

House Price Perceptions and the Housing Wealth Effect

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Overview

- **Housing Wealth Effect:** Δ Housing Wealth \Rightarrow Δ Household Consumption
- Depends on **House Price Perceptions:** Households being informed and fully attentive to house price changes
- **This Paper:** The impact of house price perceptions on the housing wealth effect

A Structural Model of Consumption and Housing with Endogenous Home Ownership Choice

Stylized Facts on Households' House Price Perceptions

- Median owner-perceived house price changes < actual house price changes
- Renters' attention to house prices > owners, when they want to buy a house
- Owners and renters extrapolate their latest perceived house price growth forward

Model Overview

- Infinite horizon model, solved in partial equilibrium
- Households face discrete-continuous choice:
 - Decide whether to own or rent
 - Decide their non-housing consumption and housing consumption
- Have different house price growth perceptions $\phi_{j,t}^H$ if they are owners and renters
- Are subject to idiosyncratic and aggregate income risk
- Can borrow:
 - Owners: against the value of their house
 - Renters: against their permanent income

House Prices

National house prices are driven by:

Γ^H : national house price growth

Ψ_t^H : national house price shocks, correlated with aggregate permanent productivity shocks

Local house prices evolve according to:

$$P_{j,t+1}^H = \Gamma^H \phi_{j,t+1}^H P_{j,t}^H \Psi_{t+1}^H$$

$\phi_{j,t}^H$: house price growth local deviations from national house price dynamics

The local house price growth rate follows:

$$\Pr[\phi_{j,t+1}^H = \phi_{j,k}^H | \phi_{j,t}^H = \phi_{j,n}^H] = \Xi_{n,k}$$

Paper Headline Result: Average MPCH Estimate

- This Paper, With Perceptions: baseline model result
- This Paper, No Perceptions: counterfactual model result assuming fully informed and attentive households

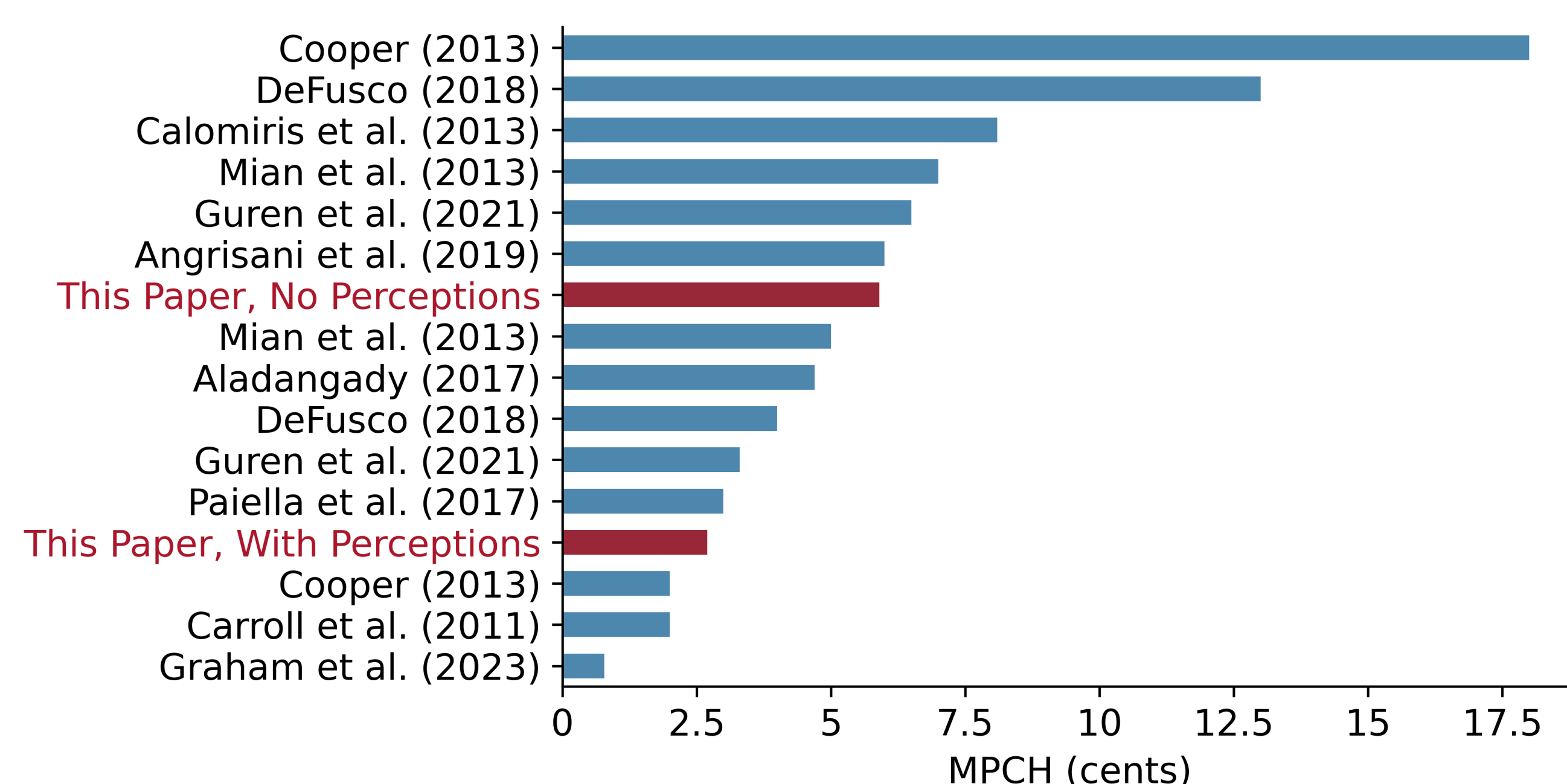


Figure 1. Baseline and Counterfactual MPCH Estimates vs. Comparable Estimates in the Literature

Impact of Perceptions on the MPCH in the Cross-Section of Households

Owners most responsive to house price shock and lose the most due to perceptions: households with lowest liquidity and lowest debt capacity

Renters most responsive to house price shock: households with highest liquid savings and lowest debt capacity

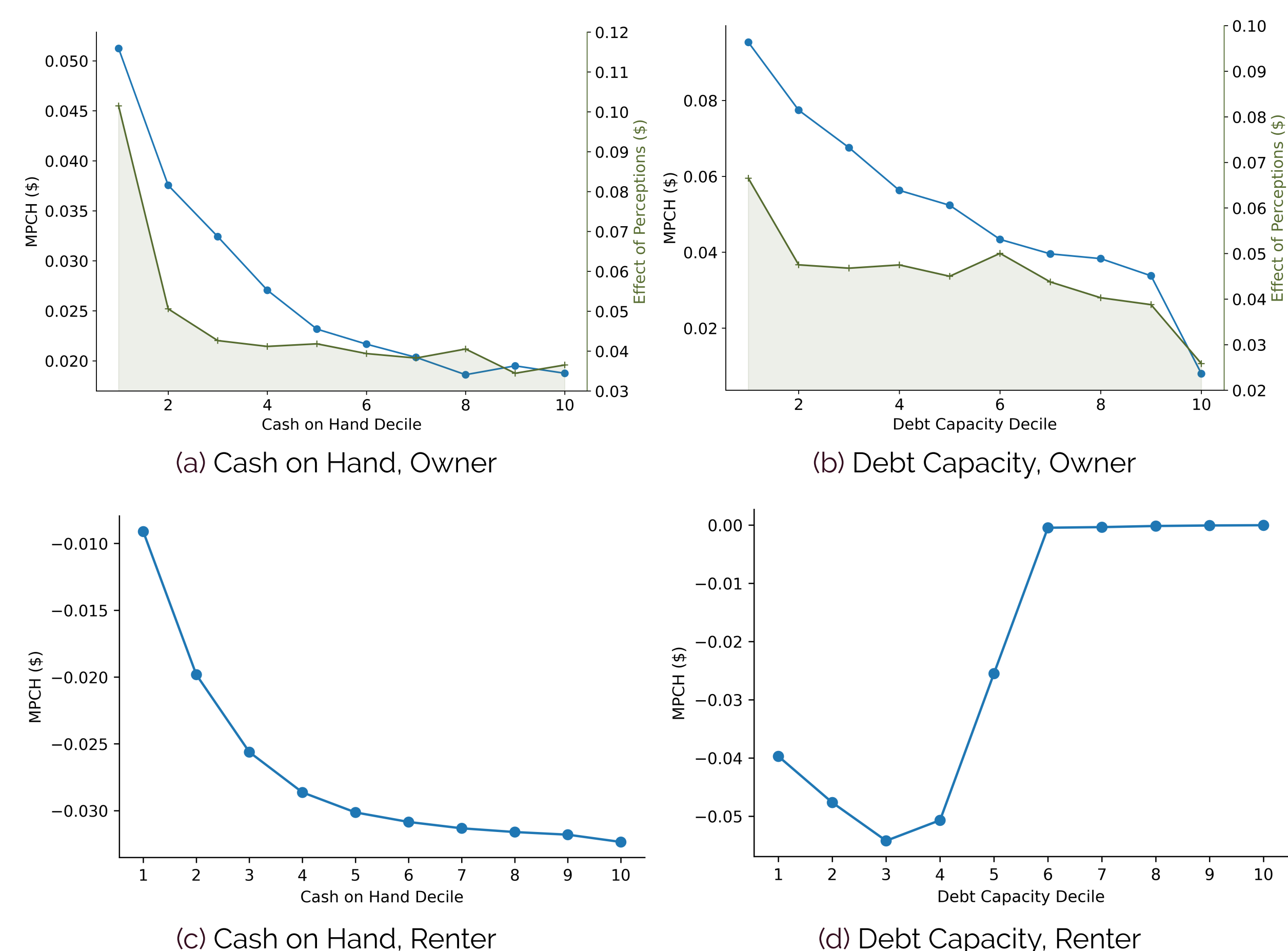


Figure 2. MPCH and Impact of Perceptions in the Cross-Section of Households

Impact of Perceptions on Monetary Policy Transmission

Experiment: Monetary Policy Tightening: Shock Policy Rate by +100 bps

Direct Impact of Perceptions

Δ Policy Rate \Rightarrow Δ Local House Prices \Rightarrow Δ Consumption due to **House Price Channel**

For higher probability of perceiving house price decrease, on average, after rate hike:

↓ Average household consumption

Indirect Impact of Perceptions

Δ Policy Rate \Rightarrow Δ Deposit Rate \Rightarrow Δ Consumption due to **Savings Channel**

For higher probability of perceiving house price changes:

- More households likely to decide to move more often

- Incur transaction cost paid using liquid assets

↓ Average savings balance

Δ Policy Rate \Rightarrow Δ Debt Rate \Rightarrow Δ Consumption due to **Debt Channel**

For higher probability of perceiving house price changes in house price growth period:

- More households likely to increase their debt against their house price

↑ Average debt balance

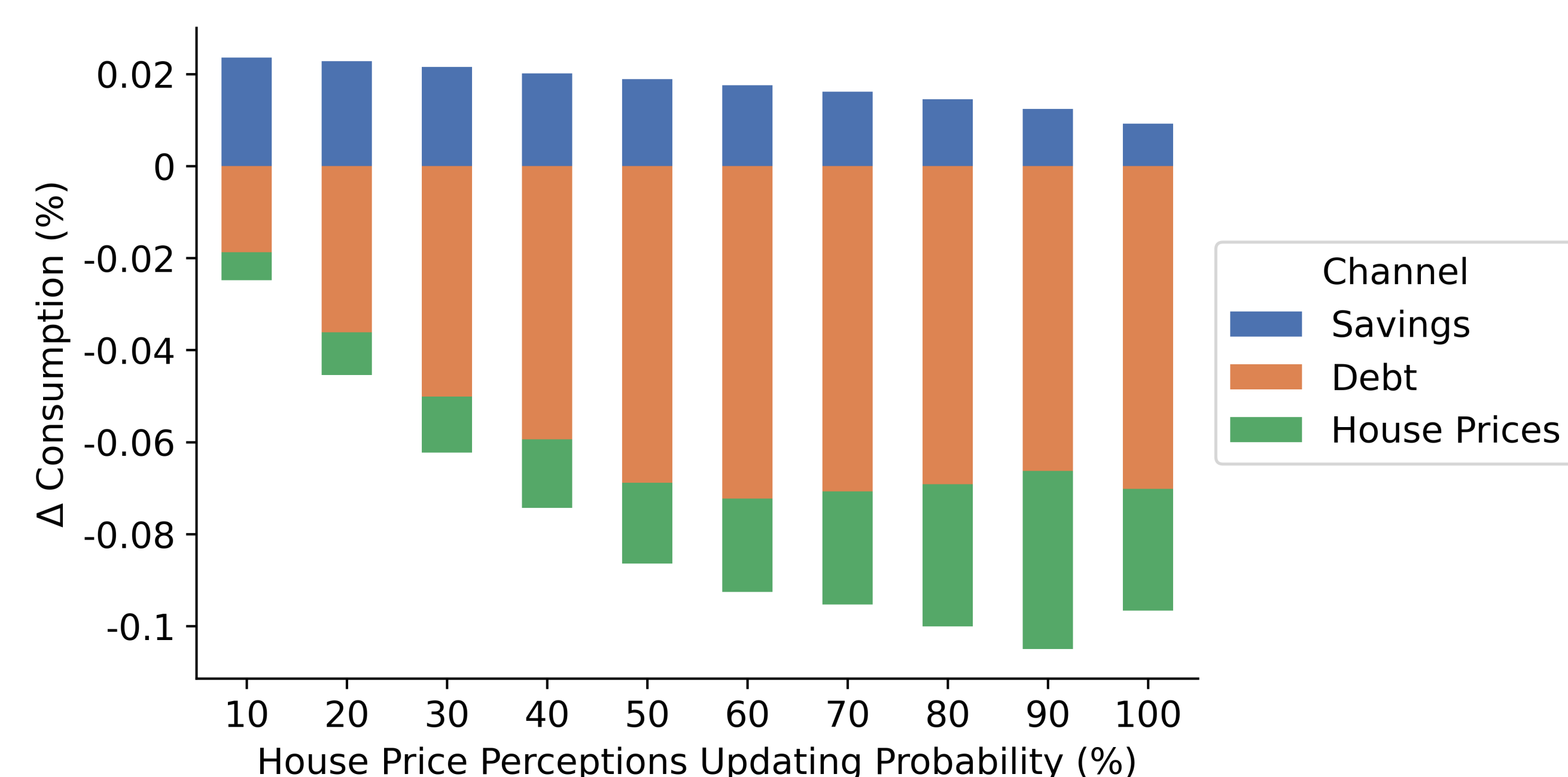


Figure 3. Effect of Perceptions on Monetary Policy Transmission by Channel. Owners