointing toward upward pressure on prices in the market for existing properties. This interpretation is particularly easy to see given the nearly even split between renters and owners in the sample from Austria, allowing one to think of the population as composed of two roughly equal groups—potential buyers on one side and potential sellers on the other.

The reasons for the relatively low willingness to buy or sell were identified directly in the HFCS and are summarised in Figure 5.

Roughly 40% of renters and owners report that they are satisfied with their current tenure status. These households appear unlikely to be influenced by policy measures aimed at stimulating property transactions. In addition, close to 40% of owners indicate a desire to keep the property within the family, reflecting a bequest motive. About 15% of owners refer to having invested a lot of own labour into the property as the reason not to sell (see also on the importance of own labour for homeownership [Lindner et al., 2023](#)). Fewer than 10% of owners state that current prices are too low, suggesting a potential preference to sell if an attractive price could be obtained. Thus, only this relatively small

¹⁸Our main contribution is to analyse price responsiveness separately for renters and owners. The comparison across tenure groups should therefore be interpreted as descriptive rather than structural, since we do not model selection into tenure status econometrically.

Figure 5: Reasons for stability



Notes:

i) This figure shows the share of households and their reasons for their unwillingness to buy or sell their current property.

ii) Estimates use household weights provided in the HFCS. Standard errors take the multiple imputation structure into account. Error bars are based on a symmetric 95% confidence interval.

Source: HFCS 2021, ECB, OeNB.

group of households might be more responsive to changes in prices.

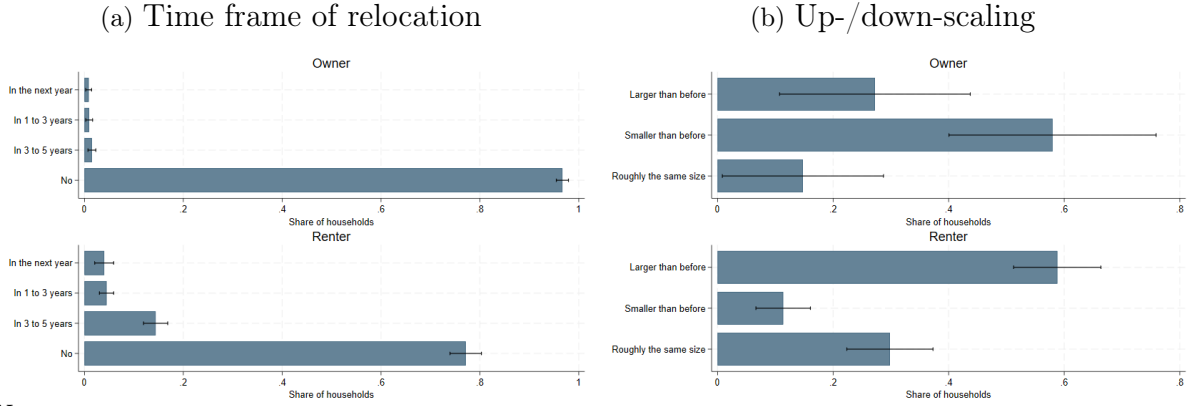
On the renter side, roughly 10% either cannot obtain credit or indicate that the current price levels are too high. This expresses an intention to buy in different market conditions. An additional 10% of renters indicate the desire to up-scale and buy a better property than the one that is currently rented. Approximately 30% of renters state a lack of funds as the primary reason for not buying, pointing to binding affordability constraints. Taken together with high prices and credit constraints, affordability issues are in the minds of close to half of renters. However, over 40% want to keep their rental agreement and thus are unlikely to buy property. The reasons for not buying differ for younger and older renters. Panel (b) in Figure D.1 in Appendix D shows the reasons in each treatment group. Not having sufficient funds is on average the dominant reason for not buying among young renters, even in treatment groups that are shown a 10% or 20% lower than market price. For older renters, the most important reason for not buying is maintaining their rental contract, rather than not having sufficient funds. For owners, not wanting to move and keeping the property for the family remains the main reason for not selling.¹⁹

Although many households currently are not willing to buy or sell, all respondents were also asked about their future housing intentions, including potential up- or down-scaling of living space. Figure 6 presents these results. Only a very small share of households intend to relocate in the near or medium term. Among those who do plan to move, the

¹⁹Figure D.2 in Appendix D shows the reasons for not buying and selling for different income and financial asset groups. Results are stable across treatment groups and there seems to be limited difference over income and financial asset groups.

majority of owners indicate an intention to downsize their living space. By contrast, among the roughly 20% of renters expressing relocation intentions (in the following 5 years), most plan to move into larger properties. These patterns hold irrespective of households' current willingness to buy or sell, and thus provide additional evidence of the general inertia of tenure choices in the Austrian property market.

Figure 6: Intention of relocation



Notes:

i) This figure displays households' intended relocation time frames and whether they plan to move into larger or smaller properties.

ii) Estimates use household weights provided in the HFCS. Standard errors take the multiple imputation structure into account. Error bars are based on a symmetric 95% confidence interval.

Source: HFCS 2021, ECB, OeNB.

Furthermore, households may have an inherent tendency to remain in their current homes. Relocation requires an active decision to alter existing living arrangements and may therefore be associated with perceived risks. The HFCS captures risk attitudes through a general question using a ten-point Likert scale, ranging from 1 (highly risk averse) to 10 (highly risk loving). Table 4 reports average risk attitudes across groups. The results suggest that households expressing a willingness to transact and thus move, tend, on average, to be slightly more risk loving.

Panel (B) in Figure 4 shows that willingness to buy is markedly lower for older renters, while owners' willingness to sell shows little variation across age groups. Renters over 55 years of age show limited willingness to buy, consistent with either satisfaction with their current rental arrangements (i.e. feel too old to move to a new place) or being financially constrained, making homeownership unaffordable despite attractive price offers.

Table 3 presents descriptive statistics by the willingness or unwillingness to buy or sell for renters and owners. Higher income, financial wealth, and living space correlate positively with homeownership. Among renters, those less willing to buy tend to have lower incomes and financial assets, supporting the notion that affordability constraints play a key role. In addition to higher income and financial wealth, renters willing to buy are more likely to have received inheritances – both more frequently and in greater amounts – which also increases their financial flexibility. However, even among this group, credit

Table 3: Descriptive statistics by willingness to transact

Renter	Not willing to buy		Willing to buy	
	Mean	Median	Mean	Median
Age	53.7	53.5	48.6	46.5
Income (in EUR 1,000s)	41.3	34.1	49.8	42.7
Financial assets (in EUR 1,000s)	25	8.6	54.2	16.7
Household members aged 14+	1.7		1.6	
No. of children aged 0-13	0.2		0.4	
Size of home (in m ²)	68.4	65.1	77	74.7
Received inheritance/gift (in %)	21.5		40.3	
Inheritance/gift amount (in EUR 1,000s)	45.3	9.4	83.1	17.9
Was denied credit (in %)	5.4		8.5	
No. of observations	957		172	

Owner	Not willing to sell		Willing to sell	
	Mean	Median	Mean	Median
Age	58.9	58.5	60.2	59.5
Income (in EUR 1,000s)	61.6	53.3	56.2	49.8
Financial assets (in EUR 1,000s)	66.6	27.4	53.8	26.6
Household members age 14+	2.2		1.7	
No. of children (0-13)	0.2		0.2	
Size of home (in m ²)	139.2	129.5	137.9	120.7
Received inheritance/gift (in %)	53.4		62.3	
Inheritance/gift amount (in EUR 1000s)	205.6	87.8	136.3	76.6
Was denied credit (in %)	0.7		0.6	
No. of observations	892		81	

Notes: This table displays socio-economic information for owners and renters by the willingness to buy/sell the HMR.

Source: HFCS 2021, ECB, OeNB.

Table 4: Households' average risk aversion

Group	Mean	Willing to transact	Not willing to transact
All	3.396	x	x
Owner	3.396	3.772	3.365
Renter	3.395	3.923	3.289

Notes:

i) This table shows the average risk aversion broken down by tenure status and willingness to trade.

ii) Cells marked with “x” are left blank in order to separate tenure status.

iii) Estimates are weighted using HFCS household weights.

Source: HFCS 2021, ECB, OeNB.

constraints remain a prominent issue: they are significantly more likely to have been denied credit than either owners (who can use property as collateral) or renters who are unwilling to buy. The data also suggest the presence of sorting with respect to living space: renters who express a willingness to buy currently occupy larger properties than those who do not, hinting at an ongoing demand for upscaling even within the rental market.

Lastly, households' willingness to buy or sell is likely depending on their expectations re-

Table 5: Distribution of households by expected property price changes (in %) - $P(\pi_h^{exp})$

	$\leq -5\%$	-5% to -2%	-2% to 2%	2% to 5%	$\geq 5\%$
All	6.5	4.6	21.7	34.9	32.3
Owner	6.2	3.2	16.1	38.7	35.8
Owner willing to sell	1.3	4.3	19.4	46.7	28.3
Owner NOT willing to sell	6.6	3.1	15.8	38.0	36.5
Renter	6.8	6.0	21.7	34.9	32.3
Renter willing to buy	4.9	3.9	18.7	39.2	33.3
Renter NOT willing to buy	7.2	6.5	29.3	29.4	27.7
Control	4.4	5.4	22.2	36.7	31.3
Treatment I	6.9	4.0	21.0	34.6	33.4
Treatment II	7.1	5.2	20.6	35.6	31.4
Treatment III	6.9	3.7	24.5	32.4	32.5
Treatment IV	6.7	5.1	19.6	36.2	32.3

Notes: This table shows the average probability distribution of expectation of general property price developments broken down by tenure status and willingness to sell/buy as well as treatment groups.

Source: HFCS 2021, ECB, OeNB.

garding future property price developments (see Table 5). Overall, households anticipate continued price increases, reflecting the long-standing upward trend in Austrian property prices over roughly the past two decades. The distribution of property price expectations is remarkably similar across subgroups: both owners and renters and various treatment groups, exhibit broadly similar property price expectations. This suggests that expectations of future price appreciations are widely shared and do not differ systematically across tenure status or experimental treatment. Augmenting Table 5 with additional rows – owners willing or unwilling to sell and renters willing or unwilling to buy – confirms that expectations do not vary with stated behaviour for owners, indicating that reasons for selling lie outside the realm of anticipated price changes. By contrast, among renters unwilling to buy, the share expecting price declines is noticeably higher, consistent with delaying purchase when near-term price risks are perceived to the downside.

3.2 Regression Results

This section shows the results from multivariate regression models to study the effect of randomised price changes on willingness to buy and sell, controlling for household and property characteristics. We use our experimental variation to directly observe how the willingness to buy (for renters) and willingness to sell (for owners) respond to randomised price changes. We estimate how the likelihood of accepting an offer varies across different price scenarios and household characteristics. We also make use of information about the property characteristics and quality that interviewers provide when they complete the post-interview questionnaire.

Let $Y_i \in \{0, 1\}$ indicate whether household i accepts the offer and let $p_i \in \{0.8, 0.9, 1.0, 1.1, 1.2\}$ denote the randomised multiplicative price factor assigned by treatment status. Denote by $\Lambda(q) = \frac{e^q}{1+e^q}$ the logistic link. We estimate the binary logit in equation (1), using household weights and accounting for multiple imputation in the HFCS.²⁰

$$\Pr(Y_i = 1 \mid p_i, X_i, Z_i) = \Lambda(\alpha_0 + \alpha_1 p_i + X_i^\top \alpha_2 + Z_i^\top \alpha_3) \quad (1)$$

The covariate vector is deliberately rich. As the price variation is randomly assigned we expect relative stability of the treatment coefficient. However, we include a large set of variables to account for several economic mechanisms. The household block X_i includes: (i) demographics (age and its square; gender; educational attainment), (ii) resources and balance-sheet indicators (gross household income and financial asset quintiles; an indicator for being credit-constrained; non-mortgage indebtedness), (iii) household composition (number of members younger than 14 years of age; number of members 14 years of age or older), (iv) labour market status (employed, self-employment, unemployed and retired), (v) intergenerational transfers, and (vi) expectations and preferences (property price expectations (see Table 5); self-reported risk preference on the 1–10 scale). Thus, this set of information includes financing capacity and potential credit constraints of households as well as life cycle considerations and expectations about potential capital gains. The information on the property characteristics Z_i includes: (i) price-per-m², (ii) property type (house/apartment) and construction quality, (iii) exterior and interior condition ratings, iv) neighbourhood quality rating (including vandalism incidence), (v) degree of urbanisation and (vi) region fixed effects. Property characteristics should capture the local market environment and are predominantly obtained from professional interviewer assessments (paradata) and register-based sampling information; household finances and preferences come from the core HFCS questionnaire. This design absorbs a broad set of potential confounders and allows us to interpret the price-randomisation coefficient and related terms as local, design-based responses, conditional on observables.

²⁰We do not use replicate weights in our baseline estimations. In the robustness section, however, Panel (D) in Table I.1 shows that the results using 1,000 bootstrapped replicate weights are very similar.

Table 6: Regression results

	Renter			Owner		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Price (Treatment)	-0.3202*** (0.0947) [-0.5058, -0.1346]	-0.3097*** (0.0813) [-0.469, -0.1504]	-0.2932*** (0.0791) [-0.4482, -0.1381]	0.2553*** (0.0809) [0.0967, 0.4138]	0.2595*** (0.0751) [0.1123, 0.4066]	0.245*** (0.0677) [0.1122, 0.3777]
Household characteristics	✗	✓	✓	✗	✓	✓
Property characteristics	✗	✗	✓	✗	✗	✓

Notes: Estimates are from logit regressions of willingness to buy/sell on a treatment-induced price change. Standard errors accounting for multiple imputation in parenthesis; 95% confidence intervals in square brackets. ***/**/* indicate a pooled Wald statistic for $H_0: \alpha = 0$ exceeding 2.576/1.960/1.645 in absolute value. Number of observations: 1,129 renters and 973 owners.

Source: HFCS 2021, ECB, OeNB.

To allow the price sensitivity to vary with household characteristics, we include an interaction between the treatment price and a dummy variable D_i , and estimate equation (2).

$$\Pr(Y_i = 1 \mid p_i, X_i, Z_i) = \Lambda(\alpha_0 + \alpha_1 p_i + X_i^\top \alpha_2 + Z_i^\top \alpha_3 + \alpha_4 [p_i \cdot D_i]) \quad (2)$$

Specifically, we estimate a series of specifications separately each using a different definition of the dummy variable D_i to explore heterogeneity with regards to age (head aged 55 or older), income (above median), financial assets (above median), income and financial assets jointly (both above median), housing quality (above median) and property type (house vs. apartment).²¹

For the ease of interpretation of the results, we report average marginal effects. One tenth of the average marginal effect (AME) derived from the coefficient α_1 captures how the acceptance probability changes on average when the price changes by 10% (i.e. comparing the difference in acceptance probabilities for treatment and control groups, for example, when p_i rises from 1.0 in the control group to 1.1 in Treatment I.). The AME derived from the coefficient α_4 shows whether this change in acceptance probability differs by household characteristics.

Table 6 presents our main results from estimating equation (1), focusing on the effect of randomised price changes on willingness to buy and sell. Complete estimation tables are shown in Table E.1 in Appendix E. Among renters, a 10% higher price reduces the probability of buying by approximately 2.9-3.2 percentage points, depending on the model specification. The estimates are statistically significantly different from 0 in all specifications. The range of coefficient values imply that renters react only relatively little to price changes. Table E.1 further shows the covariates capturing the underlying mechanisms. First, financial capacity, such as higher household income and greater financial wealth are associated with a higher overall willingness to buy, and past inheritance receipts are both statistically and economically significant—consistent with the notion that they relax

²¹Housing quality is assessed by the residuals from a linear regression of the log price per square metre of the household's property on the full set of household characteristics and dwelling characteristics from paradata.

borrowing constraints, e.g. through (higher) down payments. Second, living in a higher-quality rental (proxied by price-per-m² and neighbourhood ratings) is negatively related to accepting an offer, in line with the idea of an attractive outside option, i.e. that good current rental conditions reduce the net gain of buying. Some additional patterns are noteworthy. First, property price expectations matter: households anticipating sizeable future price increases exhibit a markedly higher probability of acceptance, conditional on price randomisation and all covariates. Intuitively, when expected appreciation is large, the option value of waiting falls relative to locking in today’s price. Furthermore, self-employed households display a comparatively large, positive average marginal effect, even after conditioning on income, assets, and risk preferences, suggesting either greater tolerance for income risk or differential access to resources used as collateral. Also, the inheritance dummy remains positive and significant across specifications, as was expected.

Regarding the property characteristics, the neighbourhood quality and price-per-m² retain independent explanatory power after region fixed effects, indicating that local amenity differences and market tightness affect the calculus of switching tenure. Conditioning on an extensive set of household and property characteristics does not alter the main effect from the experimental price variation in a significant way.

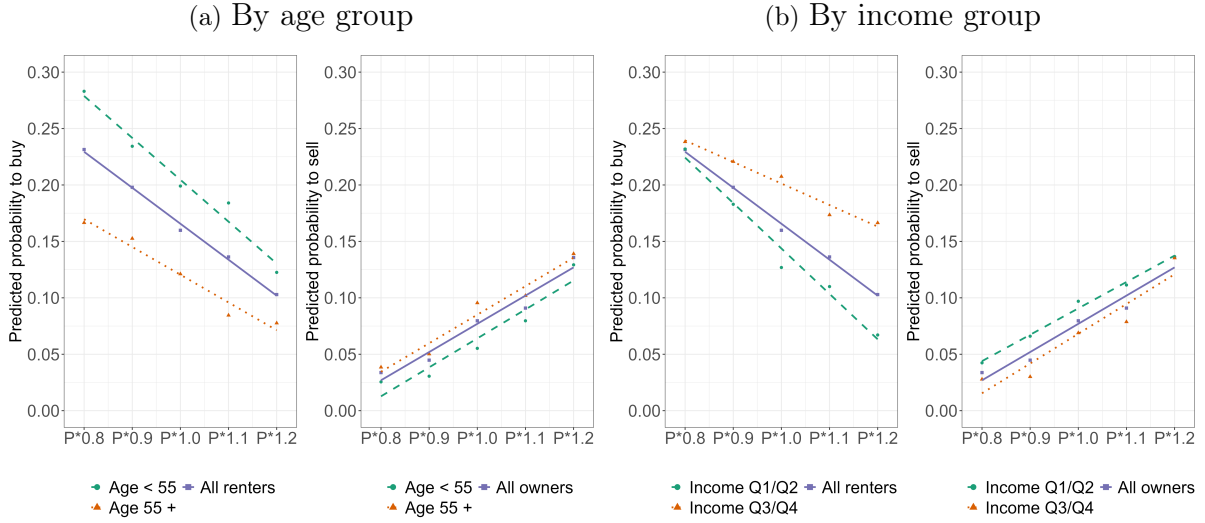
On the seller side, the experimental price signal is economically modest but precisely estimated: a 10% increase in the offered price raises the willingness to sell by about 2.5-2.6 percentage points, with average marginal effects statistically different from zero. Again, coefficient values indicate limited behavioural responsiveness at the observed margins. Estimates are relatively stable across specifications. Among household covariates,²² age is the only consistent statistically significant predictor—older owners are slightly more likely to consider selling—while most other characteristics (income, financial assets, household composition, inheritance) are small and statistically indistinguishable from zero once the full control set is included. Expectations (and thus potential expected capital losses) play, at most, a minor role: only in the fully saturated model is expecting price declines associated with a marginally higher sale propensity. By contrast, property attributes (capturing market characteristics) show clearer signals: region fixed effects are significant, and flats exhibit a higher sale probability than (detached) houses, consistent with a more liquid market and broader buyer pool for apartments. Neighbourhood and quality indicators do not alter these patterns. Overall, the evidence points to substantial tenure inertia among owners, with modest price-induced movement and limited sensitivity to household balance-sheet or preference heterogeneity.

As a check for the robustness of the main results Table I.1 in Section I in the Appendix shows the various interaction results from estimating equation (2).²³ There is only little

²²See Table E.1 in the Appendix for the full regression output.

²³Additionally, the Table I.1 in Section I includes results on the inference based on replicate weights. Alternative price specifications are discussed in the Appendix in Section I.3

Figure 7: Predicted probabilities of renters and owners willing to buy and sell



Notes: This figure displays the predicted probabilities to buy (renters) or sell (owners) from the logit models in equations (1), and (2) controlling for household and property characteristics. The purple squares show the weighted averages by treatment group from the baseline model without an interaction term and the solid line the linear fit. Panel (A) shows additionally the results from a model with an interaction term by age group. Panel (B) shows the results from a model with an interaction term by income group.

Source: HFCS 2021, ECB, OeNB.

evidence for heterogeneity in the price sensitivity for both renters and owners. For renters, however, the analysis uncovers heterogeneity by income. Figure 7 visualises these patterns additionally to a breakdown into age of the household head. While older renters show generally lower willingness to buy, their responsiveness to price changes is similar to that of younger renters. Income, however, matters: lower-income renters exhibit stronger responsiveness to price changes compared to higher-income renters, suggesting that price incentives may be more effective for financially constrained households. For example, a 10% lower price increases the probability of buying by approximately 4.4 percentage points for households with below median gross household income, while the probability of buying for households with above median gross household income increases by only around 1 percentage point in the same scenario. Still, even low-income renters appear to react relatively little to price changes, which underlines our general finding.

An asymmetry between renters and owners also motivates the modelling strategy. For owners, rejecting an attractive sale offer may be rationalised by a broad set of considerations, including attachment to the current property, family and bequest motives, and the fact that inaction preserves a familiar status quo (see also Section 3.1). Moreover, selling the current HMR does not determine the household's next housing state: the household may buy another property, move into rental accommodation, up- or downsize, or relocate somewhere else. For renters, by contrast, accepting the offer has a clear post-decision state: the household moves from renting to owning a comparable property, while

rejecting preserves the current rental state and the option to wait.

The reduced-form evidence therefore leaves us with a sharper question. Renters respond to lower prices, but the response remains limited even when offers are substantially below the baseline value and even after accounting for observable financial constraints. Direct survey answers indicate that affordability, credit constraints, satisfaction with renting, and future plans all matter, but they do not provide a unified metric of how attractive a specific purchase offer is for a given household. To obtain such a metric, we now turn to a dynamic reservation-price model. The model delivers, for each renter, a reservation price: the maximum offer price at which buying is preferable to continuing to rent and waiting for future opportunities. Comparing this reservation price with the experimental offer gives the reservation-price gap. This gap provides the bridge between the randomised price variation and the economic mechanism behind acceptance.

4 Modelling Tenure Choice of Renters

The structural model is intentionally developed for renters. This is the side of the experiment for which the post-acceptance state is most clearly defined: accepting the offer transforms the household from renter to owner of a comparable property, while rejecting preserves the current rental state and the option to wait. The owner-occupier problem is less symmetric than it may appear. Selling the current HMR does not determine the household's next tenure state: the household may buy another property, rent, downsize, or move location. Since the survey experiment identifies willingness to sell at a stated price but does not specify the post-sale housing choice, we treat owners' responses as reduced-form evidence on the sale margin, rather than imposing an additional structural model with unobserved continuation states. The model should therefore be read as a disciplined framework for interpreting renter purchase decisions and as a complement to, not a replacement for, the reduced-form evidence for owners.

Households contemplating a transition from renting to owning face a familiar intertemporal tension. Each new listing or quote is a discrete opportunity to buy; postponing preserves the option to encounter more favourable terms tomorrow but requires paying rent today. This tension is especially salient in our experimental setting, where offers are transparent and directly comparable to the ongoing cost of renting. To anchor the discussion, we open with a brief vignette illustrating how a renter weighs the appeal of accepting a given offer against the value of waiting:

Vignette: A renter’s buying decision in practice

Lara rents a flat and pays a known monthly rent per sqm. Each month she receives a quote for buying a comparable unit. Think of each quote as the “monthly cost to own” that would be locked in if she accepts and buys now. If she waits, she pays this month’s rent and will see a new quote next month. *Lara* is relatively patient, so waiting has value, unless renting is expensive enough that buying now is preferable. In the first two months the quotes are a bit higher than what she’s willing to accept, so she waits; in the third month the quote finally falls below her internal cutoff and she buys. In our experiment we compare that internal cutoff to the randomized offer and call the difference the reservation-price gap; when this gap is big and positive, acceptance is likely. (We formalize the model and the cutoff rule in Section 4.1)

The framework is a canonical sequential-search / optimal-stopping problem, closely related to McCall (1970), adapted here to the decision of whether to continue renting or accept a current opportunity to buy. In each period, the renter observes an offer of the effective per-period cost of owning, denoted h , and interpreted as a user cost distilled from prices, financing conditions, and transactions/maintenance charges. The decision is binary: accept and pay the offer forever, or reject, pay current rent, and wait for another offer next period.²⁴ This formulation captures the option value of waiting in a way that is both economically meaningful for housing markets and tractable. Under standard conditions, the problem admits a reservation rule: there exists a cut-off R such that the renter accepts if and only if $h \leq R$. Equivalently, the period-by-period acceptance probability is $p_{\text{accept}} = F_{\eta}(R)$, where F_{η} is the cumulative distribution function of the offer-cost distribution, η . This delivers immediate and transparent comparative statics. The reservation price, R , – which we will later bring to the data – rises with the cost of renting, r , and with buying subsidies if any, and falls with patience, β , and with potential rent subsidies.

A central advantage of this approach is that it reduces the rich mechanics of tenure choice to two statistics that can be computed at the household level and taken directly to the experiment. First, the model yields a *reservation price* R_i (per sqm per period) that summarises renter i ’s willingness to buy. Second, we align this object with the randomised experimental offer (H_i^{offer}) through a single scalar,

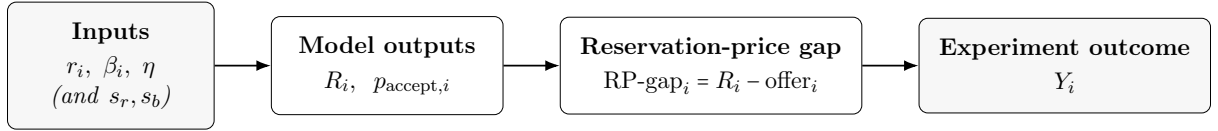
$$\text{RP-Gap}_i \equiv R_i - H_i^{\text{offer}}, \quad (3)$$

²⁴In practice, some renters who move into ownership may scale up, while others may downsize or alter different property attributes; these possibilities are intentionally left outside the present design.

computed using a common user-cost mapping on both sides.²⁵ This *reservation-price gap* serves as the sufficient statistic for acceptance in our setting: holding the experimental offer fixed, a larger R_i increases the likelihood that the current offer lies below the threshold, and hence the model predicts a positive slope,

$$\frac{\partial \Pr(Y_i = 1)}{\partial \text{RP-Gap}_i} > 0,$$

which becomes our main testable implication. Intuitively, the reservation-price gap captures the financial attractiveness of the experimental offer. It measures the distance between the household-specific reservation value and the offered price. The larger this gap—that is, the further the offer lies below the reservation threshold—the more attractive the offer becomes in economic terms, and the stronger the incentive to accept.



Note: Per-sqm, per-period units throughout

Figure 8: Pipeline from primitives to testable object and outcome.

Figure 8 sketches the pipeline from primitives to $(R_i, p_{\text{accept},i})$, to RP-Gap_i , and finally to the observed experimental outcome Y_i . The remainder of the section proceeds presenting the decision problem, the reservation-rule solution, and details how we construct the primitives (r_i, β_i, η) from the HFCS and the experimental design to compute R_i and RP-Gap_i . Then, the last Section 4.4 formulates our estimation strategy for the acceptance equation. Throughout, we maintain per-sqm, per-period units for all cost objects and use a consistent user-cost convention when comparing experimental offers to model-implied reservation prices.

4.1 Problem Formulation

Each period, a renter observes a *property offer*, i.e., an i.i.d. draw $h \sim \eta(\cdot)$ of the *ownership cost of housing services* (per sqm, per month). Think of h as a user cost distilled from market prices, interest rates and transaction costs. If the renter accepts the current draw and becomes a homeowner, the flow cost C_t equals the current offer, net of any policy subsidy, forever, $h(1 - s_b)$; if she rejects, she pays rent net of any policy subsidy $r(1 - s_r)$ for one more period and samples a new offer next period. The objective is to *minimize*

²⁵Offer prices H^{offer} are mapped to housing-services costs using the same user-cost/capitalisation conventions employed in the model; details in Section 4.2.

expected discounted housing costs,

$$\min_{\{\text{accept/reject}\}} \mathbb{E}\left[\sum_{t \geq 0} \beta^t C_t\right],$$

with discount factor $\beta \in (0, 1)$ reflecting renter's patience.²⁶ The smaller the β , the more renters discount future housing service costs relative to current costs.

Formally, let $k^*(h)$ denote the minimal present value of discounted costs when the current offer is h . The Bellman equation is

$$k^*(h) = \min \left\{ \underbrace{\frac{h(1-s_b)}{1-\beta}}_{\text{buy now}}, \underbrace{r(1-s_r) + \beta \mathbb{E}[k^*(h')]}_{\text{wait one period}} \right\}.$$

It is convenient to summarise the value of rejecting (the continuation value) by the fixed point

$$\nu \equiv r(1-s_r) + \beta \mathbb{E}\left[\min\left\{\frac{h'(1-s_b)}{1-\beta}, \nu\right\}\right], \quad (4)$$

which indicates that upon waiting, the renter pays the rent now and next period takes the cheaper option between “buy now” or “wait again”.

Under standard conditions the optimal policy is a cutoff rule: there exists a *reservation price* R such that the renter accepts iff $h \leq R$, with

$$R = \frac{1-\beta}{1-s_b} \nu. \quad (5)$$

Consequently, the *acceptance probability* is $p_{\text{accept}} = \Pr(h \leq R) = F_\eta(R)$. Therefore, when R goes up or down with parameters (r, β, s_r, s_b) , p_{accept} moves accordingly.²⁷

Once the primitives of the model are known, we can solve for ν by successive approximations of the nonlinear fixed point in equation (4).²⁸ Starting from $\nu^{(0)} = \mathbb{E}[h](1-s_b)/(1-\beta)$, iterate

$$\nu^{(j+1)} = r(1-s_r) + \beta \mathbb{E}\left[\min\left\{\frac{h(1-s_b)}{1-\beta}, \nu^{(j)}\right\}\right]$$

until $|\nu^{(j+1)} - \nu^{(j)}| < \varepsilon$, then set $R = \frac{1-\beta}{1-s_b} \nu$ and $p_{\text{accept}} = F_\eta(R)$.

4.2 Mapping Model Objects to Data

To take the model to the data we align each primitive with observable counterparts from the HFCS and from our experimental design. All magnitudes are kept per square metre per period to maintain unit consistency throughout. (i) Rents are observed directly

²⁶All costs are per sqm per period; we suppress the unit for brevity.

²⁷ F_η is nondecreasing, so larger $R \Rightarrow$ weakly larger $F_\eta(R)$.

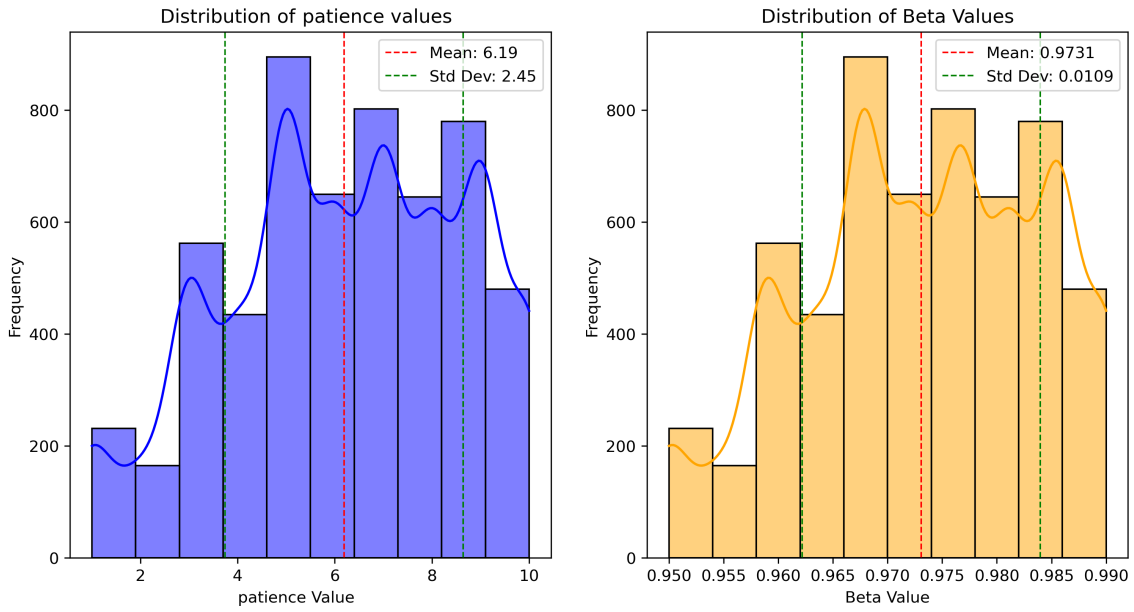
²⁸See the algorithm in the Appendix F. For more details see [Ljungqvist and Sargent \(2018\)](#).

at the household level; we denote by r_i the current rent per sqm for household i . (ii) Time preference is elicited via the survey’s patience scale and mapped monotonically into discount factors $\beta_i \in (0,1)$ in a rank-preserving way, so that more patient respondents receive larger β_i (see Figure 9).²⁹ We use a linear endpoint mapping setting the least patient response to 0.95 and the most patient to 0.99,

$$\beta_i = 0.95 + \frac{\text{score}_i - 1}{9} \times (0.99 - 0.95)$$

but we have also experimented with constant β .

Figure 9: Parameterisation of patience among Austrian households (AT)



Notes: This figure illustrates the mapping from the HFCS future-orientation question to the model’s patience parameter β and the implied cross-sectional distribution of β across households.

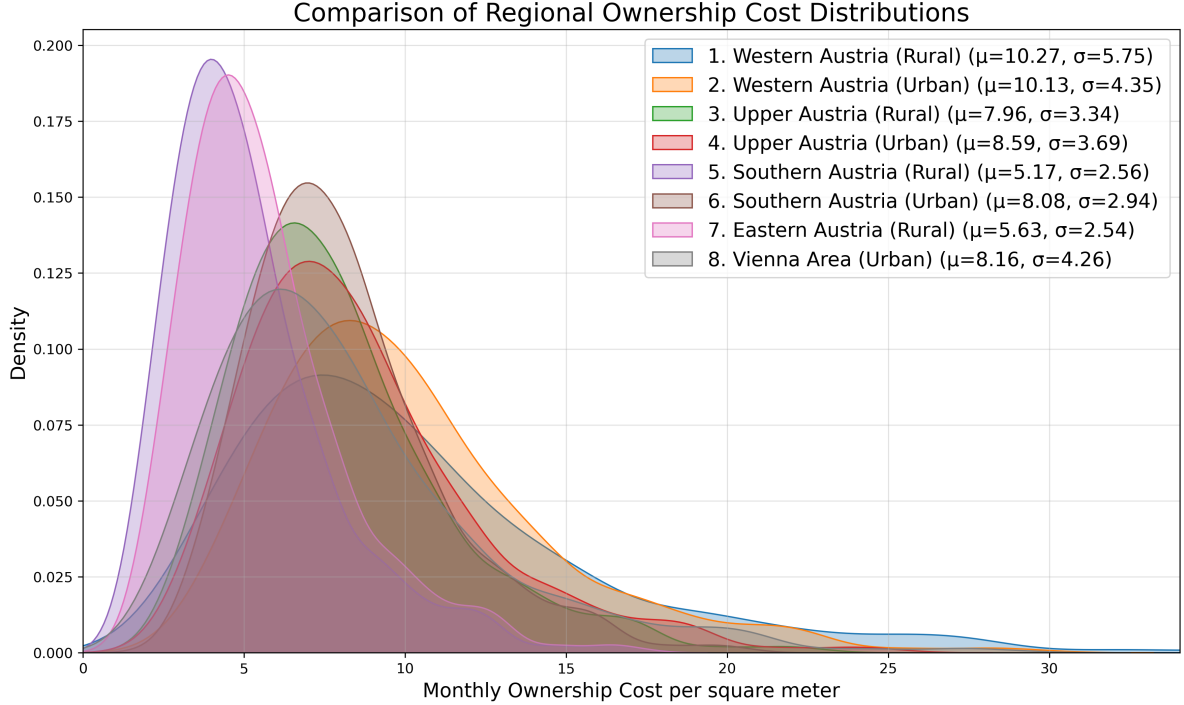
Source: HFCS 2021, ECB, OeNB.

(iii) The remaining primitive is the distribution of ownership costs, $h \sim \eta$, interpreted as the *user cost*: a per-period flow per square metre that maps property prices and financing/charges into a flow measure. We estimate η at the relevant regional market level from the cross section of implied ownership flows constructed from observed prices and mortgage terms, augmented by standard charges (transaction costs, taxes). A log-normal specification is parsimonious and consistent with the positive support and skewness observed in the HFCS (see Figure 10). Crucially, we apply the *same* user-cost convention

²⁹Wave 4 of the Austrian HFCS included the following country-specific question: “In terms of your attitude toward the future, how would you assess yourself? Are you generally someone who lives for the moment and takes life as it comes, or are you concerned about your future and have clear ideas about what you want to become or do later in life? Please use numbers from 1 to 10, where 1 means “I am someone who lives for the moment” and 10 means “I am concerned about my future.” You can use the values in between to grade your assessment.”

both when constructing η and when translating experimental purchase offers into flows, ensuring that model and experimental objects are commensurable.

Figure 10: Distributions of ownership cost by region and urbanization



Notes: This figure plots the (log-normal) distributions of the household-specific ownership cost h .
Source: HFCS 2021, ECB, OeNB.

More specifically, we partition Austria into eight regions: 1. *Western Austria (Rural)*; 2. *Western Austria (Urban)*; 3. *Upper Austria (Rural)*; 4. *Upper Austria (Urban)*; 5. *Southern Austria (Rural)*; 6. *Southern Austria (Urban)*; 7. *Eastern Austria (Rural)*; 8. *Vienna Area (Urban)*.³⁰ For each region, we estimate the property price distribution from owners' self-assessed values of the household's main residence (HMR)³¹ and from renters' hypothetical prices obtained via the capitalization method used in the experiment,³² converting prices to euro per square metre by dividing by dwelling size. For each HMR, we then compute the implied housing-service cost per square metre under ownership by financing the property at its market price plus transaction costs.³³ The associated

³⁰This split reflects a markedly segmented property market. These regions group all nine federal states. Western Austria: Salzburg (AT32), Tyrol (AT33), Vorarlberg (AT34); Upper Austria (AT31); Southern Austria: Carinthia (AT21), Styria (AT22); Eastern Austria: Burgenland (AT11), Lower Austria (AT12); Vienna (AT13). The sample contains 371 observations for Western Austria, 304 for Upper Austria, 522 for Southern Austria, 411 for Eastern Austria, and 488 for Vienna. The regions of Western, Upper and Southern Austria are divided into urban and rural areas based on the degree of urbanisation. Vienna is considered an entirely urban region, while Eastern Austria is considered an entirely rural region.

³¹In cases of partial ownership, the reported value is scaled by the household's ownership share.

³²We apply the same capitalization as in the experiment, $Price_c = Rent_c \cdot \frac{12}{0.03}$.

³³In Austria, transaction costs range between 10.4% and 12.4%. We adopt 12.4% for a conservative calibration.

monthly interest payment is

$$r' = (\text{Price}_c \times 1.124) \times \frac{0.03}{12},$$

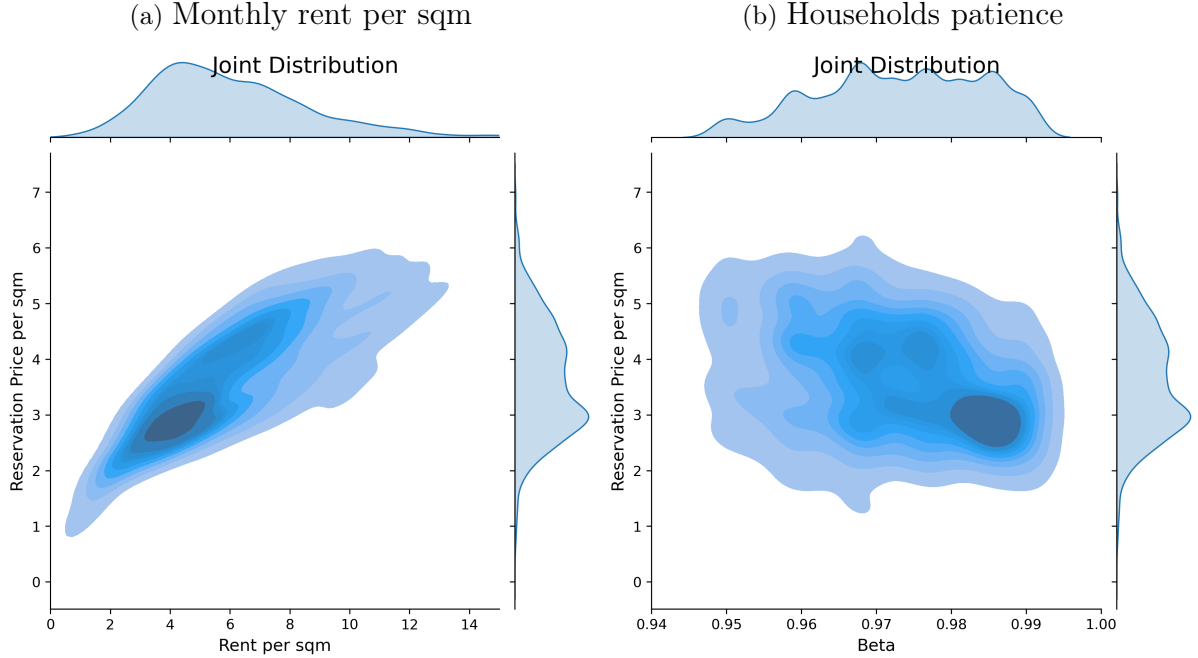
i.e., the monthly interest on the purchase price gross of transaction costs at a 3% annual rate. These steps yield the regional distribution of housing-service costs per square metre. Because these costs are approximately log-normal, we take logs to obtain region-specific normal distributions and report their means and standard deviations for use in the model.

4.3 Numerical Results

With (r_i, β_i) and the estimated distribution η in hand, the model delivers for each household a reservation price R_i that summarises willingness to buy in our per-sqm, per-period units. In practice, R_i is obtained from the fixed point for the continuation value of waiting and the mapping $R = \frac{1-\beta}{1-s_b} \nu$ described above in Section 4.1. We solve equation (4) numerically at the household's (r_i, β_i) while holding the market η fixed within the appropriate region of each household.

Figure 11 displays the joint distribution of the model-implied reservation price (R), monthly rent (r), and patience parameter (β). The figure exhibits the expected compar-

Figure 11: Modelled property market in AT



Notes: The left panel plots household-level reservation prices R against monthly rent per sqm (r); the right panel plots R against the patience parameter β . Each point represents a household.

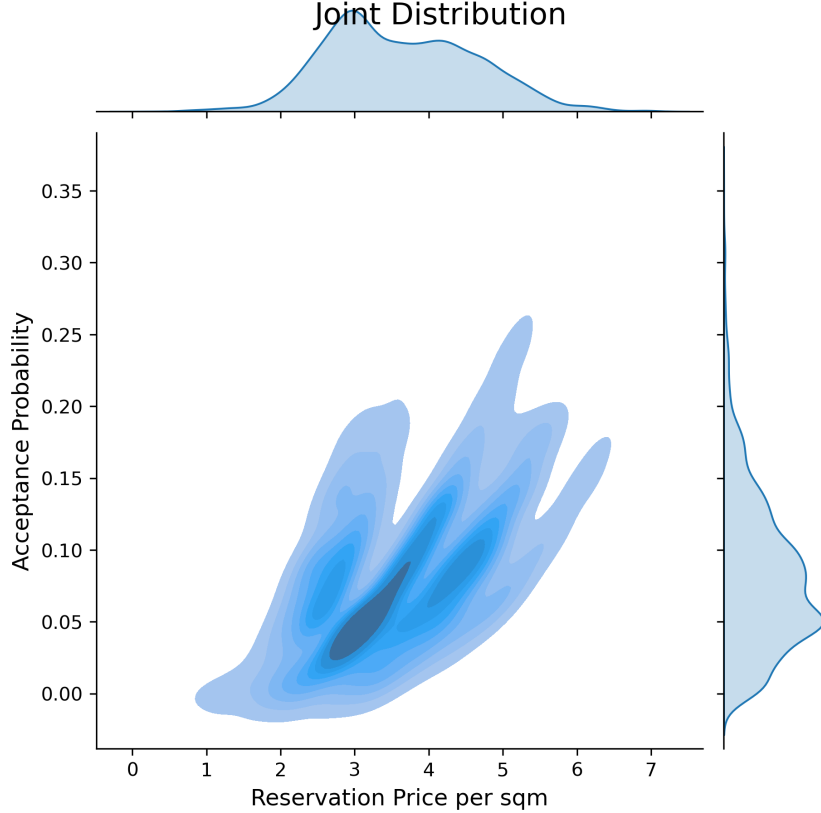
Source: HFCs 2021, ECB, OeNB.

ative statics from the fixed point in equation (4)

$$\frac{\partial R}{\partial r} > 0, \quad \frac{\partial R}{\partial \beta} < 0.$$

and, since $p_{\text{accept}} = \Pr(h \leq R)$ for a given offer distribution, p_{accept} moves in the same direction as R . As the rental cost r increases, the outside option worsens and waiting becomes more expensive; the optimal threshold R therefore rises, so a larger share of offers satisfy $h \leq R$, raising p_{accept} . Conversely, greater patience β raises the value of waiting, reducing R and hence p_{accept} . This pattern is evident in Figure 12, which shows a positive cross-sectional relationship between R and p_{accept} across households.

Figure 12: Reservation price and acceptance probability



Notes: This figure plots the household-level reservation price R against the corresponding acceptance probability p_{accept} . Each point represents a household.

Source: HFCS 2021, ECB, OeNB.

4.4 Testable Implications and Main Hypothesis

The cutoff structure in Section 4.1 implies that, conditional on a household's primitives (r_i, β_i) and the market environment η , the acceptance decision in any period is monotone in the experimental offer once both objects are expressed in the same per-sqm, per-period units. Specifically, the model delivers a household-specific reservation price R_i predicting

acceptance whenever the offer's implied user cost does not exceed R_i . Equivalently, acceptance is monotone in the *reservation-price gap* $RP\text{-}gap_i \equiv R_i - H_i^{\text{offer}}$: larger values of $RP\text{-}Gap_i$ make acceptance weakly more likely because they expand the set of realisations in which the observed cost draw falls below the cutoff. This single-crossing logic yields our main empirical prediction.

Hypothesis (H1). The probability of accepting the experimental offer is strictly increasing in the reservation-price gap:

$$\frac{\partial \Pr(Y_i = 1)}{\partial RP\text{-}Gap_i} > 0. \quad (6)$$

In the next section, we operationalise (6) with a binary-response model.

The identification follows from the experimental variation in H_i^{offer} . Because $RP\text{-}Gap_i = R_i - H_i^{\text{offer}}$ and H_i^{offer} is randomised by design, variation in $RP\text{-}Gap_i$ is as-good-as-random *conditional on* R_i . Our construction of R_i depends on (r_i, β_i) and the market-level η via a fixed user-cost convention that is applied symmetrically to market data and to experimental offers; this symmetry ensures that $RP\text{-}Gap_i$ compares commensurate objects.

Normalization of the RP-gap under rent-indexed offers. Equation (6) treats offers as if they were random draws from the market-wide distribution of ownership costs (see Figure 10). In our experiment, however, the offer to renter i is tied to its own dwelling via a rent multiple. This design induces a mechanical *scaling* that attenuates the level- $RP\text{-}Gap$ effect on acceptance: raising r_i increases the reservation price R_i (so $\partial R_i / \partial r_i > 0$) but it also increases the offer ($\partial H_i^{\text{offer}} / \partial r_i > 0$), partially offsetting the change in $RP\text{-}Gap_i = R_i - H_i^{\text{offer}}$.

To correct for this, and to align the estimand with the experimental scaling, we can work with a *normalized* (scale-free) gap:

$$\Delta_i \equiv \underbrace{\frac{RP\text{-}gap_i}{r_i}}_{\text{Normalized gap}}. \quad (7)$$

Finally, the normalized gap (7) can be used to revise the main hypothesis (H1). With rent-indexed offers, the acceptance probability is increasing in the normalized gap:

$$\frac{\partial \Pr(Y_i = 1)}{\partial \Delta_i} > 0. \quad (8)$$

In the following, we empirically estimate binary-response models with both $RP\text{-}Gap_i$ and its normalized version Δ_i , which provides a specification invariant to the scale of r_i and removes the mechanical dilution inherent in level gaps when offers scale with rent.

4.5 Empirical validation: does the reservation-price gap predict acceptance?

The previous subsection delivers the model’s central empirical object: the reservation-price gap, defined in equation (3) as the difference between the household-specific reservation price and the experimental offer. We now take this object to the data and test Hypothesis (H1) (see Section 4.4). This provides an empirical test of the model’s cutoff implication. If the model captures a relevant part of renters’ decision problem, offers that lie further below the household-specific reservation price should be more likely to be accepted. Conversely, if the reservation-price gap merely re-labels affordability, current rent, or other household characteristics, it should add little explanatory power once standard affordability measures and controls are included.

The exercise therefore evaluates whether the model’s dynamic trade-off between buying now and waiting for future opportunities generates a household-level index that explains observed experimental acceptance. This is the key link between the theoretical framework and the survey experiment: the model transforms rents, patience, and the local distribution of ownership costs into a reservation threshold, and the data allow us to test whether the distance from that threshold predicts actual acceptance decisions. The evidence below shows that it does. Analogously to our baseline specification (1), we model acceptance as a function of the gap, affordability, and controls:

$$\Pr(Y_i = 1 \mid \text{RP-Gap}_i, \text{Afford}_i, X_i, Z_i) = \Lambda(\theta_0 + \theta_1 \text{RP-Gap}_i + \theta_2 \text{Afford}_i + X_i^\top \theta_3 + Z_i^\top \theta_4) \quad (9)$$

where Afford_i is the affordability indicator³⁴ defined in Appendix G or alternatively a reduced-form alternative using income and financial-asset terciles, X_i collects household covariates (age, number of household members split in below age of 14 as well as 14 and above, risk preference, expectation on property price development), and Z_i captures a quality indicator for the neighbourhood. As we theoretically model the reservation price for households in our sample, we report here in sample odds ratios and average marginal effects (AMEs)³⁵ of the plain model, not accounting for household weights, but taking the multiple imputation structure into account.

Table 7 shows that the RP-Gap³⁶ is a strong predictor of acceptance. An increase of one euro in the (monthly, per m²) RP-Gap raises the odds of acceptance by factors

³⁴We use two distinct measures of affordability. One which is based on common assumptions found in the literature, and a second more restrictive one which reflects the situation in AT at the time the survey was conducted.

³⁵See Table H.1.

³⁶In the renter sample, the RP-gap is predominantly negative, indicating that the offered price typically exceeds the household-specific reservation value. Using multiple-imputation-adjusted, unweighted data under heterogeneous impatience, the mean RP-gap is -3.73 (s.e. 0.07), with a 10th percentile of -6.97 , a median of -3.42 , and a 90th percentile of -0.90 . Hence, even at the upper end of the distribution, the typical offer remains below the acceptance threshold only for a limited share of households.

of between 1.218 and 1.288 across specifications (I) to (III). The corresponding AMEs (Table H.1) are 2.3 and 2.9 percentage points, respectively. These magnitudes are economically meaningful and fully consistent with the model’s comparative statics: offers that fall further below the household’s reservation value are more likely to be accepted.

Table 7: Logit-model of offer acceptance - odds ratio

Specification	I	II	III
	Affordability	Affordability AT	Distribution
	b/se	b/se	b/se
RP-Gap	1.225 *** (0.086)	1.218 *** (0.078)	1.288 *** (0.096)
Affordability dummy	2.405 *** (0.580)	4.516 *** (1.505)	
Financial assets distribution (base low)			
Quantile 2			1.315 (0.398)
Quantile 3			3.044 *** (0.904)
Gross income distribution (base low)			
Quantile 2			1.923 ** (0.530)
Quantile 3			3.149 *** (1.164)
Age	1.032 (0.042)	1.053 (0.043)	1.033 (0.042)
Age ²	1.000 (0.000)	0.999 * (0.000)	0.999 (0.000)
Nr. of children (< 14)	1.687 *** (0.308)	1.662 *** (0.300)	1.679 *** (0.309)
Nr. of adults (≥ 14)	0.733 ** (0.108)	0.757 ** (0.107)	0.533 *** (0.102)
Top residential area	2.268 *** (0.533)	2.090 *** (0.495)	2.351 *** (0.579)
$P(\pi_h^{exp} > 2\%)$	2.513 ** (0.935)	2.514 ** (0.914)	2.174 ** (0.810)
Risk preference	1.133 ** (0.059)	1.128 ** (0.059)	1.087 (0.058)
Constant	0.101 ** (0.104)	0.076 ** (0.08)	0.169 * (0.176)
<i>N</i>	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer defined by the modelling approach and additional variables.

(ii) Standard errors accounting for multiple in parentheses.

(iii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

Affordability is independently important. Conditional on the RP-Gap and controls, being classified as able to buy is associated with roughly a 2.4-4.5 times increase in the odds of acceptance (Table 7) or a 12-24 percentage-point higher acceptance probability (Table H.1 in the appendix).³⁷ As a reduced-form alternative (specification III), higher

³⁷Using the more restrictive affordability indicator for AT, the result is even more pronounced.

income and financial-asset terciles mechanically proxy the two affordability components and enter positively. Among demographics, age lowers acceptance (about 0.2–0.3 pp, see Table H.1 for the average marginal effect on age), more children (under 14) raise acceptance, and additional adults reduce it; top neighbourhood quality increases acceptance with, an effect size almost comparable to affordability in specification 1.

Acceptance is also sensitive to expected property price growth. Conditional on the RP-Gap and covariates, renters who anticipate sizeable increases in property prices are more likely to accept the current offer. Intuitively, if prices are expected to rise, the cost of waiting increases because future offers are likely to be less favourable; incorporating this shift in the model would move the reservation value upward today and raise acceptance. In specification (1) of Table 7, the indicator for high price-growth expectations is associated with roughly a 2.5-fold increase in the odds of acceptance – comparable in magnitude to the affordability dummy of specification I. Results are similar under alternative coding of the expectations measure and remain robust when using multiple expectation bins.

Table 8 reports results using the normalized reservation–price gap³⁸ defined in equation (7). Scaling the gap by current rent aligns the estimand with the experimental price variation and renders the measure unit-free in terms of the per square meter current user cost. The normalized gap remains economically and statistically highly significant across specifications. Larger positive values – i.e., offers that lie further below the household’s reservation value – substantially increase the probability of acceptance. This confirms that the theoretical threshold mechanism is not driven by scale differences in housing costs, but captures genuine inter-temporal valuation differences across households.

Importantly, the relative explanatory power of the reservation logic increases once the gap is normalised. Compared to the baseline specification, the normalized gap absorbs a larger share of variation that would otherwise be attributed to affordability proxies. While affordability remains independently relevant, the magnitude of its odds ratio relative to the gap diminishes. All other coefficients remain qualitatively unchanged.

Results reported here are robust to changes with regard to the patience parameter (see Section I.4) and assumptions on the regional stratification in the model (see Section I.5). Taken together, these results deliver a tight empirical link from the model’s reservation logic to observed acceptance in the experiment: *price attractiveness* (RP-Gap) and *financial feasibility* (affordability) jointly explain renters’ willingness to buy at randomised prices.

³⁸The normalized RP-gap exhibits the same pattern in scale-free terms. In the renter sample, its mean is -0.664 (s.e. 0.036), with a 10th percentile of -1.150 , a median of -0.558 , and a 90th percentile of -0.211 , based on multiple-imputation-adjusted, unweighted data under heterogeneous impatience. The uniformly negative distribution confirms that, relative to current rental expenditure, the offered purchase prices are typically above the model-implied reservation threshold, reinforcing the finding of relatively low willingness to buy.

Table 8: Logit-model of offer acceptance normalized RP-Gap - odds ratio

Specification	I	II	III
	Affordability	Affordability AT	Distribution
	b/se	b/se	b/se
RP-Gap (normalized)	7.304 *** (3.293)	6.775 *** (2.963)	9.523 *** (4.746)
Affordability dummy	2.292 *** (0.543)	4.046 *** (1.282)	
Financial assets distribution (base low)			
Quantile 2			1.316 (0.395)
Quantile 3			2.936 *** (0.892)
Gross income distribution (base low)			
Quantile 2			1.919 ** (0.523)
Quantile 3			2.685 ** (1.047)
Age	1.039 (0.044)	1.059 (0.045)	1.042 (0.044)
Age ²	0.9995 (0.0004)	0.9993 (0.0004)	0.9994 (0.0004)
Nr. of children (< 14)	1.855 *** (0.332)	1.823 *** (0.330)	1.845 *** (0.329)
Nr. of adults (≥ 14)	0.766 * (0.111)	0.789 * (0.111)	0.582 *** (0.112)
Top residential area	2.163 *** (0.505)	1.994 *** (0.472)	2.204 *** (0.543)
$P(\pi_h^{exp} > 2\%)$	2.680 *** (0.942)	2.655 *** (0.911)	2.354 ** (0.828)
Risk preference	1.132 ** (0.060)	1.124 ** (0.060)	1.084 (0.059)
Constant	0.099 ** (0.105)	0.077 ** (0.083)	0.143 * (0.154)
<i>N</i>	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the *normalized* attractiveness of the offer defined by the modelling approach and additional variables.

(ii) Standard errors accounting for multiple in parentheses.

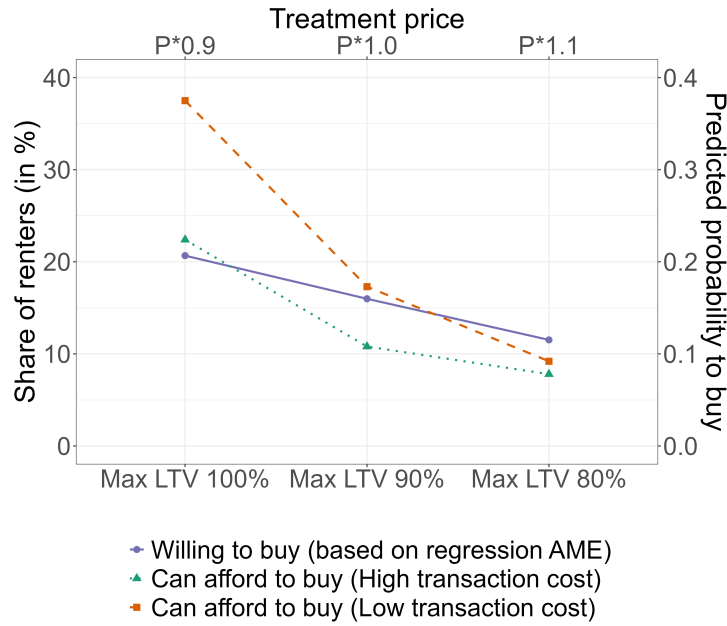
(iii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

5 Policy Implications

Our findings indicate that affordability constraints constitute an important barrier for many renters, but they are not the sole explanation for the low willingness to buy. The model and its empirical validation clarify why this distinction matters for policy. The reservation-price gap summarises the distance between the household-specific reservation threshold and the experimental offer. Since this gap predicts experimental acceptance, policies that lower the cost of buying, reduce transaction costs, or relax borrowing constraints should be understood as shifting households relative to this threshold. These policies are most likely to affect renters close to the cut-off. For renters whose reservation-price gap remains negative, because renting is attractive, patience is high, or the option value of waiting is large, improved affordability need not translate into immediate willingness to buy.

Figure 13: Willingness to buy and affordability indices for renters



Notes: This figure shows the share of renters willing to buy and being able to afford their property, depending on transaction costs and the affordability definition based on the maximum mortgage financing envisaged. For the lines displayed, the high-interest-rate assumption (i.e. 3.94%) is held constant. The blue line, based on the predicted probability from the experimental setting (excluding the most extreme scenarios), is included for illustrative purposes only.

Source: HFCS 2021, ECB, OeNB.

Figure 13 contrasts two policy-relevant objects: the predicted willingness to buy around the baseline market price (excluding the two most extreme treatment scenarios) and the proportion of renters classified as able to purchase under alternative affordability criteria.³⁹ The distinction is central. Affordability criteria describe whether a household can finance the purchase; the willingness-to-buy measure captures whether the

³⁹See Appendix G for the precise definition of these affordability criteria.

household wants to accept the offer. The model-based interpretation is that these two margins coincide only for households whose financial feasibility and reservation threshold are sufficiently aligned.

The figure shows that financing conditions and borrower-based constraints can have sizeable effects on measured affordability. In particular, changing the loan-to-value (LTV) limit substantially affects the proportion of renters who can buy, and varying transaction costs has the largest impact when LTV limits are relatively loose. Assuming an LTV limit of 100%, the share of renters able to buy increases by about 15 percentage points when transaction costs decrease by approximately 7 percentage points. We also test the effect of simulated changes in the interest rate. However, due to the relative importance of purchase affordability, the resulting figure is very similar to Figure 13.⁴⁰ Under the most permissive scenario – an LTV cap of 100%, low transaction costs, and a low interest rate – around 40% of renters are classified as able to purchase, compared with roughly 10% under the prevailing macro-prudential framework at the time of the experiment.

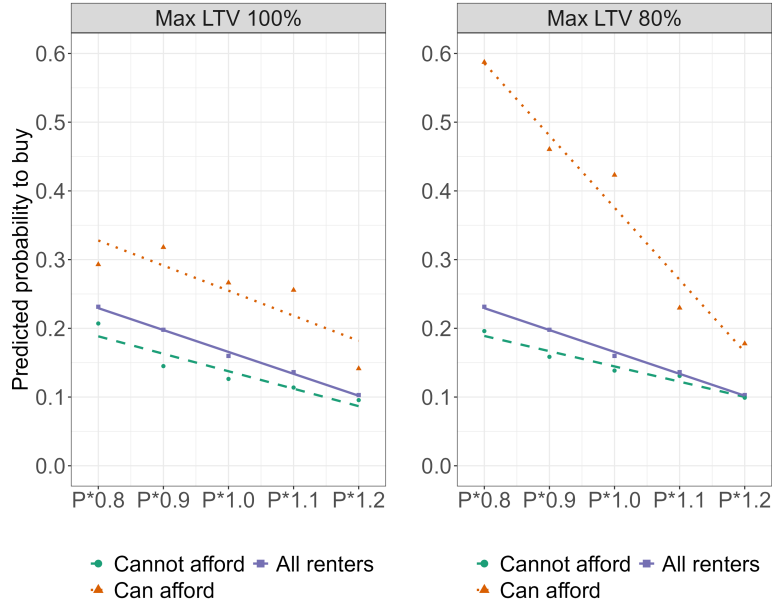
At the same time, Figure 13 shows that relaxing financial constraints does not mechanically translate into high purchase willingness. Even under favourable assumptions, a substantial share of renters remains unwilling to transact. This is the key policy implication of the model and the reservation-price-gap validation. Lowering the offer price or easing financing constraints can move some households closer to their reservation threshold, but it does not eliminate the option value of waiting or the attractiveness of the current rental arrangement. Affordability constraints are therefore important, but they are not sufficient to explain the low take-up of ownership.

To examine this point more directly, we re-estimate model (1) for subsamples of renters classified as being able to purchase a property similar to their current residence under alternative assumptions regarding financial feasibility. Figure 14 reports the predicted willingness to buy from these re-estimated models, distinguishing renters classified as able to buy from those who are not. For expositional clarity, we show only the case of high transaction costs and low interest rates, since the other combinations yield very similar predicted probabilities.

Two patterns stand out. First, renters classified as being able to afford the property are predicted to be more likely to buy than renters who are not. This confirms that financial feasibility matters. Second, the slope and level of the willingness-to-buy schedule vary substantially with the affordability definition. When the LTV limit is tightened from 100% to 80%, the group of renters classified as being able to buy becomes more selective.

⁴⁰Affordability is defined by two conditions: (i) *purchase affordability*, meaning that the LTV ratio does not exceed the relevant cap (Austria’s Financial Market Stability Board recommended an 80% LTV cap at the time of fieldwork); and (ii) *repayment capacity*, meaning that the household’s monthly financial margin remains non-negative after servicing a standard annuity mortgage. We consider transaction-cost rates $\tau \in \{0.058, 0.124\}$, two interest-rate environments (low: 1.21% and high: 3.94%), and maturities capped by age, $m_h = \min\{35, \max(0, 80 - age_h)\}$ years. Across these scenarios, changes in interest rates have only limited effects on predicted willingness to buy relative to the effect of the LTV cap.

Figure 14: Predicted probability to buy under various affordability regimes



Notes: This figure shows the predicted probability to buy under various affordability regimes. For the graphs displayed, the assumptions of high transaction costs and a low interest rate are held constant. Source: HFCS 2021, ECB, OeNB.

The conditional predicted probability of buying is therefore higher for this smaller, more financially robust group. In particular, when affordability is based on an LTV cap of 80%, the predicted probability is around 60% in the most favourable scenario, where the offered price is 80% of market value. Under an LTV cap of 100%, the corresponding predicted probability is only around 30%. This difference should not be interpreted as evidence that tighter LTV limits increase willingness to buy. Rather, it reflects selection: the stricter rule identifies a narrower group of renters whose balance sheets and reservation thresholds are more closely aligned with purchase.

Conversely, in the least attractive scenario, where the offered price is 120% of market value, predicted willingness to buy converges to around 10–15% under both affordability classifications. This again illustrates the threshold logic of the model. Once the offer is sufficiently unattractive relative to the household's reservation price, broader financial eligibility does little to generate acceptance. Taken together, these results show that affordability operates through two distinct margins. Borrower-based rules, such as LTV caps, determine who can finance a purchase. The reservation-price gap determines whether a financially feasible offer is attractive enough to be accepted.

The policy implication is therefore not that transaction-cost reductions, subsidies, or looser credit constraints are ineffective. Rather, their effects are likely to be concentrated among renters close to the reservation threshold. Such policies can widen access to ownership and may substantially affect households at the margin, especially lower-income renters for whom financial constraints are binding. However, the empirical validation of

the reservation-price gap shows that willingness to buy is not governed by affordability alone. Policies that improve financial feasibility may therefore generate smaller tenure transitions than a purely mechanical affordability calculation would suggest. Behavioural factors, satisfaction with the current rental arrangement, expectations about future opportunities, and the option value of waiting continue to shape the decision.

A full simulation of cross-country differences and a broader discussion of policy effects – using the theoretical model calibrated to alternative institutional settings – is left for future research. The main findings of the analysis are robust to alternative specifications and modelling choices, including expanded heterogeneity, alternative price measures, inference based on replicate weights, a constant patience parameter, and a finer regional stratification. Detailed results are provided in Appendix I.

6 Conclusion

Property used as the HMR occupies a central role in households’ balance sheets and in the distribution of wealth within and across countries. It functions simultaneously as a consumption good, an investment asset, and a marker of social status. A large literature has analysed how property markets shape inequality, financial stability, and macroeconomic dynamics. By contrast, much less is known about households’ willingness to buy or sell property in response to price changes, despite the importance of such margins for understanding tenure dynamics.

This paper provides new evidence on that margin. Combining a dynamic model of renters’ purchase decisions with a randomised price experiment embedded in the Austrian Household Finance and Consumption Survey, we estimate design-based willingness-to-transact responses to exogenous price variation. We document three main findings. First, both renters’ willingness to buy and owners’ willingness to sell respond significantly to price changes in the expected direction. Second, the overall willingness to transact is limited: even under a 20% discount relative to baseline values, only a minority of renters express willingness to buy, and owners’ willingness to sell is even lower across the entire price range. Third, responses are heterogeneous, with lower-income renters exhibiting more sensitivity to price reductions. Older households show more pronounced tenure inertia and slightly lower price sensitivity compared to younger households.

Linking the experimental responses to model-implied reservation prices provides a tight connection between theory and empirics: the reservation-price gap has substantial explanatory power for acceptance decisions. At the same time, affordability measures explain only part of the observed reluctance to buy. Even among renters who could afford to buy under favourable assumptions, many remain unwilling to transact. This suggests that financial constraints matter, but so do option values of waiting, preferences for stability, and attachment to existing living arrangements.

Our contribution is therefore modest but precise: we provide evidence on how stated willingness to buy and sell responds to exogenous price variation in a representative setting, and we interpret these responses through a tractable inter-temporal framework. These findings complement—rather than replace—structural and general-equilibrium analyses of property markets and their distributional implications.

Finally, our findings point to a broader question concerning the long-run persistence of tenure structures. A substantial share of owners indicate bequest motives, and renters who move into ownership are more likely to have benefited from inheritances or gifts. If property is increasingly transferred within families rather than reallocated through market transactions, ownership patterns may become more persistent over time and access to owner-occupation may depend more strongly on intergenerational wealth transmission. While our analysis does not model these dynamics explicitly, the documented reluctance to buy and sell provides a micro-level behavioural foundation for future work on how inheritance, tenure stability, and market turnover interact. A natural extension of our framework would be to embed the reservation-price mechanism in a dynamic setting with intergenerational transfers, thereby linking short-run willingness to transact to longer-run developments in ownership and wealth distribution.

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Appendix

A Descriptive statistics

Table A.1: Descriptive statistics of Austrian households by tenure status

Age of household head								
	P5	P10	P25	P50	Mean	P75	P90	P95
Renter	26	30	39	52	53	65	76	81
Owner	36	40	48	58	59	69	78	82
Income (in EUR 1,000)								
	P5	P10	P25	P50	Mean	P75	P90	P95
Renter	12.7	15.5	22.1	35.7	42.7	56.6	80.7	90.5
Owner	16.9	22.5	35.4	53.1	61.2	78.4	104.2	127.7
Financial assets (in EUR 1,000)								
	P5	P10	P25	P50	Mean	P75	P90	P95
Renter	0.1	0.5	2.4	9.4	29.9	24.2	65.3	120.4
Owner	1.3	4.0	12.1	27.4	65.6	64.4	152.6	226.5
Education of household head (in %)								
	Basic		Secondary		Tertiary			
Renter	15.7		64.7		19.5			
Owner	8.4		61.2		30.5			
Household size (in %)								
	1 Person		2 Persons		3 Persons		4+ Persons	
Renter	48.5		29.3		11.4		10.8	
Owner	26.2		39.6		15.2		19.1	
Employment status of household head (in %)								
	Employee		Self-employed		Unemployed		Retired	
Renter	52.1		4.8		7.4		35.6	
Owner	45.4		6.9		1.7		46	

Notes: This table provides socio-economic information for owners (including partial owners) and renters in Austria. Monetary values are shown in household totals and are not equivalised or otherwise adjusted for household size. Households using their HMR free of charge are excluded. The category 'Unemployed' also includes the employment status 'Other', for example, students.

Source: HFCS 2021, ECB, OeNB.

B Questionnaire wording and treatment details

B.1 Questionnaire design of the experiment

Within this most comprehensive high-quality survey in Austria we were able to implement a randomized experiment. Ex-ante, i.e. before the survey is conducted, we define a stratified (based on region) randomization design, that puts each and every household into one of five groups, control and treatment I-IV. Apart from the stratification the randomization takes place via the month of birth of the respondent. The groups are assigned as follows:

- Birth month: January, June, missing → Control group
- Birth month: February, July, November → Treatment group I
- Birth month: March, August → Treatment group II
- Birth month: April, September, December → Treatment group III
- Birth month: May, October → Treatment group IV

As the number of months vary slightly across groups we expect some variation of group size. The randomization approach hence depends on the assumption that the month of birth is random. Statistics Austria provides information on the number of births in each month.⁴¹ In 2022 there are 82,627 children born, which yields on average 6,890 a month. The number of births varies only slightly over months reaching a maximum of 7,593 for September 2022 and never falls below 6,000. As the selection of the financially knowledgeable person, which answers household questions in the HFCS and whose month of birth is taken for group classification, is not based on birth related information, we are confident that the randomization strategy works well.

B.2 Questionnaire wording - owner

Depending on the answers to ownership structure of the HMR, the routing and questions wording (verbatim translation) for owners is

“What is the value of this property, i.e. if you could sell it now how much do you think would be the price of it?”

Then, owners get the question

“Would you be willing to sell this property for EUR Y?”

⁴¹See e.g. https://www.statistik.at/fileadmin/user_upload/Demographisches-JB-2022_Web_barrierefrei.pdf graph 8 on page 38.

where Y is either 80%, or 90%, or 100%, or 110%, or 120% of the value indicated in the previous question. This results in one control group (100%), which gets the question if they would actually sell for the price they think their property is worth and 4 treatment groups. For example, take 5 different households each evaluating their property at EUR 100,000, which belong in different treatment groups or the control group. The household in the control group gets the question, if it would sell the property for EUR 100,000, whereas another household in treatment group 80% would get the question if it would sell the property for EUR 80,000, another household in treatment group 90% would get the question if it would sell the property for EUR 90,000 and likewise the other households in treatment groups 110% or 120%. If valuation of the HMR is given in a range (between ... and ...) then the middle of the range is taken. If only one side of the range is provided, this value is taken, and if no range is indicated valuation is estimated based on location, size in square meters and the average square meter price in this region.

Furthermore owners not willing to sell are asked:

“What is the main reason for not selling this property?”

The answer categories are pre-defined and given by:

1. Don't want to move
2. Price too low
3. Want to keep the property for the family
4. Have invested a lot of my own work in the property
5. Other reason (verbatim)

B.3 Questionnaire wording - Renter

Renters, on the other hand, get the question

What is the monthly amount paid as rent (please exclude utilities, heating, etc. if possible)?

Then, after providing some details on utilities included or not included in the rent, renters get the question

“Would you be willing to buy a property which is similar in location, interior and size for EUR Y?”

where Y is either 80%, or 90%, or 100%, or 110%, or 120% of the property value calculated for renters based on their rent, $Price_c$. Using the capitalisation method, the property value calculated for renters is $Price_c = (\text{Rent without utilities} * 12) / 0.03$. For example, take 5 different households, each paying EUR 500 of rent without utilities each month, which belong in different treatment groups or the control group. The household in the control group gets the question, if it would buy a similar property for EUR 200,000, whereas another household in treatment group 80% would get the question if it would buy a similar property for EUR 160,000, another household in treatment group 90% would get the question if it would buy a similar property for EUR 180,000 and likewise the other households in treatment groups 110% or 120%. In cases where rent is given as a range or no rent is provided, we followed the same structure as explained for owners.

Furthermore, renters not willing to buy are asked:

“What is the main reason not to buy this property?”

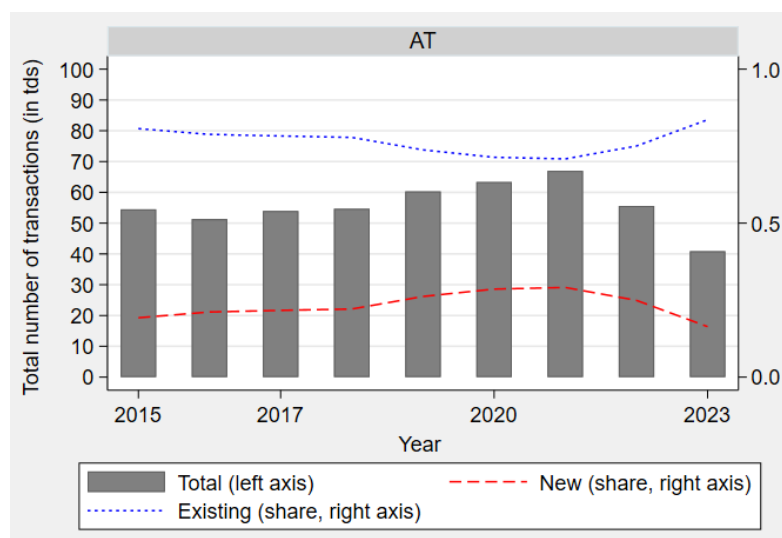
The answer categories are pre-defined and given by:

1. Cannot obtain credit
2. Want to maintain my rental agreement
3. Do not have sufficient funds
4. Want to purchase a different/better property
5. Price is too high
6. Other reason (verbatim)

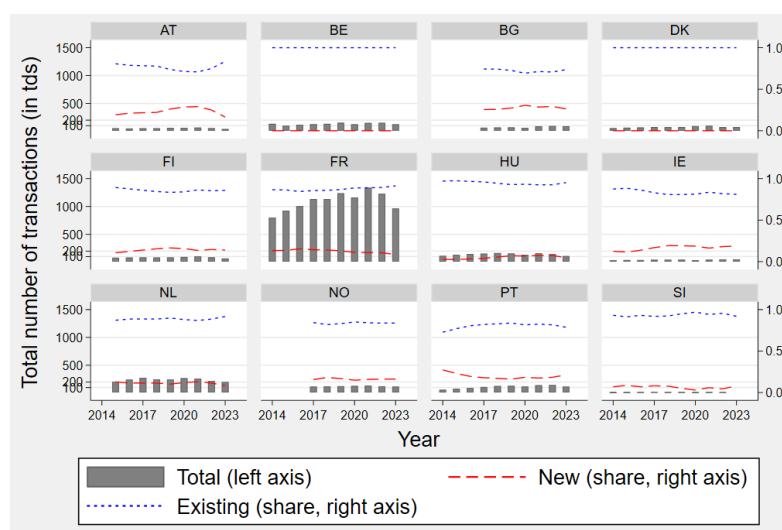
C Property transactions

Figure C.1: Property transactions in Austria and Europe

(a) Austria



(b) Selected European countries



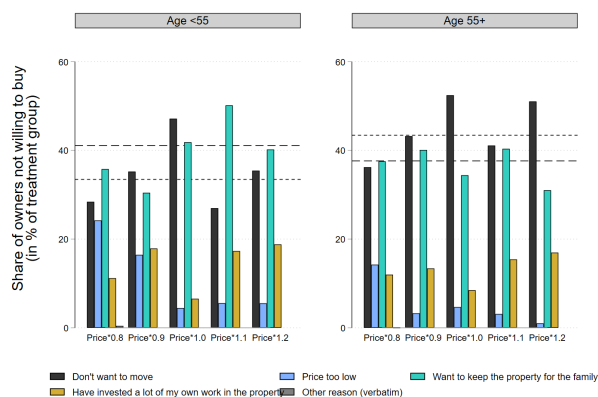
Notes: This graph shows the absolute number of transactions as well as the share thereof for new developments and existing buildings over the years from 2015-2023. Panel (A) shows information for Austria. Panel (B) shows in addition information from other European countries.

Source: Eurostat, https://ec.europa.eu/eurostat/databrowser/view/prc_hpi_hsna/default/table?lang=en&category=prc.prc_hpi.prc_hpi_inx.

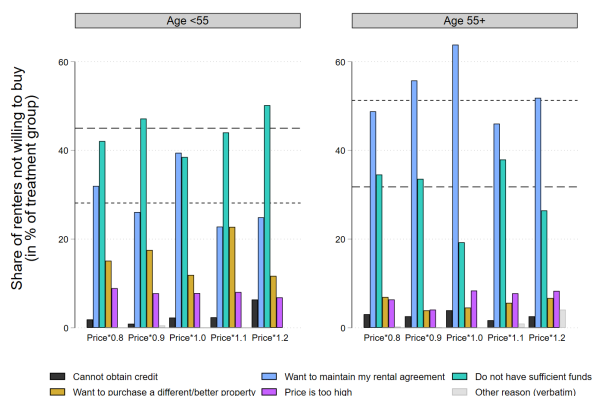
D Reasons not to transact

Figure D.1: Reasons for unwillingness to buy or sell, by age

(a) Owners



(b) Renters



Notes:

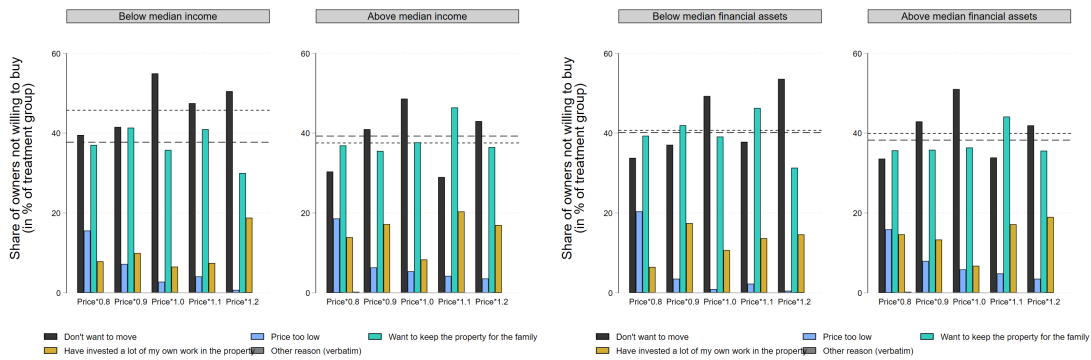
i) This figure shows how the share of households and their reasons for not being willing to buy or sell their current property vary with the age of the household head. For owners, the short-dashed line shows the average for “Don’t want to move” and the long-dashed line the average for “Want to keep the property for the family”. For renters, the short-dashed line shows the average for “Want to maintain my rental agreement”, and the long-dashed line the average for “Do not have sufficient funds”.

ii) Estimates use household weights provided in the HFCS.

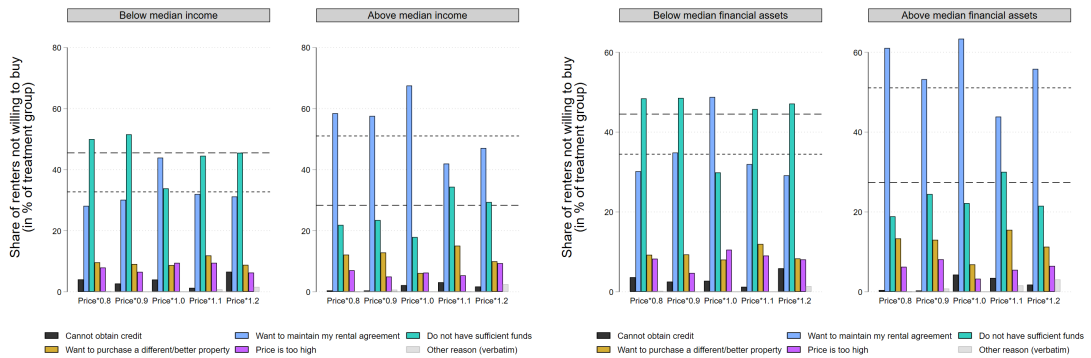
Source: HFCS 2021, ECB, OeNB.

Figure D.2: Reasons for unwillingness to buy or sell, by income and financial assets

(a) Owner



(b) Renter



Notes:

- i) This figure shows the share of households indicating reasons for not being willing to trade their current property by household income and financial asset groups. For owners, the short-dashed line shows the average for “Don’t want to move”, and the long-dashed line the average for “Want to keep the property for the family”. For renters, the short-dashed line shows the average for “Want to maintain my rental agreement”, and the long-dashed line the average for “Do not have sufficient funds”.
- ii) Estimates use household weights provided in the HFCS.

Source: HFCS 2021, ECB, OeNB.

E Full regression tables

Table E.1: Regression Results - Average marginal effects

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Price (Treatment)	-0.3202*** (0.0947)	-0.3097*** (0.0813)	-0.2932*** (0.0791)	0.2553*** (0.0809)	0.2595*** (0.0751)	0.245*** (0.0677)
Age		0.0042 (0.0049)	0.0026 (0.0045)		0.0132** (0.0059)	0.01* (0.0055)
Age ²		-0.0001 (0.0001)	0.0000 (0.0000)		-0.0001** (0.0001)	-0.0001* (0.0000)
<i>Education of household head (Base: Basic)</i>						
Secondary		-0.0725 (0.0471)	-0.0516 (0.0404)		-0.0567 (0.0537)	-0.034 (0.0514)
Tertiary		-0.0432 (0.049)	-0.0438 (0.0444)		-0.0604 (0.057)	-0.0436 (0.0537)
<i>Income (Base: Quartile Q1)</i>						
Quartile Q2		0.0579* (0.0318)	0.0441 (0.0324)		-0.0033 (0.0336)	-0.0104 (0.0344)
Quartile Q3		0.0328 (0.042)	0.0209 (0.0434)		0.0095 (0.0373)	-0.0078 (0.0353)
Quartile Q4		0.1219* (0.0645)	0.1012 (0.0623)		0.0006 (0.0367)	-0.006 (0.0361)
<i>Financial assets (Base: Quartile Q1)</i>						
Quartile Q2		0.0323 (0.0328)	0.0582* (0.03)		-0.0109 (0.0358)	-0.0035 (0.0344)
Quartile Q3		0.0679 (0.0446)	0.0923** (0.0468)		-0.0218 (0.0343)	-0.0181 (0.034)
Quartile Q4		0.139** (0.0595)	0.1686*** (0.055)		-0.0131 (0.0364)	-0.0064 (0.0379)
<i>Household composition</i>						
Number of adults (aged 14+)		-0.0537** (0.0246)	-0.0422* (0.0227)		-0.0262 (0.018)	-0.0215 (0.0161)
Number of children		0.0477** (0.0209)	0.0476*** (0.0176)		0.0002 (0.018)	0.0048 (0.017)
<i>Employment status of household head (Base: Employee)</i>						
Self-employed		0.1509** (0.0762)	0.1641** (0.0804)		0.0194 (0.0454)	0.0374 (0.0507)
Unemployed		-0.03 (0.0471)	-0.0103 (0.0509)		-0.0284 (0.0406)	-0.0522** (0.0254)

Table E.1: Regression Results - Average marginal effects (*continued*)

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Retired		-0.0003 (0.0531)	-0.0306 (0.0473)		0.0165 (0.0288)	0.0098 (0.0311)
<i>Gender of household head (Base: Male)</i>						
Female		0.0223 (0.0256)	0.0108 (0.0244)		0.0000 (0.0224)	-0.0029 (0.0225)
<i>Financial indicators</i>						
Credit constrained		-0.0688 (0.0467)	-0.0705 (0.0477)		0.0519 (0.0487)	0.0354 (0.0553)
Received inheritance		0.0692** (0.031)	0.0606** (0.0305)		0.006 (0.0197)	0.0199 (0.0208)
Has non-mo. debt		0.0499 (0.0314)	0.0378 (0.0307)		0.0106 (0.0283)	-0.0078 (0.0273)
<i>House price expectations (Base: $P(-2 < \pi_h^{exp} \leq 2\%)$)</i>						
$P(\pi_h^{exp} < -5\%)$		0.0403 (0.154)	0.0669 (0.1327)		-0.2503* (0.1413)	-0.1884 (0.1146)
$P(-5 \leq \pi_h^{exp} \leq -2\%)$		-0.0057 (0.1242)	0.0744 (0.111)		0.0719 (0.0571)	0.0618 (0.055)
$P(\pi_h^{exp} > 2\%)$		0.1231*** (0.0448)	0.1179*** (0.0415)		-0.0214 (0.0309)	-0.0089 (0.0299)
<i>Risk tolerance</i>						
Risk tolerance		0.0166 (0.021)	0.026 (0.0202)		0.0335* (0.0182)	0.0298 (0.0184)
Risk tolerance ²		-0.0013 (0.0023)	-0.0023 (0.0022)		-0.0036* (0.0021)	-0.003 (0.0021)
<i>Property characteristics</i>						
Log Price per m ²			-0.1418*** (0.028)			0.0472** (0.0203)
<i>Federal state (Base: Burgenland)</i>						
Lower Austria			-0.3731*** (0.134)			-0.1224** (0.0555)
Vienna			-0.3359** (0.141)			-0.1136 (0.0697)
Carinthia			-0.2542* (0.1401)			-0.1561** (0.0634)
Styria			-0.2735* (0.1412)			-0.0469 (0.0581)
Upper Austria			-0.28** (0.1395)			-0.0942 (0.0595)

Table E.1: Regression Results - Average marginal effects (*continued*)

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Salzburg			-0.3233** (0.1413)			-0.1545*** (0.059)
Tyrol			-0.1192 (0.1514)			-0.1694*** (0.0552)
Vorarlberg			-0.1424 (0.1713)			
<i>Type of property (Base: Single family house)</i>						
Semi-detached house			-0.154* (0.0851)			0.0378 (0.0445)
Terraced house			-0.0591 (0.1102)			0.0512 (0.0589)
Agricultural residential building			-0.2463*** (0.0722)			-0.0191 (0.0271)
Flat (including others)			-0.0945 (0.0733)			0.0862** (0.0361)
<i>Construction (Base: Exclusive)</i>						
Very good			-0.0992 (0.0994)			0.0096 (0.0461)
Mediocre			-0.0318 (0.1028)			-0.0157 (0.0492)
Simple/Very simple			0.1195 (0.12)			-0.053 (0.0521)
<i>Location (Base: City centre)</i>						
Between city centre and suburbs			-0.0124 (0.028)			0.0086 (0.029)
Suburbs and outskirts			-0.0515 (0.0357)			0.0116 (0.0312)
Rural area			-0.0574 (0.0472)			0.037 (0.0365)
<i>Urbanization (Base: Densely populated area)</i>						
Medium density			-0.0392 (0.0348)			0.0182 (0.0307)
Low			0.014 (0.0478)			0.0352 (0.0329)
<i>Exterior condition (Base: Clean and well maintained)</i>						
Not clean and well maintained			-0.0379 (0.0343)			-0.0211 (0.0311)
<i>Condition outside in comparison (Base: Worse)</i>						

Table E.1: Regression Results - Average marginal effects (*continued*)

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Similar			-0.0421 (0.0495)			-0.0329 (0.0584)
Better			0.0102 (0.0661)			-0.0763 (0.0598)
No others			-0.0026 (0.123)			-0.0511 (0.0739)
<i>Residential area (Base: Very good)</i>						
Good			-0.1003** (0.0409)			0.0151 (0.0212)
Average			-0.1046** (0.0479)			0.0548 (0.0382)
Not so good/bad			-0.182*** (0.0577)			0.1207 (0.0863)
<i>Graffiti (Base: A lot/a bit)</i>						
Not at all			0.0167 (0.0338)			0.0281 (0.0301)
<i>Condition inside (Base: Very good)</i>						
Good			-0.0276 (0.0316)			0.0196 (0.0288)
Average/poor			-0.0046 (0.0575)			0.0118 (0.0811)
Unknown			0.086 (0.0996)			0.0481 (0.0485)

*Note: Standard errors accounting for multiple imputation in parenthesis. ***/**/*: Pooled Wald statistic with $H_0 : \alpha = 0$ greater than 2.576/1.960/1.645 in absolute value. No. of observations: Renters: 1129 - Owners: 973. For owners, observations from Tyrol and Vorarlberg are grouped to Tyrol due to a lack of observations.*

Source: HFCS 2021, ECB, OeNB.

F Numerical solution - Algorithm

We compute the reservation price by iterating on the continuation-value fixed point in (4) and then mapping ν to R via (5). The expectation in (4) can be evaluated by Monte Carlo.

Algorithm 1: Solving the continuation-value fixed point (4) by iteration and computing (R, p_{accept}) .

input : Discount factor β ; rent r ; subsidies s_r, s_b ; distribution of ownership costs $h \sim \eta$ (e.g., lognormal with parameters (μ, σ^2)); Monte Carlo sample size N ; maximum iterations J ; tolerance $\varepsilon > 0$; (optional) random seed.

output: Approximation of (R, p_{accept})

initialization:

- (i) Draw N i.i.d. samples $\{h^{(n)}\}_{n=1}^N$ from η .
- (ii) Set $\nu^{(0)} = \frac{\mathbb{E}_\eta[h](1-s_b)}{1-\beta}$;

Fixed-point iteration: for $j \in \{0, 1, \dots, J-1\}$ do

- (a) Compute the sample analogue of the inner expectation under the current guess $\nu^{(j)}$:

$$m^{(j)} \leftarrow \frac{1}{N} \sum_{n=1}^N \min \left\{ \frac{h^{(n)}(1-s_b)}{1-\beta}, \nu^{(j)} \right\}.$$

- (b) Update the continuation value:

$$\nu^{(j+1)} \leftarrow r(1-s_r) + \beta \cdot m^{(j)}$$

- (c) Check for convergence: If $|\nu^{(j+1)} - \nu^{(j)}| < \varepsilon$, set $\nu = \nu^{(j+1)}$ and break.

end

Reservation price and acceptance probability:

$$R \leftarrow \frac{1-\beta}{1-s_b} \nu, \quad p_{\text{accept}} \leftarrow \begin{cases} F_\eta(R), & \text{if a closed-form CDF is used;} \\ \frac{1}{N} \sum_{n=1}^N \mathbf{1}\{h^{(n)} \leq R\}, & \text{(Monte Carlo estimate).} \end{cases}$$

return (R, p_{accept})

Implementation notes. (i) Convergence is typically rapid because $\beta \in (0, 1)$ and the inner minimum is bounded; damping can be added if desired: $\nu^{(j+1)} \leftarrow (1-\lambda)\nu^{(j)} + \lambda[r(1-s_r) + \beta m^{(j)}]$ with $\lambda \in (0, 1]$. (iii) Units: All objects are per sqm per period, and the same user-cost convention must be applied to construct η and to map experimental offers.

G Definition of affordability indicator

The affordability indicators in section 4.5 follow the definitions of Naidin et al. (2025), but are adapted to the conditions in the Austrian mortgage market. A renter is able to afford the current residence if both purchase affordability and repayment affordability are fulfilled.

Purchase affordability refers to the household's wealth, meaning if the household i holds enough assets to buy the property c right away or is at least eligible for borrowing. This is the case when the initial loan-to-value (LTV) ratio needed to finance the house purchase is below a threshold $l \in \{0.8, 1\}$. This indicates that households have sufficient net liquid assets to cover the transaction costs and a potential down payment. Naidin et al. (2025) assume a less restrictive loan-to-value (LTV) cap of 100%. Austria's Financial Market Stability Board (FMSB) recommended an 80% LTV cap at the time of fieldwork, with limits that have varied over time and exemptions for certain borrowers. Formally, this means

$$LTV(i) = \frac{L_i}{P_c} \leq l \quad \text{and} \quad NLA(i) \geq (\tau + 1 - l)P_c$$

where $NLA(i)$ refers to net liquid assets, which are defined as the sum of liquid financial assets (deposits, mutual funds, bonds, publicly traded shares, and managed accounts) minus the sum of non-collateralized debt (outstanding balance of credit lines/overdraft and credit card debt). The share of transaction costs, τ , of the purchasing price, P_c , consists of the real estate agent fee (3.6% including VAT), the real estate transfer tax (3.5%), the land register tax (1.1%), a notary fee ranging between 1% and 3%, and, in the common case of a mortgage, a mortgage-registration fee in the land-register (1.2%). In total, the transaction costs add up to $\tau = 12.4\%$ if we set the notary fee to 3%. For Section 5 we consider a low transaction cost scenario, in which we set the notary fee to 1% and assume no real estate transfer tax (3.5%) and no land register tax (1.1%), which gives $\tau = 5.8\%$. The latter two are regularly considered to be abolished in the political debate.

Repayment affordability refers to the ability to bear the monthly financial burden of a mortgage payment. A renter is defined as satisfying repayment affordability if its financial margin $FM(i)$ is non-negative when potential mortgage payments are included. This means

$$FM(i) = NI_i - CoL_i - D_i \geq 0$$

where NI_i refers to the household's net income, CoL_i , refer to basic cost of living expenses and D_i refer to potential debt payments. Basic cost of living expenses is defined as the sum of food at home, 50% of food outside home, utilities and 10% of equalised net income.

Following [Naidin et al. \(2025\)](#), debt payments are derived by multiplying the amount of potential debt taken out (price of residence minus net liquid assets $NLA(i)$) by an annuity factor

$$\alpha_h := \frac{i \cdot (1 + ir)^{m_i}}{(1 + ir)^{m_i} - 1}$$

where m_i refers to the maximum maturity in years a loan can be taken out by the household. In Austria, there is no legal maximum age with which a mortgage can be taken out, so we set the maximum to 80. However, the maximum maturity for a mortgage recommended by the Austrian authorities is 35 years. This implies that maturities are defined as $m_i = \min\{35, \max(0, 80 - age_h)\}$ years, where age_h is the age of the households FKP. ir refers to the agreed interest rate, for which we use an interest rate of $ir = 3.94\%$, reflecting the interest rate in July 2024 as an example. Again, for Section 5 we consider a low interest rate scenario with $ir = 1.21\%$, where the interest rate refers to the average interest rate during the fieldwork period May 2021 - February 2022. Alternatively, we apply the same capitalisation as in the experiment,

$$r_i := (\text{Price}_c \times 1.124 - NLA(i)) \times \frac{0.03}{12},$$

to derive the associated debt payments (see section 4.2.).

In the paper we show results based on two separate measures of affordability to check whether results depend on a specific set of parameter assumptions.⁴² On the one hand, the affordability measure denoted as “*Affordability*” assumes a LTV cap of 100% to define purchase affordability and uses the annuity factor defined by α_i to define repayment affordability. On the other hand, the second affordability measure, denoted “*Affordability AT*”, assumes a LTV cap of 80% to define purchase affordability and uses the debt payment defined by r_i to define repayment affordability.

⁴²Results are qualitatively stable across various reasonable parameter assumptions.

H Marginal effects

Table H.1: Logit-model of offer acceptance - average marginal effects

Specification	I	II	III
	Affordability	Affordability AT	Distribution
	b/se	b/se	b/se
RP-Gap	0.024 *** (0.008)	0.023 *** (0.007)	0.029 *** (0.008)
Affordability dummy	0.120 *** (0.037)	0.237 *** (0.063)	
Financial assets distribution (base low)			
Quantile 2			0.029 (0.033)
Quantile 3			0.146 *** (0.043)
Gross income distribution (base low)			
Quantile 2			0.070 ** (0.029)
Quantile 3			0.139 *** (0.049)
Age	-0.002 ** (0.001)	-0.002 *** (0.001)	-0.003 *** (0.001)
Nr. of children (< 14)	0.063 *** (0.021)	0.060 *** (0.021)	0.059 *** (0.021)
Nr. of adults (≥ 14)	-0.037 ** (0.017)	-0.033 ** (0.016)	-0.072 *** (0.021)
Top residential area	0.112 *** (0.036)	0.097 *** (0.035)	0.111 *** (0.036)
$P(\pi_h^{exp} > 2\%)$	0.110 ** (0.044)	0.109 ** (0.042)	0.088 ** (0.042)
Risk preference	0.015 ** (0.006)	0.014 ** (0.006)	0.009 (0.006)
<i>N</i>	1129	1129	1129

Notes:

- (i) This table shows average marginal effects of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer, defined by the modelling approach and additional variables.
- (ii) Standard errors, accounting for multiple imputation, in parentheses.
- (iii) Stars indicate conventional significance levels.

Source: HFCs 2021, ECB, OeNB.

Table H.2: Logit-model of offer acceptance normalized RP-Gap - average marginal effects

Specification	I	II	III
	Affordability	Affordability AT	Distribution
	b/se	b/se	b/se
RP-Gap (normalized)	0.234 *** (0.050)	0.221 *** (0.048)	0.253 *** (0.052)
Affordability dummy	0.110 *** (0.034)	0.211 *** (0.056)	
Financial assets distribution (base low)			
Quantile 2			0.029 (0.032)
Quantile 3			0.138 *** (0.043)
Gross income distribution (base low)			
Quantile 2			0.070 ** (0.029)
Quantile 3			0.115 ** (0.049)
Age	-0.001 (0.001)	-0.002 ** (0.001)	-0.002 *** (0.001)
Nr. of children (< 14)	0.073 *** (0.020)	0.070 *** (0.020)	0.069 *** (0.020)
Nr. of adults (≥ 14)	-0.031 * (0.017)	-0.028 * (0.016)	-0.061 *** (0.021)
Top residential area	0.102 *** (0.034)	0.089 *** (0.033)	0.100 *** (0.035)
$P(\pi_h^{exp} > 2\%)$	0.116 *** (0.041)	0.113 *** (0.039)	0.096 ** (0.039)
Risk preference	0.015 ** (0.006)	0.014 ** (0.006)	0.009 (0.006)
N	1129	1129	1129

Notes:

(i) This table shows average marginal effects of a logit model of accepting the offer from the housing experiment on the *normalized* attractiveness of the offer defined by the modelling approach and additional variables.

(ii) Standard errors accounting for multiple imputation, in parentheses.

(iii) Stars indicate conventional significance levels.

Source: HFCS 2021, ECB, OeNB.

I Robustness checks for the main results

This section evaluates the robustness of both the empirical and theoretical components of the analysis. We first test the stability of the estimated price-sensitivity parameters, through an expanded heterogeneity analysis and by recomputing standard errors using the full set of 1,000 replicate weights. We then assess sensitivity to functional form by replacing the baseline relative price specification with a continuous measure of absolute price deviation. The second part examines robustness with respect to the tenure-choice model and the construction of reservation values.

I.1 Heterogeneity analysis

Table I.1 summarises the heterogeneity analysis. Panel (A) reproduces the baseline estimates of price responsiveness from the main specification to facilitate comparison. As in the core analysis, these coefficients are obtained from logit regressions of willingness to buy or sell on the treatment-induced price change.

Panels (B) and (C) extend this specification by including separate interaction terms between the price treatment and subgroup indicators D_i . The subgroup indicators are defined as binary variables capturing: age (household head aged 55 or older), income (above median), financial assets (above median), the joint condition of above-median income and financial assets, housing quality (above median), and property type (house versus apartment). These interactions test whether price responsiveness differs systematically across observable household and property characteristics.

Overall, the main results remain stable. For owners, there is little evidence of meaningful heterogeneity in price responsiveness across specifications. For renters, heterogeneity is likewise limited, with the exception of income differences, already discussed in Section 3.2. The interaction effects are based on dummy-defined subgroups and confirm that, apart from income, estimated price sensitivity is remarkably consistent across characteristics under consideration.⁴³

I.2 Inference using replicate weights

The HFCS provides 1,000 bootstrapped replicate weights to account for uncertainty arising from the survey design, including stratification, sampling, and adjustments for non-response and post-stratification.⁴⁴ In practice, these replicate weights allow repeated estimation of the statistic of interest using 1,000 alternative sets of sampling weights.

⁴³We also experimented with alternative subgroup definitions, including percentile-based classifications and specifications interacting the price treatment with continuous covariates. These alternative approaches yield qualitatively similar results.

⁴⁴Household Finance and Consumption Network (2023a) describe the construction of the HFCS replicate weights, and Albacete et al. (2023) provide additional details for Austria.

Table I.1: Regression results from heterogeneity analysis and using replicate weights

(A) All households

	Renter			Owner		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Price (Treatment)	-0.3202*** (0.0947) [-0.5058, -0.1346]	-0.3097*** (0.0813) [-0.469, -0.1504]	-0.2932*** (0.0791) [-0.4482, -0.1381]	0.2553*** (0.0809) [0.0967, 0.4138]	0.2595*** (0.0751) [0.1123, 0.4066]	0.245*** (0.0677) [0.1122, 0.3777]
Household characteristics	✗	✓	✓	✗	✓	✓
Property characteristics	✗	✗	✓	✗	✗	✓

(B) Heterogeneity analysis for renters

	Age	Income	Fin. assets	Inc. & FA	Quality	Property
Price (Treatment)	-0.2751*** (0.0831) [-0.4379, -0.1122]	-0.4414*** (0.106) [-0.6491, -0.2337]	-0.3674*** (0.1046) [-0.5724, -0.1625]	-0.2812*** (0.0792) [-0.4365, -0.126]	-0.3002*** (0.0819) [-0.4608, -0.1396]	-0.2705*** (0.0839) [-0.435, -0.106]
Interaction	-0.0389 (0.0489) [-0.1348, 0.057]	0.3458** (0.1577) [0.0368, 0.6548]	0.1837 (0.175) [-0.1594, 0.5268]	-0.0445 (0.0491) [-0.1407, 0.0517]	0.0147 (0.0326) [-0.0492, 0.0786]	-0.1944 (0.2728) [-0.7291, 0.2403]
Household characteristics	✓	✓	✓	✓	✓	✓
Property characteristics	✓	✓	✓	✓	✓	✓

(C) Heterogeneity analysis for owners

	Age	Income	Fin. assets	Inc. & FA	Quality	Property
Price (Treatment)	0.2595*** (0.069) [0.1243, 0.3947]	0.1944** (0.0958) [0.0065, 0.3822]	0.2427** (0.1035) [0.0398, 0.4455]	0.2481*** (0.0713) [0.1083, 0.3879]	0.2244*** (0.0705) [0.0862, 0.3626]	0.2696** (0.1336) [0.0078, 0.5314]
Interaction	-0.0251 (0.0334) [-0.0904, 0.0403]	0.0965 (0.1331) [-0.1643, 0.3573]	0.0023 (0.1398) [-0.2718, 0.2764]	-0.0095 (0.0401) [-0.0881, 0.0691]	0.0349 (0.0306) [-0.025, 0.0949]	-0.0344 (0.1424) [-0.3136, 0.2447]
Household characteristics	✓	✓	✓	✓	✓	✓
Property characteristics	✓	✓	✓	✓	✓	✓

(D) All households, using replicate weights

	Renter			Owner		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Price (Treatment)	-0.3202*** (0.087) [-0.4908, -0.1496]	-0.3097*** (0.0855) [-0.4773, -0.1421]	-0.2932*** (0.1033) [-0.4957, -0.0906]	0.2553*** (0.0897) [0.0795, 0.431]	0.2595*** (0.097) [0.0693, 0.4497]	0.245** (0.1142) [0.0212, 0.4687]
Household characteristics	✗	✓	✓	✗	✓	✓
Property characteristics	✗	✗	✓	✗	✗	✓

Notes: Estimates are from logit regressions of willingness to buy/sell on a treatment-induced price change. Panels (B) and (C) include interaction terms of the price treatment with the household characteristics indicated in each column: Age (head aged 55 or older), Income (above median), Fin. assets (above median), Inc. & FA (above median income and financial assets), Quality (above median housing quality), and Property (house vs. apartment). For Panel (A) - (C), standard errors accounting for multiple imputation are in parenthesis and 95% confidence intervals in square brackets. Panel (D) shows standard errors and 95% confidence intervals accounting for multiple imputation and using 1,000 bootstrapped replicate weights. ***/**/* indicate a pooled Wald statistic for $H_0: \alpha = 0$ exceeding 2.576/1.960/1.645 in absolute value. Number of observations: 1,129 renters and 973 owners.

Source: HFCS 2021, ECB, OeNB.

The dispersion of the resulting parameter estimates across replicates provides an estimate of sampling uncertainty. As expected, this procedure typically yields slightly larger standard errors.

Panel (D) in Table I.1 confirms that the standard errors of the coefficients of interest increase accordingly, while statistical significance levels remain largely unchanged. An exception is the estimate for owners in Model 3, where the standard error nearly doubles. This increase likely reflects the inclusion of a relatively large set of control variables that are individually insignificant. Nevertheless, the coefficient remains statistically significant at the 10% level.

I.3 Continuous measure of absolute price deviation

Another potential concern when estimating equations (1) and (2) is the definition of the treatment variable $p_i \in 0.8, 0.9, 1.0, 1.1, 1.2$. Using a discrete relative price factor may mask relevant non-linearities in the price effect. For instance, two households facing a 20% higher price relative to their respective baseline valuations may experience substantially different absolute changes: for a household valuing its property at €100,000, the treatment implies an increase of €20,000, whereas for a household with a valuation of €200,000, the increase amounts to €40,000. Under the baseline specification, both observations enter the regression with the same price indicator, $p_i = 1.2$, despite the difference in absolute magnitude.

To address this concern, the robustness analysis redefines the treatment variable as a continuous measure of the absolute price deviation,

$$p_i = \frac{p_i^{shown} - p_i^{actual}}{1000}$$

, such that $p_i \in \mathbb{R}$. This means that for the control group $p_i = 0$ for the control group, while treatment observations reflect the absolute deviation of the offer from the baseline price. This alternative specification captures absolute rather than relative price variation, and therefore allows for heterogeneous responses along the price scale.

Table I.2: Regression Results (using continuous price) - Average marginal effects

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Price difference (Treatment)	-0.0015*** (0.0006)	-0.0013*** (0.0004)	-0.0013*** (0.0005)	0.0004** (0.0002)	0.0004** (0.0001)	0.0003** (0.0001)
Age		0.0046 (0.0049)	0.0034 (0.0046)		0.0149** (0.0063)	0.0114** (0.0056)
Age ²		-0.0001 (0.0001)	-0.0001 (0.0000)		-0.0001** (0.0001)	-0.0001* (0.0001)

Table I.2: Regression Results (using continuous price) - Average marginal effects (*continued*)

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Education of household head (Base: Basic)</i>						
Secondary		-0.0704 (0.0467)	-0.0485 (0.0401)		-0.0584 (0.0556)	-0.0351 (0.0536)
Tertiary		-0.0427 (0.0486)	-0.0427 (0.0441)		-0.0637 (0.0594)	-0.0458 (0.0566)
<i>Income (Base: Quartile Q1)</i>						
Quartile Q2		0.0584* (0.0316)	0.045 (0.0323)		-0.0047 (0.0345)	-0.0081 (0.0345)
Quartile Q3		0.0319 (0.042)	0.0218 (0.0435)		0.0073 (0.0376)	-0.0036 (0.0344)
Quartile Q4		0.125* (0.0649)	0.1024 (0.0626)		-0.0049 (0.0374)	-0.004 (0.035)
<i>Financial assets (Base: Quartile Q1)</i>						
Quartile Q2		0.0337 (0.0324)	0.0601** (0.0299)		-0.007 (0.0352)	-0.0009 (0.0329)
Quartile Q3		0.0693 (0.0448)	0.094** (0.0471)		-0.0196 (0.0329)	-0.0167 (0.0321)
Quartile Q4		0.1409** (0.0598)	0.1731*** (0.0557)		-0.0138 (0.0351)	-0.0055 (0.0366)
<i>Household composition</i>						
Number of adults (aged 14+)		-0.0549** (0.0253)	-0.0436* (0.0232)		-0.0253 (0.0183)	-0.0203 (0.016)
Number of children		0.0463** (0.0211)	0.047*** (0.0176)		0.0022 (0.0181)	0.005 (0.0165)
<i>Employment status of household head (Base: Employee)</i>						
Self-employed		0.1472** (0.0742)	0.1584** (0.0781)		0.0066 (0.0389)	0.0248 (0.0448)
Unemployed		-0.0271 (0.0468)	-0.0034 (0.0506)		-0.0327 (0.0384)	-0.0509** (0.0249)
Retired		0.0053 (0.053)	-0.0252 (0.0472)		0.0156 (0.0296)	0.0134 (0.0308)
<i>Gender of household head (Base: Male)</i>						
Female		0.0218 (0.0258)	0.0104 (0.0247)		0.0005 (0.0225)	-0.0003 (0.0226)
<i>Financial indicators</i>						
Credit constrained		-0.0689 (0.0472)	-0.0694 (0.0485)		0.0494 (0.0495)	0.0373 (0.0534)

Table I.2: Regression Results (using continuous price) - Average marginal effects (*continued*)

	Renters			Owners		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Received inheritance		0.0735** (0.0312)	0.0645** (0.0311)		0.0086 (0.0198)	0.0215 (0.0206)
Has non-mo. debt		0.05 (0.0314)	0.0364 (0.0309)		0.0072 (0.0277)	-0.011 (0.0276)
<i>House price expectations (Base: $P(-2 < \pi_h^{exp} \leq 2\%)$)</i>						
$P(\pi_h^{exp} < -5\%)$		0.0444 (0.1583)	0.0667 (0.1365)		-0.2343* (0.1397)	-0.1797 (0.1171)
$P(-5 \leq \pi_h^{exp} \leq -2\%)$		-0.0108 (0.126)	0.0713 (0.1093)		0.0665 (0.0544)	0.055 (0.0533)
$P(\pi_h^{exp} > 2\%)$		0.1193*** (0.046)	0.1116*** (0.0421)		-0.0218 (0.0298)	-0.0106 (0.0289)
<i>Risk tolerance</i>						
Risk tolerance		0.0177 (0.021)	0.0271 (0.0202)		0.0344* (0.0187)	0.032* (0.0191)
Risk tolerance ²		-0.0015 (0.0023)	-0.0024 (0.0022)		-0.0037* (0.0022)	-0.0033 (0.0022)
<i>Property characteristics</i>						
	✗	✗	✓	✗	✗	✓

*Note: Standard errors accounting for multiple imputation in parenthesis. ***/**/*: Pooled Wald statistic with $H_0: \alpha = 0$ greater than 2.576/1.960/1.645 in absolute value. No. of observations: Renters: 1,129 - Owners: 973 Source: HFCS 2021, ECB, OeNB.*

Table I.2 reports the results from re-estimating equation (1) using this continuous price measure. The estimated average marginal effects are small in magnitude but statistically significant. For renters, a €100,000 decrease in the offer increases the probability of buying by approximately 13–15 percentage points. For owners, a €100,000 increase in the offer raises the probability of selling by about 3–4 percentage points.

Table I.3 presents the corresponding heterogeneity analysis based on equation (2), analogous to Panels (B) and (C) in Table 6. The results confirm that the baseline specification does not conceal meaningful non-linearities. Overall, the findings remain stable. Evidence of heterogeneity is limited; only among renters do lower-income households exhibit a somewhat stronger response to absolute price changes compared to higher-income households.

Table I.3: Regression Results (with interactions, using continuous price difference)

(A) Renters

	Age	Income	Fin. assets	Inc. & FA	Quality	Dwelling
Price difference (Treatment)	-0.0012** (0.0005) [-0.0022, -0.0001]	-0.0027*** (0.0007) [-0.004, -0.0014]	-0.002*** (0.0006) [-0.0032, -0.0007]	-0.002*** (0.0006) [-0.0032, -0.0009]	-0.0019*** (0.0006) [-0.0032, -0.0006]	-0.0012** (0.0005) [-0.0021, -0.0002]
Interaction	-0.0004 (0.001) [-0.0024, 0.0016]	0.0023** (0.0009) [0.0005, 0.0041]	0.0012 (0.001) [-0.0007, 0.0031]	0.0018* (0.001) [-0.0001, 0.0037]	0.001 (0.0009) [-0.0008, 0.0027]	-0.0009 (0.0013) [-0.0034, 0.0017]

(B) Owners

	Age	Income	Fin. assets	Inc. & FA	Quality	Dwelling
Price difference (Treatment)	0.0004** (0.0002) [0, 0.0007]	0.0001 (0.0004) [-0.0007, 0.0008]	0.0006** (0.0003) [0, 0.0011]	0.0002 (0.0003) [-0.0004, 0.0008]	0.0006 (0.0004) [-0.0001, 0.0013]	0.0009** (0.0005) [0, 0.0018]
Interaction	-0.0001 (0.0003) [-0.0006, 0.0005]	0.0004 (0.0004) [-0.0004, 0.0012]	-0.0003 (0.0003) [-0.0009, 0.0003]	0.0002 (0.0003) [-0.0004, 0.0009]	-0.0003 (0.0004) [-0.001, 0.0005]	-0.0006 (0.0005) [-0.0016, 0.0003]

Notes: The table shows the results from regressions with the full set of controls estimating equations (1) and (2) using the continuous absolute price deviation measure. Panel (A) and Panel (B) show results from models with different alternatives of interactions between the willingness to buy/sell and household characteristics for renters (Panel A) and owners (Panel B). The Age column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head is 55 or older. The Income column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head has above median income. The Fin. assets column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head has above median financial assets. The Inc. & FA column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head has above median income and above median financial assets. The Quality column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head has above median housing quality. The Dwelling column shows the willingness to buy/sell and an interaction of the willingness to buy/sell and a dummy variable which is 1 if the household head lives in a house (compared to an apartment).

Standard errors accounting for multiple imputation in parenthesis, 95% confidence interval in squared brackets. ***/**/*: Pooled Wald statistic with $H_0 : \alpha = 0$ greater than 2.576/1.960/1.645 in absolute value, No. of observations: 1,129 (Renters), 973 (Owners).

Source: HFCS 2021, ECB, OeNB.

I.4 Constant patience parameter

A key parameter in the model is the renter's discount factor, β . In the baseline specification, we calibrate β using information from the HFCS, allowing for heterogeneity across households. As an alternative, much of the literature assumes a constant discount factor, typically $\beta = 0.96$.

To assess the sensitivity of our results to this modelling choice, we re-estimate both logit models of offer acceptance using the (normalized) RP-Gap derived under the assumption of a constant β . In this alternative specification, the heterogeneity in patience is removed from the structural model, and instead included directly as a control variable in the empirical specification.

Table I.4: Logit-model of offer acceptance - odds ratio

Specification	I Affordability b/se	II Affordability AT b/se	III Distribution b/se
RP-Gap	1.215 *** (0.086)	1.209 *** (0.076)	1.279 *** (0.096)
Affordability dummy	2.440 *** (0.598)	4.564 *** (1.539)	
Financial assets distribution (base low)			
Quantile 2			1.343 (0.403)
Quantile 3			3.046 *** (0.913)
Gross income distribution (base low)			
Quantile 2			1.948 ** (0.541)
Quantile 3			3.143 *** (1.164)
Age	1.036 (0.043)	1.058 (0.045)	1.038 (0.043)
Age ²	0.999 (0.000)	0.999 * (0.000)	0.999 (0.000)
Nr. of children (< 14)	1.656 *** (0.310)	1.636 *** (0.303)	1.653 *** (0.309)
Nr. of adults (≥ 14)	0.750 * (0.113)	0.772 * (0.112)	0.544 *** (0.106)
Top residential area	2.243 *** (0.521)	2.064 *** (0.487)	2.317 *** (0.567)
$P(\pi_h^{exp} > 2\%)$	2.546 ** (0.943)	2.547 ** (0.924)	2.201 ** (0.820)
Risk preference	1.121 ** (0.061)	1.116 ** (0.062)	1.076 (0.061)
Patience	0.938 (0.044)	0.940 (0.045)	0.937 (0.045)
Constant	0.132 * (0.138)	0.097 ** (0.104)	0.223 (0.235)
N	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer defined by the modelling approach and additional variables. In this specification we assume a constant $\beta = 0.96$ for the modelling output.

(ii) Standard errors accounting for multiple imputation in parentheses.

(iii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

Tables I.4 and I.5 show that the main results discussed in Section 4.5 remain quanti-

Table I.5: Logit-model of offer acceptance normalized RP-Gap - odds ratio

Specification	I Affordability b/se	II Affordability AT b/se	III Distribution b/se
RP-Gap (normalized)	6.8292 *** (3.067 4)	6.3670 *** (2.765 8)	8.9876 *** (4.475 1)
Affordability dummy	2.3143 *** (0.553 1)	4.0753 *** (1.296 2)	
Financial assets distribution (base low)			
Quantile 2			1.3245 (0.396 6)
Quantile 3			2.9364 *** (0.894 8)
Gross income distribution (base low)			
Quantile 2			1.9310 ** (0.530 1)
Quantile 3			2.6776 ** (1.046 5)
Age	1.0406 (0.044 2)	1.0601 (0.045 3)	1.0429 (0.044 1)
Age ²	0.9995 (0.000 4)	0.9992 * (0.000 4)	0.9994 (0.000 4)
Nr. of children (< 14)	1.8377 *** (0.331 9)	1.8093 *** (0.328 8)	1.8347 *** (0.329 8)
Nr. of adults (≥ 14)	0.7716 * (0.114 6)	0.7933 (0.113 6)	0.5851 *** (0.114 4)
Top residential area	2.1497 *** (0.498 4)	1.9820 *** (0.468 1)	2.1919 *** (0.537 5)
$P(\pi_h^{exp} > 2\%)$	2.6979 *** (0.944 4)	2.6735 *** (0.915 1)	2.3685 ** (0.832 9)
Risk preference	1.1237 ** (0.062 9)	1.1166 * (0.064 0)	1.0787 (0.062 2)
Patience	0.9497 (0.044 8)	0.9537 (0.045 5)	0.9532 (0.045 5)
Constant	0.1297 * (0.140 7)	0.0979 ** (0.108 7)	0.1840 (0.201 6)
N	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer defined by the modelling approach and additional variables. In this specification we assume a constant $\beta = 0.96$ for the modelling output.

(ii) Standard errors accounting for multiple imputation in parentheses.

(iii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

tatively and qualitatively unchanged under this alternative assumption.

I.5 Sensitivity to regional stratification

We further assess the robustness of our results to the definition of the regional stratification underlying the offer distribution. In the baseline specification, prices are stratified across eight regions. As a robustness check, we increase the geographic granularity by stratifying the offer distribution across 14 distinct regions, combining the rural–urban distinction with NUTS 2 regional classifications in Austria. The rural–urban split is maintained, given the substantial price differentials between these areas.

All other model components—including the calibration of the patience parameter—are kept unchanged, to isolate the effect of geographic stratification.

Table I.6: Logit-model of offer acceptance - odds ratio

Specification	I Affordability b/se	II Affordability AT b/se	III Distribution b/se
RP-Gap	1.222 *** (0.085)	1.215 *** (0.077)	1.282 *** (0.095)
Affordability dummy	2.398 *** (0.579)	4.505 *** (1.503)	
Financial assets distribution (base low)			
Quantile 2			1.303 (0.393)
Quantile 3			3.003 *** (0.893)
Gross income distribution (base low)			
Quantile 2			1.927 ** (0.532)
Quantile 3			3.160 *** (1.170)
Age	1.032 (0.042)	1.052 (0.043)	1.032 (0.042)
Age ²	1.000 (0.000)	0.999 * (0.000)	0.999 (0.000)
Nr. of children (< 14)	1.684 *** (0.308)	1.659 *** (0.299)	1.675 *** (0.308)
Nr. of adults (≥ 14)	0.734 ** (0.108)	0.758 ** (0.107)	0.533 *** (0.102)
Top residential area	2.274 *** (0.534)	2.096 *** (0.496)	2.362 *** (0.581)
$P(\pi_h^{exp} > 2\%)$	2.514 ** (0.938)	2.515 ** (0.916)	2.177 ** (0.814)
Risk preference	1.133 ** (0.059)	1.128 ** (0.059)	1.087 (0.058)
Constant	0.099 ** (0.102)	0.074 ** (0.078)	0.166 * (0.173)
<i>N</i>	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer defined by the modelling approach and additional variables.

(ii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

Tables I.6 and I.7 confirm that the core findings reported in Section 4.5 are robust to this alternative regional specification.

Table I.7: Logit-model of offer acceptance normalized RP-Gap - odds ratio

Specification	I	II	III
	Affordability	Affordability AT	Distribution
	b/se	b/se	b/se
RP-Gap (normalized)	7.0981 *** (3.195 8)	6.5961 *** (2.886 9)	9.1248 *** (4.509 7)
Affordability dummy	2.2780 *** (0.539 7)	4.0225 *** (1.275 6)	
Financial assets distribution (base low)			
Quantile 2			1.2988 (0.388 4)
Quantile 3			2.8898 *** (0.878 7)
Gross income distribution (base low)			
Quantile 2			1.9182 ** (0.522 2)
Quantile 3			2.7034 ** (1.054 6)
Age	1.0391 (0.043 7)	1.0585 (0.044 8)	1.0414 (0.043 5)
Age ²	0.9995 (0.000 4)	0.9993 * (0.000 4)	0.9994 (0.000 4)
Nr. of children (< 14)	1.8455 *** (0.331 2)	1.8135 *** (0.327 2)	1.8350 *** (0.328 9)
Nr. of adults (≥ 14)	0.7664 * (0.111 7)	0.7892 * (0.110 8)	0.5817 *** (0.112 0)
Top residential area	2.1704 *** (0.507 0)	2.0028 *** (0.474 3)	2.2174 *** (0.545 8)
$P(\pi_h^{exp} > 2\%)$	2.6911 *** (0.950 2)	2.6687 *** (0.919 7)	2.3678 ** (0.837 6)
Risk preference	1.1317 ** (0.059 9)	1.1240 ** (0.060 1)	1.0850 (0.059 3)
Constant	0.0972 ** (0.102 5)	0.0752 ** (0.081 2)	0.1407 * (0.150 7)
N	1129	1129	1129

Notes:

(i) This table shows odds ratios of a logit model of accepting the offer from the housing experiment on the attractiveness of the offer defined by the modelling approach and additional variables.

(ii) Stars indicate conventional significance levels of tests against one.

Source: HFCS 2021, ECB, OeNB.

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