

# The Real Estate Transfer Tax and Financial Constraints

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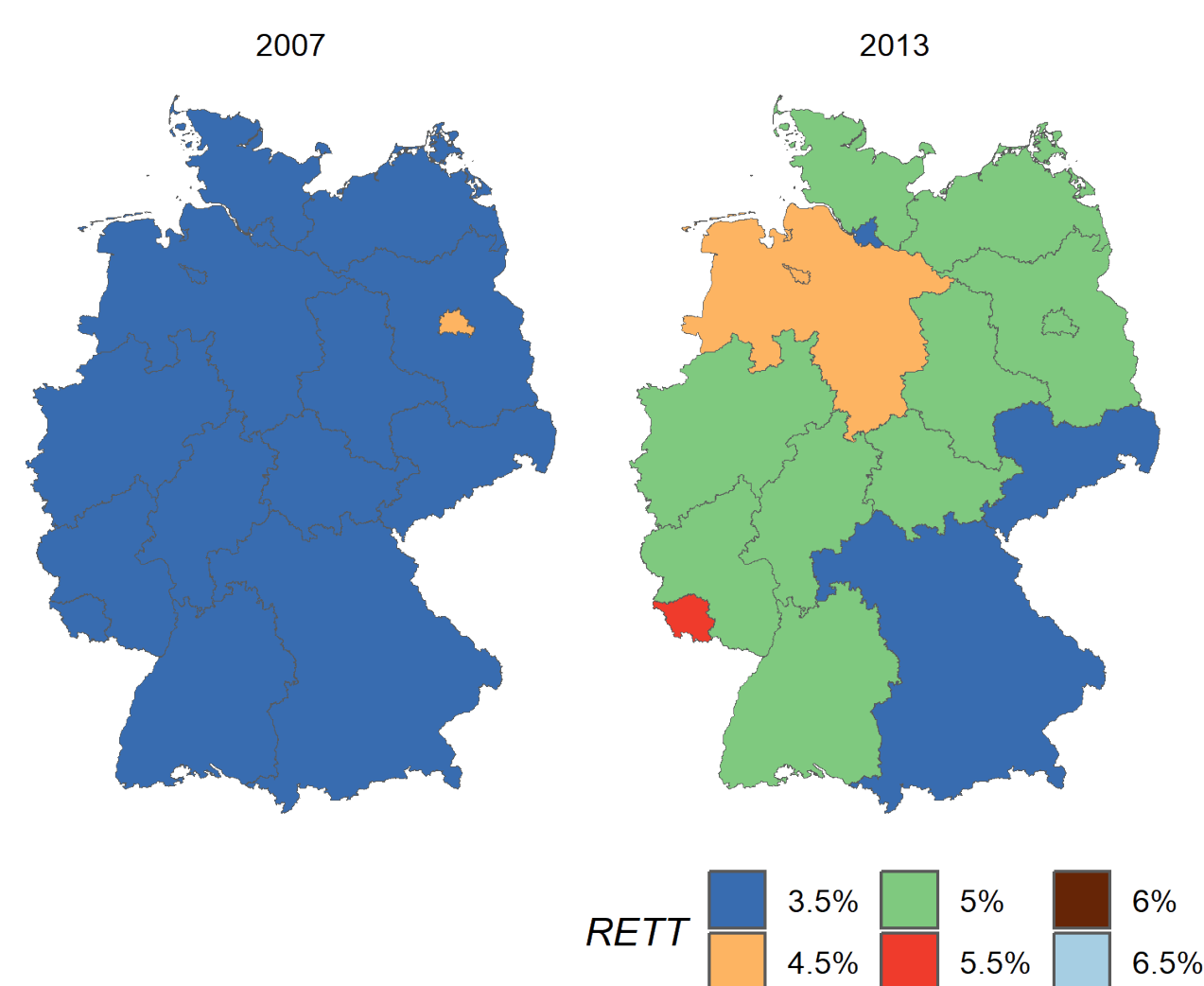
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## Introduction

### Real Estate Transfer Taxes

- Widely used to regulate real estate markets
- Reduces liquidity in real estate market (Han et al. 2022)
- Varies across federal states in Germany

Figure 1: RETT by Federal State and Year



### Implications for Households

- Largest portfolio position becomes less liquid
- Adjusting house size becomes more difficult
  - Housing demand changes over life-cycle
- If income decreases more HH might be financially constrained

### Agregate Importance

- Untapped consumption potential
- Trade-off between market regulation and increased financial constraints

### Research Questions

- 1) Are homeowners who are subject to a high RETT more likely to become financially constrained?
- 2) What are the aggregate implications of a RETT reduction on consumption, downsizing, and mobility?

## Literature

### Housing consumption and RETT

Banks et al. (2012), Yang (2009), Kaas et al (2021), Buettner (2017)

Contribution: focus on financial constraints and inter vivos transfer mechanism

### Financial Constraints

Kaplan & Violante (2014), Aguiar et al. (2023)

Contribution: Investigate how taxes affect financial constraint

### Inter vivos transfers

Hurd et al. (2011), McGarry (1999), and Lee et al. (2022)

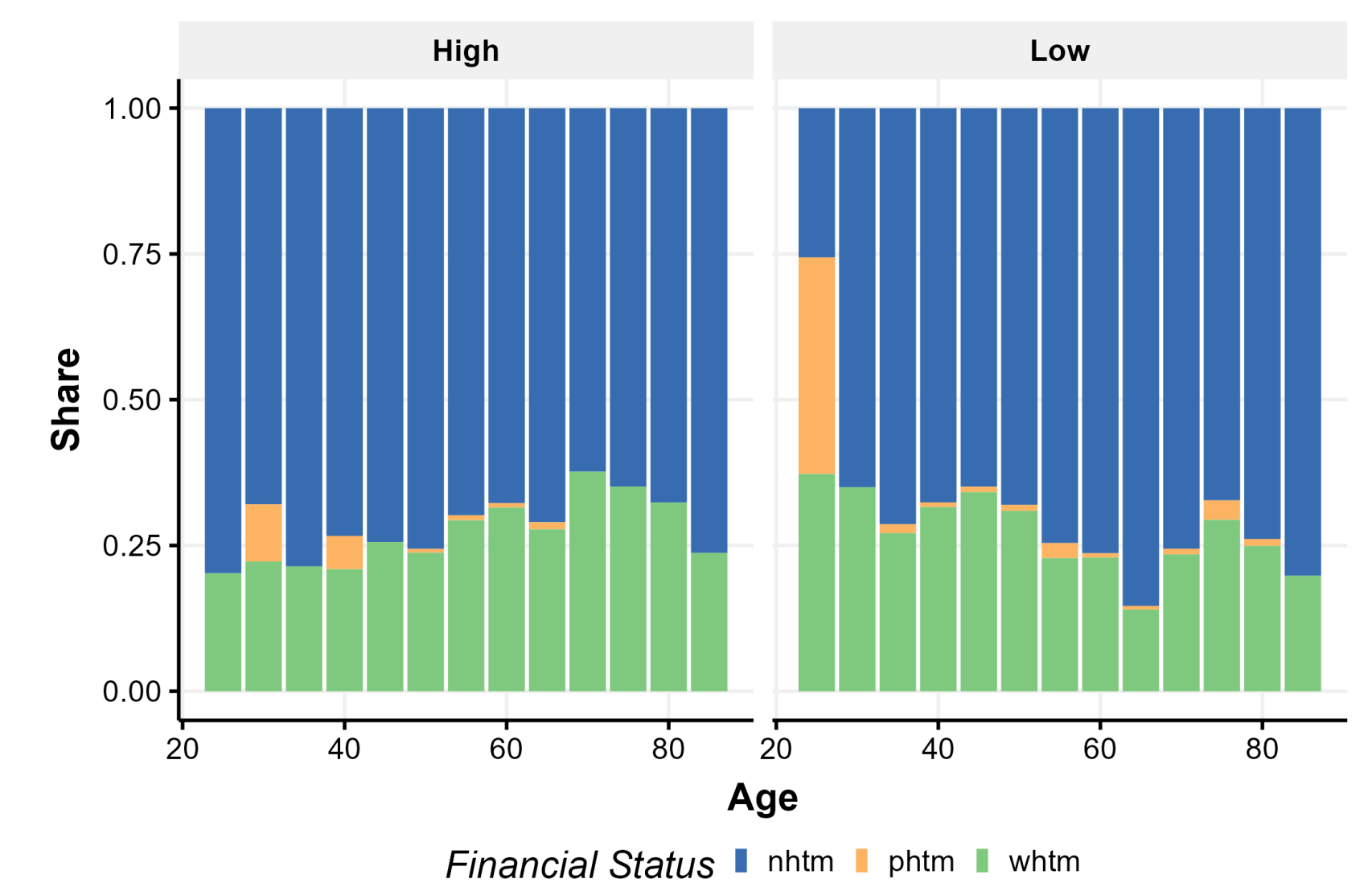
Contribution: focus on large transfers, not constant stream

## Data and Descriptive Statistics

### SOEP

- Individual and household (HH) level survey data representative of the population in Germany. Years: 2002, 2007, 2012 and 2017
- I use HH level data, individual variables are HH-head (e.g. age)
- In states with high RETT 6%pt more HH who owned dwelling at 55 still own dwelling at 75 (92% vs 86%)
- Around 25% of HH obtain their house through gifts or inheritances

Figure 2: Financial Constraints by Age and RETT Group



## Methodology

### Empirical Model

- Logit model:  $\text{logit}(p) = \beta_0 + \beta_1 * RETT + \beta_i * \mathbf{X} + \epsilon$
- Probability to be w-HtM homeowner
- Fixed Effects: year and east-west Germany indicator
- Control variables: Age, Education completed, HH net income, HH size

### Life-Cycle Model

- Bewley (1977) style model with idiosyncratic productivity shocks ( $s$ )
- Agents have preferences over consumption ( $c$ ) and housing services ( $hs$ ) (Kaas et al. 2021), gift-giving, and leaving bequests ( $A$ ) (De Nardi, 2004)

- **Three main events:** gift receiving (GR), gift giving (GG), and inheritance receiving (I)

- 70 periods à one year
- Stochastic *gift*-shock in one period
- Stochastic death probability

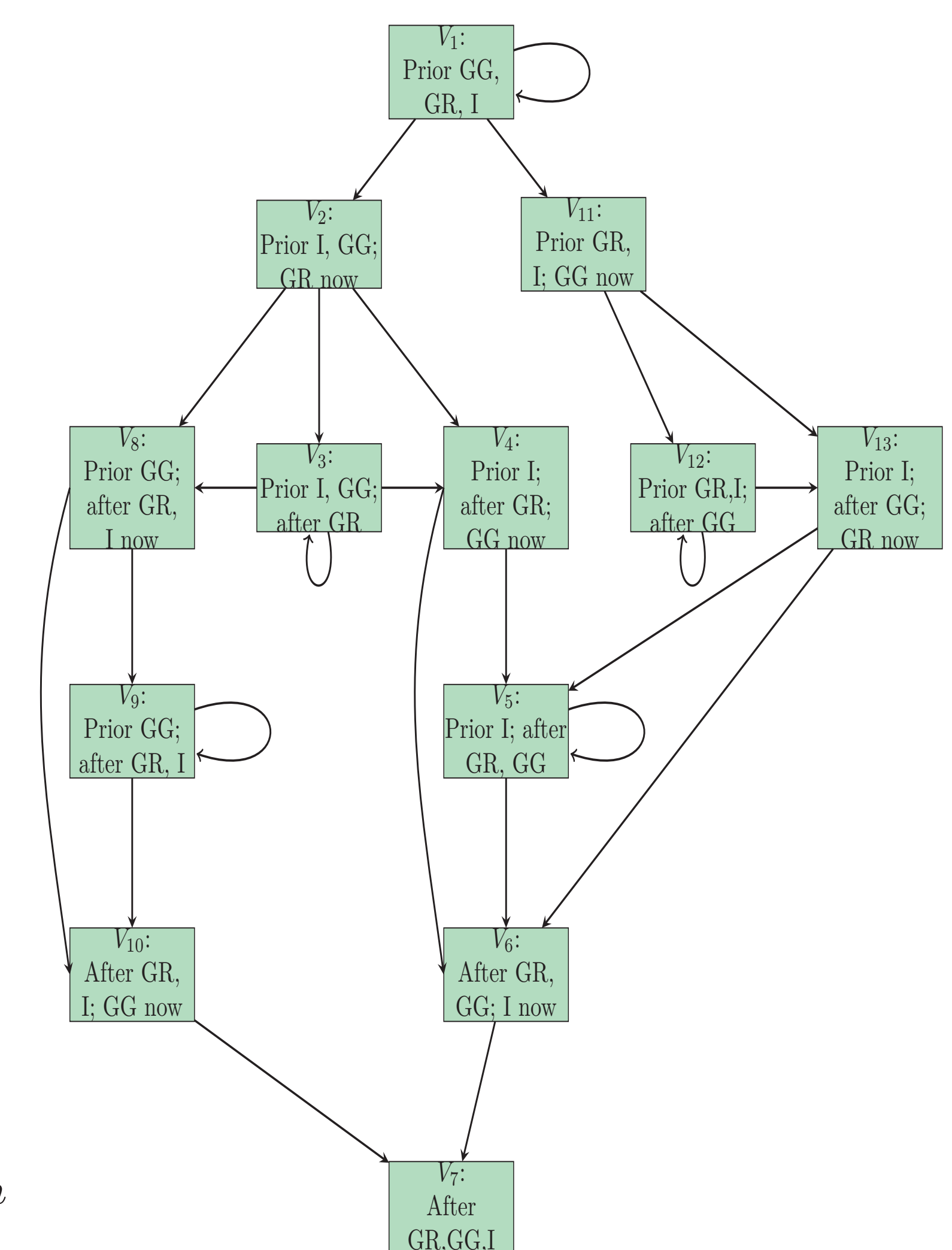
$$u(c, hs) = \frac{(c)^\omega (\mathbf{I}_{h>0}hs)^{1-\omega}}{1-\nu} - 1$$

$$\text{beq}(A) = \phi_1 \frac{A^{(1-\nu)} - 1}{1-\nu}$$

$$V_1(a, h, s) = u(c, hs) + \beta \left( (1 - p_{gr,t} - p_{gg,t}) \mathbb{E}_t V_1(a', h', s') + p_{gr,t} \mathbb{E}_t V_2(a', h', s') + p_{gg,t} \mathbb{E}_t V_{11}(a', h', s') \right)$$

$$c + (\delta_h + mc)hs + a' + h' = w_s + (1 + r_a - \delta_a)a + (1 + r_h + \delta_h + mc)h$$

Figure 3: Value Function Path over the Life-Cycle



## Preliminary Results

### Empirical Results

- 1%pt increase in RETT increases the probability to be w-HtM HH by 1.75%pt for homeowners
- Education and household net income have a negative average marginal effect on the probability to be w-HtM HH

Figure 4: Average Marginal Effect for Probability to be w-HtM

