

# Neglected No More: Housing Markets, Mortgage Lending, and Sea Level Rise

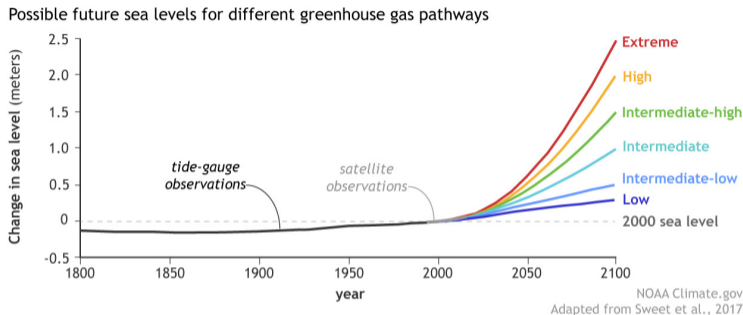
Ben Keys  
The Wharton School, UPenn

Philip Mulder  
Treasury, Office of Financial Research

November 17 2022

Views are those of the authors and do not necessarily reflect the views of the Office of Financial Research or U.S. Treasury

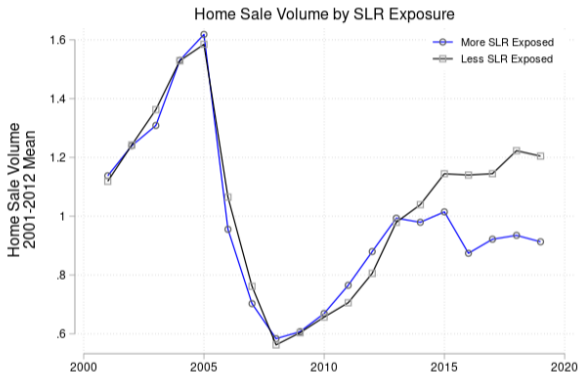
# The Seas are Rising and the Coast is Becoming Riskier



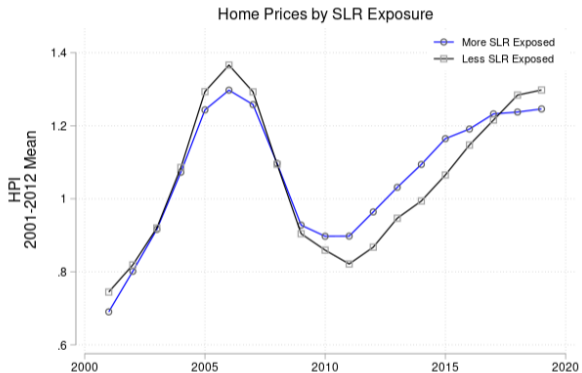
- ▶ Climate forecasts project growing risk of  $> 6$  feet of sea level rise (SLR), exposing over \$1 trillion of U.S. properties to chronic inundation (Dahl et al. 2018)
- ▶ In theory, home prices should immediately incorporate new information about growing coastal risks

# Do Housing Markets Reflect Growing Coastal Risk?

**Sales volume starts declining in 2013...**



**but prices rise in lockstep until 2016**



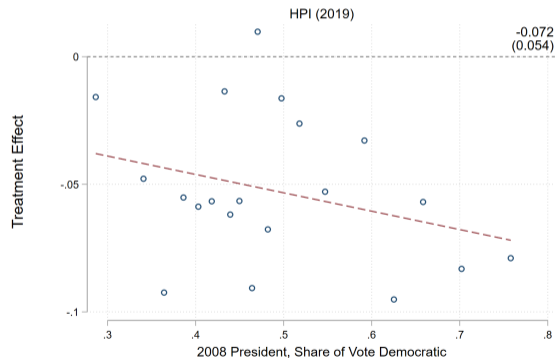
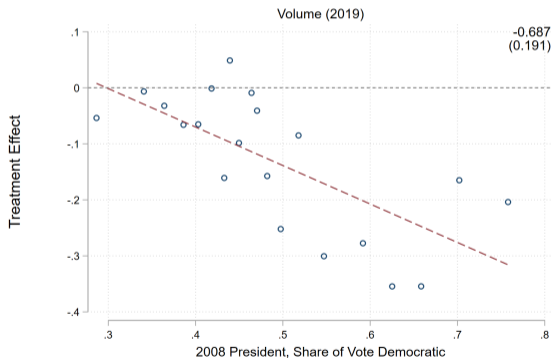
**Why 2013? Hurricane Sandy, IPCC AR5, National Climate Assessment, etc.**

# Larger Declines in Census Tracts with more 2008 Democratic Voters

**10% more Democratic voters:**

→ **7% greater 2019 volume decline (left),**

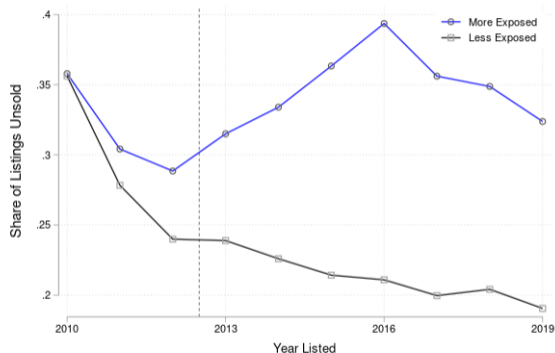
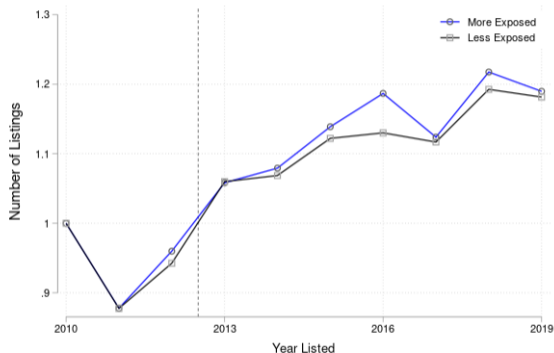
→ **0.7% greater 2019 price decline (right)**



Florida House of Representatives' Redistricting Committee

# Explaining the Volume-Price Divergence: The Role of Sellers

**Even as sales fell, more-SLR-exposed owners continued to list their properties**



**In 2016, more-exposed list prices and days on market finally fell (not shown)**

## Conclusion

- ▶ By 2019, highly SLR exposed markets in Florida saw:
  - ▶ 19% annual volume decline
  - ▶ 5% price decline
  - ▶ 12 percentage point lower probability of sale conditional on listing
- ▶ Document frictions to capitalization of new climate risk information:
  - ▶ Little evidence of response by lenders, who are protected by federal flood insurance and securitization
  - ▶ Counties with more climate skeptics have seen no price or volume declines as of 2019
  - ▶ Sellers are slow to lower asking prices, leading to volume declines and delayed price response
- ▶ In sum, we provide new evidence that some markets are adapting to climate change, but slowly and unevenly