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## Support for European Level of Political Decision Making

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**ESRA** European Survey Research Association

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## Objective

Our interest is to study the citizen's opinion about which policies should be decided at national or supranational level in Europe.

- Comparison of proportions for supranational level of decisions making on each item.
- Classification of countries into similar groups (cluster analysis).
- Mokken Scaling Technique (Mokken 1971).
- Relationship between supranational level of decision making and sociopolitical variables.

Data are from 21 European countries that participated on the first round of the **European Social Survey**, 2002.

## European citizens' preference for policy areas

Difference between:

The EU organizations and its relationships with the countries

and

The connection from citizens to European institutions.

**Which policies should be decided at what level, according to European citizens' opinion?**

**CARD 15:** Policies can be decided at different levels. Using this card, at which level do you think the following policies should mainly be decided?

|            |                                      | <b>International level</b> | <b>European level</b> | <b>National level</b> | <b>Regional or local level</b> | <b>(Don't know)</b> |
|------------|--------------------------------------|----------------------------|-----------------------|-----------------------|--------------------------------|---------------------|
| <b>B35</b> | ... protecting the environment       | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B36</b> | ... fighting against organised crime | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B37</b> | ... agriculture                      | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B38</b> | ... defence                          | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B39</b> | ... social welfare                   | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B40</b> | ... aid to developing countries      | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B41</b> | ... immigration and refugees         | 1                          | 2                     | 3                     | 4                              | 8                   |
| <b>B42</b> | ... interest rates                   | 1                          | 2                     | 3                     | 4                              | 8                   |

## Introduction

***Is Europe an homogenous political territory?... European Constitution:***

France and The Netherlands in referendum voted against.

Denmark, Great Britain, Ireland, Poland and Portugal postponed the referendum indefinitely

Czech Republic and Sweden never proposed such referendum.

## **Previous studies on citizen's opinion:**

(Dekker and Ederveen 2005)

Scandinavian countries were least in favour of further integration while new state members wanted a highest level of European (Supranational) policies.

Eurobarometer:

Proportion of citizens' preference on European level of decision for 27 policies

|   | Eurobarometer |
|---|---------------|
| Fight against international terrorism                           | .84           |
| Information about the EU  | .75           |
| Foreign policy  | .73           |
| Fight against the trade in, and exploitation of, human rights   | .73           |
| <b>Humanitarian aid*</b>  | .70           |
| <b>Fight against organised crime*</b>                           | .70           |
| Fight against drugs   | .69           |
| Scientific and technological research                           | .68           |
| Fight against poverty/social exclusion                          | .65           |
| Currency  | .64           |
| <b>Protection of the environment*</b>                           | .62           |
| Support to regions which are experiencing economic difficulties | .62           |
| <b>Accepting refugees*</b>                                      | .53           |
| Rules for political asylum                                      | .52           |
| Tackling the challenges of an ageing population                 | .52           |
| <b>Immigration policy*</b>                                      | .51           |
| <b>Agriculture and fishing policy*</b>                          | .49           |
| The fight against unemployment                                  | .49           |
| <b>Defence*</b>   | .48           |
| Cultural policy   | .43           |
| Juvenile crime prevention                                       | .42           |

|  |     |
|--|-----|
| Urban crime prevention                 | .36 |
| Basic rules for broadcasting and press | .35 |
| Justice                                | .35 |
| <b>Health and social welfare*</b>      | .33 |
| Education                              | .33 |
| Police                                 | .31 |

- Global policies are the ones considered that should be decided at supranational level.
- Personal issues citizens consider that should be decided a lower level of decision.



## Our study

- Data from European Social Survey (2002): 21 countries.
- Selection of items
- The goal is to study whether citizens prefer supranational or lower level of governance for different items;
- We considered European and International levels as **supranational level of governance**.

|                    | countries | Organized | Environ- | Immi-   | defense | Interest | Agricul- | Welfare | # of policies |
|--------------------|-----------|-----------|----------|---------|---------|----------|----------|---------|---------------|
|                    | aid       | crime     | ment     | Gration |         | rates    | ture     |         | at supralevel |
| <b>Austria</b>     | .787      | .835      | .655     | .554    | .374    | .487     | .342     | .372    | 4             |
| <b>Belgium</b>     | .798      | .815      | .689     | .699    | .724    | .548     | .593     | .384    | 7             |
| <b>Czech Rep.</b>  | .766      | .815      | .555     | .560    | .685    | .174     | .343     | .159    | 5             |
| <b>Switzerland</b> | .813      | .905      | .821     | .651    | .486    | .236     | .478     | .308    | 4             |
| <b>Germany</b>     | .820      | .892      | .778     | .547    | .725    | .576     | .501     | .342    | 7             |
| <b>Denmark</b>     | .503      | .719      | .605     | .453    | .600    | .409     | .493     | .138    | 4             |
| <b>Spain</b>       | .673      | .666      | .585     | .578    | .452    | .403     | .348     | .357    | 4             |
| <b>Finland</b>     | .594      | .762      | .566     | .311    | .326    | .461     | .263     | .147    | 3             |
| <b>France</b>      | .862      | .778      | .585     | .694    | .610    | .538     | .528     | .376    | 7             |
| <b>UK</b>          | .697      | .494      | .559     | .466    | .481    | .193     | .328     | .166    | 2             |
| <b>Greece</b>      | .744      | .602      | .590     | .581    | .289    | .390     | .290     | .281    | 4             |
| <b>Hungary</b>     | .700      | .563      | .449     | .422    | .547    | .207     | .236     | .148    | 3             |
| <b>Ireland</b>     | .583      | .346      | .374     | .417    | .292    | .343     | .309     | .122    | 1             |
| <b>Italy</b>       | .774      | .528      | .294     | .576    | .571    | .632     | .324     | .223    | 5             |
| <b>Luxembourg</b>  | .740      | .811      | .677     | .580    | .704    | .369     | .548     | .370    | 6             |
| <b>Netherlands</b> | .772      | .849      | .776     | .707    | .736    | .608     | .628     | .303    | 7             |
| <b>Norway</b>      | .613      | .766      | .732     | .392    | .531    | .337     | .285     | .139    | 4             |
| <b>Poland</b>      | .770      | .555      | .344     | .651    | .439    | .230     | .251     | .104    | 3             |
| <b>Portugal</b>    | .715      | .629      | .535     | .614    | .374    | .349     | .278     | .234    | 4             |
| <b>Sweden</b>      | .503      | .749      | .669     | .372    | .381    | .330     | .337     | .290    | 3             |
| <b>Slovenia</b>    | .715      | .641      | .533     | .560    | .529    | .398     | .421     | .315    | 5             |

- **Countries aid, organized crime and environmental protection** have a higher proportion for most of the countries.
- The highest proportion of supranational level of governance:  
**Countries Aid** in Spain, Greece, Great Britain, Poland, Portugal...  
**Fighting against organized crime** in Austria, Belgium, Switzerland, Germany, Denmark, Finland, Norway or Sweden.
- The policies with **low proportion** of supranational governance are **welfare, agriculture and interest rates**, being welfare the lowest for all countries.

- On “Europeanness “...

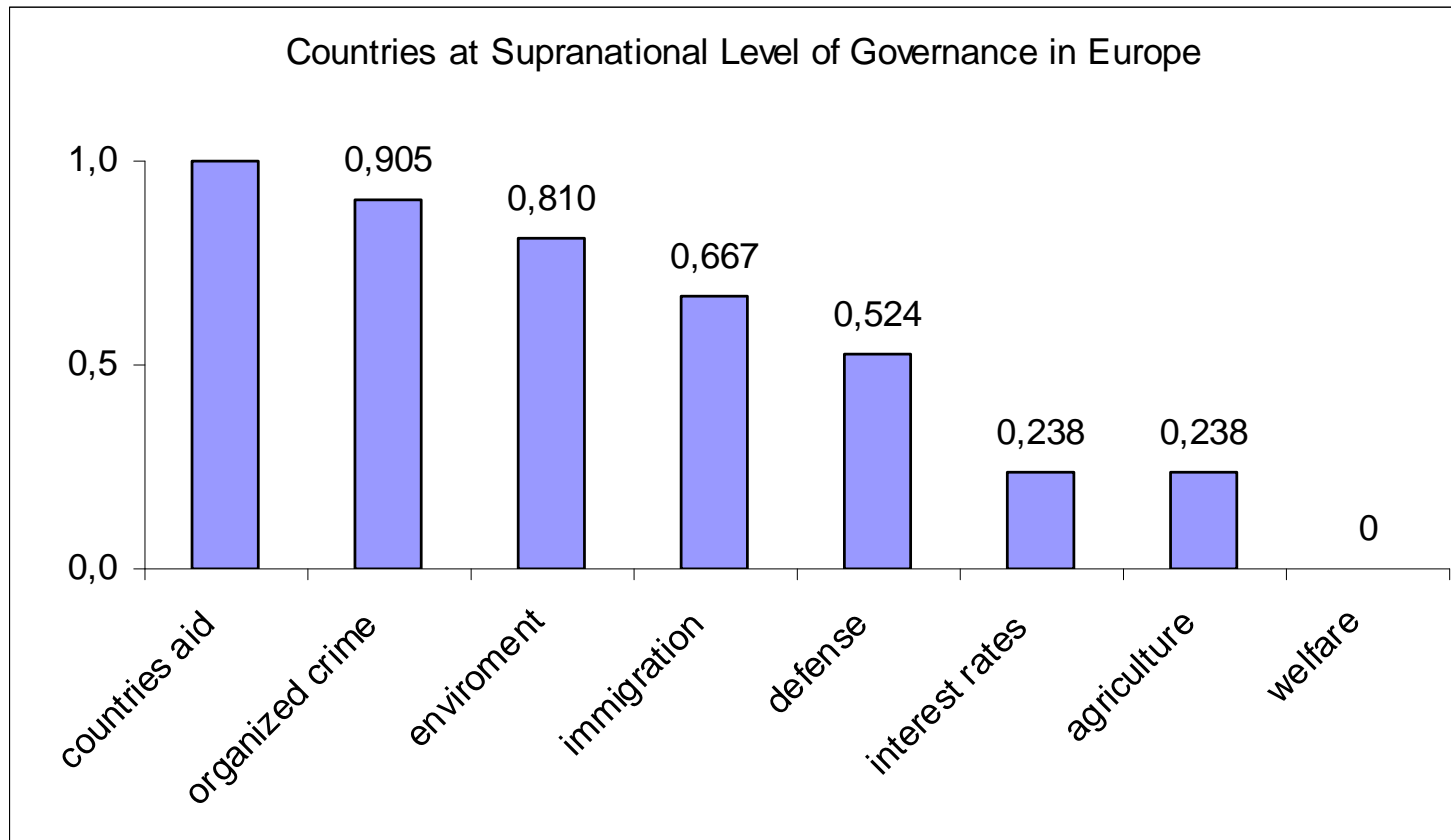
Countries more favorable to European (pro-European) level of governance:

Belgium, The Netherlands, Germany, France...

Less favorable are Ireland, UK, Finland, Sweden...

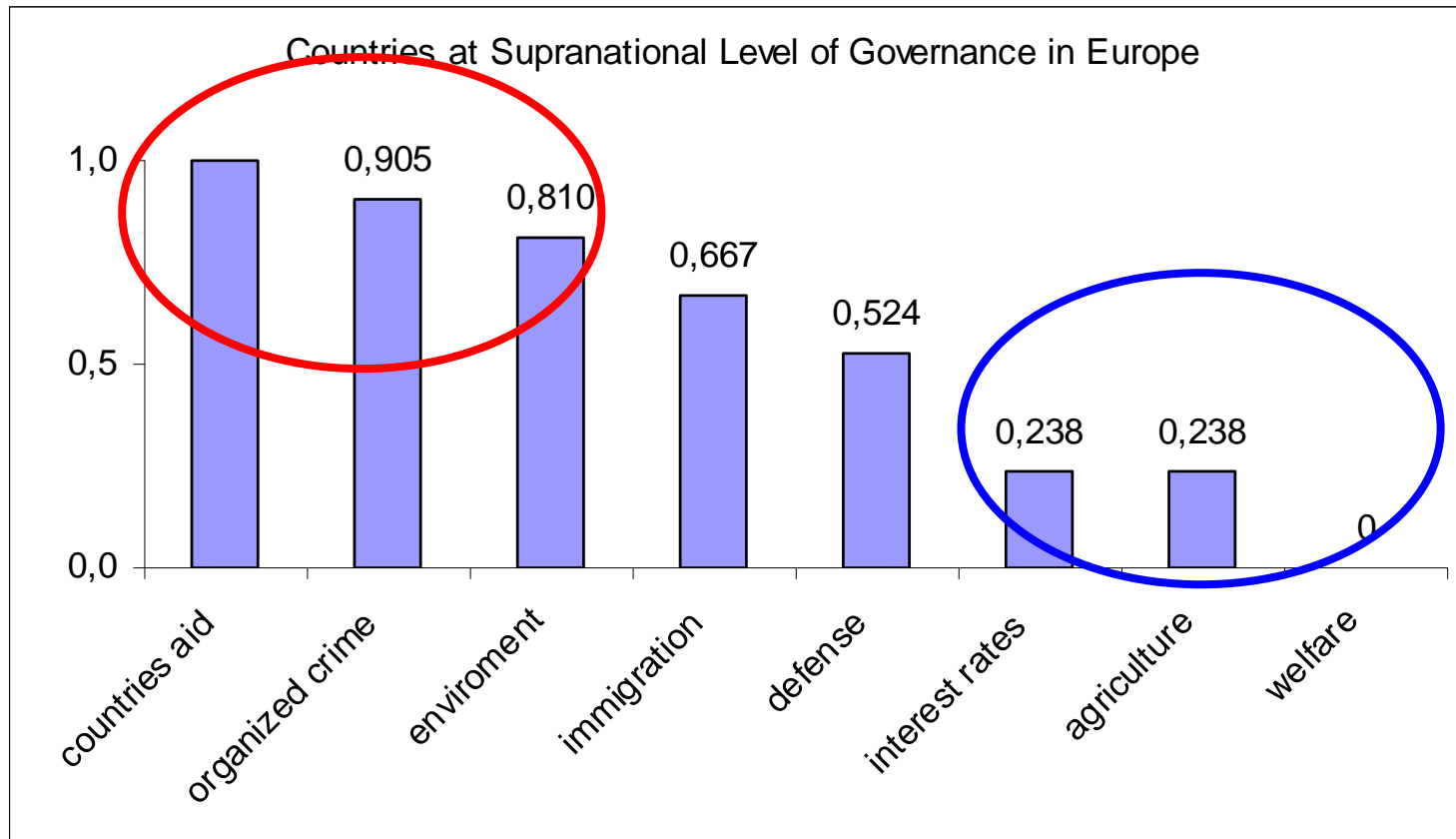
## Results by items

Policies can be ranked according to their supranational level of governance.



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Policies can be ranked according to their supranational level of governance.



## Classification by supranational policies

Difficult to compare 21 countries

Cluster analysis --> 4 groups.

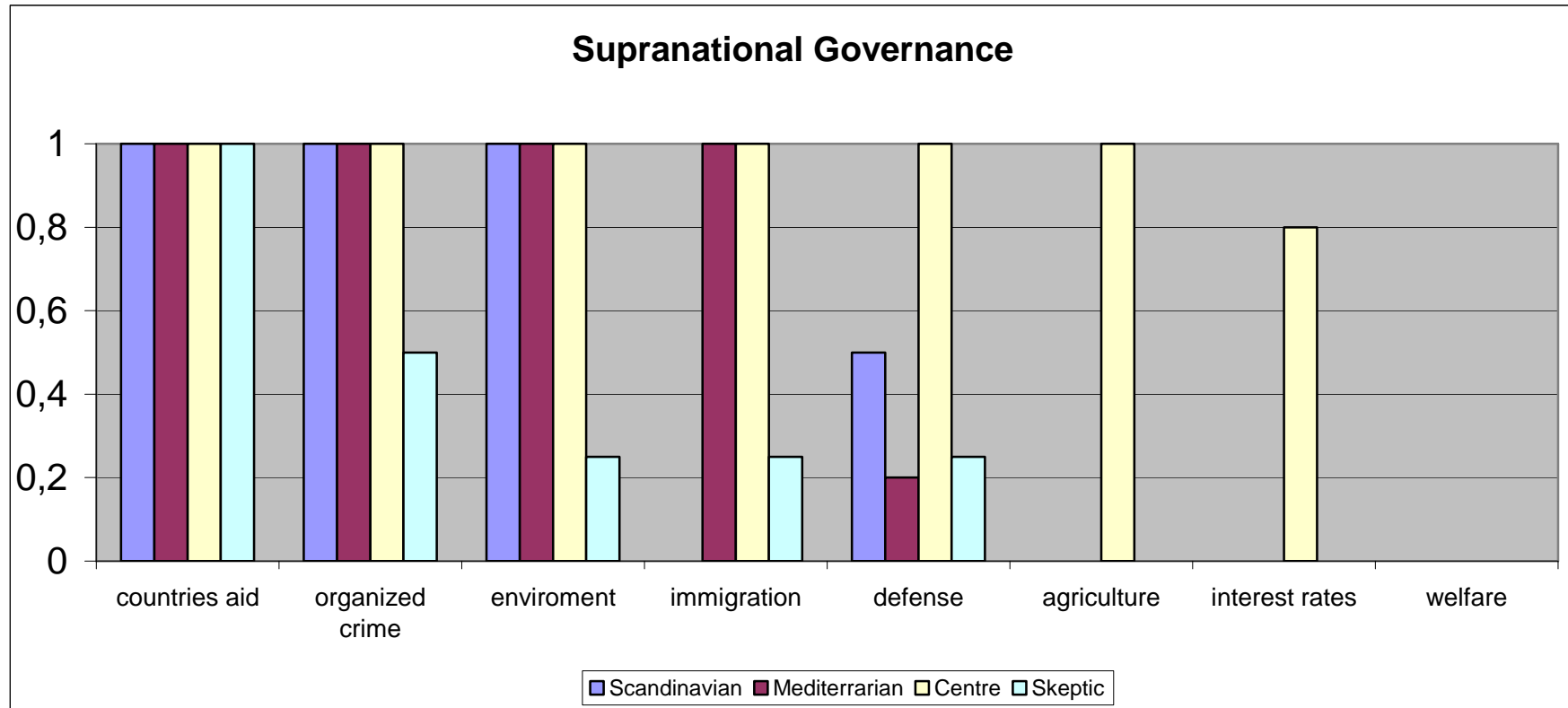
- **Scandinavian** countries: Norway, Sweden, Finland and Denmark.
- **Mediterranean** countries: Spain, Slovenia, Greece and Portugal.
- **'Central'** countries: Belgium, The Netherlands, Germany, France and Luxemburg
- **'Euro-Skeptic'** countries: Great Britain, Ireland, Hungary and Poland.

## Proportion of supranational level of governance

| Policies                    | Skeptic     | Scandinavian | Mediterranean | Centre      |
|-----------------------------|-------------|--------------|---------------|-------------|
| Welfare                     | .134        | .181         | .302          | .350        |
| Agriculture                 | .283        | .334         | .328          | <b>.558</b> |
| Interest rates              | <b>.245</b> | .382         | .396          | .542        |
| Defense                     | .434        | .450         | .405          | <b>.707</b> |
| Immigration                 | .494        | <b>.377</b>  | .565          | .639        |
| Environment                 | <b>.430</b> | .646         | .574          | .718        |
| Organized crime             | .486        | .751         | .630          | .839        |
| Aid to developing countries | .687        | <b>.557</b>  | .703          | <b>.799</b> |
| Support >50%                | 1           | 3            | 4             | 7           |



## Differences with clusters respect to Supranational level of decision



## Cumulative Scaling for Supranational support

Study whether the items can be explained as a **single latent trait**.

We study whether the single latent trait creates a homogeneous cumulative scale -->

Comparative study for the different clusters at European level

**Mokken scaling** (Mokken 1971; Mokken 1997; Molenaar and Sijtsma 1984).

**Mokken scale procedure is a probabilistic technique that it is used for scaling items and measuring respondent on an ordinal scale.**

Probability that subjects possessing different amount of latent trait give answers to each item can be shown through **Item Response Function (IRF)**. Mokken scale is based on two models to analyze IRF's.

## **Monotone homogeneity (MH) model**

Evaluation of a set of items with ordered scores as a scale according to particular scaling criteria.

Subjects, not items, can be ordered on a latent continuum scale.

## **Double Monotonicity (DM)**

It takes the scales found in MH and the invariance of the item ordering.

The order of items is the same for the different subjects.

## Assumptions for MH model:

- **Unidimensionality of the latent trait**; all items measure a single latent trait.
- Responses by the same subject are locally stochastically independent. It implies that all systematic variation in the people's response is due only to the respondents position on the latent trait. It is that the covariance between item score is zero for subjects with the same amount of latent trait.
- **IRF monotonically nondecreasing.**

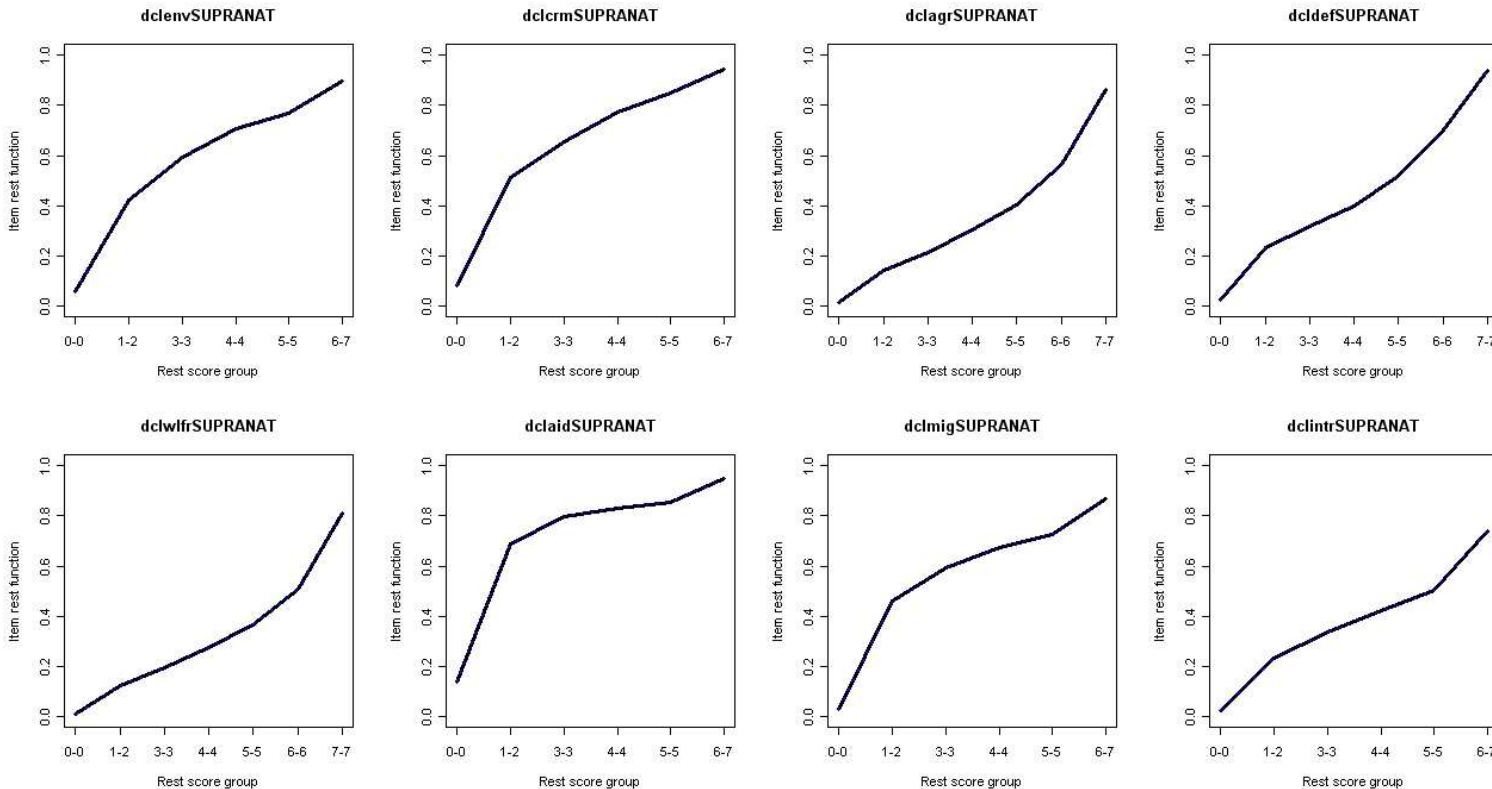
## Testing the cumulative Mokken scaling

**Homogeneity (consistency) of a cumulative scale** is studied using:

**Loevinger's H coefficient**

|                             | Scandinavian | Mediterranean | Centre | Skeptical |
|-----------------------------|--------------|---------------|--------|-----------|
| Welfare                     | .37          | .47           | .42    | .45       |
| Agriculture                 | .31          | .46           | .33    | .39       |
| Interest rates              | .23          | .41           | .29    | .33       |
| Defense                     | .29          | .44           | .32    | .35       |
| Immigration                 | .31          | .43           | .29    | .31       |
| Environment                 | .30          | .46           | .33    | .34       |
| Organized crime             | .36          | .50           | .39    | .37       |
| Aid to developing Countries | .28          | .52           | .29    | .46       |
| Complete scale              | .30          | .46           | .33    | .37       |
| Reliability                 | .68          | .80           | .69    | .75       |
| Sample size                 | 7541         | 7325          | 10237  | 7893      |

MONTONE HOMOGENEITY (MH): The requirement in order to decide whether the scales are cumulative is a monotone increasing response function for all items.



**The data fulfills the MH model for all 4 clusters**

**which means that subjects, not items, can be ordered on a latent continuum**

## Double Monotonicity Model

A second part of the Mokken scaling procedure is a stricter test for a cumulative scale.

**Nonintersection of the item response functions for the different items.**

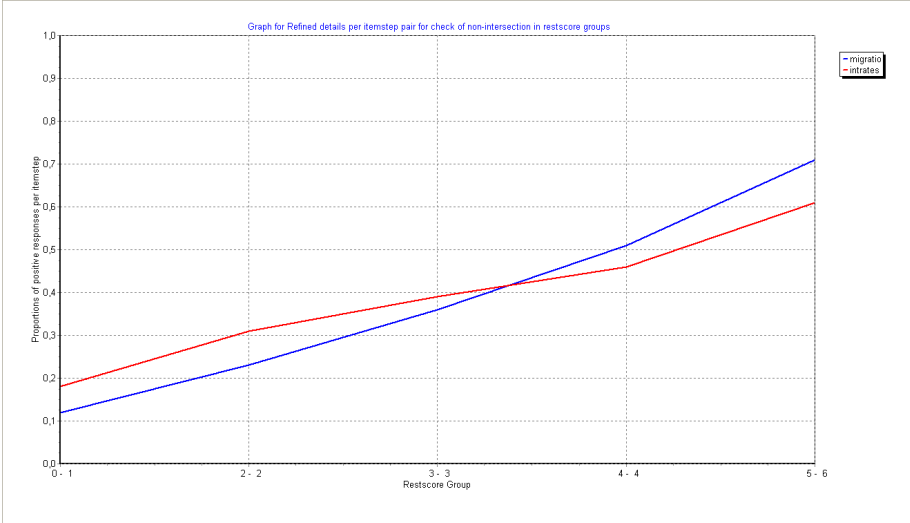
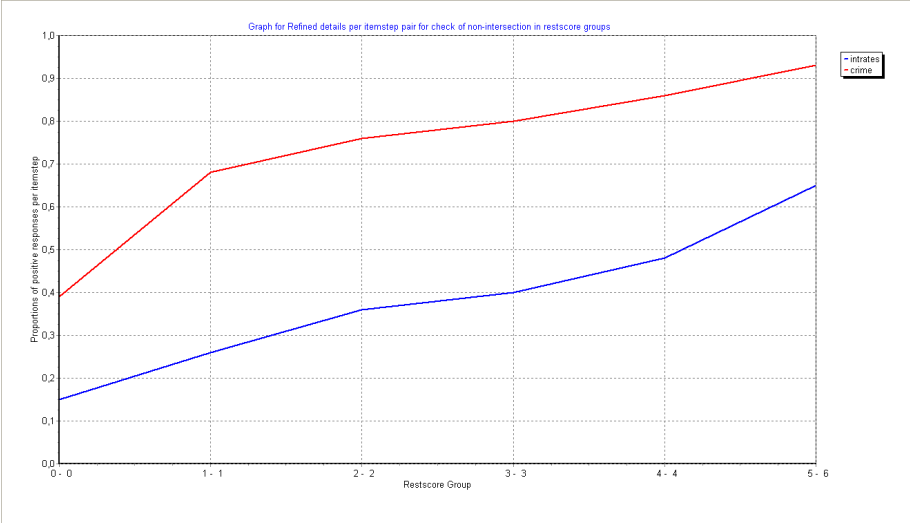
The test is based whether the **order of items** is the same across groups.

**Procedures to test whether DM model:**

**P(1,1) matrix and P(0,0) matrix**, where the items are ordered by their probability.

**Rest score method**, It compares the order of the probability of a positive response of items for groups of subjects that are distinguished by their sum scores on the remaining  $k-2$  items.

# Double Montonicity model:



The test shows violations to the requirement of non-intersection probabilities in Scandinavian and Euro-Skeptical clusters.



The intersection can also be **tested whether it is statistically significant or it is due to sampling variation**. The test shows that the intersection is statistically significant.

|                  | ItemH       | #ac       | #vi      | #vi/#ac     | maxvi       | sum         | sum/#ac       | zmax        | #zsig    | crit       |
|------------------|-------------|-----------|----------|-------------|-------------|-------------|---------------|-------------|----------|------------|
| environm         | 0.30        | 42        | 0        |             |             |             |               |             |          |            |
| crime            | 0.36        | 42        | 0        |             |             |             |               |             |          |            |
| agricult         | 0.31        | 42        | 1        | 0.02        | 0.04        | 0.04        | 0.0009        | 9.39        | 1        | 68         |
| defense          | 0.28        | 42        | 0        |             |             |             |               |             |          |            |
| welfare          | 0.37        | 42        | 0        |             |             |             |               |             |          |            |
| aid              | 0.28        | 42        | 0        |             |             |             |               |             |          |            |
| <b>migration</b> | <b>0.31</b> | <b>42</b> | <b>2</b> | <b>0.05</b> | <b>0.05</b> | <b>0.09</b> | <b>0.0020</b> | <b>9.39</b> | <b>2</b> | <b>81*</b> |
| intrates         | 0.23        | 42        | 1        | 0.02        | 0.05        | 0.05        | 0.0011        | 8.42        | 1        | 69         |

## **Improvement of the cumulative scale**

Two alternatives

- a) Removing the worst item with respect to its H-coefficient.
- b) To make use of a 'search procedure' when the items do not constitute a homogeneous set of indicators of the same single latent trait.
  - b.1) Mokken strategy is 'bottom-up' hierarchical clustering procedure, with the Coefficient H as cluster criterion.
  - b.2) First, it finds the smallest scale (a pair of items with the highest  $H_{ij}$ )

A single latent scale with the 8 items is homogeneous for the Mediterranean and Euro-skeptical group.

In the Scandinavian and Centre groups the procedure finds the item '**immigration**' as non-scalable.

- To compare the scale across clusters with 7 items:

**Loevinger's Homogeneity coefficient**

|                             | Scandinavian | Mediterranean | Centre | Skeptical |
|-----------------------------|--------------|---------------|--------|-----------|
| Welfare                     | .38          | .48           | .42    | .47       |
| Agriculture                 | .32          | .47           | .35    | .40       |
| Interest rates              | .24          | .40           | .29    | .32       |
| Defense                     | .28          | .46           | .34    | .37       |
| Environment                 | .30          | .49           | .35    | .36       |
| Organized crime             | .36          | .52           | .41    | .41       |
| Aid to developing Countries | .24          | .52           | .26    | .43       |
| Complete scale              | .30          | .47           | .34    | .39       |
| Reliability                 | .64          | .79           | .67    | .72       |

- MH and DM model are fulfilled (using pmatrix and rest scores procedures).  
Both subjects and items can be ordered in a latent continuum scale.

## Influence of the Sociopolitical variables on the level of governance

We use a **regression model** in order to compare the effects of external variables on level of governance in the different clusters.

**Dependent variable:** Level of governance score is the count of policies that citizens indicate that should be decided at Supranational level; it varies from 0 to 7 using the previous comparable Cumulative scale.

Numeric variables were mean-centered --> reduction of collinearity.

Dummy variables and dependent variable are hold in their original values.

Complex regression model with 32 coefficients (one intercept, seven main effects, three cluster effects and twenty-one interaction effects).

Without migration, thus from 0 to 7 supranational policies!!!

|                                  | $\hat{\beta}$ Mediterranean | $\hat{\beta}$ Skeptic | $\hat{\beta}$ Centre | $\hat{\beta}$ Scandinavian |
|----------------------------------|-----------------------------|-----------------------|----------------------|----------------------------|
| Intercept                        | 3.660                       | 2.804                 | 4.519                | 3.320                      |
| Years of full time education     | .215*                       | .215*                 | .215*                | .198                       |
| Age                              | -.232                       | -.258                 | .085*                | .085*                      |
| How long lived in the area       | -.122*                      | -.122*                | -.122*               | -.122*                     |
| Trust in the European Parliament | .085                        | .203                  | .198                 | .284                       |
| Important in life: politics      | .043*                       | .043*                 | .043*                | .043*                      |
| Interest in politics             | .059*                       | .059*                 | .142                 | .059*                      |
| Adjusted R <sup>2</sup>          | .161                        |                       |                      |                            |

\*Non-significant interaction effect

Effects are different across countries for the variables ‘years of full time education’, ‘age’, ‘trust in European Parliament’, and ‘Interest in politics’.

- **Years of full time education** has a less positive effect in the Scandinavian countries.
- **Age** affects negatively in the ‘Mediterranean’ and ‘Euro-skeptic’ cluster and has a small positive effect in the ‘centre’ and ‘Scandinavian’ clusters.
- The **years lived in the area** have the same negative effect in all clusters. More time living in the area lowers the supranational level of decision making.
- **Trust in the European Parliament** has different positive effect; lower effect in the ‘Mediterranean’ cluster and the highest score for trust is on the ‘Scandinavian’ cluster.
- The variable **politics as important in life** has the same positive effect for all clusters.
- **Interest in politics** affects positively in all clusters but highest score for ‘centre’ cluster.

## Conclusions

- Classification of countries into similar groups (cluster analysis).
- Mokken Scaling Technique for cumulative scale
  - 8 initial items does not fulfill the requirements for DM model
  - Without 'immigration' item one can create a cumulative uniform scale.
- Citizens' opinion for level of governance is differing from the EU level of governance.
- Main differences between clusters due to **Trust in the European Parliament and age**

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THANKS FOR YOUR ATTENTION!

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## APPENDIX 2: test for monotonicity

```

> library(mokken)
> monotonicity.gov_MEDIT <- check.monotonicity(globalsupragovernance_MEDIT)
> print(monotonicity.gov_MEDIT)
$results
$results[[1]]
$results[[1]][[1]]
[1] "dclenvSUPRANAT"

$results[[1]][[2]]
  Group Lo Score Hi Score      N F 0 F 1      Mean P(X >=1)
[1,]    1      0      0 1448 1362  86 0.05939227 0.05939227
[2,]    2      1      2 2083 1204 879 0.42198752 0.42198752
[3,]    3      3      3 1709  692 1017 0.59508484 0.59508484
[4,]    4      4      4 1568  461 1107 0.70599490 0.70599490
[5,]    5      5      5 1196  277  919 0.76839465 0.76839465
[6,]    6      6      7 1820  191 1629 0.89505495 0.89505495

$results[[1]][[3]]
#ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 15  0      0      0  0      0      0      0      0      0
Total    15  0      0      0  0      0      0      0      0      0

$results[[1]][[4]]
[1] "Minsize = 982 Minvi = 0.03"

$results[[2]]
$results[[2]][[1]]
[1] "dclcrmSUPRANAT"

$results[[2]][[2]]
  Group Lo Score Hi Score      N F 0 F 1      Mean P(X >=1)
[1,]    1      0      0 1481 1362 119 0.08035111 0.08035111
[2,]    2      1      2 2148 1048 1100 0.51210428 0.51210428
[3,]    3      3      3 1716  594 1122 0.65384615 0.65384615
[4,]    4      4      4 1567  356 1211 0.77281429 0.77281429
[5,]    5      5      5 1149  173  976 0.84943429 0.84943429
[6,]    6      6      7 1763  100 1663 0.94327850 0.94327850

$results[[2]][[3]]
#ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 15  0      0      0  0      0      0      0      0      0
Total    15  0      0      0  0      0      0      0      0      0

$results[[2]][[4]]

```

```
[1] "Minsize = 982 Minvi = 0.03"
```

```
$results[[3]]  
$results[[3]][[1]]  
[1] "dclagrSUPRANAT"
```

```
$results[[3]][[2]]  
      Group Lo Score Hi Score      N F 0 F 1      Mean P(X >=1)  
[1,]      1         0         0 1382 1362  20 0.01447178 0.01447178  
[2,]      2         1         2 1700 1452 248 0.14588235 0.14588235  
[3,]      3         3         3 1457 1141 316 0.21688401 0.21688401  
[4,]      4         4         4 1668 1162 506 0.30335731 0.30335731  
[5,]      5         5         5 1467  878 589 0.40149966 0.40149966  
[6,]      6         6         6 1078  469 609 0.56493506 0.56493506  
[7,]      7         7         7 1072  146 926 0.86380597 0.86380597
```

```
$results[[3]][[3]]  
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig  
P(X >=1)  21  0         0         0  0         0  0  0  0  0  
Total     21  0         0         0  0  0         0  0  0  0
```

```
$results[[3]][[4]]  
[1] "Minsize = 982 Minvi = 0.03"
```

```
$results[[4]]  
$results[[4]][[1]]  
[1] "dcldefsSUPRANAT"
```

```
$results[[4]][[2]]  
      Group Lo Score Hi Score      N F 0 F 1      Mean P(X >=1)  
[1,]      1         0         0 1395 1362  33 0.02365591 0.02365591  
[2,]      2         1         2 1822 1398 424 0.23271131 0.23271131  
[3,]      3         3         3 1472 1006 466 0.31657609 0.31657609  
[4,]      4         4         4 1687 1012 675 0.40011855 0.40011855  
[5,]      5         5         5 1470  709 761 0.51768707 0.51768707  
[6,]      6         6         6  989  297 692 0.69969666 0.69969666  
[7,]      7         7         7  989   63 926 0.93629929 0.93629929
```

```
$results[[4]][[3]]  
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig  
P(X >=1)  21  0         0         0  0  0         0  0  0  0  
Total     21  0         0         0  0  0         0  0  0  0
```

```
$results[[4]][[4]]  
[1] "Minsize = 982 Minvi = 0.03"
```

```

$results[[5]]
$results[[5]][[1]]
[1] "dclwlfrSUPRANAT"

```

```

$results[[5]][[2]]
  Group Lo Score Hi Score      N  F 0  F 1      Mean  P(X >=1)
[1,]    1      0      0 1377 1362  15 0.01089325 0.01089325
[2,]    2      1      2 1692 1480 212 0.12529551 0.12529551
[3,]    3      3      3 1437 1154 283 0.19693807 0.19693807
[4,]    4      4      4 1647 1195 452 0.27443837 0.27443837
[5,]    5      5      5 1470  932 538 0.36598639 0.36598639
[6,]    6      6      6 1060  520 540 0.50943396 0.50943396
[7,]    7      7      7 1141  215 926 0.81156880 0.81156880

```

```

$results[[5]][[3]]
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 21  0      0      0  0      0      0  0  0  0  0
Total    21  0      0      0  0      0      0  0  0  0  0

```

```

$results[[5]][[4]]
[1] "Minsize = 982 Minvi = 0.03"

```

```

$results[[6]]
$results[[6]][[1]]
[1] "dclaidSUPRANAT"

```

```

$results[[6]][[2]]
  Group Lo Score Hi Score      N  F 0  F 1      Mean  P(X >=1)
[1,]    1      0      0 1579 1362  217 0.1374288 0.1374288
[2,]    2      1      2 2328  722 1606 0.6898625 0.6898625
[3,]    3      3      3 1543  316 1227 0.7952041 0.7952041
[4,]    4      4      4 1466  251 1215 0.8287858 0.8287858
[5,]    5      5      5 1156  169  987 0.8538062 0.8538062
[6,]    6      6      7 1752   93 1659 0.9469178 0.9469178

```

```

$results[[6]][[3]]
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 15  0      0      0  0      0      0  0  0  0  0
Total    15  0      0      0  0      0      0  0  0  0  0

```

```

$results[[6]][[4]]
[1] "Minsize = 982 Minvi = 0.03"

```

```
$results[[7]]
$results[[7]][[1]]
[1] "dclmigSUPRANAT"
```

```
$results[[7]][[2]]
  Group Lo Score Hi Score      N  F 0  F 1      Mean  P(X >=1)
[1,]    1      0      0 1405 1362   43 0.03060498 0.03060498
[2,]    2      1      2 2154 1164  990 0.45961003 0.45961003
[3,]    3      3      3 1640  664  976 0.59512195 0.59512195
[4,]    4      4      4 1548  502 1046 0.67571059 0.67571059
[5,]    5      5      5 1225  338  887 0.72408163 0.72408163
[6,]    6      6      7 1852  243 1609 0.86879050 0.86879050
```

```
$results[[7]][[3]]
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 15  0      0      0  0      0      0      0      0      0
Total    15  0      0      0  0      0      0      0      0      0
```

```
$results[[7]][[4]]
[1] "Minsize = 982 Minvi = 0.03"
```

```
$results[[8]]
$results[[8]][[1]]
[1] "dclintrSUPRANAT"
```

```
$results[[8]][[2]]
  Group Lo Score Hi Score      N  F 0  F 1      Mean  P(X >=1)
[1,]    1      0      0 1401 1362   39 0.02783726 0.02783726
[2,]    2      1      2 1834 1404  430 0.23446020 0.23446020
[3,]    3      3      3 1493  988  505 0.33824514 0.33824514
[4,]    4      4      4 1681  973  708 0.42117787 0.42117787
[5,]    5      5      5 1367  676  691 0.50548647 0.50548647
[6,]    6      6      7 2048  534 1514 0.73925781 0.73925781
```

```
$results[[8]][[3]]
      #ac #vi #vi/#ac maxvi sum sum/#ac zmax group group #zsig
P(X >=1) 15  0      0      0  0      0      0      0      0      0
Total    15  0      0      0  0      0      0      0      0      0
```

```
$results[[8]][[4]]
[1] "Minsize = 982 Minvi = 0.03"
```

```
$I.labels
[1] "dclenvSUPRANAT" "dclcrmSUPRANAT" "dclagrSUPRANAT" "dcldefSUPRANAT" "dclwifrSUPRANAT"
```

```

"dclaidSUPRANAT" "dclmigSUPRANAT"
[8] "dclintrSUPRANAT"

$Hi
  dclenvSUPRANAT  dclcrmSUPRANAT  dclagrSUPRANAT  dcldefSUPRANAT  dclwlfrSUPRANAT  dclaidSUPRANAT  dclmigSUPRANAT  dclintrSUPRANAT
    0.4551311      0.4974370      0.4629288      0.4439946      0.4720306      0.5206873      0.4304673      0.4117928

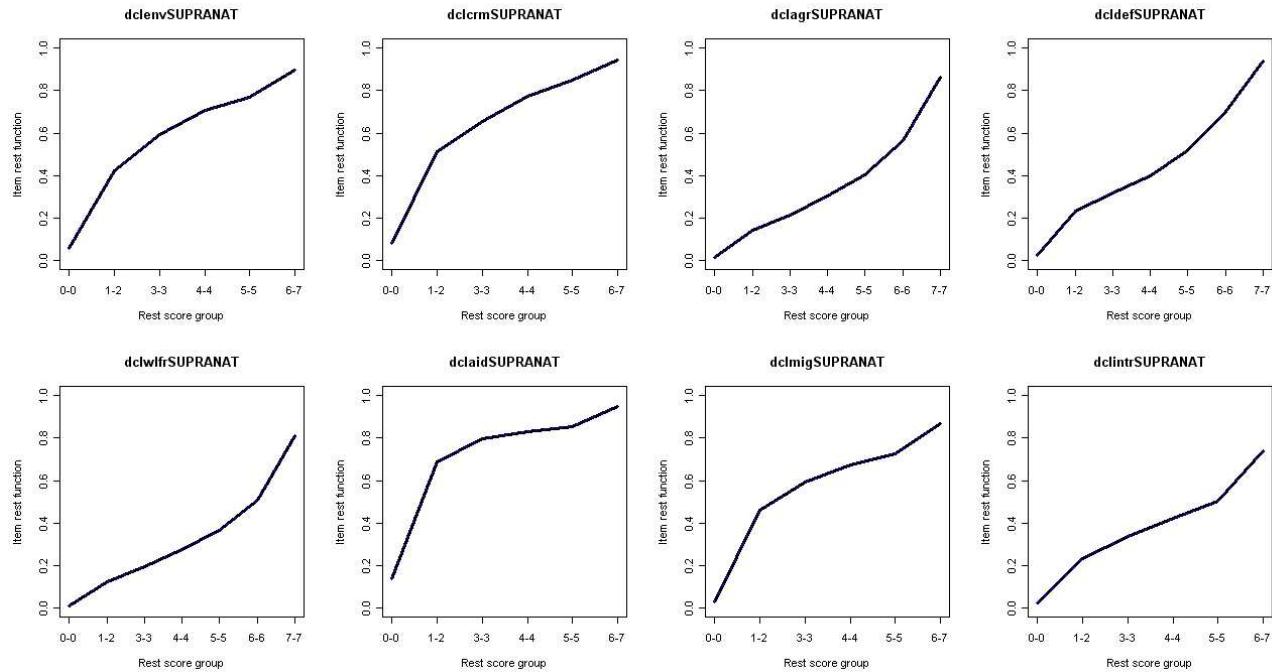
$m
[1] 2

attr(,"class")
[1] "monotonicity.class"

> summary(monotonicity.gov_MEDIT)

```

|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum | sum/#ac | zmax | #zsig |
|-----------------|-------|-----|-----|---------|-------|-----|---------|------|-------|
| dclenvSUPRANAT  | 0.46  | 15  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclcrmSUPRANAT  | 0.50  | 15  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclagrSUPRANAT  | 0.46  | 21  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dcldefSUPRANAT  | 0.44  | 21  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclwlfrSUPRANAT | 0.47  | 21  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclaidSUPRANAT  | 0.52  | 15  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclmigSUPRANAT  | 0.43  | 15  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |
| dclintrSUPRANAT | 0.41  | 15  | 0   | 0       | 0     | 0   | 0       | 0    | 0     |



## Nonintersection pmatrix

```
> pmatrix.gov CENTRE <- check.pmatrix(globalsupragovernance CENTRE)
```

```
> print(pmatrix.gov CENTRE)
```

```
$Ppp
```

|          | P(X5>=1)  | P(X8>=1)  | P(X3>=1)  | P(X7>=1)  | P(X4>=1)  | P(X1>=1)  | P(X6>=1)  | P(X2>=1)  |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| P(X5>=1) | NA        | 0.2385464 | 0.2505617 | 0.2716616 | 0.2997949 | 0.2985250 | 0.3157175 | 0.3259744 |
| P(X8>=1) | 0.2385464 | NA        | 0.3617271 | 0.3959168 | 0.4348930 | 0.4326463 | 0.4580443 | 0.4861776 |
| P(X3>=1) | 0.2505617 | 0.3617271 | NA        | 0.4098857 | 0.4599004 | 0.4674221 | 0.4725994 | 0.5127479 |
| P(X7>=1) | 0.2716616 | 0.3959168 | 0.4098857 | NA        | 0.4946762 | 0.4991697 | 0.5682329 | 0.5670607 |
| P(X4>=1) | 0.2997949 | 0.4348930 | 0.4599004 | 0.4946762 | NA        |           | 0.5578783 | 0.5978314 |
| P(X1>=1) |           |           |           |           |           | NA        |           | 0.6390544 |

```

P(X1>=1) 0.2985250 0.4326463 0.4674221 0.4991697 0.5578783      NA 0.6081860 0.6605451
P(X6>=1) 0.3157175 0.4580443 0.4725994 0.5682329 0.5978314 0.6081860      NA 0.6989352
P(X2>=1) 0.3259744 0.4861776 0.5127479 0.5670607 0.6390544 0.6605451 0.6989352      NA

```

\$Pmm

```

          P(X5>=1) P(X8>=1) P(X3>=1) P(X7>=1) P(X4>=1) P(X1>=1) P(X6>=1) P(X2>=1)
P(X5>=1)          NA 0.3474651 0.3420924 0.28299306 0.24264921 0.23102471 0.16704113 0.13724724
P(X8>=1) 0.3474651          NA 0.2621862 0.21617661 0.18667578 0.17407444 0.11829638 0.10637882
P(X3>=1) 0.3420924 0.2621862          NA 0.21275764 0.19429520 0.19146234 0.11546351 0.11556120
P(X7>=1) 0.2829931 0.2161766 0.2127576          NA 0.14887174 0.14301065 0.13089772 0.08967471
P(X4>=1) 0.2426492 0.1866758 0.1942952 0.14887174          NA 0.13324216 0.09201915 0.09319136
P(X1>=1) 0.2310247 0.1740744 0.1914623 0.14301065 0.13324216          NA 0.09201915 0.10432744
P(X6>=1) 0.1670411 0.1182964 0.1154635 0.13089772 0.09201915 0.09201915          NA 0.06154147
P(X2>=1) 0.1372472 0.1063788 0.1155612 0.08967471 0.09319136 0.10432744 0.06154147          NA

```

\$I.item

```
[1] 5 8 3 7 4 1 6 2
```

\$I.step

```
[1] "X5>=1" "X8>=1" "X3>=1" "X7>=1" "X4>=1" "X1>=1" "X6>=1" "X2>=1"
```

\$I.labels

```
[1] "dclenvSUPRANAT" "dclcrmSUPRANAT" "dclagrSUPRANAT" "dcldefSUPRANAT" "dclwifrSUPRANAT" "dclaidSUPRANAT" "dclmigSUPRANAT"
[8] "dclintrSUPRANAT"
```

```
$Hi
```

```
  dclenvSUPRANAT  dclcrmSUPRANAT  dclagrSUPRANAT  dcldefSUPRANAT  dclwlfrSUPRANAT  dclaidSUPRANAT  dclmigSUPRANAT  dclintrSUPRANAT
      0.3275643      0.3945196      0.3310825      0.3204280      0.4165009      0.2919387      0.2896490      0.2848313
```

```
$minvi
```

```
[1] 0.03
```

```
attr(,"class")
```

```
[1] "pmatrix.class"
```

```
> summary(pmatrix.gov_CENTRE)
```

```
$ppp.summary.matrix
```

|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum | sum/#ac |
|-----------------|-------|-----|-----|---------|-------|-----|---------|
| dclenvSUPRANAT  | 0.33  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclcrmSUPRANAT  | 0.39  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclagrSUPRANAT  | 0.33  | 7   | 0   | 0       | 0     | 0   | 0       |
| dcldefSUPRANAT  | 0.32  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclwlfrSUPRANAT | 0.42  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclaidSUPRANAT  | 0.29  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclmigSUPRANAT  | 0.29  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclintrSUPRANAT | 0.28  | 7   | 0   | 0       | 0     | 0   | 0       |

```
$pmm.summary.matrix
```

|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum | sum/#ac |
|-----------------|-------|-----|-----|---------|-------|-----|---------|
| dclenvSUPRANAT  | 0.33  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclcrmSUPRANAT  | 0.39  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclagrSUPRANAT  | 0.33  | 7   | 0   | 0       | 0     | 0   | 0       |
| dcldefSUPRANAT  | 0.32  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclwlfrSUPRANAT | 0.42  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclaidSUPRANAT  | 0.29  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclmigSUPRANAT  | 0.29  | 7   | 0   | 0       | 0     | 0   | 0       |
| dclintrSUPRANAT | 0.28  | 7   | 0   | 0       | 0     | 0   | 0       |

```
>
```

```
> pmatrix.gov_MEDIT <- check.pmatrix(globalsupragovernance_MEDIT)
```

```
> print(pmatrix.gov_MEDIT)
```

```
$Ppp
```

|          | P(X5>=1)  | P(X3>=1)  | P(X8>=1)  | P(X4>=1)  | P(X7>=1)  | P(X1>=1)  | P(X2>=1)  | P(X6>=1)  |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| P(X5>=1) | NA        | 0.1799674 | 0.1959487 | 0.2131515 | 0.2233306 | 0.2469463 | 0.2548860 | 0.2572272 |
| P(X3>=1) | 0.1799674 | NA        | 0.2019544 | 0.2352402 | 0.2419585 | 0.2638436 | 0.2757533 | 0.2778909 |
| P(X8>=1) | 0.1959487 | 0.2019544 | NA        | 0.2325936 | 0.3089373 | 0.2927524 | 0.3151466 | 0.3424267 |
| P(X4>=1) | 0.2131515 | 0.2352402 | 0.2325936 | NA        | 0.2920399 | 0.3076140 | 0.3375407 | 0.3429357 |



```

P(X7>=1) 0.2233306 0.2419585 0.3089373 0.2920399 NA 0.4004479 0.4383143 0.5139454
P(X1>=1) 0.2469463 0.2638436 0.2927524 0.3076140 0.4004479 NA 0.4776059 0.4814739
P(X2>=1) 0.2548860 0.2757533 0.3151466 0.3375407 0.4383143 0.4776059 NA 0.5280945
P(X6>=1) 0.2572272 0.2778909 0.3424267 0.3429357 0.5139454 0.4814739 0.5280945 NA

```

```
$Pmm
```

```

      P(X5>=1) P(X3>=1) P(X8>=1) P(X4>=1) P(X7>=1) P(X1>=1) P(X2>=1) P(X6>=1)
P(X5>=1)      NA 0.5508958 0.4983713 0.5064129 0.3563721 0.3712337 0.3227809 0.2518322
P(X3>=1) 0.5508958      NA 0.4791327 0.5032573 0.3497557 0.3628868 0.3184039 0.2472516
P(X8>=1) 0.4983713 0.4791327      NA 0.4321050 0.3482288 0.3232899 0.2892915 0.2432818
P(X4>=1) 0.5064129 0.5032573 0.4321050      NA 0.3221702 0.3289902 0.3025244 0.2346295
P(X7>=1) 0.3563721 0.3497557 0.3482288 0.3221702      NA 0.2616042 0.2430782 0.2454194
P(X1>=1) 0.3712337 0.3628868 0.3232899 0.3289902 0.2616042      NA 0.2736156 0.2041938
P(X2>=1) 0.3227809 0.3184039 0.2892915 0.3025244 0.2430782 0.2736156      NA 0.1944218
P(X6>=1) 0.2518322 0.2472516 0.2432818 0.2346295 0.2454194 0.2041938 0.1944218      NA

```

```
$I.item
```

```
[1] 5 3 8 4 7 1 2 6
```

```
$I.step
```

```
[1] "X5>=1" "X3>=1" "X8>=1" "X4>=1" "X7>=1" "X1>=1" "X2>=1" "X6>=1"
```

```
$I.labels
```

```
[1] "dclenvSUPRANAT" "dclcrmSUPRANAT" "dclagrSUPRANAT" "dcldefSUPRANAT" "dclwlfrSUPRANAT" "dclaidSUPRANAT" "dclmigSUPRANAT"
[8] "dclintrSUPRANAT"
```

```
$Hi
```

```

dclenvSUPRANAT dclcrmSUPRANAT dclagrSUPRANAT dcldefSUPRANAT dclwlfrSUPRANAT dclaidSUPRANAT dclmigSUPRANAT dclintrSUPRANAT
0.4551311      0.4974370      0.4629288      0.4439946      0.4720306      0.5206873      0.4304673      0.4117928

```

```
$minvi
```

```
[1] 0.03
```

```
attr(,"class")
```

```
[1] "pmatrix.class"
```

```
> summary(pmatrix.gov_MEDIT)
```

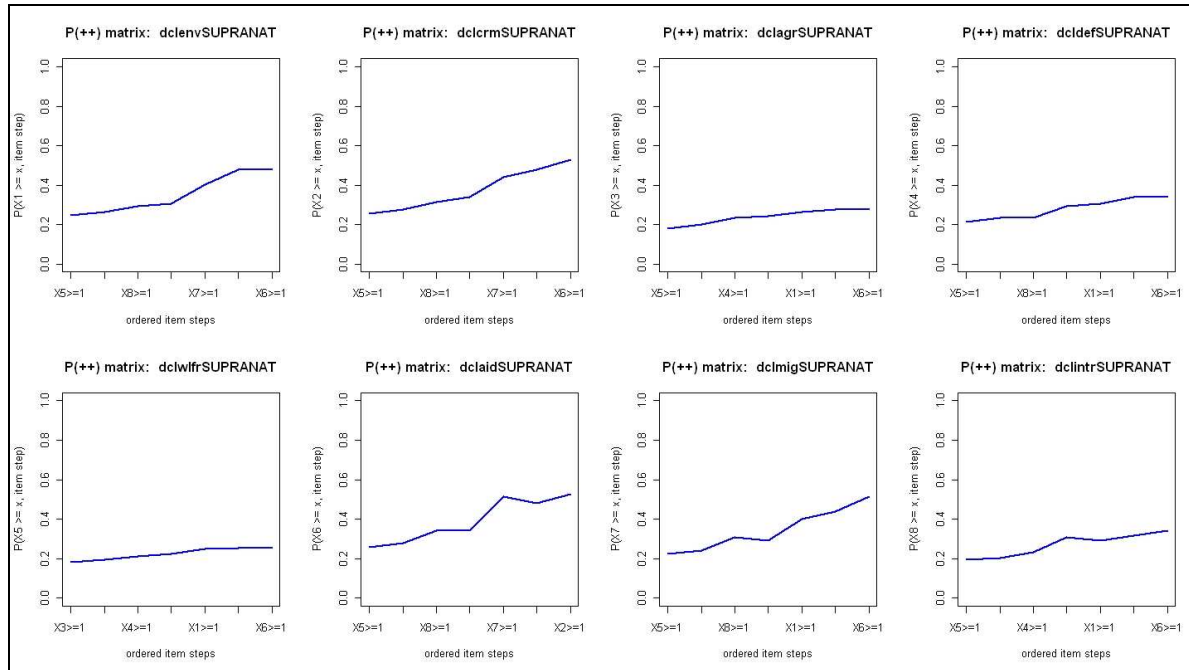
```
$ppp.summary.matrix
```

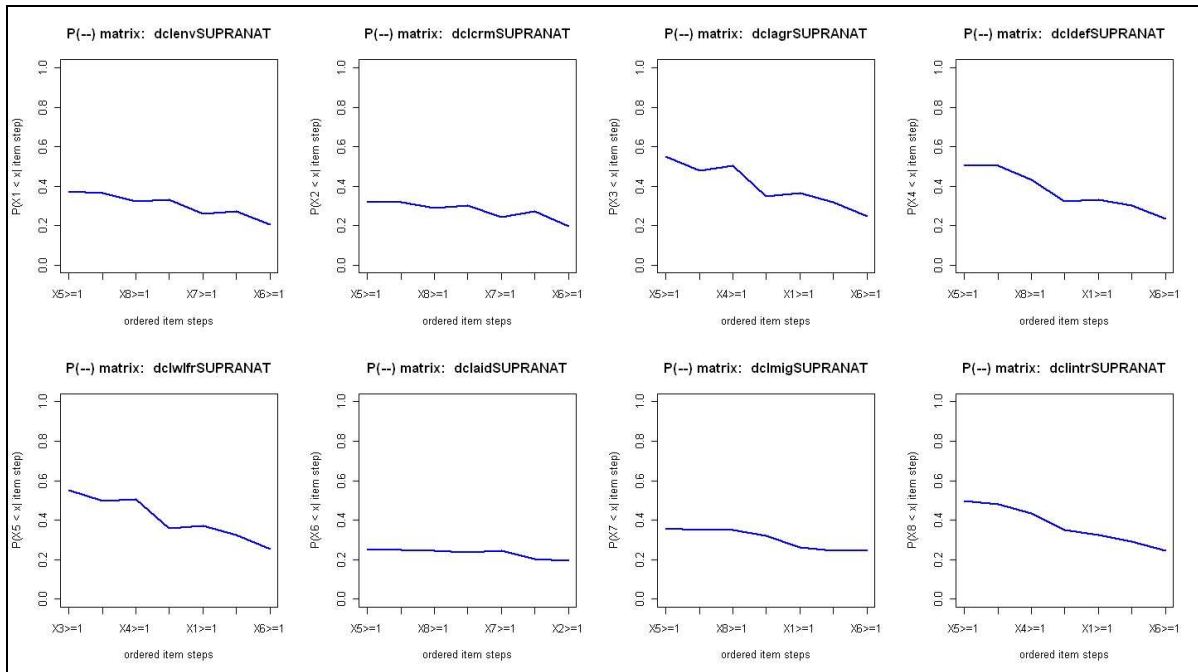
|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum  | sum/#ac |
|-----------------|-------|-----|-----|---------|-------|------|---------|
| dclenvSUPRANAT  | 0.46  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclcrmSUPRANAT  | 0.50  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclagrSUPRANAT  | 0.46  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dcldefSUPRANAT  | 0.44  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclwlfrSUPRANAT | 0.47  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclaidSUPRANAT  | 0.52  | 7   | 1   | 0.004   | 0.03  | 0.03 | 0.004   |
| dclmigSUPRANAT  | 0.43  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclintrSUPRANAT | 0.41  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |

```
$pmm.summary.matrix
```

|                | ItemH | #ac | #vi | #vi/#ac | maxvi | sum  | sum/#ac |
|----------------|-------|-----|-----|---------|-------|------|---------|
| dclenvSUPRANAT | 0.46  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |
| dclcrmSUPRANAT | 0.50  | 7   | 1   | 0.004   | 0.03  | 0.03 | 0.004   |
| dclagrSUPRANAT | 0.46  | 7   | 0   | 0.000   | 0.00  | 0.00 | 0.000   |

|                 |      |   |   |       |      |      |       |
|-----------------|------|---|---|-------|------|------|-------|
| dcldefSUPRANAT  | 0.44 | 7 | 0 | 0.000 | 0.00 | 0.00 | 0.000 |
| dclwlfrSUPRANAT | 0.47 | 7 | 0 | 0.000 | 0.00 | 0.00 | 0.000 |
| dclaidSUPRANAT  | 0.52 | 7 | 0 | 0.000 | 0.00 | 0.00 | 0.000 |
| dclmigSUPRANAT  | 0.43 | 7 | 0 | 0.000 | 0.00 | 0.00 | 0.000 |
| dclintrSUPRANAT | 0.41 | 7 | 0 | 0.000 | 0.00 | 0.00 | 0.000 |





```

> pmatrix.gov_DIVERS <- check.pmatrix(globalsupragovernance_DIVERS)
> print(pmatrix.gov_DIVERS)
$Ppp
      P(X5>=1)  P(X8>=1)  P(X3>=1)  P(X1>=1)  P(X4>=1)  P(X2>=1)  P(X7>=1)  P(X6>=1)
P(X5>=1)      NA 0.07335614 0.0790574 0.09071329 0.0999620 0.1017357 0.08931965 0.1157988
P(X8>=1) 0.07335614      NA 0.1195996 0.13999747 0.1494996 0.1568478 0.16913721 0.2044850
P(X3>=1) 0.07905739 0.11959965      NA 0.19016850 0.1948562 0.2028380 0.18167997 0.2302040
P(X1>=1) 0.09071329 0.13999747 0.1901685      NA 0.2503484 0.3138224 0.25592297 0.3475231
P(X4>=1) 0.09996199 0.14949956 0.1948562 0.2503484      NA 0.2959584 0.26922590 0.3601926
P(X2>=1) 0.10173572 0.15684784 0.2028380 0.31382237 0.2959584      NA 0.29317116 0.3937666
P(X7>=1) 0.08931965 0.16913721 0.1816800 0.25592297 0.2692259 0.2931712      NA 0.4344356
P(X6>=1) 0.11579881 0.20448499 0.2302040 0.34752312 0.3601926 0.3937666 0.43443558      NA

$Pmm
      P(X5>=1)  P(X8>=1)  P(X3>=1)  P(X1>=1)  P(X4>=1)  P(X2>=1)  P(X7>=1)  P(X6>=1)
P(X5>=1)      NA 0.6945395 0.6621057 0.5265425 0.5311035 0.4811859 0.4618016 0.2940580
P(X8>=1) 0.6945395      NA 0.5919169 0.4650957 0.4699100 0.4255670 0.4308881 0.2720132
P(X3>=1) 0.6621057 0.5919169      NA 0.4771316 0.4771316 0.4334220 0.4052958 0.2595971
P(X1>=1) 0.5265425 0.4650957 0.4771316      NA 0.3854048 0.3971874 0.3323198 0.2296972
P(X4>=1) 0.5311035 0.4699100 0.4771316 0.3854048      NA 0.3746358 0.3409350 0.2376790
P(X2>=1) 0.4811859 0.4255670 0.4334220 0.3971874 0.3746358      NA 0.3131889 0.2195616
P(X7>=1) 0.4618016 0.4308881 0.4052958 0.3323198 0.3409350 0.3131889      NA 0.2532624
P(X6>=1) 0.2940580 0.2720132 0.2595971 0.2296972 0.2376790 0.2195616 0.2532624      NA

$I.item
[1] 5 8 3 1 4 2 7 6

```

```

$I.step
[1] "X5>=1" "X8>=1" "X3>=1" "X1>=1" "X4>=1" "X2>=1" "X7>=1" "X6>=1"

$I.labels
[1] "dclenvSUPRANAT" "dclcrmSUPRANAT" "dclagrSUPRANAT" "dcldefSUPRANAT" "dclwlfrSUPRANAT" "dclaidSUPRANAT" "dclmigSUPRANAT"
[8] "dclintrSUPRANAT"

$Hi
  dclenvSUPRANAT dclcrmSUPRANAT dclagrSUPRANAT dcldefSUPRANAT dclwlfrSUPRANAT dclaidSUPRANAT dclmigSUPRANAT dclintrSUPRANAT
1 0.3348175      0.3727955      0.3864448      0.3511788      0.4539604      0.4631727      0.3067529      0.3303526

$minvi
[1] 0.03

attr(,"class")
[1] "pmatrix.class"
> summary(pmatrix.gov_DIVERS)
$ppp.summary.matrix
  ItemH #ac #vi #vi/#ac maxvi sum sum/#ac
dclenvSUPRANAT 0.33 7 1 0.009 0.06 0.06 0.009
dclcrmSUPRANAT 0.37 7 0 0.000 0.00 0.00 0.000
dclagrSUPRANAT 0.39 7 0 0.000 0.00 0.00 0.000
dcldefSUPRANAT 0.35 7 0 0.000 0.00 0.00 0.000
dclwlfrSUPRANAT 0.45 7 0 0.000 0.00 0.00 0.000
dclaidSUPRANAT 0.46 7 0 0.000 0.00 0.00 0.000
dclmigSUPRANAT 0.31 7 0 0.000 0.00 0.00 0.000
dclintrSUPRANAT 0.33 7 0 0.000 0.00 0.00 0.000

$pmm.summary.matrix
  ItemH #ac #vi #vi/#ac maxvi sum sum/#ac
dclenvSUPRANAT 0.33 7 0 0.000 0.00 0.00 0.000
dclcrmSUPRANAT 0.37 7 0 0.000 0.00 0.00 0.000
dclagrSUPRANAT 0.39 7 0 0.000 0.00 0.00 0.000
dcldefSUPRANAT 0.35 7 0 0.000 0.00 0.00 0.000
dclwlfrSUPRANAT 0.45 7 0 0.000 0.00 0.00 0.000
dclaidSUPRANAT 0.46 7 1 0.004 0.03 0.03 0.004
dclmigSUPRANAT 0.31 7 0 0.000 0.00 0.00 0.000
dclintrSUPRANAT 0.33 7 0 0.000 0.00 0.00 0.000

$pmm.summary.matrix
  ItemH #ac #vi #vi/#ac maxvi sum sum/#ac
dclenvSUPRANAT 0.33 7 0 0.000 0.00 0.00 0.000
dclcrmSUPRANAT 0.37 7 0 0.000 0.00 0.00 0.000
dclagrSUPRANAT 0.39 7 0 0.000 0.00 0.00 0.000
dcldefSUPRANAT 0.35 7 0 0.000 0.00 0.00 0.000
dclwlfrSUPRANAT 0.45 7 0 0.000 0.00 0.00 0.000
dclaidSUPRANAT 0.46 7 1 0.004 0.03 0.03 0.004
dclmigSUPRANAT 0.31 7 0 0.000 0.00 0.00 0.000
dclintrSUPRANAT 0.33 7 0 0.000 0.00 0.00 0.000

> pmatrix.gov_SCAND <- check.pmatrix(globalsupragovernance_SCAND)

```

```

> print(pmatrix.gov_SCAND)
$Ppp
      P(X5>=1) P(X3>=1) P(X7>=1) P(X8>=1) P(X4>=1) P(X6>=1) P(X1>=1) P(X2>=1)
P(X5>=1)      NA 0.1025063 0.1083411 0.1023737 0.1214693 0.1376475 0.1405649 0.1572736
P(X3>=1) 0.1025063      NA 0.1796844 0.1761040 0.2127039 0.2172126 0.2699907 0.2909428
P(X7>=1) 0.1083411 0.1796844      NA 0.1908235 0.2299430 0.2979711 0.2847103 0.3168015
P(X8>=1) 0.1023737 0.1761040 0.1908235      NA 0.2192017 0.2508951 0.2726429 0.3218406
P(X4>=1) 0.1214693 0.2127039 0.2299430 0.2192017      NA 0.2998276 0.3335101 0.3714361
P(X6>=1) 0.1376475 0.2172126 0.2979711 0.2508951 0.2998276      NA 0.3970296 0.4470229
P(X1>=1) 0.1405649 0.2699907 0.2847103 0.2726429 0.3335101 0.3970296      NA 0.5545684
P(X2>=1) 0.1572736 0.2909428 0.3168015 0.3218406 0.3714361 0.4470229 0.5545684      NA

$Pmm
      P(X5>=1) P(X3>=1) P(X7>=1) P(X8>=1) P(X4>=1) P(X6>=1) P(X1>=1) P(X2>=1)
P(X5>=1)      NA 0.5870574 0.5500597 0.5390532 0.4901207 0.3996817 0.3137515 0.2255669
P(X3>=1) 0.5870574      NA 0.4677099 0.4590903 0.4276621 0.3255536 0.2894842 0.2055430
P(X7>=1) 0.5500597 0.4677099      NA 0.4309773 0.4020687 0.3634796 0.2613712 0.1885692
P(X8>=1) 0.5390532 0.4590903 0.4309773      NA 0.3862883 0.3113645 0.2442647 0.1885692
P(X4>=1) 0.4901207 0.4276621 0.4020687 0.3862883      NA 0.2922689 0.2371038 0.1701366
P(X6>=1) 0.3996817 0.3255536 0.3634796 0.3113645 0.2922689      NA 0.1940061 0.1391062
P(X1>=1) 0.3137515 0.2894842 0.2613712 0.2442647 0.2371038 0.1940061      NA 0.1578040
P(X2>=1) 0.2255669 0.2055430 0.1885692 0.1885692 0.1701366 0.1391062 0.1578040      NA

$I.item
[1] 5 3 7 8 4 6 1 2

$I.step
[1] "X5>=1" "X3>=1" "X7>=1" "X8>=1" "X4>=1" "X6>=1" "X1>=1" "X2>=1"

$I.labels
[1] "dclenvSUPRANAT" "dclcrmSUPRANAT" "dclagrSUPRANAT" "dcldefSUPRANAT" "dclwlfrSUPRANAT" "dclaidSUPRANAT" "dclmigSUPRANAT"
[8] "dclintrSUPRANAT"

$Hi
  dclenvSUPRANAT dclcrmSUPRANAT dclagrSUPRANAT dcldefSUPRANAT dclwlfrSUPRANAT dclaidSUPRANAT dclmigSUPRANAT dclintrSUPRANAT
1 0.3027709      0.3574642      0.3086466      0.2845010      0.3747537      0.2799687      0.3131012      0.2349268

$minvi
[1] 0.03

attr(,"class")
[1] "pmatrix.class"
> summary(pmatrix.gov_SCAND)
$ppp.summary.matrix
      ItemH #ac #vi #vi/#ac maxvi sum sum/#ac
dclenvSUPRANAT 0.30 7 0 0.000 0.00 0.00 0.000
dclcrmSUPRANAT 0.36 7 0 0.000 0.00 0.00 0.000
dclagrSUPRANAT 0.31 7 0 0.000 0.00 0.00 0.000
dcldefSUPRANAT 0.28 7 0 0.000 0.00 0.00 0.000
dclwlfrSUPRANAT 0.37 7 0 0.000 0.00 0.00 0.000
dclaidSUPRANAT 0.28 7 1 0.007 0.05 0.05 0.007
dclmigSUPRANAT 0.31 7 0 0.000 0.00 0.00 0.000
dclintrSUPRANAT 0.23 7 0 0.000 0.00 0.00 0.000

```

```
$pmm.summary.matrix
      ItemH #ac #vi #vi/#ac maxvi  sum sum/#ac
dclenvSUPRANAT  0.30  7  0  0.000  0.00 0.00  0.000
dclcrmSUPRANAT  0.36  7  0  0.000  0.00 0.00  0.000
dclagrSUPRANAT  0.31  7  0  0.000  0.00 0.00  0.000
dcldefSUPRANAT  0.28  7  0  0.000  0.00 0.00  0.000
dclwlfrSUPRANAT 0.37  7  0  0.000  0.00 0.00  0.000
dclaidSUPRANAT  0.28  7  1  0.006  0.04 0.04  0.006
dclmigSUPRANAT  0.31  7  0  0.000  0.00 0.00  0.000
dclintrSUPRANAT 0.23  7  0  0.000  0.00 0.00  0.000
```

### Appendix 3 for nonintersectin requirement (using restscore)

```
summary(restscore.gov_MEDIT)
      ItemH #ac #vi #vi/#ac maxvi  sum sum/#ac zmax #zsig
dclenvSUPRANAT  0.46 35  1  0.03  0.07 0.07  0 3.48  1
dclcrmSUPRANAT  0.50 35  0  0.00  0.00 0.00  0 0.00  0
dclagrSUPRANAT  0.46 36  0  0.00  0.00 0.00  0 0.00  0
dcldefSUPRANAT  0.44 37  0  0.00  0.00 0.00  0 0.00  0
dclwlfrSUPRANAT 0.47 36  0  0.00  0.00 0.00  0 0.00  0
dclaidSUPRANAT  0.52 39  0  0.00  0.00 0.00  0 0.00  0
dclmigSUPRANAT  0.43 37  1  0.03  0.07 0.07  0 3.48  1
dclintrSUPRANAT 0.41 37  0  0.00  0.00 0.00  0 0.00  0
```

```
> restscore.gov_SCAND <- check.restscore(globalsupragovernance_SCAND)
```

```
> summary(restscore.gov_SCAND)
      ItemH #ac #vi #vi/#ac maxvi  sum sum/#ac zmax #zsig
dclenvSUPRANAT  0.30 30  0  0.00  0.00 0.00  0.00 0.00  0
dclcrmSUPRANAT  0.36 35  0  0.00  0.00 0.00  0.00 0.00  0
dclagrSUPRANAT  0.31 29  1  0.03  0.03 0.03  0.00 2.00  1
dcldefSUPRANAT  0.28 29  0  0.00  0.00 0.00  0.00 0.00  0
dclwlfrSUPRANAT 0.37 29  0  0.00  0.00 0.00  0.00 0.00  0
dclaidSUPRANAT  0.28 30  0  0.00  0.00 0.00  0.00 0.00  0
dclmigSUPRANAT  0.31 29  2  0.07  0.10 0.15  0.01 5.77  2
dclintrSUPRANAT 0.23 29  3  0.10  0.10 0.19  0.01 5.77  3
```

```
> restscore.gov_CENTRE <- check.restscore(globalsupragovernance_CENTRE)
> summary(restscore.gov_CENTRE)
```

|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum  | sum/#ac | zmax | #zsig |
|-----------------|-------|-----|-----|---------|-------|------|---------|------|-------|
| dclenvSUPRANAT  | 0.33  | 30  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclcrmSUPRANAT  | 0.39  | 33  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclagrSUPRANAT  | 0.33  | 28  | 1   | 0.04    | 0.05  | 0.05 | 0       | 3.54 | 1     |
| dcldefSUPRANAT  | 0.32  | 30  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclwlfrSUPRANAT | 0.42  | 28  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclaidSUPRANAT  | 0.29  | 33  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclmigSUPRANAT  | 0.29  | 30  | 0   | 0.00    | 0.00  | 0.00 | 0       | 0.00 | 0     |
| dclintrSUPRANAT | 0.28  | 30  | 1   | 0.03    | 0.05  | 0.05 | 0       | 3.54 | 1     |

```
> restscore.gov_DIVERS <- check.restscore(globalsupragovernance_DIVERS)
> summary(restscore.gov_DIVERS)
```

|                 | ItemH | #ac | #vi | #vi/#ac | maxvi | sum  | sum/#ac | zmax | #zsig |
|-----------------|-------|-----|-----|---------|-------|------|---------|------|-------|
| dclenvSUPRANAT  | 0.33  | 34  | 0   | 0.00    | 0.00  | 0.00 | 0.00    | 0.00 | 0     |
| dclcrmSUPRANAT  | 0.37  | 32  | 2   | 0.06    | 0.08  | 0.12 | 0.00    | 5.39 | 2     |
| dclagrSUPRANAT  | 0.39  | 34  | 1   | 0.03    | 0.04  | 0.04 | 0.00    | 2.45 | 1     |
| dcldefSUPRANAT  | 0.35  | 33  | 1   | 0.03    | 0.04  | 0.04 | 0.00    | 2.09 | 1     |
| dclwlfrSUPRANAT | 0.45  | 35  | 0   | 0.00    | 0.00  | 0.00 | 0.00    | 0.00 | 0     |
| dclaidSUPRANAT  | 0.46  | 30  | 0   | 0.00    | 0.00  | 0.00 | 0.00    | 0.00 | 0     |
| dclmigSUPRANAT  | 0.31  | 33  | 3   | 0.09    | 0.08  | 0.17 | 0.01    | 5.39 | 3     |
| dclintrSUPRANAT | 0.33  | 35  | 1   | 0.03    | 0.04  | 0.04 | 0.00    | 2.45 | 1     |

### Appendix 3

#### Years of full-time education

**ASK ALL**

**F7** How many years of full-time education have you completed?  
**[To be reported in full-time equivalents, including compulsory/mandatory years of schooling]**

**WRITE IN:**    
 (Don't know) 88

#### AGE

HOUSEHOLD MEMBER WHERE INDICATED

**F3** And in what year were you/ was he/she born? (Don't know = 8888)

| Person                                     | 01<br><i>(respondent)</i> | 02                   | 03                   | 04                   | 05                   | 06                   |
|--|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <i>OPTIONAL:<br/>First Name or initial</i> |                           |                      |                      |                      |                      |                      |
| <i>F2 Sex</i>                              |                           |                      |                      |                      |                      |                      |
| <i>Male</i>                                | 1                         | 1                    | 1                    | 1                    | 1                    | 1                    |
| <i>Female</i>                              | 2                         | 2                    | 2                    | 2                    | 2                    | 2                    |
| <b>F3 Year born</b>                        | <input type="text"/>      | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|  |                           |                      |                      |                      |                      |                      |

#### Years living in the area

**E28** How long have you lived in this area?

**Number of years:**     
 (ENTER TO NEAREST YEAR)  
 (Don't know) 888



## Trust in the European Parliament

**CARD 11:** Using this card, please tell me on a score of 0-10 how much you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust. Firstly...**READ OUT**

|  | <i>No trust At all</i> |           |           |           |           |           |           |           |           |           | <i>Complete trust (Don't know)</i> |           |
|--|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------------------|-----------|
|  | 00                     | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                                 | 88        |
| <b>B7</b> ... [country]'s parliament?    | 00                     | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                                 | 88        |
| <b>B8</b> ... the legal system?          | 00                     | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                                 | 88        |
| <b>B9</b> ... the police?                | 00                     | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                                 | 88        |
| <b>B10</b> ... politicians?              | 00                     | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                                 | 88        |
| <b>B11</b> ... the European Parliament ? | <b>00</b>              | <b>01</b> | <b>02</b> | <b>03</b> | <b>04</b> | <b>05</b> | <b>06</b> | <b>07</b> | <b>08</b> | <b>09</b> | <b>10</b>                          | <b>88</b> |

## Important in life: politics

**CARD 44** Looking at this card, how important is each of these things in your life. Firstly.... **READ OUT**

|                                  | Extremely unimportant |           |           |           |           |           |           |           |           |           | Extremely (Don't Important Know) |           |
|----------------------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------|-----------|
| E13... family?                   | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |
| E14 ... friends?                 | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |
| E15 ... leisure time?            | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |
| E16 ... <b>politics?</b>         | <b>00</b>             | <b>01</b> | <b>02</b> | <b>03</b> | <b>04</b> | <b>05</b> | <b>06</b> | <b>07</b> | <b>08</b> | <b>09</b> | <b>10</b>                        | <b>88</b> |
| E17 ... work?                    | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |
| E18 ... religion?                | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |
| E19 ... voluntary organisations? | 00                    | 01        | 02        | 03        | 04        | 05        | 06        | 07        | 08        | 09        | 10                               | 88        |

## Interest in politics

Now we want to ask a few questions about politics and government

**B1** How interested would you say you are in politics – are you... **READ OUT...**

- very interested, 1
- quite interested, 2
- hardly interested, 3
- or, not at all interested? 4
- (Don't know) 8

## Role in active group involved with political issues

**B3 CARD 7** Do you think that you could take an active role<sup>1</sup> in a group involved with political issues?  
Please use this card.

|                     |   |
|---------------------|---|
| Definitely not      | 1 |
| Probably not        | 2 |
| Not sure either way | 3 |
| Probably            | 4 |
| Definitely          | 5 |
| (Don't know)        | 8 |

---

<sup>1</sup> "Take an active role": in the sense of participate in discussion/debates and decisions.

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