

Covergence Clubs and Regression Trees

0686 - Spatial Economics

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15 Januar, 2019

Recap: European Regional Database by Cambridge Econometrics

We limit the dataset:

- timeframe 2000-2015
- no Croatia (i.e. two fewer NUTS 2 regions)

This means we get to:

- use the full set of variables
- keep a detailed London (five NUTS 2 regions)

Oh what a merry regression tree

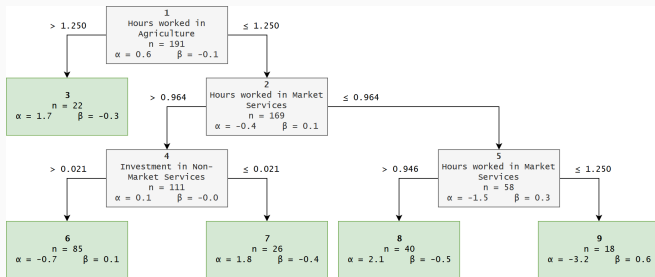
Split observations into clubs:

```
tree <- function(data, split_vars, end_criteria) {  
  split <- find_best_split(...)  
  if (!end_criteria) {  
    return(list(tree(split$data1, ...),  
                tree(split$data2, ...)))  
  } else { # if(end_criteria)  
    return(data)  
  }  
}
```

Regression Tree

We receive a recursive, tree-like data structure that is:

- hard to deal with (a **lot** of helper functions are necessary)
- pretty nice



Regression Tree

- partykit
- flattening trees
- try model on all?
- only spatial filtering

Results

- where are our clubs
- why are they split this way
- how do they compare (unfiltered, sar, sem)

