



# Assessing the Democratic Deficit of Regulatory Authorities

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# Goals of this paper

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## Validating

- Validating measures for the **formal** and **de-facto** mechanisms of regulatory bodies: **Transparency, Participation, Accountability and Inclusiveness**

## Exploring

- Exploring how these mechanisms differs in different countries and sectors and between the formal and in practice dimensions

## Exploring

- Exploring the relationship between political independence and managerial autonomy and the 8 measures

# Background

Previous scholarship has been concerned about regulatory bodies' weak democratic deficits that results from their independence **"Unelected Power"** **"Democratic Deficit"**(Majone 1999; Vibert 2007).

At the same time, scholars identified mechanisms that regulatory bodies have that reflect democratic qualities: **transparency, accountability, participation, inclusiveness** (Jordana et al. 2018; Maman 2022).

**The gap:** No comparative data to assess these qualities, compare them, and learn about democratic regulatory governance.



# New database

A new database on the democratic qualities of 49 regulatory bodies regulating the financial sector, data protection and food safety in Norway, Poland, Netherland, Belgium, Denmark, Germany, Israel, Switzerland, Spain and in the EU level, Some regional level bodies as well.

Initial indicators and codebook (Maman, Jordana, Perez-Duran, Trivino-Salazar & Gomez-Diaz 2021) – from 5 to 24 items per measure

Various data sources:

- **Formal dataset:** Desk analysis of legal framework of regulatory bodies – both sector-specific and general
- **In practice dataset:** organizations' official websites + interviews/questionnaires to organizations' head of communications

International Coding team

Coordinator:



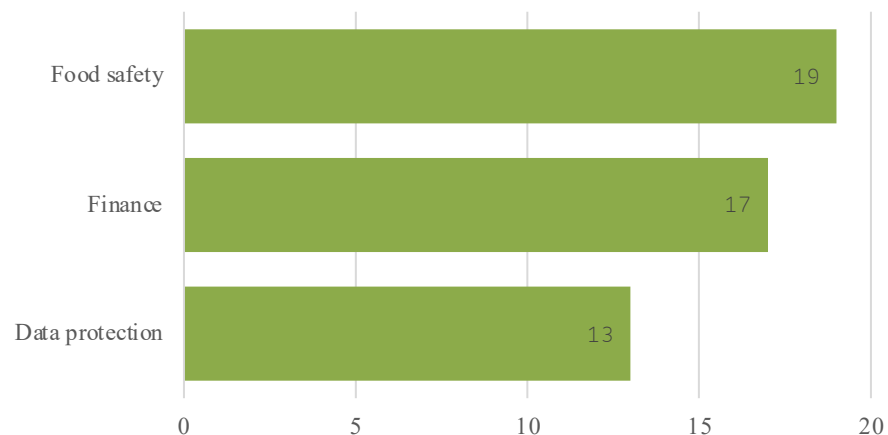
Consortium:



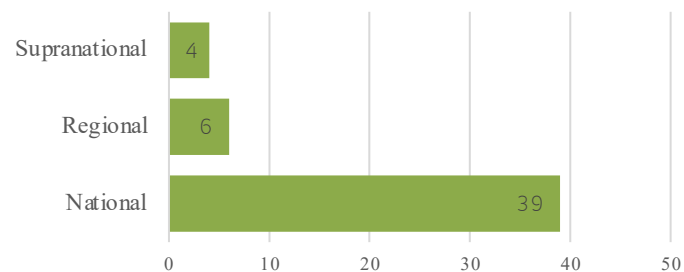
# Distribution of the number of bodies by country, sector, organization classification and governance level

N=49

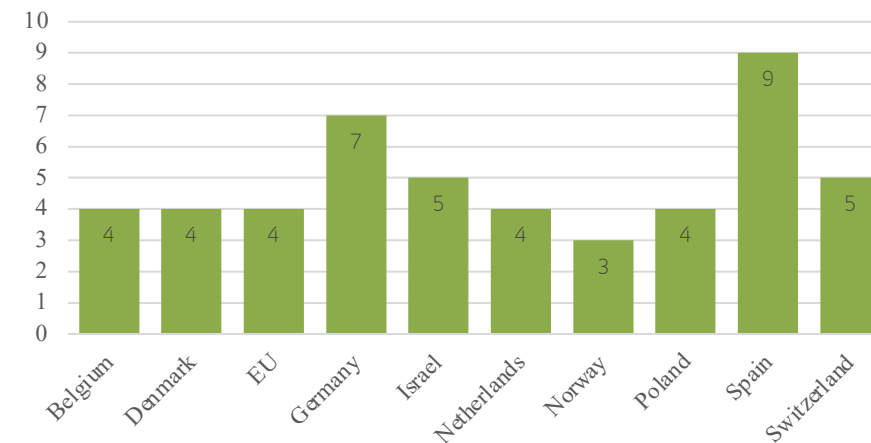
Number of organizations in each sector



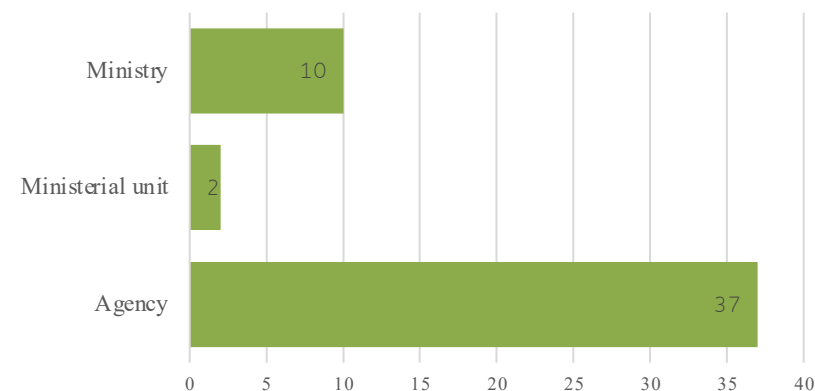
Number of organizations according to their governance level



Number of organizations in each country



Number of organizations according to their classification





# Aim 1# Validating the measures

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# Bayesian Factor Analysis

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The Bayesian inference process specifies prior distributions for unknown parameters and updates these to become posterior distributions using observed data contained in the standard likelihood function. (Quinn, 2004; Gill and Witko 2013)

$$\text{Prior distribution} * \text{likelihood function} = \text{posterior distribution}$$

The posterior distribution represents the most informed set of knowledge about the phenomenon of interest because it is the most updated version available.

*Highest posterior density = HPD interval provides a  $(1 - \alpha)$  % **probability** that the true effect is in the interval.*

**Why use it:** Suitable for smaller sample sizes, Corrects mis-ordering of response levels, Informs of items that negatively load for the latent variable, suitable for categorical items and mixed measures (categorical and interval).

**Uses:** Hanretty & Koop (2012) - Independence of Regulatory Agencies, Iborra et al. (2018) - Complexity of European regulatory networks, Jordana et al. (2018) - Independence and accountability of Regulatory Agencies

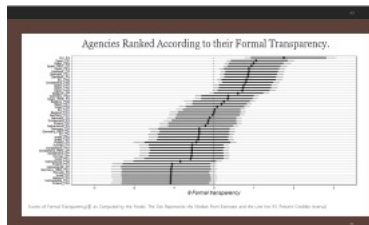
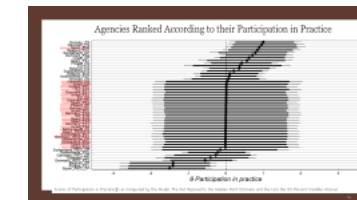
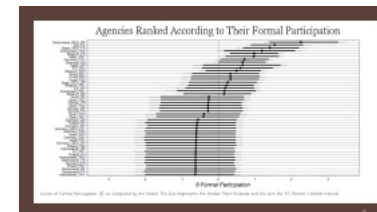
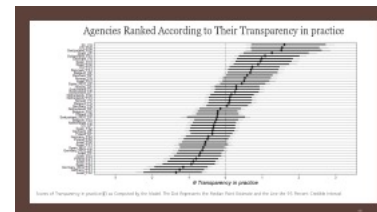
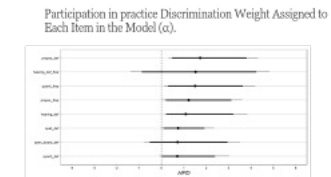
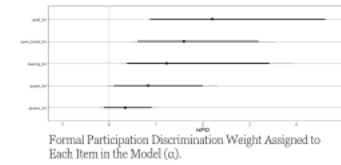
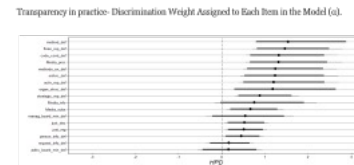
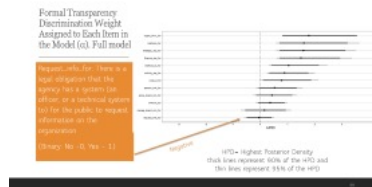
# Measurement validation - I

Formal  
Transparency

Transparency  
in practice

Formal  
Participation

Participation  
in practice





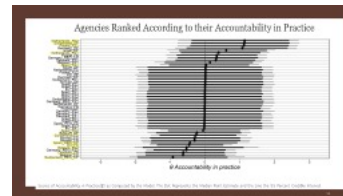
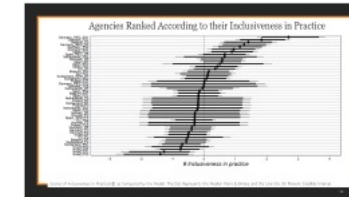
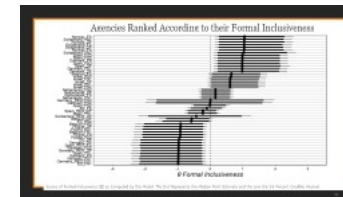
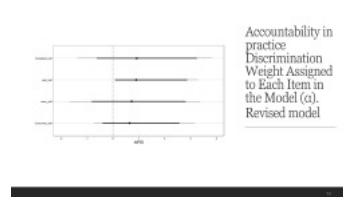
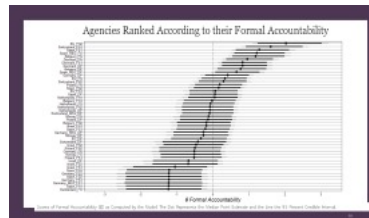
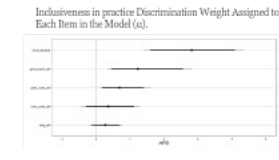
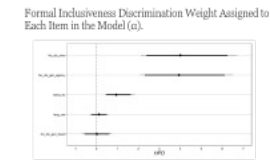
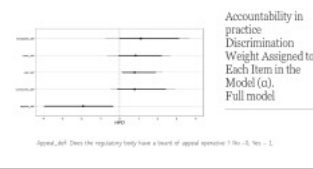
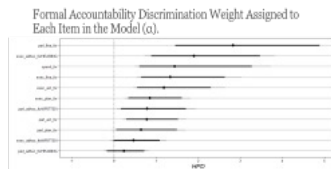
# Measurement validation - II

Formal  
Accountability

Accountability  
in practice

Formal  
Inclusiveness

Inclusiveness  
in practice



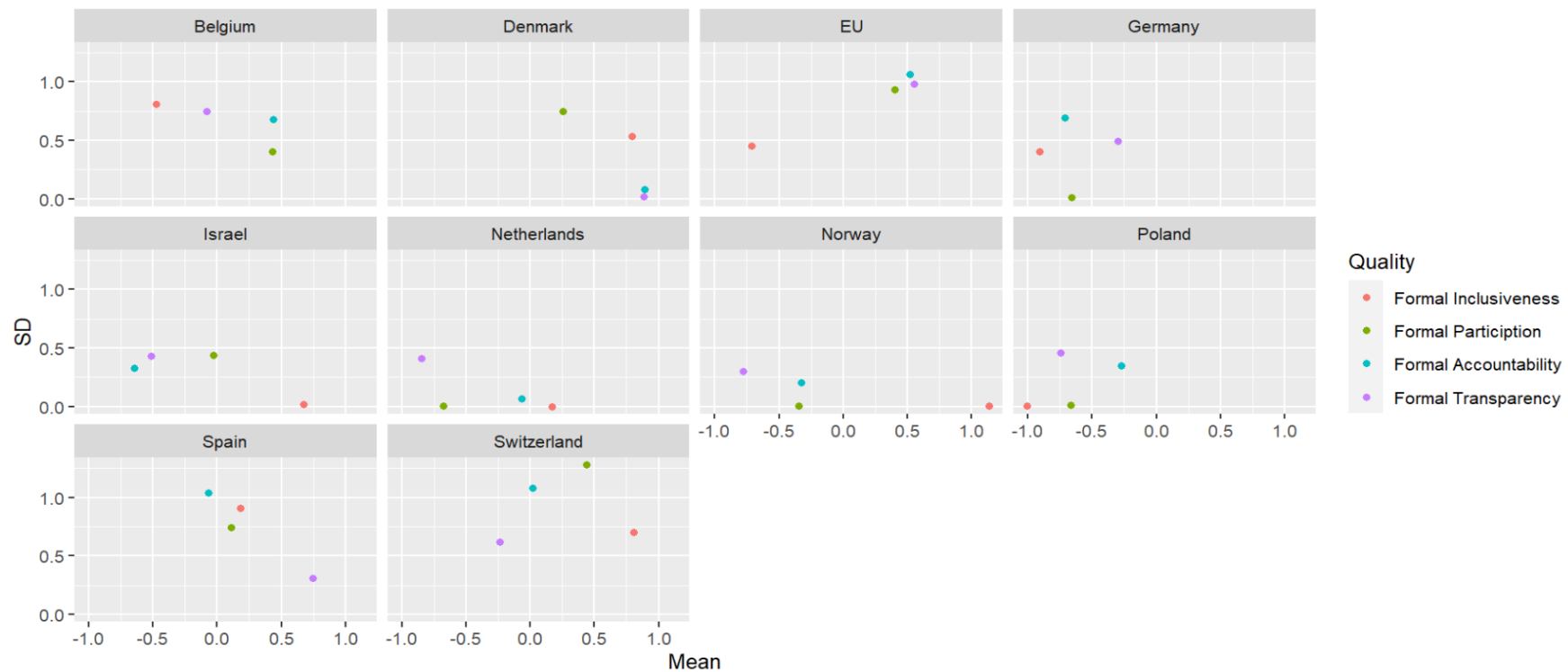


## Aim 2# Exploring differences between formal and de-facto dimensions

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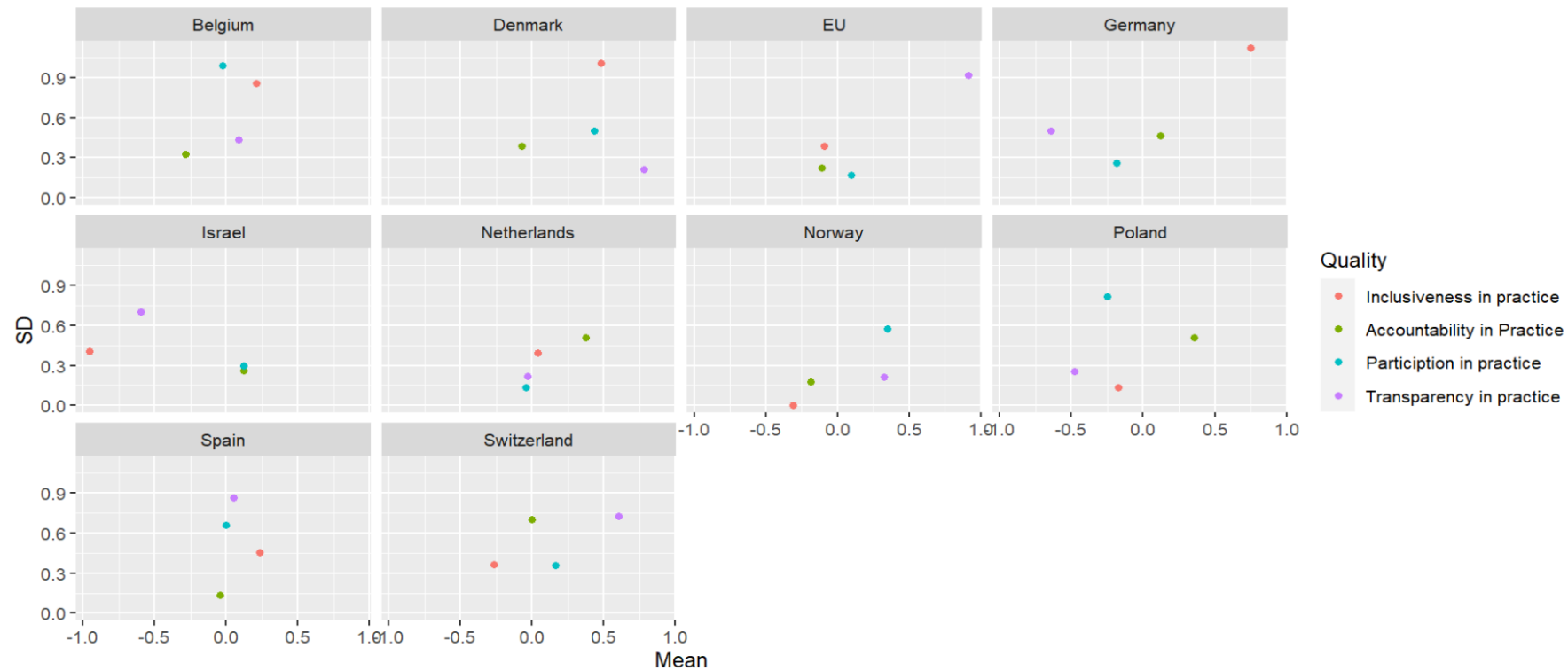
# Association between quality means and quality standard deviations of the aggregated scores, by country, formal measures

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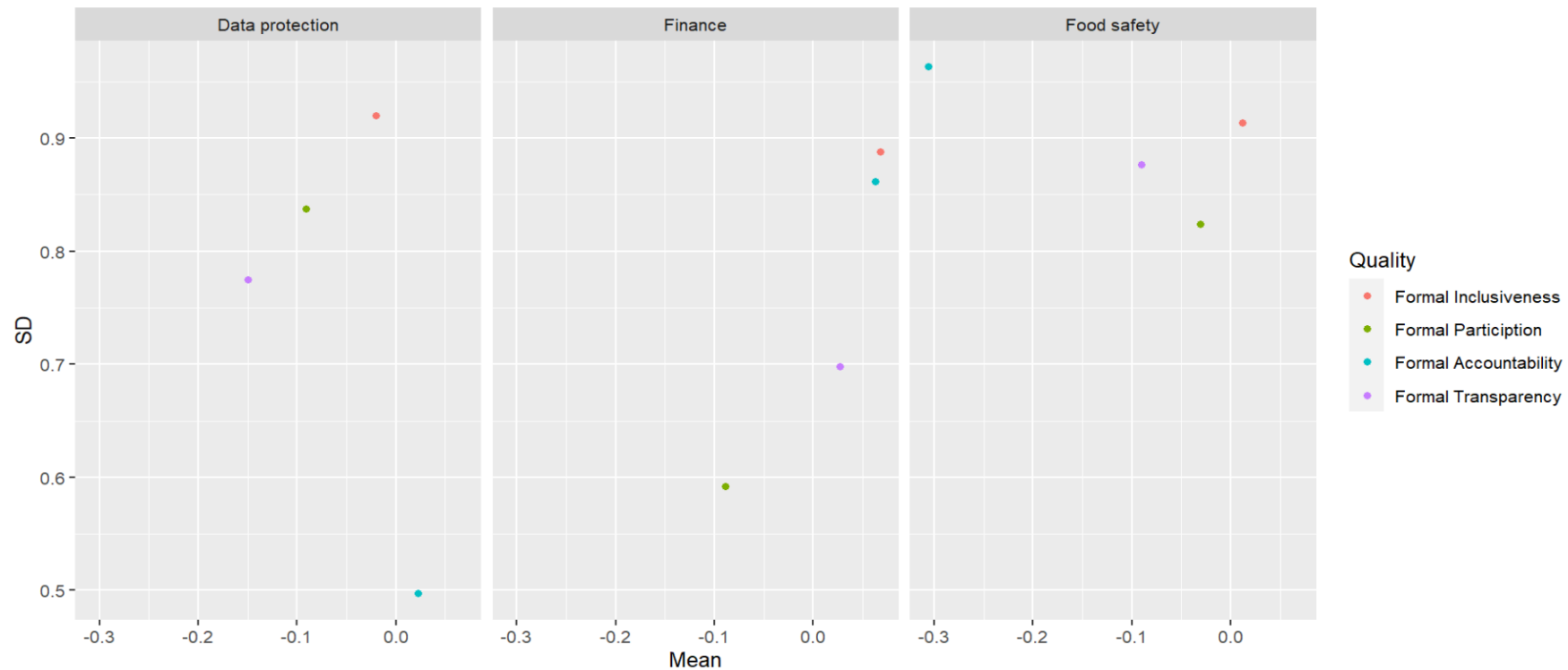
# Association between quality means and quality standard deviations of the aggregated scores, by country, de-facto measures

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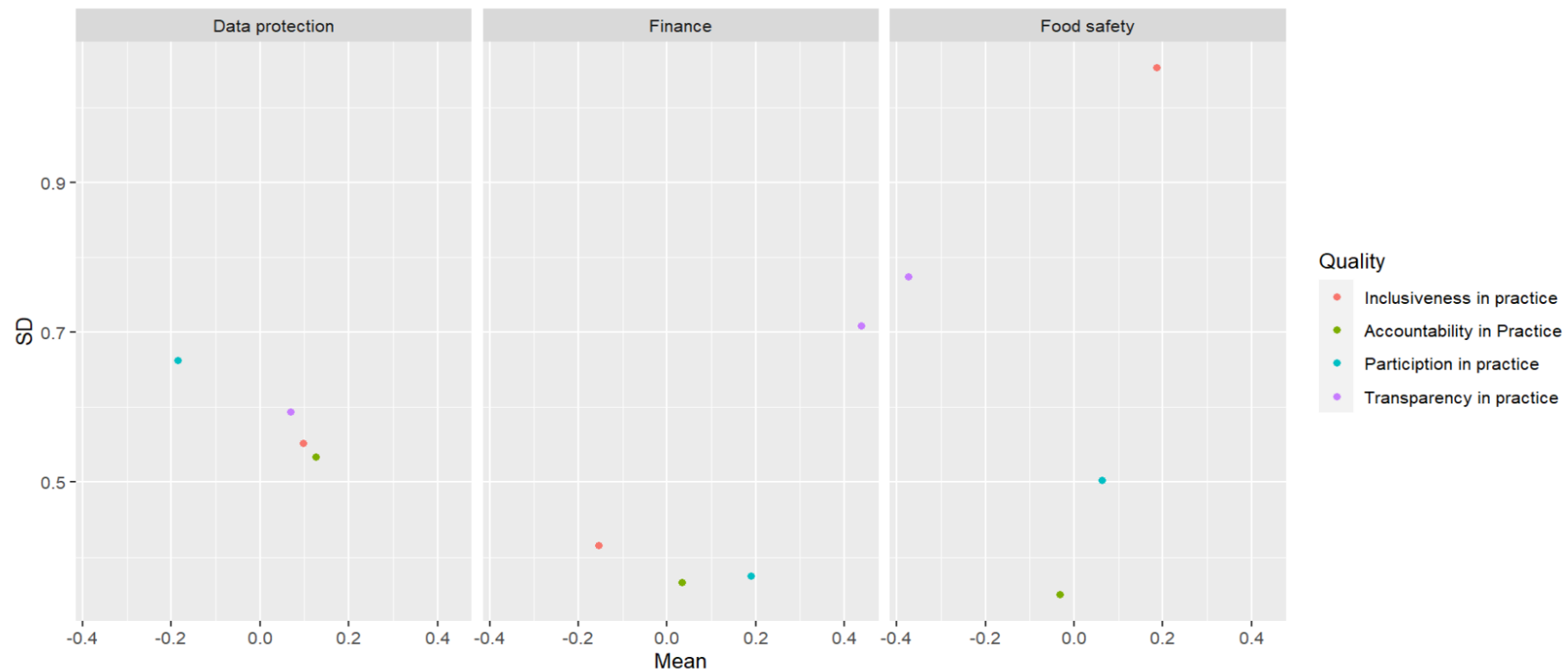
# Association between quality means and quality standard deviations of the aggregated scores, by sector, formal measures

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# Association between quality means and quality standard deviations of the aggregated scores, by sector, de-facto measures

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# Correlation between formal and de-facto measures

	Inclusiveness de-facto	Accountability de-facto	Participation de-facto	Transparency de-facto	Formal Inclusiveness	Forma accountability	Formal participation	Formal transparency
Inclusiveness de-facto	1							
Accountability de-facto	-0.0276159569138224	1						
Participation de-facto	-0.114755134193747	-0.0723006463613751	1					
Transparency de-facto	-0.0801448544530486	-0.2290132208411	0.0902621132677023	1				
Formal Inclusiveness	-0.173527889268946	-0.121712859418234	0.242217550315211	0.306483946995074	1			
Forma accountability	-0.112061441318017	-0.142100446255094	-0.024260096044596	0.510451755697446	-0.0118475448710243	1		
Formal participation	-0.0500517452048777	-0.523555241165125	0.0737000116512419	0.331304606351662	0.0563623706286972	0.516575145645601	1	
Formal transparency	0.0545643076324322	-0.334128173982384	-0.0466539252904139	0.452484971845637	0.118916457856985	0.227300526632671	0.353650957540966	1

# Aim #2: Findings (might change...)

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## Country differences:

- Israel, Norway, Poland, Netherland and Germany – have lower formal democratic qualities
- EU and Denmark have the highest formal democratic qualities.
- Israel scores the lowest in terms of inclusiveness, and Germany the highest.
- The EU scores the highest in terms of transparency de-facto, though Denmark and Switzerland both are very close.
- Poland is the least transparent country in terms of transparency de facto.

## Sectorial differences:

- Food safety sector has lower formal accountability and transparency in practice levels comparing to the data protection and financial sector.
- The highest level of transparency in practice is found in the financial sector which also is high on formal transparency, participation and accountability.

## Formal/Practice decoupling

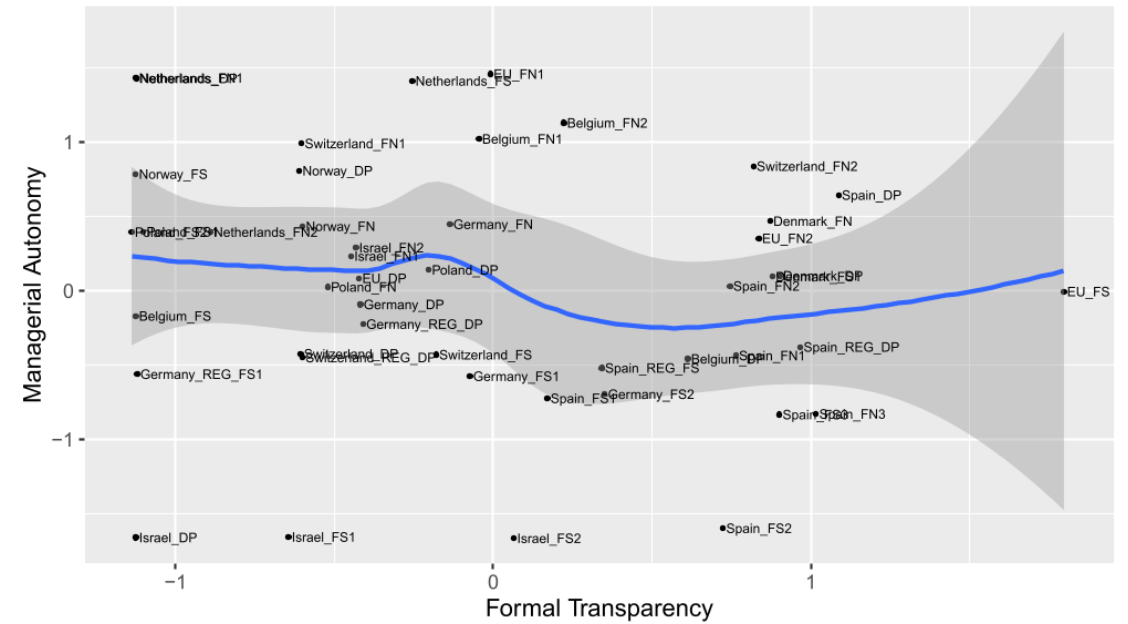
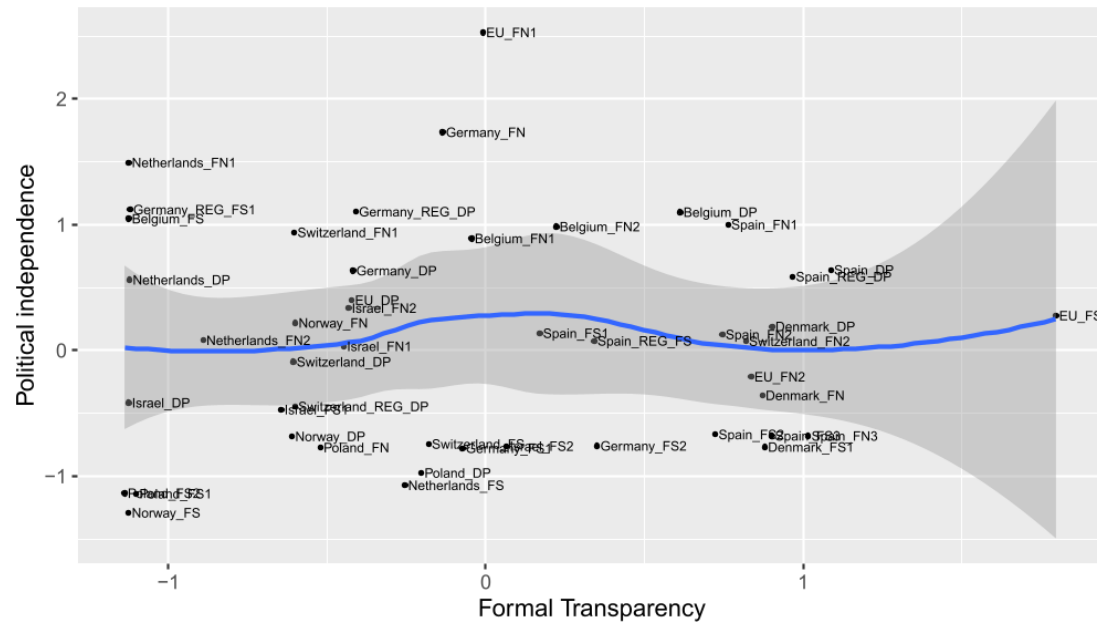
- Positive correlation: transparency and participation
- Negative correlation: accountability and inclusiveness
- We also look at the decoupling dynamics in the paper and see that there are 4 different behaviors (positive trade-off, negative trade-off, positive decoupling and negative de-coupling)



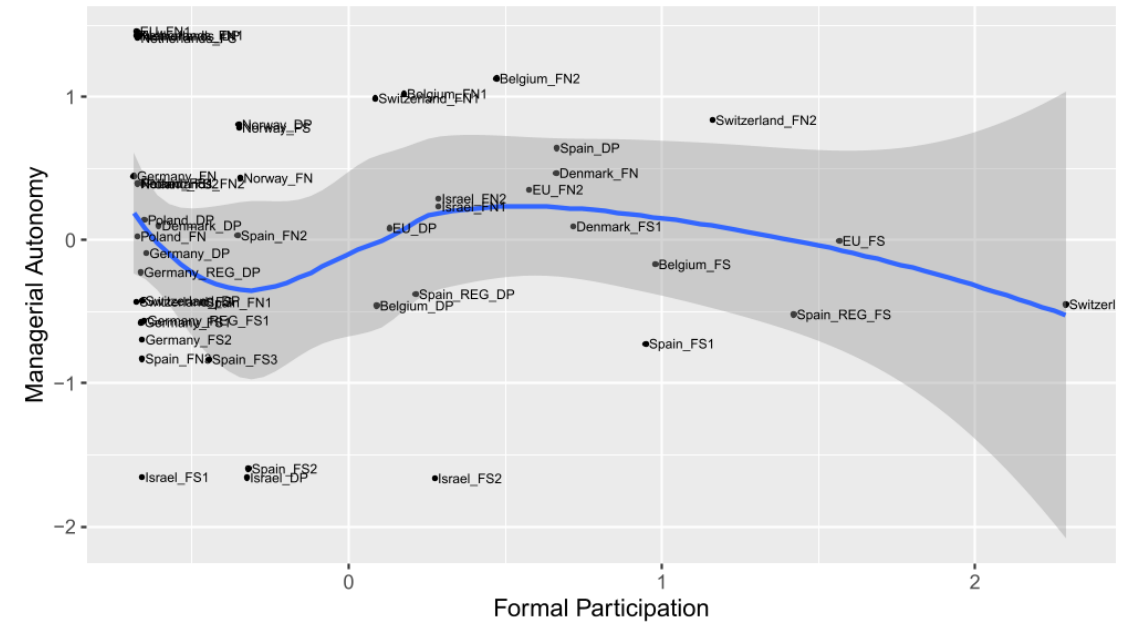
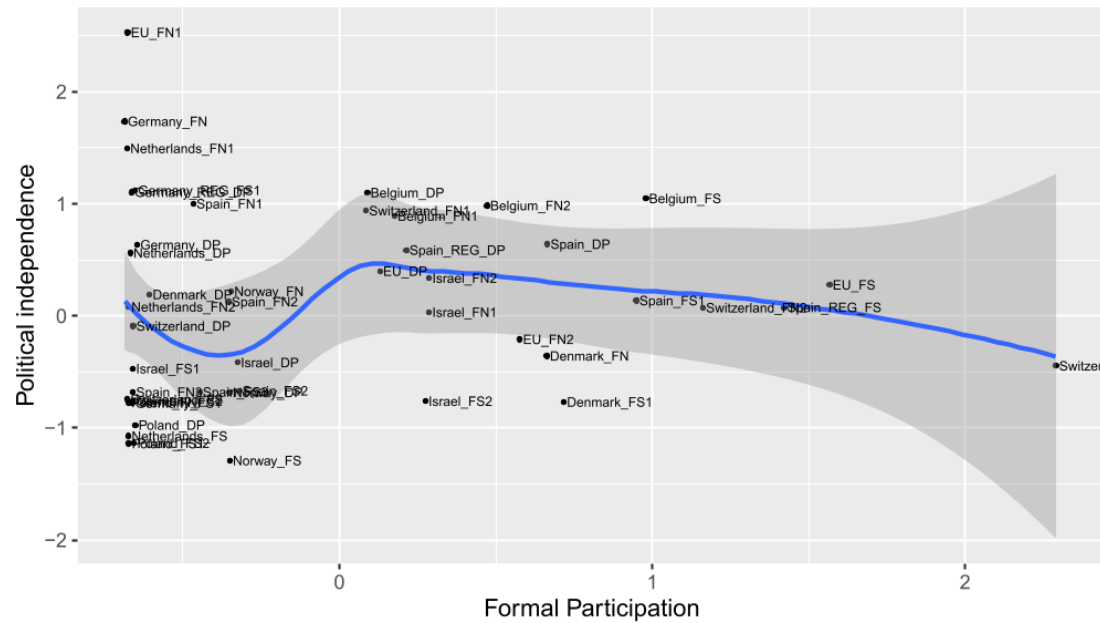


Aim 3# The relationship  
between political  
independence and managerial  
autonomy and our measures

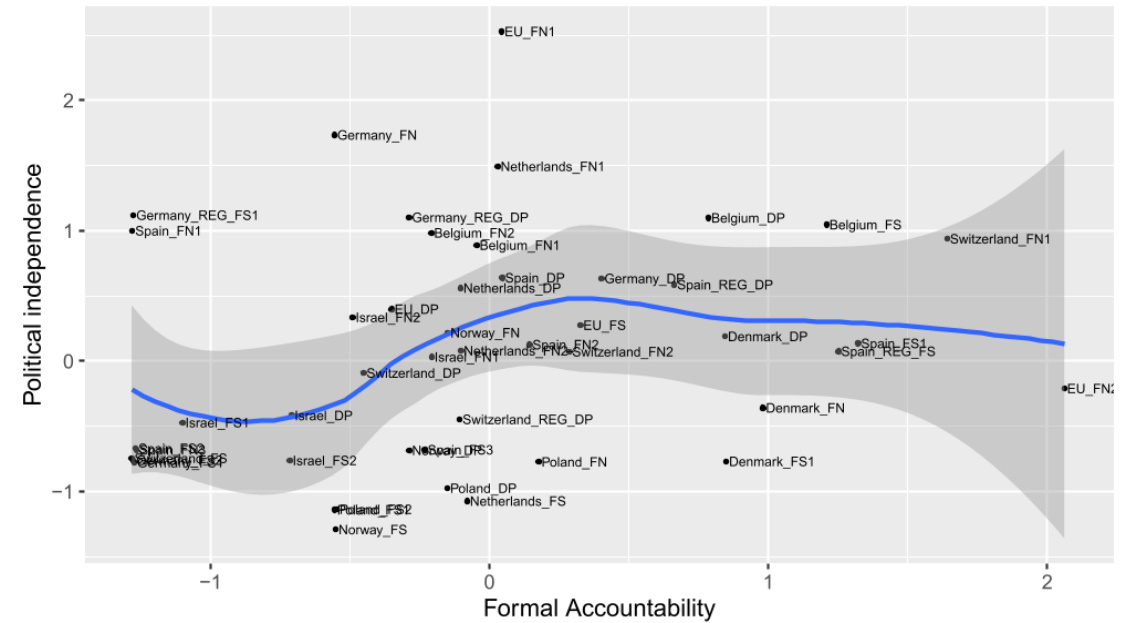
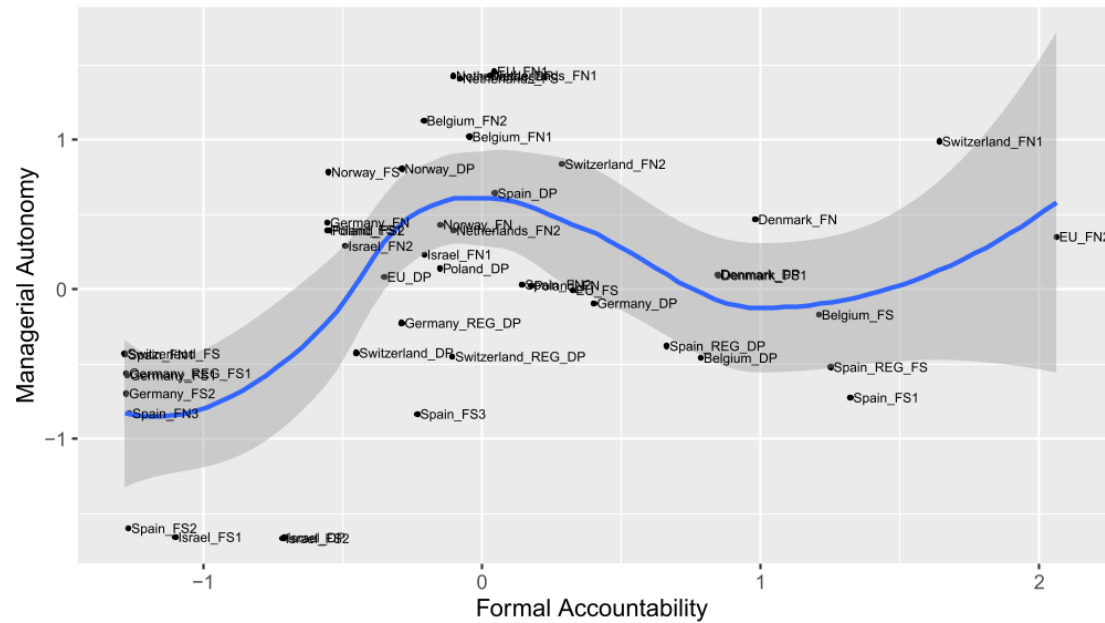
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# Formal transparency

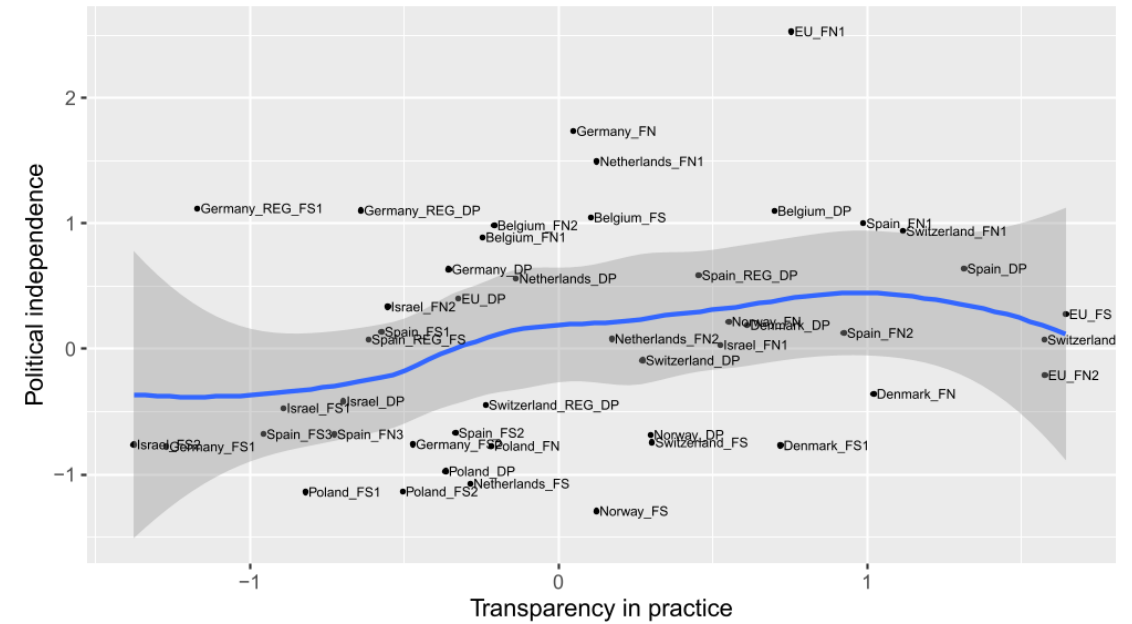
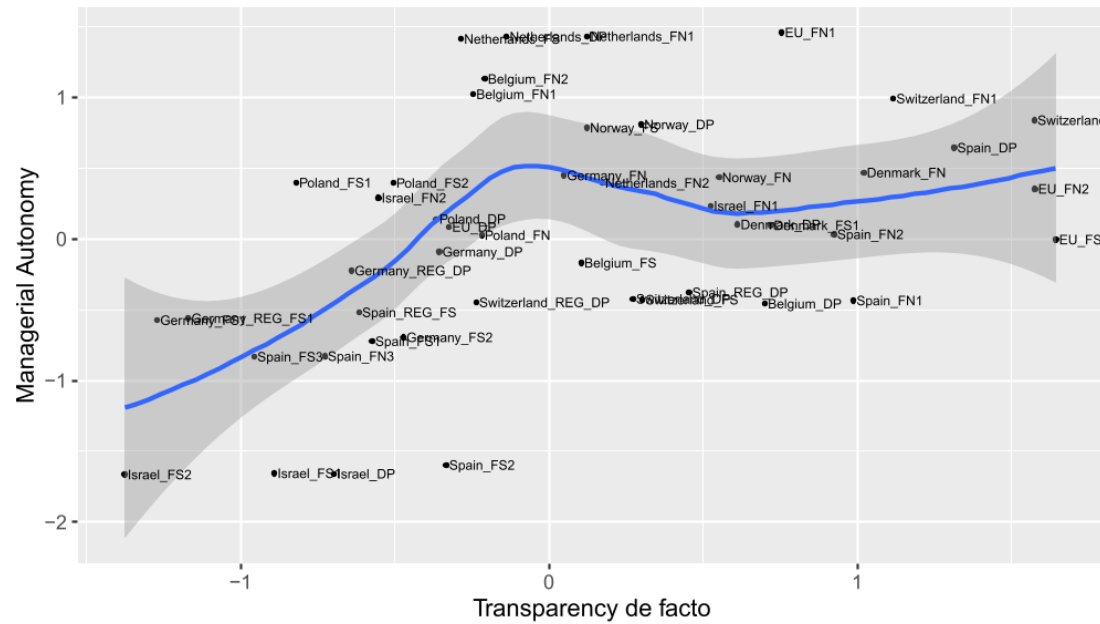


# Formal participation

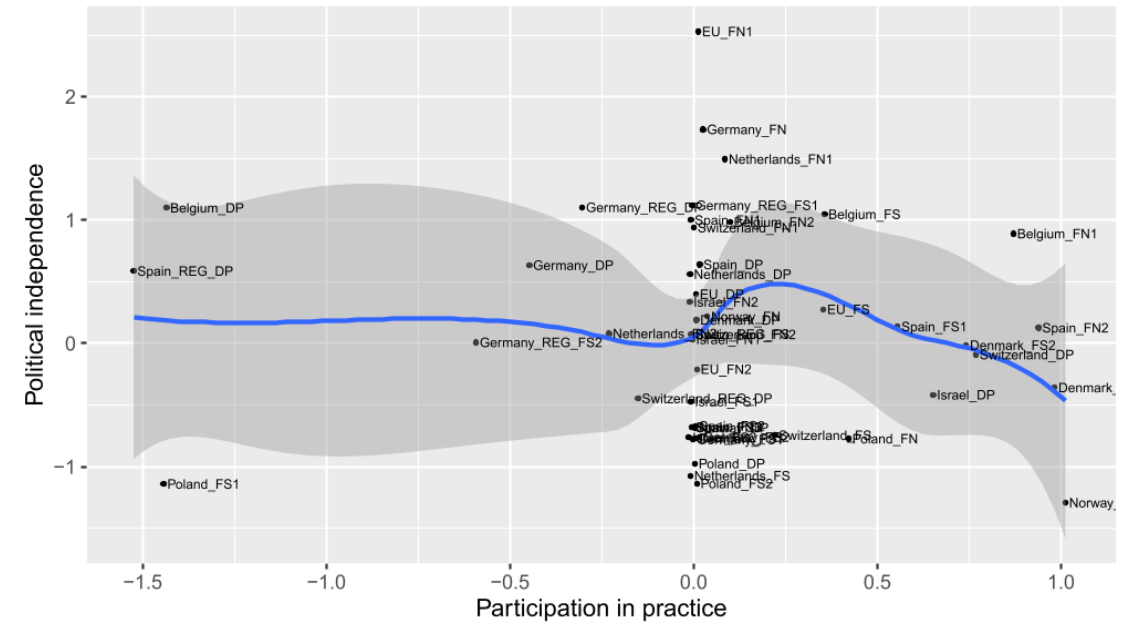
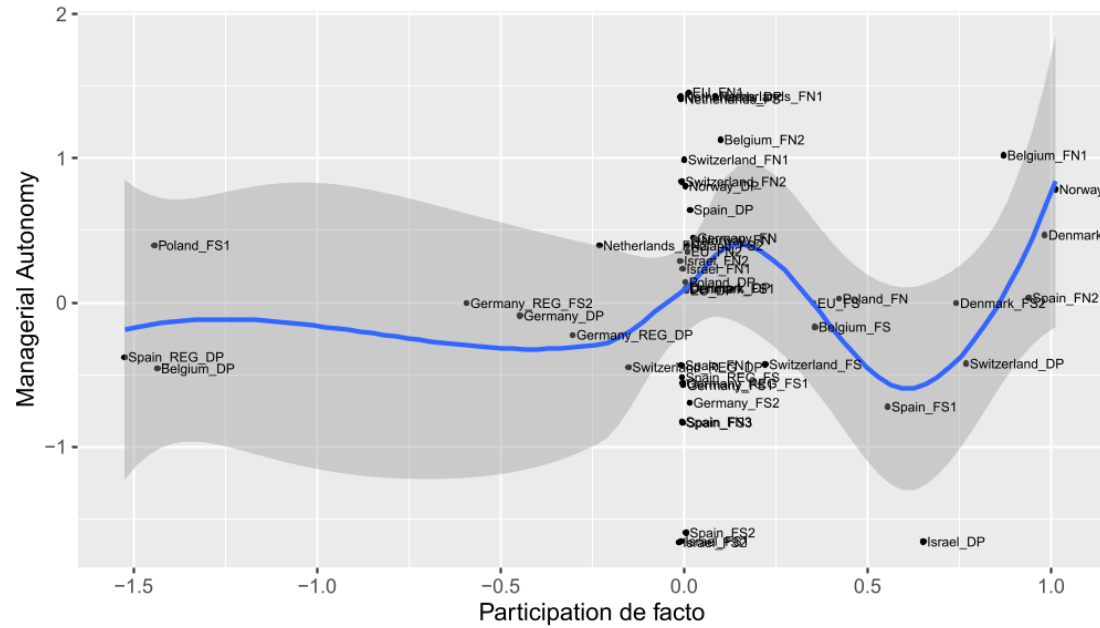


# Formal accountability





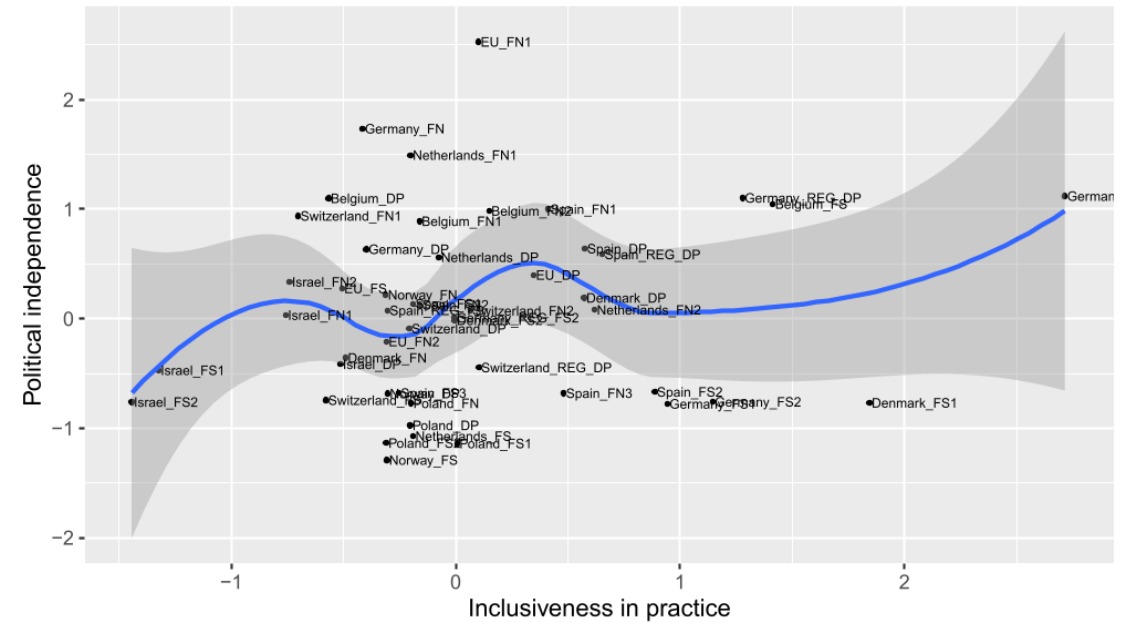
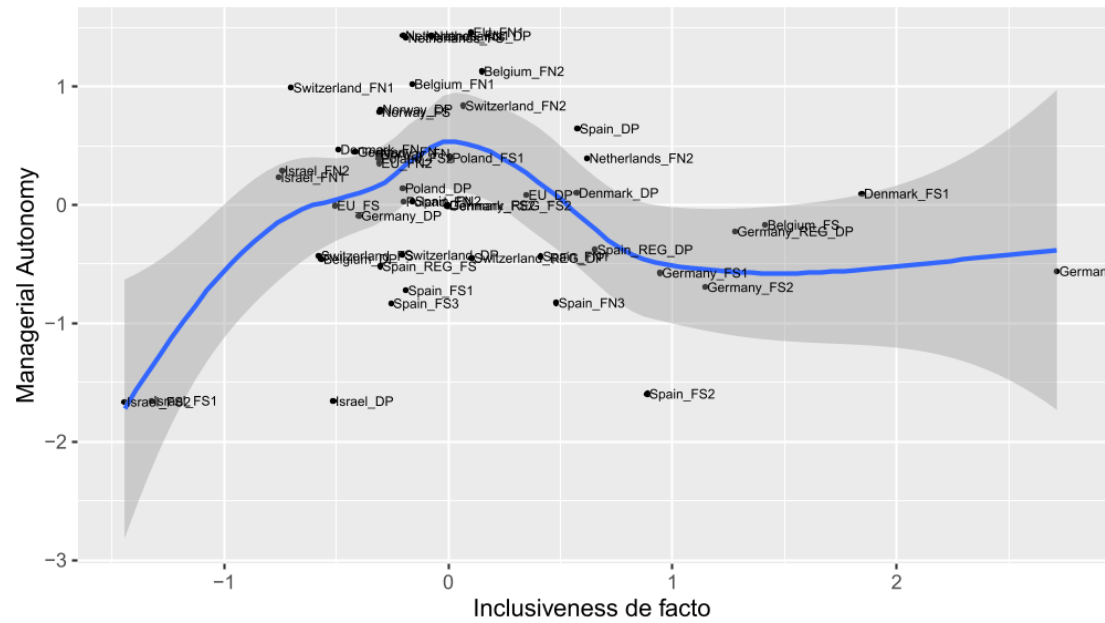
# Transparency de-facto



# Participation de-facto







# Inclusiveness de-facto

# Aim #3: Findings (might change...)

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- Relationship with political independence and managerial autonomy
  - Managerial autonomy seems positively correlated with the de-facto measures – but only with formal accountability (not with formal transparency, inclusiveness and participation)
  - Political independence only positively correlated with inclusiveness de-facto and formal transparency
    - Planning to run Bayesian regression to explore the relationship

# Limitations

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Some more data is about to come in for de-facto accountability and participation that will change the results slightly.

We still need to develop hypotheses on the expected relationship between independence, autonomy and these qualities based on the theory

We also should formalize expectations on relationship between formal and de-facto dimensions.

# Conclusions and contributions

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- This paper presents an original database on the democratic qualities of 49 regulatory bodies in 9 countries and 3 sectors
- An IRT analysis based on Bayesian statistics led to a refined and validated measure of formal and de-facto transparency, accountability, inclusiveness and participation of regulatory bodies
- This yielded a relative score of each regulatory body in our database for each of the 8 latent variables.
- This enables to compare the extent of which regulatory bodies are obligated for different qualities and the extent to which they perform them in practice.

# Conclusions and contributions

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- We see early evidence that managerial autonomy is positively correlated with the qualities and not so political independence, but we are waiting for additional data and additional and more robust analyses.
- We see which countries and sectors are more transparent, inclusive, accountable and participatory.

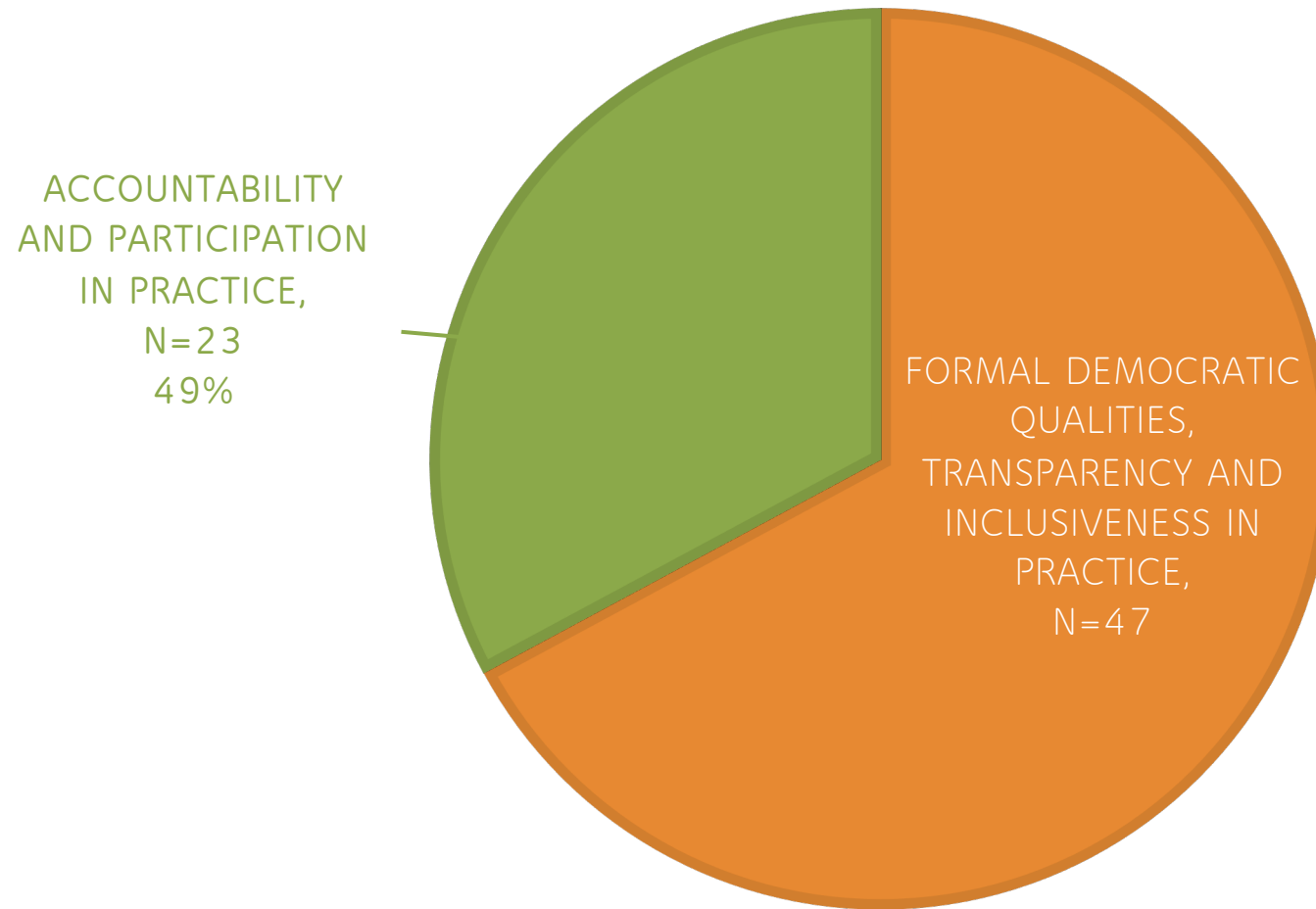
# Thank you!

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# Additional Information

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## NUMBER OF REGULATORY BODIES IN DATABASE





# Measurement development

[illegible]

# Transparency in practice

Transparency in practice indicators	Indicator	Unit	Frequency
1	transparency_act_2012	Yes/No	Annual
	transparency_act_2013	Yes/No	Annual
	transparency_act_2014	Yes/No	Annual
	transparency_act_2015	Yes/No	Annual
	transparency_act_2016	Yes/No	Annual
	transparency_act_2017	Yes/No	Annual
	transparency_act_2018	Yes/No	Annual
	transparency_act_2019	Yes/No	Annual
	transparency_act_2020	Yes/No	Annual
	transparency_act_2021	Yes/No	Annual
2	transparency_act_2022	Yes/No	Annual
	transparency_act_2023	Yes/No	Annual
	transparency_act_2024	Yes/No	Annual
	transparency_act_2025	Yes/No	Annual
	transparency_act_2026	Yes/No	Annual
	transparency_act_2027	Yes/No	Annual
	transparency_act_2028	Yes/No	Annual
	transparency_act_2029	Yes/No	Annual
	transparency_act_2030	Yes/No	Annual
	transparency_act_2031	Yes/No	Annual
3	transparency_act_2032	Yes/No	Annual
	transparency_act_2033	Yes/No	Annual
	transparency_act_2034	Yes/No	Annual
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Indicator	Description	Measurement
net_pay_for	There is a legal obligation to control, assess and enforce external actors' performance	Programmes 1
qual_for	There is a legal obligation to perform qualitative control that include external actors in the decision making	Programmes 1
quant_for	There is a legal obligation to perform quantitative control that include external actors in the decision making	Programmes 1
control_for	There is a legal obligation to control actors in the decision making	Programmes 1
open_innov_for	There is a legal obligation to have open board members	Programmes 1

# Participation in practice

[illegible]

# Formal Accountability

[illegible]

# Accountability in practice

Variable	Subst	Measuring tool
<i>Appoint_def</i>	Does the agency have a board of appointees?	Declarations
<i>Complaint_def</i>	Does the agency have a system to submit complaints on the website?	Declarations
<i>part_def</i>	How frequent does the agency appear for parliamentary hearings?	Parliamentary (%)
<i>trans_def</i>	How frequent does the agency meet with its parent ministry?	Parliamentary (%)
<i>Consumer_def</i>	Is there a consumer protection commission and on regulated firms is the agency?	Declarations

[illegible]

# Inclusiveness in practice

	1996-2001	2002-2007	2008-2013	2014-2019	2020-2025
1996-2001	The agency selected the population to study from the "major" - the main base of the population census for each region.	Natural			
2002-2007	1 - only on work and sick days, 2 - on only the wages 3 - the migration and mobility of the population.	Natural			
2008-2013	1 - the population of the agency management and administration.	Natural			
2014-2019	The population of people in agency work (banks, offices etc).	Natural			
2020-2025	The change of women in social agency, banks and migration and the changed migration.	Natural			
2016-2020	The agency's new activities, adaptation to external policy.	Discretion			
2021-2025	The agency's new activities, adaptation to external policy.	Discretion			

# Formal transparency indicators

VARIABLE	LABEL	MEASURING LEVEL
STRATEGIC_REP_FOR	There is a legal obligation to make public a strategic plan	Dichotomous
ACTIVITY_REP_FOR	There is a legal obligation to make public an activity report	Dichotomous
FINANCE_REP_FOR	There is a legal obligation to make public a financial report	Dichotomous
ENFORCE_FOR	There is a legal obligation to make public resolutions and enforcement decisions	Dichotomous
ORGAN_STRUC_FOR	There is a legal obligation to make public the organizational structure of the organization	Dichotomous
PERSON_INFO_FOR	There is a legal obligation to publish information on agency personnel	Polytomous (5)
REQUEST_INFO_FOR	There is a legal obligation that the agency has a system for the public to request information on the organization	Dichotomous
METHODO_FOR	There is a legal obligation to make public the guidelines that should guide the agency in the development of new regulations	Dichotomous
METHOD_EX_FOR	There is a legal obligation to make public the guidelines that should guide the agency in the enforcement of existing rules	Dichotomous
CODE_COND	There is a legal obligation to make public the organization's code of conduct	Dichotomous
MANAG_BOARD_MIN_FOR	There is a legal obligation to make public the resolutions, minutes, or records of managing board meetings	Polytomous (3)
ADVIS_BOARD_MIN_FOR	There is a legal obligation to make public the resolutions, minutes or records of the advisory board, stakeholder group or scientific committee	Polytomous (3)

# Transparency in practice indicators

Variable	Label	Measuring level
strategic_rep_def	The website includes strategic plans	Polytomous (3)
activ_rep_def	The website includes annual reports	Polytomous (3)
finan_rep_def	The website includes financial reports	Polytomous (3)
enforc_def	The website includes board resolutions /enforcement decisions	Dichotomous
organ_struc_def	The website includes the organizational structure of the organization	Dichotomous
person_info_def	The website includes information on agency personnel	Polytomous (5)
request_info_def	The website includes a system for the public to request information on the organization	Dichotomous
Method_def	The website includes methodological guidelines that should guide the agency in the development of new regulations	Dichotomous
methodo_ex_def	The website includes methodological guidelines that should guide the agency in the enforcement of existing rules	Dichotomous
code_cond_def	The website includes the organization's code of conduct	Dichotomous
Media_info	The agency produces and publishes on its website media briefs regarding informational data.	Dichotomous
Media_proc	The agency produces and publishes on its website media briefs regarding procedural data.	Dichotomous
Media_sub	The agency produces and publishes on its website media briefs regarding substantive - justification data	Dichotomous
manag_board_min_def	The website includes the minutes or records of the managing board	Polytomous (5)
advis_board_min_def	The website includes the minutes or records of the advisory board/stakeholder group	Polytomous (5)
just_reg	The agency includes explanatory material to the publication of new regulations	Polytomous (3)
just_dec	The agency includes explanatory material to the publication of new decisions	Polytomous (3)
Social_media_total	The number of social platform accounts that the agency holds	Numerical
Twitter	Does the agency hold a Twitter account?	Dichotomous
Facebook	Does the agency hold a Facebook account?	Dichotomous
Youtube	Does the agency hold a Youtube account?	Dichotomous
Instagram	Does the agency hold an Instagram account?	Dichotomous
Linkedin	Does the agency hold a LinkedIn account?	Dichotomous
Social_media_followers	Number of followers in overall accounts	Numerical

# Formal Participation indicators

Variable	Label	Measuring level
hearing_for	There is a legal obligation to consult actors on enforcement decisions	Polytomous (4)
quali_for	There is a legal obligation to perform qualitative practices that include external actors in the decision making	Polytomous (4)
quanti_for	There is a legal obligation to perform quantitative practices that include external actors in the decision making	Polytomous (4)
propos_for	There is a legal obligation to consult actors on regulations before their adoption	Polytomous (4)
open_board_for	There is a legal obligation to have open board meetings	Polytomous (4)

# Participation in Practice indicators

Variable	Label	Measuring level
hearing_def	The agency consults actors on enforcement decisions	Polytomous (4)
hearing_def_freq	The frequency of this practice	Polytomous (3)
quali_def	The agency performs qualitative practices that include external actors in the decision making	Polytomous (4)
quali_freq	The frequency of this practice	Polytomous (3)
quanti_def	The agency performs quantitative practices that include external actors in the decision making	Polytomous (4)
quali_freq	The frequency of this practice	Polytomous (3)
propos_def	The agency consults actors on regulations before their adoption	Polytomous (4)
propos_freq	The frequency of this practice	Polytomous (3)
open_board_def	The agency has open board meetings	Polytomous (4)
Open_board_frew	The frequency of this practice	Polytomous (3)

# Formal Accountability indicators

Variable	Label	Measuring level
parl_plan_for	There is a legal obligation to submit a strategic plan to the executive branch	Polytomous (3)
parl_act_for	There is a legal obligation to submit an annual activity report to the legislative	Dichotomous
parl_fina_for	There is a legal obligation to submit an annual finance report to the legislative	Dichotomous
parl_adhoc_forWRITTEN	There is a legal obligation to report the actions of the agency on an ad-hoc basis (on request) to the legislative in a WRITTEN format	Dichotomous
parl_adhoc_forHEARING	There is a legal obligation to report the actions of the agency on an ad-hoc basis (on request) to the legislative in a HEARING format	Dichotomous
exec_plan_for	There is a formal obligation to submit an strategic plan to the executive	Polytomous (3)
exec_act_for	There is a legal obligation to submit an annual activity report to the executive	Dichotomous
exec_fina_for	There is a legal obligation to submit an annual finance report to the executive	Dichotomous
exec_adhoc_forWRITTEN	There is a legal obligation to report the actions of the agency on an ad-hoc basis (on request) to the executive in a WRITTEN format	Dichotomous
exec_adhoc_forHEARING	There is a legal obligation to report the actions of the agency on an ad-hoc basis (on request) to the executive in a HEARING format	Dichotomous
spend_for	The agency is obliged to report public spending's to an audit office	Dichotomous

# Accountability in practice indicators

Variable	Label	Measuring level
Appeal_def	Does the agency have a board of appeal operative	Dichotomous
Complaint_def	Does the agency have a system to submit complaints on the website	Dichotomous
parl_def	How frequent does the agency appear for parliamentary hearings	Polytomous (5)
exec_def	How frequent does the agency meet with parent ministry	Polytomous (5)
Consumer_def	Is there a consumer protection/complaint unit on regulated firms in the agency?	Dichotomous

# Formal Inclusiveness indicators

Variable	Label	Measuring level
lang_use	There is a legal obligation to use some languages	Dichotomous
Gend_for	There is a legal obligation to promote gender equality in the agency personnel	Dichotomous
No_dis_mino	The legal framework emphasizes non-discrimination (related to minorities) in the appointment procedures of agency officials	Polytomous (3)
No_dis_gen_agency	The legal framework emphasizes non-discrimination (related to gender) in the appointment procedures of agency officials	Dichotomous
No_dis_gen_board	The legal framework emphasizes non-discrimination (related to gender) in the appointment procedures of board members	Dichotomous
geo_board_for	Is there a legal obligation for geographical representation in the management board	Dichotomous
cit_rep_board_for	There is a legal obligation to include citizens/consumers groups/NGOs representatives in the management board	Dichotomous
percentage _cit_board_for	Please specify the percentage of citizens/consumers groups/NGOs representatives the managing board should have according to legal obligation	Numerical
reg_rep_board_for	There is a legal obligation to include firms/business associations/employers representation in the agency board	Dichotomous
percentage _reg_board_for	Please specify the percentage of firms/business associations/employers representatives the managing board should have according to legal obligation	Numerical
pro_rep_board_for	There is a legal obligation to include scientific or professional organizations representation in the management board	Dichotomous
percentage _pro_board_for	Please specify the percentage of scientific or professional organizations representatives the management board should have according to legal obligation	Numerical
trade_rep_board_for	There is a legal obligation to include trade unions representation in the managing board	Dichotomous
percentage _trade_board_for	Please specify the percentage of trade unions representatives the management board should have according to legal obligation	Numerical
gend_advis_for	There is a legal obligation for gender equality in the advisory board/stakeholder group	Dichotomous
geo_advis_for	Is there a legal obligation for geographical representation in the advisory board/stakeholder group	Dichotomous
cit_rep_advis_for	There is a legal obligation to include citizens/consumers groups/NGOs representatives in the advisory board/stakeholder group	Dichotomous
percentage _cit_advis_for	Please specify the percentage of citizens/consumers groups/NGOs representatives the advisory board/stakeholder group should have according to legal obligation	Numerical
reg_rep_advis_for	There is a legal obligation to include firms/business associations/employers representation in the advisory board/stakeholder group	Dichotomous
percentage _reg_advis_for	Please specify the percentage of firms/business associations/employers representatives the advisory board/stakeholder group should have according to legal obligation	Numerical
pro_rep_advis_for	There is a legal obligation to include scientific or professional organizations representation in the advisory board/stakeholder group	Dichotomous
percentage _pro_advis_for	Please specify the percentage of scientific or professional organizations representatives the advisory board should have according to formal obligation	Numerical
trade_rep_advis_for	There is a formal obligation to include trade unions representation in the advisory board	Dichotomous
percentage _trade_advis_for	Please specify the percentage of trade unions representatives the advisory board should have according to legal obligation	Numerical

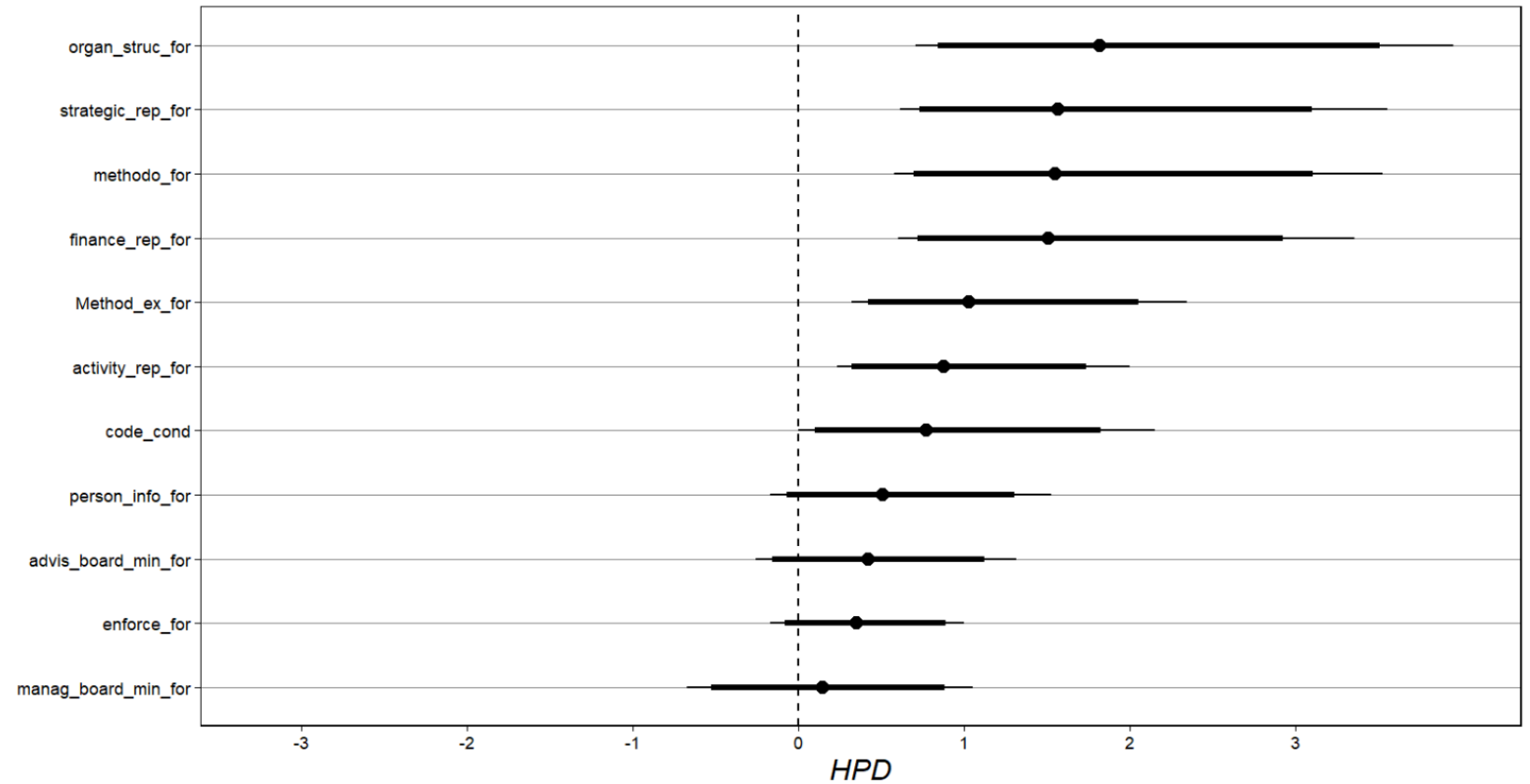


# Inclusiveness in practice indicators

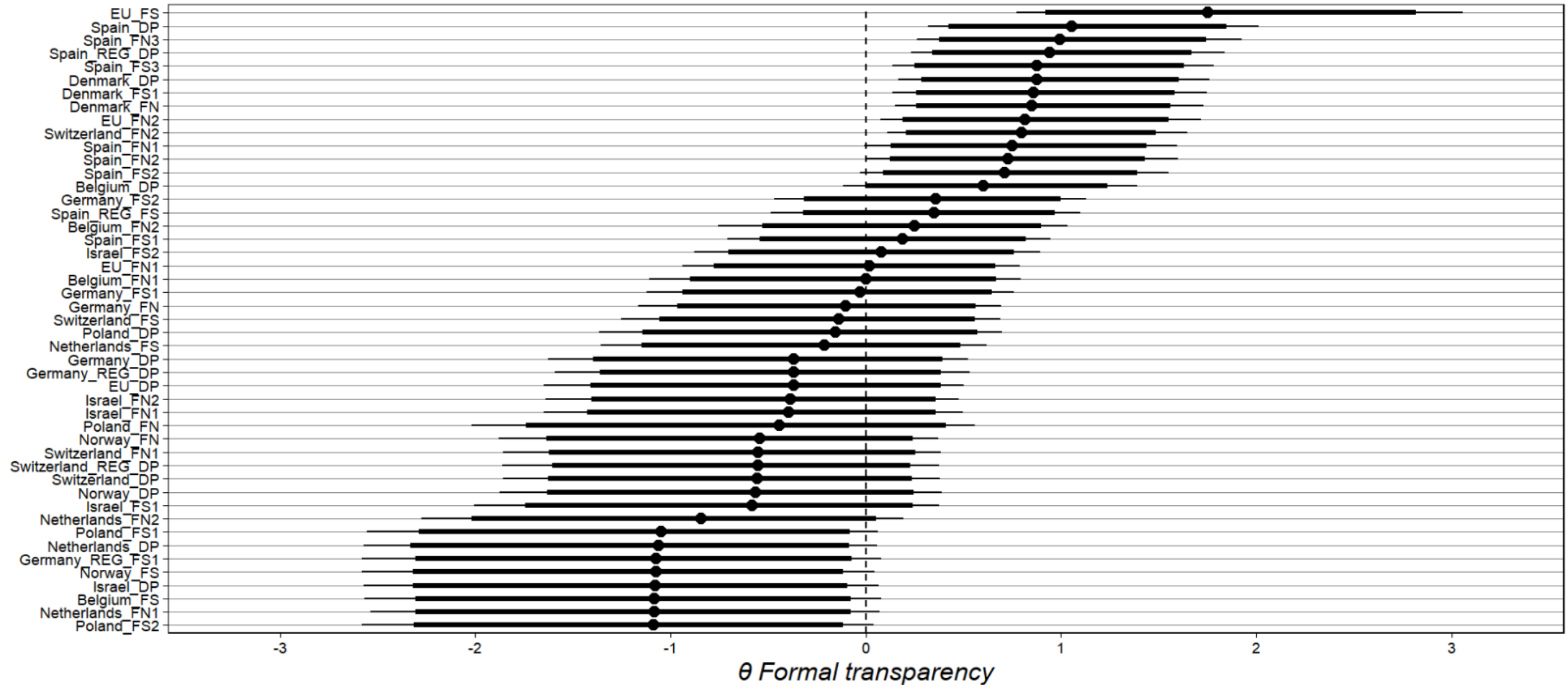
Variable	Label	Measuring level
lang_def	The agency website has information in more than one language - the mean score of the polytomous scores for each language: 0-No 1 -Only on main website page, or on very few pages 2-Yes-on regulations and official documents 3- Yes - extensively	Numerical
Percentage_gen_board	The percentage of women in agency management board	Numerical
gend_board_def	The percentage of women in agency other boards - advisory etc	Numerical
Gend_Biodata	Percentage of women in overall agency - boards and managerial level (from biographical dataset)	Numerical
Gend_code_def	The agency has additional regulations to ensure gender equality	Dichotomous
Mino_code_def	The agency has additional regulations to ensure minority equality	Dichotomous

## Formal Transparency - Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ). **Revised model**

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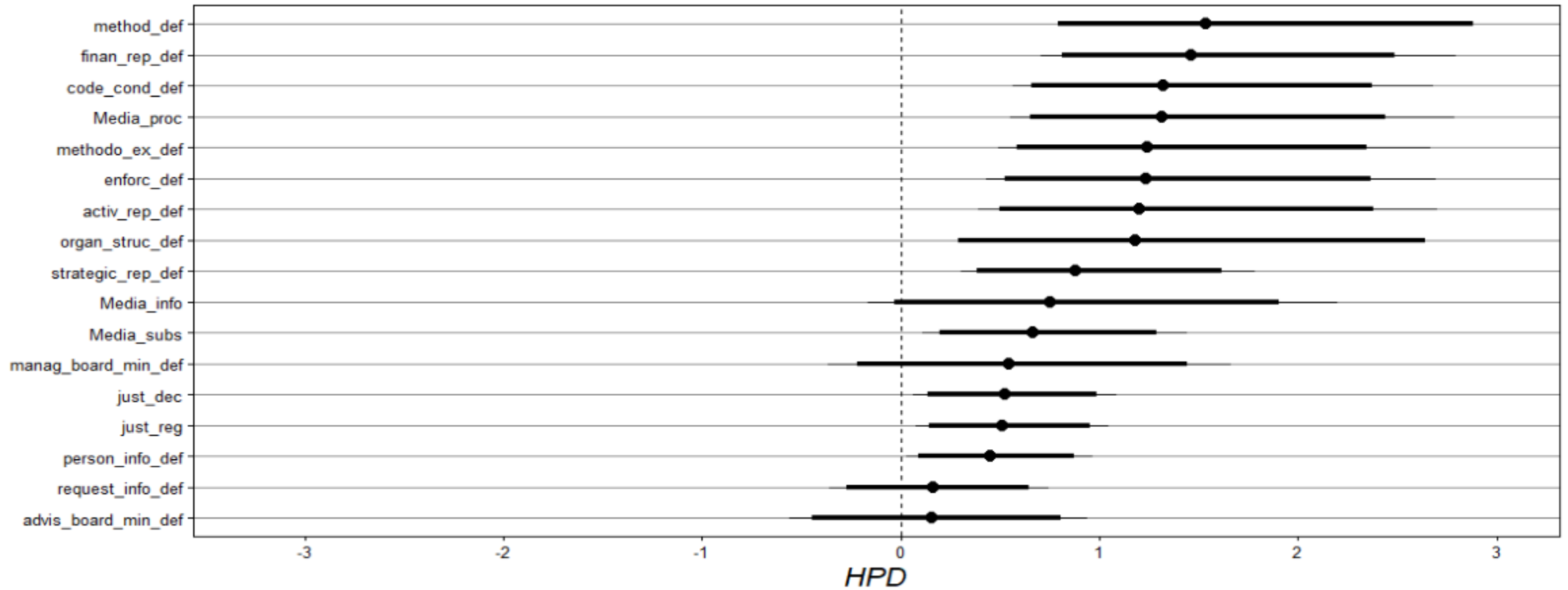


# Agencies Ranked According to their Formal Transparency.

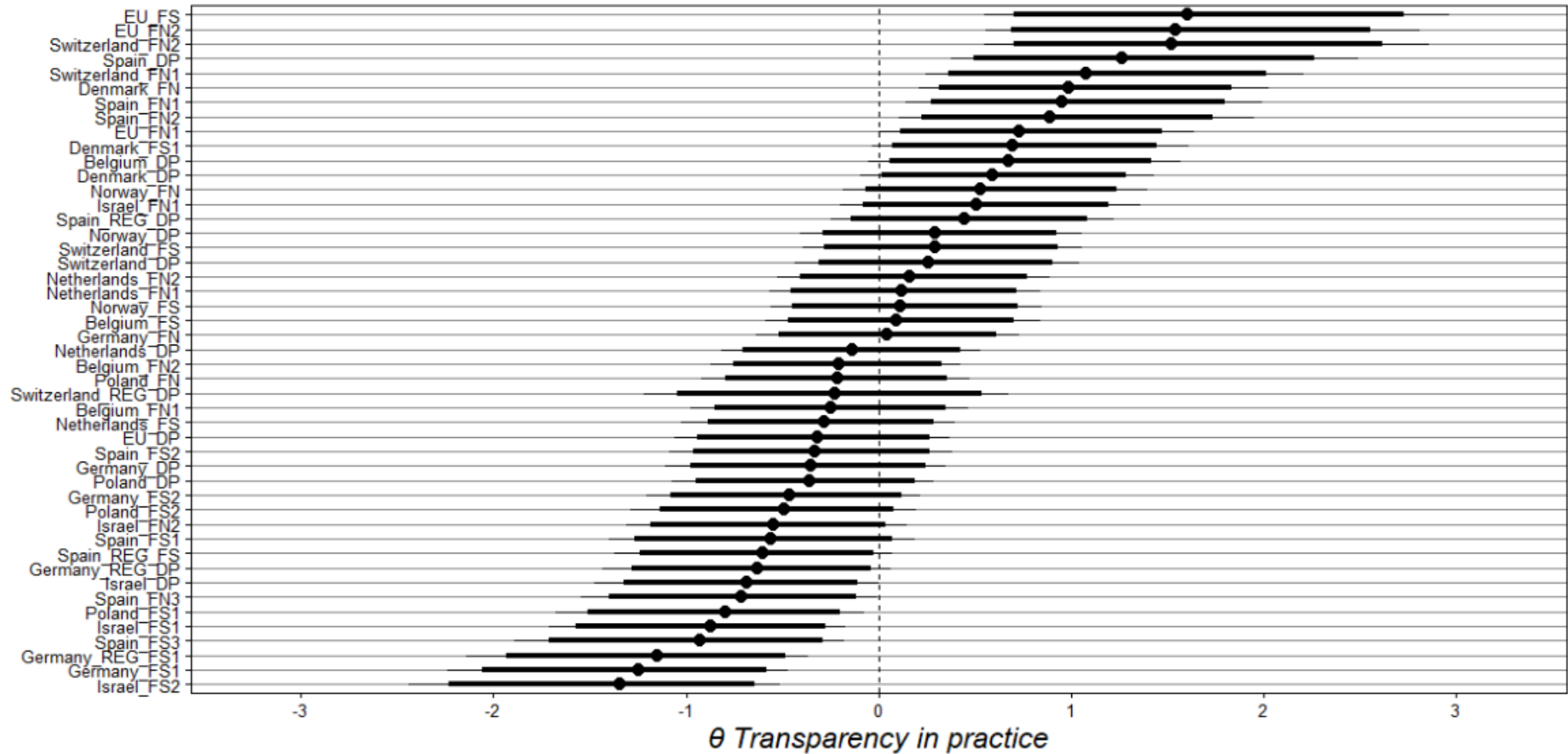


Scores of Formal Transparency( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

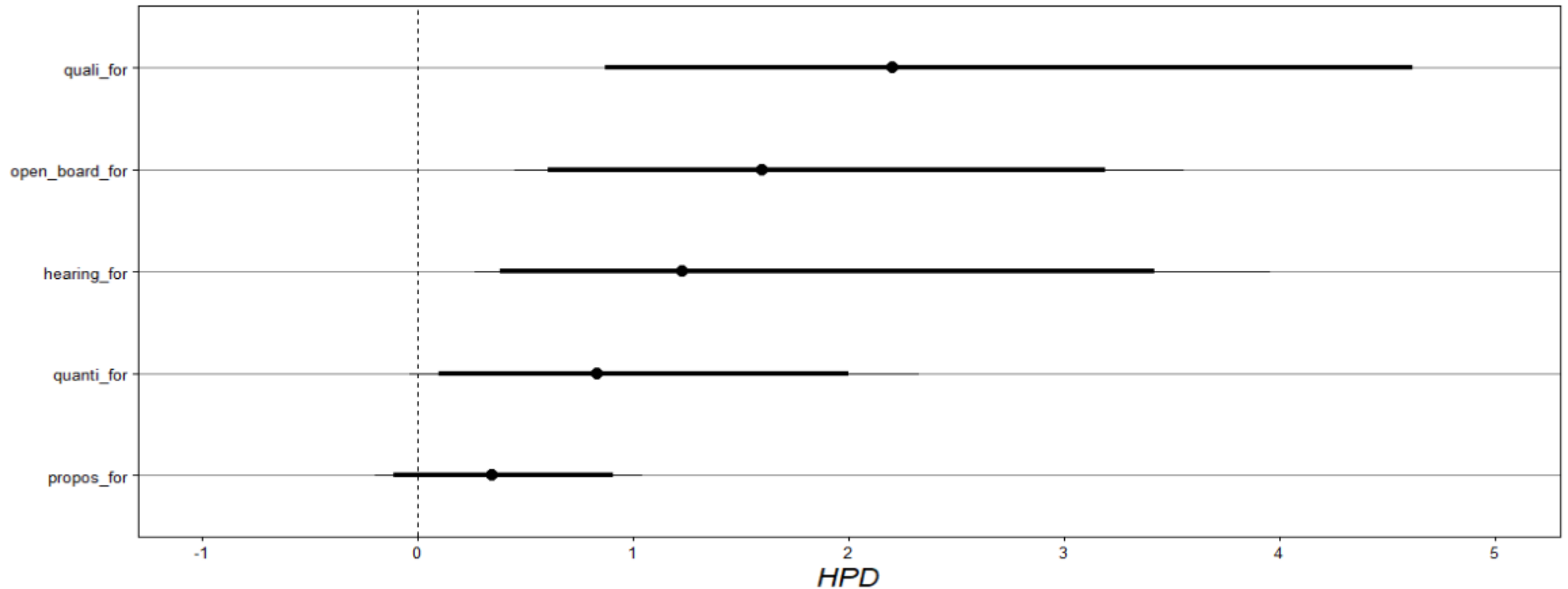
# Transparency in practice- Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).



# Agencies Ranked According to Their Transparency in practice

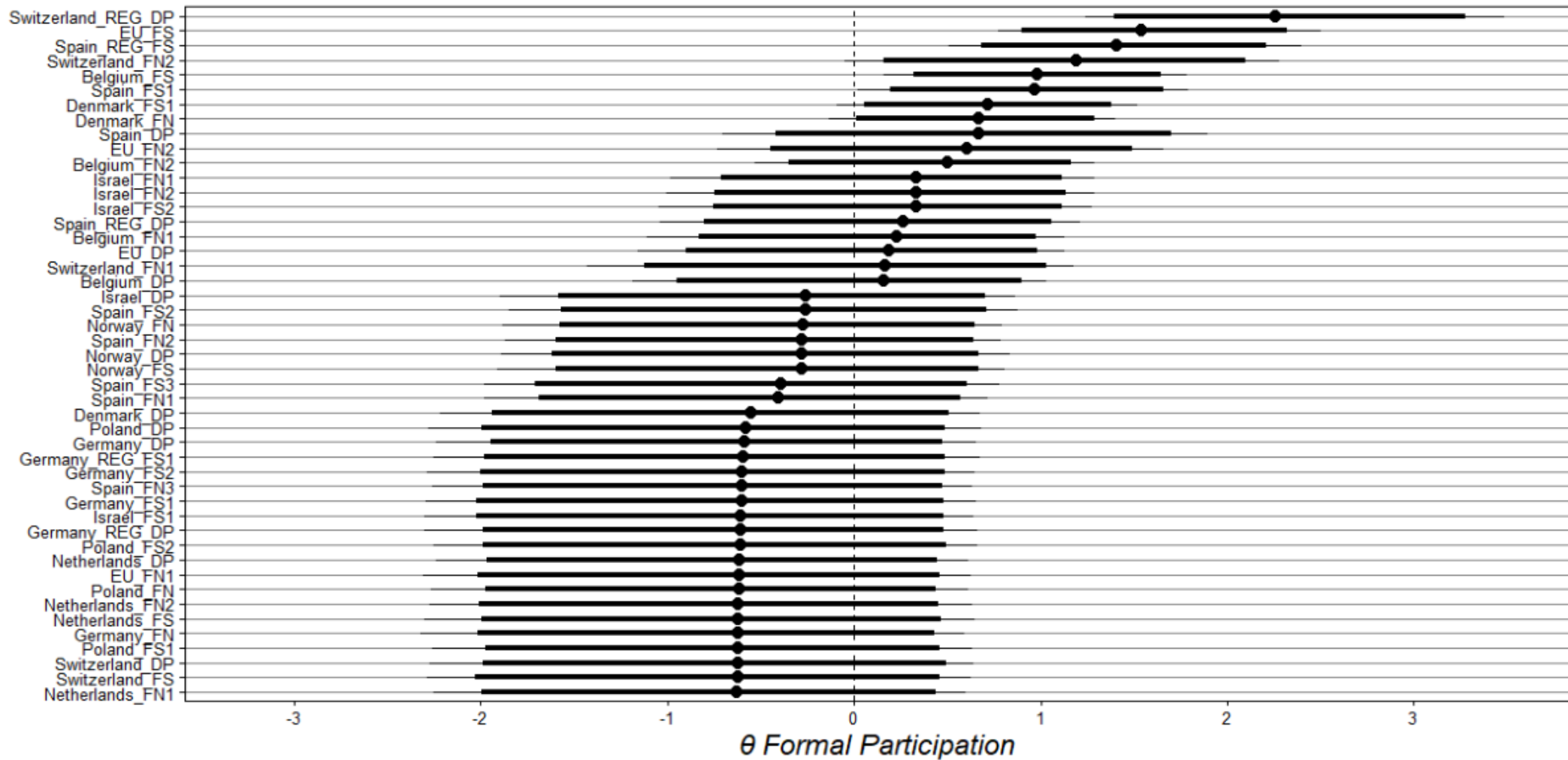


Scores of Transparency in practice( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.



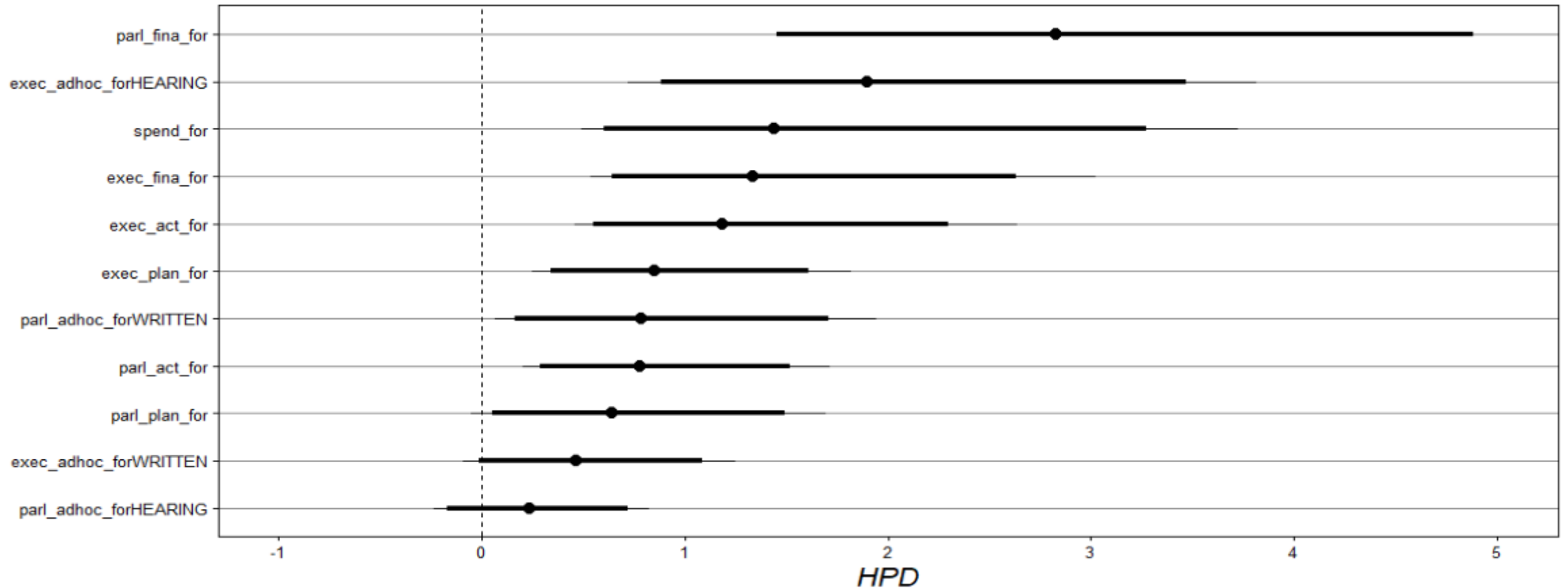
Formal Participation Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).

# Agencies Ranked According to Their Formal Participation



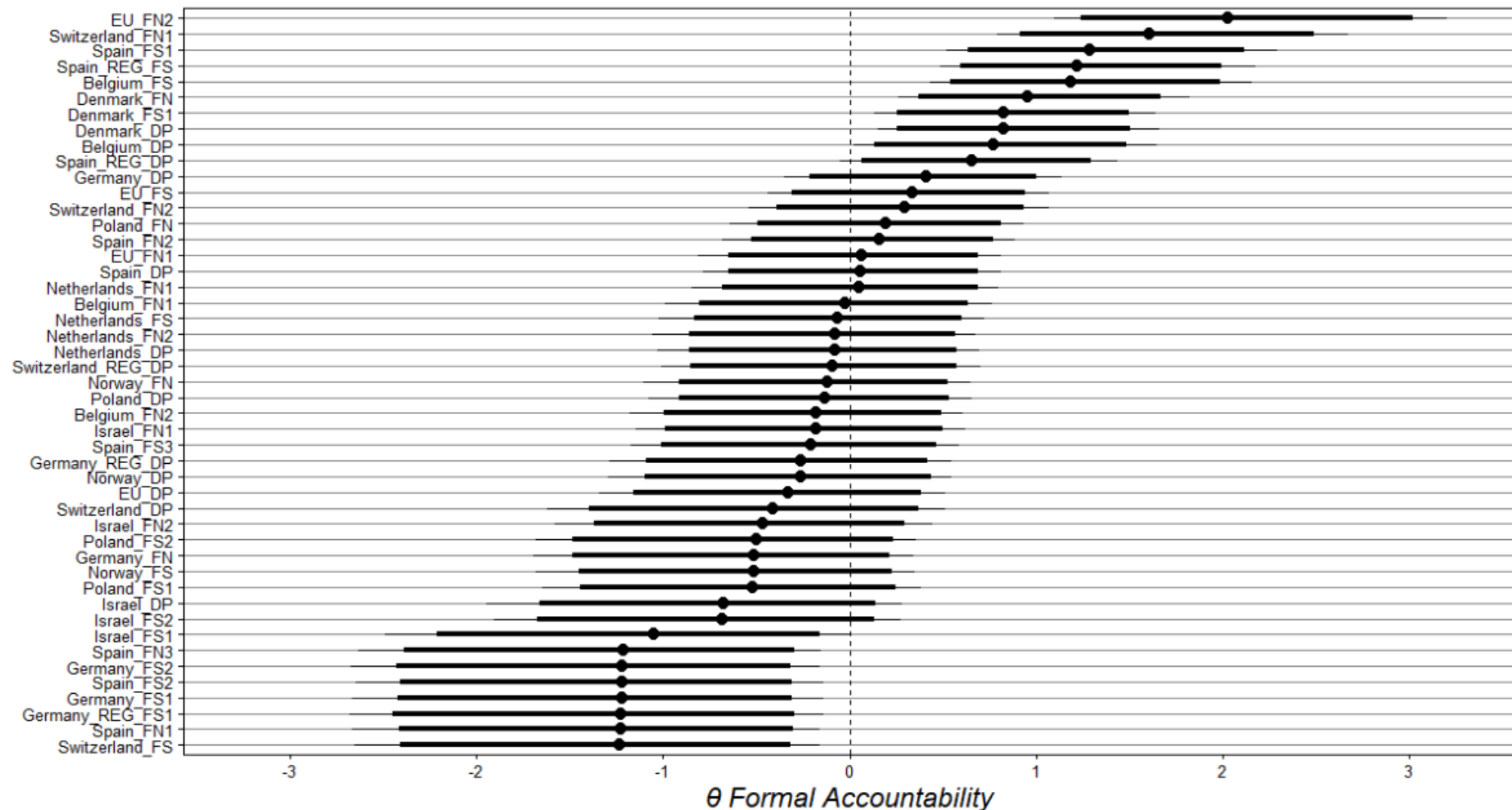
Scores of Formal Participation ( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

# Formal Accountability Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).



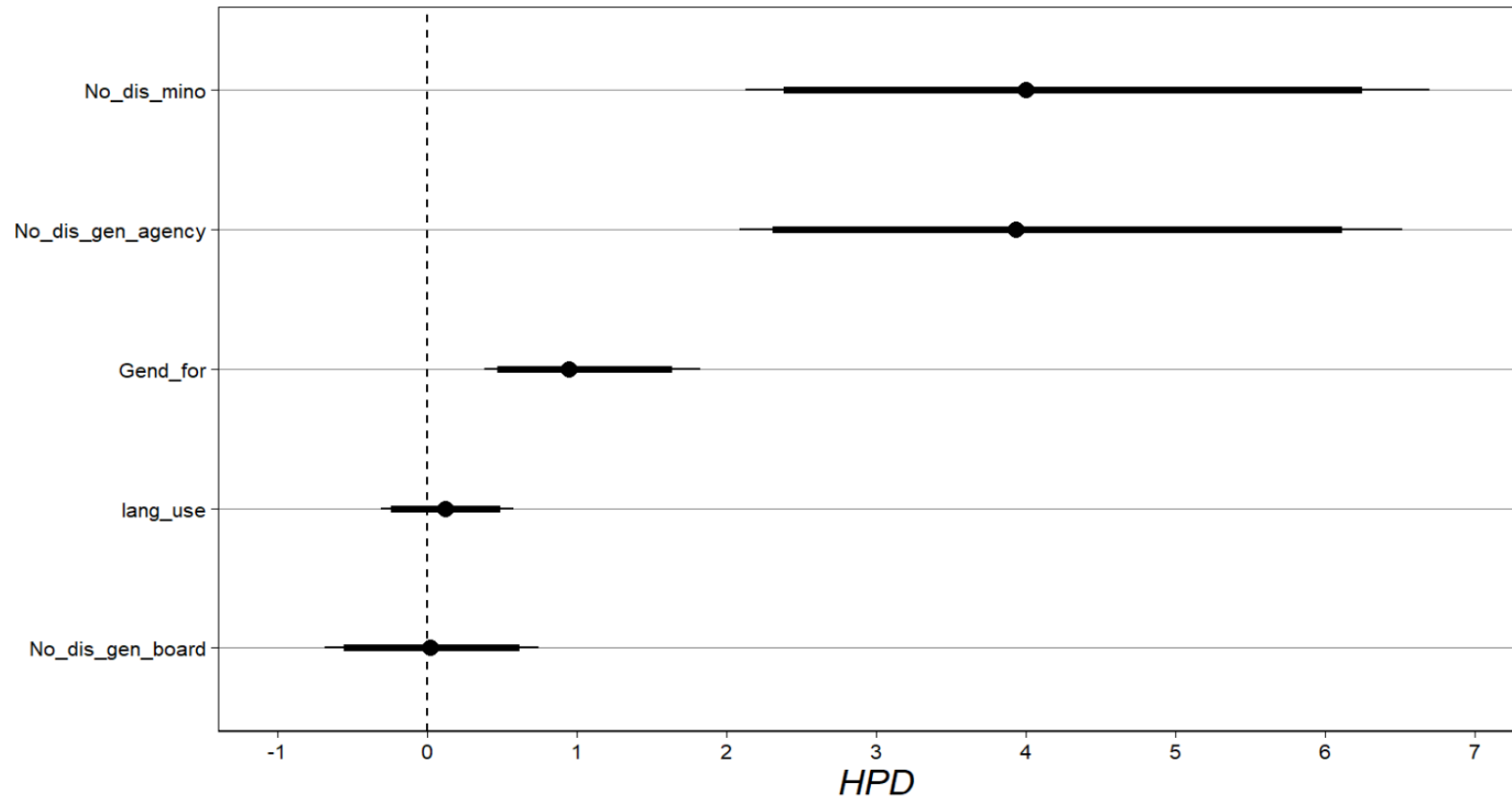


# Agencies Ranked According to their Formal Accountability

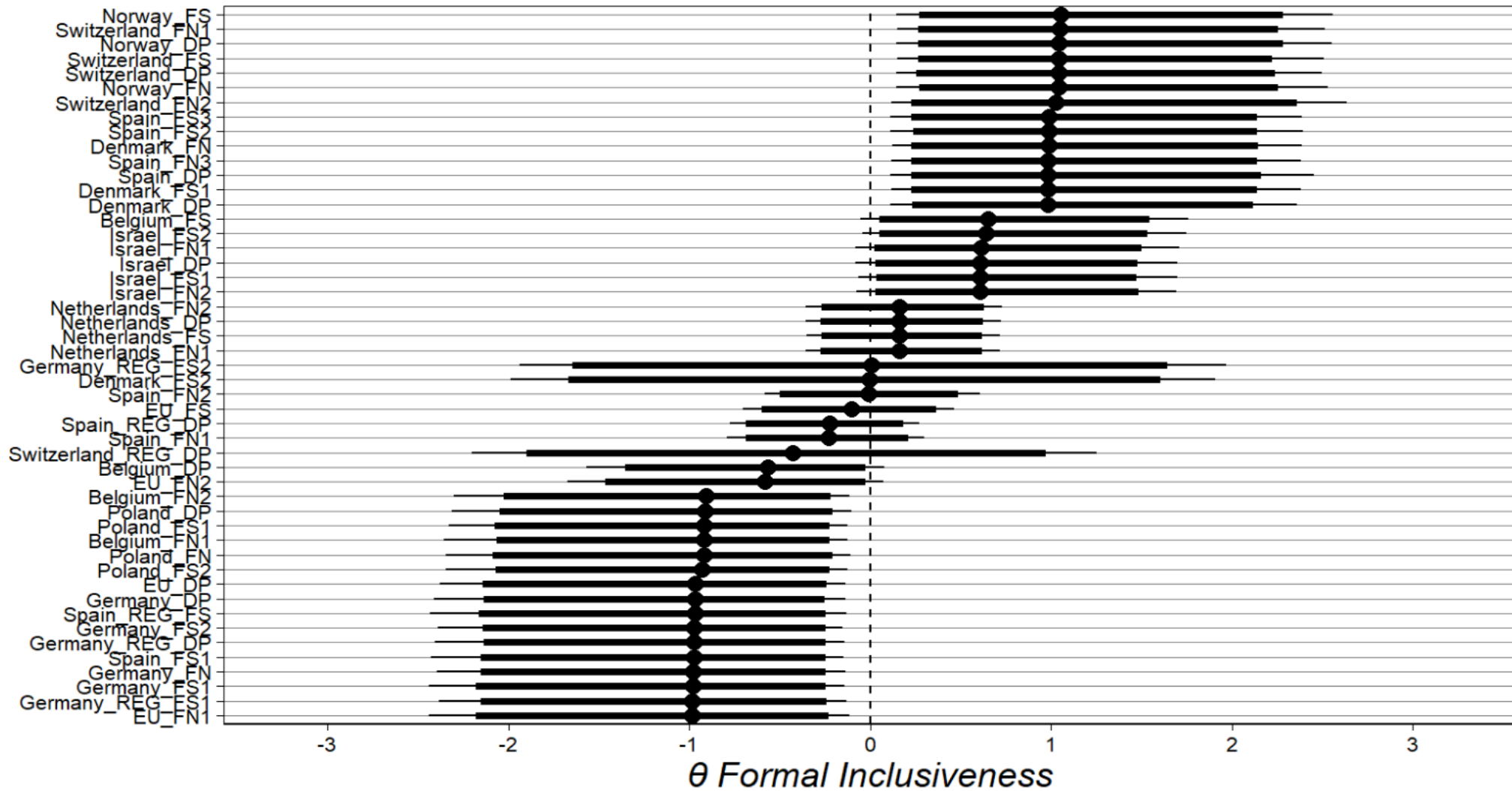


Scores of Formal Accountability ( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

# Formal Inclusiveness Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).



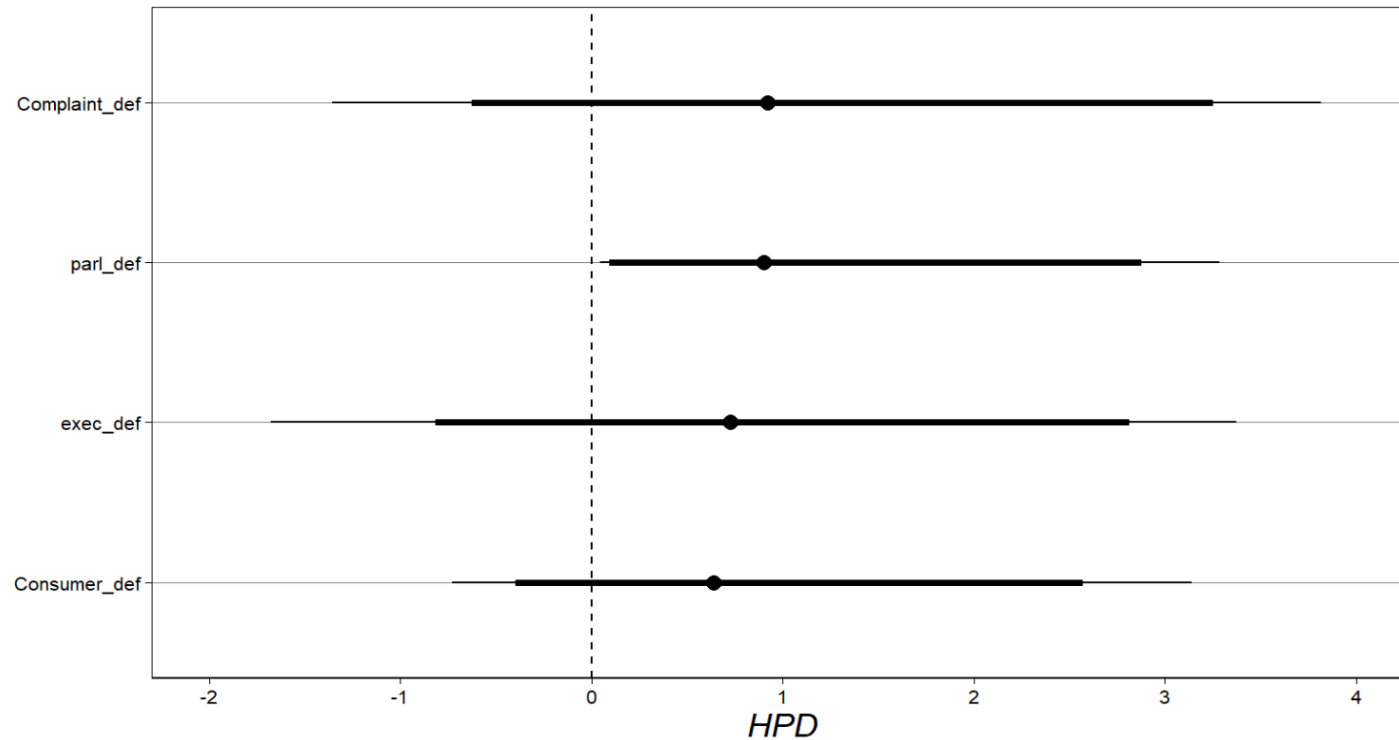
# Agencies Ranked According to their Formal Inclusiveness



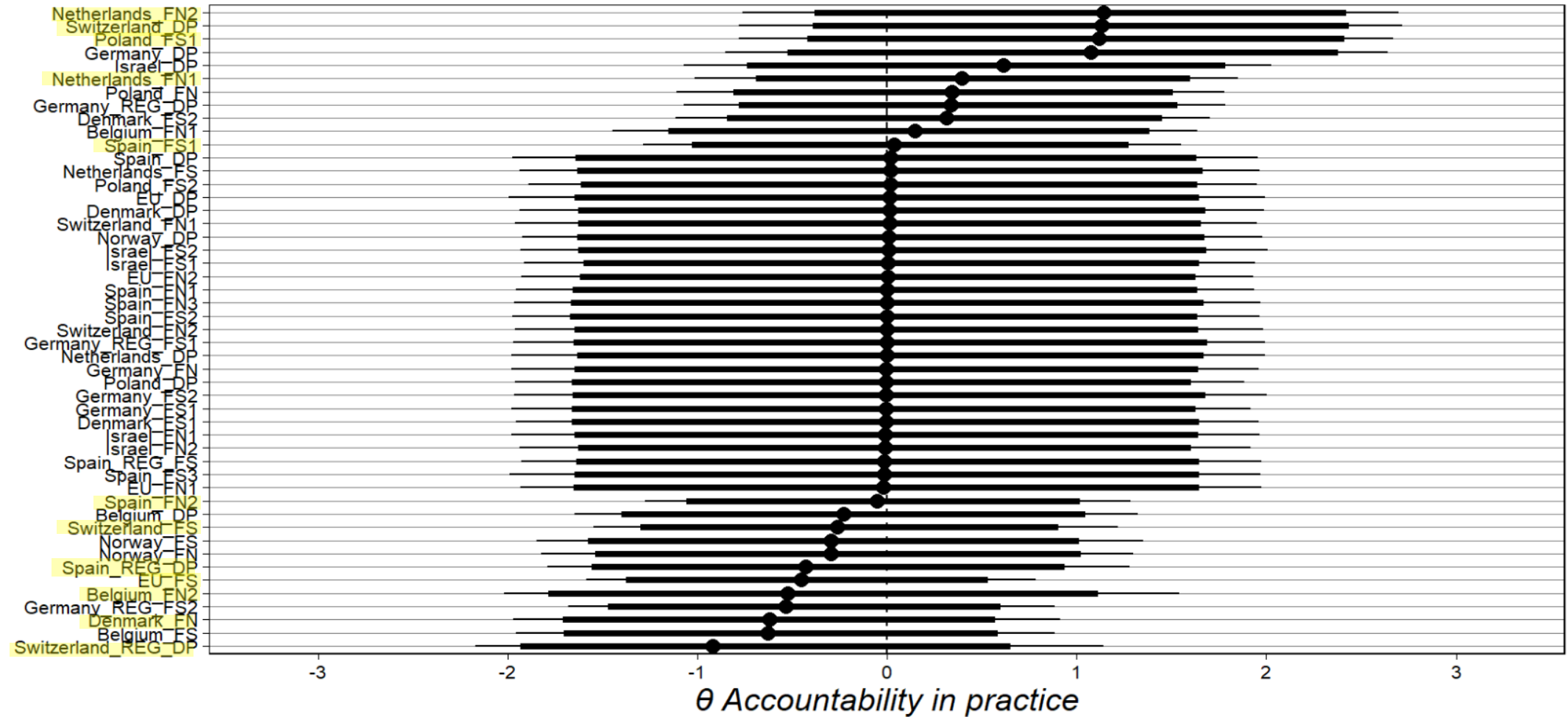
Scores of Formal Inclusiveness ( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

Accountability in  
practice  
Discrimination  
Weight Assigned  
to Each Item in  
the Model ( $\alpha$ ).  
Revised model

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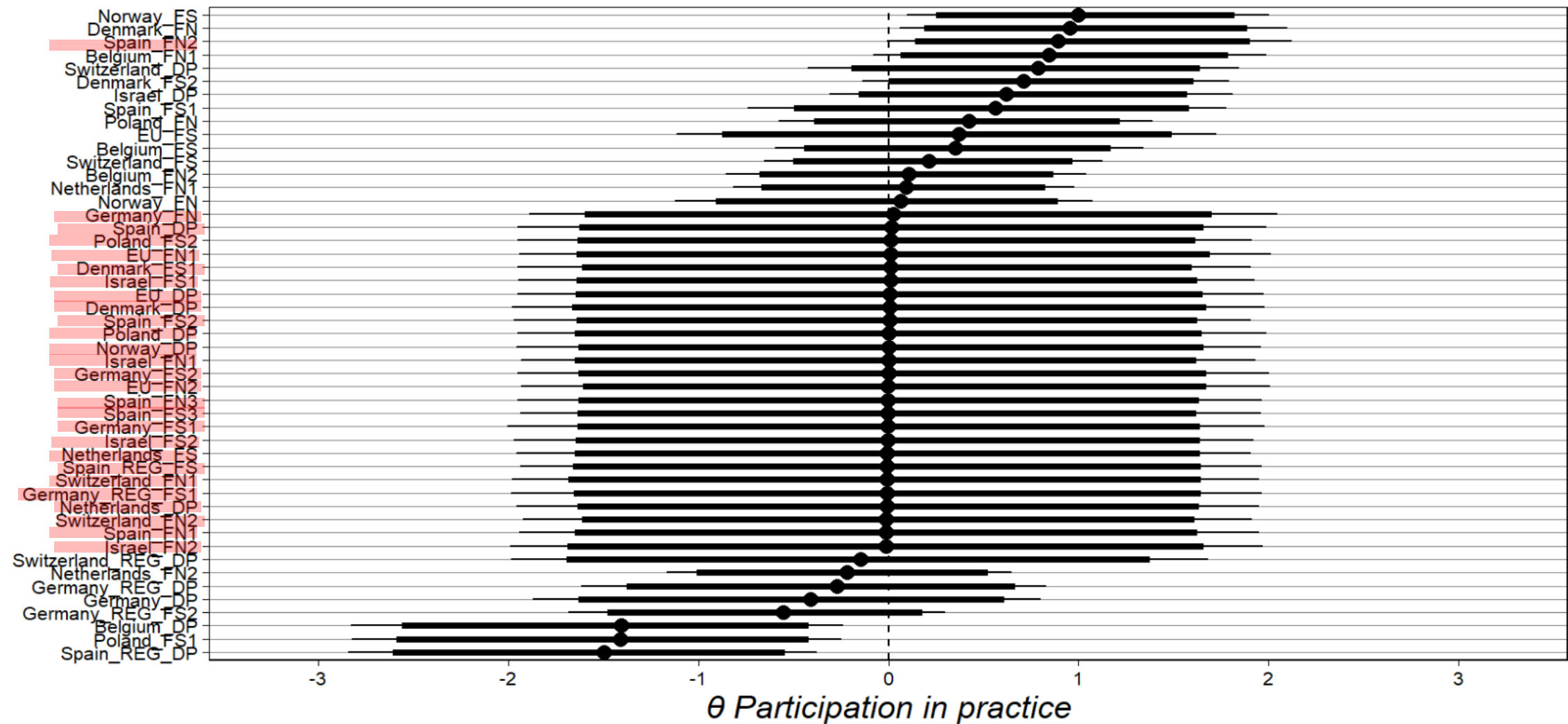


# Agencies Ranked According to their Accountability in Practice



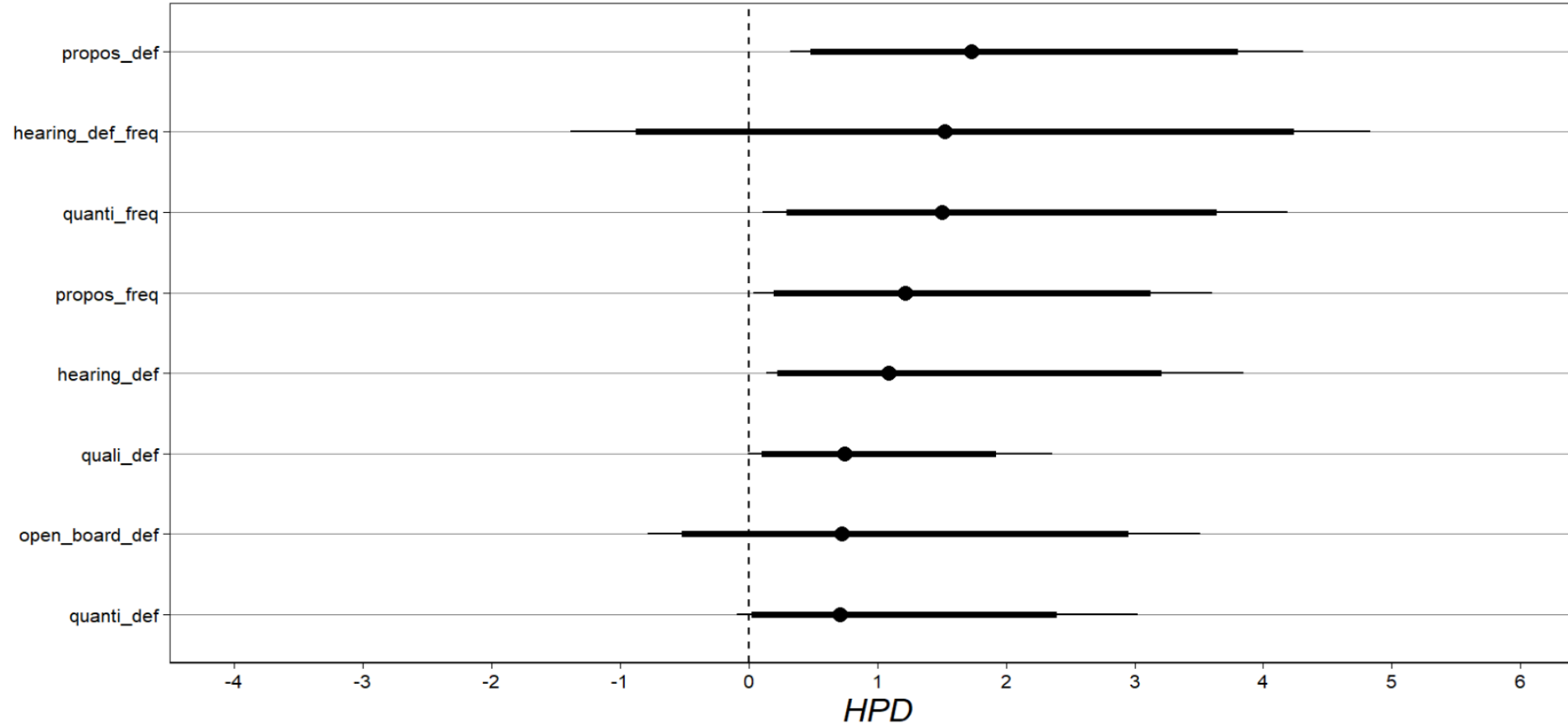
Scores of Accountability in Practice( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

# Agencies Ranked According to their Participation in Practice

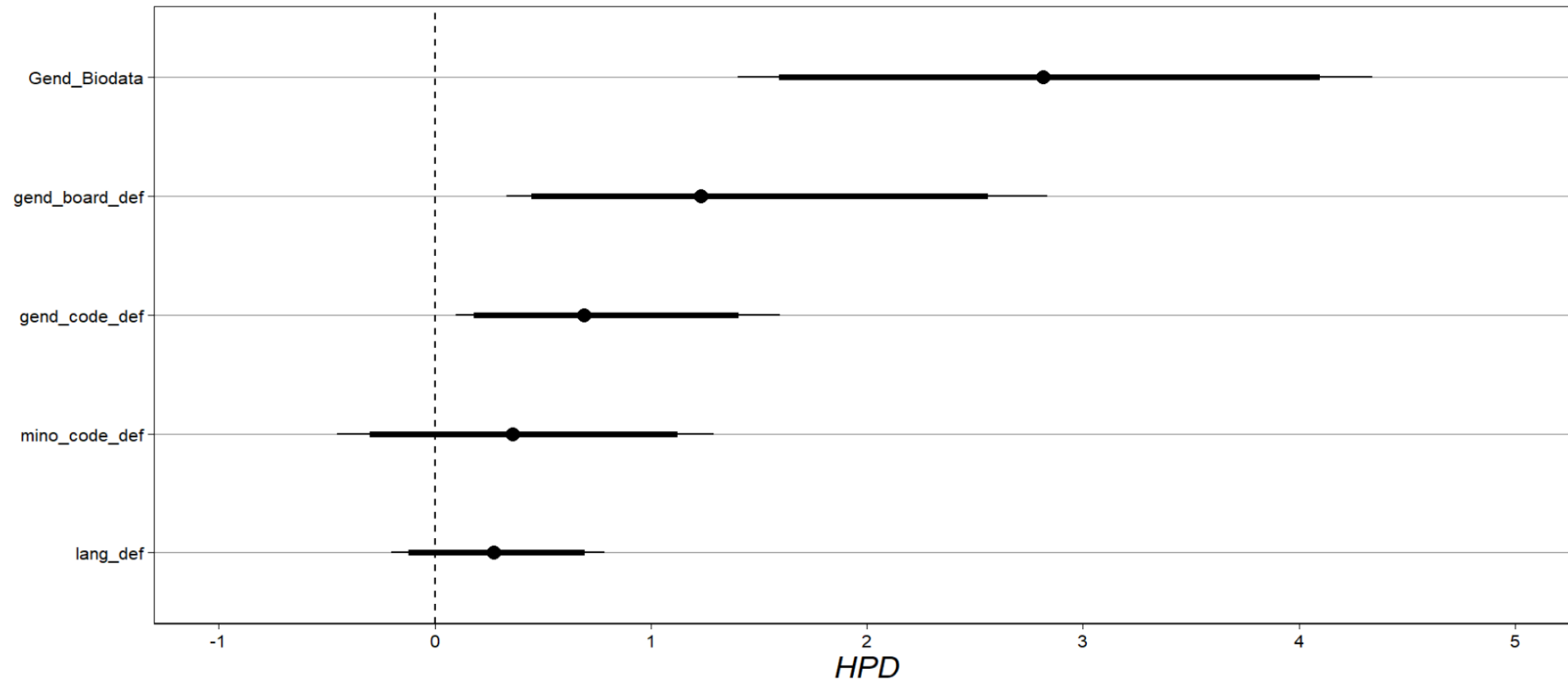


Scores of Participation in Practice( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

# Participation in practice Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).

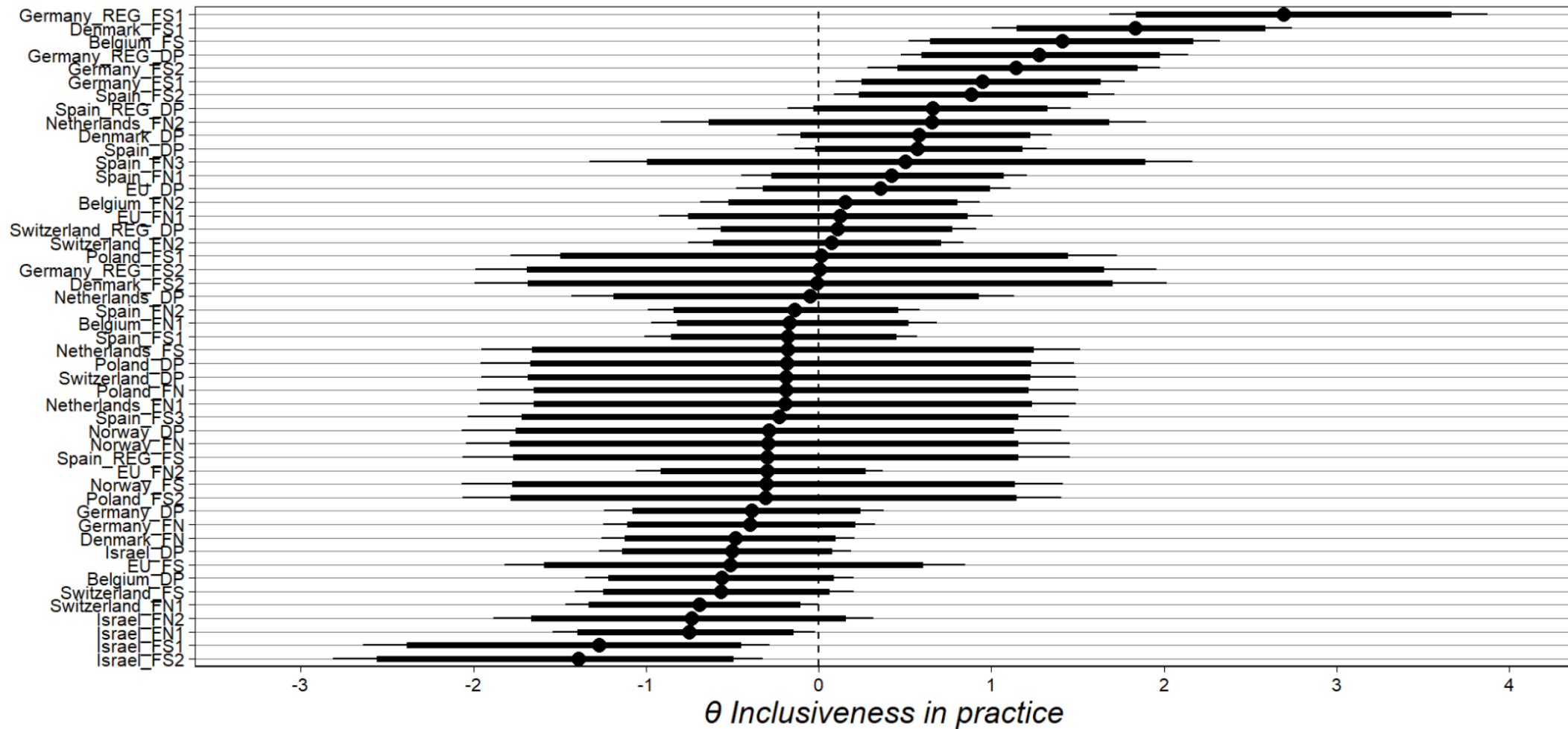


# Inclusiveness in practice Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ).





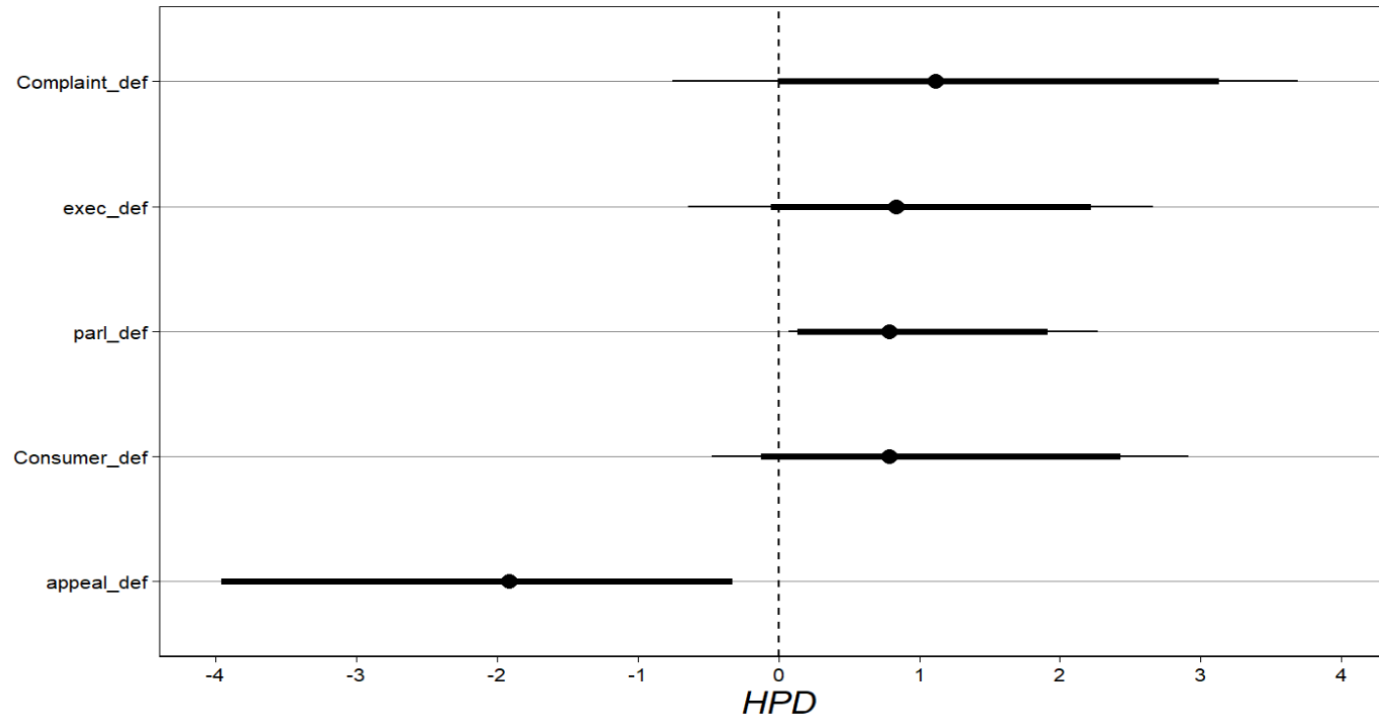
# Agencies Ranked According to their Inclusiveness in Practice



Scores of Inclusiveness in Practice( $\xi$ ) as Computed by the Model. The Dot Represents the Median Point Estimate and the Line the 95 Percent Credible Interval.

Accountability in  
practice  
Discrimination  
Weight Assigned to  
Each Item in the  
Model ( $\alpha$ ).  
Full model

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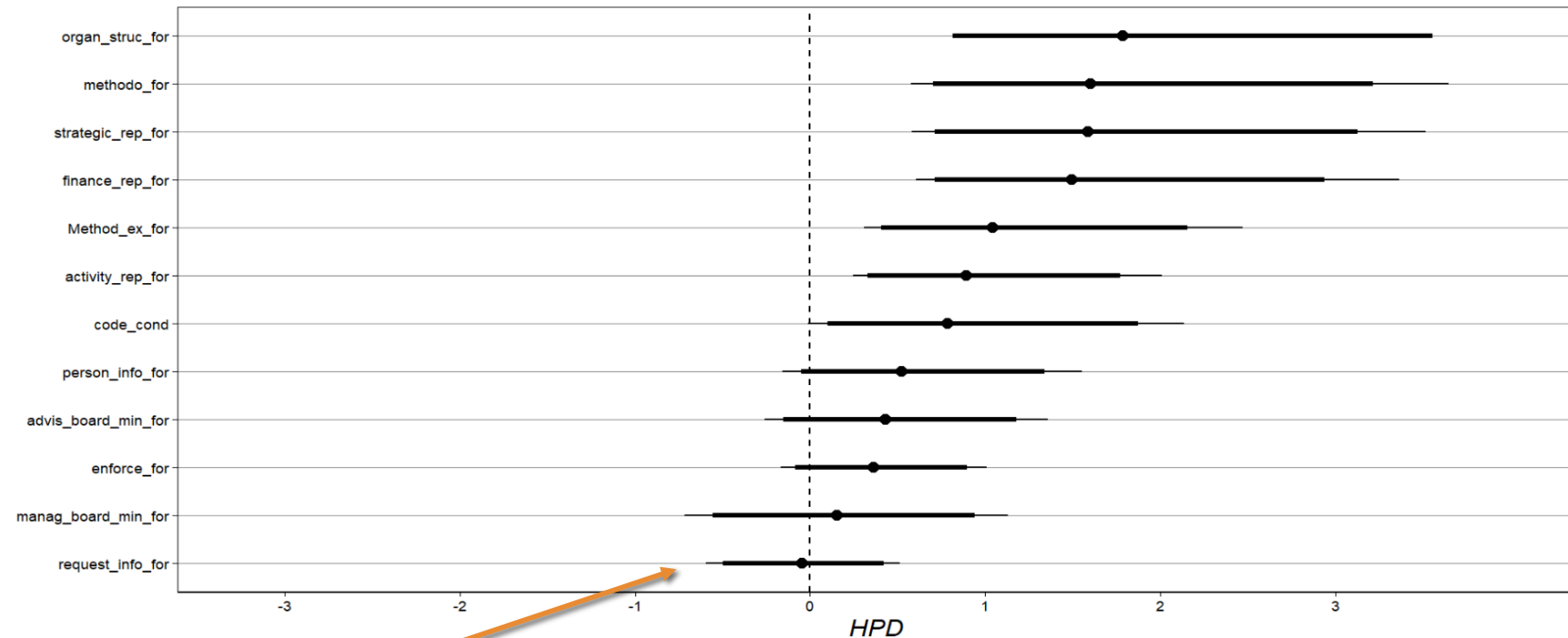


Appeal\_def: Does the regulatory body have a board of appeal operative ? No -0, Yes - 1.

## Formal Transparency Discrimination Weight Assigned to Each Item in the Model ( $\alpha$ ). Full model

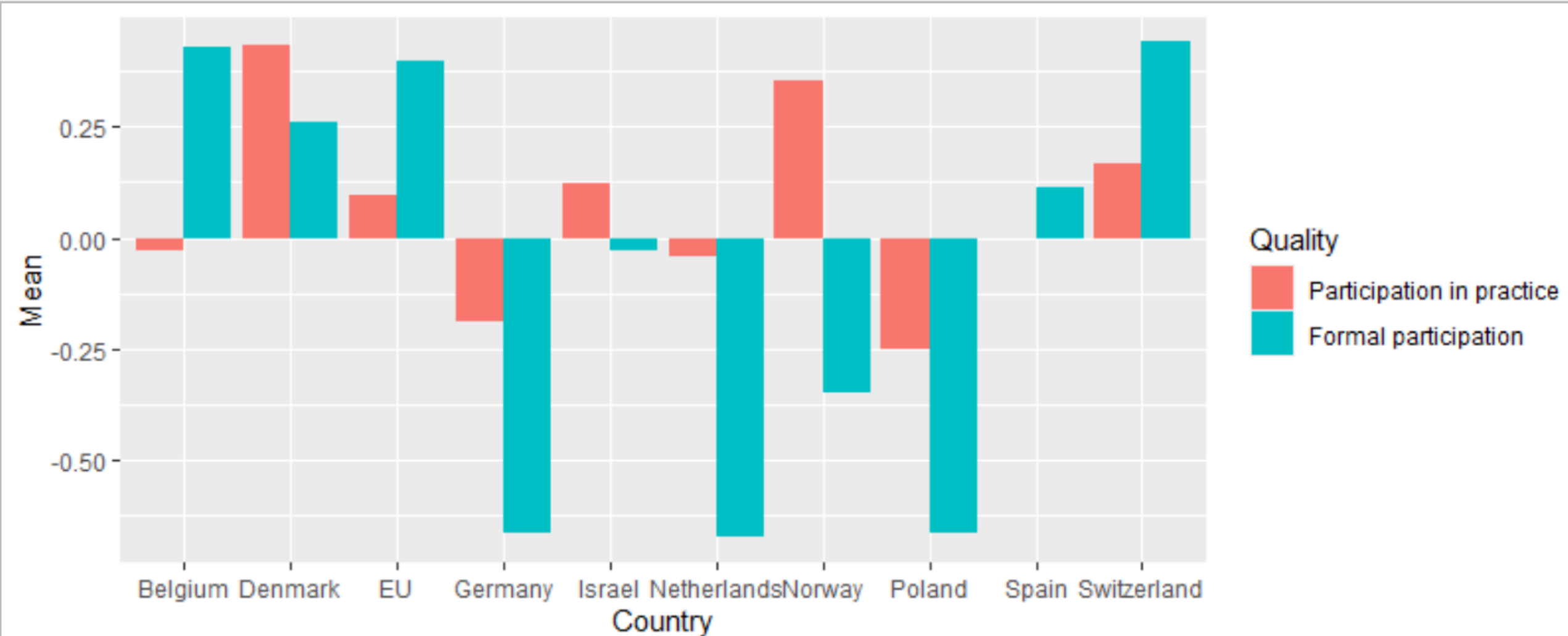
Request\_info\_for: There is a legal obligation that the agency has a system (an officer, or a technical system to) for the public to request information on the organization

(Binary: No -0, Yes - 1)

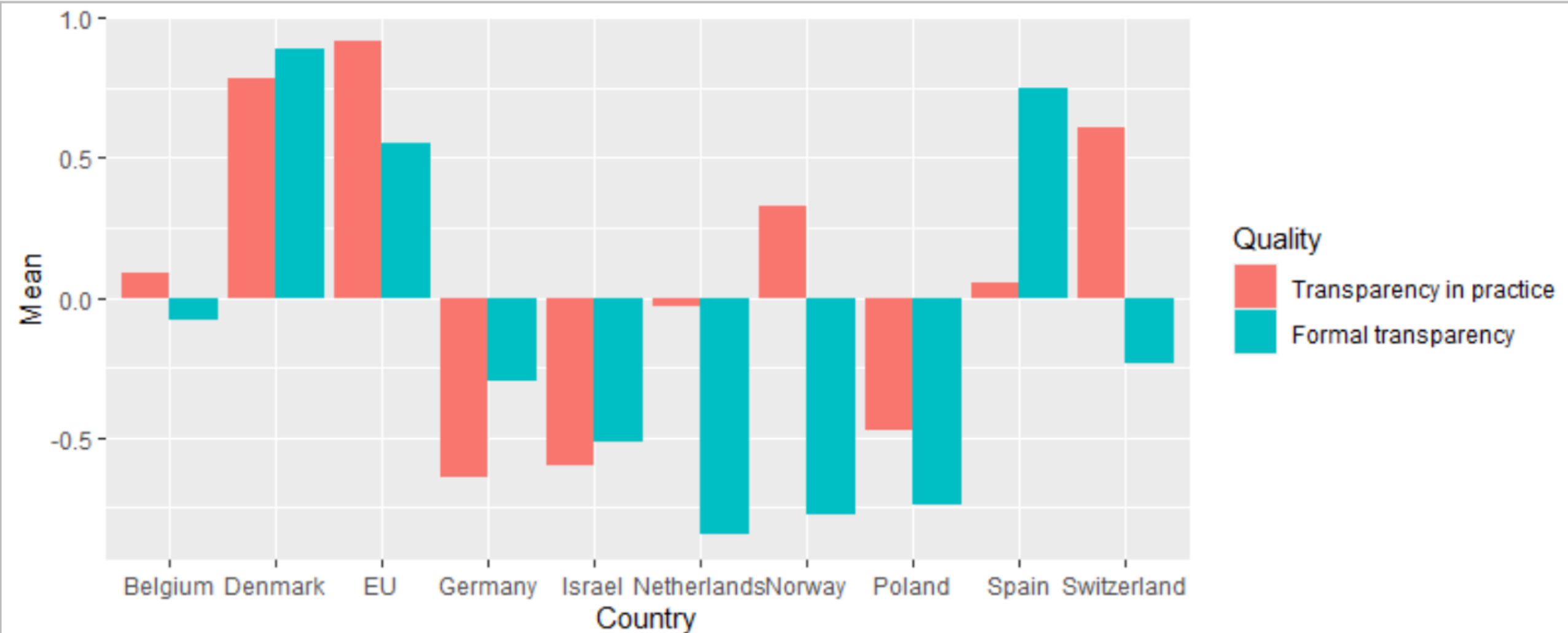


Negative

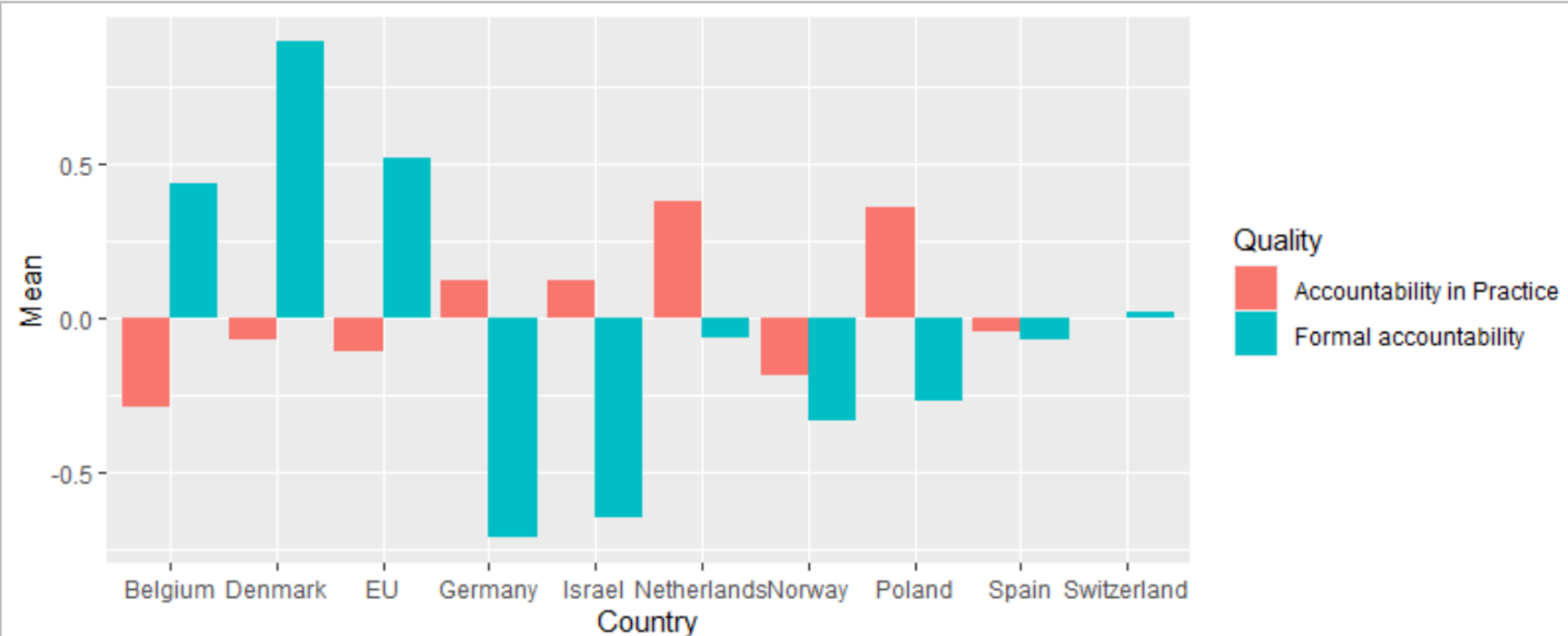
HPD= Highest Posterior Density  
thick lines represent 90% of the HPD and  
thin lines represent 95% of the HPD



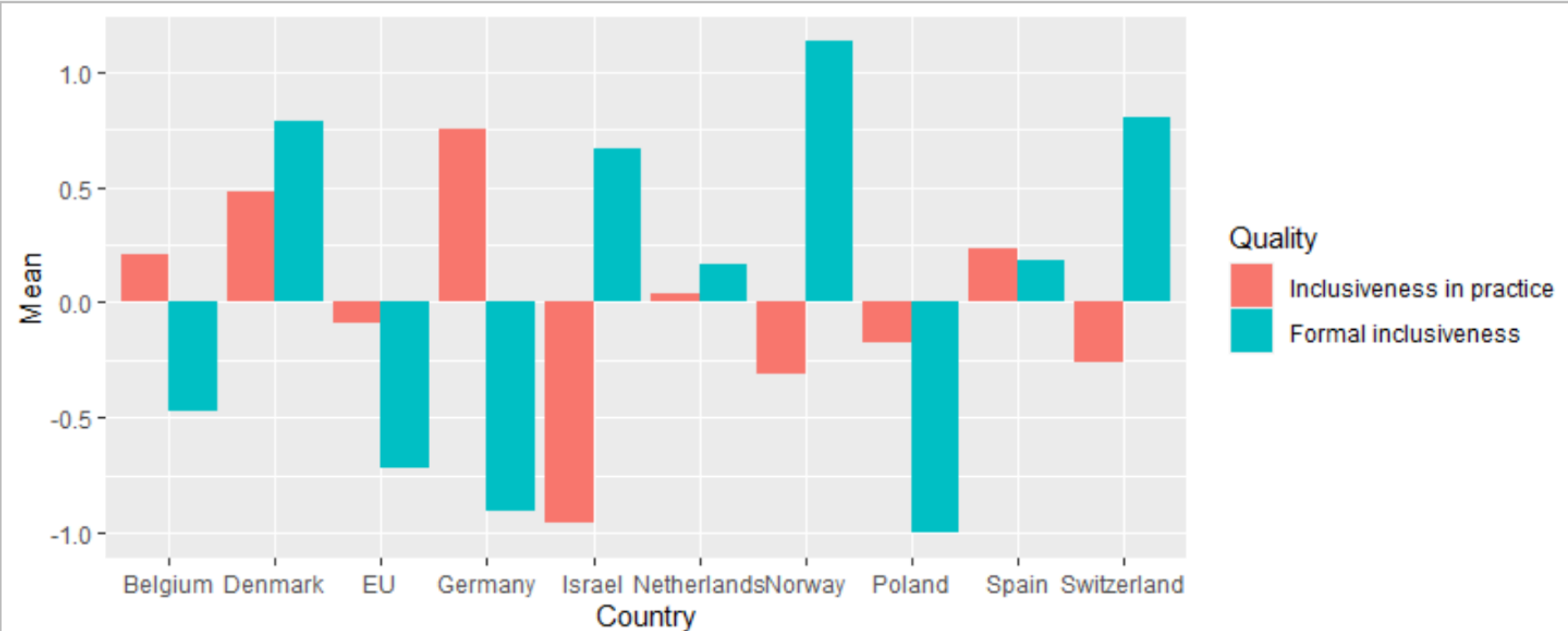
Comparing formal and de-facto participation means, by country



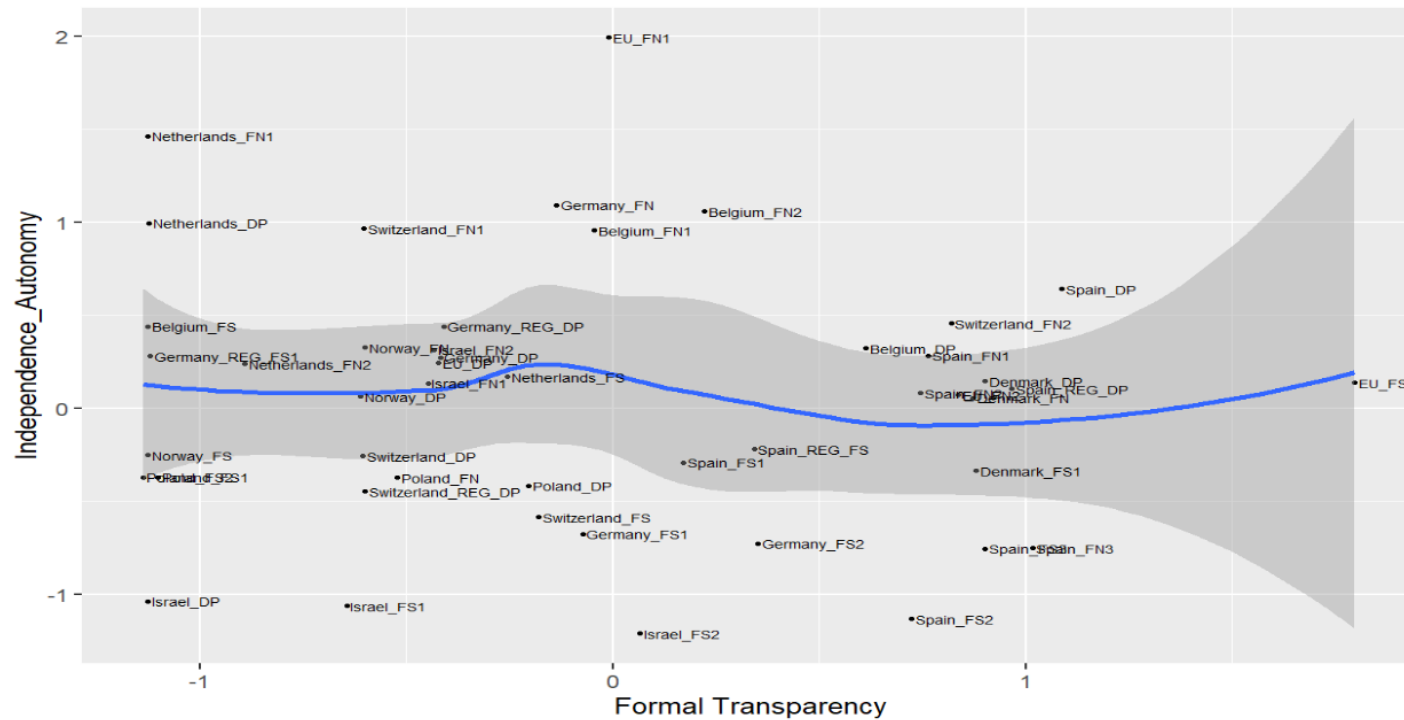
Comparing formal and de-facto  
transparency means, by country



Comparing formal and de-facto  
accountability means, by country



Comparing formal and de-facto  
inclusiveness means, by country

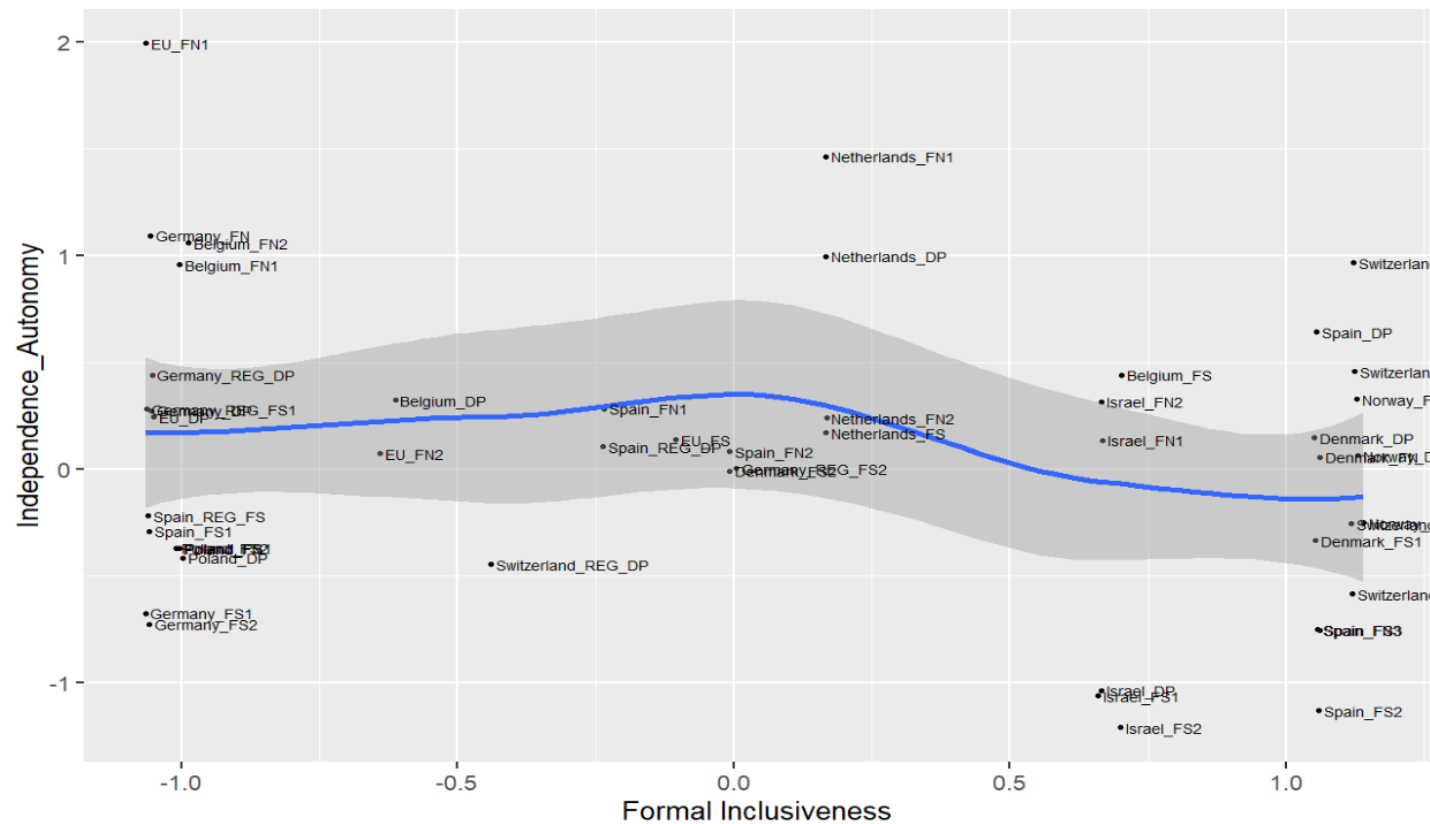


Are PI and MA  
correlated with  
Formal  
Transparency?

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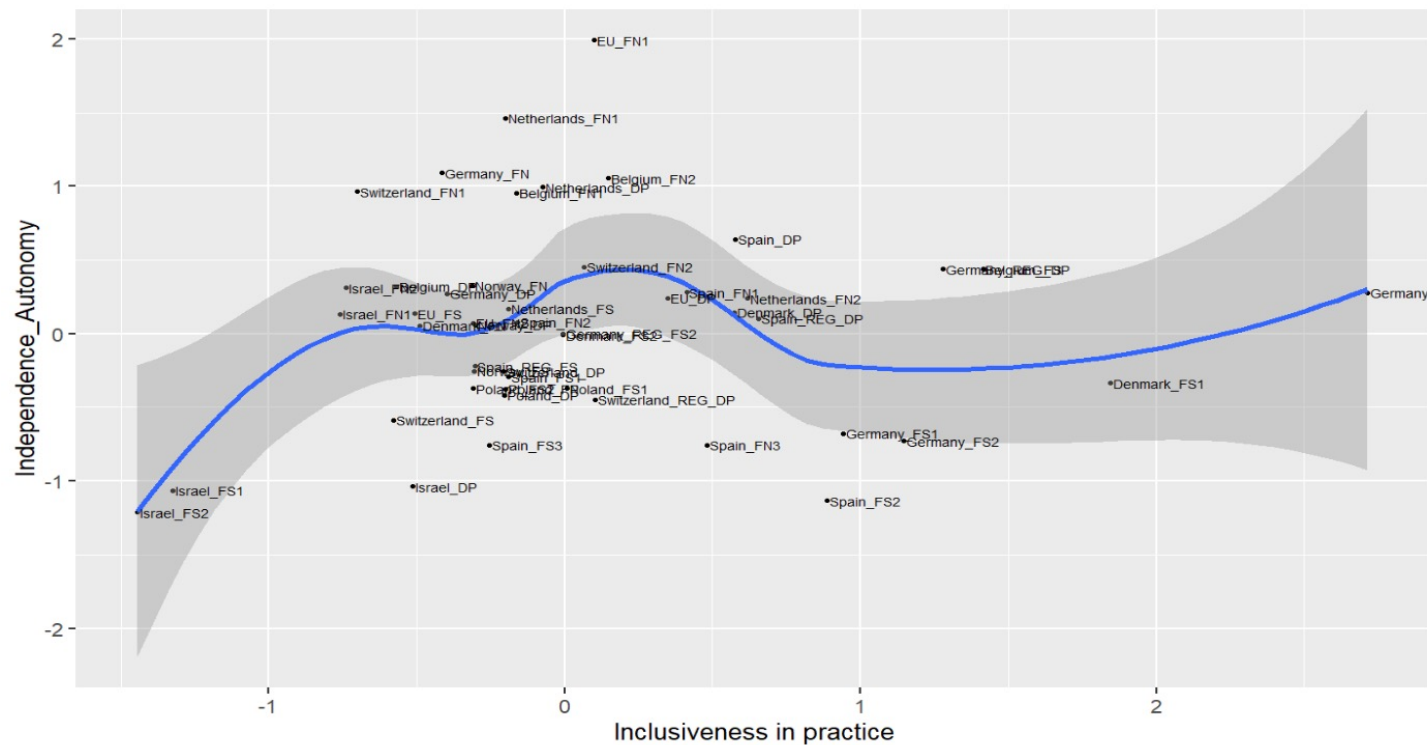






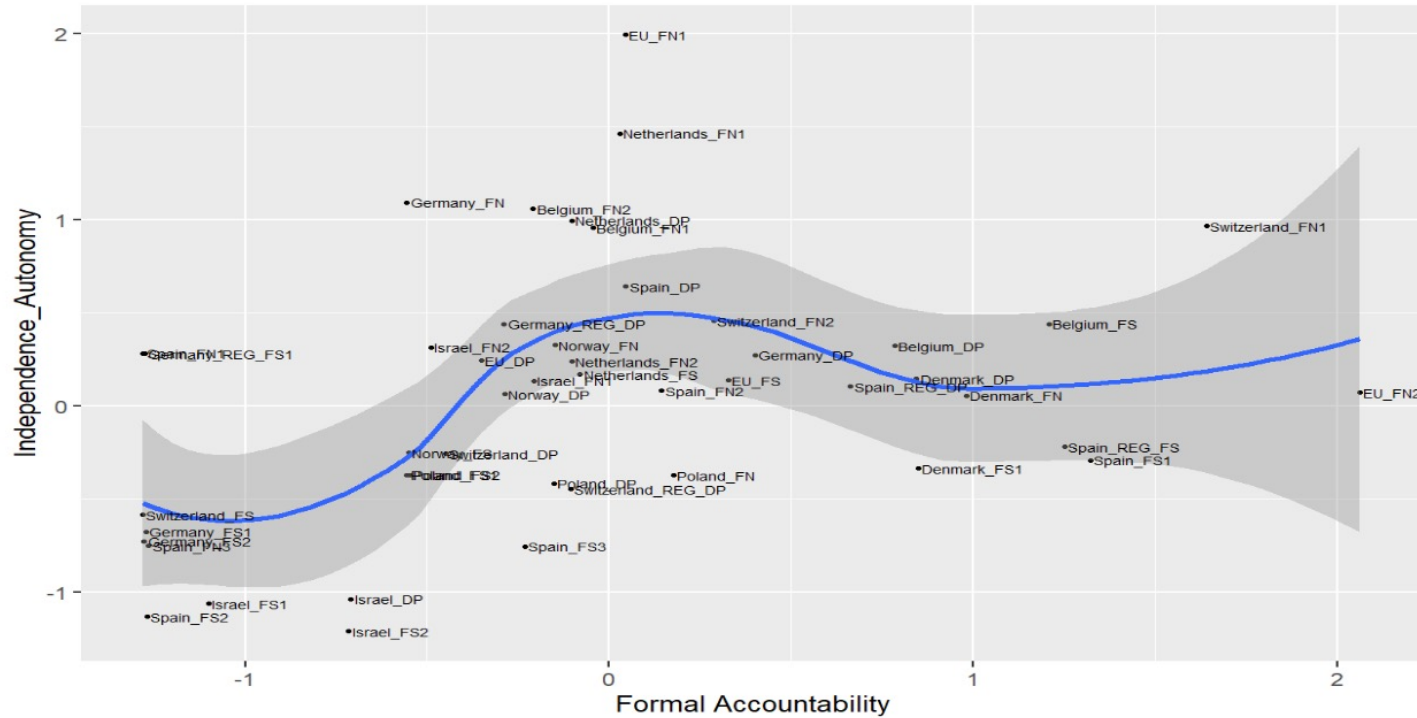
Are PI and  
MA correlated  
with Formal  
Inclusiveness?

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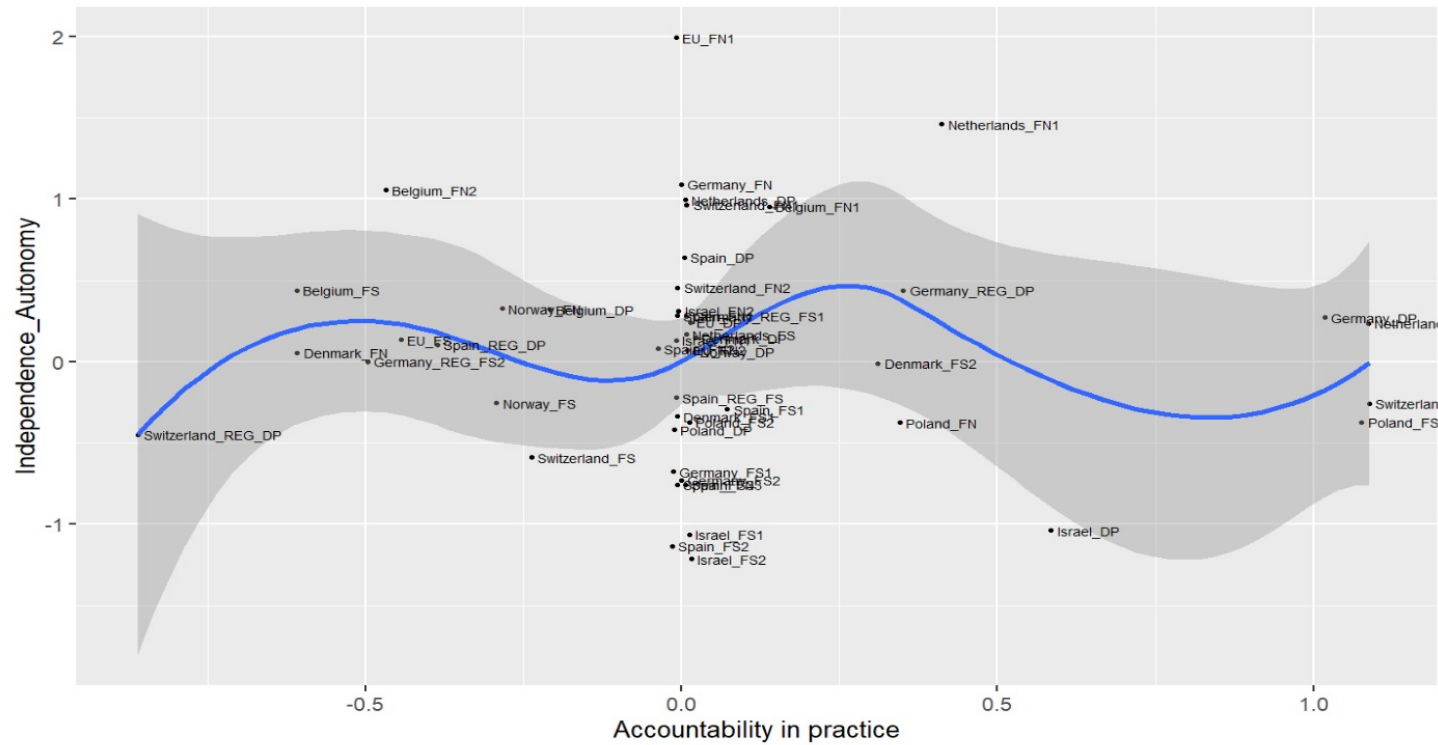
Are PI and  
MA correlated  
with  
Inclusiveness  
in practice?

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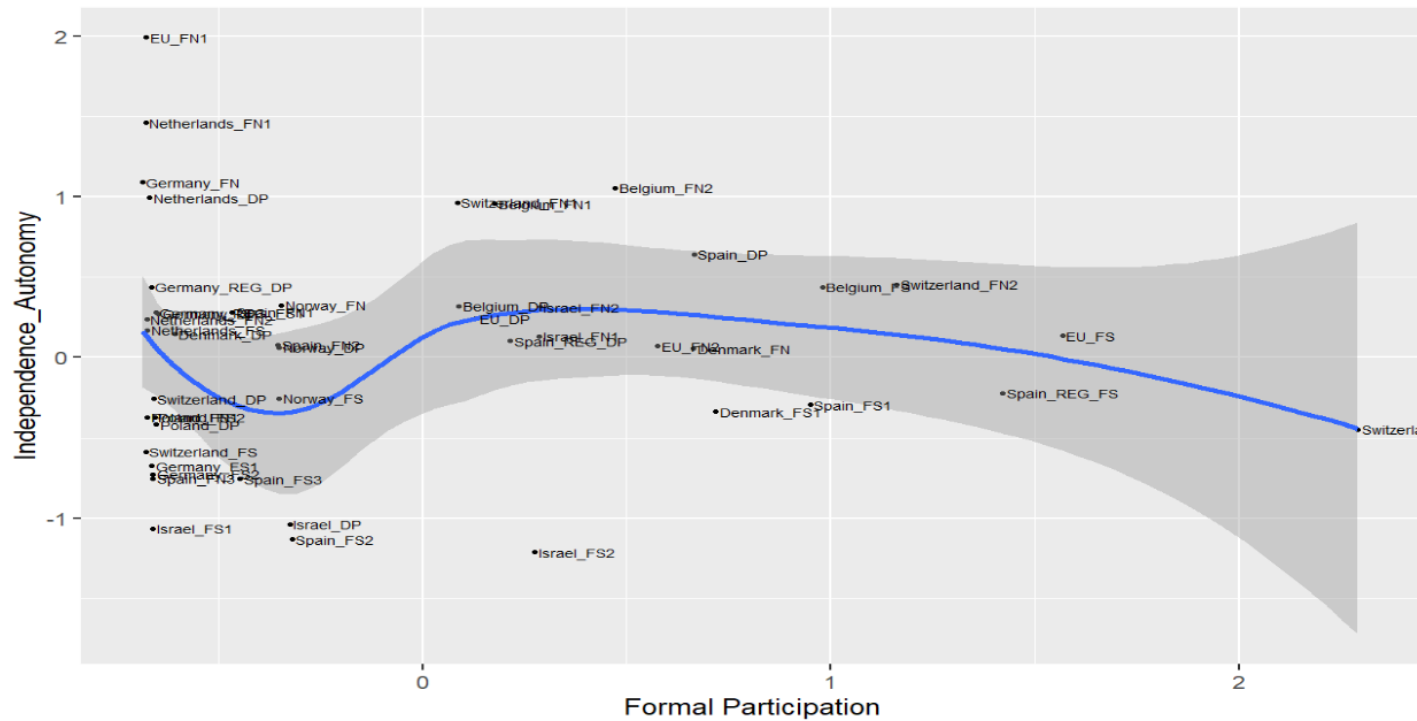
Are PI and MA  
correlated with  
Formal  
Accountability?

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Are PI and  
MA correlated  
with  
Accountability  
in practice?

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# Are PI and MA correlated with Formal Participation?

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