Qualified Majority versus Unanimity: Making Decisions Easier?

Luís Manuel Claro Guia Nº870

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Professor Paulo Côrte-Real

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Abstract: In this paper, we will investigate if there is the counterintuitive possibility that decisions under unanimity in the Council of the European Union may result in approval of proposals of the Commission with higher simplicity when compared to the voting system of qualified majority. The focus will be not only on the underlying interpretation of the abstention, but also on the quorum required to allow formal voting to take place. Moreover, bearing in mind different interpretations of abstention, we will also find the necessary proportion of favorable actual voters for each level of participation to ensure that the concepts of Condorcet Consistency and Representation are respected.

Keywords: European Union; Collective Decision Making; Abstention; Condorcet Consistency
1. Introduction

The main bodies of the legislative process in the European Union are the Commission, the European Parliament and the Council of Ministers (also called the Council of the European Union). According to the ordinary legislative procedure used in nearly 80% of the legislation, the Council of Ministers legislates with the European Parliament after a proposal by the Commission. In this procedure, for an act to be approved, the favorable vote of the two institutions is needed. Nevertheless, the Council of Ministers is the most important legislative of the European Union, since there are some decision processes in which it is the only institution with power to legislate.

There are three voting decision methods in the Council of Ministers: simple majority, qualified majority and unanimity. However, we could consider that only two methods are relevant since simple majority is only used for procedural questions for requesting the elaboration of studies from the European Commission. Decisions that imply the adoption of new legislation in the European countries are voted by either qualified majority or unanimity. According to the Lisbon Treaty, qualified majority shall be the main decision rule to approve legislation originated by the European Commission in accordance to a provision in article 3.

The current dispositions of qualified majority imply that for the approval of a proposal two requirements must be satisfied and so it is also called the double majority once it requires that the minimum of favorable votes must be equal to 55% of the Members and those positive votes need to represent also 65% of the total population in the European Union. For a blocking minority to be constituted this one should be composed by at least four countries which have to represent at least 35% of the total of the European Population. There is also the possibility for the Member-States to use the qualified majority criteria that was agreed
under the Nice Treaty in 2001 until March of 2017 in which the voting weights attributed to
the countries seemed to reflect the population of the countries but they also reflect political
and bargaining power. The quota imposed for an approval of a decision was set to 260 votes
in a total of 352 and it was additionally required that a simple majority of countries should
vote for the proposal. However, this method had a special caveat: a Member State could
request confirmation that the positive votes represent 62% of the European Population. Since
the request depends on the initiative of a Member State, then it is possible that some decisions
could be approved even though this condition is not fulfilled.

The other decision rule for the approval of a decision is the voting rule of unanimity. This
voting decision is reserved for critical questions considered too sensitive for the countries in
the sense that it affects their sovereignty, such as harmonization of taxation across countries,
common and foreign policy or justice and home affairs.

In the past, unanimity was the decision rule used to approve legislation in the European
Union. The Treaty of Rome predicted that over time, decisions should be made by qualified
majority instead of unanimity. However, in 1965, French President Charles de Gaulle was
against some proposals that would be approved under qualified majority with the opposing
vote of France. In this situation, France would have to apply measures it did not approve in
the national law. Charles de Gaulle was not a true supporer of the European idea and as a
reaction he started not attending the meetings, creating the “crisis of the empty chair” and
also threatened the other Members with the possibility that France would exit the European
Economic Community. This generated a climate of tension among the 6 original members.
Since France was an important Member of the Community, the other countries accepted the
French requests and so the Luxembourg Compromise was signed. This stated that if a
decision made by a majority threatens another Member-State in vital interests, then the countries should engage in negotiations to achieve a solution upon which all Members can agree. Even though the Luxembourg Compromise did not have binding force, it had a significant impact on decision-making in the Community since for an approval of a decision, unanimity was required. Only with the signature of the European Single Act in 1986 would qualified majority become the main voting method for the approval of decisions within the Community. According to Richard Baldwin and Charles Wyplosz (2009), the Luxembourg Compromise reduced the ability of the Community to approve decisions and the problem would only be aggravated when the first enlargement of the Community took place in 1973 to include three new members. Although the voting mechanism of unanimity is more rigid since approval requires the consent of all members, we cannot blame only unanimity for the slowness of the decision-making of the Community. In fact, the period of 1973 until 1986 was known as the Euro-Pessimism period. During this period, European economies would suffer from the adverse economic shocks that took place: the increase in the oil prices caused supply shocks that originated an increase in the inflation rates as well as an increase in the unemployment rates. Is it not possible that the slowness of the Community decisions can also be attributed to the fact that ministers were more worried about solving their domestic problems and the European project became a secondary concern? Moreover, the threat of the French President to exit the Community could cause the end of the Economic Community - or at least weaken its original and main purpose to avoid a new war between Germany and France. To consolidate this argument, according to Gollub (1999), the speed of approval of new legislation did not rise after the signature of the European Single Act in 1986.
Thus, there is the need to clarify if the voting decision of qualified majority always produces a voting outcome that results in an approval rate of decisions that is higher than the voting decision of unanimity. The first main difference in the voting systems consists in the role that abstention can play. In fact, there are three alternatives for representatives to vote on the adoption of a proposal: “yes”, “no” or “abstaining”. Nevertheless, abstention has different interpretations according to the voting system, since in qualified majority an abstention is equivalent to a no vote, while in unanimity abstentions do not prevent a decision from being adopted. This could open a possibility for situation in which a proposal could be rejected under qualified majority while it would be approved under unanimity, as exemplified in Figure 1:

![Figure 1: Possible Voting Configuration leading to different outcome voting result.](image)

Let us imagine that the European Union is composed of 7 countries. If there at least four abstentions and in the absence of an explicit no vote, then a decision would be approved under unanimity but not in qualified (or simple) majority since there are more abstentions than positive votes. All the voting configurations without a negative vote and with more than 3 representatives choosing to abstain will lead to a proposal to fail under majority while it would pass under unanimity.

The abstention we refer to in the previous paragraph is an option available for the member-states representatives at the moment of voting. However, representatives have also the possibility of not attending the meetings. The current procedure rules state that a vote is only taken when there is a majority of the member-states representatives present at the meeting
(equal to at least 15 ministers). However, a minister who attends the meeting can also represent the position of a missing representative but he/she can represent at most one absent country. Ignoring this possibility, then the quorum imposed would never be a binding condition under qualified majority, since in any case approval under qualified majority requires the positive vote of at least 16 member-states. Nonetheless, the situation changes when the voting rule is unanimity since if the minimum of representatives is met, there is no requirement regarding positive votes. Therefore, we say that under qualified majority, there is a quorum of majority while in unanimity there is a quorum of participation. This characteristic can also provide a potential reason for unanimity to generate a higher approval.

Moreover, there is also the need to understand whether the voting rules satisfies the requirements of the Condorcet criterion. In a binary-choice referendum, the Condorcet principle consists in selecting the alternative which defeats the other with simple majority and so it corresponds to the will of the majority. If this condition does not hold, then what rule and which thresholds should be used to satisfy the fact that European Union is a mix of two realities: a Union of States and a Federal State.

2. Literature Review

The literature concerning the decision making process in the European Council is vast. Every time that there is a new enlargement of the European Union or a change in the voting mechanisms such as new rules for qualified majority voting, there is a series of papers making reference to the voting powers of the representatives of the diverse countries in an attempt to verify who are the losers and the winners of the change in the voting rule, as well to verify if the introduction of the new rules are able to generate an outcome that promotes fairness in terms of distribution of voting weights. The definition of fairness criteria is not simple or
consensual, but nevertheless, there is the attempt of the European Union to design an
mechanism close to the principle “One Person, One Vote”, in which every citizen in the
Union has the same rights; but at the same time, there is also the concern that the process of
decision making is such that the smallest States can also have a word in the final decision
and this is called the principle of “One State, One Vote”.

The non-normalized Penrose-Banzhaf power index power is one of the many power indices
and it can be expressed as the proportion of all vote configurations that are swings. A swing
for member \( i \) consists in a vote configuration where the total votes in favor allow for the
approval of a proposal, but without the favorable vote of the member \( i \) then the decision will
be rejected. Following the notation of Leech (2002) if the total number of swings for a
representative for a representative \( i \) is given by \( \eta_i \), the non-normalized Banzhaf-Penrose
index for a representative \( i \) can be given by \( \pi_i = \frac{\eta_i}{2^n-1} \). The denominator consists in the
maximum number of swings for a representative \( i \) since it considers all possible vote
configurations considering that \( i \) is not included. This index was used in the work of Aziz H
and Leech D (2007) to analyze the qualified majority stipulated in the Treaty of Lisbon, and
with resource to the Gini coefficient of citizen power to measure the inequality, they
concluded that the double majority is actually more unequal than the triple majority present
in the Nice Treaty (2001), although that in respect to the Coleman power to act ( defined as
the proportion of the vote configurations allowing for the approval of a proposal) there is an
improvement. The final conclusion is that the Penrose Square Root Law is the one able to
achieve equal power to all the citizens. The Penrose Square Root Law consists in attributing
voting weights to the representatives such that the non-normalized Banzhaf-Penrose index is
proportional to the square root of the population of his/her country of origin.
Nevertheless, the use of the voting power theory to characterize the decision making process of the European Union is not devoid of criticism. According to Garret and Tsebelis (1999), the use of voting power indices is not correct since it is based on a priori voting decisions in which the probability of a representative to vote for or against the proposal is the same and so it ignores the policy preferences of the actors involved in the decision making process; the institutional rules are also disregarded and most important it does not consider that the representatives might behave strategically. This last assumption is quite important since according to the functioning of the Council, there is bargaining among the agents and given some proposals that are fundamental to some Member States, those representatives might have incentive to persuade other representatives so that they can approve a proposal in exchange for a favorable vote in other proposal. This behavior is likely to occur since there are several meetings along a year and so along time, ministers learn each other’s preferences.

In response to this criticism, there is an attempt to incorporate some features of the institutional framework of the European Union. In the work of Laruelle, Martínez and Valenciano (2004), the authors computed the Penrose-Banzhaf considering that the vote configurations that do not have at least half of the members supporting the proposal have a probability equal to zero whereas the vote configurations that fulfill this assumption have all the same probability. This assumption is built on the evidence that the Commission only makes a proposal when it has evidence that its approval has a minimum support which is guaranteed. If one relies on voting power theory, then one can conclude that decisions under unanimity become more difficult as the number of countries in the Union increases, once there is only one vote configuration under unanimity that leads to the approval of a decision.
According to Heisenberg (2005), consensus can be a more efficient mechanism than qualified majority voting since a Member-State representative in order to find support for a given proposal which is favorable for him/her, he/she needs to meet the demand of another Member in another area giving origin to another legislative act. Therefore, this demand for support can give origin to a supply of proposals that could not exist if the decision voting was qualified majority, once if a particular Member-State is not required to form a winning coalition, then its preferences would be disregarded and that exchange would not exist. Under qualified majority, there would only exist incentives for the Member-States that have the power of forming the winning coalitions to reach agreements between them.

At a first glance, it seems that there are three alternatives in which a representative can choose under the voting system of unanimity. However, with a closer inspection, one can conclude that the value of abstention under unanimity is a positive vote. Therefore, it is not the case that abstention is a third alternative under the Council and so there is no possibility of applying ternary games, a point mentioned by Felsenthal and Machover (1997). Thus, one may simply ask the purpose of the abstention and the reasons for its existence, which may help understand what its interpretation should be.

The analysis concerning the fact that an outcome of a voting decision mechanism satisfies the principles of Condorcet Consistency (consistency with the preferences of the majority of potential voters) and Representation (coincidence of the outcomes if abstainers also voted) is based on the approach elaborated by Côrte-Real and Pereira (2002) which showed that the imposition of a quorum condition, requiring for instance that the number of actual voters corresponds at least to half of the total number of total voters, in addition to the condition of simple majority in order to occur a change in the law in opposing the status quo, creates a
dilemma for the supporters of ‘no’, once by voting they contribute to the satisfaction of the quorum while if they decide to abstain, the ‘yes’ voters might defeat the ‘no’ and also satisfy the quorum imposition. The authors showed that the concern in achieving an outcome that is representative of the will of the whole population leads to a result in which it is impossible to satisfy three criteria: Condorcet Consistency, Independence of the preferences of the abstainers and Representation without imposing a specific interpretation on the agents who decide to abstain.

3. Discussion

3.1 On the role of Abstention

In both unanimity and qualified majority, abstention is not different from a ‘yes’ or ‘no’ vote (respectively). We are therefore in the presence of simple games and so the Condorcet-Arrow problems of manipulation are not present, and so a simple majority is enough to select the Condorcet winner. Nevertheless, it might occur that a change in the voting decision would lead to a different outcome if there are many abstentions and no negative explicit votes. In that situation a change in the voting decision from qualified majority to a unanimity decision rule would lead to an approval of a decision. However, one must also ask if this is a feasible situation that can occur in reality. At a first glance, one should not expect this type of situation since Member-States representatives are in principle aware of the meaning of abstention in each case and so one should expect not to see a large set of abstentions (since this type of vote is not a third option) and so it follows that the final decisions under the European Council of Ministers should be bipolarized between ‘no’ and ‘yes’ votes. However, abstentions occur more often than one would expect: according to the Van Gruisen and Crombez (2016)
between the period of 2004 and 2014, 367 acts were contested either by abstention or by ‘no’ vote. Why does this occur? The explanations of the role of the abstention are quite obscure.

Novak (2013) argues that a vote against or an abstention needs to be clarified in the process of decision-making. Moreover this type of votes attracts public attention. When a minister considers that he/she has an interest in publicly dissenting, he/she will vote ‘no’. However, when he/she wants to express public dissatisfaction with a measure, but wants to maintain good relations with the institutions, he/she may choose to abstain or draft a formal statement.

The purpose of the author is to make the explicit point that the culture of consensus in the Council is not equivalent to unanimity. According to the author, the publication of the formal votes is an extra reason for the ministers to remain in silence. Therefore, there is a culture of blame in the Council that explains the low numbers of opposing votes.

Aken (2012) argues that under unanimity, an abstention indicates that a Member-State is not entirely satisfied with the measure but does not want to block the majority decision. He also points out that new Member-States prefer to use an abstention to show disagreement while the older Member-States prefer to use a ‘no’ vote. Moreover, if there are few “no” votes, it would be possible to change those votes to “yes” through voting exchange. Hayes-Renshaw (2006) and Novak (2011) also mention that contesting Member-States might decide to drop their opposition once a clear majority has been established. The possible reason might be the high costs involved in the short and long run of continuous opposition.

Zbíral (2008) argues that under unanimity, the use of the veto power is limited by informal rules, for instance it is difficult for just one country to use its veto power against a compromise already achieved by the other Member-States. In fact, we can say that this situation has occurred recently: the Belgian region of Wallonia was opposing the Free Trade
Agreement between the European Union and Canada. After a few days and upon the conclusion that all the remaining member-states would be in agreement regarding this issue, this region also decided not to block it. In this type of situation, one could argue that unanimity does not lead to the Pareto Frontier outcome, since the political influence of some member-states representatives and negotiation costs can lead other representatives to end up in a situation in which they accept a position that is not favorable for them. Under qualified majority, this author argues that abstention cannot be viewed as a position of indifference once according to the informal rules of the Council state that when a representative is in a situation of indifference, then that representative should vote in favor for the proposal to please other Member-States that are in favor of that proposal so that in future negotiations that indifferent representative can profit from the fact that it helped other representatives. With respect to the question of the existence of abstention, the author mentions that the role of abstention should be clarified since abstention and voting against should represent the same value, although both are options that lead to different outcomes.

According to Van Gruisen and Crombez (2016), the difference between the ‘no’ vote and an abstention concerns a political message once the ‘no’ vote is taken with a negative connotation by the European institutions according to interviews performed by the authors to the Permanent Representatives. By recording a statement or abstaining, representatives are able to signal their dissatisfaction and at same time not damage the ambition of the Council to achieve consensus. This type of behavior is appreciated by the institutions and at a later time it might be compensated.

This leads us to conclude that an abstention would seem to represent disagreement regardless of the voting system being used, although unanimity actually considers abstention as a
positive vote. Thus, under a hypothetical situation in which all countries would choose to abstain, a proposal would be approved under unanimity although it might correspond to a situation of dissatisfaction among all member-states; such situation in qualified majority voting would not occur since it would lead to the refusal of the proposal. In the presence of this situation, one can conclude that abstention should not be possible – or at least that the rule should be revised to reflect its meaning. Decisions under unanimity might well reflect the position of a few Member-States using their political influence but failing to represent the will of a majority.

3.2 The Intergovernmental Criteria

If one assumes that the European Union should be thought as a political Union constituted by several countries, then each representative should have equal power. In this situation, the process of decision-making should be constituted by 28 actors in which they would represent the view of their national country by voting ‘yes’, ‘no’ or abstaining. With this perspective in mind, it is possible to assess the situations in which there is the fulfilment of Condorcet Consistency and Representation.

In the following part, I will use the notation used by Côrte-Real and Pereira (2002) and so one defines $N$ as the set of potential voters and $n$ defined as $n=|N|$. There are currently 28 member-states representatives in the Council of the European Union, and so it follows that $n=28$. Of those representatives, let us assume that at the moment of voting, only a fraction of those potential voters are present at the moment of voting. Let $N'$ be the set of actual voters, with $n'=|N'|$. It follows necessarily from here that $N\setminus N'$ is interpreted as the set of abstainers and the number of agents who decide to abstain is given by. We should note that abstaining in the Council of the European Union encompasses two different concepts: those who decide
to abstain and those who decide to not be present at the meeting. We will assume that both
types of abstention will be incorporated in the notation used here and so it follows that in \( N' \),
we are only including agents that will vote either ‘yes’ or ‘no’. Each representative is
endowed with a rational preference relation on the set of outcomes \( A = \{ \text{Yes}, \text{No} \} \). One can
also denote the preference profile of the electorate who votes by \( R_{N'} = (R_i)_{i \in N'} \) and the
preference profile of those who abstain by \( R_{N \setminus N'} = (R_i)_{i \in N \setminus N'} \). Now, we will introduce the
notation which is essential to ensure that the outcome of a voting system satisfies the concepts
of Condorcet Consistency and Representation and in order to proceed, we express the concept
of which represents the proportion of voters in \( N' \) who are favorable as
\[
\beta = \frac{|\{i \in N' : Yes_i, No_i\}|}{|N'|};
\]
which represents the proportion of the agents in \( N' \) who are indifferent between voting yes
or no as
\[
\gamma = \frac{|\{i \in N' : Yes_i, I_i, No_i\}|}{|N'|}.
\]
We will assume that half of those who are indifferent will vote
‘yes’ and the other half will vote negatively. It follows necessarily from here that
\( 1 - \beta \frac{\gamma}{2} \) represents the fraction of the voters in \( N' \) who vote for no. On the set of abstainers, we shall
define \( n-n' \) to represent the fraction of the voters in the set of \( N \setminus N' \) that support a favorable
decision represented by
\[
\alpha = \frac{|\{i \in N \setminus N' : Yes_i, No_i\}|}{|N \setminus N'|};
\]
\( \delta \) denotes the proportion of abstainers who are
indifferent between a yes or no decision as
\[
\delta = \frac{|\{i \in N \setminus N' : Yes_i, I_i, No_i\}|}{|N \setminus N'|} \]
and as in the previous case, we will assume that half of those indifferent would vote for ‘yes’ while the other half would
vote for ‘no’. It follows necessarily that
\( 1 - \alpha \frac{\delta}{2} \) represents the proportion of the abstainers who are
totally opposed to a decision. In order to satisfy Condorcet Consistency and
Representation, we need to satisfy the following inequality:
\[
\beta n' + \frac{\gamma}{2} n + \alpha(n - n') + \frac{\delta}{2}(n - n') \geq (1 - \beta - \gamma)n' + \frac{\gamma}{2} n' + (1 - \alpha - \delta)(n - n') + \frac{\delta}{2}(n - n')
\]

This inequality can be reduced to the following form that expresses \( \beta \) as a function of the number of representatives who decide to vote favorably or against it as:

\[
\beta \geq \frac{1}{2} - \frac{\gamma}{2} + \frac{(n - n')}{n'} \left[ \frac{1}{2} - \frac{\delta}{2} - \alpha \right]
\]

Now with the notation required, we can analyze the first disposition of the qualified majority voting scheme with respect to the criteria of the minimum number of member-states representative necessary to vote favorably. The imposition of a minimum number of 16 representatives means that this could be considered not as a voting threshold but as majority threshold voting condition of the form \( \beta \frac{n'}{n} + \frac{\gamma}{2n} \geq \theta \) in which \( \theta \) is a constant necessary for the approval of a decision. The approval condition requires that. It becomes necessary, thus, to discover the number of actual voters and the proportion of favorable voters that would satisfy the criteria above mentioned. Nevertheless, this will depend on the imposition of specific values on the parameters.

What assumptions could be made on the value of the parameters? The evidence above showed that an abstention is essentially a ‘no’ vote. Moreover, we can assume that countries which strongly support the decision will obviously voting ‘yes’ and will be present at the meeting in order to show to the Commission their goodwill so that they could benefit from future concessions in the future. Therefore, in this light of analysis, we can set the value of \( \alpha \) to be 0. Concerning the value of the proportion of indifferent voters in the set of actual voters, we can say that this parameter will be such that \( \gamma \in \left[ 0; \frac{1}{2} \right] \). We should remember that the
Commission takes into the account the Council’s positions regarding a future proposal and it does so by ensuring that the proposal that would be sent to the Council gets at enough half of positive votes of the member-states representatives and so based on this we should not assume that the proportion of indifferent actual voters is greater than one half. Finally, concerning the value of the parameter $\delta$ which is related to the proportion of indifferent voters in the abstainers, we could assume that: $\delta \in [0; 1]$, since it would make sense for indifferent voters to avoid participating in the vote but the same cannot be said of representatives with strict preferences. In any case, based on previous history of votes, we do not expect many countries not to attend a meeting. Since the values of can take values on an interval range, we will assume the following values for the parameters:

<table>
<thead>
<tr>
<th>$\gamma$</th>
<th>$\delta$</th>
</tr>
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<tbody>
<tr>
<td>$\frac{1}{2}$</td>
<td>$\frac{1}{4}$</td>
</tr>
<tr>
<td>$\frac{1}{2}$</td>
<td>$\frac{1}{2}$</td>
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<tr>
<td>0</td>
<td>1</td>
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<td>0</td>
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*Table 1: Values of the parameters*

With the first scenario, inequality 2 becomes $\beta \geq \frac{3n}{8n'} - \frac{1}{8}$ and since the maximum value that $\beta$ can take is equal to $\frac{1}{2}$, the minimum value that $n'$ can take is equal to 16, 8. In this case, a decision of unanimity with 14 elements even if all of them vote favorably would not respect Condorcet Consistency and Representation.
Graph 1: Proportion of actual voters voting positively in order to ensure Condorcet Consistency and Representation when $\gamma = \frac{1}{2}$ and $\delta = \frac{1}{4}$

When the values of the parameters $\gamma$ and $\delta$ are equal such that $\gamma = \delta$, the resulting optimal system will be a majority threshold condition expressed in the following way: $\beta \frac{n'}{n} \geq \frac{(1-\gamma)}{2}$. For instance, when $\gamma = \frac{1}{2}$, due to our behavioral assumption that half of those would vote positively and the other half would vote negatively, then this means that the minimum number of member-states representatives to be on the meeting will reduced to 14, a case of simple majority. Analytically, this would mean the satisfaction of the following expression: $\beta \frac{n'}{n} \geq \frac{1}{4}$. 

\[ \begin{array}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|} \hline n' & 16,8 & 17 & 18 & 19 & 20 & 21 & 22 & 23 & 24 & 25 & 26 & 27 & 28 \\ \hline \beta \cdot \gamma / 2 & & & & & & & & & & & & & \hline \end{array} \]
There is one particular case in which to ensure the Condorcet Consistency and Representation, it is not necessary a higher rate of approval when few representatives attend the meeting which occurs when $\delta = 1$, which means that all agents who decide to abstain are indifferent and in this particular case due to the assumption that half of those agents would vote positively while the other half would vote negatively, then if a vote would be restricted to those agents, there would be a tie and so the final outcome would be decided by those agents who would decide to appear in the meeting. Provided that the proportion of favorable votes is above a certain critical value, the two criteria would be fulfilled regardless of the number of agents who appeared in the meeting. In this case, then the proportion of indifferent voters will determine the necessary proportion of favorable votes so that both criteria would be satisfied.
Finally, when $\gamma = \delta = 0$ by inequality 2 the optimal system would be a majority threshold condition expressed by the form: $\beta \frac{n'}{n} \geq \frac{1}{2}$. If we accept this more restrictive assumption, then it follows that the threshold of the qualified majority should be lowered to $\frac{1}{2}$. Since this assumption implies the tightest restriction on the values of parameters, this is the most pessimistic scenario and so it should be the benchmark for the designing of the optimal voting system.

If we relax the behavioral assumption made in case of indifference at the meeting and instead consider that all the indifferent voters would vote positively, then instead of the inequality 2, we would have the following inequality:

$$\beta \geq \frac{1}{2} - \gamma + \frac{(n-n')}{n'} \left[ 1 - \frac{\delta}{2} - \alpha \right]$$

If we assume that, then inequality 3 becomes in the following expression: $\frac{n'}{n-n'} \beta \geq \frac{1-\delta}{2}$. If we compare this assumption with the previous behavioral assumption, we will conclude that the number of representatives necessary to be on the meeting to ensure the satisfaction of the criteria will be lower when compared to the previous case since we are not splitting the indifferent voters.

### 3.3 The Problem of the Population Threshold

With respect to the population criterion, one shall note that in the Council, the population does not vote directly and so the representative of the country is the one in charge of deciding on the allocation of the vote of the country and thus by deciding to vote ‘yes’ or ‘no’ in the context of the voting system, it would be as if all the population of his/her country was voting favorably or negatively. Nevertheless, one could imagine the proposals of the Commission
being subject to a hypothetical referendum system in which the population would be called upon to vote. In that situation, the criteria of the population could be interpreted as a majority threshold condition in which a change defeats the status quo if the proportion of the actual votes for “Yes” in the population exceeds the threshold imposed for a change which according to the rules of the Council is set to be equal to 65%. In terms of the model, this means that “Yes” wins if $\beta \frac{n_t}{n} + \frac{\gamma n'}{2n} > 0.65$. However, $n$ now means the total population in millions and $n'$ means the cardinality of the set of voters (in millions). Based on the last European election, the turnout was 42, 61% in a universe of nearly 400 million of Europeans eligible for voting. Therefore, 170, 44 million went to vote and so this means that in order for a decision to pass with the existing majority threshold, the value of $\beta$ would have to be greater than 1 which would render all the decisions impossible. Consequently, this criteria would need to be reformulated based on the values of the parameters. In this case, making restrictions on the value of the parameter $\gamma$ is more difficult and so unless otherwise stated we will assume that $\gamma=0$.

If we assume that all the agents who decide to abstain are indifferent regarding the role of the European Union and its proposals it could be justified that $\delta=1$ so that all the abstainers would be indifferent and by the behavioral assumption adopted, half of them would vote for yes and the other half would vote no. Given this hypothesis, the optimal referendum design would be one such that it would be required that half of the actual voters to be favorable to approve a proposal.

However, contrary to the previous analysis in which $\alpha=0$, now we could assume that a scenario such that $\alpha = \frac{1}{3}$; $\delta = \frac{1}{2}$, then we would achieve an optimal voting system of the
form $\beta + \frac{n}{12n'} \geq \frac{7}{12}$. Assuming the turnout which was registered in the European elections, it was necessary an approval rate of nearly 39%. A more conservative approach in which the values of $\alpha$ and $\delta$ are lower such that: $\alpha = \frac{1}{5}; \delta = \frac{1}{4}$, we would end up with a system of the form $\beta \geq \frac{13}{40} + \frac{7n}{40n'}$. In this case, assuming the turnout of the last election it would be required a higher $\beta$ of nearly 74%. With these two examples, it follows that the proportion of favorable votes will not be given by a single fixed value.

The current dispositions of the qualified majority voting by not allowing that a country might divide its votes between yes and no votes actually fails to ensure that the majority of the population of the Union is actually in favor, since the requirement of a representative to cast all of its votes in one direction ends up in a position in which there is not representation for the population of that country, a scenario that finds parallel with the current American presidential election system, in which the winner did not win the popular vote, since the design of the system is based on plurality voting for each state and so representation is lost. At best, the majority of the population is in favor. The argument that countries with most population should have higher power indices is therefore mistaken if representation is the main concern.

4. **Conclusion**

The rules of procedure in the Council of the European Union allow for the possibility that a decision under unanimity could lead to an approval of a decision that would not be approved under qualified majority if the minimum number of representatives on the meeting is met and many chose to abstain. Nevertheless, under the research made, it was possible to conclude that even though abstention is interpreted as a ‘yes’ vote under unanimity, the value of an
abstention is the same under both voting systems and should be equivalent to a ‘no’ vote. Consequently, decisions that would eventually be approved under unanimity with more abstentions than favorable votes do not respect Condorcet Consistency and Representation. The analysis performed allowed to find that the requirements of the qualified majority voting system find a parallel in a referendum voting scheme that would correspond to a majority threshold condition in which it is required that the proportion of favorable votes would exceed a certain constant.

If the European Union is considered as a political Union and each representative represents the majority of the opinion on its country of origin, then by imposing restrictions on the preferences of those agents who decide to abstain and assuming that voting abstaining is equivalent to a no vote, there will be a relationship between the proportion of favorable votes and the number of voters who decided to attend the meeting which in general will correspond to a negative slope function. Nevertheless, if one assumes that those who do not attend a meeting are all indifferent about the decision, then the satisfaction of the criteria would be ensured by any number of voters attending the meeting provided that the proportion of favorable votes is above a certain threshold determined by the proportion of indifferent voters that attend the meeting. Therefore, assumptions on the parameters will lead to different optimal systems. In this case, understanding the position of the actual indifferent voters becomes essential since it will convert into automatically actual “yes” or “no” votes, which then will imply different systems.

Regarding the population criteria, there is at least three remarks: as in the case of the condition of the majority of the states, there is no respect for the satisfaction of the three criteria. Moreover, in a hypothetical referendum, we conclude that the quota imposed would
never be achieved since the turnout of the European elections is low and so if this criterion was designed to somewhat reflect the will of the people, then we would conclude that no decision would be approved, which would cause a gridlock in the process of decision-making. Finally, the plurality condition in which representatives put all the votes in just one option leads to a failure of representation of the will of the population since this would imply that all the population of one country is in favor or it is against.

References


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