

Explaining Institutional Change in the European Union:

What Determines the Voting Rule in the Council of Ministers?

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Abstract

Numerous studies have explored how the EU's institutions shape political behavior and legislative outcomes in the European Union. Far fewer examine in detail how individual institutional changes have come about. This paper presents a formal model that allows us to analyze under what conditions institutional change should be expected, with a focus on the Council of Ministers' voting rule in particular. Changes in the number of member states in the EU, changes in the legislative procedures, and changes in the policy areas under consideration are found to affect the ability to pass legislation, and thereby provide the impetus for adjustments in equilibrium coalition sizes and chamber voting rules.

1. Introduction

One of the most pressing questions the European Union (EU) has faced and continues to face is that of institutional change. Under what conditions will the European Council decide to change EU representation of member states, the balance of power among the legislative chambers, the internal operating procedures of these bodies, and enforcement of EU laws? While numerous scholars have analyzed how the existing institutions shape EU behavior and legislative outcomes (Garrett 1995a, 1995b; Garrett and Weingast 1993, 1999; Garrett,

Kelemen, and Schultz 1998; Carrubba 1997; Crombez 1996, 1997, forthcoming; Tsebelis 1994, 1995; Tsebelis and Widgren, 1994; Steunenberg 1994; Cooter and Drexl 1994; among others), few have tried to explain how these institutions come about or under what conditions one would expect them to change. The best-known attempts have been case studies of the Single European Act (SEA) by Garrett (1992) and Moravcsik (1991), and a generalization of Moravcsik's SEA argument to the EU's main institutional changes (Moravcsik 1998). Using a formal model of legislative logrolling, this paper derives the equilibrium properties of one of the most important institutional features of the EU, the voting rule of the Council of Ministers, and the conditions under which one should expect to see it change over time.

We specifically focus on the inclusiveness of the voting rule, rather than the exact weighting scheme adopted. Analysis of the effect of using a weighted voting scheme is done elsewhere (see Brahm 1985, Hosli 1993, Johnston 1995, Johnston and Hunt 1995, and Lane and Moeland 1995, among others, for analyses using power indices (Banzhaf 1965; Shapley and Shubik 1954). But see Garrett and Tsebelis 1996 for a critique of these methods).

The paper is divided into five sections. Section two overviews the EU's legislative institutions and procedures. There, we discuss the relative influence of each chamber on legislative outcomes and motivate our focus on the Council of Ministers. Section three presents a formal model of coalition formation and voting rule choice.² The voting rule is shown to be a function of the costs and benefits of the legislation under consideration, the reelection constraint, the ease of coalition formation, and chamber size. Section four applies the general findings to the case of the EU. We demonstrate how particular features of the EU

institutions affect model parameters and thereby influence the choice of voting rule. The Council's size is a function of the size of the EU, so enlargement becomes an issue. The ability of other legislative institutions to influence the legislative process affects the ease of coalition formation, so the evolving role of the other legislative institutions becomes an issue. And the particular policy areas being covered influence the costs and benefits of the bills under consideration, so the integration of specific policy areas becomes an issue. Section five concludes.

2. The EU Legislative Process and the Role of the Council of Ministers

The EU legislative process is a highly complex one. There are three legislative chambers: the Commission, the European Parliament, and the Council of Ministers. Heading the Commission is the College of Commissioners, which consists of a president, appointed by the member state governments by mutual consent, and nineteen other Commissioners, two each from Germany, France, the U.K., and Italy, and one from each of the other member states. Until recently, there was no outside check on the appointment of the Commissioners. However, since 1992 in practice and 1996 formally, the European Parliament (EP): (1) must approve the college for it to gain office, and (2) may vote down the college en masse by absolute majority anytime during its tenure. Also, since the forced resignation of the Santer Commission in 1999, there has been a movement pushing for the President to have the right to veto individual national nominations as well.

The Commission is considered the executive body of the European Union by many

because it is the main proposal-making body for EU legislation. However, it is probably better thought of as the bureaucracy of the EU. While the Commission is in charge of drafting initial proposals, it has neither influence over the other legislative chambers, as in a parliamentary democracy, nor the ability to veto legislation, as in a more presidential system. Rather, the Commission's primary responsibility is to enact EU legislation once it is on the books, such as when the Directorate General of competition policy makes rulings on mergers and acquisition among businesses operating in Europe.

The second legislative chamber of the EU, the European Parliament, is the only body of the EU directly elected by the European public. Every five years each member state holds national elections for the EP, in which each state's share of seats is roughly proportional to that state's proportion of the total European population, but with some over-representation of smaller states. National parties compete for their nation's share of the seats, usually by proportional representation. Upon election, the national delegations from each party then tend to organize into Party Groups. For example, the Socialist party members of the European Parliament (MEPs) from each member state form the Party Group of European Socialists. While the extent to which these Party Groups influence the legislative behavior of their constituent MEPs is in dispute, it appears the MEPs consider Party Groups to be an efficient organizing principle.

The EP reviews all legislation emerging from the Commission, although its ability to shape the legislation varies widely depending on the procedure under which the bill is considered. Under the Consultation Procedure the EP only has the ability to issue non-binding

opinions. At best, it can try to influence events by threatening to delay the legislation. Under the now-defunct Cooperation Procedure, the EP could propose legislative amendments that, if accepted by the Commission upon review, are hard for the Council of Ministers to remove (discussed in more detail below). Under the Assent Procedure the EP has the ability to veto legislation; and under the Cooperation Procedure's replacement, Co-Decision, the EP can both amend and veto legislation. While potentially a powerful tool, it is unclear to what degree the EP's veto threat is credible in practice since it is commonly believed that the EP wants more expansive EU legislation than the Council does, and most new legislation is designed to increase the EU's powers.

Although the exact extent of the EP's influence on legislative outcomes is unclear at this stage, it is widely believed that its influence has been increasing over time. The Consultation Procedure was the original procedure; Cooperation and Assent were introduced with the Single European Act in 1986; and Co-Decision was introduced for some policy areas with the Maastricht Treaty in 1992 and expanded (and modified) with the 1999 Amsterdam Treaty.

The last of the three chambers, the Council of Ministers, consists of one representative from each member state government. Which member is included from each state depends on the legislation under consideration. For example, if the bill deals with agriculture, the Cabinet member in charge of the agriculture portfolio sits on the Council; if the bill deals with trade issues, the Cabinet member in charge of the economics and trade portfolio sits on the Council

The Council has the right to amend Commission proposals by adopting a common

position in the first reading, has the right to reject EP amendments in the second reading, and must pass any bill for it to become EU law. However, the actual decision rule that the Council operates under depends upon the procedure under which the bill is being considered. Under Consultation the chamber operates under either unanimity or qualified majority (depending upon the policy area under consideration). Under both Cooperation and Co-Decision the Council amends by unanimous consent (including amendments by way of substitute) and adopts by qualified-majority. Thus, whether the Council is acting under unanimity or qualified majority vote (QMV) depends upon the procedure and issue area. Specifically, qualified majority is a weighted voting scheme in which larger countries get more highly weighted vote. As of the expansion to fifteen member states a qualified majority approves a motion when 62 of 87 votes favor it.

The procedure under which a bill is considered depends upon the policy area of the legislation. At intergovernmental conferences (IGCs), member state governments negotiate over which policy areas are to be considered under which procedures. Such decisions then are written into the most-current treaty. Most recently, the Amsterdam Treaty eliminated use of the Cooperation Procedure and greatly expanded use of Co-Decision.

Despite all of the complexity and changes over time, one reality stands out: the Council of Ministers has been, and remains, the single most important legislative body in the EU. Independent of the procedure, the Council can amend any legislation in any way that it sees fit. Moreover, no proposal can become EU law without support of the Council.

The Council of Ministers' Voting Rule

Some effort already has been made to try to answer why the Council's voting rule changed over time and across issue areas. The first attempts, by Moravcsik (1991) and Garrett (1992), focus on how the Single European Act (SEA) came into existence. Both assume political elites are the intentional actors, and explain the make-up of the treaty as a bargaining outcome among the 'big three,' Germany, France, and the UK. The change in the chamber's voting rule is seen as a piece of the bargain meant to help revive the then-stagnating process of economic integration (i.e. completion of the Common Market).

The argument for how changing the voting rule would serve this purpose is constructed as follows. Prior to the SEA the only legislative procedure was the Consultation Procedure. Under this procedure the Council was supposed to operate under a mixture of unanimity and qualified majority voting rules. However, because of a policy known as the 'Luxembourg Compromise,' the effective voting rule was unanimity.³ This unanimous consent requirement created a 'least common denominator' effect; member states wishing the least change could dictate what new legislation would pass. The result was that economic integration proceeded at a crawl.

Officially ending the use of the Luxembourg Compromise, and reaffirming and extending the use of the qualified-majority voting rule in the SEA, were seen as ways of eliminating the least common denominator effect and jump starting the completion of the Common Market. Simply put, the country wishing the least change could no longer dictate the

pace of economic integration because their agreement was no longer required for the passage of new legislation. The pace was still constrained somewhat, but not nearly as dramatically, by the need for a qualified majority.

While these explanations offer a plausible account of the motivations for the SEA, they do not offer a generalizable explanation for why the Council's voting rule changes over time and across issue areas. In *The Choice for Europe*, Moravcsik (1998) strives to move in this direction by developing a rational choice framework that can explain the EU's most important historical changes. Moravcsik argues that political and economic integration could proceed if and only if the interests of the three most 'powerful' member state governments, again Germany, France, and the UK, were well aligned (i.e. when their interests 'converged'). The actual bargaining outcome among the big three then would reflect their relative bargaining positions, and institutional changes were used as commitment mechanisms to those bargains. In the case of the Council voting rule, movements to qualified-majority voting (QMV) were made to secure commitments over progress in particular policy areas. Moravcsik uses extensive detail from the historical record to verify his theory.

This paper differs from Moravcsik's efforts in at least two significant ways. First, we delve more deeply into understanding exactly how QMV acts as a useful commitment mechanism when a chamber is engaged in a logrolling process. Second, rather than taking for granted that QMV is the equilibrium choice, we note the infinite number of voting rules that could have been chosen, varying from simply majority to just less than unanimity. We are interested in deriving the conditions under which QMV would be the equilibrium choice. The

model of the Council of Ministers we solve in the next section has the following properties. Consistent with the received wisdom, we start by assuming that much policy change in the EU occurs through logrolls. Each period (e.g. year) coalitions of member states negotiate over packages of policies where each policy benefits some member states at the expense of others. If a decisive coalition can agree upon a set of policy initiatives where the package is mutually beneficial for that coalition, coalition members put their agenda on the docket and attempt to pass those policies. For example, Germany heads a coalition of pro-free-market states pushing for completion of the Common Market; and France heads a coalition of Southern member states pushing for agricultural guarantees through the Common Agricultural Policy. Neither side has the votes to push its policies through unilaterally. However, because each side gains more from its preferred policies passing than they lose if the other's policies pass, they can create a mutually beneficial logroll. The SEA is considered just such a logroll.

If these bills were all voted on as a bundle (i.e. as omnibus legislation) the story would end there. However, there are a number of institutionally based and policy-based reasons why most of these logrolls cannot be formally linked under one vote. Thus, each bill will be voted on separately. Without a pre-commitment mechanism, cooperation over even mutually beneficial logrolls can prove unsustainable. Anticipating that, the member state governments negotiate over the voting rule. The model in the next section formalizes our argument and derives a set of empirical propositions relating the choice of voting rule to important institutional and policy-based features of the EU.⁴

3. A Model of Voting Rule Choice and Coalition Formation

The model is an infinitely (or, indefinitely)-repeated game with N Council members in the chamber. Each member seeks to maximize the total net present value he or she receives from the passage of all current and future legislation.

Because the purpose of this model is to explore how logrolling motivates institutional change, a payoff structure that emphasizes the role of cooperation and reputation in the legislative process is used. Each bill is assumed to have some benefit, B , and cost, C , where the benefits from a particular bill go to a single actor, and the costs are evenly dispersed among all actors (C/N is paid by each actor for each bill passed). That is, these are particularized bills in which if actor i 's bill passes, that legislator receives $B - C/N$ and all other actors receive $-C/N$ (See Weingast 1979, Shepsle and Weingast 1981, and Weingast, Shepsle, and Johnsen 1981 for the early use of particularistic legislation with such costs and benefits in characterizing the rise of congressional norms of universalism).⁵

[Insert Figure 1 about here]

The game structure is illustrated in Figure 1. First the legislative chamber chooses a voting rule, anywhere from simple majority to unanimity (V between .5 and 1), under which i will vote on proposed legislation. Although technically the heads of the member state governments approve the treaties that change the chamber voting rule (except in France where it is the President), because the Council of Ministers consists of representatives of those national governments, it is equivalent to saying that the Council sets its own voting rules. In

setting the voting rule, the legislators are assumed to know neither what coalitions are likely to form nor the exact costs of the particularized legislation to be considered.⁶

Once members agree on the voting rule, they become aware of the bill costs (i.e. nature draws a cost, C , from a uniform distribution of potential costs that ranges between

and

, assuming

to allow the possibility of bills more costly than beneficial). This revelation ensures that coalition formation and bill passage are undertaken with full knowledge of the legislation under consideration.

Following the voting rule choice and realization of bill costs, legislators enter an infinite, or indefinite, series of proposal and voting stages. In the proposal stage, a Council member (assumed to be chosen randomly) proposes a coalition of members and an order in which their bills will be considered (for earlier use of such a random proposer assumption, see Baron and Ferejohn 1989, and Baron 1989, 1991a, 1991b). If the coalition members do not agree to this coalition, a different member attempts to form a coalition. This process continues until agreement is reached.⁷ Once coalition members agree to a logroll, their bills are advanced and voted on individually. Each bill that receives at least VN votes passes. After each bill is voted on, legislators' payoffs are realized, punishments are meted out, and a new period starts.

This model thus characterizes the Council's strict germaneness rule, limiting the ability to create omnibus bills (at best possible within issue areas), and thus reinforcing the need to cobble together logrolls where no pre-commitment is possible. (Payoff values for the next period are discounted by d to account for the possibility of member turnover or the time needed to form a new coalition.)

The punishment strategy we use is called 'parole.' Under this strategy, if a member of the coalition defects and votes against another member's bill, the defector is placed in 'bad standing.' No one will choose to form a coalition with that individual for the 'foreseeable future' because of his or her reputation of being untrustworthy. If anyone does form a coalition with the defector, that individual is then branded a friend of the defector and is placed in bad standing as well. The legislative process goes on with only the members in good standing forming coalitions and passing bills, unless enough members of the chamber have defected such that the remaining members in good standing do not have enough votes to pass legislation. Then, and only then, will they readmit members back into good standing, starting with the individual who defected least recently. As many individuals will be readmitted into good standing as are necessary to allow the logrolling process to resume.⁸

The coalition formation and bill passage stages are designed to reflect the normal tensions in a logrolling process. First, a group of legislators must agree to try to engage in a logroll. Anyone is allowed to propose a possible coalition and it takes the agreement of the potential coalition members for the compact to be realized. Then, the group must actually pass the legislation to which they have agreed. Since no pre-commitment mechanism is

available to ensure that everyone votes for everyone else's bill, each bill must be voted on separately. Finally, punishment must be self-enforcing and sensible. Legislators naturally will not want to trust individuals who have broken commitments in previous logrolls. Thus, while any model is a simplification of reality, this model reasonably captures the flavor of a legislative logrolling process, and allows us to revisit previous claims about institutional choice (e.g. Buchanan and Tullock 1962).

Solving this model requires answering three questions: (1) under what conditions will a logroll succeed; (2) what coalition size will the proposer choose; and (3) based on this information, what voting rule will the Council choose to operate under? The stage game is solved for a subgame perfect equilibrium through backwards induction, so we focus first on conditions for cooperation, then on choice of coalition, and finally on choice of voting rule. A set of equations are derived fully in the appendix.

Identifying when Cooperation is Sustainable

Identifying when cooperation is sustainable in the case of a unanimity voting rule is quite straightforward. Because the coalition size must be the chamber of the whole (all N members), any single coalition member can prevent bill passage. As a result, in determining if the coalition will be maintained we need to look at the individual with the greatest incentive to defect. That person is the individual with the first bill on the docket. The most any individual can save by defecting from the coalition is the cost of all the bills on the docket after her own bill. If she defects any sooner, she doesn't get her bill passed, and if she defects any later she

doesn't save as much as she could have. Obviously then, the individual who can save the most is the one with the most bills coming up for a vote after her bill has already passed. Formally, the cooperation payoff is the net present value of maintaining logrolls infinitely into the future,

, and the defection payoff is the return from having just her bill passed this period and none ever again,

, given the use of grim trigger punishment for this unanimity case. As such, cooperation is sustainable as long as:

(Equation 1)

As Equation 1 demonstrates, cooperation is easier when benefits are larger, costs are smaller, chamber size is smaller, and d is larger. These findings make intuitive sense. The person with the first bill on the docket is more likely to stay committed to the logroll if he or she perceives the future return to a continuation of all-inclusive logrolls to be high enough relative to the cost of paying for everyone else's bills this period. The larger the chamber size, the more bills that individual has to pay for before getting a chance at future legislation. The greater the benefit, the more that individual gains in future periods from having his or her bill passed. The lower the cost of legislation, the less the individual pays this period. And the larger d , the less the value of the future legislation is discounted.

If the voting rule is less inclusive than unanimity, the conditions for cooperation become a bit trickier. There are two cases to consider. First, suppose the proposer selects a minimum winning coalition (MWC) of VN members. Under these conditions, every coalition member's vote is still necessary for bill passage and, thus, we must again look at the incentive of the person with the first bill on the docket to determine if cooperation is sustainable. The net present value of cooperating for this person is

, where the first term captures the payoff from the logroll succeeding in the current period, and the second term captures the expected value of future coalitions. The net present value of defecting for this person is

, where the first term represents the value of having only her bill passed in the current period and the second term captures the future value of having only other legislators' bills passed in the future. Cooperation is possible when costs are low enough such that the utility from cooperating exceeds that from defecting:

(Equation 2)

As can be seen, the same general relationships with N , B , C , and d hold as they do in Equation 1. The logic is identical and so is not repeated here. However, the voting rule, V , now enters the equation as well. The less inclusive the voting rule (i.e. as V approaches .5),

the easier cooperation is to sustain, because fewer bills need to be passed before a new period is entered.

The second case to consider is when the proposer selects an oversized coalition of $VN+A$ members. In this case, several members would have to coordinate their defections as a defecting group in order to bring an end to bill passage. Each potential member of the defecting group must determine when it is in his or her interests to defect, conditional on all the other members of the defecting group defecting (thus relying on a standard coalition-proofness refinement). If the potential defector does defect, no further bills will pass and all the members of the defecting group will go into bad standing. If this member does not defect, he or she stays in good standing while all the other members of the defecting group go into bad standing. The decision is made when there are $VN - 1$ bills left on the docket. At that point, the potential defectors will all have had their bills passed. The expected value to each defector of cooperating (abandoning the defecting group), helping pass the remaining $VN - 1$ bills, and having an increased chance of being in future coalitions is:

The expected value to each potential defector of defecting, ending the logroll this period, and being left out in the future is:

As derived in the appendix, cooperation is sustained when the coalition is large enough; that is when:

(Equation 3)

Interestingly, cooperation becomes easier to maintain the more oversized the coalition. The reason is that the defectors must act as a group to end bill passage. Each potential defector is less likely to defect than if she alone were pivotal, because she is more likely to be in future coalitions given the defections of the others in the defecting group. Of course, oversized coalitions are limited by the chamber size (N). Inserting the universal coalition size $A=N-VN$ into Equation 3 and solving for C gives an upper value of bill costs beyond which even oversized coalitions cannot bring about a successful logroll:

(Equation 4)

Equations 3 and 4 reaffirm that the same relationships with the parameters found in Equations 1 and 2 hold, and for the same reasons. These findings are summarized as follows.

Proposition 1: Legislation is easier to pass when: (a) the number of members in the Council is smaller; (b) the voting rule is closer to a simple majority; (c) Council members value the future heavily because they are likely to be around in the future or have an easy time forming coalitions; (d) bill benefits are high; and (e) bill costs are low.

Identifying the Equilibrium Coalition Size

Having derived conditions under which cooperation is sustained, it is now possible to determine what size coalitions will form. The randomly chosen proposer weighs three considerations. She wants to include her own bill. She wants to minimize the number of other members' bills because they are costly to her. And she wants the coalition to be sustained throughout the period, in order to secure agreement by the coalition. Given these incentives, the proposer's optimal coalition size is the smallest one possible that still sustains cooperation. Figure 2 illustrates the equilibrium results. For costs less than C_a , the coalition will be minimum winning, for costs between C_a and C_b , the coalition will be the smallest oversized one possible (as defined by Equation 3), and for any cost greater than C_b , no cooperative coalition can be maintained.

[Insert Figure 2 about here]

The findings from the coalition formation part of the model are summarized in the following propositions.

Proposition 2: Legislative coalitions are likely to be more oversized when: (a) the number of members in the Council is larger; (b) the voting rule is closer to unanimity; (c) Council members discount the future heavily because they are unlikely to be around in the future or anticipate a difficult time forming future coalitions; (d) bill benefits are low; and (e) bill costs are high.

Proposition 3: For a given voting rule, as the Council size increases or bills become more costly relative to their benefits, coalitions are likely to become oversized, increasing toward universalism. As the size or costs increase even further, coalitions break down and gridlock ensues.

Identifying the Equilibrium Voting Rule

Given how the voting rule affects coalition size and given the inherent uncertainty over future legislative costs (

), Council members face a complex decision in selecting the voting rule that will maximize the expected payoff. We assume the potential costs could take on a wide array of values:

. If the cost is likely to be low, between C and C_a , legislators will want to select an inclusive voting rule to make sure as many low-cost bills are passed as possible. However, as Equations 2 and 4 demonstrate, when V increases both C_a and C_b decrease. Thus, while increasing the voting rule raises the value of the low cost coalitions, it limits the range of coalitions over which cooperation can be sustained. The optimal choice of $V=V^*$ that maximizes the expected value of all possible coalitions given the distribution of C is characterized by Equation 5 below (see appendix for the derivation).

(Equation 5)

Due to the transcendental nature of this function, we cannot solve explicitly for V^* , but can derive explicit comparative statics equations and can characterize this function through computer simulations. These simulations yield the results displayed in Table 1.

[Insert Table 1 about here]

The sample values provided in Table 1 demonstrate how the equilibrium voting rule changes with chamber size, with the value of legislation, and with d . For larger chamber sizes less beneficial legislation, or smaller d , cooperation is harder to sustain for any given bill cost. Under these conditions, the Council will choose a less-inclusive voting rule in order to allow cooperation over a larger range of bill costs. For example, in the range of $d = .25$ and $B = 1$, as N increases from 6 to 9, the voting rule decreases from 0.62 to 0.56. It decreases further toward a simple majority rule as N rises. By comparison, the equilibrium voting rule is more-inclusive where benefits are larger ($B = 5$) or the future is more highly valued ($d = .30$) because these conditions are more conducive to greater cooperation.

The following propositions are based on the comparative statics and the computer simulations. They capture how the desired voting rule varies based on changes in the Council size, discount value, bill costs, and benefits.

Proposition 4: As the number of members or voting blocs in the Council increases, voting

rules must be made less inclusive to sustain vote trades.

Proposition 5: As coalition formation becomes more difficult and the future is less highly valued, Council members prefer a less-inclusive voting rule.

Proposition 6: For legislation with smaller benefits, the voting rule must be made less inclusive to sustain cooperation.

4. Specific Implications for the EU

There are numerous interesting implications for EU policy-making that can be drawn from this model. As the propositions of the previous section indicate, we predict changes in the ability to pass legislation, the size of coalitions, and the choice of voting rules, all based on changes in chamber size, future discounting, and the costs and benefits of legislation under consideration. In this section we focus on these three causal factors of institutional change. First we examine chamber size as related to EU enlargement. Second, we discuss the meaning and effect of future discounting. Third, we note how the changing nature of EU legislation manifests itself in selection of coalitions and voting rules. In each of these sections we focus our discussion on issues pertaining to the likelihood of passing legislation (Proposition 1) and changes in the voting rules (Propositions 4-6). Discussion of coalition sizes (Propositions 2-3) is left for last.

Chamber Size and EU Enlargement

The first parameter of the model that influences the likelihood of legislation passing, and thereby the optimal voting rule, is chamber size. Proposition 1 notes that legislation is less likely to pass when the Council size increases, if everything else remains the same. In response, as stated in Proposition 4, the Council will make its voting rules less inclusive 'as the number of members or voting blocs in the Council increases,' in order to sustain vote trades. Since the size of the Council of Ministers is a one-to-one function of the number of member states in the EU, we can equivalently say 'as the size of the EU increases, voting rules must be made less inclusive to sustain vote trades.'

To what degree has this happened in the past? Over the last thirty years the EU has undergone three enlargements: the UK, Ireland, and Denmark entered in the 1970s; Greece, Portugal, and Spain in the 1980s; and Austria, Sweden, and Finland in the 1990s. While the functioning voting rule in the Council stayed unanimity through the first enlargement, in 1986 the SEA ended the Luxembourg Compromise and introduced the Cooperation Procedure, and in 1992 the Maastricht Treaty introduced the Co-Decision Procedure. As stated in section two, these changes introduced and broadened the use of qualified majority voting. As each new procedure was added, policy areas that had previously been considered under the Consultation Procedure's unanimity rule were shifted to one of the less inclusive procedures. Thus, at first glance, the historical record is consistent with the model's prediction.

We would not claim that enlargement was the sole, or even primary, motivation for

any of these changes in the Council voting rule. Enlargement occurred simultaneously with numerous other precipitating events. Rather, we are claiming that significant legislation was not going to pass unless the voting rule took into account how the chamber size affected the ability to sustain logrolls. For example, as Garrett (1992) and Moravcsik (1991) argue, the SEA was a package of changes primarily meant to help revive a stagnating integration process. Our theory simply places chamber size among the determinants of how much less inclusive the voting rule had to be to overcome this stagnation. If the voting rule remained too inclusive cooperation over logrolls would be unsustainable for a chamber of size twelve. The observed correlation between EU enlargement and moving to a less inclusive voting rule is an indication that the member state governments recognized this reality.

What can be said about the future? At the most superficial level, our model predicts that adding more new member states should create pressure for a change in voting rule. Recent discussions over EU enlargement to the East are consistent with this finding as well. In the 1996 IGC, as well as concurrent and more recent European Council meetings, the EU debated the conditions under which EU enlargement to the East might occur. In these discussions one clear thematic question prevailed: how would the EU have to change its institutions and policies to accommodate such enlargement? Moving to a less-inclusive decision rule for the Council was among the possibilities on the table.

Two subtler points can be made as well. First, as previously noted, a change in N is not necessarily to be interpreted as a change in chamber size. That only holds if each member has its own desired legislation, where only one member benefits and all others pay a cost.

However, imagine two countries that are very similar in their economic strengths and weaknesses, and benefit from the same types of legislation. Therefore, adding these two countries is nearly the same as adding either one separately for the purposes of the model. Thus, what matters is not how many countries are added with the next expansion, but how many countries with different legislative preferences are added. To the degree that the EU wants to continue passing legislation while minimizing the change in the voting rule with the next enlargement, we should expect admission of a subset of applicants that are relatively similar in economic conditions to each other or similar to already-existing member states.

Second, as illustrated in Table 1, our model predicts that the rate of change in the voting rule decreases as the chamber gets larger. Thus, we should expect a more incremental move in the voting rule with the next enlargement. It could be incremental the way the last enlargement was incremental, by only increasing the number of policy areas operating under qualified majority rule. It could be incremental by leveling the weighted-voting scheme so that it is more of a true 71% rule.⁹ Or, it could be incremental by actually moving the rule closer to minimum winning, but by a smaller margin than the last jump from unanimity to 71%.

Whatever the method employed by the member states, the change will not be dramatic in an absolute sense.

Discounting the Future and Legislative Procedures

The second parameter of the model that causes change in the likelihood of legislation passing, and thereby the choice of voting rule, is the level at which legislators discount the

future. Proposition 1 notes the difficulty in passing logrolls when legislators heavily discount the future. One solution is to make legislation easier to pass by changing the voting rule. As Proposition 5 states, 'as the future becomes less highly valued, Council members prefer a less-inclusive voting rule.' The discounting term, d , can be interpreted in a number of ways. It can represent the value of future legislation, the frequency of elections, the probability of being re-elected (or re-appointed), and/or the ease of coalition formation. While all four interpretations can be applied to the EU setting, here we focus on the ease of coalition formation because it has some of the most interesting and subtle implications.

What determines how easy it is to form coalitions in the Council of Ministers? A number of factors can play a role. Certainly there is the actual process of bringing legislation to a vote in the Council itself. The more efficient the COREPER is at refining legislation from the Commission and the 'higher quality' the legislation sent to the Council, the easier it is to form viable logrolls. That part is straightforward. However, more interestingly, the EP and the Commission also play a crucial role that has changed dramatically over time.

To see how these chambers matter, imagine that the only legislative chamber were the Council of Ministers. Obviously, if that were the case, the EP and the Commission would play no role in influencing how easy it is to form coalitions. Now add the Commission. Without the EP, the Commission can only propose legislation. Proposal power could either make coalition formation easier or harder. If the Commission proposes a set of legislation with the goal of passing a 'bundle' of bills, coalition formation should be easier. In effect, the EU would have a second chamber helping facilitate bill passage. However, if the Commission

wanted to undermine the passage of legislation, it would make proposals that would have to be heavily amended before they would have a chance of passing. Thus, the Commission's goal for specific legislation determine whether the Commission facilitates coalition formation or undermines it. One would expect unsolicited proposals to be ones the Commission would try to make more attractive, while proposals forced out of the Commission by the Council through a 'discharge petition' to require more work by the Council.

Now add the EP as an advisory body such as it is under the Consultation Procedure.

Basically nothing changes from when the EP is uninvolved. The EP can only influence coalition formation to the degree that it can delay legislation. However, now also allow the EP to have the ability to amend legislation, such as with the Cooperation and Co-Decision procedures. This power potentially creates serious havoc for the Council. Why? Simply put, the EP likely has its own agenda apart from that of the Council. The EP is elected via different means than the Council and therefore will have at least somewhat different policy preferences. Having two chambers with different preferences unavoidably is going to make coalition formation more difficult. The Council not only has to cobble together a set of bills that can be passed within the Council itself, but that logroll also has to survive amendment by the EP. This problem becomes even more severe when the EP can veto legislation as in the Co-Decision Procedure.

In fact, contrary to standard reasoning, this problem emerges even if we assume the pivotal member of the EP is more pro-integration than the pivotal member of the Council of Ministers. If only a single bill were under consideration, the EP's veto would be irrelevant

because the policy proposal in equilibrium would have to be closer to the EP's ideal point than the status quo (assuming a status quo of limited integration). That is what most models of European integration assume (e.g. Tsebelis 1994, Garrett and Tsebelis 1999). However, that is not necessarily the case with a logroll. When a package of bills is being proposed, Council members could agree to particular policy proposals that leave the EP worse off than the status quo even when the EP prefers more integration than the Council. As a result, the EP would have a credible veto threat and the coalition formation process would be complicated by the need to take EP preferences into account.

The implication is as follows: the more influence other legislative chambers have over the bill process, the harder it is going to be to form coalitions, and therefore the less inclusive the Council's voting rule is going to be. Interestingly, both the SEA and Maastricht simultaneously expanded the use of qualified majority and the powers of the EP. The Cooperation Procedure gave amendment power to the EP and increased the use of qualified majority, and the Co-Decision Procedure allowed the EP to also veto legislation and further expanded the use of qualified majority. Again, as with chamber size, we are not claiming that the EP's increased powers were necessarily the motivating factor in the change in the Council's voting rule. Rather, we are claiming that increasing the EP's legislative power makes cooperation over logrolls more difficult, and thereby makes it more likely that a change in voting rules is necessary to sustain cooperation. Moreover, in a predictive sense, further changes in the powers and structure of other EU institutions will place pressures for change in the Council's coalitions and voting rules, as predicted by the model.

Legislation Benefits and Policy Areas

The third parameter that influences the likelihood of legislation passing, and thereby the choice of voting rule, is the value of the legislation under consideration, denoted by bill benefits B (also thought of in terms of a benefit-cost ratio). From Proposition 1 we know that less-beneficial legislation is more difficult to pass. We also know from Proposition 6 that legislation with smaller benefits requires a less inclusive voting rule to sustain cooperation. Thus, assuming the political actors want to maximize their expected political return *ex ante*, we find that less-beneficial legislation will bring about less inclusive voting rules (with the exception of net costly legislation, over which a unanimity rule is preferred to ensure no legislation passing whatsoever).

There are two relevant ways that the benefits of legislation can vary in the EU: within policy areas and across policy areas. That is, some Common Market legislation leads to greater returns in economic efficiency than others; and some issue areas consist of possible legislative initiatives that tend to be more beneficial than others (e.g. one could argue that Common Market legislation tends to have a greater impact per piece of legislation than environmental legislation). These issues already have received some treatment in the literature (Garrett 1992, Moravcsik 1991, 1998). The standard explanation is that policy areas were moved to QMV when the powers that be (i.e. the heads of state) determined that they wanted to start making progress at the EU level.

For example, between 1954 and 1992 the EU's stated goal was completing the

Common Market. Tariff barriers were removed throughout this period, but not much progress was made on non-tariff barriers (e.g. harmonization of tax rates, environmental standards, and business subsidies) until the passage of the SEA in 1986 and the resultant movement of Common Market policies to QMV. The standard argument is that the SEA introduced QMV for Common Market legislation in general, and non-tariff barriers (NTBs) in particular, in 1986 because the most important member states had a convergence of interests and thus wanted to see progress on NTBs where they had not previously. This convergence 'stemmed from a combination of structural economic trends toward higher rates of international trade and investment, including more multinational production, and perceived policy failures' (Moravcsik 1998, pp. xx-xy). By implication, issue areas that were not moved to QMV were ones for which the necessary 'convergence' of preferences did not occur.

We argue that this explanation for moves to QMV in particular issue areas is a step in the right direction, but it is not sufficient. In terms of our model, a convergence of preferences can be thought of as a set of exogenous factors that caused the passage of Common Market logrolls over non-tariff barriers (or whatever policy area) to go from being net costly in expectation to net beneficial. Once all member state governments see the removal of non-tariff barriers (NTBs) as net beneficial the question of what is the optimal decision rule still remains. If the passage of the legislation becomes beneficial enough in expectation (i.e. the convergence is sufficiently great), there would be no need to change the voting rule away from unanimity. In Moravcsik's terms (1998) there would be no need for using QMV as a commitment mechanism. They would all agree on passage. Conversely, if the convergence were not great

enough they might need to move to as non-inclusive a rule as simple majority to ensure successful logrolls. Were that the case, the supermajority required by QMV would be too difficult to achieve to allow bill passage. Therefore, it would be a poor commitment mechanism. The fact that QMV was chosen is an indication that something in-between occurred. Thus, one cannot predict QMV from preference convergence alone. Depending on how great the convergence, the result could be anything from no change in the voting rule to a move to simple majority. Having said that, we can now elaborate on exactly what our model does predict when voting rules can be tailored to issue areas.

Imagine that all legislation is being considered under a unanimity rule. Under this condition only the most beneficial legislation can and does pass. Eventually all of the most beneficial legislation is passed and the integration process stagnates. Now three options are available. The heads of state make no changes, the heads of state agree to relax the voting rule universally, or the heads of state agree to relax the voting rule selectively. If no change is made only the occasional very beneficial legislation passes; if the voting rule is relaxed universally, all sorts of legislation pass; and if the voting rule is relaxed selectively, legislation passes in those issue areas where the rule was made less inclusive.

According to the model, we should expect the voting rule to be chosen in a way that maximizes the expected gains from engaging in the logrolling process. If certain policy areas have, in expectation, more beneficial legislation than others, then tailoring the voting rule to that policy area allows governments to effectively manipulate the distribution of costs that can pass, and thereby maximize the expected value of engaging in the logrolling process. Thus, th

model suggests that the voting rule only should be made less inclusive in issue areas that, in expectation, are going to draw bills that yield the highest expected return. The voting rule only would be lowered across the board if the expected benefit in every policy area were equal (or there was some exogenous constraint that made it necessary to have one consistent voting rule in all areas). Further, where different member state governments perceive different expected values from making the voting rule less inclusive in a particular policy area, the model suggests that we would see a change in voting rules in the areas that maximize the expected return to the least benefited state. For example, there would be no change from unanimity if bill passage in some policy area had a negative expected value to one member state, even if positive to all the rest. Equivalent logic can be applied if the move being considered were from QMV to something even less inclusive.

While the data is not available to completely test our predictions,¹⁰ the events surrounding the completion of the Common Market do appear broadly consistent. Specifically with regard to trade, between 1954 and 1986 tariff barriers were removed, but not much progress was made on non-tariff barriers (e.g. harmonization of tax rates, environmental standards, and business subsidies) until the re-introduction of QMV. Why were tariff barriers removed first, and why could they be removed under a unanimity rule, but NTBs had to be shifted to QMV? There are two parts to the answer. First, tariff barriers are a focal first target because they are clearly designed as trade restrictions. Their primary function is to raise the price of imports and thereby protect domestic firms from foreign competition, while also serving as revenue collection mechanisms for governments. NTBs, on the other hand, are less obvious forms of protectionism. Thus, we would expect tariff barriers to be removed first in

any effort to remove trade distortions.

While that explains why tariff barriers would be targeted before NTBs, it does not explain why they could be successfully removed under a unanimity rule, while NTBs had to be moved to QMV. Simply put, the political cost associated with removing tariff barriers must have been much lower than that associated with the subsequent removal of NTBs. Because tariff barriers were removed first, governments, where desired, could simply shift the trade distorting policies to NTBs. Therefore, once tariff barriers were lowered, removing NTBs became much more costly. This increased political cost meant that, when member state preferences converged enough that removing NTBs became feasible, it was still necessary to move the decision rule to a less inclusive voting rule (in this case QMV) for bill passage to occur. While the focus here on trade barriers is merely one example of the model's predictions in this area, it appears to be a reasonable interpretation of the historical record.¹¹

In sum, altering procedures and voting rules on an issue-by-issue basis reflects the pressures in our theory to maximize utility and to ensure beneficial logrolling. Our argument thus intuitively links neo-functionalist and realist theories of integration. Prior to the completion of the Common Market, non-market issues were left under unanimity with the understanding that doing so would prevent any real progress in those areas. In terms of our model, it was net politically costly to at least one member state government to allow logrolls in those issue areas. After 1992, the situation had changed. The member state governments that perceived movement in those issue areas as net costly had to have changed their minds (except in the case of social policy, where the member states that did not want movement

simply chose to opt out). This change in preference might be because of exogenous shocks. However, it could also have arisen because the implementation of the Common Market legislation led to internal domestic changes (e.g. the rationalization of industries affected by the changes in tariff and non-tariff barriers) such that the political calculations for the governments changed. The change in political calculations would characterize the neo-functional argument that policy change begets further policy change, while the fact that the final decision is always in the hands of the member state governments reflects the realist's approach to analyzing policy outcomes.

A Note on the Expected Size of Coalitions

The discussion up to this point has focused on the model's predictions over: (1) when logrolls are more likely to succeed, and (2) what voting rules we should expect to see as a result. However, the model also yields interesting predictions over equilibrium coalition sizes as well. These predictions are left for last, not because they are conceptually any less interesting, but because there is relatively little accessible evidence for or against them in this setting.

Nonetheless, two points can be made. First, one of the widely acknowledged stylized facts of operations in the Council is that, under qualified majority rule, there is a 'norm' of consensus. That is, even though only 71% of the votes are necessary for bill passage, negotiations often proceed until the entire chamber votes for the proposed legislation. Now, universal support could easily be 'cheap talk' (i.e. the rest of the Council members vote in

favor of the bill because they know it is going to pass anyway). However, our model provides an alternative, potentially testable, explanation. As Proposition 3 states, coalitions are going to be more oversized when the legislation under consideration is more costly (i.e. when the legislation has the least benefit relative to its realized cost). Thus, if our model is correct, one should expect consensus to be more common on the most 'difficult,' or equivalently least valuable, legislation. If consensus is cheap talk no such relationship is predicted.

Unfortunately, because of the less-than-transparent nature of the Council of Ministers, these predictions are difficult to verify at this time.

Second, as Proposition 2 indicates, the expected coalition size is a function of the voting rule, Council size, the value of future legislation, and the benefit of legislation relative to the range of possible costs. Essentially, when it is difficult to pass legislation (due to increased Council size, trouble forming coalitions, or relatively costly legislation), either larger coalitions need to be formed or the voting rule needs to be made less inclusive. When the coalition size is at unanimity already, the only factor that can be loosened to promote legislative progress is the voting rule. And when the voting rule is made less inclusive, it is no longer always necessary to maintain universal coalitions. As such, our findings suggest that we should look for evidence of coalition sizes varying across issue areas or over time, and see whether less-oversized coalitions occur on more-beneficial legislation as well as immediately following a loosening of the voting rules.

5. Conclusion

Many EU scholars have shown the importance of European Union institutions in bringing about enhanced integration and specific policies. In this paper, we ask the preceding question of how these institutions are chosen in the first place. Specifically, we focus on one of the most important institutional features in the most powerful legislative body in the EU: the voting rule under which legislation is advanced in the Council of Ministers. We propose a model that derives the interrelation among voting rule choice, coalition size, and the ability to pass particularistic legislation. Broadly stated, the difficulty in maintaining cooperation over logrolls creates an incentive for a change in the voting rule under which legislation is being considered. Pressures for such changes occur when the number of members of the Council increases, when coalitions are more difficult to form, and when less beneficial legislation is being proposed.

The following story illustrates our findings. Small legislatures valuing future interactions and dealing with very beneficial legislation have an easy time with bill passage. *A* these conditions change, however, cooperation over logrolls becomes more difficult to maintain. An initial response is to include more members in coalitions, because it is less likely for a group to defect from a logroll than for single individual to defect. Nevertheless, some legislation is impossible to pass, even if all members of the legislature are included in the coalition. Under such conditions, gridlock would ensue until conditions change sufficiently to bring about policy change. The chamber then loosens the voting rule so that fewer votes are needed to pass legislation; this shrinks the minimally necessary size for a coalition to be decisive, and legislation once again passes.

Three conditions are explored under which such an increase in coalition size, gridlock, and a loosening of voting rules might occur. First, EU enlargement brings about an increase in the number of members and diverse interests in the Council. Such enlargements restrict the ability of the Council to formulate and pass logrolls, and place pressure on the politicians to make the voting rule less inclusive. We suggest that there may be a correlation between previous expansions and procedural change in the EU. We would expect pressure on the EU once again to loosen Council voting rules if another EU expansion moves forward.

Second, greater inclusion of other EU bodies with diverse interests makes the formation of coalitions more difficult, thus once again placing pressures to loosen voting rules. We suggest, for example, that the strengthening of the EP might have been intentionally coupled with the use of qualified majority under the Co-Decision Procedure lest the EP's increased strength cause legislative gridlock in the Council of Ministers.

Third, less-beneficial legislation is more difficult to pass. As such, when EU policymakers wanted to move beyond the most-beneficial legislation into other policy areas, they needed to address these policy areas under procedures with less-inclusive voting rules. One by one, issue areas such as the environment and some social policies were brought under the Cooperation and then Co-Decision Procedures and deals were struck among Council members. We anticipate that, in the future, the qualified majority rule may be too restrictive for the Council to make suitable progress in still other areas that are somewhat less beneficial. As such, there may be a need for further procedural change loosening the voting rules in these areas. We would again expect such a change to come on an issue-by-issue basis, as is being

done now. This is because the reduction to simple majority rule in more-beneficial policy areas would lead to the exclusion of policy benefits for some EU members and to more-divisive policymaking in the Council.

In sum, this paper applies a general theory of legislative design to the EU. The model allows us to predict the conditions under which the Council of Ministers' voting rule should change and why. In doing so, for the first time we derive explicit relationships between the size of the EU and the Council's voting rule, the role of the EP and Commission in the legislative process and the Council's voting rule, and the issue areas under consideration and the Council's voting rule. These derived relationships fill in a missing piece in the argument for why a move to QMV was necessary for cementing commitment to the future passage of legislation. Finally, we also provide a new explanation for why the Council often operates under a norm of consensus despite moving to QMV for so many issue areas.

Appendix

Unanimity Rule

To find the limits of cooperation, focus on the individual with the greatest incentive to defect from the cooperative strategy, the legislator whose bill comes up first. If she cooperates, her payoff is

, the sum of $(B \cdot C)$ each period, discounted by d per period (the sum of an infinite sequence of value $B \cdot C$ discounted by d each period is

). Her defect payoff is

, that of receiving her bill this period and having no further bills pass. For the logroll to be in equilibrium the cooperative payoff must exceed the defect payoff, or

. Solving for C yields

.

Minimum Winning Coalitions

If the voting rule is less than unanimity, and yet the coalition is chosen to be just large

enough that all coalition members must agree for the legislation to pass, then again the first member of the coalition is pivotal for continued cooperation. She considers defecting after her bill has been passed. If she cooperates, her payoff this period is $(B - VC)$, meaning that her bill passes and she has to pay C/N for each of the VN bills that pass. Additionally, her expected payoff in each future period is $V(B - VC) + (1 - V)(-VC)$, where with probability V she is in the future coalition (valued at $B - VC$) and with probability $1 - V$ she is excluded (valued at $-VC$). The sum of this period's utility and the infinite series of discounted expected payoffs is thus

. This is her cooperative payoff.

If she defects, her payoff this period is $(B - C/N)$, because only her bill passes for which she gets the entire benefit and only pays C/N . The defection places her in bad standing, with other members' bills passing. In each future period, she thus pays C/N for each of the VN bills that pass. Therefore, her defect payoff is

. For cooperation to be sustained, the cooperative payoff must be greater than the defect payoff:

3

.

Solving for C yields:

As long as C is drawn less than this cutpoint, cooperation is sustained with a minimum winning coalition.

Limits of Cooperation under Oversized Coalitions

With an oversized coalition, cooperation is easier to maintain. Consider the incentives of those coalition members most likely to defect. Because the coalition is oversized with A additional members ($S=VN+A$), the legislation will pass unless $A+1$ members defect. After the first $A+1$ bills have passed, these members consider defection. If they all defect, the next $VN-1$ bills will not pass, but they will be left in bad standing for the indefinite future.

Depending on the value of the future, defection could be more beneficial than cooperation. But defection is an individual decision, rather than a collective one. The key question is: will each individual want to defect given the other A members are defecting?

We solve for the conditions under which, if A others are defecting, the last member of the defecting group would go along with them instead of cooperating with the coalition. This is a subgame perfect equilibrium. If this individual cooperates with the coalition, the next $VN-1$ bills pass, and she has a

chance of being in the future coalitions of size VN .¹² Given $VN+A$ bills passing this period,

and the likelihood of being in future coalitions, her cooperative payoff is:

If she defects, however, she only pays for $A+1$ bills this period, but has no chance of being included in future coalitions. The defect payoff is thus:

Cooperation is sustainable when the cooperative payoff exceeds the defect payoff:

This equation can be solved for A to find the smallest oversized coalition that can still sustain cooperation for any given value of C :

Substituting $A=0$ shows the limit where the minimum winning coalition is no longer sustainable:

This reconfirms the result from Equation 2.

Substituting $A=N-VN$ shows the limit where even a universal oversized coalition is no longer sustainable:

Optimal Choice of Voting Rules

The expected value based on the choice of V is generated assuming C is drawn from a uniform distribution between C and

. In this paper, we assume that

is sufficiently large that it is not constraining (that is,

).

Depending on the value of C chosen, the proposer will form a minimum winning coalition (size VN), or the smallest oversized coalition (size $VN+A$) that will allow cooperation. The expected utility is derived through the use of integral calculus. Overall expected utility is equivalent to the utility achieved from a coalition of size VN evaluated from $C=C$ to $C=C_b$ added to the expected utility from the additional A members evaluated from $C=C_a$ to $C=C_b$:

Substituting in

, the boundary condition from Equation 3, yields:

Working out these integrals gives the expected utility from the game. We wish to maximize this expected utility with respect to V . To do so, we solve

This gives the implicit solution for V^* :

.

Due to the transcendental nature of this function, we cannot solve explicitly for V^* . Further results detailed in the text and illustrated in Table 1 come from a computer simulation.

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Table 1: Equilibrium Voting Rule Choice

Case	
	d = .20
	d = .25
	d = .30
N = 2, B = 1	
	V = 0.80
	0.93
	1.00
N = 4, B = 1	
	0.57
	0.70
	0.93
N = 6, B = 1	

0.50
0.62
0.87
N = 9, B = 1
0.50
0.56
0.81
N = 12, B = 1
0.50
0.52
0.78
N = 15, B = 1
0.50
0.50
0.76
N = 18, B = 1
0.50
0.50
0.74

$N = 2, B = 5$

0.82

0.98

1.00

$N = 4, B = 5$

0.59

0.79

1.00

$N = 6, B = 5$

0.50

0.71

1.00

$N=9, B = 5$

0.50

0.64

1.00

$N = 12, B = 5$

0.50

0.60

1.00

$N = 15, B = 5$

0.50

0.58

1.00
N = 18, B = 5
0.50
0.56
1.00

Note: In all cases, $C = 0.1$.

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2 The original formal model is presented in Carrubba and Volden (2000). The model is generalized here for a more complete analysis of the effects of differing bill costs and benefits. Some further propositions and the model's application to the European Union are unique to this paper.

3 Common Market legislation was supposed to be considered under qualified majority. However, this 'compromise,' unilaterally instituted by France, stated that any legislation a member state felt threatened its 'vital national interests' could be vetoed by that member state. Unsurprisingly, the result was that any Common Market legislation of any consequence would only pass by unanimous consent.

4 This work complements other studies, including Garrett and Tsebelis (1999), Crombez (1996, 1997, forthcoming), and Tsebelis (1994, 1995), that provide detailed analyses of the EU's legislative process once the procedures have been chosen. Our purpose is not to characterize the entire legislative process, but rather to understand a part of the process that has been generally neglected - namely, the specific choices of institutional structure. In that way, our work is similar to such studies as Weingast and Marshall (1988) and Gilligan and Krehbiel (1990) that analyze the reasoning behind particular organizational structures in legislatures. A more general discussion of the model used here is published elsewhere (Carrubba and Volden 2000).

5 Although this model characterizes individualistic legislation, we can imagine how the level of cooperation might change given similar preferences. Obviously, when more individuals benefit from a particular piece of legislation, it will be easier to maintain cooperation. Also of interest is how the model's results might change if Council members differ in their bill costs or benefits, or if members have prior beliefs about their likelihood of being in future coalitions. Differing bill costs would entice the proposer to form a coalition with the lowest-cost members. Realizing that they are more likely to be in future coalitions increases the incentive for cooperation, which could lead to fewer oversized coalitions, and potentially to more-inclusive voting rules, depending on the specific cost structures. Having beliefs about one's likelihood to be in the next or future coalitions will alter the exact voting rule chosen somewhat. In all cases, however, simple extensions of the model presented here yield the same comparative statics as discussed in the paper and its propositions. As such, these findings are quite general.

6 What is crucial here is that the Council members not be allowed to choose the voting rule with perfect foresight. Clearly, Council members neither know the exact costs and benefits of all possible future legislation, nor the exact make-up of all future possible coalitions. While realism would suggest that members should have some priors over upcoming coalitions, simplifying that element out of the model does not significantly affect the relationships in which we are interested. See Carrubba and Volden (2000) for a discussion of some other modeling alternatives.

7 In reality, coalitions can be proposed at any number of points in the legislative process, during the Council's first or second readings of legislation, or anytime while bills are still in the hands of the COREPER (the Committee of Permanent Representatives is a set of national delegations, where each delegation is assigned by the respective member states to work under the Council). For our purposes it does not matter at which of these

stages the coalition is agreed upon, it only matters that opportunities exist to create coalitions.

8 For the unanimity case, the punishment strategy must be modified somewhat, lest every defector be immediately brought back into good standing. For this solution we use grim trigger, although equivalent results can be derived using any generic T-period punishment strategy or even a T-period punishment strategy that is re-negotiation proof.

9 Depending on which member states support the motion, it can take anywhere from 53% of the member states to 87% of the member states to pass a bill because of members' different voting weights. However, because the four member states with the largest votes, Germany, France, U.K., and Italy with ten votes each, represent what one can consider the spectrum of preferences in the EU, it is probably appropriate to consider the qualified majority voting scheme closer to the 87% threshold (i.e. think of N as factions rather than individuals). By leveling the vote weights, this effective threshold would then drop.

10 Ideally, specific information would be available regarding bill costs and benefits, the value of the future to Council members, voting patterns, and coalition sizes. In actuality, partly due to the complexity of policies and partly due to the closed-door Council meetings, such information is limited or nonexistent. As such, our model best serves as a framework detailing conditions that scholars must remain aware of when conducting case study research and further detailed analysis of EU institutions and policy.

11 The expansion of QMV to new issue areas in the Treaty of Maastricht (1992) also seems consistent with our predictions. In 1992 most of the Common Market legislation was in place. What remained were the less net beneficial changes that were going to be hard to pass even under qualified majority. Thus, the EU was left with four choices. Leave the voting rule as is and have integration stall once again (i.e. the passage of legislation would slow to a trickle), lower the voting rule on the Common Market policy area to one less inclusive than qualified majority, relax the voting rule in other issues areas, or choose some combination of options two and three. With relatively few remaining loopholes for protecting industries, and by implication the closing of those being relatively costly, movement in other areas became more attractive. Thus, in order to make progress on those agendas viable, the use of QMV was expanded (it was apparent that progress under unanimity was not an option since none had occurred up to that point).

12 The pool of people in good standing in the future would be N-A because A people are defecting this period under this scenario. Future coalitions are of size VN because, if this individual is willing to cooperate with the coalition with A people going into bad standing, a similarly-placed first member looking at VN-1 bills in the future would go along with the minimum winning coalition. That is, this individual is facing identical incentives to the future first member of a minimum winning coalition with A people in bad standing. If a VN+A coalition is sustainable this period, a VN coalition is sustainable in the future with A people in bad standing. The chance of each of those N-A people in good standing being in this coalition of VN members is simply

. Notice that none of these new defectors is needed to form the coalition of VN members, so they are not brought back into good standing under parole.