## Testing Tourist Module

## Bruno Caetano Vidigal 22 October 2015

In this document there are some statistics and summaries about the **Tourist Module**.

We need to compare the estimates for tourism consumption of **Tourist Module** for all the countries and commodities with **Food Data**. The **estimates** for **tourism consumption** with **103 distincts countries** and **419 distincts commodities** are below:

```
##
      year country item calNetCountry tourismElement flagObservationStatus
## 1: 2012
               100 01211
                          4.581951e+01
                                                    100
## 2: 2012
                                                                             Ι
               100 01212
                          3.116974e+02
                                                    100
## 3: 2012
               100 01213 2.035929e+01
                                                    100
                                                                             Ι
## 4: 2012
               100 01214 3.827800e+01
                                                    100
                                                                             Ι
## 5: 2012
               100 01215 9.939250e+00
                                                    100
                                                                             Ι
## 6: 2012
               100 01216 7.792431e-03
                                                    100
                                                                             Ι
##
      flagMethod
## 1:
## 2:
## 3:
               е
## 4:
## 5:
               e
## 6:
               е
```

The Food Data with 103 distincts countries and 419 distincts commodities are below:

```
##
      country item year
                            totalCal
## 1:
          100 01211 2012
                          5772.80979
## 2:
          100 01212 2012 39270.81488
## 3:
          100 01213 2012
                          2565.07145
## 4:
          100 01214 2012
                          4822.65242
## 5:
          100 01215 2012 1252.24811
## 6:
          100 01216 2012
                             0.98177
```

## Merging these datasets:

```
##
      year country item calNetCountry tourismElement flagObservationStatus
## 1: 2012
               100 01211 4.581951e+01
                                                    100
                                                                             Ι
                                                                             Ι
## 2: 2012
               100 01212
                          3.116974e+02
                                                    100
## 3: 2012
               100 01213
                          2.035929e+01
                                                    100
                                                                             Ι
## 4: 2012
                                                                             Ι
               100 01214
                          3.827800e+01
                                                    100
                          9.939250e+00
## 5: 2012
               100 01215
                                                    100
                                                                             Ι
## 6: 2012
               100 01216
                          7.792431e-03
                                                    100
                                                                             Ι
##
      flagMethod
                    totalCal
## 1:
                 5772.80979
               е
               e 39270.81488
## 2:
## 3:
                  2565.07145
## 4:
                  4822.65242
## 5:
                 1252.24811
## 6:
                     0.98177
```

Now we can calculate % tourism consumption per country and per commoditie.

```
##
      year country item calNetCountry tourismElement flagObservationStatus
## 1: 2012
               100 01211
                          4.581951e+01
                                                    100
## 2: 2012
               100 01212
                           3.116974e+02
                                                    100
                                                                              Ι
## 3: 2012
               100 01213
                           2.035929e+01
                                                    100
                                                                              Ι
## 4: 2012
               100 01214
                           3.827800e+01
                                                    100
                                                                              Τ
## 5: 2012
                           9.939250e+00
                                                                              Ι
               100 01215
                                                    100
## 6: 2012
               100 01216
                           7.792431e-03
                                                    100
                                                                              Ι
##
      flagMethod
                     totalCal percentCalItemCountry
## 1:
                  5772.80979
                                         0.007937125
## 2:
               e 39270.81488
                                         0.007937125
## 3:
                  2565.07145
                                         0.007937125
## 4:
                  4822.65242
                                         0.007937125
               е
## 5:
                  1252.24811
                                         0.007937125
               е
## 6:
                      0.98177
                                         0.007937125
               6
```

When the estimates for tourism consumption is **negative** it means that more people **left this country**. If is **positive**, it means more people **went** to this country. So we can calculate which countries were more impacted with tourism consumption and which one had less tourism consumption in 2012.

Summary of estimates tourism consumption:

```
## Min. 1st Qu. Median Mean 3rd Qu. Max.
## -0.6718000 -0.0008387 0.0000000 -0.0039380 0.0022540 0.0633900
```

Top 5 positive estimated consumption per country for tourism. Bahamas (44) and Seychelles (690) are the two firsts countries with more % tourism consumption.

```
##
      year country percentCalCountry rank
## 1: 2012
                            0.06339497
                 44
                                          1
## 2: 2012
                690
                            0.05044369
                                          2
## 3: 2012
                 52
                            0.04656508
                                          3
## 4: 2012
                 60
                            0.04331689
                                           4
                            0.03953663
                                          5
## 5: 2012
                196
```

Top 5 negative estimated consumption per country for tourism. Note that Albania (8) has a strange number. It's necessary to check it.

```
##
      year country percentCalCountry rank
## 1: 2012
                414
                          -0.02248057
                                         99
## 2: 2012
                756
                          -0.02675454
                                        100
## 3: 2012
                498
                          -0.02729250
                                        101
                          -0.05843101
## 4: 2012
                 96
                                        102
## 5: 2012
                          -0.67178611
                                        103
```

The decis are:

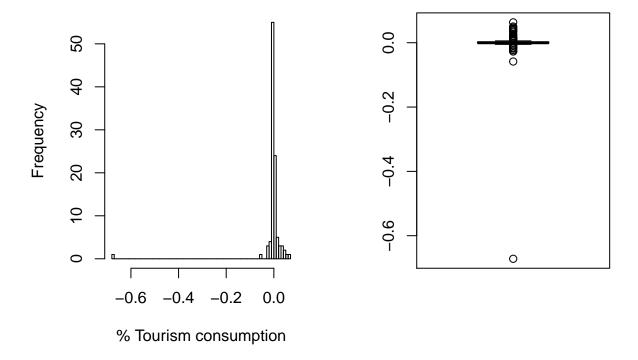
```
## 0% 10% 20% 30% 40%

## -0.6717861103 -0.0054529332 -0.0017070904 -0.0002233375 0.0000000000

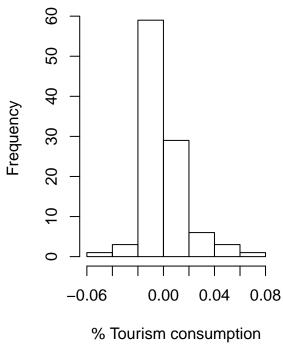
## 50% 60% 70% 80% 90%

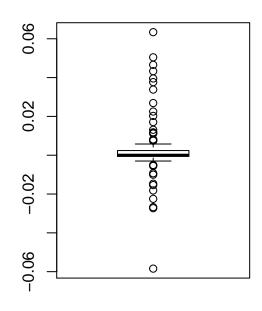
## 0.0000000000 0.000000000 0.0003557033 0.0037200530 0.0162760119
```

The histogram and BoxPlot are below:



If we remove **Albania** this analyze, the new plots are:





With this data, we have this % below about tourism consumption.

##  ${\tt consumption} \quad {\tt N} \ {\tt percent}$ ## 1: positive 39 37.9 ## 2: 28.2 zero 29 ## 3: negative 35 34.0