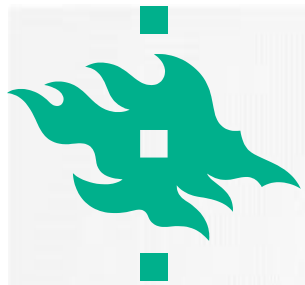




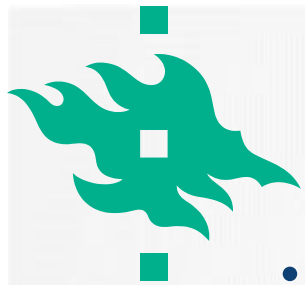
FISHING OPPORTUNITY NEGOTIATIONS OF THE COUNCIL OF THE EU – A VOTING POWER INDEX APPROACH

©maaseutuverkosto



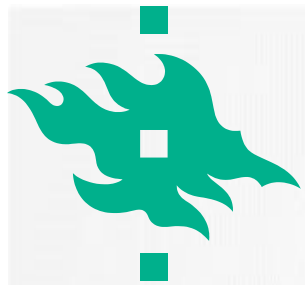
BACKGROUND

- Council of the EU has the sole competence in setting fishing opportunities and quotas (TACs) for member states (article 43 of the TFEU).
- EU fisheries ministers meet in October (Baltic sea) and December (Atlantic, North sea and other marine areas) to agree on TACs.
- TAC decisions by the AGRIFISH-Council made behind closed doors by member states, criticism from NGOs and even the EU Ombudsman.
- Power indices have been calculated and used to analyse Council decisions (e.g. EU budget) and institutional changes of the EU (e.g. Treaty of Lisbon), however not for TAC negotiations.



METHODOLOGY

- *A priori* voting power indices – Banzhaf and Shapley-Shubik indices
- Have been used to examine voting in various institutions e.g. EU Council
- Rules of the EU Council (Treaty of Lisbon, 2009)
 - **QMV:** 55% of member states vote in favour + representing at least 65% of the total EU population
 - **Blocking minority:** The blocking minority must include at least four Council members representing more than 35% of the EU population.
- EU member states' populations as weights
- **Assumption:** TACs decided by the involved member states, This is with accordance with TFEU article 238(3). However, all member states can form a minority blocking coalition.



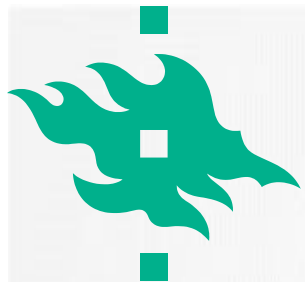
A priori voting power – the the amount of potential influence over the possible outcomes and/or power that a member derives exclusively from the decision rule itself. (Felsenthal & Machover 2014).

Some criticism using a priori voting power:

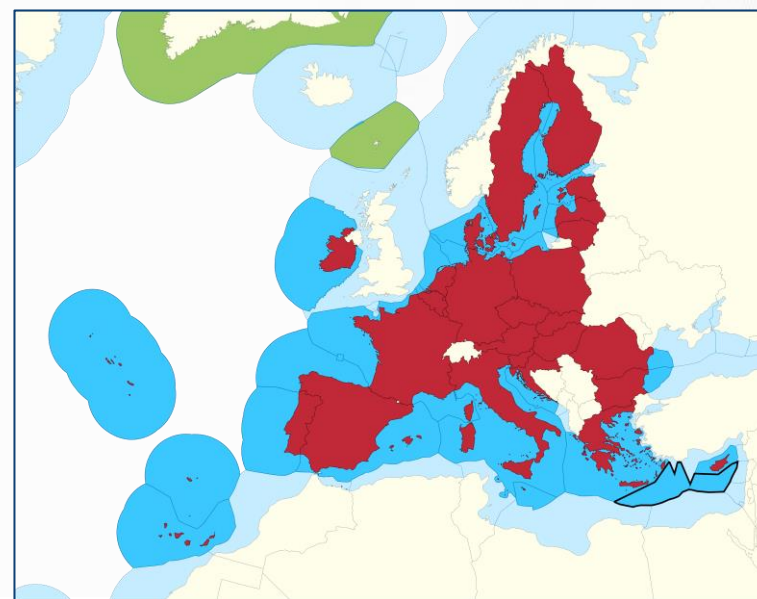
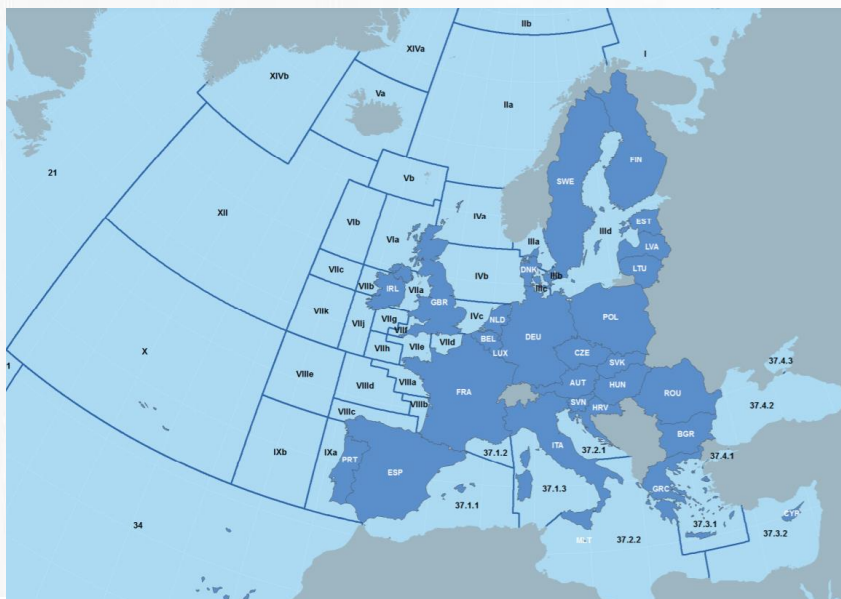
Disregards real-world factors such as diplomacy, political pressures, members' specific interests and preferences, as well as the very nature of the issues to be decided. However, it is important to quantify the voting power each member is granted *by the rule itself*. (Felsenthal & Machover 2014).

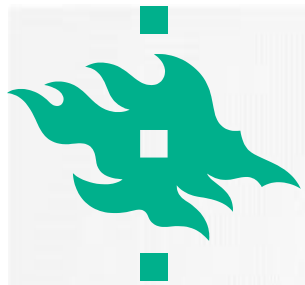


- **The notion of power as influence**: the voter's ability to affect the outcome of a division of a voting body—whether the proposition in question will be passed or defeated.
- October Council (Baltic Sea): 8 member states (DE, DK, SE, FI, EE, LT, LV & PL) and 10 fishery stocks.
- December Council (Atlantic & other marine areas): 9-10 member states (BE, NL, FR, IE, DE, DK, ES, PT, SE and UK) 80+ fishery stocks.
→ We can examine the effect of the UK leaving the EU
- Used Indices of Power (IOP) software for calculations.
Developed by Prof. Bräuningner



ICES → STECF → Commission → Regional High level groups → Council meeting → TAC





BANZHAF POWER INDEX

$$\beta_i(v) = \frac{1}{2^{n-1}} \sum_{\substack{S \subseteq N \\ S \ni i}} [v(S) - v(S \setminus \{i\})].$$

- The Banzhaf power index measures a player's ability to influence the outcome of the vote.

To calculate the Banzhaf power index:

- 1) List all winning coalitions
- 2) In each coalition, identify the players who are critical
- 3) Count up how many times each player is critical
- 4) Convert these counts to fractions or decimals by dividing by the total times any player is critical



SHAPLEY-SHUBIK INDEX

$$\varphi_i(v) = \sum_{\substack{S \subseteq N \\ S \ni i}} \frac{(s-1)!(n-s)!}{n!} [v(S) - v(S \setminus \{i\})].$$

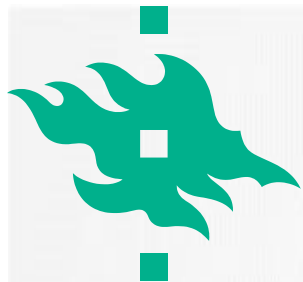
- The Shapley-Shubik power index counts how likely a player is to be pivotal.
- A sequential coalition lists the players in the order in which they joined the coalition.
- A **pivotal player** is the player in a sequential coalition that changes a coalition from a losing coalition to a winning one. Notice there can only be one pivotal player in any sequential coalition.
- There are $N!$ amount of sequential coalitions (e.g. $8! = 40320$ & $10! = 3628800$)



SSI AND THE INCLUSIVENESS INDEX OF PLAYER

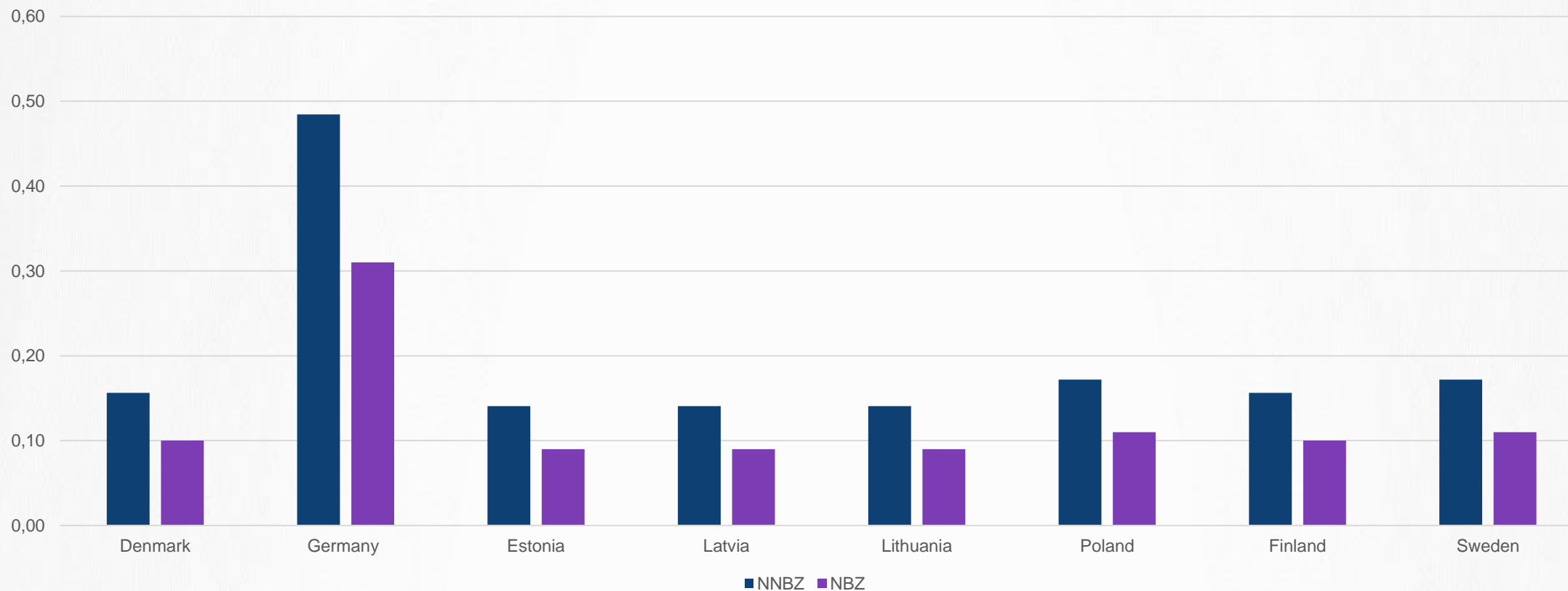
$$\omega_i(v) = \frac{\sum_{S \subseteq N, i \in S} v(S)}{\sum_{S \subseteq N} v(S)}$$

- Frequency of participation in winning coalitions that is related to the number of all feasible winning coalitions. (König & Bräuninger, 1998).



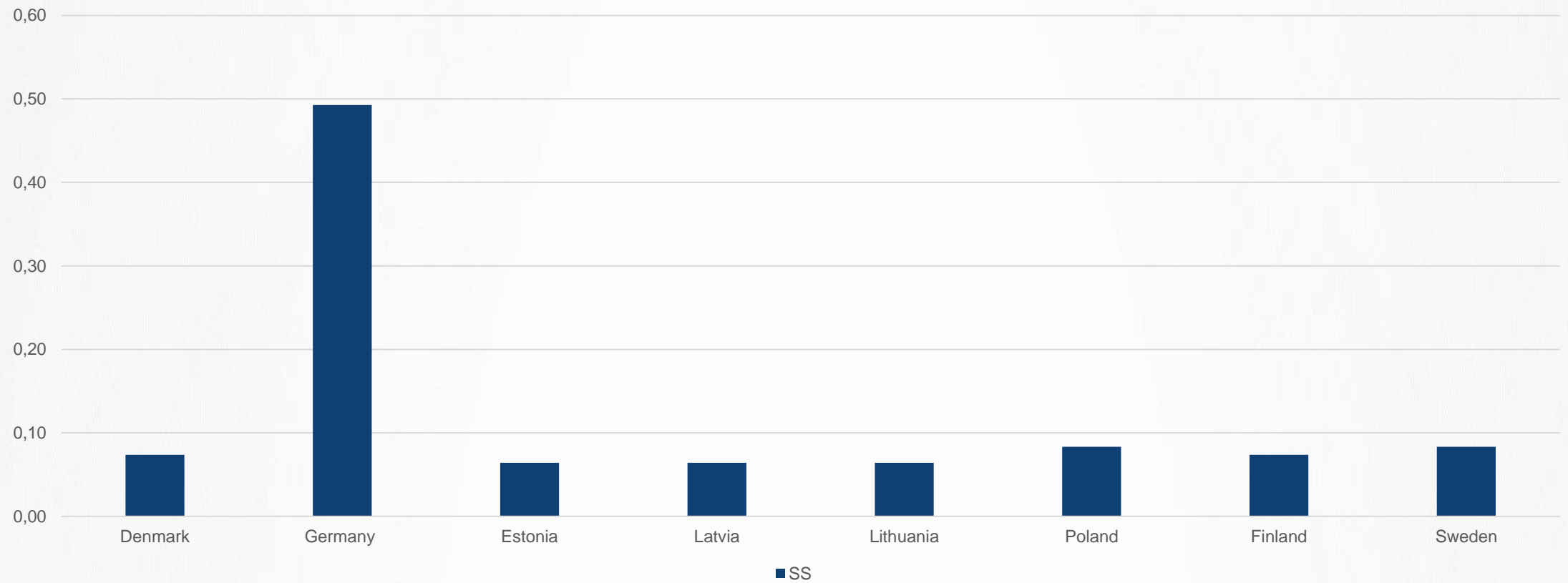
OCTOBER AGRIFISH COUNCIL - BALTIC SEA

Banzhaf index (non-normalized i.e. Penrose index and normalized)



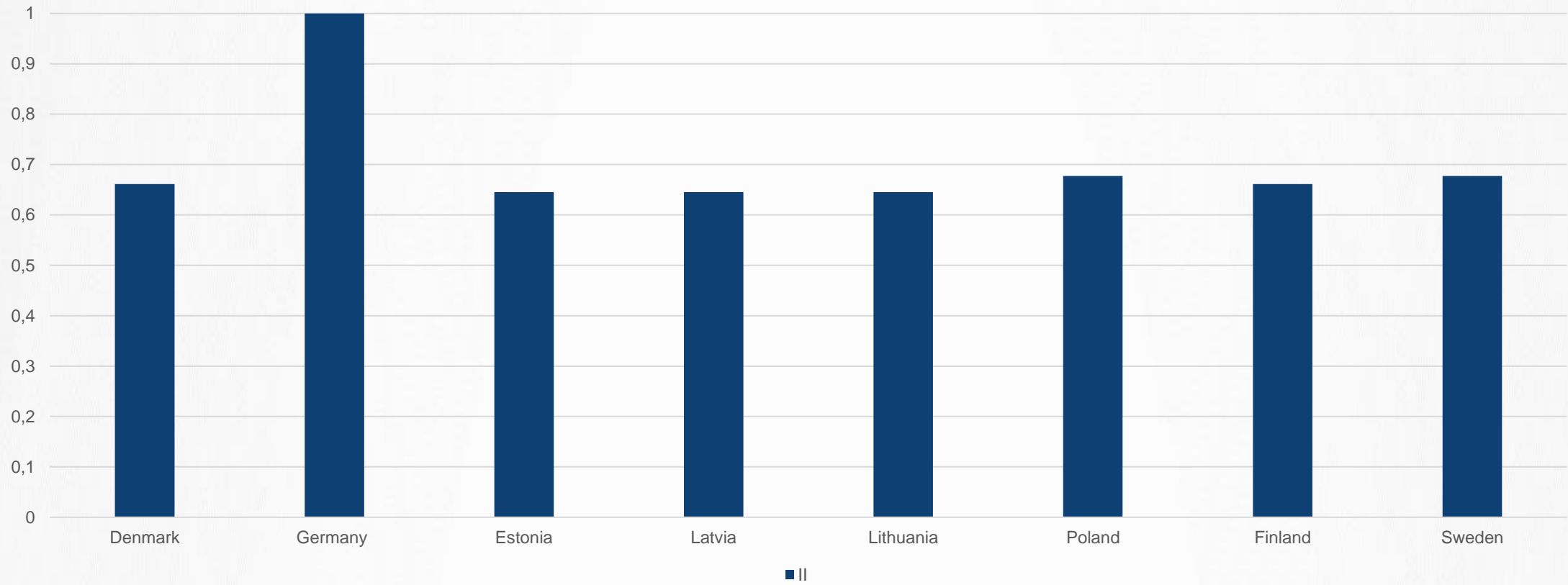


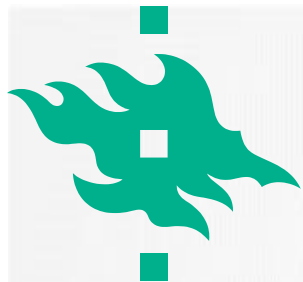
Shapley-Shubik





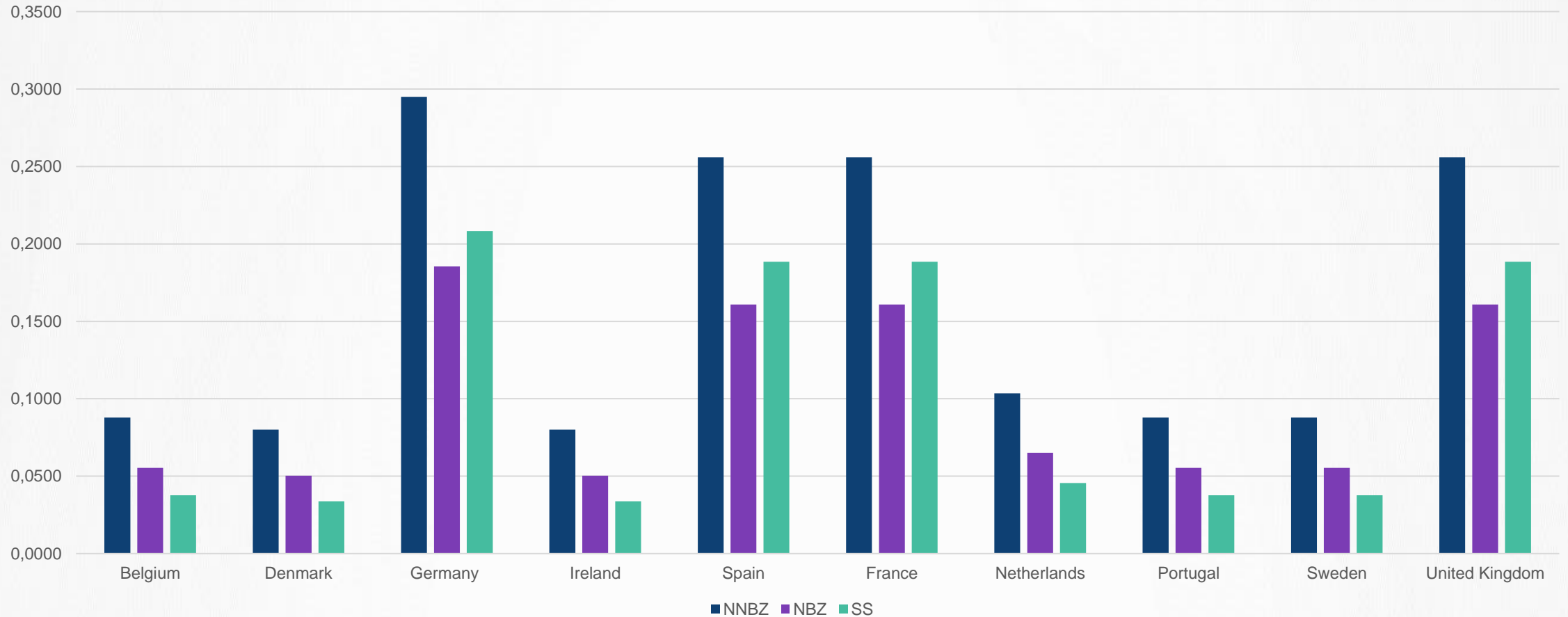
Inclusivity index





DECEMBER AGRIFISH COUNCIL – ATLANTIC & OTHER MARINE AREAS

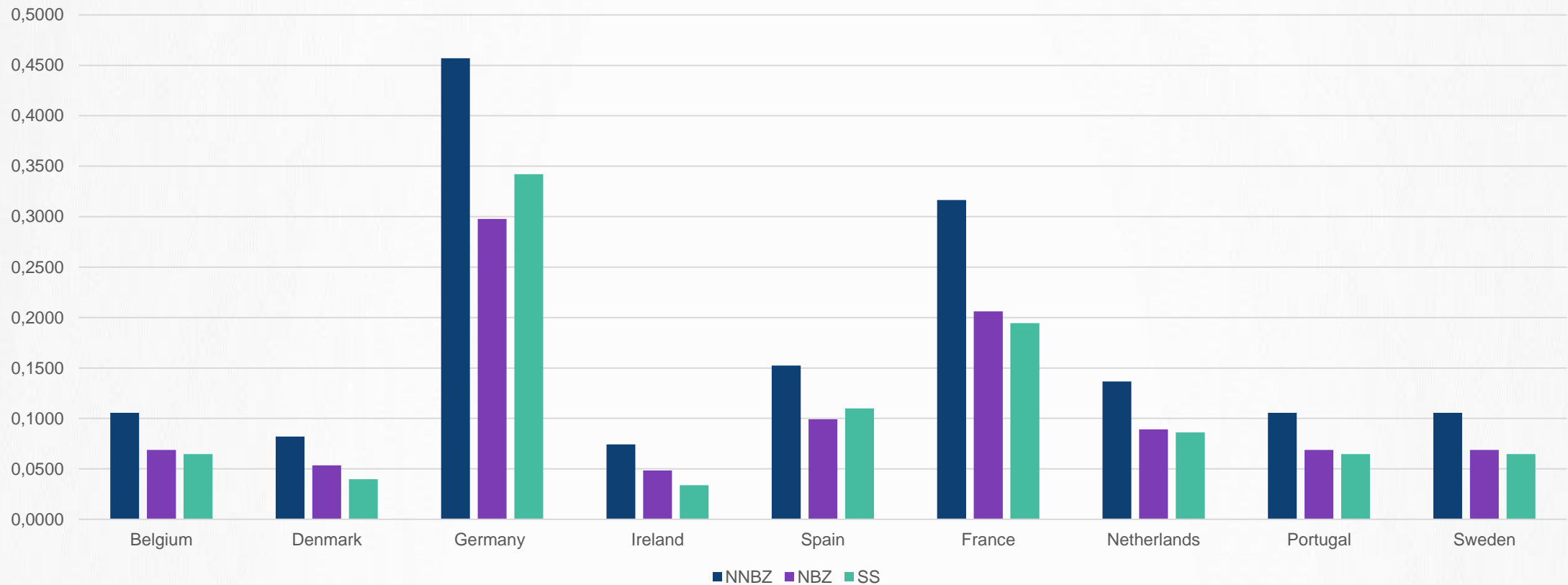
Pre Brexit

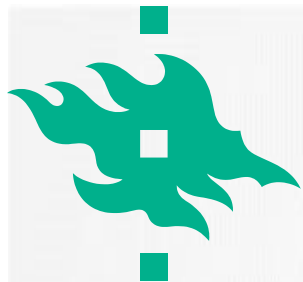




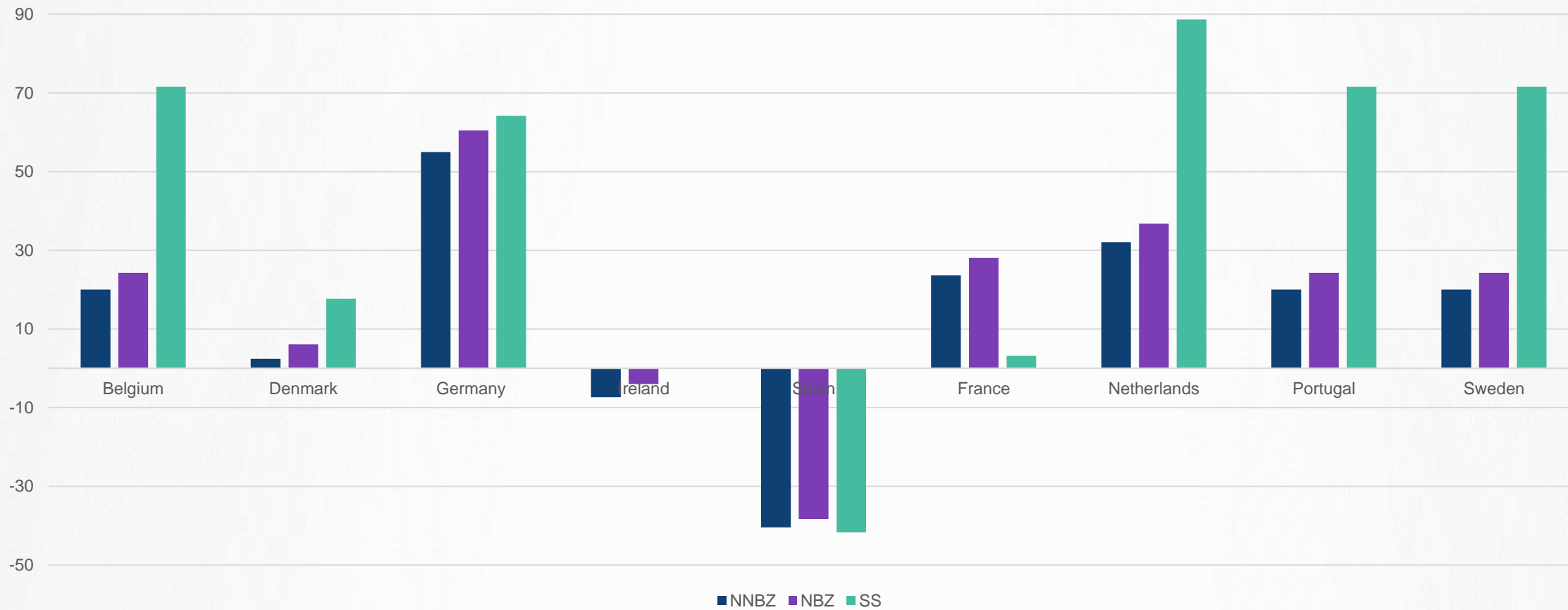
POST BREXIT

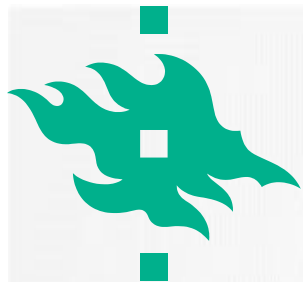
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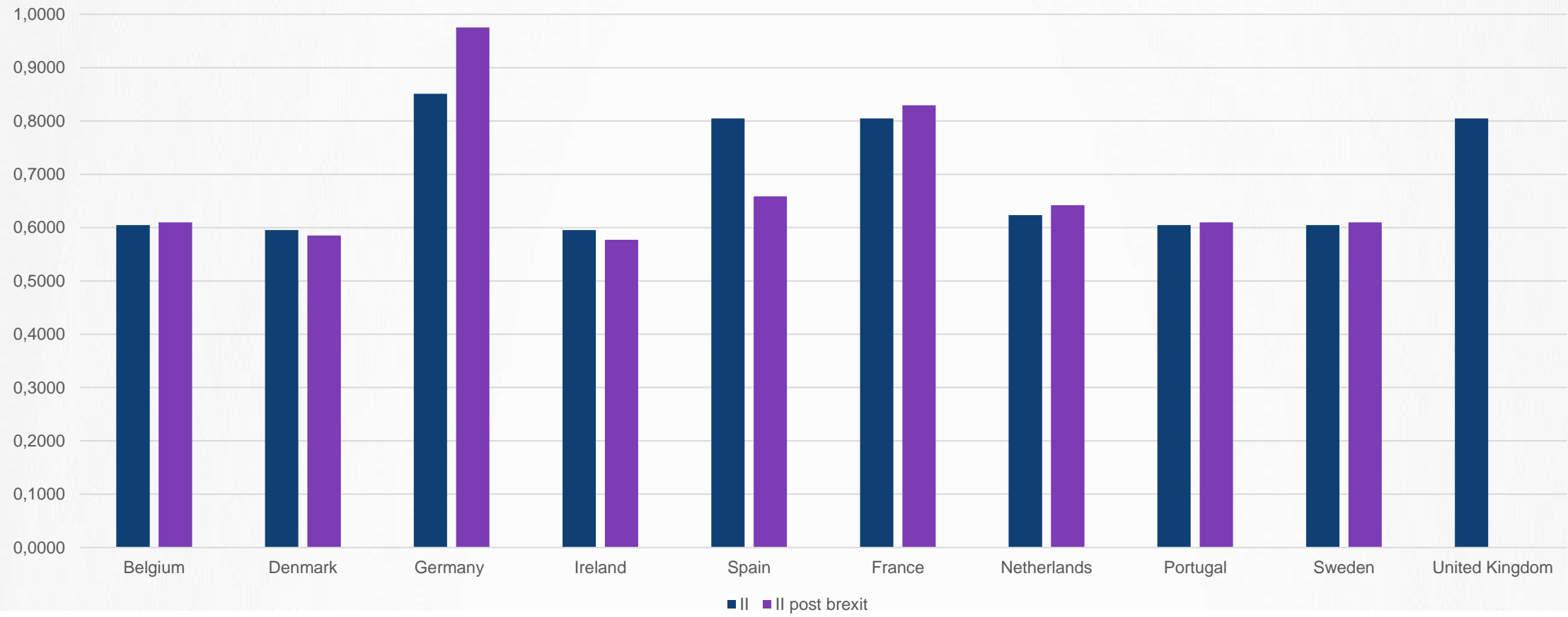


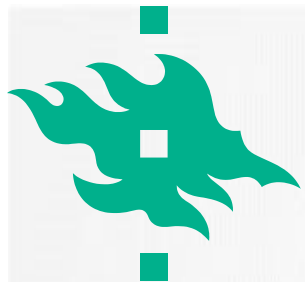
Post Brexit percentage change





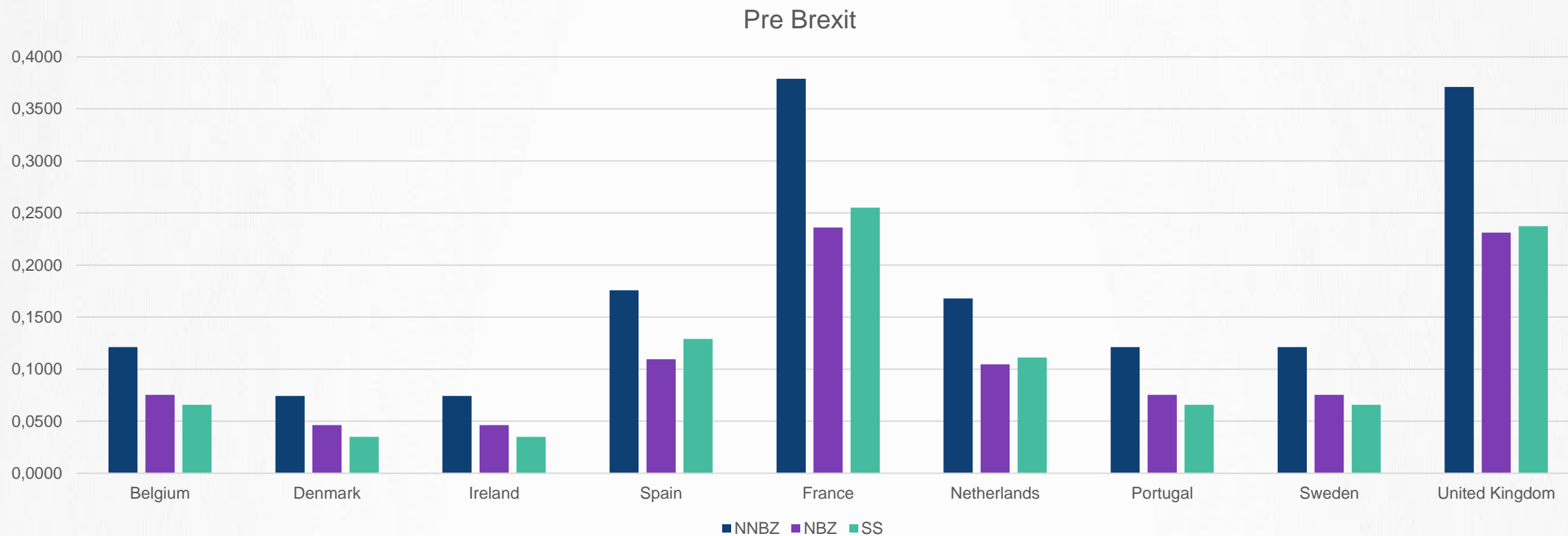
Pre and post Brexit - Inclusivity index





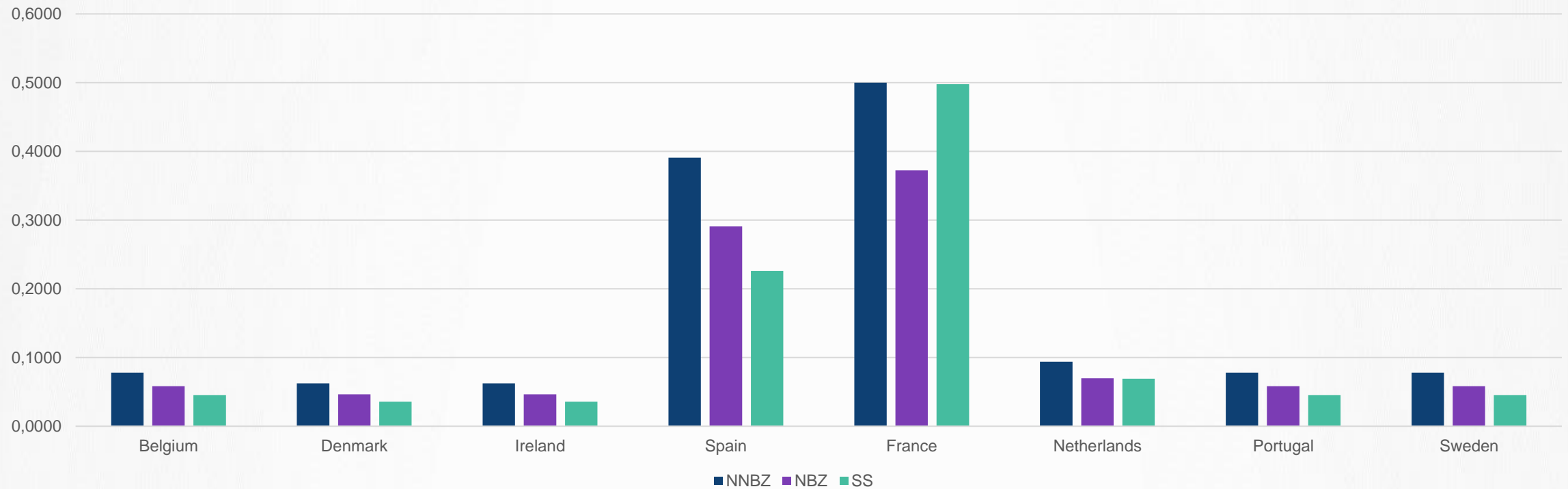
SENSITIVITY ANALYSIS

– GERMANY DOES NOT TAKE PART IN VOTING IN THE DECEMBER COUNCIL



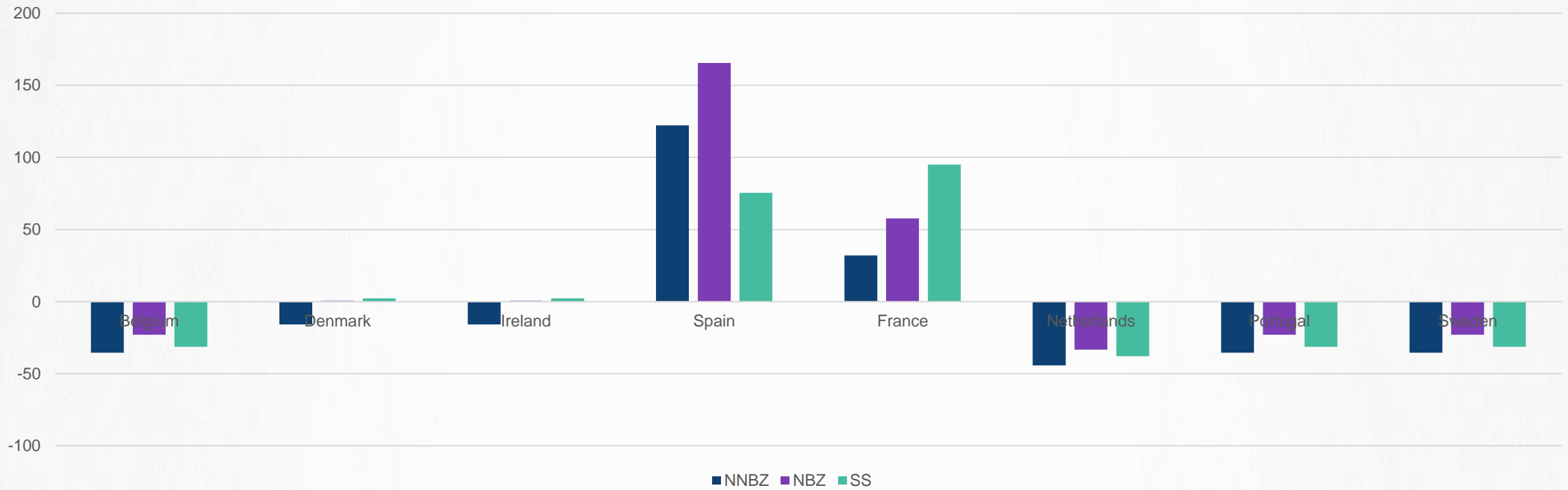


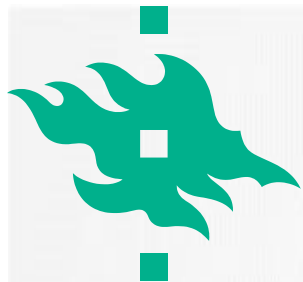
Post Brexit



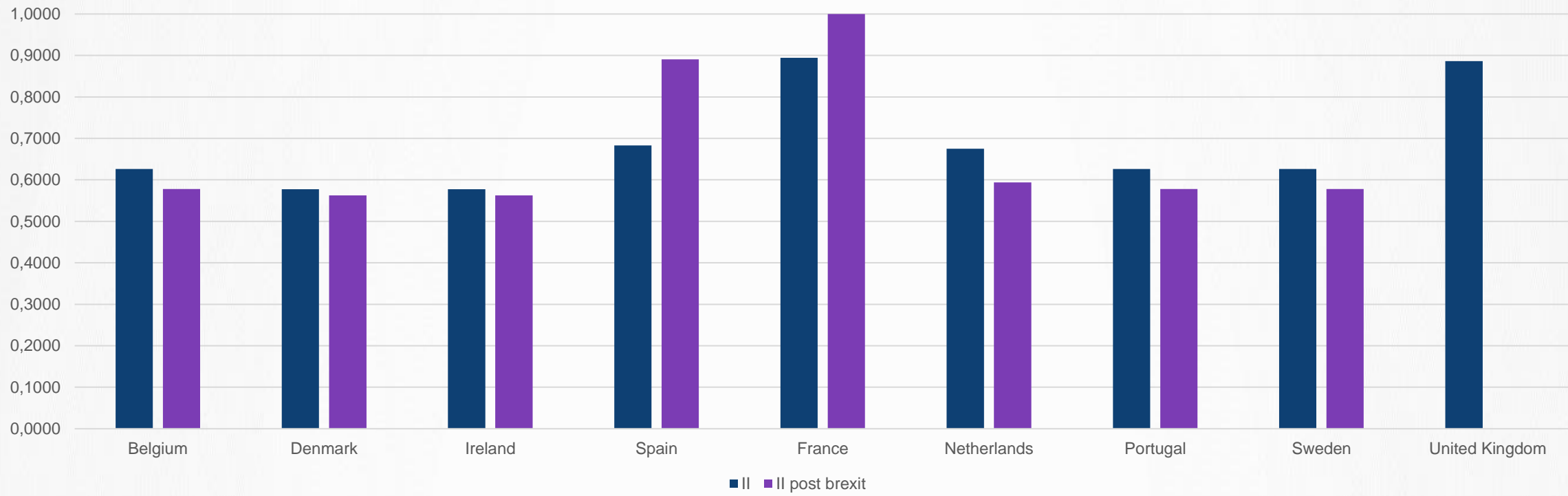


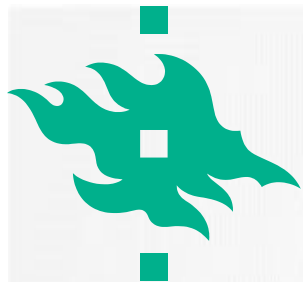
Post Brexit percentage change





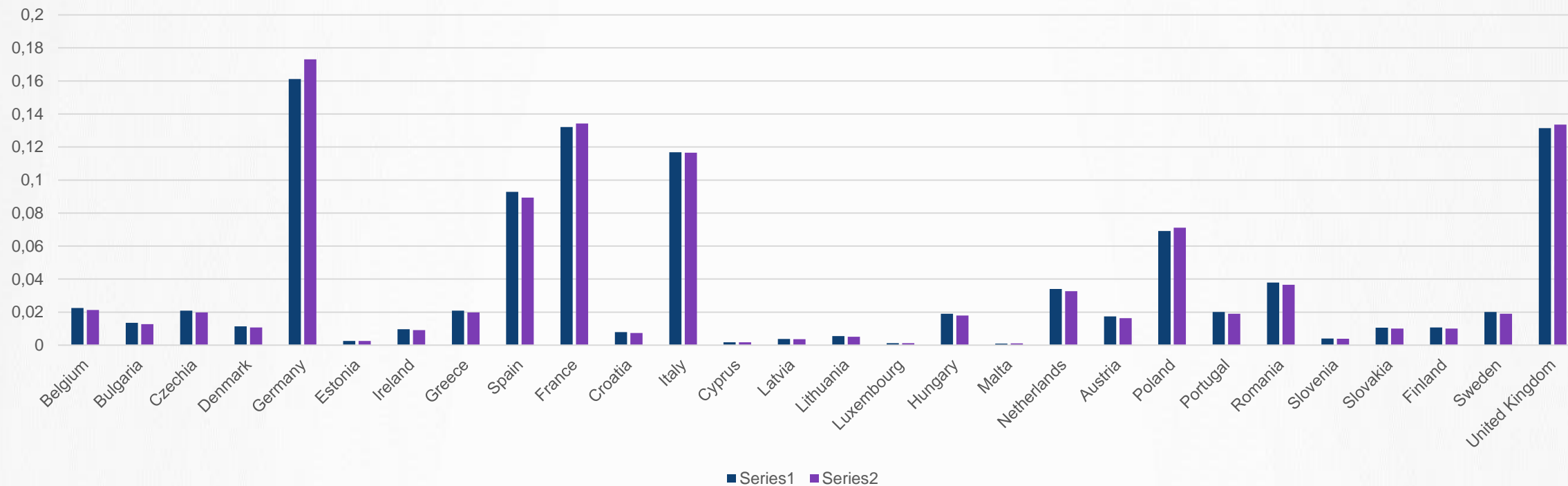
Pre and post Brexit





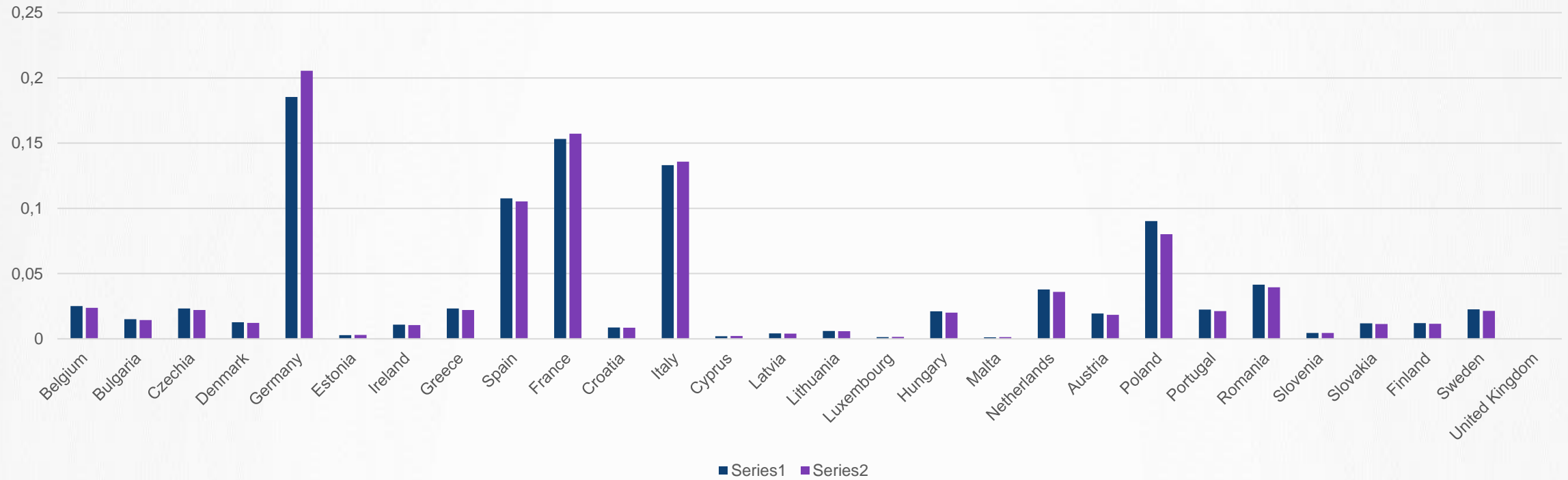
BLOCKING MINORITY

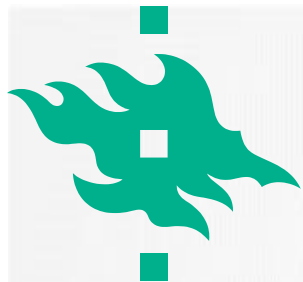
Minority blocking power pre brexit





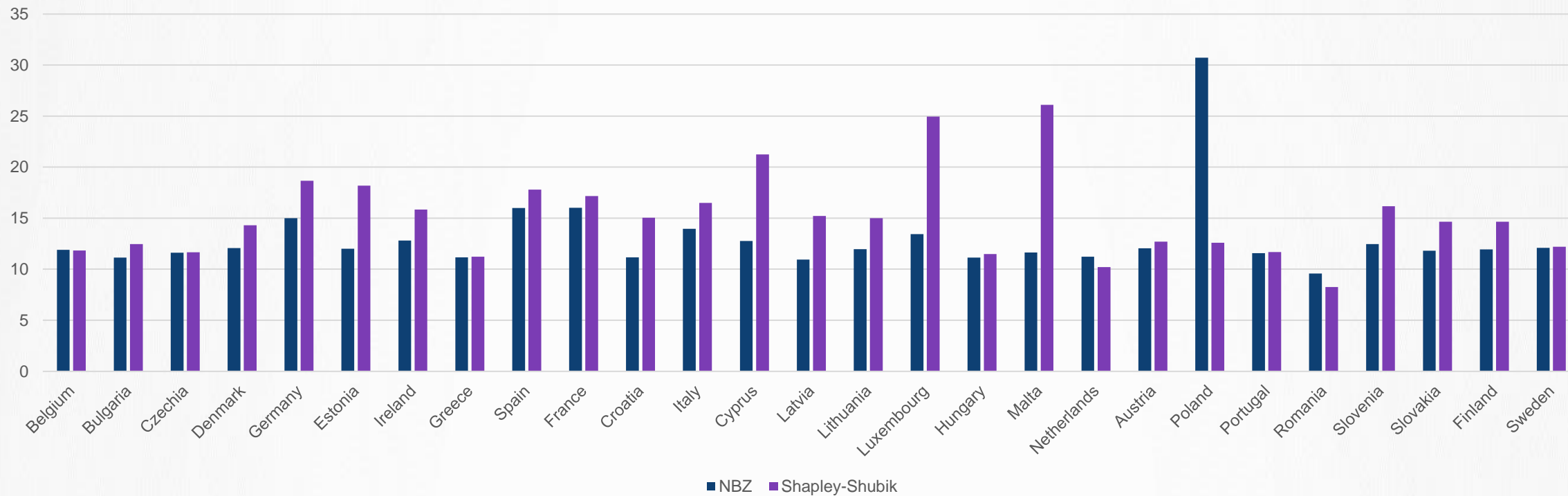
Minority blocking power post brexit





BLOCKING MINORITY

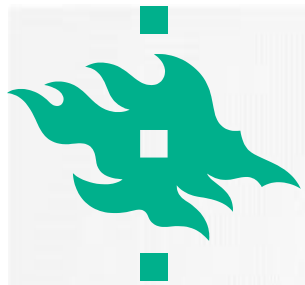
Minority blocking power post brexit % change





PRELIMINARY CONCLUSIONS

- October AGRIFISH Council
 - Germany's role important; has to be in every winning coalition.
 - QMV equalises the rest of member states; gives some power/influence to relatively smaller member states
- December AGRIFISH Council
 - France clear winner from Brexit – voting power increases
 - UK an influential "player"/member state pre-Brexit – Did the UK know how to utilise its voting power (i.e. form coalitions)?
 - Depending on Germany's activity in the December council, NL or ES benefit from Brexit
- Minority blocking
 - Larger countries have more voting power to block potential legislation. Every member states' blocking minority power increases, some more than others.



FURTHER RESEARCH

- How to incorporate sustainability as a dimension?
 - How close are the set TACs to ICES advice? Does voting power affect sustainably set quotas? Utilizing a regression model, where the difference of set TACs and ICES advice is explained by the power indices and other factors? (e.g. Zaporozhets et al. 2016)
- The Commission as a player? Power of the COM?
 - How close are the set TAC to the COM proposal?



REFERENCES

Consolidated Version of the Treaty on the functioning of the European Union [2016] OJ C 202/3

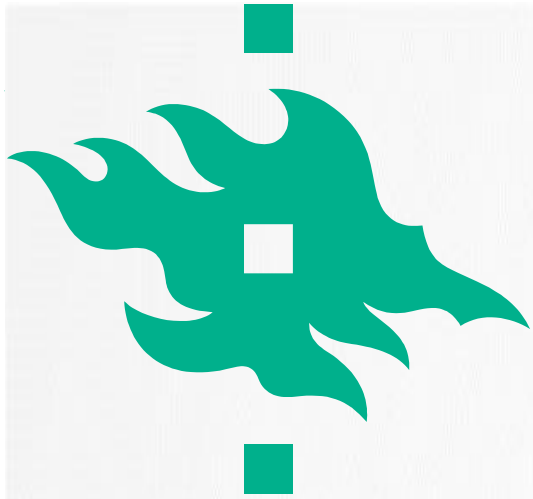
European Ombudsman case 640/2019/TE

Felsenthal, D. S., & Machover, M. (2004). A priori voting power: what is it all about?. *Political Studies Review*, 2(1), 1-23.

Lado, E. P. (2016). *The Common Fisheries Policy: The Quest for Sustainability*. John Wiley & Sons.

Kauppi, H., & Widgrén, M. (2004). What determines EU decision making? Needs, power or both?. *Economic Policy*, 19(39), 222-266.Y

Zaporozhets, V., García-Valiñas, M., & Kurz, S. (2016). Key drivers of EU budget allocation: Does power matter?. *European Journal of Political Economy*, 43, 57-70.



THANK YOU!

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