

Readme for the data documentation for the study:

"Using a Bayesian structural time-series model to infer the causal impact on cigarette sales of partial and total bans on public smoking"

By: Jaime Pinilla, Miguel Ángel Negrín, Beatriz González and Francisco Vázquez-Polo

Forthcoming in: Journal of Economics and Statistics

The data documentation contains information on:

1. Data sources
2. Variable list
3. Program codes

This text briefly explains the documents contained in the data documentation.

1. Data sources

Contains the following information for variables using in the empirical modelling and in the descriptive analysis.

- * Variable description
- * Variable time span
- * The sources from which the data were taken
- * Links to access data

2. Variable list

The list of variables used in this paper is contained in the file Variable_list.txt

3. Program codes, R-scripts

The codes supplied with the paper consists of six files:

The file Figure1.R allows to replicate the Figure 1 "Cigarette plus hand rolled sales (in millions of packs) in Spain 2000-2014" included in section 2.

The file Figure2.R allows to replicate the Figure 2 "Cigarette Prices in United Kingdom, France and Spain 2000-2014" in section 2.

The file Figure3.R allows to replicate the Figure 3 "Scatter plot of tobacco sales and the four candidate predictor variables. Pearson correlation coefficient and test for independence" included in section 2.

The file Intervention1.R allows to fully replicate the results of the Bayesian structural time-series model for the effects of the first intervention (partial ban), included in the table 1 and figure 4 in section 4.

The file Intervention2.R allows to fully replicate the results of the Bayesian structural time-series model for the effects of the second intervention (total ban), included in the table 1 and figure 5 in section 4.

The file Sensitivity_analysis.R allows to fully replicate the results of the sensitivity analysis performed, included in the table 2 in section 4.3.

All files of code have extensive comments to ease understanding of the analyses.

The data file used is specified at the beginning of the code files.

Remarks: Four R packages are needed to run the code:

```
ggplot2,  
easyGgplot2,  
zoo,  
CausalImpact
```