

Is Asset Demand Elasticity Set at the Household or Intermediary Level?

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Overview

Research question

- How price elastic are households in rebalancing across intermediaries?

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- New two-layer demand system extending Koijen & Yogo (2019)
- Endogenize wealth distribution across intermediaries

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Results

- Household elasticity is small

Agenda

Stylized model

- What are authors trying to measure?
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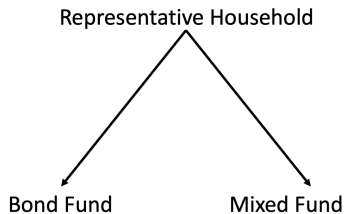
Methodology

- How does two-layer demand system work?
- Potential extensions

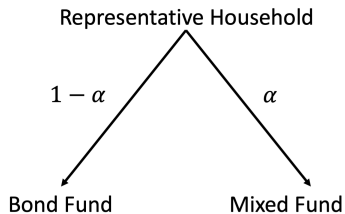
Stylized Model (Following Gabaix & Koijen (2023))

Representative Household

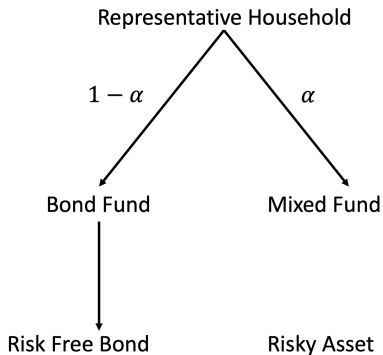
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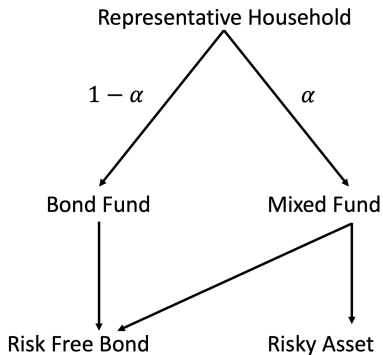
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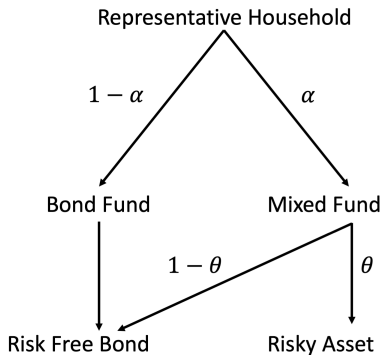
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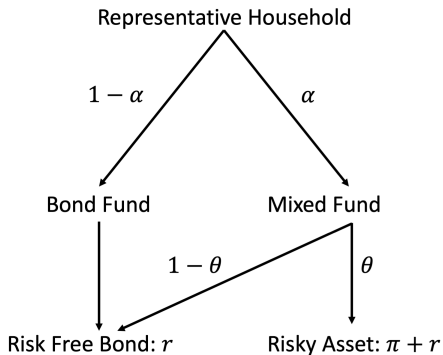
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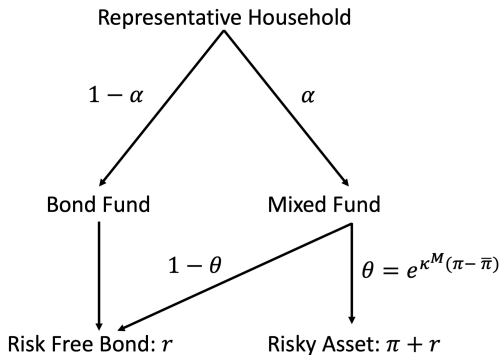
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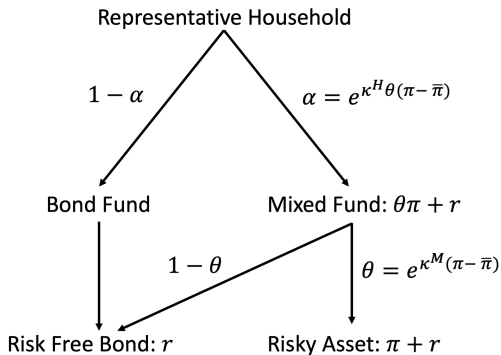
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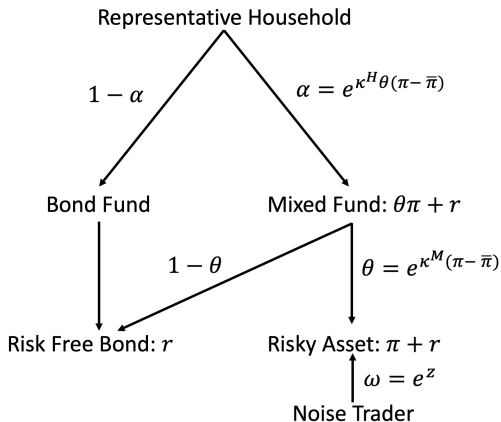
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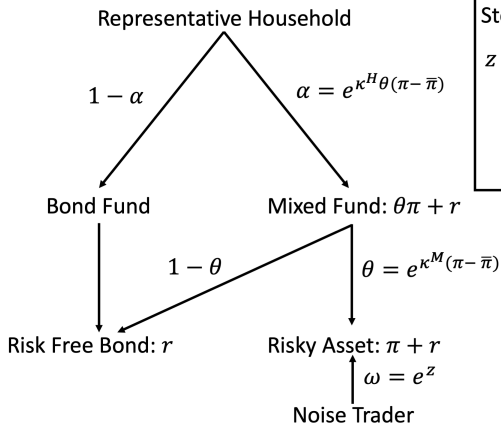
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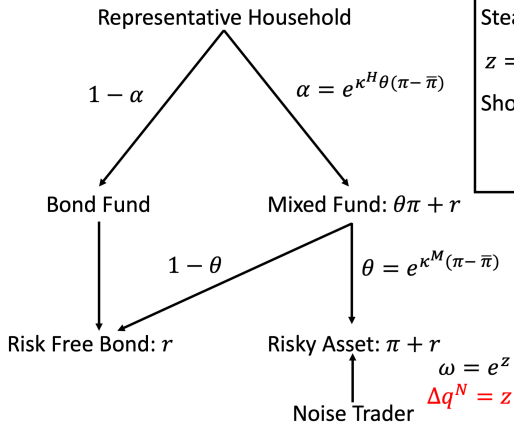
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Steady State:

$$z = 0, \pi = \bar{\pi}, \alpha = 1, \theta = 1, \delta = \frac{D}{P}$$

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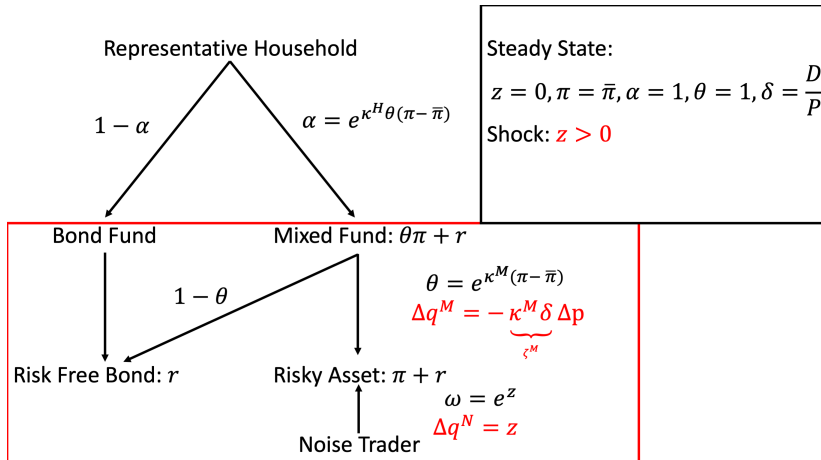


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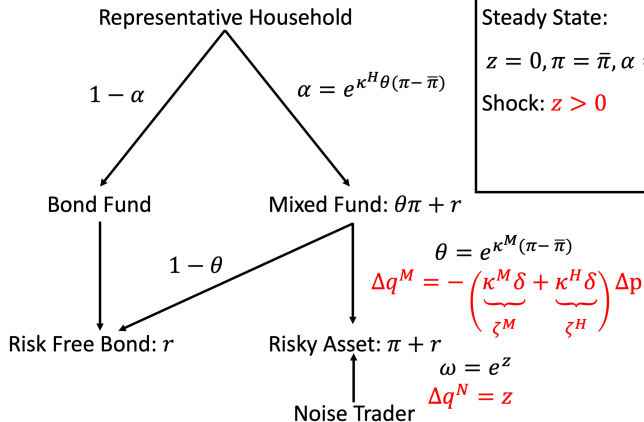
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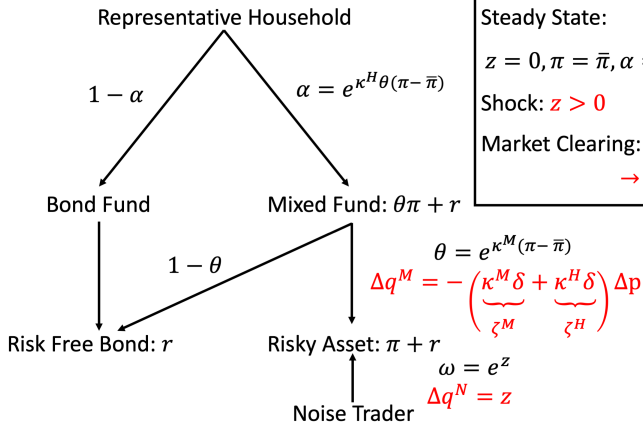
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Market Clearing: $\Delta q^N + \Delta q^M = 0$

$$\rightarrow \Delta p = \frac{1}{\zeta^M + \zeta^H} z$$

Aggregate Demand Elasticity has Two Components

$$\zeta^{Agg} = \zeta^M + \zeta^H$$

Previous elasticity estimates

- Holdings data: ζ^M is small
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This paper: First direct evidence ζ^H is small

Two-Layer Asset Demand System

Intermediary level: Following Kojen & Yogo (2019)

$$\frac{w_{i,t}(n)}{w_{i,t}(0)} = \exp \left\{ \beta_{0,i,t} m e_t(n) + \sum_{k=1}^{K-1} \beta_{k,i,t} x_{k,t}(n) + \beta_{K,i,t} \right\} \epsilon_{i,t}(n)$$

- Investor i weight in stock n in quarter t
- Function of market equity, stock characteristics

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Innovation: Household level endogenizes wealth distribution

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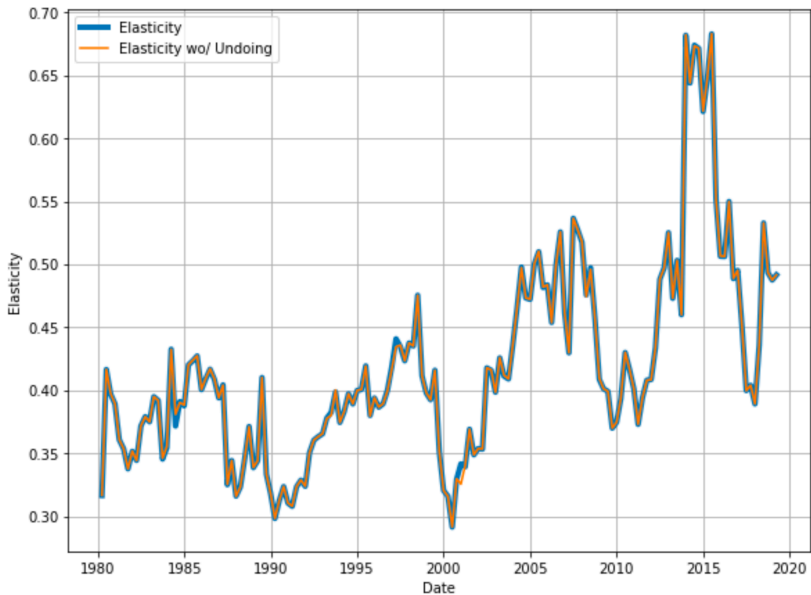
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Main Result: Household Elasticity is Small



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More can be done with two-layer demand system

- Scope to analyze rich substitution patterns

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- How do households substitute between value/growth, funds?
- Are households more elastic for cheaper, less specialized funds?
- Apply household layer at lower frequency
 - How slow is slow-moving capital?

Conclusion

Households are inelastic in rebalancing across intermediaries

- Develop new two-layer asset demand system
- Consistent with previous elasticity estimates

Households do not undo intermediary inelasticity, frictions

Authors can push the methodology further

- Richer substitution patterns
- Dynamics