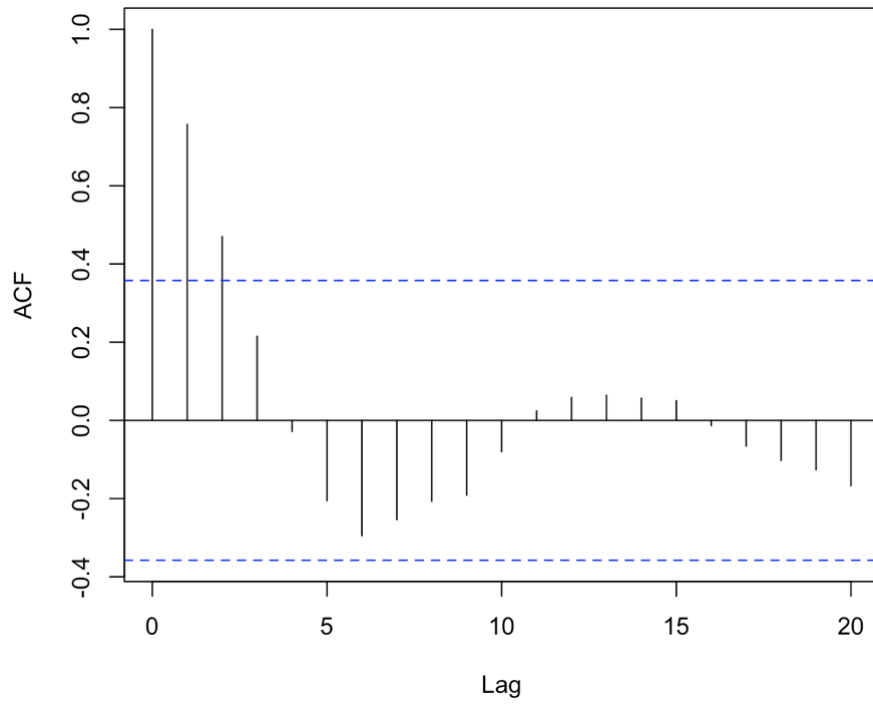**SUPPLEMENTARY FILES**

Mobility index	included Points Of Interest (POIs)
Retail & Recreation	Restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters·
Grocery & Pharmacy	Grocery markets, food warehouses, farmers markets, specialty food shops, drug stores, and pharmacies·
Parks	National parks, public beaches, marinas, dog parks, plazas, and public gardens·
Transit Stations	Public transport hubs such as subway, bus, and train stations
Workplaces	Places of work
Residential Areas	Places of residence

Supplementary Table 1: Google mobility indices and corresponding Points Of Interests (POIs). Insights are based on data from users who have opted-in to Location History for their Google Account.
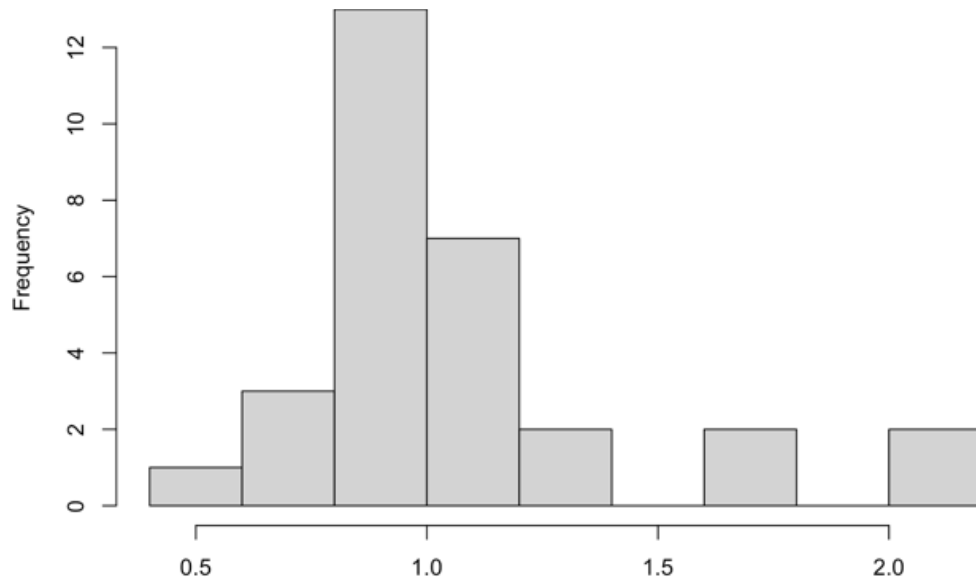
Supplementary figure 1: Histogram of Lombardy R_t frequency distribution. Available samplings display a non-normal, positively skewed distribution of R_t frequency.

Supplementary figure 2: Autocorrelation of R_t time series. Vertical lines represent autocorrelation at different time lags (weeks). Dashed lines represent level of significance at 95%. Autocorrelation function (ACF) displayed a significant correlation in R_t time series.

	UV-index	Retail & Recreation	Grocery & Pharmacy	Workplaces	Transit Stations	Parks
UV-index	1·00	0·51*	-0·35	0·61	0·21	0·84*
Retail & Recreation	··	1·00	0·55*	0·63*	0·92*	0·76*
Grocery & Pharmacy	··	··	1·00	0·76*	0·74*	-0·06
Workplaces	··	··	··	1·00	0·71	0·16
Transit Stations	··	··	··	··	1·00	0·54*
Parks	··	··	··	··	··	1·00

Supplementary Table 2: Comparison of R (Pearson correlation coefficient) among the explanatory variables. Asterisk (*) indicates significant correlation at the probability level of 0·01.
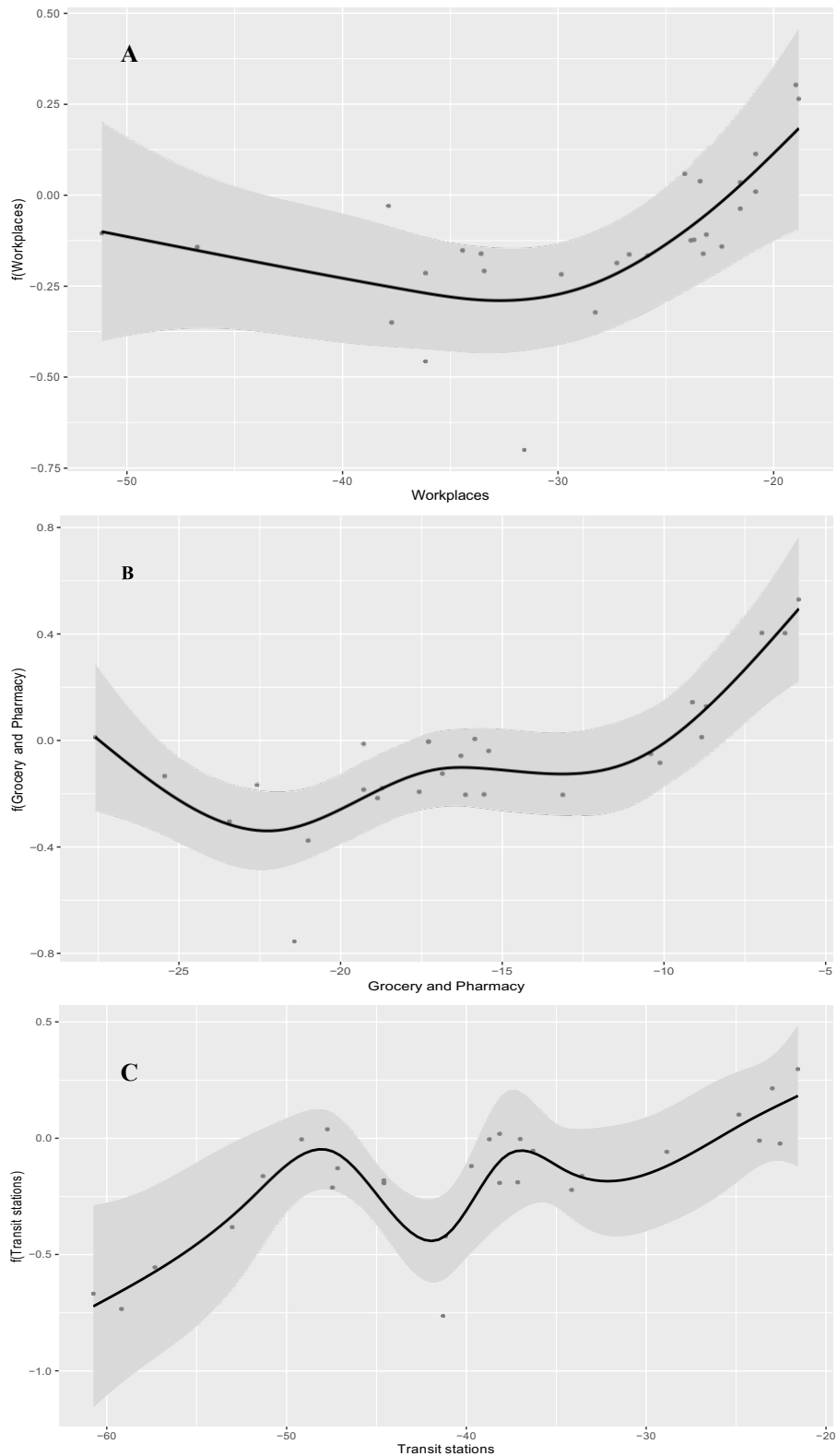
Supplementary figure 3: Smoothing component plots for log(R$_t$) associated with mobility indices, accounting for UV-index. The smooth terms for *Workplaces* (A), *Grocery & Pharmacy* (B), and *Transit stations* (C) show an effect of mobility indices reduction in curbing R$_t$, irrespective of environmental seasonality. Y-axis is the partial effect of the variable and shadow section is the standard-error confidence intervals. An apparent R$_t$ increase is observable for extreme levels of reduction of *Workplaces* and *Grocery & Pharmacy* mobility indices. Left parts of the smoothing components plots were built by the model fitting on a small number of observations, limiting the predictive value of the models in these sections, as shown by the enlargement of confidence intervals.