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Widening and Deepening: Reforming the European Union

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The European Union is the product of a unique institutional process: individual states, often with a history of belligerent relationships, have gradually given up ever more sovereignty to produce an increasing number of common goods, including the Single Market, a joint currency, and common policies. In the process, the Union has integrated increasingly diverse countries and achieved institutional progress beyond its borders. These achievements are particularly remarkable given that member states have had, and still have, widely different views of the desirable speed and ultimate depth of integration. Possibly the single most powerful force sustaining the process of integration has been the implicit, and often explicit, threat by more committed member states to form an inner core, a "club-in-the-club." Conversely, less enthusiastic members have supported extending membership to more countries as a strategy to frustrate deeper integration.

We build a simple theory to analyze how "deepening" and "widening" interact.[1] Members have different costs in contributing to a common good, a "reform." Decisions require unanimity so that the level of reform is determined by the highest-cost (or "weakest") member. To push through more deepening, "stronger" members can threaten to form an inner club. A two-class Union involves costs for all members, but

benefits only the members of the inner club. Weaker members may, hence, spend more effort on reforms, in order to prevent the threat from being executed. We show that widening can have different effects on deepening. When a new member is stronger than the weakest incumbent member, deepening and widening are complements, and the effort of the Union increases. When the new member is weaker, though, they can be substitutes and the effort of the Union may fall.

The results above hold when the threat of forming a club-in-the-club remains off equilibrium, as has been the case in the EU until now. We apply our analysis to the history of the treaties governing the European Union. We show that its key elements can be understood as outcomes of a delicate balancing act between maintaining the pressure to pursue further integration (deepening) and enlarging the Union to more member states (widening). We demonstrate the differences between the enlargement to stronger countries such as Austria, Finland, and Sweden, and the Eastern Enlargement, which more than any previous enlargement increased heterogeneity.

We finally expand the logic of our theory in two directions: first, to rationalize the general move from unanimity voting to different types of majority; and second, to explore the possibility that a club-in-the-club may actually form and its implications for further EU reforms.

I. A Model of Reform under Unanimity

We consider the European Union as an organization with N member states, which produce a common good. To develop our arguments, we analyse a simplified version of the model by Berglof et al. (2007). In particular, all members choose simultaneously an effort level e without first agreeing by vote on how much effort (common good) to provide. The consumption benefit of each member is determined by the smallest effort in the organization, scaled by the size of the organization: $N \min[e_1, e_2, \ldots, e_N]$.

[1] Closely related is the literature comparing club participation of heterogeneous agents in the presence of, e.g., externalities (Massimo Bordignon and Sandro Brusco 2001; Avinash Dixit 2003; Bard Harstad 2006; Kjell Hausken, Walter Mattli, and Thomas Pluemper 2006).

The Leontief production technology captures in a simple manner the notion that under unanimity some members can hold back the entire organization.

All members receive the same utility from consuming the common good, but differ in their cost of effort. Member state $i \in N$ has effort cost $\theta_i e^2/2$, and the parameter (type) θ_i is equidistantly distributed on the support $[\underline{\theta}, \overline{\theta}]$. Assigning rank 1 to the most productive or strongest type $\underline{\theta}$, the cost parameter of the member with rank i is

$$(1) \qquad \theta_i = \underline{\theta} + \frac{i-1}{N-1}\left(\overline{\theta} - \underline{\theta}\right).$$

The Leontief technology implies that member i's payoff is

$$(2) \quad y(\theta_i, e_i) = N \min\{e_1, \ldots, e_N\} - \theta_i e_i^2/2.$$

As the members have different costs, their preferred amount of public good differs. We intentionally abstract from transfer payments as a means to influence members' effort choices. Instead, we show how the threat of a club-in-the-club can coerce weaker members to exert more effort.

Since the efforts of the member states are complements, our simultaneous move game has a continuum of Nash equilibrium outcomes (Patrick Legros and Steven A. Matthews 1993; Jon Vislie 1994). Denoting by $\tilde{e}$ the minimum effort level exerted by all members except i, member i chooses effort to maximize

$$(3) \qquad N \min\{\tilde{e}, e_i\} - \theta_i e_i^2/2.$$

Thus, member i's optimal choice is $e_i = N/\theta_i$ if $\tilde{e} \geq N/\theta_i$, and $e_i = \tilde{e}$ otherwise, since any effort $e_i - \tilde{e} > 0$ would be wasted. Whenever the constraint $N/\theta_i < \tilde{e}$ binds for some type $i = k$, it also binds for all less productive types $i = k + 1, \ldots, N$. Consequently, the effort level $N/\overline{\theta}$ at which the payoff of the weakest type $\overline{\theta}$ reaches its unconstrained optimum determines the maximum effort level that can be sustained in equilibrium. In addition, any effort level $e = [0, N/\overline{\theta})$ can also be supported as a Nash equilibrium because no individual member has a unilateral incentive to change the effort level. We will use the Pareto-dominant equilibrium with $e = N/\overline{\theta}$ as a benchmark to assess the effectiveness of the threat of a club-in-the-club as a reform mechanism.

PROPOSITION 1: *Under unanimity, the weakest member of the organization can impose its privately optimal choice* $e = N/\overline{\theta}$, *thereby holding back the entire organization.*

There is in principle no reason why unanimity should favor weaker rather than stronger members. We have chosen our setting to capture the common view that the unanimity rule protects particularly weak members and slows down reforms.

We now introduce the possibility of an inner organization by allowing a subset of members $n < N$ to exert more effort. The n members of the inner organization remain members of the initial, henceforth "outer," organization. For simplicity, we permit at most one inner organization that must have at least two members ($n \geq 2$). The latter is a natural restriction, as the purpose of the inner organization is to provide a common good. In addition, an inner organization with n members imposes a negative externality on the outer organization: for all N members of the outer organization it reduces the utility of consuming the outer public good by λn, where $\lambda \geq 0$. We can think of this as, e.g., trade diversion following the introduction of the common currency.

Each member of the inner organization enjoys additional benefits of $n[e_{In} - e_{Out}]$, where e_{In} (e_{Out}) denotes the minimal effort exerted by any member of the inner (outer) organization. The payoff of type $i \in n$, who is a member of both the inner and the outer organization, is

$$(4) \quad y_i = n[e_{In} - e_{Out}] + Ne_{Out} - \lambda n - \theta_i e_i^2/2.$$

The payoff of type j, who is a member of only the outer organization, is

$$(5) \qquad y_j = Ne_{Out} - \lambda n - \theta_j e_j^2/2.$$

A club-in-the-club emerges if at least two members exert more effort than all other members. The outer effort level is the lowest effort level chosen by any member and, in equilibrium, is never below the privately optimal level of the least productive type. The effort level of the inner club is determined by the second-lowest effort level. However, our objective here is to show how the threat of a club-in-the-club makes "deepening" possible in the sense that the organization-wide effort increases. That is, we are interested in the highest effort level that

is compatible with an outcome in which no inner organization forms.

Given that an inner club needs at least two members, no member has an incentive to exert more effort than all other members. By contrast, if a single member exerts less effort, the additional effort of all other $N - 1$ members is not wasted anymore. Instead, they form an inner organization, thereby reducing their utility from the outer public good by $\lambda(N - 1)$. Thus, when choosing effort, each member compares the payoff from matching the common effort level (which involves higher disutility from effort and higher consumption) with the payoff from working less but incurring the deadweight loss $\lambda(N - 1)$. Applying this trade-off to the weakest type yields the maximum effort level $e_N^C = N/\bar{\theta} + \sqrt{2\lambda(N - 1)/\bar{\theta}}$, which is compatible with all members choosing the same effort. Henceforth, we refer to this level as the coercion effort level.

PROPOSITION 2: *The threat of an inner organization can coerce weaker members to exert more effort, thereby increasing the organization's maximum effort level to* $e_N^C = N/\bar{\theta} + \sqrt{2\lambda(N - 1)/\bar{\theta}}$.

The possibility of an inner organization can make reform feasible; weaker members exert more effort in order to avoid the execution of the threat. Hence, unanimity need not confine an organization to the pace preferred by its weakest member.

We now consider the effect of "widening," i.e., a new member joining the club. Our interest concerns the relationship between the widening of the Union and its deepening, which amounts in our model to the impact that the new member has on the coercion effort level.

Suppose, first, that the newly admitted member θ_{new} is more productive than the organization's least productive type $\bar{\theta}$. In this case, the coercion effort level unambiguously increases: the higher consumption benefits of an enlarged club provide the weakest type with stronger incentives to exert effort. In addition, exerting less effort than all other N members of the enlarged club entails a larger externality λN. Consequently, the threat of an inner organization becomes more effective, thereby eliciting even more effort from the least productive type.

When the new member is less productive than the (previously) weakest type $\bar{\theta}$, the new

type θ_{new} is decisive for the coercion effort level. Parallel to the reasoning of Proposition 2, the coercion effort level in the enlarged club with $N + 1$ members is $e_{N+1}^C(\theta_{new}) = (N + 1)/\bar{\theta}_{new} + \sqrt{2\lambda N/\theta_{new}}$.

PROPOSITION 3: *Deepening and widening are complements, that is,* $e_{N+1}^C(\theta_{new}) \geq e_N^C(\bar{\theta})$, *if and only if the new member is sufficiently advanced,* $\theta_{new} < \tilde{\theta}$, *where* $\bar{\theta}(N + 1)/N < \tilde{\theta} < \bar{\theta}N/(N - 1)$.

PROOF:

The coercion effort level $e_{N+1}^C(\theta_{new})$ monotonically decreases in θ_{new}. By direct substitution, one can show that $e_{N+1}^C(\bar{\theta}(N + 1)/N) > e_N^C(\bar{\theta})$ and $e_{N+1}^C(\bar{\theta}N/(N - 1)) < e_N^C(\bar{\theta})$, which proves the proposition.

When the new member has high effort cost $\theta_{new} > \bar{\theta}(N + 1)/N$, there are two opposing effects. As above, a larger club makes the threat of an inner organization stronger, increasing the coercion effort level. However, the privately optimal effort choice of the new member $e = (N + 1)/\theta_{new}$ is lower than that of the previously least productive type $\bar{\theta}$. This, in turn, implies that the new weakest type is also more reluctant to exert high effort. Intuitively, this latter effect is dominated by the effect of a stronger club-in-the-club threat if the new type is not too unproductive, i.e., $\theta_{new} \in [\bar{\theta}(N + 1)/N, \tilde{\theta}]$. That is, even though such a type is weaker than all current members, it would, if admitted, contribute to the deepening of the organization in the sense of increasing the coercion effort level. For all weaker types $\theta_{new} > \tilde{\theta}$, the increase in the threat of an inner organization does not suffice to compensate the higher effort cost, and widening reduces the scope for deepening. Finally, the two effects go in the same direction when the previously weakest type $\bar{\theta}$ is only slightly stronger than the new type $\theta_{new} \in [\bar{\theta}, \bar{\theta}(N + 1)/N]$. Accordingly, widening increases both the privately optimal effort choice of the weakest type and the coercion effort, as in the case when the new member is more productive than type $\bar{\theta}$.

II. The Evolution of the European Union and the Threat of an Inner Club

In the **Treaty of Rome 1957** the Benelux countries, France, Germany, and Italy created the European Economic Community (EEC) through which they committed themselves to promoting

trade and exchange in an "ever closer Union." They also called upon the other peoples of Europe sharing their ideals to join, opening hereby for new members, provided they would satisfy certain criteria. To reassure national electorates, most important decisions would be taken by unanimity in the Council, the main decision-making body representing all national governments. The Union has subsequently been enlarged in five rounds, and the Treaty of Rome was revised many times.

The Maastricht Treaty 1993 and the subsequent formation of the European Monetary Union (EMU) is probably the most fitting illustration of our model. The successive accessions of the United Kingdom, Ireland, Denmark, Greece, Portugal, and Spain, completed in 1986, had significantly increased the Union's heterogeneity in terms of the desire for deeper integration and costs of reform. During the second half of the 1980s, EC Commission President Jacques Delors and the stronger members had pushed for further integration, often under a thinly veiled threat to form an inner core. The Treaty of Maastricht made this threat explicit with the creation of the European Monetary Union. The treaty specified strict criteria for joining this club-in-the-club, requiring reform efforts particularly painful for countries with large budgetary problems, such as Greece and Italy. The formation of a monetary union and the creation of a joint currency had many benefits that would accrue only to participating members; the deadweight loss from trade diversion would, however, be carried by all club members. Few observers anticipated at the time that all countries eventually would be able to meet the criteria. The EMU process led to a revitalization of the European integration process and a phase of growth.

The Treaty of Amsterdam 1999: Eastern Enlargement was more or less certain to happen, and some member states were threatening to proceed beyond macroeconomic coordination,[2] when European leaders incorporated "closer cooperation" in individual policy areas as an institution of the EU. A subset of member states, at least eight, could proceed with deeper integration, provided the European Council authorized such closer cooperation with qualified majority.[3] Furthermore, the Amsterdam Treaty extended qualified majority voting to a few additional areas.

The Reform Treaty 2007, yet to be ratified by member states, is the result of a drawn-out process to address the institutional challenges posed by the Eastern Enlargement. The treaty incorporates most of the revisions from the Nice Treaty of 2003 and important elements of the rejected Constitution. Under the new rules for "enhanced cooperation" in the Reform Treaty ("closer cooperation" in the Amsterdam Treaty), the requirement of a minimum of eight members remains, but after enlargement this represents less than a third, rather than more than half, of member states. The Reform Treaty follows the Nice Treaty in assigning more firmly the responsibility to coordinate enhanced cooperation to the European Commission.[4]

The Reform Treaty extends qualified majority voting to 20 new policy areas, such as energy policy and humanitarian aid, leaving only key areas to be decided unanimously (including tax, social policy, defence, foreign policy, and treaty revisions). The Reform Treaty also redefines qualified majority voting into double majority voting, requiring a minimum of 55 per cent of Member States representing a minimum of 65 per cent of the EU's population to pass legislation. Thus, the European Union responded to increasing heterogeneity by weakening the veto rights of individual Member States and, more recently, by lowering the bar for passage in the European Council. The hope is that these changes will help maintaining the reform pressure.

III. Majority Voting and the "Club-in-the-Club" Threat

Our theory argues that the threat of forming a club-in-the-club can be a powerful instrument to make weak members work harder for common goals. To date, the EU has remained a club of states with equal membership rights; the threat has not yet been executed. Rather, the Union increasingly uses, or intends to use, qualified majority voting, an instrument offering a substitute mechanism for making less committed member states increase their efforts. Where a qualified majority

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[2] For example, French President Jacques Chirac and German Foreign Minister Joschka Fischer both explicitly proposed that a subset of EU members should pursue integration further.

[3] In other words, both a majority of member states and qualified majority of votes were necessary.

[4] Part III, Title VI, Chapter III, Article III-322-329 in the Reform Treaty.

governs a policy area, the EU-wide contributions for public goods are higher than the ones the weakest member would force upon the others by using their veto power. Qualified majority voting thus takes away power from individual member states. Consistent with our theory, the policy areas in which enhanced cooperation is allowed largely overlap with those where qualified majority voting applies, suggesting that, indeed, they are substitutes.

In the simple model brought forward in this paper, a move from veto to majority voting can be conceptualized as follows. When an entrant is weaker than the weakest of the incumbent member states, the weakest incumbent may prefer qualified majority (in the extreme, unanimity minus one) to unanimity, because otherwise effort falls too much. The club would thus prepare itself for the accession of weaker countries by changing the voting rights.

In a more general setting (Berglof et al. 2007), we show that when the heterogeneity among members of a club increases, the threat of a club-in-the-club may be executed. This provides a strong rationale to engage in the costly process of transforming the voting rights to a qualified majority. When members of a club ex ante do not know precisely what their relative position with respect to some policy areas will be, they may indeed agree to give up their right to veto ex ante to avoid the formation of an inner club ex post.

This leads us to the crucial question of whether the threat of forming a club-in-the-club will ultimately be executed, and what the consequences would be. Notice that a member state not ratifying the Reform Treaty (and, before that, the failed Constitution) faces the prospect of not participating in the integration process laid out in the document. Presumably it would instead have to join some looser, yet to be defined, organization, possibly akin to the European Economic Area. EEA member states are essentially subject to the same rules as EU members, but without the right to participate in the process through which these rules are adopted. Such exclusion could be very costly, particularly if a country found itself alone. However, there would also be costs for the Union from having an important country, say the United Kingdom, excluded in this way.

There is yet another consequence of a club-in-the-club actually materializing. Consider the EMU, potentially a first inner club for countries wanting not only monetary integration, but also integration of financial regulation and supervision. Nonmembers have been keen to ensure that the option of EMU as an inner club is not pursued. In particular, for new EU members who seem unlikely to meet the Maastricht criteria in the near future, the EMU increasingly appears as a club-in-the-club potentially diverting trade and investments from them. As a result such a club-in-the-club would also decrease the value of acceding to the Union. Berglof and Gérard Roland (1997) have argued that membership in the EU provided applicant transition countries with a powerful outside "anchor" when bringing about institutional changes. Mike Burkart and Klaus Wallner (2000) have provided a formal theory of this effect, still clearly visible particularly in the countries of Southeastern Europe. Such a weakening of the "soft powers" of the Union from a club-in-the-club actually forming is an additional risk that needs to be considered when revising the treaties.

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