Extreme climate events and household wealth

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In Italy, the wealth of households is deeply intertwined with their primary assets, predominantly housing. With a high home-ownership rate, Italian households collectively hold real estate assets worth billions of euros, exceeding disposable income by 4.6 times. However, this wealth is not riskless, especially in the face of extreme weather events such as floods.

Italy, known for its beautiful landscapes and historical cities, faces significant challenges due to its susceptibility to natural hazards. With approximately a quarter of the country's housing stock being exposed to flood hazards (see **Figure 1**), the country's most common asset type faces a notable risk.

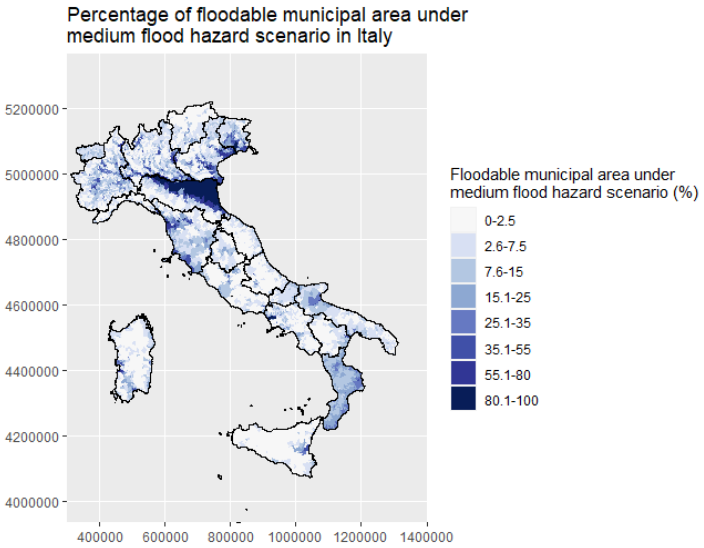
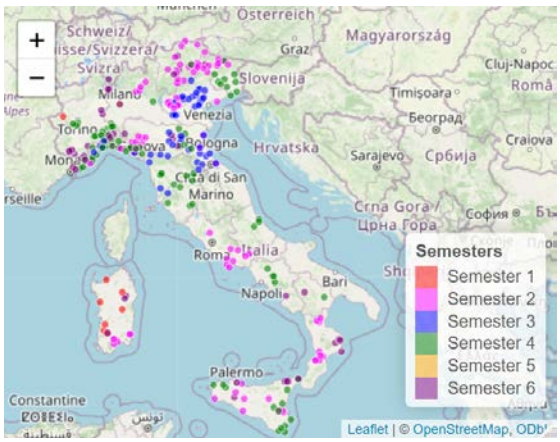


Figure 1: Percentage of floodable municipal area (medium hazard)

Source: ISPRA IdroGeo Data, authors' representation

In addition, recent years have seen a concerning trend with the intensification and increased frequency of extreme precipitation events, likely related to climate change. This poses significant risks to the wealth of homeowners, with potential long-term implications for the housing market. The financial consequences of climate events-induced damage to residential properties are substantial, highlighting the urgent need for awareness.



A recent study developed by researchers at the University of Bergamo within the GRINS project sheds light on this issue. The study uses ISPRA data on flood events and housing price data from the Italian Revenue Agency to examine the impact of floods on house prices across various affected municipalities in Italy in the period 2018-2020 (see **Figure 2**).

Figure 2: Municipalities Flooded by Semester
Source: ISPRA Data, authors' elaboration

The study reveals a negative and persistent effect on the market value of dwellings in flood-affected areas, with reductions observed in maximum sale price per square meter. Moreover, according to the model estimations, the magnitude of this effect is influenced by factors such as the location within municipality and the type of dwelling. For instance, dwellings in semi-central zones (Fascia C, purple and blue in Figure 3) and classified as affordable dwellings (magenta and green in Figure 3) experience more significant reductions. The estimated price reduction due to flood events is in the order of 2 to 4% (see Figure 3). In addition, the relevance of the dwelling type and location suggests that the impact of these events could exacerbate housing wealth inequality.

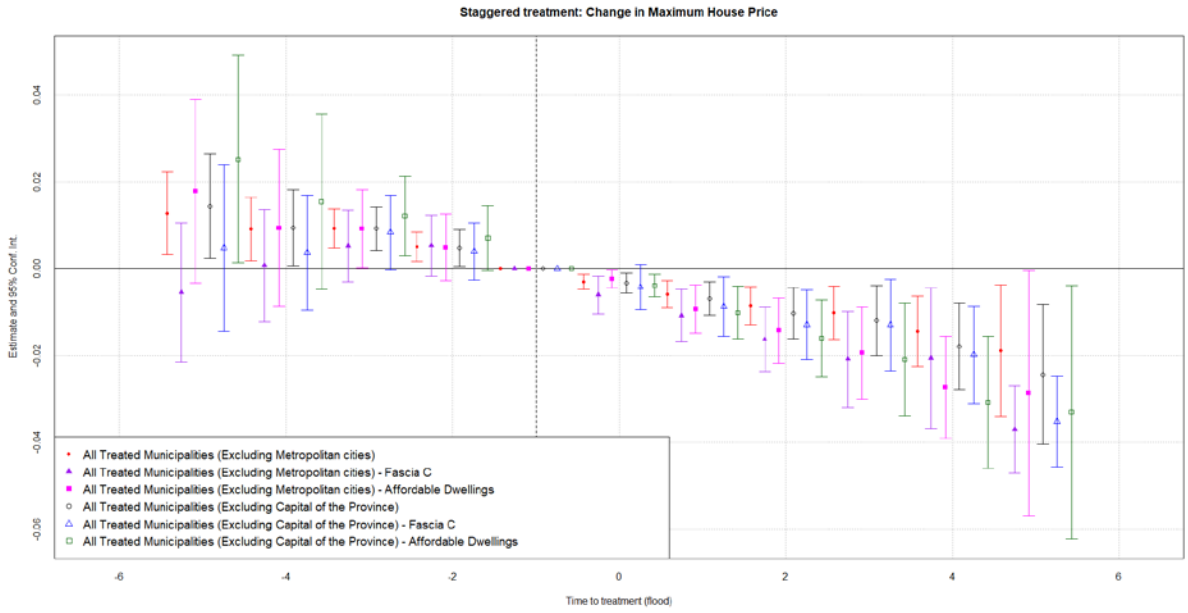


Figure 3: Staggered Treatment in Flooded Municipalities excluding Metropolitan cities (red, purple, magenta) and excluding capitals of the provinces (black, blue, green). Dwellings in semi-central zones are represented in purple and blue, while affordable dwellings are displayed in magenta and green. Estimate and 95% c.i. in y-axis, time to treatment in the x-axis. Robust standard errors clustered at municipality level. Municipality and Year fixed effects.

Source: Authors' elaboration

Quantifying the possible consequences of climate disasters is crucial for informing policy makers and designing appropriate adaptation strategies to enhance resilience. This is even more relevant in Italy, which is particularly susceptible to natural hazards.