kmaps

François Briatte

March 17, 2012

Description

This note documents a code snippet that I use to produce maps like the ones on the next page. It might help people working on European country-level data, which is fairly common in comparative politics.

The code works with the companion dataset and `ESRI` shapefiles, matched by `ISO-2` alphabetical country codes; see `README` for a description of sources. If you find a way to optimize the code, please let me know.

Packages

You will need `R`, the `maptools` package to read the maps and join them to the data with the `fortify` function of the `gpclib()` library. You will also need `ggplot2` to draw the maps with maximum gusta.

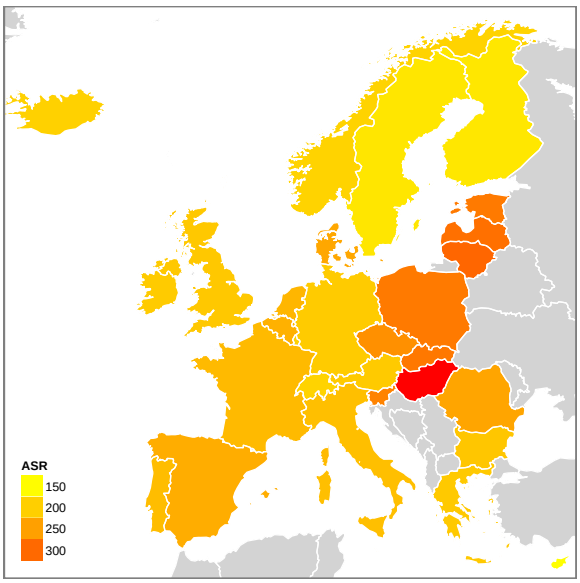
The most important chunk of code follows:

```
# Match.
map@data$id <- rownames(map@data)  # coded by Hadley Wickham (thanks!)
map.points <- fortify(map, region = "id")  # fixed by Roger Peng (thanks!)
map.df <- join(map.points, map@data, by = "id")  # match map and rows
map.df <- join(map.df, eco, by = "iso2")  # match map and data
```

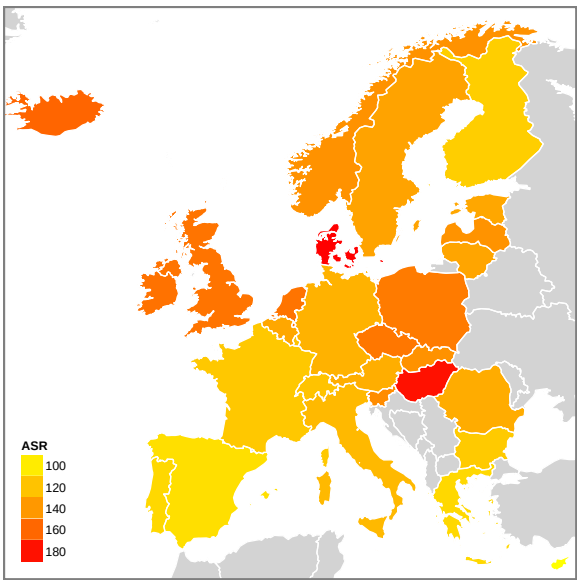
Coordinates

The map is tentatively centred on the European Union by passing Cartesian coordinates to `ggplot2`. I use a range of [-24, 35] for longitude and a range of [34, 72] for latitude.

The next page shows two examples.



(a) Males



(b) Females

Figure 1: Estimated cancer mortality in European countries, 2008 (age-standardised rates for all sites but non-skin melanoma per 100,000 population). Data: European Cancer Observatory. Maps: GISCO – Eurostat, European Commission, 2006.

Credits

Thanks go to Baptiste Coulmont and Roger Peng for helping a lot with bugs, to Joël Gombin and Éric Verdeil for commenting on early drafts, and to Osmo Salomaa and Hadley Wickham for contributing some code fragments.

Additional help was also available at all times from the Stack Exchange network.

Typeset with TEX and `knitr` in RStudio.