

# Discussion of “Property Insurance and Disaster Risk: New Evidence from Mortgage Escrow Data”

Keys and Mulder (2024)

FHFA Econ Summit

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November 12, 2024

*The views expressed in this presentation are solely my own and do not necessarily reflect the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.*

## Key Takeaways

Establishes several novel facts about property insurance expenditures

- ▶ Sharp increase in premium-climate risk correlation starting in 2020
- ▶ Implications for household financial resilience against growing climate risk
- ▶ New method and data for observing insurance information using reasonable assumptions

Reinsurance costs are large determinant of rise in premium-climate risk correlation

- ▶ Accounts for  $2/3$  of the correlation
- ▶ Growth in reinsurance rates exacerbates financial burden of future climate risks
- ▶ Policy challenge: reinsurers and insurers are rarely regulated at same level

## What does reinsurance exposure capture?

**Main finding:** premium-climate risk relationship strongest in states with high reinsurance exposure

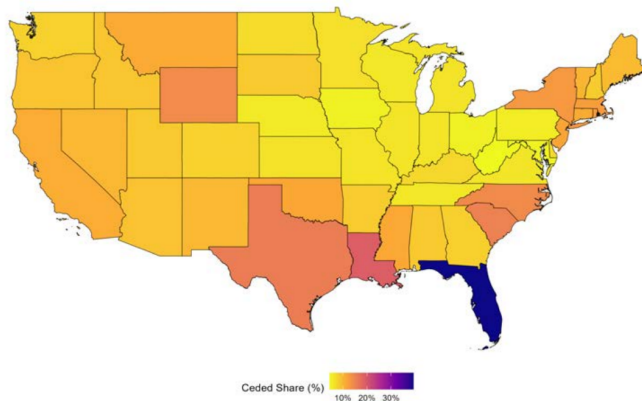


Figure 9: Map of state-level reinsurance exposure. Reinsurance exposure for each state is defined as the market-share weighted average of the share of premiums ceded by each insurer.

## What does reinsurance exposure capture?

Interpretation depends on determinants of reinsurance exposure:

- ▶ Climate risk
- ▶ Composition of insurers – less-diversified insurers in FL (Sastry et al., 2024)
- ▶ Insurance pricing regulations
- ▶ Availability of state reinsurance

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Two suggestions:

1. Descriptive comparison of insurers by reinsurance exposure
2. Within-state reinsurance exposure analysis of CA and FL
  - ▶ CA and FL have data on insurer market share by zip/county
  - ▶ Construct  $ReExposure_s$  at zip- or county-level
  - ▶ Would allow for state-year fixed effects

## Premium expenditures measure both price and coverage

Annual premiums can change due to:

- ▶ Rate change per unit of coverage
- ▶ Change in household insurance coverage

Different interpretations of distribution of  $\Delta IPI_{zs}$

- ▶ Always-renewers might face small  $\Delta IPI_{zs}$  due to rate increase caps
- ▶  $\Delta IPI_{zs}$  understates price change if households reduce coverage

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- ▶  $\Delta IPI_{zs}$  understates price change if households reduce coverage
- ▶ Insurer-initiated non-renewals  $\rightarrow$  large or missing  $\Delta IPI_{zs}$
- ▶ Restricted choice set or state-plans that may not be escrowed
- ▶ Testable in CA with zip-code nonrenewal data

## Consumer welfare

How does measurement of  $Premium_{ist}$  affect consumer welfare consequences of reinsurance shock?

- ▶ Pass through to higher rates reduces affordability → welfare loss
- ▶ Availability of reinsurance may allow insurers to offer coverage to higher risk properties → welfare gain due to greater insurer access

Net welfare effect is difficult to measure but more discussion would be helpful