

Distributional Impact Assessment of Draft Budgetary Plans: The use of EUROMOD

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Motivation of the Study

- **Fighting poverty and income inequalities** is important for several reasons, especially for fairness, economic growth, social cohesion and for improving the living conditions of financially vulnerable persons in the EU.
- It is important to **ensure that the measures** in the **EU Member States'** budgets, at least, **do not exacerbate poverty and income inequality**.
- This requires assessing the impacts of these measures along the income distribution (i.e. distributional impacts), also known as **Distributional Impact Assessment (DIA)**, either ex-ante or ex-post.
- However, little is currently known on the extent and how the EU Member States conduct (ex-ante) **DIA in their budget preparation process**.

REGULATION (EU) No 473/2013

OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 May
2013

on common provisions for monitoring and assessing draft budgetary
plans and ensuring the correction of excessive deficit of the Member
States in the euro area

CHAPTER IV

MONITORING AND ASSESSMENT OF MEMBER STATES DRAFT BUDGETARY PLANS

Article 6

Monitoring requirements

(d) relevant information on the general government expenditure by function, including on education, healthcare and employment, and, where possible, indications on the **expected distributional impact of the main expenditure and revenue measures;**

Count of DIA occurrences (*) in the DBP 2015-2020

At least one DIA occurrence in the DBP 2015-2020, for the Euro Area MS

MS	2015	2016	2017	2018	2019	2020	Total Years
AT	No	Yes	No	No	No	No	1/6
BE/DE/ES/IT/LU/PT/SI/SK	No	No	No	No	No	No	0/6
CY			No	No	No	No	0/4
EE	No	No	No	Yes	Yes	No	2/6
EL					Yes	Yes	2/2
FI	No	No	No	No	Yes	No	1/6
FR	No	No	No	Yes	No	Yes	2/6
IE	Yes	Yes	Yes	Yes	Yes	Yes	6/6
LT		No	Yes	No	Yes	No	2/5
LV	No	No	No	Yes	No	No	1/6
MT	No	No	Yes	Yes	No	No	2/6
NL	Yes	Yes	Yes	Yes	Yes	Yes	6/6
Total Euro MS with DBP	2/16	3/17	4/18	6/18	6/19	4/19	

Aims of the study

This study aims at answering the following five research questions:

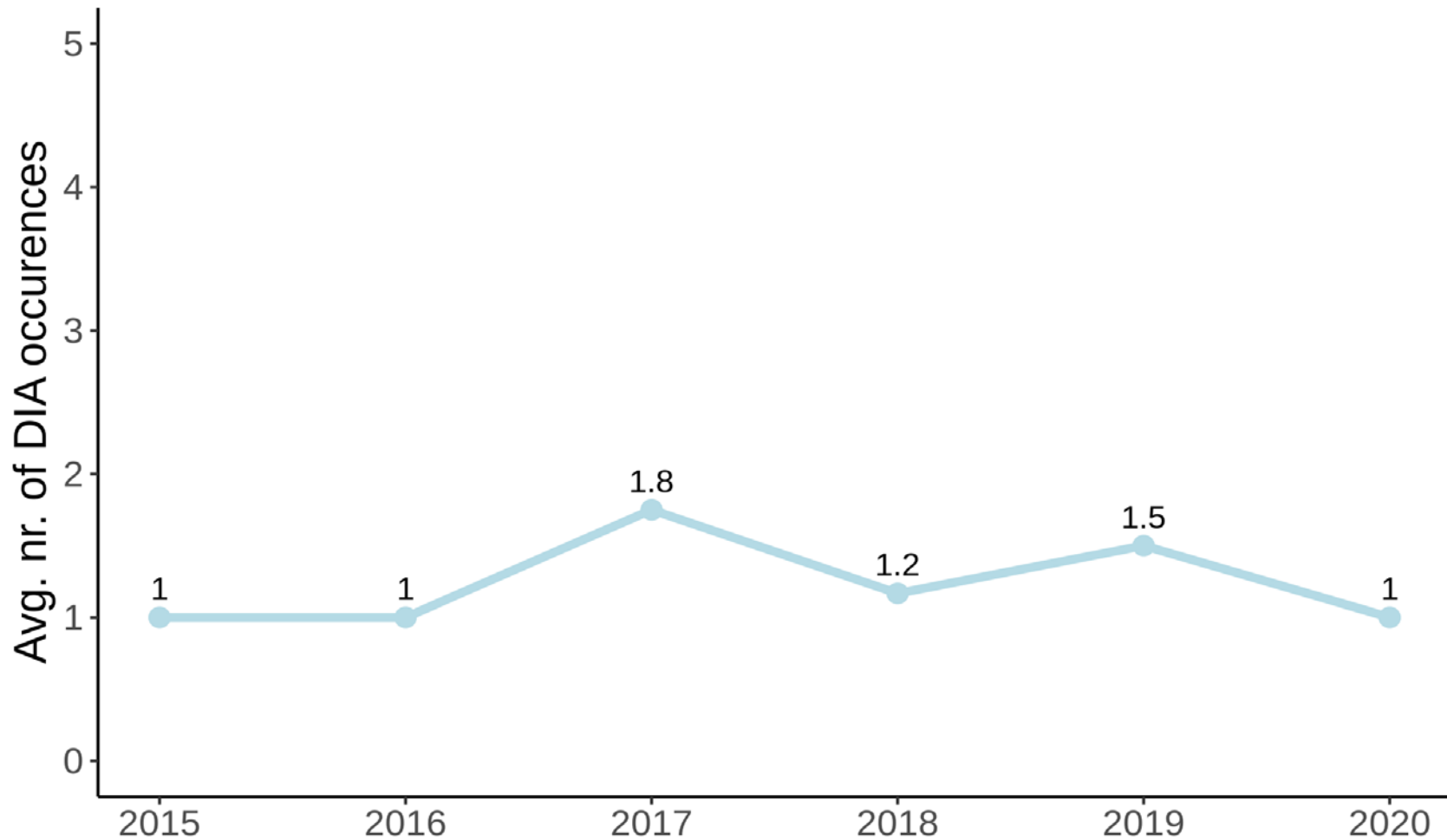
1. To what extent do Euro Area MS **use DIA in DBP**? How do they approach the DIA requirement set out in Art.6(3)(d) of Regulation No 473/2013? How has this approach **evolved over the past few years**?
2. To what extent do EU27 Member States **use DIA (outside DBP)** in their budget preparation process or for other purposes?
3. **What may limit the use** by Euro Area MS of DIA in DPB?
4. What could be **concrete suggestions** for increasing the use by MS of DIA in and outside DBP?
5. What could be concrete suggestions as regards the design of a **possible EU common Framework** for the use of DIA in budgetary documents (incl. in DPB)? To what extent do limited testing/validation confirm the relevance and the feasibility of these recommendations?

The Methodology

Three methods to analyse the occurrence and nature of DIAs in the documentation of the Member States over the **period 2015-2020** have been implemented:

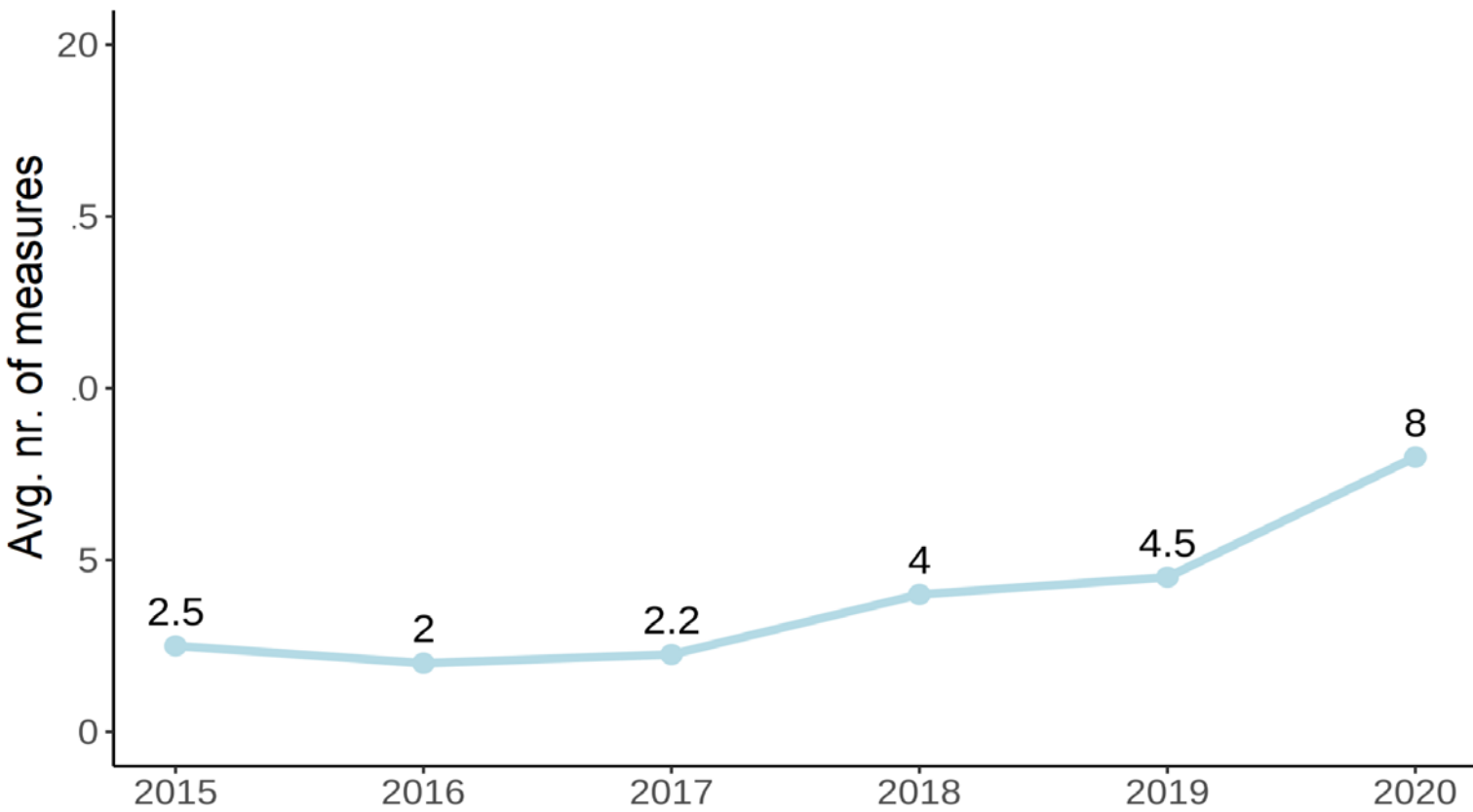
1. DIA occurrences in DBPs have been identified through a **systematic reading** review of Member States' **available official documentation related to the budget** (DBPs, Stability/Convergence Programs, National Reform Programs)
2. **Text-mining software** has been used to detect the presence of DIA in the Stability/Convergence Programs (SCP) and the National Reform Programs (NRP).
3. **Officials were interviewed** about DIA performance in the budgetary process for all Member States.

Average number of DIA occurrences in DBP over 2015-2020



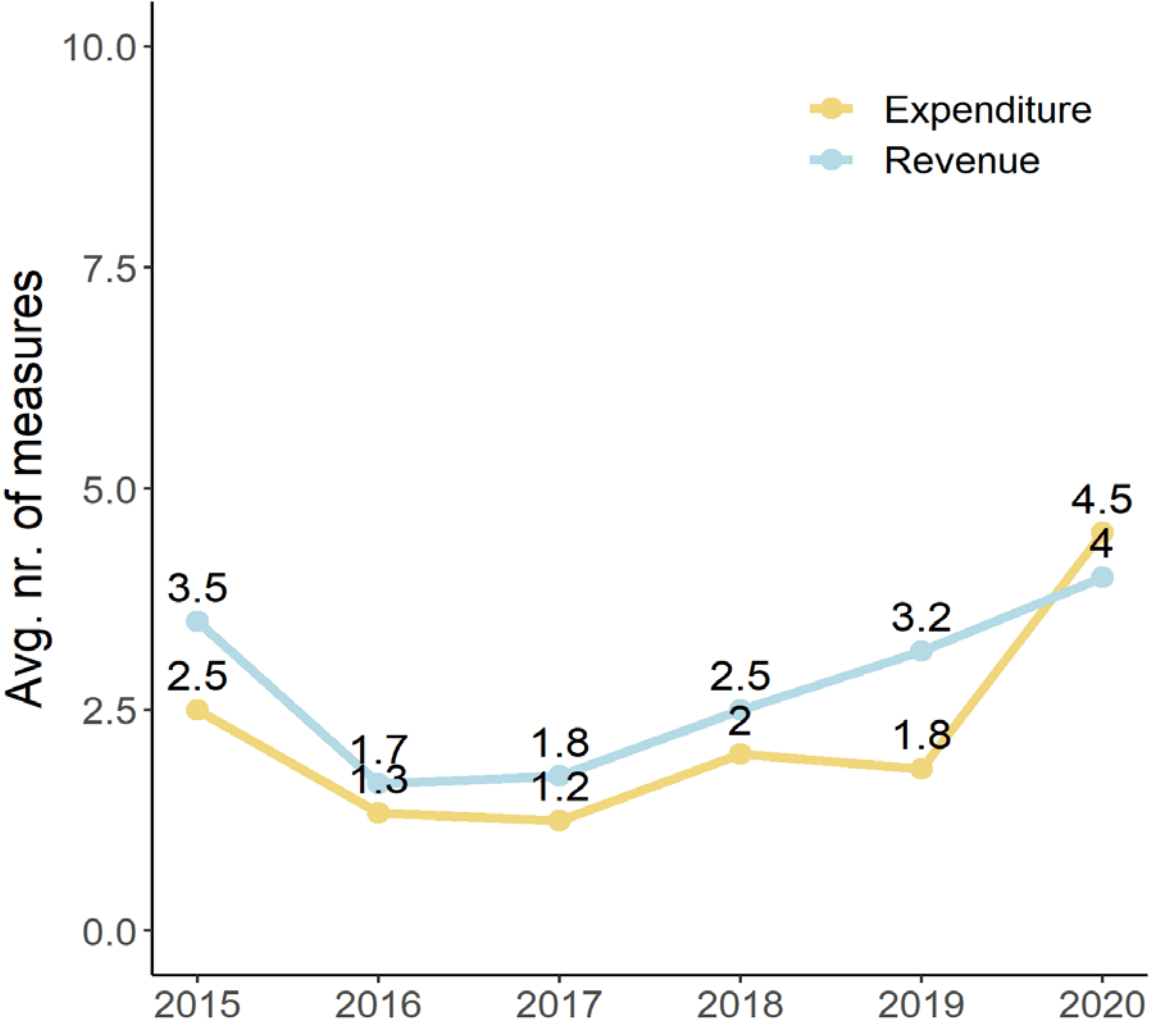
The average is in a given year over the total number of Euro Area Member States with at least one DIA occurrence in that year.

Average number of distinct budgetary measures analysed as DIA over 2015-2020.



The average is in a given year over the total number of Euro Area Member States with at least one DIA occurrence in that year.

Average number of distinct budgetary measures by type analysed in the DBP 2015-2020



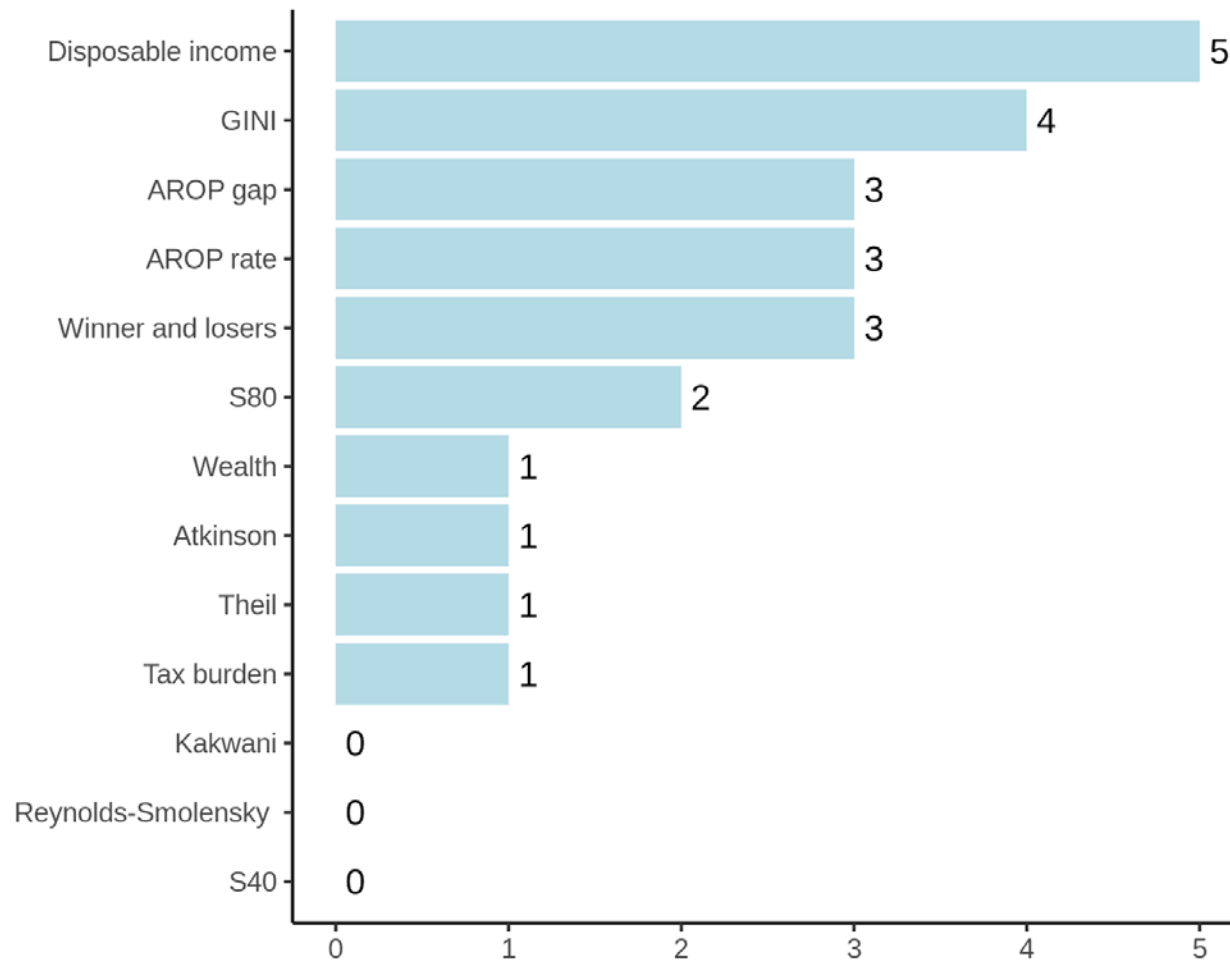
Main findings concerning the use of DIA by MS

- Among the 19 Euro Area Member States, **only two implemented DIA in all the years considered** (i.e., Ireland and the Netherlands) and **eight others perform DIA occasionally** (i.e., Austria, Estonia, Finland, France, Greece, Lithuania, Latvia and Malta).
 - **Nearly 50% of Euro Area MS do not include any DIA in the DBP**
- The average number of DIA occurrences in a DPB in a given year is below two but an upward trend in the number DIA of policy measures in DBPs is observed from 2016 onwards.
- The policy measures are usually combined and analysed jointly in a single DIA exercise, whereas in rare cases the focus is placed only on one type of policy measure for a given fiscal year.

The use of DIA outside the DBPs

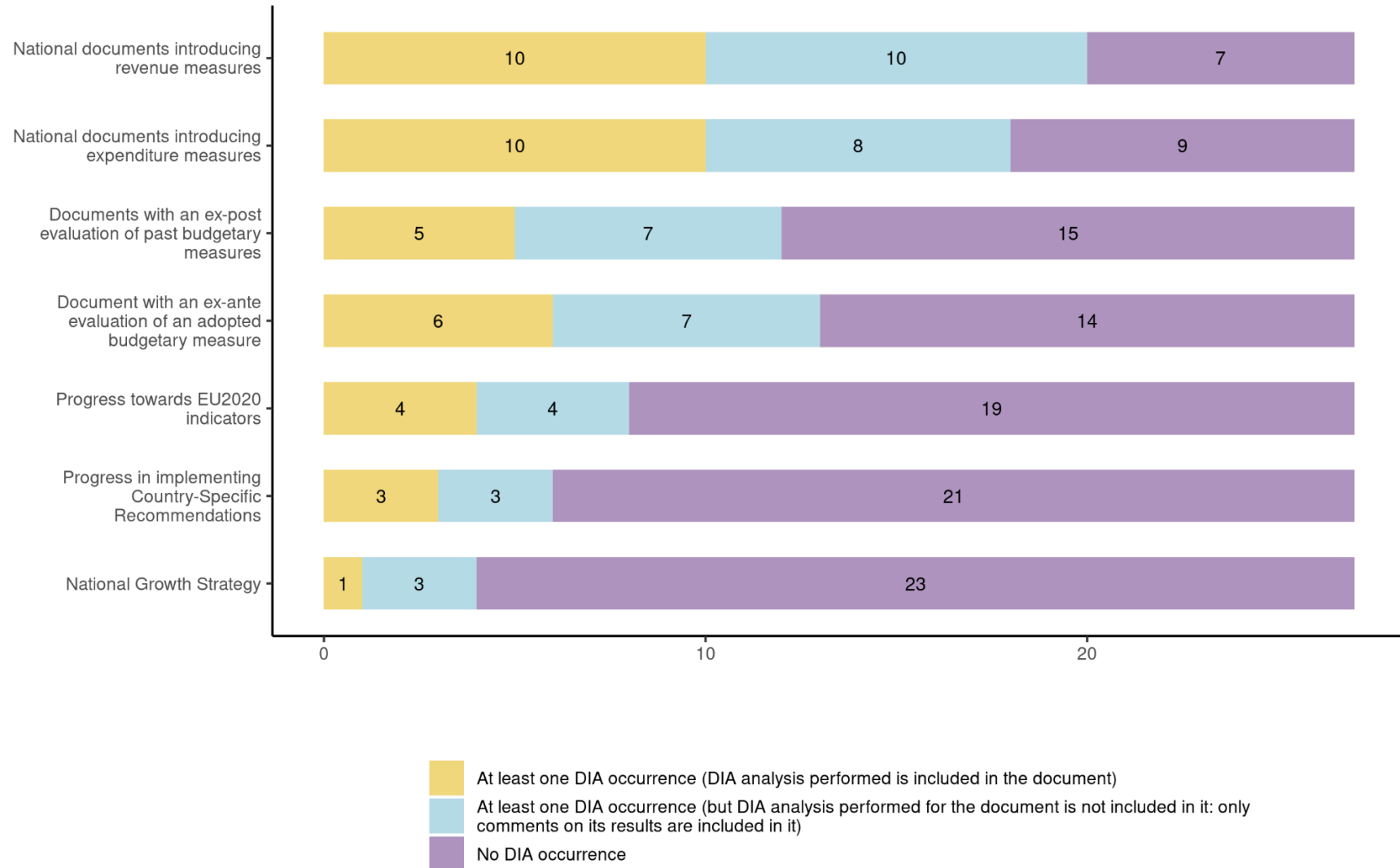
- **Very few** Member States include **DIA in the SCP or the NRP**.
 - More precisely, Hungary is the only country that presents a DIA analysis in the Converge Programme, and Belgium, Hungary, Italy, Malta and Portugal have included DIA in the National Reform Programme.
- **Most** of the MS perform **at least some DIA analysis in the budget preparation process** (though not necessarily including it in any official budgetary document), except Cyprus, Luxembourg and Romania, which do not perform any DIA at all.
- However, the number of DIA performed vary between MS (from 0 to 11 per year on average in recent years) and is rather small for most of them (there are 19 Member States with less than 8 DIA performed per year on average in recent years): still **much room for improvement in the intensity of DIA use**.

Types of DIA analysis in DBP 2019-2020. Euro Area MS with at least one DIA occurrences in DPB (N=7).

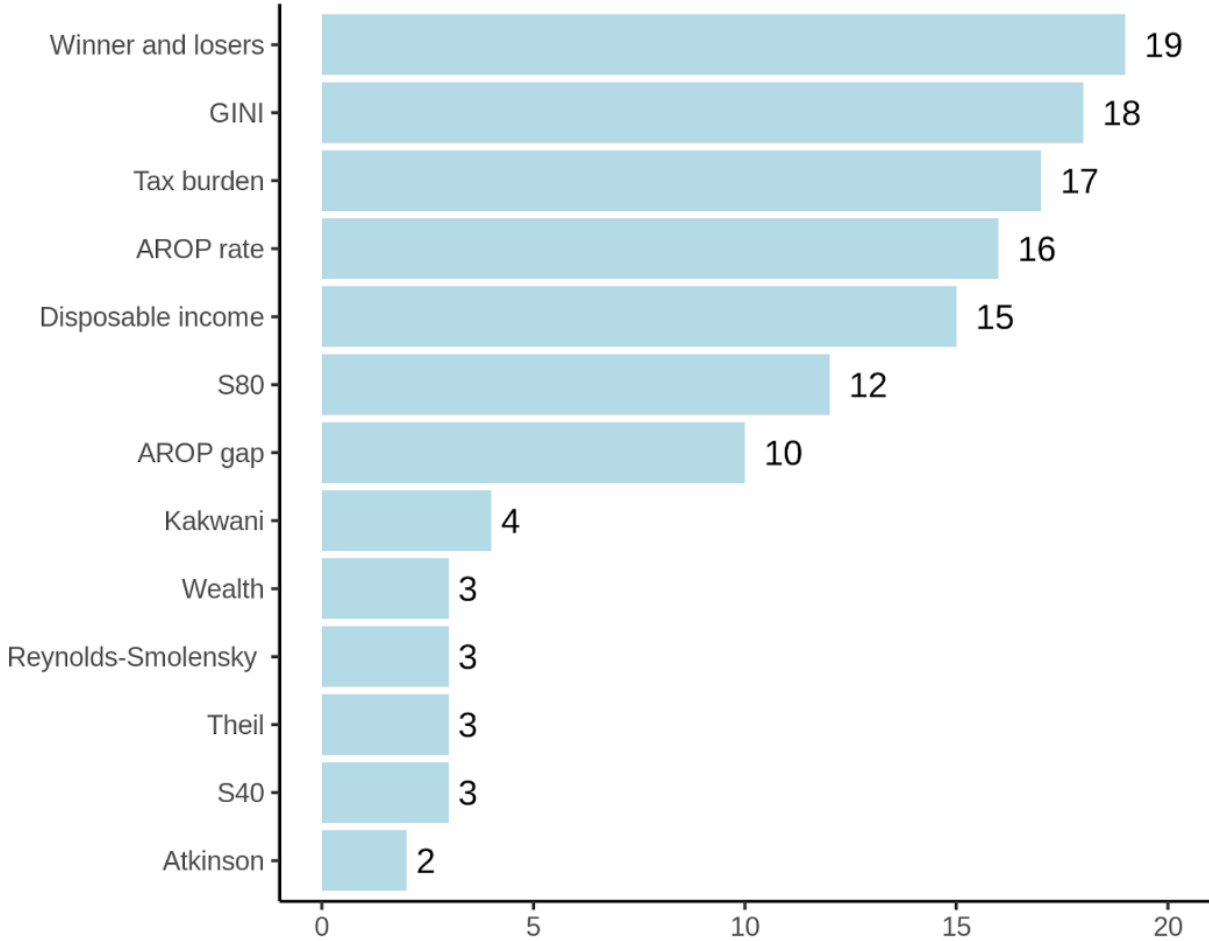


* The analysis includes only Estonia, Finland, France, Greece, Ireland, Lithuania, and the Netherlands as they are the only Euro Area Member States who performed DIA in at least one year in 2019-2020. Respondents are allowed to choose multiple answers.

Number of EU Member States with at least one DIA occurrence outside DBPs, SCP and NRP (years 2019-2020). N = 27

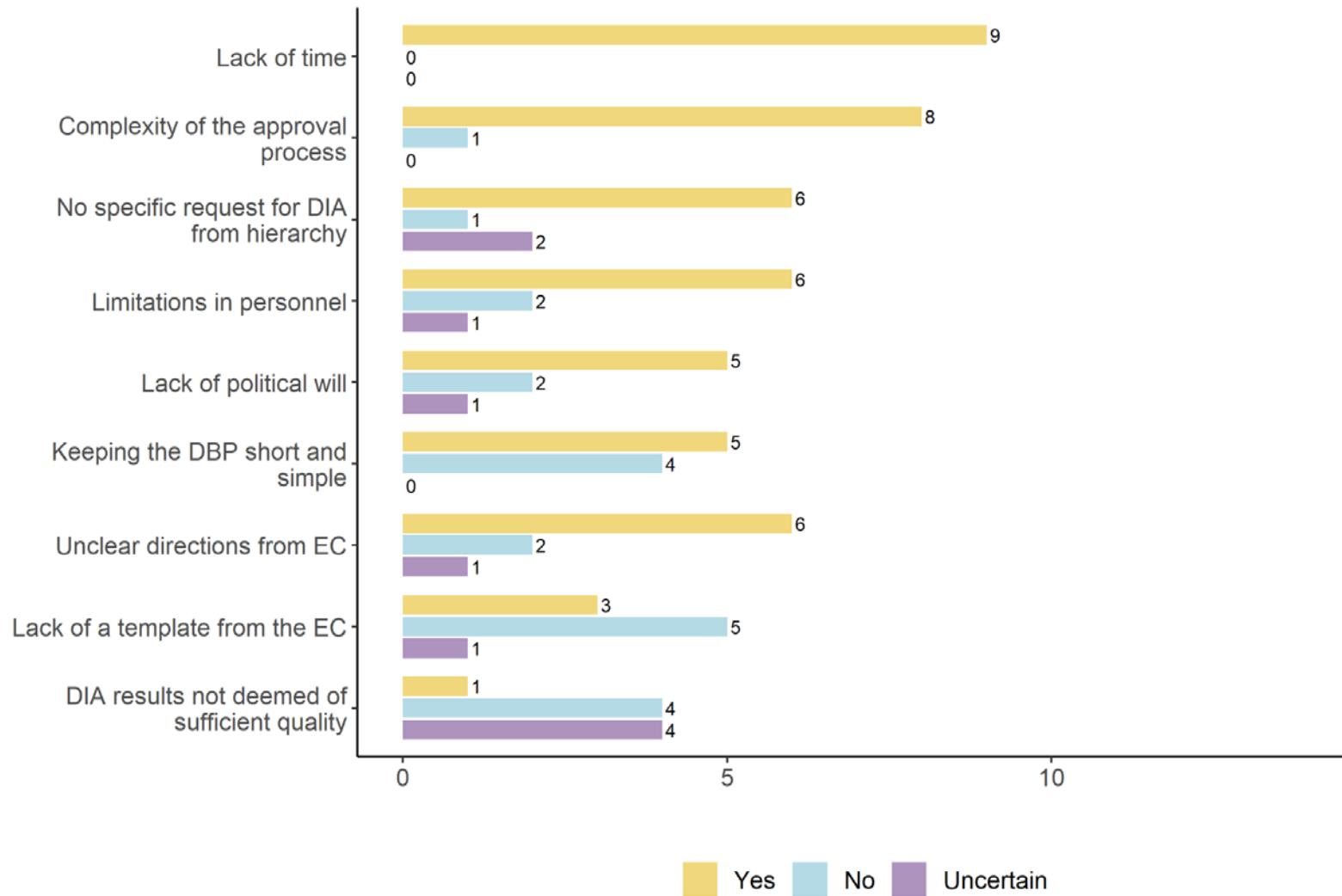


Types of indicators used for DIA analysis outside DBPs 2019-2020. European Member States (N=23)



Note: Cyprus, Romania and Luxembourg do not perform any DIA outside DBPs. For Bulgaria, information is missing.

Main obstacles preventing inclusion of DIA in DBP

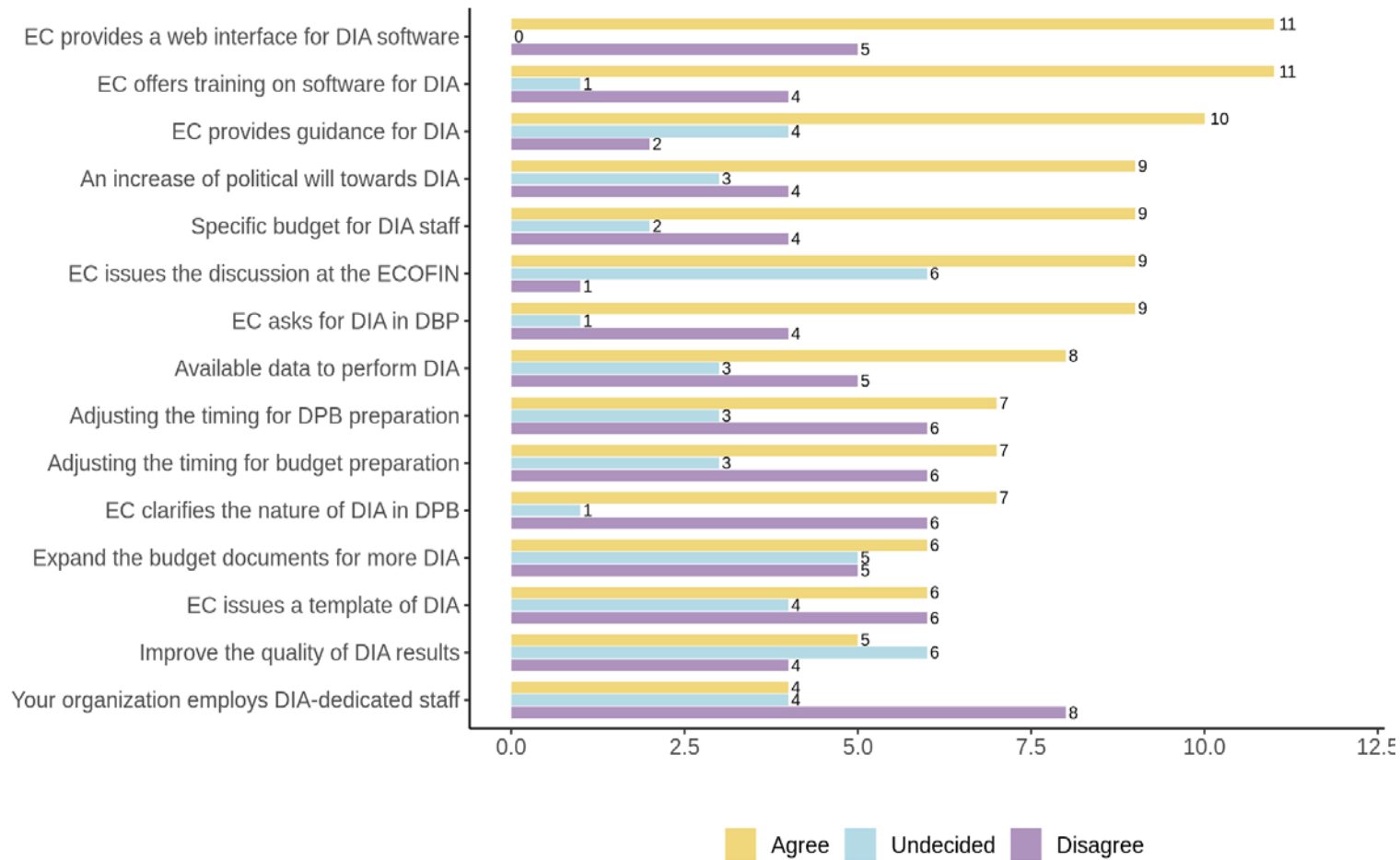


Interpretations of Art. 6 (3)(d) in the EU Regul. 473/2013

We also asked the ministry officials on their **views on Article 6 (3)(d) in the EU Regulation 473/2013**, which foresees the inclusion of DIA in the DBP.

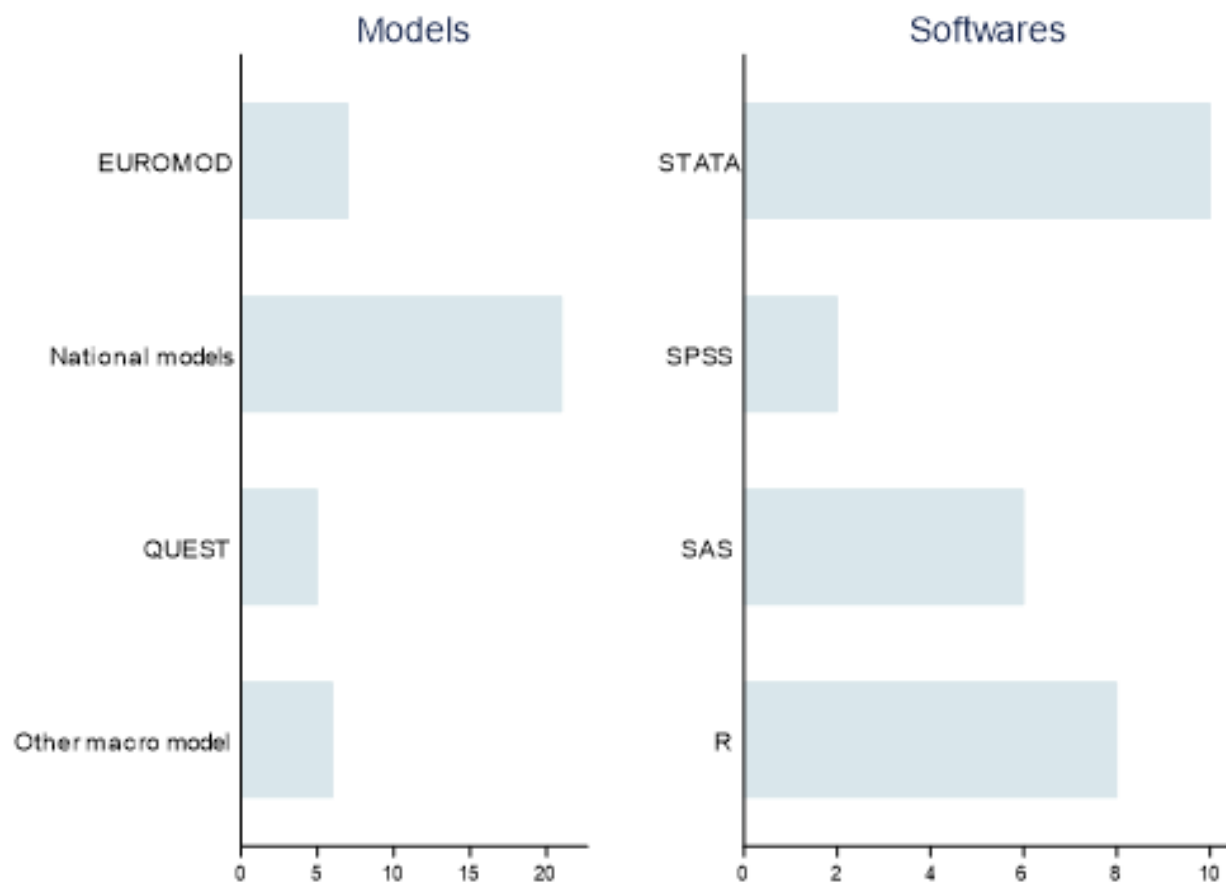
- some officials (Malta, Slovakia and Greece) consider Article 6 as useful, as **it stresses the importance of DIA**
- Others stated that they **would conduct DIAs even in absence of Article 6**
- Some countries (Italy and Latvia) regarded Article 6 as a **recommendation**
- Three other member states would deem it **better without any formal request** regarding DIA from the EU, as they already use DIA in the budget process and a formal request could distort the way they perform DIA and become an additional, **undesired administrative burden**

Factors that could help to increase the use of DIA in the budgeting process. Euro area MS (N=17)



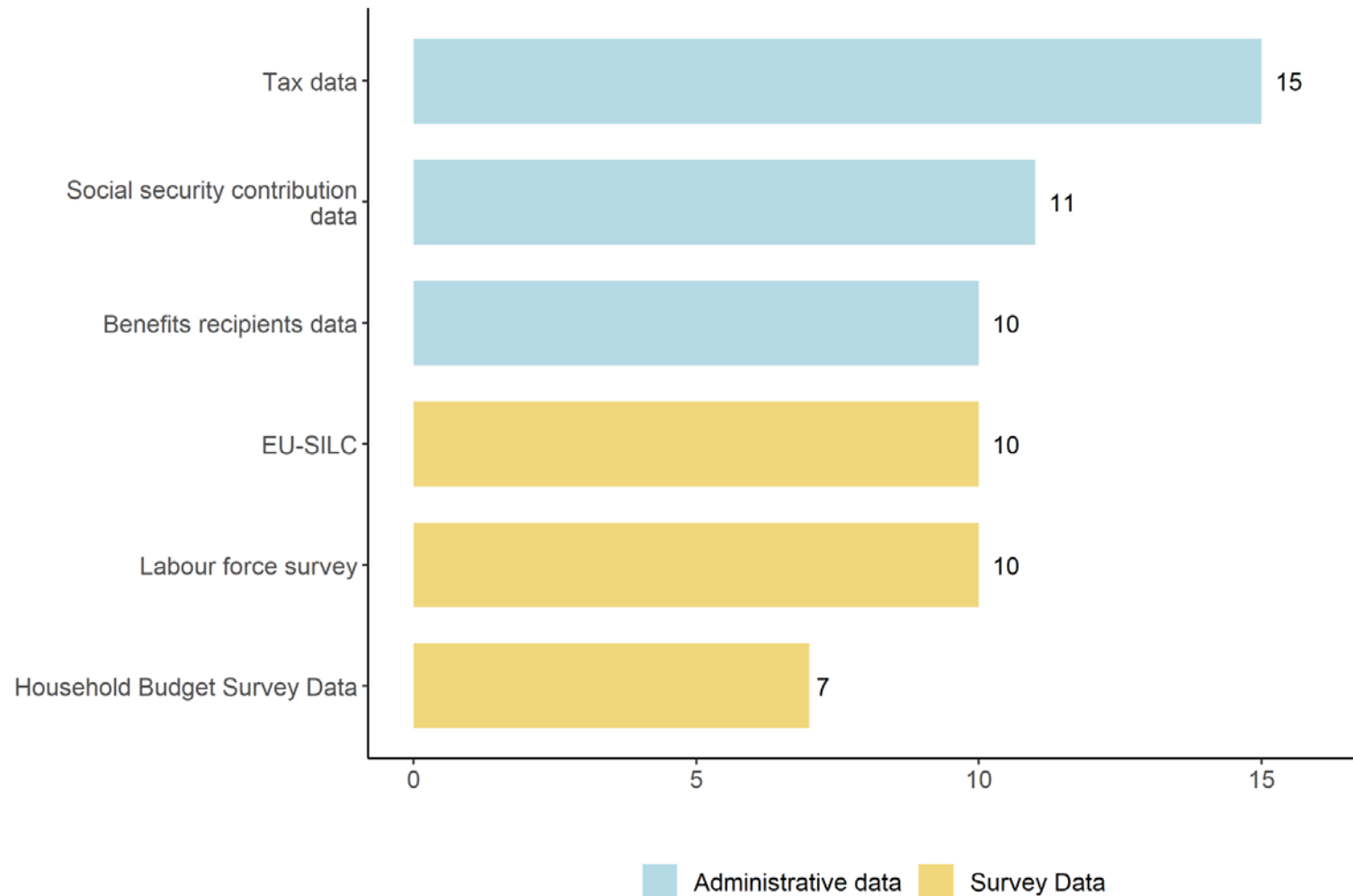
Note: “Strongly disagree” and “Disagree” from one side and “Strongly agree” and “Agree” on the other side have been considered jointly under the labels “Disagree” and “Agree”. The sum of bars does not always equal N (17), because of missing answers.* Cyprus and Luxembourg are excluded since no DIA is performed.

Microsimulation models, macroeconomic models, statistical software used to perform DIA Euro Area MS with at least one DIA occurrence over 2018-2020 (N=17)



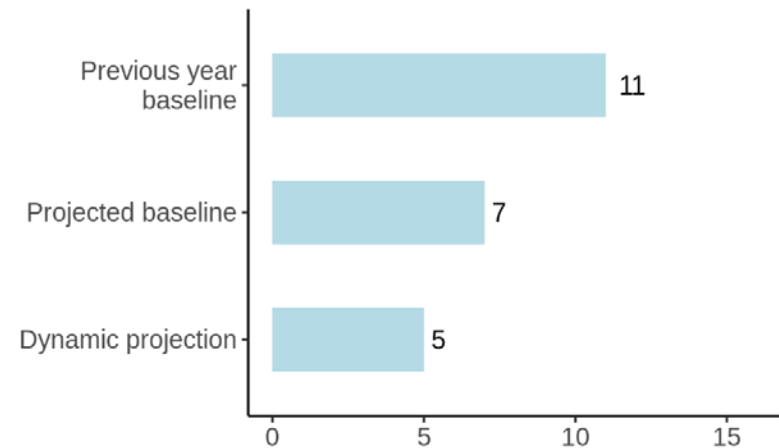
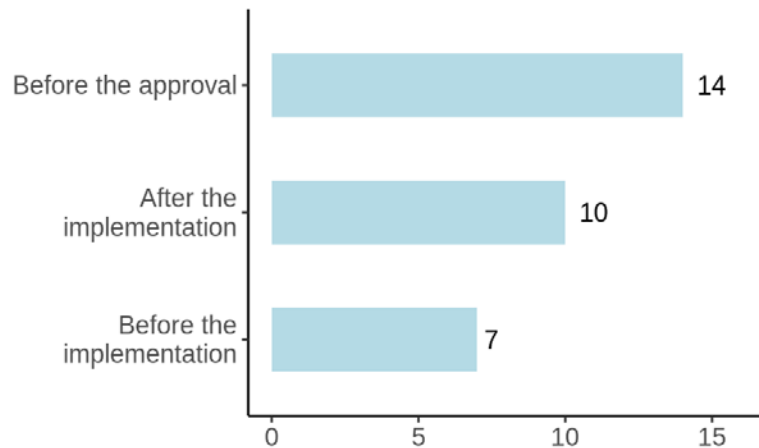
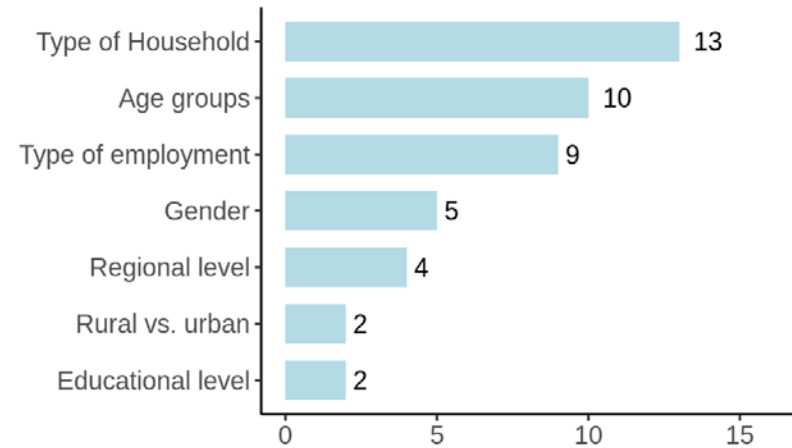
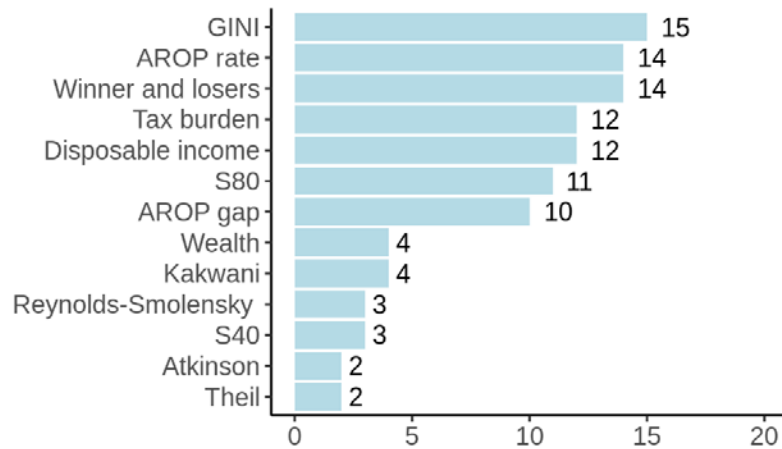
Note: respondents are allowed to choose multiple answers. The national models mentioned in the chart are micro-simulations models. * Cyprus and Luxembourg are excluded since no DIA is performed in these MS.

Data used for producing DIA analysis. Euro Area MS (N=17)



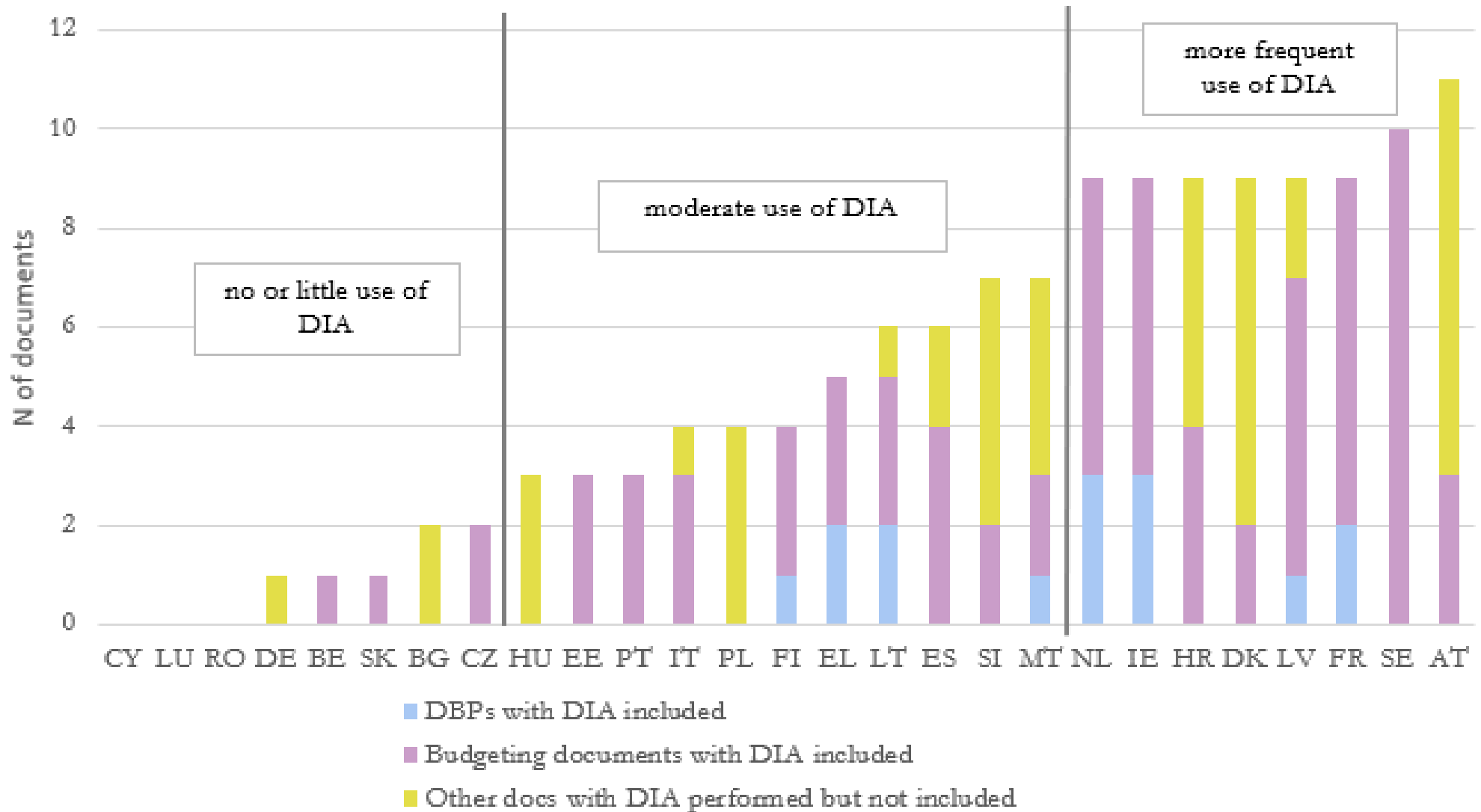
Note: respondents are allowed to choose multiple answers. * Cyprus and Luxembourg are excluded since no DIA is performed in these MS.

Types of indicators and sub-groups decomposition used in the DIA Euro Area MS (N=17).

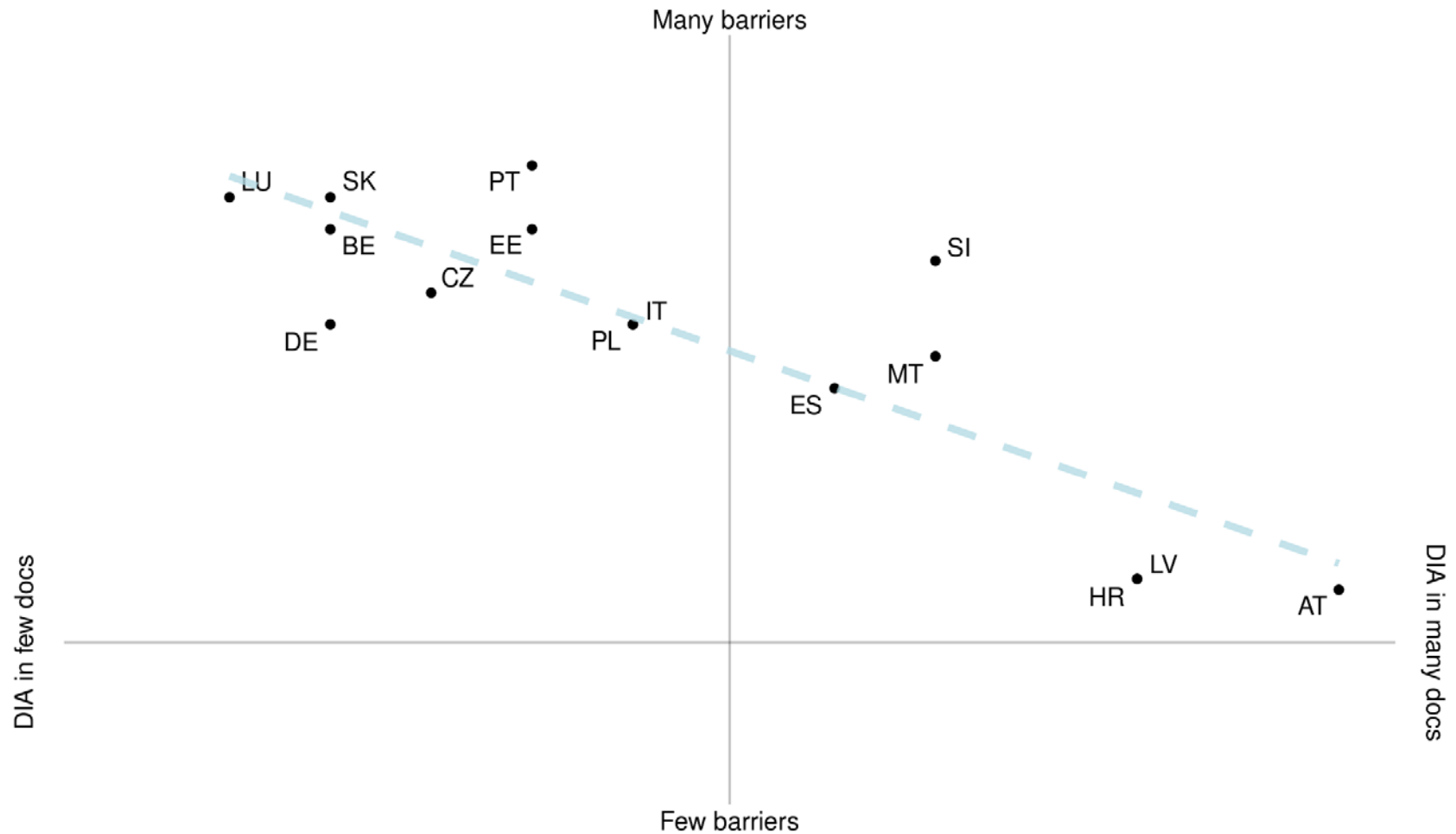


Note: respondents are allowed to choose multiple answers. The top-left chart differs from those presented in previous subsections (Figures 3.6 and 3.8) for the number of MSs considered. * Cyprus and Luxembourg are excluded since no DIA is performed in these MSs.

Clustering of MS according to intensity of DIA use

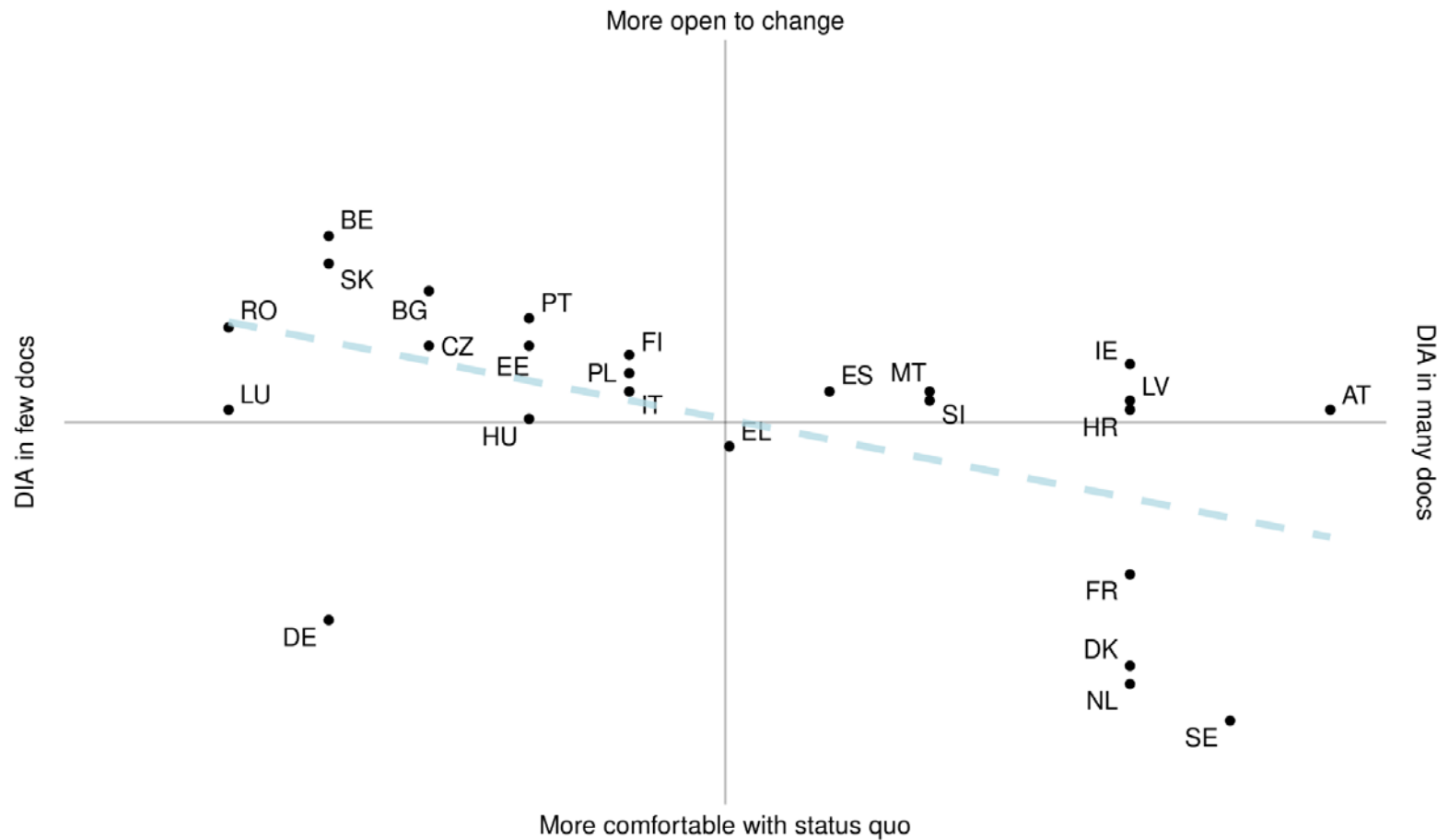


Intensity of DIA use and barriers to DIA use.



Note: “DIA in few/many docs” also takes into account DIA analyses performed for the budgeting process but that were not included in any document.

Intensity of DIA use and the degree of comfort with proposals for expanding use of DIA in the DPB or the budgeting process



Note: “DIA in few/many docs” also takes into account DIA analyses performed for the budgeting process but that were not included in any document

Main suggestions for increasing the use of DIA (EU MS)

- The results emerging from the review of the documents and the interviews supply rich empirical evidence that can be used to **design suggestions to increase the conduct and inclusion of DIA in budgetary documents** (incl. in DPB for Euro Area Member States).
- They are targeted both at the Commission and at the Member States.

Main suggestions for increasing the use of DIA (EU MS)

- The Commission should continue providing the **EUROMOD** tool (and its interface).
- The Commission could provide (more) **training on DIA**. This should include **training programmes on EUROMOD** and other simulation models as well as on technical aspects on how to perform DIA analysis and which data to use.
- The Commission could consider organising **workshops for officials** of Member States to come together and **share ideas and good practices about DIA**.
- The Commission could provide **feedback on the non-inclusion of DIA** in some of Member States' budgetary documents, starting with DPB.
- The Commission could provide, to Member States interested in it, some **(non-binding) guidance on how to perform DIA** (EU Common Framework)
- The Commission could raise **awareness about DIA at the ECOFIN**.

Main suggestions for increasing the use of DIA (EU MS)

The suggestions to the Member States are grouped depending on Member States' intensity of DIA use. They concern:

- The **tools** (models) used to perform DIA.
- The **data used** for DIA.
- The **quality** of DIA.
- The **inclusion** of DIA results in budgetary documents.

Most of these suggestions to Member States are then further structured in a possible EU common Framework for DIA in official documents.

Main suggestions for a possible EU common Framework to increase the use of DIA in official documents by MS

The Framework is split into two levels:

1. **Basic level** (good practices for Member States with no or little DIA use): could be met by using EUROMOD (or at least the EUROMOD-JRC Interface) or other relevant micro-simulations tools if already in place in some Member States.
2. **Advanced level** could be met through an **improvement in data quality** and through accounting for behavioural responses and economic feedback in the building of DIA estimates (by feeding insights from **labour supply/macroeconomic models** into the micro-simulation).

Possible EU Common Framework for DIA – Summary

Dimension	<u>BASIC level</u>	<u>ADVANCED level</u>
Tools	Microsimulation model or interface	'Microsimulation + Labour-supply' + Macro- model
Tools – quality / validation	EUROMOD is centrally validated; National models require validation	EUROMOD is centrally validated; National models require validation
Tools – quality of production	Need to ensure staff is trained (except for Interface)	Ensure staff is trained and to have a team to maintain advanced tools
Data	Survey data	Survey data + administrative data + household budget survey data
DIA outputs (common to both levels)	Impact by Income quantiles Poverty and Inequality measures	Impact by Income quantiles Poverty and Inequality measures
Choice of reforms (common to both levels)	> 0.1% GDP or redistribution of > 0.1% GDP	> 0.1% GDP or redistribution of > 0.1% GDP

Main suggestions for a possible EU common Framework to increase the use of DIA in official documents by MS

To give an illustration of this possible Framework, the study presents **three hypothetical case studies** in the form of simulations

- 1. Basic level:** and is about a personal income tax reform in Romania to introduce more progressivity in the **Romanian** tax system. EUROMOD is used to simulate the effect of a progressive tax policy on the income distribution by analysing the impact on different poverty and income inequality measures.
- 2. Basic level:** Guaranteed minimum income (GMI) and low pension benefit reform in **Cyprus**, which also relates to the basic level of the framework. EUROMOD is used to simulate how an increase in the threshold to receive certain income benefits affects income distribution.
- 3. Advanced level:** distributional impact of a reduction in personal income in **Italy** with a combination of micro and macro modelling, starting from EUROMOD.

Last but not least...

All this project could not have been possible without the fantastic collaboration of the EUROMOD network!

Thank you all!!