



PRESS RELEASE

Hydrogeological risk and the real estate market: a study by the Politecnico di Milano reports the impact on house prices

An analysis of over one million real estate ads throughout Lombardy

Milan, 29 January 2026 - Little is still known in Italy, a country presenting a high hydrogeological risk, about the extent of this issue's effects on property valuation. The study carried out by **Marco Rossitti, Researcher at the Department of Architecture, Built Environment and Construction Engineering - DABC** of the Politecnico di Milano, attempts to fill the gap with a working paper by the title: "**Flood risk assessment and resilience features in the Italian real estate market**", published on the SSRN platform as part of the *Working Paper Series* of the *Center for Real Estate* - Massachusetts Institute of Technology (MIT), Boston, USA.

Indeed, the research was partly carried out at the MIT's *Center for Real Estate*, where Rossitti spent a *visiting* period thanks to the **Rocca Project** - an international partnership between the Politecnico and the MIT. During this initiative, he had the opportunity to work closely with Professor **Siqi Zheng**, a globally renowned authority in the *real estate* scene. **Using the econometric model developed at the MIT, and making the most of a data supply agreement with the specialised Web portal Idealista**, signed with the support of Professor **Francesca Torrieri** from the DABC, the study commenced by analysing a data set of around three million property listings. **The research addressed the impact of flood risk and resilience features on house prices, particularly focusing on the Lombardy region.** Following an initial screening phase, **the real estate ads analysed, including all useful data and information taken into account, finally reached a total of barely over one million.**

"We decided to focus on flats, starting from the offer price, then **estimating the market value of the property based on its intrinsic characteristics**, such as surface area and floor number. **We also considered its extrinsic features** defined by adopting a GIS system, namely **distances from public transport or the city centre**, besides those specifically considered by the research, such as the **distance from a river or a lake**. The real estate market might actually appreciate this information, which could, however, increase the risk conditions," says Rossitti. **The geolocation was compared with the flood hazard reported in the official maps of the ISPRA**, Institute for Environmental Protection and Research. **The result clearly indicates a minor but significant drop in the price of real estate located in 'risk' areas.** The depreciation is variable, being higher for building units located on lower floors, and diminishing as the floor height ("vertical" resilience) increases. Moreover, properties in a good state of preservation are perceived as more resilient and, therefore, record a lower price decline.

The study could become a tool for a different approach to construction design by avoiding the use of the ground floor - which is the most affected - for living purposes, and leaving it free, instead. **"An interesting outcome, from a planning perspective, is that public investments in**



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hydrogeological risk mitigation works actually reduce the negative impact on prices," comments Rossitti. "Furthermore, if market values fall too low, only people with limited financial resources will decide to live in certain areas. This would also generate an issue of social injustice."

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