Potential Benefits in Remapping the Special Flood Hazard Area: Evidence from the U.S. Housing Market

Objective

Determine the degree to which the U.S. housing market prices exposure to flooding and disentangle how this price effect is made up of policy-driven and quasi-objective indicators of flood hazard.

Approach

A nationwide Spatially Restricted Triple Difference design was used to assess how sales prices are influenced by Special Flood Hazard Area (SFHA) designations, measures of quasi-objective flood hazard (First Street Foundation) and being in a state that mandates flood history disclosures. Sales are restricted to properties near SFHA boundaries to isolate how price effects are driven by these three features. Capitalization effects are compared to property-based flood risk estimates.

Impact

Significant variance in the implicit flood risk housing pricing is revealed, challenging earlier assumptions regarding property valuation in flood-prone locations. This supports previous recommendations to expand SFHA boundaries and flood disclosure requirements in order to better manage flood-related societal costs.

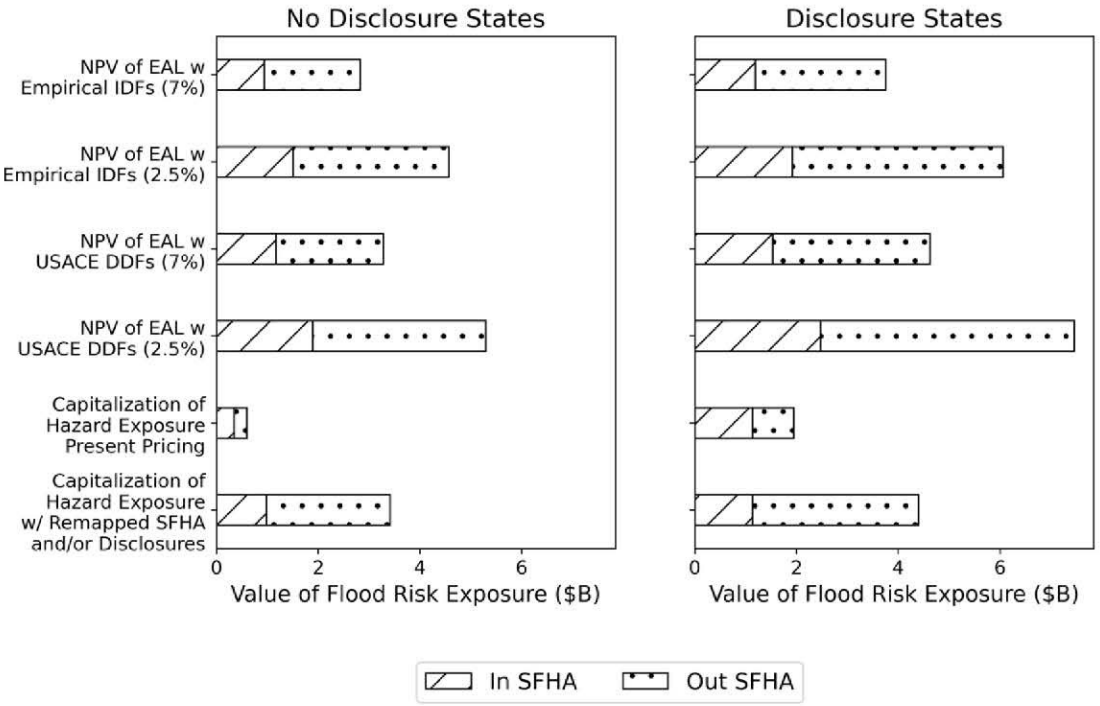

Figure: The net present value of expected annual losses from damages to structures estimated using different damage functions and discount rates is compared to the implied monetary capitalization of hazard exposure in disclosure and non-disclosure states. Totals are delineated by striped bars for estimates in the Special Flood Hazard Area (SFHA) and dotted bars for estimates outside the SFHA. The effect of a hypothetical reform where all properties are subject to flood history disclosures and the SFHA boundary is remapped to correspond to the quasi-objective 1% per year floodplain.

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