Chapter 14

Putting Citizens First: Representation and Power in the European Union

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The European Union's 2007 Intergovernmental Conferences in Brussels and Lisbon agreed on a new composition of the European Parliament and on a new voting system for the Council of Ministers. For the legislative period 2009–2014, the EP seats are assigned to the 27 Member States based on a proposal of the Committee on Constitutional Affairs, with Italy's total incremented by one additional seat. This allocation is herein referred to as the 'AFCO+1' seat allocation.[1] Starting in 2014, the Council of Ministers will use a 'double majority' voting system, whereby an act is adopted if carried by at least 55 per cent of the member states representing 65 per cent of the EU population.

An EP resolution passed in 2007 draws attention to the overall EU institutional reform package and demands that any future reform should above all address the inequalities which have arisen for historical reasons. As a contribution to this prospective debate, two citizen-based procedures are discussed here: the 'Fix+Prop' seat allocation mechanism for the European Parliament, and the 'Jagiellonian Compromise' voting system for the Council of Ministers. Incidentally, a shift to these citizen-based procedures happens to conform with a surprisingly balanced compensation of weights between the European Parliament and the Council of Ministers.

Introduction

Parliamentary representation systems and governmental decision schemes are always subject to debate and reform. They should permit efficient political operations and, in modern democracies, they should stay close to the citizens. As a recent review of the new Scottish Parliament puts it, the issue is to place the citizens at the center of concerns (Arbuthnott 2006).

The premise underlying this chapter is that in the EU citizens should also come first. For the EU this is more of a daring assumption than an undisputed fact (Moberg 2007). After all, the European Community and its forerunners started

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1   In EU parlance, the Committee is called the AFCO (*affaires constitutionnelles*) Committee.

out as a union of states which were represented by their governments without there being an institutional role assigned to citizens. Our belief that this has now changed justifies the chapter's premise. The 2007 Intergovernmental Conferences, in conjunction with the actions of the European Parliament, have made considerable progress in incorporating citizens into EU political processes. Yet, as the author intends to show here, there is room for further improvement.

When the citizens are taken as the starting point, the central question is which population database to use. The Committee on Constitutional Affairs emphasised that this poses a problem needing urgent attention (Section 2). In proposing its seat allocation the Committee relied on the concept of 'degressive proportionality' which, unfortunately, does not stand up to mathematical scrutiny (European Parliament 2007). This concept may be suitable for the population data the Committee chose to use but fails when other data sets are used. Degressive proportionality, as defined by the Committee and Parliament, is a clumsy concept that is inappropriate as a court-proof reference standard (Section 3).

Section 4 shows that notions such as degressive proportionality can be more useful when interpreted in a broader sense. The author favors an allocation of parliamentary seats that guarantees each member state's citizenry a fixed number of base seats and apportions the remaining seats by applying the one-person-one-vote principle to the EU citizenry at large. One specific example of such a method, called the Fix+Prop apportionment, is described in greater detail. It assigns a fixed number of six seats to each member state's citizenry, and apportions the remaining 589 seats (assuming EP size of 751) in proportion to population size subject to a maximum of 96 seats per any single member state. Alternative variants are outlined in the Appendix. The author also records how the AFCO+1 seat allocation deviates from the citizen-based Fix+Prop apportionment.

Section 5 deals with voting systems for the Council of Ministers. The author first explains how the distinguished citizen-based system that is known as the Jagiellonian Compromise operates. The author then calculates the difference in the political power of each individual member state between the decreed double majority voting system and the proposed citizen-based Jagiellonian Compromise. Interestingly, for the vast majority of member states, the diminished representation in the EP resulting from the Fix+Prop allocation is fairly accurately offset by a corresponding increase in the Jagiellonian Compromise-derived representation in the Council.

Finally, in Section 6 the author concludes that a shift to citizen-based procedures, besides making the democratic motto of putting citizens first ring true, corrects some of the inequalities which have arisen for historical reasons and does so in a surprisingly balanced fashion. Admittedly, the details depend on the specific parameters EU institutions will ultimately use. Among the factors affecting the exact outcome is the population data set that is selected, whether the EP size remains 751 or reverts to 750 and finally whether the Fix+Prop allocation method meets with approval or if a variant thereof prevails.

The Inception of an Apportionment Population

In a document submitted to the plenary session (Lamassoure/Severin, 2007a), the Committee on Constitutional Affairs stressed that the concept of citizenship in the context of individual member states needs to be elaborated further. Due to time constraints precluding an immediate resolution of this issue, on an exception basis the Committee agreed to refer to the population figures used for qualified majority decisions in the Council of Ministers (Steinmeier 2007). In the long run the population figures need to be reconsidered and properly defined, whether they are based on the number of European citizens, nationals, residents, or voters.

During more than two centuries of constitutional history in the United States, plenty of cases have been brought before the U.S. Supreme Court to decide whom to count, or not to count, among the 'apportionment population' used to apportion the 435 seats of the House of Representatives among the nation's 50 states. No matter which definition the EU chooses to adopt, time is needed for EuroStat and the 27 national statistical offices to provide the relevant figures.

Indeed, the author would like to voice his concern over the use of the population figures from Steinmeier (2007). They are presented in multiples of 100, which the Committee on Constitutional Affairs rounds yet further to the nearest thousand. These aggregation steps deprive citizens of their individuality. The legislator views the numbers with the contemptuous eye of a field marshal who counts his troops only in cohorts of a hundred (for the Council), or in legions of a thousand (for the Parliament). The question is not whether 404,346 is a more accurate count for Malta than 404,000, but which figure sends the enlightening message to citizens that they are counted one by one, as befits individual human beings.

Moreover, a source of error mentioned only casually is the issue of *double counts* of citizens who are voting in one state while simultaneously being counted into the population of another. When the rapporteurs Alain Lamassoure MEP and Adrian Severin MEP (2007b) presented the Committee's report to the press, the central question was posed by an Italian journalist asking whether the numbers of people eligible to vote in the 2004 European Parliament election would have provided a more appropriate basis.

Luxembourg serves as a telling example. The country had an electorate of 214,318 in 2004, while EuroStat lists its population at 304,283 for that year. Following the rapporteurs' reasoning would lead one to conclude that children and minors constitute close to a third of Luxembourg's population. A more plausible explanation for the discrepancy is that EuroStat's figures include plenty of double counts (Hovehne 1999: 310). Part of the rapporteurs' unwillingness to acknowledge this may have been motivated by the fact that France is ranked second and Italy fourth using the Council's population figures (see Table 14.1), whereas on the basis of the 2004 electorate (Scheffler 2005) the two countries trade places, with France dropping to fourth and Italy climbing to second. This only indicates in yet another way how sensitive the issue of defining the apportionment population will be.

The Sudden Death of AFCO-degressivity

Although degressivity has been around since the EU's early days – whether involving weights, power, or representation – the concept has eluded precise definition (Moberg 2002, 2007). The EP now sees itself beseeched to define the principle of degressive proportionality clearly and objectively. Since the term has become part of primary law, violation of this principle in secondary legislation might even result in penalization by the European Court of Justice. The Committee on Constitutional Affairs proposes a definition that isolates three conditions of degressive proportionality. They are included in Article 1 of the draft decision of the European Council (European Parliament 2007) and read as follows:

1. The minimum threshold of 6 seats and the maximum allocation of 96 seats per member state must be fully applied to ensure that the seat apportionment reflects as closely as possible the range of populations of the member states.
2. The larger the population of a member state, the greater its entitlement to a large number of seats.
3. The larger the population of a member state, the more people are represented by each of its MEPs.

Condition (1) goes above and beyond what Article I-20 of the Treaty establishing a Constitution for Europe (Pukelsheim 2007) actually stipulates. Namely, Article I-20 merely requires that the number of seats must range between a minimum of six and a maximum of 96, whereas the definition cited herein demands that the actual limits be applied. Meanwhile, there exists no proof that full application of the limits ensures that the apportionment reflects the population sizes more accurately than when the limits are not used. In fact, if a big country – such as Turkey – were to join the EU, any sensible apportionment of 751 seats would necessarily involve seat allocations falling well short of the maximum of 96 assuming the minimum of six is upheld. As it is however, although the demand that limits be fully applied is superfluous, it is also harmless.

Condition (2) is referred to as *weak population monotonicity* in the literature (Balinski and Young 1982a: 147). This condition is so self-evident that a seat allocation that does not fulfill it is called *absurd* (Kopfermann 1991: 95). Nobody would seriously propose a proportional representation scheme for the EP whereby given two states the less populous one is awarded more seats than its more populous counterpart.

With condition (1) superfluous and condition (2) self-evident, the heart of the definition is condition (3) which the author refers to as 'AFCO-degressivity'. It stipulates that the population-per-seat ratios must be strictly decreasing as member state population size decreases. Annex 1 of the Committee's report shows that the AFCO allocation of the original 750 seats verifies the criterion, as do other propositions (Chopin and Jamet 2007).

However, during the European Council in Lisbon the heads of state and government granted an extra seat to Italy, thus putting a premature end to AFCO-degressivity. Each Italian deputy now represents 804,818 citizens of the 59 million population total, while their Spanish colleagues represent 810,339 citizens each out of a considerably smaller population of 44 million (see Table 14.1). The sudden death of AFCO-degressivity through Council's action resembles a soccer match where the other team scores the deciding goal right in the first few seconds of overtime.

The realisation that there exist situations where AFCO-degressivity is impossible to apply is even more damaging. At times there simply do not exist any seat apportionments that satisfy the criterion. This was brought to light by Victoriano Ramírez González, and he illustrates this inadequacy with specific examples in his chapter. The reason for the inconsistency is that conditions (1)-(3) may be inherently incompatible. For instance, the first 163 seats must be apportioned in such a way that every state gets a minimum of six seats – as stipulated by condition (1), thus accounting for 162 seats – and that the 163rd seat is assigned to the largest state, i.e. Germany, as required by condition (2). As a bonus, the population-per-seat ratio of Germany stays above that of France, so AFCO-degressivity – condition (3) – is fulfilled automatically. However, there is no way to allocate the 164th seat. Condition (2) dictates that it could go only to Germany or else to France. Yet, either allocation results in the violation of AFCO-degressivity.[2]

How is it possible that the Committee maneuvered itself into a dead-end? It may have been an unintended consequence of a self-complacent attempt to steer clear of any mathematical formula. Instead, the fact that AFCO-degressivity cannot be found anywhere in the scientific literature should have been a cause for suspicion, not pride. As the EP comprises only whole seats and no seat fractions, final calculations must always be rounded to whole numbers. Crucially, the method employed to execute the rounding needs to be carefully defined, whether proportionality is strict or degressive. Failing that, AFCO-degressivity must be dismissed.

The Committee is very specific when describing *full* proportionality (Lamassoure and Severin 2007a, Explanatory Statement, no. 13): The population-per-seat ratios should be *the same (or very close)* in all member states, whence any seat represents *more or less the same* number of inhabitants. These caveats are crucial. Intermediate results must inevitably be rounded to obtain whole seat numbers, and for this reason the ratios cannot be exactly the same, but only more or less so. The Committee allows no such concessions, however, when turning to

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2   If Germany gets the 164th seat, then it has eight seats and its population-per-seat ratio (82,438,000 / 8 = 10,304,750) falls below that of France (62,886,200 / 6 = 10,481,033). If France gets the 164th seat, then she has seven seats and her population-per-seat ratio (62,886,200 / 7 = 8,983,743) falls below that of the United Kingdom (60,421,900 / 6 = 10,070,316).

degressive proportionality. Rather than letting population-per-seat ratios decrease 'more or less', any non-decreasing instance is considered a clear breach of degressive proportionality. Such rigidity causes AFCO-degressivity on occasion to become impossible to uphold.

For the electoral debate to acquire a genuinely European dimension, the resolution (European Parliament 2007, no. 17) proposes to encourage the formation of a European party system. But political parties are formed by citizens, not by member states. This author fears that any degressivity whatsoever must be counterproductive as it fractures the European dimension into a spectrum of 27 lines of degressive national constituencies. If the EP demonstrates to EU citizens that it considers them unequal, how could this be an incentive for them to collectively campaign for political goals?

For lack of legal precedent the author can only speculate on the stance the Court of Justice would take. That said, it seems unlikely that AFCO-degressivity will acquire a lasting legal status given its inherent inconsistencies. Presumably, the Court would not run bluntly counter to how its fellow courts in the member states deal with electoral matters. Meanwhile, the German Federal Constitutional Court requires an apportionment method to be transparent, calculable, and abstract-general (Pukelsheim and Maier 2006). Against such a legal standard the AFCO+1 allocation fails on all three counts, in our opinion. It is not transparent, since during the Nice negotiations where it was agreed, in the final hours *the Presidency handed out seats like loose change* (Gray and Stubb 2001) to close a deal. It is not calculable since, besides securing AFCO-degressivity, the 16 seats beyond Nice were allocated by higher insight of a Committee majority. And it is concrete-specific and not abstract-general, since it applies to the data at hand but not in general.

But then there is also a *continuity principle* in electoral matters that absolves the legislator from having to blindly follow an abstract rule when the specific situation at hand calls for nuanced action. In a period where its institutional role is changing, the EP used its margin of discretion to adopt a system that, while debatable, certainly goes in the right direction. Therefore, if the Court of Justice were to declare the AFCO+1 seat allocation to be unlawful, it would do so presumably not *ex tunc* (since inception), but *ex nunc* (from now on) calling upon the EP to amend the system before the next election. To this end, however, no court is needed. All speakers participating in the debate emphasised that the present resolution needs reconsideration during the next legislative period (European Parliament 2007).

The Fix+Prop Seat Apportionment

There are a number of apportionment formulas which reconcile the implicit goals integral to the composition of the European Parliament. Each one of them strains the *status quo* to some extent as none seems able to precisely reproduce the AFCO+1 allocation or the Nice compromise or other former seat assignments. In

due course, when the objectives become more explicit, the abundance of formulas will undoubtedly be diminished. Meanwhile, the author hereby presents what he considers a prototype method, the Fix+Prop apportionment.

Article I-1 of the Treaty establishing a Constitution for Europe introduces two groups of EU constitutional subjects, the citizens and the states of Europe. The question is whether, and how, the two entities are to be represented in the EP. When the rapporteur Adrian Severin MEP remarks that 'we, the European Parliament, are representative of citizens and of the states at the same time' the minutes record murmurs of dissent, the only emotional reaction during the plenum debate other than applause. Perhaps the dissent is an expression of doubt whether the EP really is representative of the *governments* of the states, especially since the debate clearly indicates that the MEPs see themselves as representatives of the *citizenry*, both that of their home state and as a whole.

To begin with, the Fix+Prop apportionment assigns six seats to each of the 27 member states, thus allocating 162 seats. This fulfills the condition of plurality, by allowing the main parties across the entire political spectrum in each member state to be represented (European Parliament 2007, no. 5). There are many electoral systems guaranteeing a certain number of seats in order to secure a minimum representation. France has a one seat minimum per Département in the Assemblée Nationale. Spanish provinces send at least two deputies to the Congreso de los Diputados. Two is a frequent minimum since, in addition to granting one seat to the winning party, it also allows the runner-up to carry the second seat. Viewed from this perspective, to this author a minimum of six seats sounds excessive but seems generally accepted in the EP.

Subsequently, the Fix+Prop method apportions the remaining 589 seats (assuming a total of 751) in accordance with the one-person-one-vote principle. In our prototype version the author uses the divisor method with standard rounding (Webster/Sainte-Laguë) which, as shown by the seminal research of Balinski/Young (1982a, 1982b), conforms with the proportional representation philosophy exceptionally well. Current population figures are divided by the common divisor of 822,000 while standard rounding turns the resulting quotients into the desired seat allocations. In this manner about one EP seat is allocated to each 822,000 EU citizens. However, no seat allocation thus derived may exceed 90 so that the sum of total seats – including the six fixed seats – is no greater than the prescribed maximum of 96 seats per member state. The only country whose seat allocation needs to be truncated to comply with this requirement is Germany.[3]

Table 14.1 summarises the results obtained via the Fix+Prop method. The population-per-seat ratios turn out to be of an overall degressive nature, though

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3   The divisor 822,000 ensures that the resulting seat numbers exhaust the target size of 589. However, any other value between 821,703 and 822,041 would accomplish the same goal. Standard rounding rounds to the nearest integer, that is, quotients are rounded up when their fractional parts are larger than one half and down when they are smaller than one half. For Germany, we get $82,438,000 / 822,000 = 100.3 \rightarrow 90$.

the rigid criteria of AFCO-degressivity are not met. The last column shows the difference in total seats allocated per member state between the decreed AFCO+1 seat allocation and the citizen-based Fix+Prop apportionment. Except for Germany and Malta, both of which are directly affected by the maximum and minimum limits, there emerges a noticeably systematic tendency. Namely, the largest and smallest states see their seat counts reduced, while medium-sized states enjoy increased seat allocations. Consequently, France loses 11 per cent of her Fix+Prop-derived seats while Sweden gains 18 per cent and Luxembourg loses 14 per cent.[4]

The Fix+Prop apportionment heeds the democratic ideal of electoral equality, separately for the two groups of subjects that constitute the EU. Citizens are treated equally whereby about one seat per each 822,000 citizens is granted, and individual member states are treated equally as each is guaranteed a minimum of six seats. The one-person-one-vote principle underlying proportional representation is, of course, rather abstract. After all, we are not all equal. In fact, we are proud to be diverse, as the debates taking place on the EP forum demonstrate quite convincingly. Yet the ideal of equality, as a *principium*, a first and guiding democratic element, has stood the test of time.

The Jagiellonian Compromise

The ideal of equality is also the guiding principle for the Jagiellonian Compromise voting system in the Council of Ministers. Since the Council comprises delegates from governments deriving their power from the people, citizens take part in Council decisions only indirectly. Moreover, decision making in the Council concerns not just one but multiple topics. The process thus differs from simple proportional representation which is not to say, however, that it should not mirror democratic ideals. The Jagiellonian Compromise is distinguished by being citizen-based in that it is predicated on the ideal of equality among citizens whose indirect contributions to frequent decision-making by their government delegates in the Council can be traced.

The transition from qualitative-normative ideals to quantitative-operational rules is always a challenge. The goal cannot merely be to investigate and classify procedures based on how reliably they reflect the ideals, but as a result of such an investigation the author finds first and foremost that the procedures in use have a top-down format, meaning that they are imposed on the people with plenty of *ad hoc* components. This feature is characteristic both of the AFCO+1 EP seat allocation and of the double majority voting system for the Council. In contrast, the Fix+Prop

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4 France: 83 Fix+Prop-derived seats minus 11 per cent (9) yield 74 AFCO+1-derived seats. Sweden: 17 Fix+Prop-derived seats plus 18 per cent (3) yield 20 AFCO+1-derived seats. Luxembourg: 7 Fix+Prop-derived seats minus 14 per cent (1) yield 6 AFCO+1-derived seats.

seat apportionment as well as the Jagiellonian Compromise demonstrably embrace a bottom-up design, justifying political power from a citizen-based starting point.

Under the Jagiellonian Compromise voting system every member state is assigned a *voting weight*, which is equivalent to the square root of its population figure (rounded to the nearest integer). For an act to be adopted, the total of the voting weights of the states in favor must reach or surpass a certain *quota*. The Jagiellonian Compromise features a simple quota formula whereby the quota is equal to one half of the square root of the EU population plus one half of the sum of all voting weights (rounded to the nearest integer). The result and essential characteristic of this approach is that for each member state its *decision power* is calculated, which is the share of all possible combinations to win the vote. In the Jagiellonian Compromise these relative decision powers happen to coincide with the percentage voting weights and thus are found very easily.

Table 14.2 summarises the results, using the same population figures as Table 14.1. For instance, the Jagiellonian Compromise assigns Sweden a voting weight of 3,008, which gives it a relative decision power of 3.14 per cent. This indicates that Sweden's vote will be decisive about twice as often as that of Latvia (1.58), and almost half as often as that of Poland (6.44). For the double majority voting system whereby an act is adopted if carried by at least 55 per cent of the member states representing 65 per cent of EU population the decision powers are more cumbersome to calculate and are taken from Słomczyński and Życzkowski (2007). The last column shows the differences between the decision power values under the double majority system and the citizen-based Jagiellonian Compromise. Once again a systematic tendency is apparent, except now it is the medium-sized states that see their decision power reduced, while both the larger and the smaller states enjoy a boost. For instance, France would gain 9 per cent more power under the Jagiellonian Compromise, Sweden would lose 16 per cent while Luxembourg would end up with an increase of 124 per cent.[5]

The Jagiellonian Compromise is visibly based on the citizens, taking the square root of each member state's population figure to derive the respective voting weights and decision powers. The exceptional characteristic of this system becomes evident only when one attempts to determine the decision power share *of each citizen*. According to a famous result of Penrose (1946), the power share of each individual is obtained by dividing the decision power of a state by the square root of its population. Crucially, for the Jagiellonian Compromise these individual shares are identical for all member states. Therefore, the system is such that it offers all EU citizens equal power share to (indirectly) participate in the Council's decisions. Thus the Jagiellonian Compromise realises a powerful while at the same time rather sophisticated idealisation of democratic equality.

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5   France: 8.27 JC power plus 9 per cent (0.74) gives 9.02 DM power. Sweden: 3.14 JC power minus 16 per cent (0.50) gives 2.63 DM power. Luxembourg: 0.71 JC power plus 124 per cent (0.88) gives 1.58 DM power. The inaccuracies are due to rounding the percentage deviations in Exhibit 2 to whole numbers.

The derivation of these results may be found in the seminal monograph authored by Felsenthal and Machover (1998); a quick outline of same is given by Kirsch (2001). Felsenthal and Machover (2001) proposed a quota in the vicinity of 60 per cent, later confirmed by a simulation study of Chang et al. (2006). The quota formula is the work of Życzkowski and Słomczyński (2004 and 2006). The ideals underlying this approach may of course be questioned, as an array of informative papers by Moberg (2002 and 2007) and Hosli/Machover (2004) amply demonstrates. To any such challenge our answer would be that while the ideal of democratic equality does not inevitably lead to the Jagiellonian Compromise, it nonetheless is a system that is endowed with enough virtues to fulfill the ideal remarkably well.

Conclusion

The European Parliament and the Council of Ministers stand among the core institutions of the European Union. Currently, both the AFCO+1 seat allocation in the EP and the double majority voting system in the Council are negotiated *ad hoc*. There are citizen-based alternatives for both of these procedures; the Fix+Prop seat apportionment for Parliament, and the Jagiellonian Compromise system for the Council. Replacing the *ad hoc* procedures by citizen-based methods would naturally entail some parliamentary seat shifting between member states and it would also impact their respective decision power.

By calculating the percentage differences – shown in the last columns in Tables 14.1 and 14.2 – between the procedures in place and the envisioned new methods, a common denominator is found and the differences become comparable. In essence, large and small states lose representation under the Fix+Prop method while simultaneously gaining clout under the Jagiellonian Compromise system, whereas the opposite is true for the medium-sized states. Surprisingly, these shifts ultimately balance out almost perfectly (see Figure 14.1).

For the advocates of the *status quo* this provides a credible argument for defending the existing arrangements. Namely, how could the thought that the changes impacting the EP are offset by those taking place in the Council be comforting to dedicated MEPs? Likewise, why should staunch governmentalists commit themselves to reforms that are counterbalanced in the EP with which they hardly ever have to deal directly?

Fortunately, the argument is even more persuasive for the political vanguard in favor of reforms. The transition to citizen-based procedures would expunge any purported past rivalries between European institutions, replacing them with a new alliance built around EU citizens at its core. The shifts of seats and power would seem trivial compared to the significant gain in democratic substance – a consequence of putting citizens first.

Appendix: Alternative Apportionment Methods

The proposed Fix+Prop apportionment for the EP and the Jagiellonian Compromise for the Council of Ministers are just two possible concepts out of an infinite number of citizen-based representation schemes and voting systems. In this appendix the author describes a few alternatives, with a particular view to what has been discussed in the literature. Historical perspective on EP creation and an analysis of problems that had to be dealt with are provided, for example, by Silvestro (1990), Bocklet (1992), Hovehne (1999), and Puntscher-Rieckmann et al. (2003).

As regards voting systems, tinkering with the quorum formula might be a viable approach to adjusting certain characteristics such as blocking power or the like, if so desired. Many of these issues are covered elsewhere in this volume. A continuous transition from full proportionality in the EP to the square root weighting for the Council is accomplished by first observing that the population figures used in the calculations are identical except for different exponents. In the first instance the exponent is one, in the second, one half. As far as the author is aware, Theil/Schrage (1977) are the first to have considered exponents ranging from zero (equal weights) through one half (root weights) and one (full proportionality) to three (cube law). The transformation was re-discovered by Anders Hagelberg during the 2000 Nice summit (Moberg 2007), and Ramírez González et al. (2006).

It is the author's opinion that for the purpose of representing citizens in parliament the only acceptable exponent is one. Using any other value necessarily distorts full proportionality which conflicts with the democratic one-person-one-vote principle. For this reason the author has concentrated on apportionment methods – such as Fix+Prop – that stay true to the concept of full proportionality thereby treating all citizens of every member state as equal. This Janus-faced approach has a long tradition, earlier references being Kundoch (1976) and Wessels (1990) for its application to the EP, or Moberg (1998) for its use in the Council.

Scheffler (2005: 80) discusses two variants of Fix+Prop-type systems. He recommends the divisor method with standard rounding (Webster and Sainte-Laguë) while pointing to the divisor method with rounding down (Jefferson, D'Hondt and Hagenbach-Bischoff) as an alternative. However, if anything the D'Hondt method is not degressive but progressive in the sense that it is intentionally biased in favor of larger entities at the expense of their smaller counterparts. Given the same set of figures used elsewhere in this chapter, the D'Hondt method would transfer seven seats from smaller member states to the larger ones compared to the seat allocations shown in Table 13.1. During the deliberations of the Committee on Constitutional Affairs, the D'Hondt variant was tabled by the German CDU delegation, but eventually withdrawn. The speakers at the meeting took pleasure in instructing their German colleagues that when degressivity is sought, the answer cannot be D'Hondt.[6]

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6   The German delegates presumably acted in good faith by trusting their Federal Constitutional Court, the only institution of any renown unable to recognize any systematic

The divisor method with standard rounding (Webster and Sainte-Laguë) comes closest to fulfilling the one-person-one-vote principle. It possesses many virtues which distinguish it from alternative procedures (Balinski and Young 1982b), including the quality of impartiality, meaning that on average the citizenry of every member state receives the share of seats to which it is proportionally entitled.

In the event that the European Parliament wishes to move away from impartiality instead promoting degressivity, the divisor method with rounding up (Adams) may well be used. This method is biased in the opposite direction of D'Hondt, favoring smaller member states at the expense of the larger ones. This is plainly seen when the Sainte-Laguë results are compared with the Adams apportionment. For instance, between the third and fourth column in Table 14.3, five seats are transferred from larger member states to their smaller counterparts, while the number increases to six when the next two columns are compared. The divisor method with rounding up (Adams) has been used by the French legislators to apportion the Assemblée Nationale seats among the Départements (Balinski 2004:190).

In Table 14.3, the columns labeled '6+Std' and '6+Up' show the apportionments of the (unbiased) divisor method with standard rounding (Webster and Sainte-Laguë), and the (degressively biased) divisor method with rounding up (Adams), with a base of six fixed seats. With the Adams method, every citizenry automatically always gets at least one seat, whence the fixed base seats could be lowered from six to five. The results are given in the columns with headers '5+Std' and '5+Up' of Table 14.3. The four apportionments of the 751 seats display a clear trend. From left to right, larger member states lose seats in favor of their smaller counterparts which gain seats.

Among the apportionments shown in Table 14.3 the one that is closest to the AFCO+1 allocation is the 'parabolic' allotment (Ramírez González et al. 2006, Ramírez González 2007). The parabolic method is a workable operational approach to the normative idea of degressive proportionality. The functioning and the implementation of this method require a more elaborate mathematical framework, with the implied challenge of communicating the idea behind the parabolic concept to the wider public. These examples are not an exhaustive list; many other mathematically sound procedures are feasible (Maier and Pukelsheim 2007). The decision which to implement is up to the lawmaker.

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difference between the divisor methods with rounding down (Jefferson and D'Hondt and Hagenbach-Bischoff) and with standard rounding (Webster and Sainte-Laguë). Other German courts do declare the D'Hondt apportionments to be unlawfully non-proportional when such apportionment deviates from the Sainte-Laguë result (Pukelsheim and Maier, 2006, fn. 18). This difference of opinion within just one member state may serve as an indication of how challenging it could be for all 27 member states to reach complete agreement on this issue.

Table 14.1 Allocation of European Parliament seats to member states: Citizen-based apportionment method 'Fix+Prop' and negotiated *ad hoc* allocation 'AFCO+1'

Member States EU27	Population 2007	Fix+Prop [Divisor 822,000]	Pop. per Fix+Prop.	AFCO+1 2009–2014	Pop. per AFCO+1	Deviation [in %]
Germany	82,438,000	6 + 90 = 96	858,729	96	858,729	0
France	62,886,200	6 + 77 = 83	757,665	74	849,814	-11
United Kingdom	60,421,900	6 + 74 = 80	755,274	73	827,697	-9
Italy	58,751,700	6 + 71 = 77	*763,009	73	804,818	-5
Spain	43,758,300	6 + 53 = 59	741,666	54	*810,339	-8
Poland	38,157,100	6 + 46 = 52	733,790	51	748,178	-2
Romania	21,610,200	6 + 26 = 32	675,319	33	654,855	+3
Netherlands	16,334,200	6 + 20 = 26	628,238	26	628,238	0
Greece	11,125,200	6 + 14 = 20	556,260	22	505,691	+10
Portugal	10,569,600	6 + 13 = 19	*556,295	22	480,436	+16
Belgium	10,511,400	6 + 13 = 19	553,232	22	477,791	+16
Czech Republic	10,251,100	6 + 12 = 18	*569,506	22	465,959	+22
Hungary	10,076,600	6 + 12 = 18	559,811	22	458,027	+22
Sweden	9,047,800	6 + 11 = 17	532,224	20	452,390	+18
Austria	8,265,900	6 + 10 = 16	516,619	19	435,047	+19
Bulgaria	7,718,800	6 + 9 = 15	514,587	18	428,822	+20
Denmark	5,427,500	6 + 7 = 13	417,500	13	417,500	0
Slovak Republic	5,389,200	6 + 7 = 13	414,554	13	414,554	0
Finland	5,255,600	6 + 6 = 12	*437,967	13	404,277	+8
Ireland	4,209,000	6 + 5 = 11	382,636	12	350,750	+9
Lithuania	3,403,300	6 + 4 = 10	340,330	12	283,608	+20
Latvia	2,294,600	6 + 3 = 9	254,956	9	254,956	0
Slovenia	2,003,400	6 + 2 = 8	250,425	8	250,425	0
Estonia	1,344,700	6 + 2 = 8	168,088	6	224,117	-25
Cyprus	766,400	6 + 1 = 7	109,486	6	127,733	-14
Luxembourg	459,500	6 + 1 = 7	65,643	6	76,583	-14
Malta	404,300	6 + 0 = 6	67,383	6	67,383	0
Total	492,881,500	162+589=751		751		

Note: The population figures are the same as those underlying the European Council's qualified majority voting system in 2007, see Steinmeier (2007). The Fix+Prop apportionment gives 6 seats to the citizenry of each member state, and assigns the remaining 589 seats in proportion to population size. To this end the population figures are divided by a common divisor, 822,000, and the resulting fractional numbers are rounded to the nearest integer. For instance, France receives 62,886,200/822,000 = 76.504 → 77+6=83 seats. The AFCO+1 column shows the seat allocation enacted for the 2009–2014 legislative period. Its deviation from the Fix+Prop apportionment is found, for instance for France, to be (74-83)/83 = -0.1084 → -11 per cent. Population-per-seat ratios are decreasing except for slight irregularities marked with a *.

**Table 14.2	Qualified majority voting systems for the Council of Ministers: Citizen-based Jagiellonian Compromise 'JC' and negotiated *ad hoc* double majority 'DM'**

Member States EU27	Population 2007	JC Weight	JC Power	DM Power	Difference [in %]
Germany	82,438,000	9,080	9.46	11.66	+23
France	62,886,200	7,930	8.27	9.02	+9
United Kingdom	60,421,900	7,773	8.10	8.69	+7
Italy	58,751,700	7,665	7.99	8.49	+6
Spain	43,758,300	6,615	6.90	6.55	-5
Poland	38,157,100	6,177	6.44	5.71	-11
Romania	21,610,200	4,649	4.85	4.15	-14
Netherlands	16,334,200	4,042	4.21	3.50	-17
Greece	11,125,200	3,335	3.48	2.88	-17
Portugal	10,569,600	3,251	3.39	2.80	-17
Belgium	10,511,400	3,242	3.38	2.80	-17
Czech Republic	10,251,100	3,202	3.34	2.77	-17
Hungary	10,076,600	3,174	3.31	2.74	-17
Sweden	9,047,800	3,008	3.14	2.63	-16
Austria	8,265,900	2,875	3.00	2.53	-16
Bulgaria	7,718,800	2,778	2.90	2.47	-15
Denmark	5,427,500	2,330	2.43	2.19	-10
Slovak Republic	5,389,200	2,321	2.42	2.18	-10
Finland	5,255,600	2,293	2.39	2.17	-9
Ireland	4,209,000	2,052	2.14	2.04	-5
Lithuania	3,403,300	1,845	1.92	1.95	+2
Latvia	2,294,600	1,515	1.58	1.81	+15
Slovenia	2,003,400	1,415	1.47	1.78	+21
Estonia	1,344,700	1,160	1.21	1.69	+40
Cyprus	766,400	875	0.91	1.63	+79
Luxembourg	459,500	678	0.71	1.59	+124
Malta	404,300	636	0.66	1.58	+139
Total	492,881,500	95,916	100.00	100.00	
Quota		59,058	61.57		

Note: The voting weights of the Jagiellonian Compromise are equivalent to the square roots of the population figures rounded to the nearest integer. Thus, Malta's weight is $\sqrt{404\,300} = 635.9 \to 636$. The quota for a qualified majority decision obeys the formula $(\sqrt{492\,881\,500} + 95,916)/2 = 59,058.47 \to 59,058$ (bottom line). This particular rule is such that percentage weights and decision powers coincide. Since Malta's weight amounts to $636/95,916 = 0.006631 \to 0.66$ per cent, its relative Penrose/Banzhaf power index is the same, 0.66. The power indices for the double majority rule, stipulating a minimum of 55 per cent of the member states and 65 per cent of the population total in favour for a vote to pass, are taken from Słomczyński and Życzkowski (2007). DM deviation from the Jagiellonian Compromise is found, for instance for Malta, to be $(1.58-0.66)/0.66 = +1.3939 \to +139$ per cent.
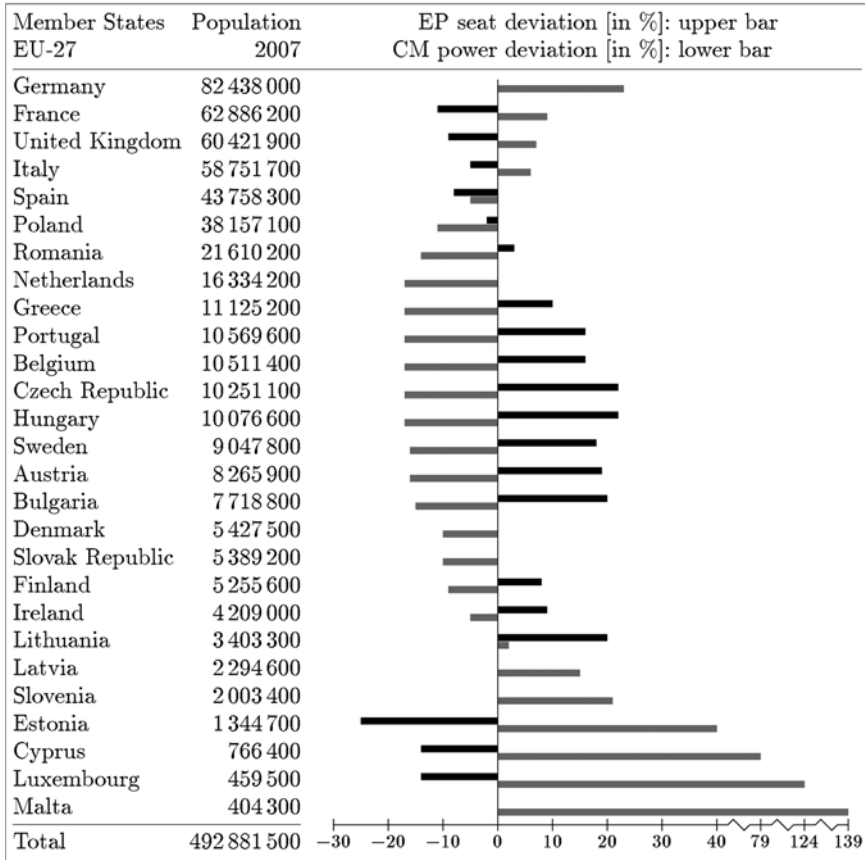
Member States EU-27	Population 2007	EP seat deviation [in %]: upper bar CM power deviation [in %]: lower bar
Germany	82 438 000	
France	62 886 200	
United Kingdom	60 421 900	
Italy	58 751 700	
Spain	43 758 300	
Poland	38 157 100	
Romania	21 610 200	
Netherlands	16 334 200	
Greece	11 125 200	
Portugal	10 569 600	
Belgium	10 511 400	
Czech Republic	10 251 100	
Hungary	10 076 600	
Sweden	9 047 800	
Austria	8 265 900	
Bulgaria	7 718 800	
Denmark	5 427 500	
Slovak Republic	5 389 200	
Finland	5 255 600	
Ireland	4 209 000	
Lithuania	3 403 300	
Latvia	2 294 600	
Slovenia	2 003 400	
Estonia	1 344 700	
Cyprus	766 400	
Luxembourg	459 500	
Malta	404 300	
Total	492 881 500	−30 −20 −10 0 10 20 30 40 79 124 139

Figure 14.1   Compensating balance of citizen-based procedures: Seat deviation of 'AFCO+1' from 'Fix+Prop' and power deviation of 'DM' from 'JC'

Note: The deviations in popular representation and in decision power, of present negotiated *ad hoc* procedures from envisioned citizen-based procedures, balance almost perfectly. A simultaneous adoption of the citizen-based Fix+Prop seat apportionment in the European Parliament, and of the citizen-based Jagiellonian Compromise voting system in the Council of Ministers would go along with shifts of weight that are mutually compensating, for almost all member states.

Table 14.3   Allocation of European Parliament seats to member states: Apportionments of four variants 'base + divide & round' of the parabolic allotment, and of 'AFCO+1'

Member States EU27	Population 2007	5+Std [786 000]	5+Up [800 000]	6+Std [822 000]	6+Up [845 000]	para-bolic	AFCO +1
Germany	82,438,000	96	96	96	96	96	96
France	62,886,200	85	84	83	81	79	74
United Kingdom	60,421,900	82	81	80	78	76	73
Italy	58,751,700	80	79	77	76	75	73
Spain	43,758,300	61	60	59	58	59	54
Poland	38,157,100	54	53	52	52	53	51
Romania	21,610,200	32	33	32	32	34	33
Netherlands	16,334,200	26	26	26	26	27	26
Greece	11,125,200	19	19	20	20	20	22
Portugal	10,569,600	18	19	19	19	20	22
Belgium	10,511,400	18	19	19	19	20	22
Czech Republic	10,251,100	18	18	18	19	19	22
Hungary	10,076,600	18	18	18	18	19	22
Sweden	9,047,800	17	17	17	17	18	20
Austria	8,265,900	16	16	16	16	17	19
Bulgaria	7,718,800	15	15	15	16	16	18
Denmark	5,427,500	12	12	13	13	13	13
Slovak Republic	5,389,200	12	12	13	13	13	13
Finland	5,255,600	12	12	12	13	13	13
Ireland	4,209,000	10	11	11	11	11	12
Lithuania	3,403,300	9	10	10	11	10	12
Latvia	2,294,600	8	8	9	9	9	9
Slovenia	2,003,400	8	8	8	9	8	8
Estonia	1,344,700	7	7	8	8	7	6
Cyprus	766,400	6	6	7	7	7	6
Luxembourg	459,500	6	6	7	7	6	6
Malta	404,300	6	6	6	7	6	6
Total	492,881 500	135 + 616 = 751		162 + 589 = 751		751	751

Note: The method 5+Std guarantees each member state´s citizenry five seats, and assigns the remaining 616 seats using the divisor method with standard rounding. Thus, with divisor 786,000 as in the header, France receives 62,886,000/786,000 = 80.01 ↓ 80 + 5 = 85 seats. The method 5+Up is similar, but always rounds up. Now France gets 62,886,000/800,000 = 78.61 ↑ 79 + 5 = 84 seats. The methods 6+Std (elsewhere called Fix+Prop) and 6+Up use a base of 6 seats per citizenry, with 589 seats for proportional apportionment. The parabolic allocation is from Ramírez González (2007). The AFCO+1 apportionment has been adopted for the period 2009–2014. In essence, from left to right, larger states lose seats while smaller ones gain seats.

Acknowledgments

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