Saving for sunny days: The impact of climate (change) on consumer prices in the euro area

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This study provides new insights into the impact of climate change on inflation within the Eurozone by examining the relationship between sectoral consumer price changes and climate variables treated as surface (or functional) data. We introduce a novel methodology to identify and estimate "associated factors"—key components that capture the co-movements between changes in inflation indices and climate variations across a predefined geographical domain. This framework enables the construction of a functional impulse response analysis that accounts for both the magnitude and geographical aspects of climate shocks, offering deeper insights into how climate changes affect sectoral price dynamics compared to traditional impulse response analysis. Our findings reveal substantial heterogeneity in the timing, scale, and location of climate impacts, especially in the energy and food sectors. These insights provide valuable information for policy strategies aimed at sustaining price stability amid a changing climate.