Community Comment by Cameron Rye

I have a comment about the trends in insured losses reported in the paper. Further details around the methodology used to adjust historical losses to present-day values is required. For example, it appears that GDV losses for Germany automobiles have been adjusted for inventory (number of cars) and inflation. However, the standard method for adjusting insured losses is to account for three factors: inflation, wealth and inventory. I suspect wealth has not been taken into account in this instance. The $ value of cars has increased significantly over time, particularly with the introduction of electric vehicles. As a result, I suspect the average pay-out for a auto hail claim will have significantly increased over time. How can the authors be sure that the trend in Figure 1a is due to increasing risk and not simply reflecting the increasing value of vehicles? The same point applies to other datasets, for example it appears that the France property data have only been adjust for the cost of reconstruction (FFB index), and not other factors.

Thanks, your comment has highlighted how the description of indexation in the original manuscript was lacking information. The text has been revised to include more details on the indexation of losses by national insurance associations, in lines 86-100, to highlight the sophisticated indexation techniques used in insurance.

Regarding Germany data, the GDV kindly responded to our request for more information on how they trend vehicle losses: they described how their indexation takes account of the cost of parts and repair, and the number of vehicles. (Also note how electric vehicles are a small fraction of the market, e.g. from Statista: "As of 2024, electric vehicles still had a low market share in Germany, at around three percent for battery-powered electric vehicles and almost two percent for plug-in hybrids." See https://www.statista.com/statistics/1166826/electric-vehicles-market-share-germany/.)

The adjustment for France includes the growth in the number of insured risks, in addition to the growth in the reconstruction cost. This is described in more detail in the revised text. There is one aspect of growth in wealth which is not covered, regarding how part of our growing wealth is manifested as a greater value of contents inside the insured structures. However, the vast majority of hail claims concern damage to the building envelope (i.e. roof, siding, windows, doors) rather than damage to contents.

Information from VKG in Switzerland consist of loss cost data, in which total claims are expressed as a ratio of the total insured value for each year. This means their indexation relies on how total insured value is defined each year. In the insurance industry, the total insured value is designed to capture those factors causing growth in claims.

Secondly,

- *I suggest that the focus of the paper could be expanded to consider other perils. The med ocean is also important for e.g. medicines, cut-off lows, Vb cyclones.*

We agree that the Mediterranean warming has implications for other perils, such as different types of flood events. The flood peril is now mentioned in the revised text, though we do not conduct an in-depth study because the article is designed as a Brief Communication rather than a full article, hence has been limited to focus on hail. Research into how the warming Mediterranean may have affected flood severity would be an interesting piece of future work.

- *Hail risk is complex, and not entirely dependent on the med ocean (i.e. there is not necessarily a direct 1-to-1 link).*

The Brief Communication concerns trends in the hail risk, and various research has identified the cause of the recent trends in hailstorm activity as being mainly due to increases in low-level moisture (Kunz et al. 2009; Mohr and Kunz, 2013; Púčik et al., 2017; Taszarek et al., 2021; Wilhelm et al., 2024). Further, the Mediterranean Sea is the main source of low-level moisture for damaging hailstorms in the higher-risk parts of Europe, as discussed more fully in the revised text (e.g. lines 31-34, 171-180, and several references therein).

- *In my view it would be a more rounded article if the focus is the med, and then talk about how this is important for a number of perils.*

A review of the impact of the warming Mediterranean on multiple perils – in addition to analysing the drivers of the warming Mediterranean – is beyond the scope of a Brief Communication. Though we agree it would be an interesting subject for future work.