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Assessing the fairness of the EU Council qualified majority voting. A voting power critical perspective of the liberal intergovernmentalist accounts

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Abstract. The Qualified Majority Voting (QMV) used by the Council of the European Union developed to a high degree of complexity from one modifying treaty to another, until the latest definition stipulated in the Treaty of Lisbon. This paper analyses this EU intra-institutional voting method using a rational choice approach and emphasizes that there are situations when not even the institutions, as rational actors, can avoid a collective irrational outcome even when they are addressing subjects such as voting power distribution. It also addresses several shortcomings of the Liberal Intergovernmentalist explanatory framework focusing on the insufficiently developed level of credible institutional commitments. The core part of the article consists in investigating several types of EU Council internal decision-making options, proposing how they can be designed to be considered in the same time fair and efficient, and in analysing how close this voting power ideal type configuration is to the current decisional system.

Keywords. EU Council; input and output legitimacy; qualified majority voting; rational choice; voting power.

JEL Codes. D7, D8, O2

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1. Introduction

1.1 Input and output legitimacy in the EU Council: a voting power analysis

Various crises experienced by the European Union (refugees, Brexit, reaction to the Ukrainian conflict, etc.) have invigorated those criticisms of the European Union (EU) that underline the difficulty of creating or operating with an inter-institutional or intra-institutional decision-making system that is both representative and efficient, but mainly fair for the multiple actors involved. The importance of the EU on the international stage and the special place that the EU Council occupies in the institutional architecture of the Union are two arguments to justify the need for this study which offers a political science perspective on a subject usually approached only from the political practitioners' perspective. Establishing as the unit of analysis the rational agent defined here as any member state of the European Union, the focus of this paper is therefore on the



decision-making system of the European Union Council, more precisely, the qualified majority voting (QMV), in order to describe this system and to prove that there are situations when not even the institutions can avoid a collective irrational outcome. The specific case of providing a new set of institutions for promoting coordination of activities by finding a commonly agreed set of rules (Ostrom, 1990) reflects the very wide spectrum of voting rules. Scholars have tried to offer a systematic approach to this field, classifying them according to different criteria broadly connected to the inputs, the processes and the outputs of these voting systems (Shepsle, 2010). One voting method can observe only a part of the criteria stated for all the categories and if several actors have different opinions on this subject, reaching a consensus becomes a tough job, as revealed by the European Union's experience in this field.

The present article, recognizing the merits of Liberal Intergovernmentalism (LI) against its classic state-centred intergovernmentalist predecessors, aims to address some of the very shortcomings of the LI (Moravcsik 1993; 1997; Moravcsik and Schimmelfennig, 2018) and strengthening the rational choice component of this theoretical approach, it focuses on the criticisms connected to its third explanatory level, that of credible institutional commitments, which I consider as insufficiently developed, especially in terms of daily politics decisions analysed through voting power lenses. The paper refers to the broader literature on EU's decision-making process and it is focused on the EU Council internal decisional framework, being conceived on two interconnected research questions: firstly, what kind of fair decision-making system can be designed to be considered in the same time representative and efficient (input and output legitimate, in other words) according to a rational choice theory based on a LI logic? And secondly, how close is this ideal type to the current decisional system?

One central concept is the fairness of the decision-making process in the Council. Following Verba's seminal contribution (2006), I also agree that fairness is an essential attribute of a democracy and that the important features of fairness in politics are always connected to ensure an "equal voices" base for the decisional process, therefore augmenting its input legitimacy, as well as – even if it is difficult to accomplish them simultaneously – equal outcomes (to be understood, in fact, as outcomes that are responsive for its members). Indeed, the above understanding could be applied to various decision-making bodies, and in the case of the EU it can be applied either to the logic of inter-institutional decisions or to that of intra-institutional decisions. Thus, although at the EU level, the political game of the major institutional actors is extremely important, I believe that, in order to understand the bigger picture, which represents a whole greater than the sum of its parts, its constitutive units, i.e. each individual institution, must be carefully analysed. And the case of the Council is a special one, considering the central role it played in the history of the EU. Therefore, as indicated below, within the fairness framework, I emphasize in this paper the equal distribution of power criterion and I have opted to start my investigation by considering Penrose's voting system (1946) as an example of the fair rule and applying it to the EU Council's case, by analysing the intricate relation between voting power and voting weights.

Even if in the case of the European Union it is very important the inter-institutional decisional dynamics, the purpose of this paper is to provide an in-depth picture of some aspects specifically related to the Council's decision. It is important to understand the mechanisms leading to a specific common position of the Council because that particular design may influence its negotiations with the European Parliament when the ordinary legislative procedure, for example, is in place; moreover, the Council is still the main voice in the other special legislative procedures and their more tied relation with the consensus practice, which is a logic that informally affects also the ordinary legislative procedure framework (Anonymous 2017).

In order to offer pertinent answers to the above questions, after a brief description of the EU Council decision-making architecture, this study will be developed with a particular interest in the Nice and Lisbon configurations and implications, in the context of a voting power analysis. The findings of the paper indicate the distance between the ideal and current EU Council decisional system and the conclusions add to the existing debates several arguments on the chances the ideal type has for being implemented in the near or medium future.

1.2 Liberal intergovernmentalism and rational choice theory, or from individual to institutions

LI was elaborated by Andrew Moravcsik (1993; 1997) based on the model offered by Robert Putnam (1988), being a justification of the European construction process from the perspective of the simultaneous existence of a so-called demand and supply for this integration phenomenon. The representation of the demand highlights the preferences of the various rational actors present in the internal political process and whose interactions determine the appearance of the political agenda of the state, according to the neoliberal international theory of the formation of state preferences. The offer is instead interested in how these states behave on the international stage as unitary actors engaged on the basis of their respective agendas in a series of intergovernmental negotiation processes. Therefore, is underlined the presence in the LI of a strong influence of the rational choice theory, manifested both at the level of internal political groups and at the level of the state engaged as a unitary whole in negotiation processes (Ion, 2013).

In fact, Moravcsik's intergovernmentalism can be considered not only a two-level (demand and offer) game, but a three-level one, given the process of institutional choice (Pollack, 2020). However, contrary to the impact that liberal intergovernmentalism has had (and still has) on the study of the European Union, the most important criticisms it has received have been aimed at an insufficient role accorded to the same institutions that are barely recognized by the classic intergovernmental discourse. The role of creating and ensuring effective institutional mechanisms would be, on the one hand, to guarantee compliance by states with the commitments made during the negotiation, and, on the other, to provide a satisfactory motivation for the continuity and development of the cooperation practice. However, unlike his followers, who connected rationalist or historical institutionalism with intergovernmentalism, Moravcsik gave little interest to the

supranational level in the European construction process. In a 2018 contribution (together with Schimmelfennig), he argued that in the absence of a complete harmonization of the preferences of the Member States (MS), none of the post-Maastricht treaties has fundamentally innovated the decisional process, not even the Constitutional Treaty or the Lisbon Treaty (Moravcsik and Schimmelfennig, 2018). In this respect, the paper challenges this perspective by focusing on the day to day politics.

The basic assumptions in the before mentioned Rational Choice Theory can be summarized as follows: one individual is said to act rational if, taking into account the fact that she possesses ordered preferences, complete information and a perfect internal device, she chooses the action that will satisfy her preferences in such a manner that her anticipate utility would be maximized (see Suzumura, 2016). The discrepancies observed between individual rationality and collective rationality determined scholars to search for solutions of what became the classic issue of collective action. One of the attempts to surmount this obstacle is the rational choice approach to institutions, which can also be found in the before mentioned liberal intergovernmentalist assumptions. In this light, in order to correct collective irrationality that may occur from the simple aggregation of individual preferences, institutions are conceived as a sum of rules and incentives, positive and negative motivations planned to produce collectively rational outcomes (Miroiu, 2007, pp. 164-172). The incentive to connect to an institution can be found at different levels of the social structure. Peters advances the example of European countries who decided to form and later join EU in order to constrain the behaviour of the other member states interested in maximizing their own utility (see Peters, 2019). These theoretical assumptions will be investigated in the context of the EU Council QMV case.

2. Materials and methods

2.1 The importance of vote weighting and vote power in the QMV

In the EU Council, the actual interest of a state is its real voting power in the general decisional process, and the QMV definition (constantly refined from Rome EEC Treaty) is just an expression of the result of the negotiations of the states interested in maximizing their share. One's voting weight is different from its voting power (Leech and Aziz, 2011; Kirsch, 2011; Nurmi, 2011; Warntjen, 2017, p. 675), therefore – before Lisbon – the weighting of votes in the Council was actually connected to the voting power that each of the members of the Council possessed in the decisions adopted by QM, involving each states level of influence in shaping the results of the decision: "Voting weight refers to the relative voting strength accorded to any individual member state under a system of weighted votes, that is, the percentage of the total vote held by each member of the Council. Voting power refers to the ability of any individual member of the Council to cast a decisive vote for adopting or blocking a decision" (Galloway, 2001: 59).

In a voting power analysis, one should remind that one of the democratic principles requires,

under the well-known “one person, one vote” slogan, formal equality of the a priori voting power of all citizens. The a priori voting power is defined as a constituent part of a posteriori (or actual) voting power, deduced by the voters only from the decision regulation and the type of issues submitted to vote. In other words, it is a conventional power foreseen by collective constitutive norms, and the analyses should concentrate on this very constitutional architecture of a specific decision-making structure. In this theory, founded by Penrose in the ‘40s, *a priori* voting power is conceived as “a voter's degree of influence over the outcome - under a specified decision rule - of a division of a decision-making body: [...] the a priori probability A that a decision-making body acting under a given decision rule will adopt a bill rather than blocking it” (Felsenthal et al., 2003, p. 476).

But what about those decision-making processes involving states instead of individuals? In the light of the rational choice assumed approach, should one apply the same voting power principles? “The voting power of each nation in a world assembly should be proportional to the square root of the number of people on each nation's voting list” wrote Penrose in 1946 when analysing majority voting and representation in the UN (Penrose, 1946, p. 57). In fact, Penrose's Square Root Law is considered the ideal type of democratic formula (see van der Ploeg, 2008 for an exhaustive list of the scholars supporting Penrose's voting system as a fair rule). Basically, when applying it to today's EU, it means that the vote of any European citizen, irrespective of its Member State provenience, should count equally in the general power game, on the basis of establishing each state's input proportionally to the square root of its population (see also Pukelsheim, 2011). That is why in the contemporary approaches of Penrose's ideas, the attention was usually held by the weighted voting systems where the constitutional design caused, by different weights and rules, a different degree of influence of the decision-makers, quantified in power indices, more specifically in a priori power indices.

Defined as a “statistical measure for summarizing certain properties of a given voting game” (Felsenthal et al., 2003, p. 487), power indices are very useful instruments in conceiving weighted political systems or in determining the fairness of the existing procedures and offering solutions for a possible equalizing process of the voting power. Their role is extremely important as the inequalities in the distribution of voting power are disturbing both agenda-setting and decision outcomes in favour of the actors with great voting power. In this respect, especially in cooperative games, “power indices, in general, represent the probability that each voter will determine the outcome of a particular voting game” (Passarelli and Barr, 2007, p. 43). Two observations here: firstly, the influence of an agent is only measurable when there is no other agent able to reach by itself a majority (no matter what kind of majority) of votes; secondly, to underline that a winning coalition means that it has reached the threshold to approve a decision.

In fact, the Penrose method and the Penrose square root law were not accepted immediately by the academic community. The principles became famous later, when they were rediscovered by Banzhaf, and, after that, by Coleman (see Leech and Aziz, 2011; Machover, 2011; Slomczynski and Zyczkowski, 2011); in fact, the index that Banzhaf developed is known either as the Penrose-Banzhaf Index or simple as Banzhaf Index. Nowadays, the most well-known and

used indices (see Table 1) – despite some limitations such as blindness towards any intervening factors (Kirsch, 2011) – are the before mentioned Penrose-Banzhaf (PB) index and the Shapley-Shubik (SS) index. Besides them, van der Ploeg (2008, pp. 13-14) also mentions other indexes such as Deegan-Packel index and Holler-index. Slomczynski and Zyczkowski (n.d.) also introduce – connected to Banzhaf index – Coleman preventive power index and Coleman initiative power index.

Table 1. Various descriptions of the main used indexes

Penrose-Banzhaf index	Shapley-Shubik index
"It calculates the number of swing possibilities of each country. A swing possibility is the number of times that a representative can have a pivotal position. This means that if the representative leaves the winning coalition side, the remaining coalition becomes a losing coalition. It considers each coalition equally likely" ¹ .	"It deals with so called sequential coalitions. (...) This index shows the fraction of the coalitions in which an actor is pivotal. A pivotal actor is the first voter whose vote makes a coalition a winning coalition" ¹ .
"The Penrose measure of voter v's voting power (under a given decision rule) is the a priori probability of v being decisive; that is, the probability of the other voters being so divided that v is in a position to determine the outcome of the division" ² .	"The Shapley-Shubik index is a measure of the relative frequency with which a member country is in a pivotal position, i.e., in the position of "swinging" a losing coalition into a winning one, where all possible coalitions of a fixed number of member states are equally likely to occur. This measure is, in general, some function of the number of votes and the majority threshold" ⁴ .
- "The Banzhaf Index [...] aims to calculate the power of individual players by finding the ratio between the coalitions an individual player can make to win and all winning coalitions" ³ .	"The Shapley-Shubik Index calculates the share of coalitions, which are winning due to the presence of party <i>i</i> in all coalitions, and prescribes a weight to a coalition in these calculations depending on its size" ³ .
Source: 1. van der Ploeg, 2008, pp. 12-13; 2. Felsenthal <i>et al.</i> , 2003, p. 477; 3. Aleskerov <i>et al.</i> , 2002, p. 382; 4. Barr and Passarelli, 2009, p. 340.	

Therefore, an analysis of how voting power considerations influenced the latest Nice and Lisbon treaty contexts in terms of drafting the final texts of the treaties and implementing their wordings will be further presented.

2.2 Nice, QMV and voting power

In light of the previous arguments, one better understands why, at the beginning of the 2000s, when preparing the Union's institutional architecture for the enlargement challenges, the older EU members feared that the newcomers would disturb to such an extent the existing distribution of power that the usual balances and the functioning of the decision-making procedures would have been weakening their particular national interests. The simple reapportionment of votes would have led the newcomers, small or medium-sized countries, to an over-weighted status, accumulating nearly 40% of the total power, a situation unfavourable to the 'big players'. So, the question of how to adjust the existing distribution of power in such a manner that each actor would consider it has reached an optimal balance received a solution in the so-called Nice triple majority criteria (simple majority of the member states, qualified majority of the weighted votes, demographic clause).

Many scholars, inspired by the voting power theory, were interested in learning how is affecting their new power distribution in the Council the outcome of the decision-making. In this respect, using the Shapley-Shubik and Banzhaf indices (see Table 2), by determining the number of possible winning coalitions under the new Nice stipulations, they proved that the possibility of a

decision to pass was almost zero and if the threshold of the QMV remained untouched, the Council would be in fact blocked (Felsenthal et al., 2003, p. 476). Other areas of research were the equal voting weights of similar member states, deriving from the principle of a priori voting power, but also the correlation of this issue with the idea of equalizing the a priori voting power of the EU citizens, as a criterion of fairness (a purpose that would have led to an alternative decision-making design). The principle of fairness requires the before-described idea of having weighted votes' distribution in accordance with a proportional correspondence between one country's power index and its squared root of the population, in order to equalize the EU citizens voting power. Analyses of the Nice and, later, post-Nice distribution of weights revealed that it has serious shortcomings in the fairness problem, as the Constitutional Treaty was also criticized (by the so-called "mathematician protest") for not respecting the same criteria of fair weights. Following the method of a priori voting power analysis, another research aim was to propose a standardized procedure of easily and fairly establishing voting weights when new enlargement waves would have to occur; votes for newcomers, but also for older members, as it implied a recalculation of their influence in the new extended formula (Leech, 2002, p. 438).

Table 2. Power distribution in the Council from 1995 until Nice and in case of enlargement (EU27).

Countries	Shapley-Shubik Index (1995)	Banzhaf Index (1995)	Shapley-Shubik Index (EU27)	Banzhaf Index (EU27)
Germany	0.119	0.112	0.0872	0.0778
United Kingdom	0.119	0.112	0.0870	0.0778
France	0.119	0.112	0.0870	0.0778
Italy	0.119	0.112	0.0870	0.0778
Spain	0.093	0.092	0.0800	0.0742
Poland	-	-	0.0799	0.0742
Romania	-	-	0.0399	0.0426
Netherlands	0.056	0.059	0.0368	0.0397
Greece	0.056	0.059	0.0340	0.0368
Czech Republic	-	-	0.0340	0.0368
Belgium	0.056	0.059	0.0340	0.0368
Hungary	-	-	0.0340	0.0368
Portugal	0.056	0.059	0.0340	0.0368
Sweden	0.044	0.049	0.0281	0.0309
Bulgaria	-	-	0.0281	0.0309
Austria	0.044	0.049	0.0281	0.0309
Slovakia	-	-	0.0195	0.0218
Denmark	0.033	0.036	0.0195	0.0218
Finland	0.033	0.036	0.0195	0.0218
Ireland	0.033	0.036	0.0195	0.0218
Lithuania	-	-	0.0195	0.0218
Latvia	-	-	0.0110	0.0125
Slovenia	-	-	0.0110	0.0125
Estonia	-	-	0.0110	0.0125
Cyprus	-	-	0.0110	0.0125
Luxembourg	0.021	0.023	0.0110	0.0125
Malta	-	-	0.0082	0.0094

Source: Adapted from Aleskerov et al., 2002, pp. 384-385

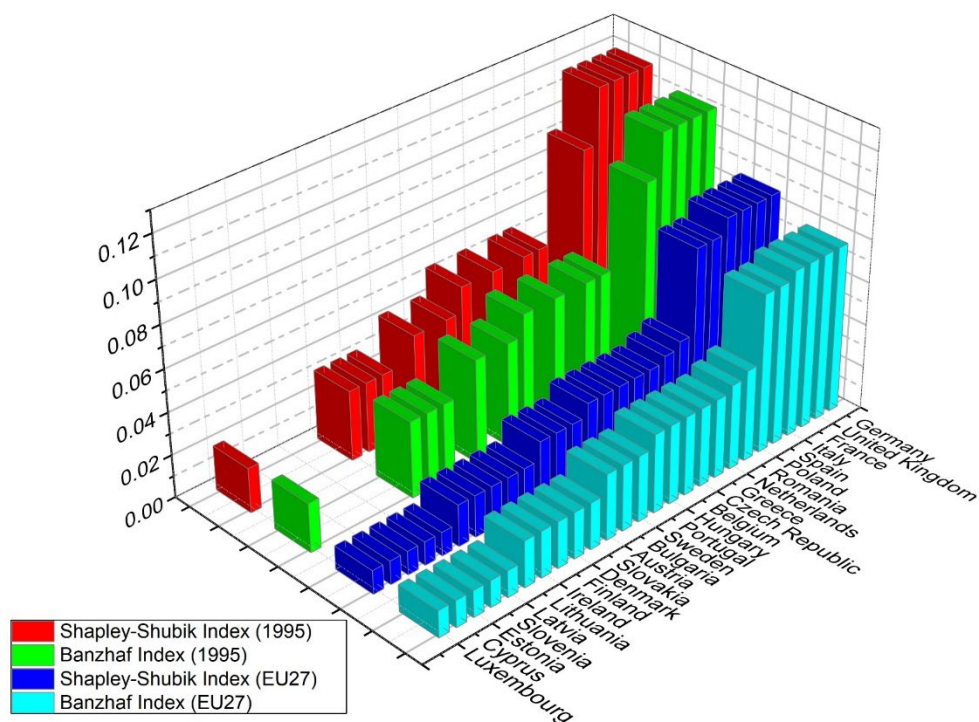


Figure 1. Power distribution in the Council as reflected by the two well-known competing indices, before and after EU enlargement. Source: own production.

Figure 1, based on Table 2, offers a clearer image of the power distribution in the Council as reflected by the two well-known competing indices. After comparing the two situations, EU 15 and EU 27, it is emphasized that, even if the power indices of the previous EU members were decreased after enlargement, the proportion between their levels of influence continued to be similar and the acceptance of the new members was counterbalanced by the big players with significant less vote shares in the power distribution.

This is why Nice was also dubbed as a “broadly equitable” system (Leech and Aziz, 2011). Moberg (2011) argued that the Swedish team in charge with Nice negotiations proposed even back then a new voting configuration based on Penrose’s formula, an idea rejected due to the increased weight it would have offered Germany, while the rest of the large MS preferred to fight for their increased influence. In the end, nevertheless, Moberg sustained that Nice was the system as closest possible to Penrose’s one. The advocates of Nice would dismiss the criticisms pointing towards (a) the voting weights lacking a direct proportional link to populations (as the underrepresentation of larger states is, in fact, a constitutive principle of the late Communities), (b) the high thresholds (despite them, effective QMV voting was not impeded due to the so strong culture of consensus), or (c) the impossibility to replicate it in case of future enlargement waves. The latter idea was, in fact, an accepted criticism as an opening towards the Jagiellonian compromise proposal, as it will be later presented (Leech and Aziz, 2011).

2.3 Lisbon, QMV and voting power. From voting weights to “fair enough”?

It is simple to understand why “[w]hat a voting system ‘should’ be is a political choice” (Moberg, 2011). Generally, small states are in favour of the weighted votes architecture, while the large ones, tending to capitalize on their population, support the double majority system. In fact, Moberg argues that the Lisbon treaty offers large countries the same weight they had in the EU12 configuration. Different comparisons of the impact that different voting rules (pre-Nice, Nice, Lisbon, Penrose’s Law) would have (van der Ploeg, 2008) indicate this previous weighted vote bias favouring the smaller states, a situation changed by Lisbon, also considering the big states’ interests in the context of the latest and future enlargements; that is why they were so eager to preserve the trump card of the population criteria, while the small states became interested on the threshold aspects. One of the main critics addressed the idea of supermajority voting methods following the argumentation line in favour of the simple majority rule. If the probability that a majority is right increases exponentially, then, obviously, the probability that the minority is wrong becomes very high. A supermajority rule demands that a specific level of the minority can block the process of decision-making, meaning that the higher the supermajority threshold required, the lower the minority that can veto the course of the action (Dahl, 1991). However, the defenders of the supermajority frame claim that there are no permanent majorities or permanent minorities.

The medium states – and here is a larger debate about properly identifying this cluster – were also advantaged by the previous Nice system and, as some subsequent debates revealed, even argued for a different type of EU Council voting. Conveniently, “the code words for these demands have often been ‘democratic legitimacy’ or ‘efficient institutions’” (Moberg, 2011). The leader figure of the medium states asking for a revision of the Constitutional Treaty – and, later, Reform Treaty – stipulations on the QM definition was Poland. The progressive Eurosceptic attitudes of the late 2005 new Polish government and the stalemate it induced in the 2007 attempts to renegotiate the late Constitutional Treaty are detailed in Phinnemore (2013, pp. 82-84, 121-124), where the attention is also directed towards the Polish concerns on the impact that the new double majority voting within the Council would have on Warsaw’s role in the European power game, as well as on supporting the Jagiellonian Compromise, also known as the Equal Influence System, considered to be more compatible with article I-45 requirements which foreseen “[t]he principle of democratic equality. In all its activities, the Union shall observe the principle of the equality of its citizens, who shall receive equal attention from its institutions, bodies, offices and agencies”; the German Council Presidency’s role in completing the negotiation on the final draft of the treaty, while assuring the Polish support through several concessions on the double majority entering into force (a sort of a new Ioannina compromise), is also widely presented by Phinnemore (2013). On the Polish position, the threat of not ratifying the Reform Treaty settlement and the ten years de facto postponement of the new QMV enforcement, Slapin (2011, p. 119) also has a well-documented input.

A few words about this so-called Jagiellonian Compromise (after the name of its first supporters, scholars at the Jagiellonian University of Krakow). As I previously stated, the voting

power and the voting weights of any country are not identical notions. While the voting weights are easy to understand, when one has the formula that determines them, the voting power means “the extent to which it may influence decisions taken by the Council when all possible coalitions between different countries are taken into consideration” (Slomczynski and Zyczkowski, 2011). As the authors are arguing, 51% of the shares of a company mean 51% of the votes (as weight) but 100% decisional power. The same idea can be found in plurality electoral systems which grants as winner the person receiving the highest number of votes even if, in a fierce competition involving more than two competitors, the total number of votes not received by this candidate could have been overwhelming.

In the EU’s case, due to the increased number of member states and the number of coalitions which is in the order of millions, the voting power of a specific actor is calculated using one of the before mentioned power indexes and one of the most commonly used is the Penrose-Banzhaf Index. One starts from Penrose’s arguments that “the a priori voting power of a country is proportional to the probability that its vote will be decisive in a hypothetical ballot: should this country decide to change its vote, the winning coalition would fail to satisfy the qualified majority condition” (Slomczynski and Zyczkowski, 2011); its Jagiellonian upgraded form stipulates country indices whose “sum is equal to unity it is easy to show that the voting power held by a given country depends not only on its voting weight but also on the distribution of the weights among all the remaining member states of the EU” (Slomczynski and Zyczkowski, 2011). For example, let’s imagine another fictional international organization with 5 member states which applies in one of its institutions the same voting rule as the Council of the EU (population share data) and which has the following configuration of the votes: MS1 = 9; MS2 = 4; MS3 = 9; MS4 = 16; MS5 = 25. In this case, MS2 has 6.35% of the votes, and if the square root is applied one has: MS1 = 3; MS2 = 2; MS3 = 3; MS4 = 4; MS5 = 5. MS2 has now 11.76% of the votes. Let’s see another configuration of the same imagined international organization, with a different distribution of weights, for the same total amount of the population: MS1 = 4; MS2 = 4; MS3 = 4; MS4 = 9; MS5 = 42. Here, MS2 still has 6.35% of the vote and, if the square root is applied, one has: MS1 = 2; MS2 = 2; MS3 = 2; MS4 = 3; MS5 = 6.49. In this case, MS2 has 12.91% of the vote (see Table 3 and Figure 2).

Table 3. Power distribution in two configurations of the votes for a virtual international organization.

Member state	Configuration 1				Configuration 2			
	Distribution of weights	Percent of votes	SQRT	Percent of votes	Distribution of weights	Percent of votes	SQRT	Percent of votes
MS1	9	14.29	3	17.65	4	6.35	2	12.92
MS2	4	6.35	2	11.76	4	6.35	2	12.92
MS3	9	14.29	3	17.65	4	6.35	2	12.92
MS4	16	25.40	4	23.53	9	14.29	3	19.38
MS5	25	39.68	5	29.41	42	66.67	6.5	41.86
TOTAL	63	100.00	17	100.00	63	100.00	15.5	100.00

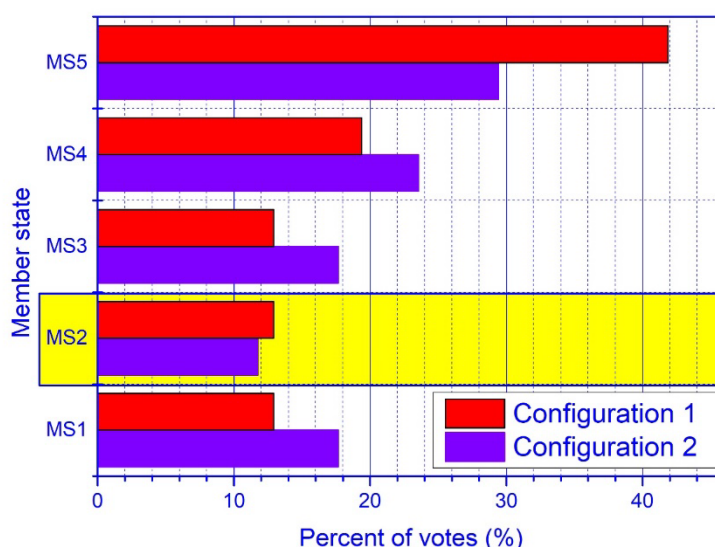


Figure 2. Graphical example of the voting power held by a given country (MS2) showing how it depends not only on its voting weight but also on the distribution of the weights among all the remaining member states.

In other words, “one should choose the weights to be proportional to the square root of the population and then find such an optimal quota that would produce the maximally transparent system, that is, a system under which the voting power of each Member State would be approximately equal to its voting weight” (Slomczynski and Zyczkowski, n.d.). That is why the Lisbon image of the double majority system as a result of a simultaneous support for the equal influence of the member states and of the citizens was rejected by some analysts due to the effects that would have brought benefits to the large (on a population basis) and small (on the simple majority quota basis) countries, on the expense of the medium-sized ones; these countries, and especially Poland, were promoting instead the Jagiellonian compromise: an equal influence power for each citizen, “transparent, easy to implement, efficient to use, and will readily accommodate any future extensions of the EU” (Slomczynski and Zyczkowski, 2011). The supporters of a direct link between the weights and the total population figures were dismissed by the appeal to the Constitutive Treaties, and the original degressive proportionality system stipulated there (Moberg, 2011), as it was considered that “the idea of dividing votes proportionally to the square root of population (...) is in fact the simplest mathematical implementation of the principle of degressive proportionality and lies exactly between two extremes: ‘one country-one vote’ (...) and votes proportional to population” (Slomczynski and Zyczkowski, 2011).

The Jagiellonian scholars also dismissed, in fact, the implementation of the original Penrose proposal of connecting a country’s voting power to the blunt square root of the population, especially in a weighted votes context where the allocation of weights should be associated with the setting out of a threshold for QM. Instead, they proposed that these weights be allocated so that they reflect proportionally themselves the square root of the population (rounded to the

nearest integer), while the discussions about where to set the threshold became subsequent: „the optimal quota enabling the computed voting power of each country to be practically equal to the attributed voting weight, and so to be proportional to the square root of the population” (Slomczynski and Zyczkowski, 2011; see also Pukelsheim, 2011). In other words, Jagiellonian compromise “consists of a single criterion only, and it is determined by the following two rules: A. The voting weight attributed to each member state is proportional to the square root of its population. B. The decision of the voting body is taken if the sum of the weights of members of a coalition exceeds a 61.6 per cent quota”; adopting an act by using this system was praised by its supporters as “simple, objective, representative, transparent, easily extendible, moderately efficient and moderately conservative” (Slomczynski and Zyczkowski, 2011). The authors (and also Kirsch, 2011 who speaks of a 61.4 per cent quota when mentioning 2004 and 2006 older contributions of Slomczynski and Zyczkowski) also suggested a modified system introducing the simple or qualified majority of the member states as a secondary criterion; it would not have altered the objective of the square root law, but it would have reinforced the double “union of people” and “union of states” EU nature, also being in favour of the less populous states. Nevertheless, in other opinions, “[t]he choice of a quota is a technical means suitable for attaining a given political end” (Sozanski, 2011). In this interpretation, the quota is not influencing the power distribution, but the efficiency of the decisional system in terms of a possible number of majorities able to pass a piece of legislation. Therefore, it is simpler to understand the interest that the political spectrum has for blocking coalitions.

The supporters of the Jagiellonian system also underlined that it would succeed to harmonize the EU citizens power shares so that they have an – even if indirectly – equal influence on the EU Council decisions. The direct voting power of a citizen is, of course, the one reflected in the domestic elections. Leech and Aziz (2011) argue that the total voting power of an EU citizen – or the personal Penrose power index – represents the product of the power his/her country has in the EU Council and his/her power at the national level. When applying the Jagiellonian formula to different EU scenarios, the results indicated that the relative citizen voting powers had only minor variations, contrary to the Constitutional / Lisbon Treaty. For this reason, Pukelsheim, for example, saw Jagiellonian proposal as a “rather sophisticated idealisation of democratic equality” (Pukelsheim, 2011). Comparative to the double majority system (praised mainly for its capacity to increase the decisiveness of the Council), several other analyses also pointed Jagiellonian Compromise as “remarkably equitable” (especially for the medium-sized countries, not favoured by the current settlement) irrespective of several future enlargements considered by the authors (2011). Machover (2011) reminded that Poland’s 2007 efforts to support a decisional structure based explicitly on the Jagiellonian compromise failed, while the new Lisbon system – as data indicated – was even more distant than Nice when one refers to the square root law as an ideal standard. Therefore, Machover insisted that any further negotiation of the square root theme to be held separately on the application of the rule, on the one hand, and the issue of establishing a specific quota, in the other.

Nevertheless, sometimes the arguments of the Jagiellonian supporters tend to be rather ideologically influenced than scientifically based. As many of these arguments are elaborated by Polish scientists and disseminated by other non-Polish scholars in collective works coordinated by the members of the Polish academia - as is the case of Cichocki and Zyczkowski volume (2011) -, they seem strongly biased for supporting its cause even if, sometimes, they add Spain in the same category in order to be able to refer to a broader "medium-sized countries" case, as van der Ploeg (2008) argues that Spain also tried to block the Convention talks due to the Council decision provisions.

In the aspects regarding the Jagiellonian arguments, on the one side, it is underlined EU's necessity to get closer to the democratic benchmark by offering each citizen the same decisional influence. As a consequence of this argument, one seems (only seems, as in reality, they are not connected) to also find the idea that one state's impossibility to split its votes accordingly to various national positions on a specific issue would qualify the weight votes allotment on a population basis to be unfair and favourable to large states (Kirsch, 2011). On the other side, nor in the Jagiellonian system the votes are split, and this would be possible only if each citizen were able to vote directly on each EU-level decision, which is utopian.

The wording of the theme is, most of the time, confusing. As previously indicated, some argue that QMV debates are about the equal distribution of power within the EU Council: "it is a fundamental principle of the EU that all citizens should have equal rights, whatever country they happen to live in", and the arguments are constructed by assuming the citizens' equality axiomatically right as "a benchmark against which to compare the fairness of the distribution of voting power" (Leech and Aziz, 2011). But is it true?

In fact, the broad mathematical views on the subject are simple to understand: (a) should each citizen have the same power input irrespective of its Member state provenience or (b) allotting one vote per each citizen should transform into an increased power quota for larger states? Nevertheless, beyond mathematics, various criteria have been considered when analysing voting formulas. Among them, van der Ploeg (2008) notes equity, efficacy and comprehensibility or, in other words, a fair distribution of power in comparison with a member state's total population, the capacity of a specific voting option to encourage a fluent decision-making process and, respectively, an open to public scrutiny and easy to understand system. According to her analysis, a square root law-based system or one built on the Jagiellonian compromise would indeed better observe the before-mentioned criteria in comparison with the Lisbon one.

The political choices, however, are different, and there is no sign of a concrete dialogue between the parts. One cause of the misunderstandings accompanying the subject is the mutual contempt between mathematicians and politicians. For example, Sozanski (2011) taxes as amateurish the approach of politicians to support one rule or another, arguing that the mathematicians are those really carrying the burden "by translating given voting rules from the legal language used by politician into the set-theoretical language of mathematics" and analysing these mathematical models as various voting games.

I consider that there is more behind the political choices than that unfair and reductionist

“amateurship” label. Indeed, this is an important question: if it is so providential, when considering each citizen’s input and the possibility of extrapolating its mechanisms to future EU enlargements, why the other states do not intend to switch towards using the Jagiellonian formula, not even those who seem to have the same voting power in the Lisbon context when compared to the Jagiellonian simulations? As revealed by the tables, the number of states for whom the Jagiellonian proposal is not only fair, but also favourable compared to Lisbon, is close to 2/3 of the members. So, why are they not supporting this change, both due to net benefits and fairness of the results? And if is so ideal, so to speak, why do the majority of its supporters still favour additional conditions, such as the agreement of the simple or qualified majority of the member states? Arguing in favour of the Jagiellonian compromise and claiming that “[t]he shifts of seats and power would seem trivial compared to the significant gain in democratic substance – a consequence of putting citizens first” (Pukelsheim, 2011) might seem rather a political and not a scientific approach, if one cannot find proper answers. In my opinion, this Jagiellonian issue reflects the LI power politics in the EU and one could argue that the compromise might be ideal for everybody, and that is why not “ideal enough” for the big players. Then why all the fuss? Follow the money, as one example (among many others) could be found in the context of the solidarity/cohesion discourse and relocation of the supporting fund.

In fact, the situation is more nuanced, and it remains to be seen where one can draw the line between discussing the justice of a system, whatever it may be, and the differentiated impact that system could have in the event of a fluctuation of the Member States. For example, Kirsch (2016) reveals Brexit’s impact on the EU, both in a 27 members’ scenario (without UK) and in a 28 one (with Scotland). His research indicates, using the Banzhaf index on the current Lisbon amended framework, that small members’ states (under 4.5 million citizens) will be the losers of a simple no-UK configuration, where the QMV requires 15 states and “[t]he blocking minority must include at least four Council members representing more than 35% of the EU population” (European Council, 2022). Middle-sized countries, like Poland, would strongly benefit, alongside the larger ones. A scenario that would contain Scotland would lead to different results, as the first seven most populous countries would see their influence reduced, while the over 2/3 remaining member states would be the main beneficiaries of the new power equilibrium. Hence, a system that could be considered fair regardless of these fluctuations of the EU compentence could represent a solution. The post-Brexit EU power distribution – also calculated on a square root basis – is said to be in favour of the most populous member states (significant for the first five and satisfactory for the next two), due to the decrease in the number of states with a population beyond the EU average. So, the role of the larger states is set to be strengthened due to their future increased influence on the success of a coalition (see the results of Kirsch et al., 2018, pp. 24, 27). In corollary, due to the diminishing of the number of states threshold for passing a decision, the role of the less populous MS will be further diminished (Kleinowski, 2019).

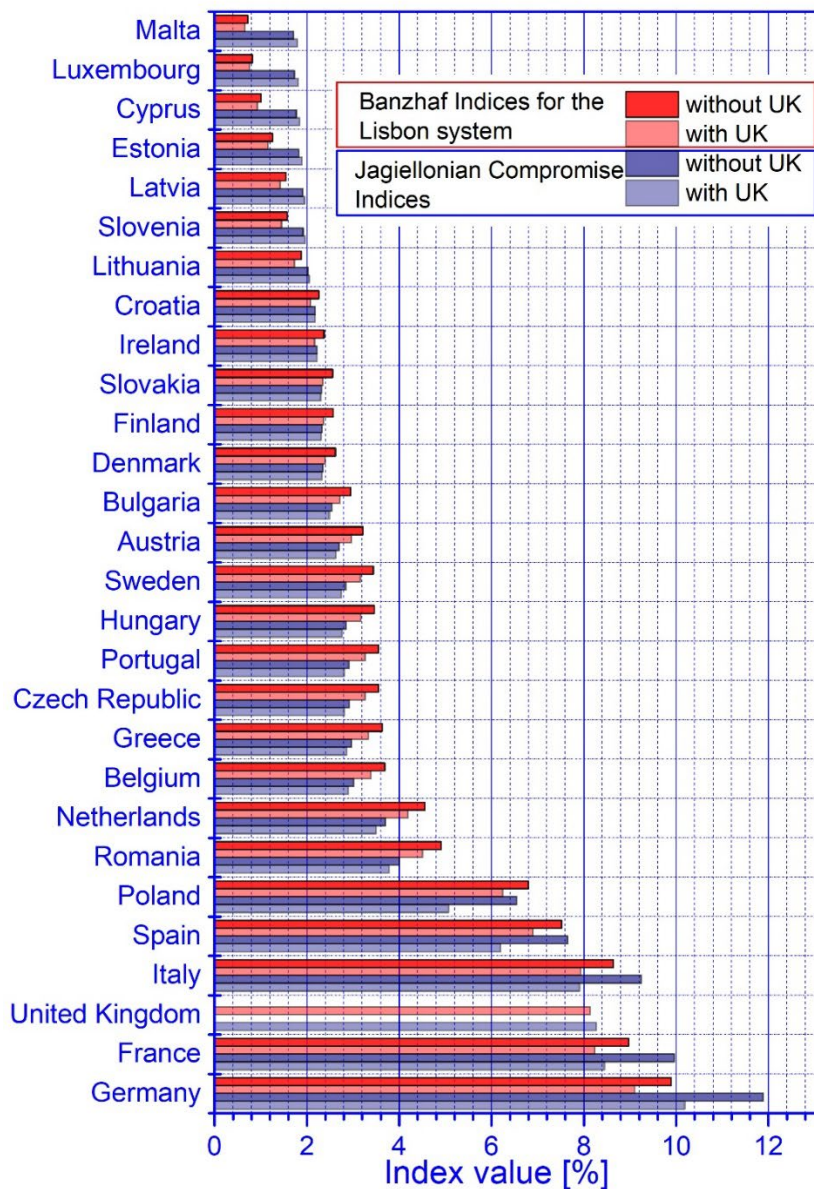


Figure 3. Comparison between Banzhaf indices for Lisbon system and Jagiellonian Compromise Indices before and after Brexit. Source: own production employing data from Kirsch *et al.* (2018).

Nevertheless, the results of Kirsch *et al.* (2018), graphically represented in Figure 3, show that a possible use of the Jagiellonian Compromise would be in benefit of all countries in a post-Brexit context (Kirsch *et al.*, 2018). Here one can mention again the delicate issue of the number of residents used in population statistics relevant for the EU decisional process, as the “old Union” (and not exactly in the most / medium populous states, such as Poland) is getting advantages from this flux (Kleinowski, 2019).

3. Discussions and conclusions

Conceived as key points in the institutional development of the EU, the Treaty of Nice and, later, the Lisbon Treaty (via its Constitutional Treaty inheritance) proved finally to be extremely contested for their provisions regarding the structural changes envisaged for an enlarged Union. Institutional arrangements for deciding the best frame for collective decision should take into account the context of the decision process and the outcomes coming up from the political game. QMV, depending on its definition, can imply (a) privileges for the status-quo; the status-quo, as Dahl (1991) proves, is not a neutral alternative not for the simple majority, (b) the exiting of a constant majority that can dominate the system or, (c) by contrary, a strong minority that can abusively use its blocking power despite the collective interest.

Finally, one can draw some conclusions referring to the initial research questions about the institutional dimension (the third LI level) and the issue of rational collective output. Various changes in the regulations may have occurred, but sometimes they are, in reality, marginal. "The institutions frequently becom[e] reified as rational actors themselves, rather than the reflections of the collective actions of the individuals within them" (Peters, 2019, p. 63). If one compares the negotiation process in both Nice and Constitutional/Lisbon Treaty, one notices that the alternatives envisaged by the legislators were minimum, and the degree of difference between the final outcomes was not very high, justifying the idea that the final objectives were not enough clear from the beginning and that the change of the status quo was, in fact, incremental if one thinks at the values that would have had to support this important process. Actually, more than 60 years later after arguing it, it is still valid that "incrementalism in the large becomes potentially a major political orientation" (Lindblom, 1958, p. 312).

This problem of collective action transferred into the game theory would face some challenges in describing the type of game played by the Council's members. If it is common sense to agree that one should speak about coordination games (the repetition of the game being a factor that could lead to an optimal equilibrium between the parts), the reality confronts us with a *de facto* "Prisoner's dilemma" (summing up the individual results offers a lower figure than the one that would have been obtained by a collective action). The difficulty of the cooperation between all the players could have been influenced by the labels that each actor inevitably had (Axelrod, 1984). In the EU negotiations, the rival labels "major power" – "minor power" negatively influenced the whole process indeed, enforcing one part's status and constantly trying to disadvantage the other. Nevertheless, cooperation was intense between the two playing parts. The small players and also the medium-sized Spain and Poland succeeded in improving their condition by joint continuous actions designed to sanction the defection. Therefore, a rational collective outcome of the EU Council is indeed far away from being reached, and that future institutional arrangements (a consequence of a new treaty, of the withdrawal of some members or of a new enlargement wave) should be treated with more consideration regarding the power distribution into the voting system.

So, what are the chances for the ideal type to be implemented in the near or medium future? Politics is a never-ending story, the political issues being discussed and reviewed constantly accordingly to some given principles. However, the issue of power distribution in a voting system should be treated with more consideration for the idea of a rational collective outcome. Nevertheless, the current divisions between the member states (various dichotomies as old versus new member states, Northern Europe versus Southern Europe, Western Europe versus Eastern Europe, larger versus smaller member states, supranationalist versus intergovernmentalist supporters, etc.) amplified during the latest crises (financial aspects, migration, populism, foreign policy, UK withdrawal, coronavirus disease, Russia's invasion of Ukraine) are a strong impediment for the willingness of the leaders to embark on a trip towards a new treaty (Stratfor, 2018), irrespective of the fairness it might bring, as the possible spill-back (Niemann, Lefkofridi and Schmitter, 2018) consequences are considerable higher. So, should we just try to limit ourselves to coping with the current Lisbon framework, even if this third LI level needs serious updates in order to ensure democratic legitimacy when respecting the assumed engagements?

In the end, one should mention that between April 2021 and May 2022, the EU organized the Conference on the Future of Europe, a pan-EU democratic exercise where citizens expressed their vision regarding the priorities to be set and challenges to be overcome in a common future. Considering the attributes of each major institution involved within this initiative (the European Commission, the European Parliament and the Council of the European Union), as well as the aim of this approach to give "Europeans a greater say on what the Union does and how it works for them" (European Commission, 2020), even in this context little can be expected to be translated in concrete measures in the strictly intergovernmental nature of the voting power discussions. Besides a vague call to "reopening the discussion about the constitution", the citizens courageously asked for "reassessing decision-making and voting rules in the EU institutions" in an attempt to strengthen the qualified majority voting to the detriment of unanimity while ensuring a fair calculation of voting 'weights' so that small countries' interests are protected" (Art. 7, Proposal 39, EU, 2022). Nevertheless, alternatives such as the Jagiellonian compromise do not seem to have immediate future success, considering that their general fairness in terms of voting power is contradictory to the current stronger influence of the larger states, which would not generate their support for a future decisional framework change.

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