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Working Paper

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CESifo Working Paper, No. 2076

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Suggested Citation: Konstantinidis, Nikitas (2007) : Gradualism and uncertainty in international union formation, CESifo Working Paper, No. 2076, Center for Economic Studies and ifo Institute (CESifo), Munich

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GRADUALISM AND UNCERTAINTY IN INTERNATIONAL UNION FORMATION

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CESIFO WORKING PAPER NO. 2076
CATEGORY 2: PUBLIC CHOICE
AUGUST 2007

PRESENTED AT CESIFO VENICE SUMMER INSTITUTE, WORKSHOP ON 'REINVENTING EUROPE', JULY 2007
SUPPORT BY THE WGL LEIBNIZ ASSOCIATION WITHIN THE PROJECT "HOW TO CONSTRUCT EUROPE"

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CESifo *Working Paper No. 2076*

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Abstract

This paper introduces a new theoretical framework of international unions qua coalitions of countries adopting a common policy and common supranational institutions. We introduce a general class of non-cooperative spatial bargaining games of coalition formation among three countries in order to examine the endogenous strategic considerations in the creation and enlargement of international unions. Why would we observe a gradualist approach in the formation of the grand coalition even if the latter is assumed to be weakly efficient? We propose uncertainty about the benefits of integration as a mechanism that can generate gradual union formation in equilibrium. As it turns out, it may well be in the 'core' countries' interest to delay the accession of a third, peripheral country in order to i) stack the institutional make-up of the initial union in their favor and ii) signal their high resolve to wait out the expansion of their bilateral subunion. A related case from the European Union provides an interesting illustration.

JEL Code: F53, C72, D82.

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Draft: July 2007
Prepared for the 2007 CESifo Venice Summer Institute "Reinventing Europe".
I would like to thank my advisors John Londregan and Andrew Moravcsik for their invaluable guidance as well as Adam Meirowitz, Thomas Romer, and Thomas Palfrey for their helpful comments and our useful discussions while at Princeton University. I have also greatly benefited from personal discussions with Paola Conconi, Abdul Noury, Micael Castanheira, André Sapir, Paul Magnette, and Pisani-Ferry while at ECARES/ULB and helpful feedback during my presentations at APSA 2006, MPSA 2007 and the ECARES/ULB Economics Seminar.

I. Introduction

The recent proliferation and expansion of international cooperation agreements and institutionalized regimes has attracted the attention of scholars from various disciplines. The ensuing shift in the locus of domestic and foreign policy formation to the supranational arena makes it all the more necessary to study the origins and evolutionary dynamics of these supranational structures from both an empirical and theoretical standpoint. Especially in the European context, it is of indisputable significance both from a scholarly and a policy-making perspective to make sense of the intricate map of international cooperation within an enlarged European Union of twenty-seven or more members.

This paper introduces a formal game-theoretic framework elucidating various aspects of the *variable geometry* and the dynamics of international union formation with a focus on European integration. We wish to study questions about the coalitional dynamics of international union formation and piece-meal widening of a union. In a non-cooperative game of international union formation where the *grand* union is weakly efficient, why would we ever observe delay in the formation of the *grand* union? For example, why did formerly eligible countries like the UK, Denmark, Austria, and Sweden join the European Community at a much later time? Naturally, we are particularly interested in endogenous strategic considerations in the creation of a union by a core of countries rather than exogenous changes in the geopolitical and geoeconomic environment (which rendered for example newly democratized countries like Greece, Spain, and Portugal or former communist countries eligible candidates at some later stage of the union formation process). Countries such as Greece, Spain, and Portugal and the former communist Central-Eastern European countries were invited to join the existing Union soon after they became politically (i.e. democratic) and economically (i.e. liberalized market economies) eligible. These latter cases may be plausibly modeled by postulating exogenous (mainly geopolitical) constraints to entry that cease to bind at some point in time.

Starting from the empirical observation of gradualism and piece-meal expansion of international unions and regimes (including to various degrees ASEAN, MERCOSUR, NAFTA, and the African Union) in the absence of clearly perceived shocks to the global (or even regional)

geopolitical and economic system, we propose *strategic delay* in the supranational bargaining process as a theoretical explanation. International cooperation and regional integration agreements are usually initiated by a core of 'natural' partners, who wish to reap the immediate gains from cooperation. Hence, even without the formalization of arbitrary eligibility criteria, other aspirant members are at first effectively excluded from the 'enacting' coalition only to join later at more unfavorable institutional and policy terms. So even when the inclusion of a wider collectivity of states has always been Pareto efficient, the formation of the enlarged coalition is *strategically delayed* by the founding signatories for reasons to be explained.

While the emphasis among international relations scholars has been primarily on the rationale for international cooperation agreements, their enforceability and their general effect on the conduct of international relations, this paper seeks to shift the focus to the evolution of member composition and institutional design of such *regimes*. Given the general consensus among political scientists and economists on the existence of 'mutual gains' in international cooperation – effectively amounting to a Pareto-improving response to international policy spillovers and externalities intrinsic within a globalized environment of interdependence –, the general arguments of the paper concentrate on the strategic calculus of surplus distribution in union formation taking efficiency considerations for granted[3]. To that effect, we introduce a general class of non-cooperative spatial bargaining games with $N = 3$ players, in order to allow for the possibility of subcoalitions and endogenous enlargement with *strategic delay*.

To tackle some of the above questions we make use of positive political economy[4] models theorizing about the strategic interaction of states in the realm of international cooperation. The

[3] In the background lie related normative questions on the institutional reform of the EU addressing the optimal allocation of responsibilities between supranational bodies and the member states. At the core of this ongoing debate on the optimal governance structure of the enlarged EU lies the trade-off between flexibility and commitment (see Dewatripont et al., 1995, Ch. 3). On one hand, the proliferation of diverse member-states and areas of cooperation intensifies the need for increased flexibility in the supranational decision-making processes and the structure of further integration, while, on the other hand, the expansion of the Union necessitates stronger constitutional commitment to the *acquis communautaire* in order to lock in the achieved gains of existing integration. The issue of institutional flexibility was partially addressed by the Treaty of Nice (signed in February 2001 and ratified in February 2003), which admittedly fell short of far-reaching institutional reform. The failure of the European Constitutional Convention indicates that the right balance between the two still remains elusive.

[4] Even though the methodology is primarily derived from economic models, the theory does not limit itself to strictly economic variables in explaining the coalitional dynamics of integration. It is flexible enough to accommodate non-economic explanations of integration, such as geopolitical considerations and 'security externalities' (see Gowa, 1994).

rise of supranationalism does not necessarily imply the decline of the nation-state, which is why we use the latter as the main unit of analysis. For the most part we treat countries as unitary actors and international unions as coalitions among states. Particularly prevalent within the realist tradition in international relations theory, the unitary actor assumption treats democratically elected governments as representative agents seeking to maximize the welfare of the average (or *median* in the unidimensional case) citizen or just some other aggregated national objective. Adding special interests and preference heterogeneity within countries gives rise to the possibility of strategic delegation and cross-country popular alliances and is more conducive to the 'liberal intergovernmentalist' (Moravcsik, 1998) approach to regional integration and national preference formation. This nuanced analytical perspective is much more pervasive among economists in the political economy literature of regional integration (see for example Brou and Ruta, 2004). In the same vein, we talk about *states* not *governments*, thus abstracting away from micropolitical considerations of vote maximization; our macrorealist perspective is essentially predicated on the assumption of domestic political consensus with respect to a country's perceived core national interests in the pursuit of international cooperation[5]. In the bulk of the analysis, we choose to subsume these important micro-level questions of national preference formation within exogenous assumptions. Furthermore, we refrain from examining the actual sources of surplus gains of international cooperation (in any given area) for the main reason that the focus is on the coalitional and bargaining dynamics within the context of an international union. In essence, this is a theory of 'grand bargains' among states rather than an institutionalist account of the workings and policy-making functions of supranational bodies. The formal nature of the approach renders its results generalizable to other cases of gradual coalition formation among states in the pursuit of international cooperation.

We offer one particular mechanism that can generate *strategic delay* in the formation of the *grand* union: *private information* over the synergistic benefits generated by unions of which a country is a member. According to the proposed theory, uncertainty over the exogenous coalition

[5] Our case study on French EEC policy in the 60s analyzes for example the various policy shifts that took place despite the continuous dominant presence of Gaullists in power (initially General de Gaulle himself followed by his ideological heir and successor Pompidou). Of course, the assumption of continuity in economic and political integration policy across partisan lines is just an analytical simplification, not an empirical iron law. Gruber (2000), however, provides a theoretical explanation for the scant evidence of radical policy shifts with respect to decisions of accession to and/or secession from international regimes by ideologically distinct governments.

surplus may result in *strategic delay* through a separating signaling mechanism, whereby high types choose to initially participate in a smaller union in order to shape the terms of enlargement to their benefit. In other words, we interpret the bandwagoning phenomenon in union formation and expansion as a war of attrition game, whereby states place themselves temporally on the coalition-building process in an attempt to signal their resolve in waiting out the formation of the Pareto efficient *grand* union. In equilibrium, the proposal order affects the order of entry to the coalition, which in turn is a strong predictor of surplus allocation.

The next section provides a brief review of the breadth and scope of the political science literature on international cooperation with a particular emphasis on European integration as well as an account of the positive political economy literature on international unions. The subsequent section consists of our spatial bargaining model of union formation examining *uncertainty* as a source of gradualism in union enlargement. By manner of empirical justification, we further proceed to show how our theory applies to the case of the first enlargement of the European and Economic Community, focusing in particular on the French-German-British triptych and the bargaining dynamics between those three major actors with respect to British accession to the EEC. The concluding section examines possible extensions, summarizes some of the implications of the model, and evaluates the merits of the utilized methodological techniques.

II. Related Literature

The content and methodological approach of this paper draws from a variety of related work on both positive and normative aspects of international union formation and policy coordination and relates to diverse strands of literature in both economics and political science. It falls within the general field of positive political economy with an application to regional integration.

The political science literature on international cooperation has been dominated by International Relations theorists of various traditions. The early debate on the theoretical and empirical relevance of supranational institutions was instigated by the neoliberal school of thought, giving

rise to large body of work collectively dubbed as *regime theory* (Keohane, 1984; Milner, 1997; Slaughter, 2004). Their focus on the 'mutual gains' rationale for international cooperation in an anarchic world came as a rebuttal to the Waltzian realist mantra of power politics and national interests, which deemed the emergence of supranational institutions as epiphenomenal to the existing balance of power and essentially inconsequential within the system of international relations. However, the acceleration of the European integration project and the proliferation of regional and global institutions in the 80s shifted the focus of the neorealist critique from the Pareto efficiency of international regimes (Krasner, 1983) onto the 'relative gains' of their participants and enforceability of those decentralized structures (Grieco, 1988 & 1990; Mearscheimer, 1994/5). Sharing a common rational choice methodological perspective, the emergence of a neoliberal-neorealist consensus on the importance, causes, and effects of supranationalism has gradually given way to the analysis of distributional considerations in the evolution and design of those institutions. Gruber (2000) for example views international regimes not simply as *incomplete contracts* or *focal points* in the selection of multiple equilibria of coordination (as 'new institutionalists' are more than apt to do), but essentially as the manifestation of 'go-it-alone' power by rational 'enacting' governments seeking to restrict the choice set of domestic opponents and *peripheral* states[6]. He makes use of a power argument in order to explain the bandwagoning phenomenon of union widening as well as the stability of those supranational institutional arrangements. In a similar vein, the game-theoretic argument of this paper seeks to contribute to our understanding of the dynamics of union formation and expansion and of their institutional design.

European integration studies[7] in particular have profited from extensive scholarly work from various fields of political science, albeit based on different disciplinary foundations and theorized at different levels of abstraction and generalizability (see Verdun, 2005). American accounts of European integration tend to be more interdisciplinary in nature and more deductive

[6] Gruber (2000) is critical of the neoliberal-realist consensus on the Pareto efficiency of international regimes and is mostly interested in the winners vs. losers dimension of international cooperation, arguing that it is often the case (citing NAFTA and the European Monetary System as his primary examples) that some late signatory countries to such regimes are better off in an autarchic *status quo ante* of no cooperation than their current state of wider integration. However, the *status quo ante* has been removed from their choice set by the *fait accomplit* of partial integration, thereby rendering the costs of joining an existing international cooperation agreement lower than those of staying out.

[7] For a concise literature review of approaches to the study of European integration see Hix (1994; 1998).

from an epistemological point of view. Mostly influenced by IR/IPE theories of international cooperation, such as *regime theory*, American scholars tend to regard the European project as a particular example of an exceptionally institutionalized *regime* of international cooperation and a particular affirmation of generalized theories of union formation and regional integration. Europeans, on the other hand, take on the whole a more empirical, particularistic approach making ample use of the methodological techniques of comparative politics and public policy. They view the European Union as a *sui generis* supranational state-like entity and as a result are loathe to export the conclusions derived from empirical analyses of various areas of supranational policy-making to other less institutionalized international regimes (such as Mercosur, NAFTA, and ASEAN)[8]. The stark difference between the two approaches lies in the fact that the former theorize about the European Union as an international regime, whilst the latter regard it as a peculiar political system combining various aspects of domestic statehood. This highlights the need for a multidisciplinary approach (political economy) to bridge the gap (Verdun, 2005) and to bring studies of European integration back to the mainstream of political science and out of their disciplinary insulation.

Economists have of late forcefully entered the interdisciplinary field of integration studies by drawing on well-established theories in the fields of public and international economics. Highly influential in these models has been the public economics literature on *fiscal federalism* and *decentralization* (e.g. Oates, 1972 and 1999; Besley and Coate, 2003; Hafer and Landa, 2005; Persson and Tabellini, 1996a; Bureau and Champsaur, 1992; Cremer and Palfrey, 2000), which examines the welfare and distribution effects of federal and/or decentralized government structures on the provision of public goods. Economists also tend to focus on the political economy of macroeconomic international coordination as in the case of monetary integration (Persson and Tabellini, 1996b; Casella, 1992b) as well as regional redistribution (Bordignon et al., 2001; Casella, 2005; Lockwood, 2002). Closely related to the phenomenon of economic integration and drawing from the field of public finance is the *theory of clubs* and overlapping jurisdictions (Casella and Feinstein, 2002; Roberts, 1999), which models the interaction between

[8] See Caporaso et al. (1997) for a conclusive debate on whether the European Union constitutes a unique case (or the N=1 debate).

markets as sets of rules for the exchange of private goods and institutions as organizations for the provision of public goods.

The above theoretical bodies of work have recently spawned a fast-growing literature on the *political economy of integration and international unions* (e.g. Alesina et al., 2001 and 2005; Alesina and Spolaore, 2003; Baldwin, 1993; Bolton and Roland, 1997; Bordignon and Brusco, 2001; Brou and Ruta, 2004; Ellingsen, 1998), which mainly consists of positive game-theoretic models of the economic incentives of integration and/or secession (on secession see Bordignon and Brusco, 2001) as well as the economic determinants of country and union size, often yielding normative conclusions on constitutional design[9]. These papers take a non-generic approach to the specification of union benefits by modeling an international union as an efficient central provider of a public good, characterized by economies of scale and spillovers across union (and non-union) members, as in Alesina et al. (2001 and 2005). This modeling approach has been amply applied to explain the coalitional dynamics of European monetary integration and currency unions (Alesina and Grilli, 1993; Casella, 1992a) and to design the optimal membership rules to EMU - whether through rigid membership criteria or gradual expansion through flexible rules of integration (see Fratianni, 1998; Pisani-Ferry, 1995). On the basis of the theoretical results of these models, a number of economists have ventured to contribute to the ongoing debate about the institutional structure of the European Union (see for example Alesina and Wacziarg, 1999; Alesina and Perotti, 2004; Jacquemin and Sapir, 1995)[10].

In contrast to Alesina et al.'s (2001, 2005) emphasis on the stability and size of equilibrium unions in light of public good spillovers, the focus of this paper is on the bargaining dynamics of the coalition formation game and the strategic incentives inherent in negotiating the formation of an international union of countries. In what follows, we analyze the case of a three-country regional setting through non-cooperative spatial models of bargaining, in order to gauge the extent to which the dynamic process of union formation can be explained by endogenous strategic factors, such as *uncertainty*. We essentially focus on the three-country case so as to

[9] For a brief survey of economic theories of (dis)integration see Ruta (2005).
[10] The Center for Economic Policy Research issues yearly reports on various issues of European integration providing the opportunity for political economists to contribute to policy-making debates within the context of the European Union (see for example Berglöf et al., 2003 and Dewatripont et al., 1995). On the debate on uniformity vs. flexibility in the face of enlargement also see Scott and de Burca, 2000 and Steunenberg, 2002.

allow for the creation of subcoalitions and endogenous enlargement in the gradual formation of the *grand* coalition of countries.

III. Gradualism in a Signaling Game of Union Formation

Our modeling approach consists of a combination of simple unidimensional spatial analysis together with non-cooperative games of coalition formation to model policy centralization within an international union (e.g. EU). The spatial approach is based on the interpretation of an international union (or regime) as a commitment device to coordinate policy across countries and is better suited to analyze the bargaining aspects of union formation and/or policy coordination compared to the public goods approach in the public economics literature of international unions. It also provides for a parsimonious formalization of the liberal intergovernmentalist (Moravcsik, 1998) theory on the 'grand bargains' of EU treaties and/or international cooperation in distinct policy areas (e.g. EMU). The coalition formation approach, on the other hand, is permeated by the notion of international unions as coalitions among countries adopting a common supranational policy and institutional structure. The unidimensional policy variable may hence be construed as the 'institutional terms of accession to a union' or a supranational public good affecting the utility of coalition members (and even non-members allowing for externalities).

The underlying cooperative game of coalition formation prescribes the set of players N (or in this case countries using the unitary actor assumption) as well as the *value* or *worth* $v(c) \in \Re$ of each coalition of countries $c \subseteq N$. The source of these exogenous coalition benefits or just 'functional synergies' is not explicitly modeled but is implicitly linked to the emerging economic and political interdependence among countries in the era of globalization. The pure public goods nature of these benefits renders them indivisible, while the unidimensional policy variable serves as an imperfect (because of insufficient dimensionality) allocation device of coalitional surplus. Hence, in this imperfect transferable utility model of international union formation, utilities are linear with respect to policy and exogenous indivisible benefits.

In these models we will generally employ a typical assumption used in the coalition formation literature, whereby the *grand* coalition is weakly efficient. This contingency is what we refer to as *weak superadditivity* in the underlying structure of the cooperative game, i.e. the total *worth* of the *grand* union is greater or equal to the sum of the *worths* of any constituent subunions or – prosaically put – *the whole is better than the sum of its parts*. Otherwise, it would be trivial to explain why the *grand* coalition doesn't form or even impossible to explain the gradual formation of the *grand* coalition[11]. Formally:

> **<u>Weak Superadditivity</u>:** $v(N) \geq \sum_{c \in \pi} v(c, \pi) \;\; \forall \pi, c \in \pi$, where π denotes any partition of the set of players N.

In what follows, we explore a multilateral non-cooperative bargaining game over coalition formation and common union policy for the simple case of $N = 3$ countries. In this simple context, we examine the implications of private information over the size of the exogenous benefits for the potential of *strategic delay* in the formation of the *grand* coalition (i.e. whether coalition formation is gradual or immediate) and whether it actual forms or not. We use a common modeling framework that consists of a linear absolute deviation utility function and a dynamic bargaining protocol with equal recognition probabilities, thus shying away from risk aversion and inequality in agenda-setting power as possible sources of *strategic delay*. The use of a random recognition protocol is just an abstraction for more institutionalized enlargement negotiations, whereby an aspirant member may first have to receive candidate status by the existing members and then negotiate the exact terms of accession subject to unanimous approval. We generally restrict our attention to the bargaining equilibria that exhibit gradualism in the formation of the *grand* union of all three countries concerned. As it turn outs, gradualism by dint of *strategic delay* may only come about once the more recalcitrant of the founding members gets to propose first.

Using the above parsimonious three-country setting, we wish to demonstrate how the existence of private information about the synergistic benefits of any given coalition can hamper political

[11] Unlike earlier models in coalition theory, recent non-axiomatic work on coalition formation with externalities does not necessarily predict the emergence of the *grand* union (unlike the cooperative solution concepts of the *core* and the *Shapely value*).

compromise at an earlier date thus giving rise to inefficiencies in the bargaining process. So long as any country may not correctly anticipate the synergies inherent in a political union wherefrom it is excluded, equilibrium delay in the bargaining process essentially arises as a cost of extracting information about one's marginal contribution to the *grand* coalition. Along these lines, any ideological demand over the ideological make-up of a proposed union is construed as a credible signal of how much a country stands to gain on the valence dimension from cooperating with any subset of its potential coalition partners. The model seeks to highlight the strategic trade-off between joining a political union as a founding member at less than favorable terms and waiting for a better accession deal at a later point in time that essentially permeates the dynamic process of European integration and expansion. The dynamic interaction between France, Germany, and the UK in the early days of the European Community constitutes the interesting case at hand and will be analyzed in the next section.

We make use of a dynamic, two-period spatial bargaining model of coalition formation with private information over the joint 'gains from trade' intrinsic to any bilateral coalition of countries. Let $i = A, B, C$ denote countries as unitary actors bargaining over the creation of unions at specific policy terms $x_c \in X$, where c represents any non-empty subset of $N = \{A, B, C\}$, i.e. $c \in 2^N / \varnothing$,and $X \subseteq \Re$ denotes the single policy (or ideological) dimension over which bargaining takes place. To avoid confusion, we denote *coalition structures* as $c(x_c) / \{N - c\}, |c| \geq 2$, where c denotes a bilateral or trilateral union with common policy x_c, otherwise *A/B/C* denotes the fully autarchic coalition structure. We introduce preference heterogeneity over policy by assuming distinct country-specific ideal points on the line of real numbers $m_A < m_B < m_C \in X$, where the letter m denotes the bliss point of the median voter in the country. As long as any subsets of countries agree to coordinate on a common policy $x_c \in X$, then each member of that coalition (or political union) reaps the common coalition benefits $y_c \geq 0, c \in 2^N / \varnothing$ [12]. Note that the assumption of *weak superadditivity* guarantees that $y_c \leq y_{c'}, c \subseteq c' \in 2^N$, i.e. the *grand* coalition *ABC* is weakly efficient and any bilateral union of

[12] A political union is basically viewed as an economic club that yields excludable and indivisible common benefits, given that any such synergistic relationship between sovereign nation-states is embedded within a broader environment of economic interdependence through trade and exchange of people, ideas, and factors of production (which is the standard view of the engine of integration in post-WWII Western Europe).

countries may not generate strictly higher 'gains from trade'. Moreover, we do not allow for any *policy externalities* across countries; hence, autarchy yields no exogenous benefits *per se*, i.e. $y_i = 0, i = A, B, C$. It remains the case that in a subgame-perfect equilibrium, *autarchic* policy coincides with the median ideal point in each country as a direct consequence of the Median Voter Theorem[13]. To keep things simple, utility takes the linear absolute deviation form $U(m_i; x_c; y_c) = -|x_c - m_i| + y_c, \ i \in c, i = A, B, C$[14].

We further postulate the following set of technical assumptions with respect to the *worth* of the *grand* coalition *ABC* and the spatial configuration of median ideal points (see figure 1):

<u>Assumption 1</u>: $m_C \in [m_B + (m_B - m_A), m_B + 2(m_B - m_A)]$

<u>Assumption 2</u>: $m_C - m_A \geq y_{ABC} \geq m_C - \frac{m_A + m_B}{2} > \frac{2}{3}(m_C - m_A)$

The first assumption essentially implies that preference-wise the 'moderate' country *B* is closer to *A* than *C* and thus *A* and *B* are the 'natural', 'core' partners in any pairwise coalition, while *C* is spatially *peripheral* to the other two. By 'natural' partners we wish to denote a subset of countries that lie closer in terms of institutional structures, historical traditions, and economic fundamentals, which all make up for enhanced ideological contiguity in terms of policy preferences[15]. Moreover, according to assumption 2, the exogenous benefits associated with the *grand* union *ABC* are at such a level as to allow for meaningful policy negotiations over the ideological direction of the trilateral union but not high enough to make everyone's participation constraints trivially binding.

[13] Under autarchy, each country retains full sovereignty over the determination of its own domestic policy by democratic means. By the *Median Voter Theorem*, m_i is the only *Condorcet winner* in any pairwise election (or referendum). The no-coalition-externalities assumption implies that the autarchic, go-it-alone payoff of a country does not depend on the entire coalition structure, i.e. whether the other two players coalesce or not. See Maskin (2004) for an axiomatic extension of the *Shapely value* solution concept to allow for *coalition externalities* and *partition functions.*

[14] Note that by using this simple linear functional form we essentially assume risk-neutrality; therefore, risk aversion will not factor in our results. The common exogenous benefit of integration *y* essentially enters utility as an additive component that is orthogonal to the ideological policy dimension. This essentially represents the *economies of scale* property of the centralized provision of public goods within international unions.

[15] *Ipso facto* it is fair to argue that the founding members of the European Community for example (France, Germany, Italy, and the Benelux countries) constituted 'natural' partners in the formation of the union.

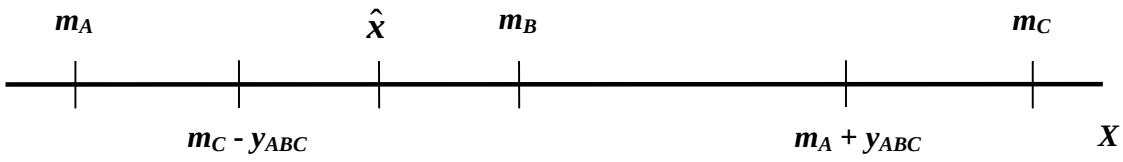

Figure 1: Spatial Configuration of Equilibrium Policy Proposals

In the model we introduce uncertainty by assuming that the representatives of each country *i* are only aware of the synergistic benefits generated by a union in which they participate, i.e. the members of any given union share private information over the *worth* of their coalition. Otherwise, any excluded partner holds uniform prior beliefs over the common benefits inherent in a potential union between the other two countries, i.e. for any country $k \neq i, j$, $y_{ij} \sim U_k[0, y_{ABC}]$, where y_{ABC} denotes the total *worth* of the *grand* coalition. An equivalent interpretation of this type of private information is that the representative of any country *k* does not know with certainty the level of his/her country's *marginal contribution* $y_{ABC} - y_{ij}, k \neq i, j$ to the *grand* coalition.

As for the *bargaining protocol* of the game, we assume two successive rounds of negotiations, where each country representative is randomly recognized with equal probability in each period regardless of the existing coalition structure[16]. Once recognized at time *t* = 0,1, the representative of country *i* makes an *unconditional*[17] union policy proposal $x_t^i \in X$, which may be accepted or

[16] We hence abstract away from the possibility that participation in a union at an earlier time enhances one's proposal prerogative at subsequent enlargement negotiations, which could alternatively form the rationale for gradualism by incentivizing early participation by means of enhanced bargaining leverage in subsequent expansion negotiations.

[17] This is just a technical assumption that simplifies the *conditional* proposal strategy set to X rather than $\times X$ as in the case of offers *conditional* on the proposed coalition $c \in 2^N / \varnothing$. Note that in tandem with the majority of papers on coalition formation we *only* allow for *conditional* offers, i.e. proposals that get implemented *if and only if* all parties involved concur. Gomes (1999), on the other hand, teases out the implications of allowing for both

rejected by the other countries $j,k \neq i$. A political union with common policy $x_t^i \in X$ will form at time *t* only between the proposing country and those who accept that proposal. Existing union policy may only be renegotiated subject to the unanimous approval of all its members. We further assume excessively high fixed costs of union disintegration, effectively implying that once created a union partnership may not dissolve or equivalently that a union member may not unilaterally withdraw[18]. An existing union may only expand its membership to the excluded country as long as all of the participating members agree to enlargement at the proposed policy terms[19]. The postulate of veto power in enlargement negotiations is avowedly one of the driving forces of the main result. Finally, the future is discounted at a common rate $\delta \in [0,1]$.

Before we proceed to describe the equilibrium, we introduce our final piece of notation:

> **<u>Notation</u>:** Let $\langle \quad_{t=0}, \quad_{t=1} \rangle$, where $\forall\ c \in \quad_{t=0}$, $c' \in \quad_{t=1}$, then $c' \not\subset c$ (no-union-dissolution assumption), denote a two-period coalition-formation path.
>
> **<u>Definition 1</u>:** A coalition-formation path $\langle \quad_{t=0}, \quad_{t=1} \rangle$ is called *comprehensive* if and only if the *grand* coalition *ABC* forms in either period 0 or 1, otherwise the coalition-formation process is *partial*.
>
> **<u>Definition 2</u>:** A coalition-formation path $\langle \quad_{t=0}, \quad_{t=1} \rangle$ is called *gradual* if and only if $\exists\ c \in \quad_{t=0}$, $c' \in \quad_{t=1}$ such that $c \subset c'$. Otherwise, it is *immediate*[20].

We focus on the <u>separating perfect Bayesian Nash equilibrium</u> of this sequential bargaining game to demonstrate how gradualism in the formation of the *grand* union *ABC* may arise as a consequence of private information. Each country *i*'s first-period proposal x_t^i essentially

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conditional and *unconditional* offers for efficiency and concludes that inefficient delay can be significant in superadditive games with small discount factors once *unconditional* offers have been ruled out.

[18] This assumption is closely related to Seidmann and Winter's (1998) concept of i*rreversibility* of coalition agreements, which once agreed upon become immediately enforced allowing the contracting parties to reap the related payoffs. Their implicit assumption is that the fixed costs of divesting a coalition agreement are so high that the latter becomes an enforceable outside option in the bargaining process.

[19] This assumption essentially reflects the unanimity requirement for EU enlargement.

[20] Seidmann and Winter (1998) offer an excellent theoretical account of the concepts of immediate vs. gradual as well as partial vs. comprehensive coalition formation.

functions as a signal of its type $y_{ij} \in [0, y_{ABC}]$ in a potential bilateral union agreement with another country *j*, which becomes tantamount to its resolve to wait out the formation of the *grand* union at more favorable policy terms. Taking country *A* for example, high y_{AB} types will want to credibly signal their strong type by proposing a transitory bilateral *AB* subunion agreement at time 0, in order to achieve greater bargaining leverage in the subsequent policy negotiations at time *t* = 1 by entrenching their position within a beneficial *status quo*. In that case, the excluded party *C* will recognize that only high y_{AB} types would find it in their interest to incur the cost (or reservation utility of partial coalition formation) of *strategic delay* in order to induce a better x_{ABC} proposal at time *t* = 1[21]. The more extreme (relative to *C*) of the 'core' countries, i.e. the one that has least to gain, will hold the enlargement process hostage, in order to achieve the best possible deal in the formation of the *grand* coalition *ABC*. We now proceed to formally demonstrate the workings of this *signaling* mechanism of *strategic delay*.

Restricting our attention to the proposal strategy of country *A*, we first state the equilibrium and then go on to describe it:

> **<u>Proposition 3</u>:** There exists a perfect separating Bayesian Nash equilibrium, whereby the representative of country *A* will propose $x_0^A = m_A$ in period 0 *if and only if* $y_{AB} \in [\tilde{y}, y_{ABC}]$ for some $\tilde{y} \in [y_{ABC} - (m_B - m_A), 2y_{ABC} - (m_C - m_A)]$, in which case coalition *AB* will form right away and may later expand to the *grand* coalition *ABC* at time *t* = 1 with strictly positive probability. Otherwise, for $y_{AB} \in [0, \tilde{y})$, *A* will propose $x_0^A = \hat{x}$ such that *C* is just indifferent between accepting and rejecting at time *t* = 0, in which case the *grand* union *ABC* will form immediately (see figure 1).

So for appropriate out-of-equilibrium beliefs, gradualism in union formation will ensue with positive probability for a non-degenerate support of high bilateral union types $y_{AB} \geq \tilde{y}$. Otherwise, country *A* finds it too costly to delay the immediate formation of the efficient *grand* coalition.

[21] In close similarity to the Cho-Kreps criterion for equilibrium refinement, our sequential equilibrium is supported by appropriate out-of-equilibrium beliefs to be specified later on.

Solving this sequential bargaining game backwards, let us first examine the proposal subgame in period 1 given an existing coalition structure $AB(m_A)/C$. Depending on its type, once recognized the representative of country *A* will either move to propose his/her ideal point for high enough values of y_{AB} in order to preserve the existing *status quo* $AB(m_A)/C$, or otherwise will propose $m_C - y_{ABC}$, which makes C's participation constraint just binding, thus leading to the formation of $ABC(m_C - y_{ABC})$ as a final outcome. Formally, *A*'s optimal proposal strategy at $t = 1$ in this subgame is the following:

$$x^{*A}_1 = \begin{cases} m_A, & y_{AB} \in \left(2y_{ABC} - (m_C - m_A), y_{ABC}\right] \\ m_C - y_{ABC}, & y_{AB} \in \left[0, 2y_{ABC} - (m_C - m_A)\right] \end{cases}$$

In equilibrium, *B* will accept any $x_1^A \in \left[m_A - (y_{ABC} - y_{AB}), 2m_B - m_A + (y_{ABC} - y_{AB})\right]$ *if and only if C* accepts too, otherwise he/she will only accept an amended *status quo* bilateral coalition *AB* such that $x_1^A = x_{AB} \in \left[m_A, 2m_B - m_A\right]$ conditional on *C*'s rejection. Finally, it is a weakly dominant strategy for *C* to accept any $x_1^A \in \left[m_C - y_{ABC}, m_C + y_{ABC}\right]$ regardless of *B*'s response, i.e. regardless of whether the *grand* coalition actually materializes or not[22].

Country *B* on the other hand will choose to move the *status quo* coalition structure if there is no *grand* coalition *A* will agree to, otherwise he/she will propose the *grand* coalition at the most favorable terms possible, subject to the approval of the other two negotiating parties. Hence, *B*'s optimal proposal strategy is as follows (the last column indicates the ensuing coalition structure):

$$x^{*B}_1 = \begin{cases} m_A, & y_{AB} \in \left(2y_{ABC} - (m_C - m_A), y_{ABC}\right] & AB(m_A)/C \\ m_A + y_{ABC} - y_{AB}, & y_{AB} \in \left(y_{ABC} - (m_B - m_A), 2y_{ABC} - (m_C - m_A)\right] & ABC(m_A + y_{ABC} - y_{AB}) \\ m_B, & y_{AB} \in \left[0, y_{ABC} - (m_B - m_A)\right] & ABC(m_B) \end{cases}$$

[22] Note that in order to ensure that the proposed equilibrium in pure strategies actually exists, we need that any country will accept a given proposal if indifferent between accepting and rejecting. We also make the tie-breaking assumption that any country will always vote for the larger coalition if indifferent between coalitions of different sizes.

Finally, once recognized the representative of country *C*, which was excluded from the initial union at time t = 0, will seek to maximize its expected returns from participating in the *grand* coalition *ABC* based on its beliefs about its *marginal contribution* $y_{ABC} - y_{AB}$. According to the proposed separating equilibrium, *C*'s updated Bayesian beliefs following $x_1^A = m_A$ will be such that $y_{AB} \sim U_C[\tilde{y}, y_{ABC}]$; therefore, an optimal proposal strategy for *C* would be to make *A* (the ideologically more extreme of the original union members relative to *C*'s position) just indifferent between coalition structures $ABC(m_C - y_{ABC})$ and $AB(m_A)/C$ in expectation, i.e.

$$x^{*C}_1 = \underset{x_1^C \in [m_C - y_{ABC}, m_C]}{\arg\max} \left\{ Prob\left(A\ accepts \setminus y_{AB} \sim U_C[\tilde{y}, y_{ABC}]\right) \times \left(x_1^C - m_C + y_{ABC}\right) \right\} =$$

$$= \underset{x_1^C \in [m_C - y_{ABC}, m_C]}{\arg\max} \left\{ Prob\left(y_{AB} \le m_A - x_1^C + y_{ABC} \setminus y_{AB} \sim U_C[\tilde{y}, y_{ABC}]\right) \times \left(x_1^C - m_C + y_{ABC}\right) \right\} =$$

$$= \frac{m_A + m_C - \tilde{y}}{2}$$

Of course, there is a positive support of types $y_{AB} \in \left(y_{ABC} - \frac{(m_C - m_A) - \tilde{y}}{2} . y_{ABC} \right]$ that will reject *C*'s proposal at time t = 1, thus giving *C* its autarchic equilibrium utility of 0 and essentially leading to the *ex post* inefficient outcome of partial coalition formation.

Now let the coalition structure at time t = 1 be *A/B/C*, namely the full autarchic *status quo*. The optimal proposal strategies in this subgame are as follows:

$$x^{*A}_1 = \begin{cases} m_A, & y_{AB} \in \left(2y_{ABC} - (m_C - m_A), y_{ABC}\right] \quad AB(m_A)/C \\ m_C - y_{ABC}, & y_{AB} \in [0, 2y_{ABC} - (m_C - m_A)] \quad ABC(m_C - y_{ABC}) \end{cases},$$

$$x^{*B}_1 = m_B, \forall y_{AB} \quad ABC(m_B), \text{ and}$$

$$x^{*C}_1 = \begin{cases} m_C, & y_{BC} \in \left(2y_{ABC} - (m_C - m_A), y_{ABC}\right] \quad A/BC(m_C) \\ m_A + y_{ABC}, & y_{AB} \in [0, 2y_{ABC} - (m_C - m_A)] \quad ABC(m_A + y_{ABC}) \end{cases}.$$

Finally, once the *grand* coalition has formed in the first period, its common policy may only be amended at time t = 1 *if and only if* $x_{ABC} \notin [m_A, m_C]$, i.e. its existing common policy lies outside of the unanimity *core*.

Reasoning backwards to the bargaining game in period 0, there are only two uniform support intervals of types y_{AB} that country A may credibly signal to country C in a separating equilibrium: low types $y_{AB} \in [0, \tilde{y})$, who will want to participate in the efficient union ABC as soon as possible, and high types $y_{AB} \in [\tilde{y}, y_{ABC}]$, whose transitory reservation utility in a gradualist equilibrium is high enough to justify *strategic delay* with the aim of eliciting a more favorable policy proposal from C at t = 1. Hence, there are only two credible common policy proposals $x_0^A \in X$ in equilibrium at t = 0: high types in favor of gradualism will seek to maximize their transitory reservation utility stemming from a subcoalition AB by proposing their ideal point m_A, which country B will unconditionally accept regardless of C's response, while C will obviously reject in favor of setting its own autarchic policy. Low compromising types, on the other hand, will immediately propose a common policy $x_0^A = \hat{x}(\delta) \in [m_C - y_{ABC}, m_B]$[23] (depending on δ), such that C would be just willing to join the *grand* coalition ABC right away, instead of waiting for a potentially more favorable deal at a later time, i.e.

$$\hat{x}(\delta) = \min\left\{x_0^A \in [m_C - y_{ABC}, m_B]; V_{t=0}^C\left(Accept\ x_0^A \setminus B\ accepts\right) = V_{t=0}^C\left(Reject\ x_0^A \setminus B\ accepts\right)\right\},$$

where V's denote period-0 continuation values. There exists a first-period common policy proposal $\tilde{x}(\delta) \in [m_C - y_{ABC}, m_B]$[24] such that for $x_0^A < \tilde{x}(\delta)$ there exists a positive support of low $y_{AB} < \tilde{y}$ types that will reject C's optimal period-1 proposal given its updated beliefs, i.e.

[23] It is clear from the above analysis that $\hat{x}(\delta) \geq m_C - y_{ABC}$, otherwise for $m_A \leq \hat{x}(\delta) < m_C - y_{ABC}$ C would never want to participate in a *grand* union ABC whose ideological make-up is so far skewed to the left that it yields less than its reservation utility of 0 throughout both periods, since it would not be able to amend it at time t = 1.

[24] Essentially $\tilde{x}(\delta)$ has to be such that $U_{t=1}^A\left(Acc\ x_1^{*C} = \tfrac{1}{2}(m_C + \tilde{x}); y_{AB} = \tilde{y}\right) = U_{t=1}^A\left(Rej\ x_1^{*C} = \tfrac{1}{2}(m_C + \tilde{x}); y_{AB} = \tilde{y}\right)$.

Hence, $\tilde{x}(\delta) = \frac{1}{18+13\delta}\left[2(6+\delta)m_A + 4\delta m_B + (6+7\delta)m_C - 6\delta y_{ABC}\right]$.

$$x*_1^C = \underset{x_1^C \in [m_C - y_{ABC}, m_C]}{\arg\max} \left\{ \Pr\left(A\ accepts \setminus y_{AB} \sim U_C[0, \tilde{y}); x_0^A \right) \times \left(x_1^C - m_C + y_{ABC} \right) \right\} = \frac{m_C + x_0^A}{2},$$ which

implies that C's rejection continuation value is quadratic, while for $x_0^A \geq \tilde{x}(\delta)$ all low types will accept $x*_1^C = \frac{m_C + x_0^A}{2}$, which implies that C's rejection continuation value becomes linear. So, in effect, the location of $\hat{x}(\delta)$ with respect to $\tilde{x}(\delta)$ will depend on the value of the discount factor $\delta \in [0,1]$. See figure 2 below for a graphical demonstration:

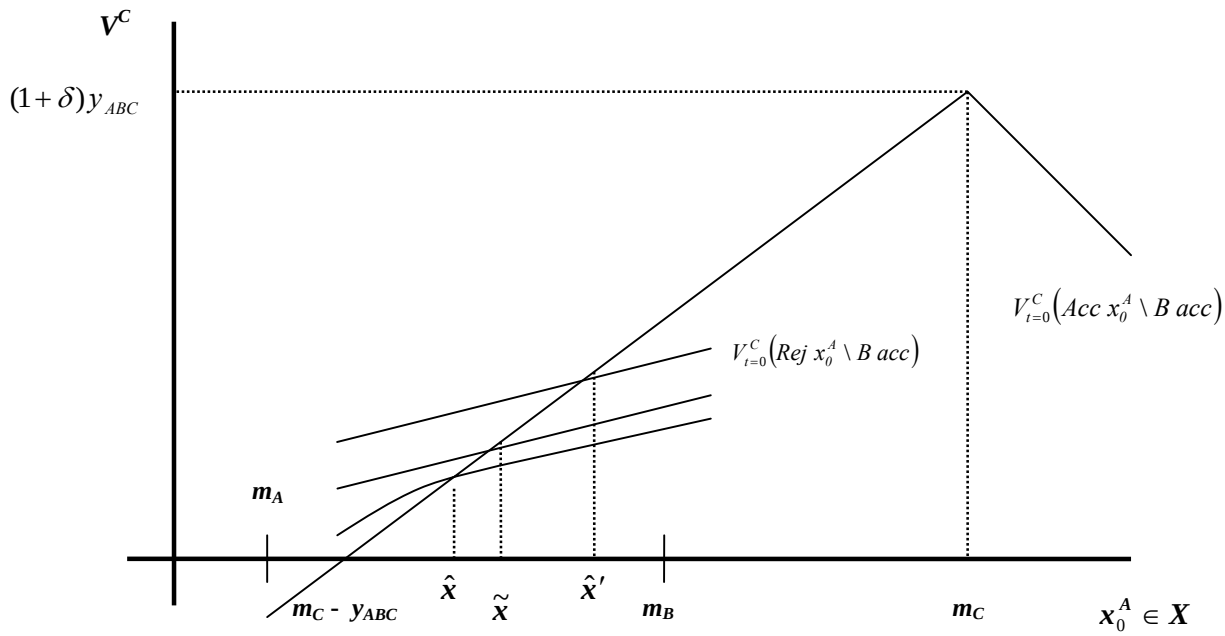

Figure 2: Graphical Determination of $\hat{x}(\delta)$

A threshold type $\tilde{y}$ has to be such that the representative of country A would be indifferent between the *immediate* $\langle ABC(\hat{x}), ABC(x_{ABC}) \rangle$ and the *gradual* $\langle AB(m_A)/C, ABC(E(x*_1^i)) \rangle$ equilibrium coalition formation paths. Hence, to ensure the incentive-compatible truthful revelation of types in period 0 within the context of the above separating equilibrium, the cutoff

type $\tilde{y} \in \left[y_{ABC} - (m_B - m_A), 2y_{ABC} - (m_C - m_A)\right]$ for country A will have to satisfy the following incentive constraint:

$$V^A\left(x_0^A = m_A; y_{AB} = \tilde{y}; \delta\right) = V^A\left(x_0^A = \hat{x}; \tilde{y}; \delta\right) \Leftrightarrow$$
$$\tilde{y} + \frac{\delta}{3}\left[2y_{ABC} - (m_C - m_A) + \tilde{y} + m_A - \frac{m_A + m_C - \tilde{y}}{2} + y_{ABC}\right] = (1+\delta)\left[m_A - \hat{x} + y_{ABC}\right] \Leftrightarrow$$
$$\tilde{y} = m_A + \frac{\delta}{2+\delta} m_C - \frac{2(1+\delta)}{2+\delta}\hat{x} + \frac{2}{2+\delta} y_{ABC}$$

In order to derive the above expression for $\tilde{y}$, we make use of the optimal proposal and acceptance strategies in the period 1 subgames analyzed above and also of the fact that the lowest of high types $\tilde{y}$ will always accept C's period 1 proposal $x*_1^C = \frac{m_A + m_C - \tilde{y}}{2}$ with certainty. Also note that each period 1 subgame equilibrium utility is discounted by a factor $\delta/3$ reflecting temporal discounting and equal recognition probabilities. Given the spatial location of $\hat{x} \in \left[m_C - y_{ABC}, m_B\right]$ derived above, it is fairly straightforward to confirm that the cutoff type $\tilde{y}$ indeed lies within the support interval $\left[y_{ABC} - (m_B - m_A), 2y_{ABC} - (m_C - m_A)\right]$.

In order to complete the characterization of the separating equilibrium starting with the representative of country A as the first-period proposer, we also need to specify the out-of-equilibrium beliefs for C. So let

$$\sigma_C\left(y_{AB} \setminus x_0^A\right) \rightarrow \begin{cases} y_{AB} \sim U\left[0, \tilde{y}\right), & for\ x_0^A \in \left[m_C - y_{ABC}, \hat{x}\right) \cup \left(\hat{x}, +\infty\right) \\ y_{AB} \sim U\left[\tilde{y}, y_{ABC}\right] & for\ x_0^A \in \left(-\infty, m_A\right) \cup \left(m_A, m_C - y_{ABC}\right) \end{cases},$$

where $\sigma_C(\cdot)$ denotes C's updated beliefs about A and B's reservation utility in the second bargaining round. In order to support A's equilibrium Bayesian proposal strategy, C will reason that only non-compromising, high types would ever make an initial policy proposal outside of C's *grand* coalition acceptance interval, i.e. strictly less than $m_C - y_{ABC}$, since C would never

accept such a proposal regardless of *B*'s response[25]. On the other hand, only compromising, low types seeking the immediate formation of the *grand* coalition would make an offer within that interval. Given that the above line of reasoning would be common knowledge, *A*'s prescribed strategy would indeed be optimal in equilibrium.

As it turn outs, in light of our assumptions on the efficiency of the grand coalition and the ideological configuration of the three players, the gradualist equilibrium of *strategic delay* may only come about once the more recalcitrant of the 'natural partners' gets to propose first. In essence, the agenda-setting power of the 'natural' or 'core' partners is not imposed *ex ante* as an exogenous prerogative but is rather rationalized *de facto* through the gradualist equilibrium of the model. In other words, the proposal order determines the order of entry into the union, which is crucial with respect to the endogenous formation of its ideological character and the ensuing allocation of its overall synergistic benefits.

Having explained how gradualism may arise within the context of a separating perfect Bayesian equilibrium, it is now incumbent to examine the efficiency properties of this equilibrium. From an *interim efficiency* perspective, the question arises whether there is an immediate *grand* coalition formation path $\langle ABC(x_{ABC}), ABC(x_{ABC})\rangle$ that makes everyone better off in comparison with the gradualist separating equilibrium path for high y_{AB} types, i.e. $\langle AB(m_A)/C, ABC(E(x*_1^i))\rangle$.

> **<u>Proposition 4</u>:** For a non-degenerate support of high y_{AB} types $[\tilde{y}, \tilde{y}+\varepsilon], \varepsilon > 0$, there exists an immediate *grand* coalition formation policy $x^*_{ABC} \in [m_C - y_{ABC}, m_B]$ such that $\langle ABC(x^*_{ABC}), ABC(x^*_{ABC})\rangle R_i \langle AB(m_A)/C, ABC(E(x*_1^i))\rangle$ for all $i = A, B, C$, where R_i denotes the weak preference relation.

[25] Note that, despite the fact that country *B* shares the same private information as *A*, we have omitted its response to *A*'s *t* = 0 proposal from the signaling mechanism, taking its acceptance for granted. In light of its 'moderate' ideological position on the real line *vis-à-vis* the other two actors, the representative of country *B* would always accept a compromising *grand* union proposal $x_0^A = \hat{x}$. However, it would only accept the gradualist equilibrium proposal $x_0^A = m_A$ for m_C high enough and/or δ low enough, in which case its initial acceptance strategy does not provide an informative signal to *C*. Otherwise, however, *A* would have to moderate its initial, gradualist proposal to the extent that *B* is just indifferent between $\langle AB(x_0^A)/C, ABC(x_{ABC})\rangle$ and $\langle A/B/C, ABC(x_{ABC})\rangle$.

Proof: *See Appendix B.*

Ex post inefficiency, on the other hand, ensues whenever *C*'s x^{*C}_{1} proposal gets rejected by *A* at $t = 1$, namely whenever the *grand* union *ABC* fails to materialize and the coalition formation process gets stalled in the partial coalition stage. In light of *C*'s non-degenerate beliefs about its partners' reservation utility, there is always a positive support of high types that will reject its period-1 proposal and, hence, the partial union *AB* will fail to expand, in spite of the existence of mutually beneficial enlargement policy deals. Note that in the absence of uncertainty about one's *marginal contribution* to the *grand* coalition *worth*, the unique equilibrium solution to the above two-period spatial bargaining game would prescribe **immediate** and **comprehensive** coalition formation and as such would necessarily be efficient. In other words, **partial** and/or **gradual** coalition formation paths in this model constitute sources of inefficiency.

Finally, it would be interesting to conjecture how the bargaining outcomes of the above model would be affected by *successive enlargement negotiations*. What happens when there is an exogenous increase in the pool of eligible expansion countries? An increase in the size of an existing union would seem to have a dual effect on the negotiated 'terms of accession' *vis-à-vis* the excluded candidates-in-waiting: 1) it would enhance the collective agenda-setting power of the union, since its members would have to negotiate and consent to enlargement *en bloc* and 2) it would mitigate the degree of uncertainty with regards to each candidate country's marginal contribution to collective welfare. The more entrenched and institutionalized an existing union is, the easier it is to gauge the potential effect of a new member on its collective synergies and policy orientation. For example, the strategic calculus and cost-benefit analysis inherent in the Southern and Eastern expansions of the European Community was much more clear-cut as compared to the first enlargement. This helps explain why the strict conditionality clauses imposed on the latest accession countries appeared as unduly harsh and unfavorable, even though these countries were much better off joining the EU than staying out (Moravcsik and Vachudova, 2003). Our model may thus provide a theoretical analysis of the gradual shift in the EU enlargement process from open-ended accession negotiations (as evidenced in the earlier waves of enlargement) to the more rigorous application of the *conditionality* principle (most notable in

the recent expansion from 15 to 27 and increasingly applied in ongoing accession negotiations with candidate-members)[26].

V. Case Study: UK Accession to the EEC

The early evolution of the membership and institutional set-up of the European Economic Community provides an interesting illustration of the above mechanism of *strategic delay* in union formation. Brought to life by the Treaty of Rome (signed and ratified by the founding members, namely France, Germany, Italy, the Netherlands, Belgium, and Luxembourg in 1957), the European Economic Community was a belated offspring of the European Coal and Steel and Community (created by the Schuman Plan and the Treaty of Paris in 1950[27]). The initial exclusion of the UK from the EEC led to the *de facto* division of Western Europe and gave rise to the *core* grouping of 'the Six' (also known as 'Little Europe'). On account of its heavy reliance upon its transatlantic and Commonwealth trade links, Britain did not show any interest in participating in such a novel economic and political integration project, especially if it had to cede much of its highly valued sovereignty over sensitive domestic policy areas. In the eyes of the British political establishment, the incipient EEC was a fragile and highly uncertain political experiment that could prove entirely unsuccessful and lead to the imminent collapse of the established supranational institutions. All the more reason for British abstention from the Treaty of Rome was the strong agenda-setting influence of the French on the institutional and political character of this new structure. Imbued by a high degree of supranationalism and bureaucratic *dirigisme* – a direct heir of the Monnet blueprint on the ECSC High Authority -, the EEC was both in character and design much more than an economic free trade association. As a

[26] Reluctance (or inability) on the part of candidate-members to pledge full adherence to the existing *acquis* points to the adoption of more flexible models of enlargement in the future by manner of 'privileged partnership' agreements and a more inclusive European Neighborhood Policy (http://ec.europa.eu/world/enp/index_en.htm). Quoting Enlargement Commissioner Olli Rehn in his recent speech at the Finnish Institute of International Affairs (27th October, 2006): "By keeping our word and sticking firmly to the accession perspective, we can create a virtuous circle of credible commitment, rigorous conditionality and reinforced reforms."

[27] In an application of their theoretical model of gradual coalition formation, Seidmann and Winter (1998) interpret the Treaty of Paris as an *irreversible* action on the part of France and Germany and as part of a gradual coalition formation process.

concession primarily to the French, the Treaty of Rome, whose main agenda comprised the completion of the common market and subsequently the integration of agricultural markets, also allowed for the possibility of international cooperation in both the political and social spheres. As a result, the British perceived their national interests and preferences to lie elsewhere; in pursuit of an export outlet for their industrial production, they opted instead for the looser economic grouping of the European Free Trade Association (signed into existence by the Stockholm Convention in 1959)[28], whose economically diverse and geographically scattered membership also included Denmark, Norway, Sweden, Switzerland, Austria, and Portugal. The EEC, however, remained according to the Treaty of Rome open to all Western European countries, subject to certain political eligibility requirements (i.e. no dictatorships) and as long as they fully accepted the *acquis communautaire*[29].

The first few years after the inception of the EEC, also known as the 'honeymoon years' (see Ludlow, 1997, pp. 22-26), were marked by great success and dynamism in the creation of the common market and the dismantlement of intra-EEC barriers to trade, which in turn sent a clear signal of high 'mutual gains' among the founding members and strong interest in the continuation and expansion of cooperation. That signal combined with a gradual shift in its trade patterns towards the major economies of the EEC (and away from its Commonwealth partners) led to a radical change in British policy towards Europe under the Conservative Macmillan government. As a result, the UK (together with Denmark, Ireland, and Norway) applied for EEC membership in 1961.

The extensive negotiations that followed between the EEC-6 and the new candidates focused on i) the harmonization of their domestic legislation with the extensive body of EEC legislation (collectively known as the *acquis communautaire*) through derogations and transitional periods, ii) their political weight in the supranational institutions, and iii) their financial contributions to the common budget. While the Dutch were the staunchest supporters of UK accession (given their strong political and economic links with the British), four of the other EEC members were also in favor each for its own reasons (see Ludlow, 2006, Ch. 6). Only the French appeared

[28] See Gstöhl, 2002 for an analysis of EC-EFTA relations.
[29] It should be noted that the Treaty of Rome did not specify any particular bargaining protocol for future accession negotiations other than that any enlargement decisions need to be agreed upon by unanimity (under Art. 237).

lukewarm towards the prospect of EEC enlargement (especially in the case of Britain), albeit not opposed to it in principle. They therefore presented the British with the biggest obstacles towards membership. Lest the negotiations be brought to a successful conclusion, General de Gaulle pronounced an effective veto upon British accession in a famous January 1963 press conference[30], in an attempt to preempt a potential *Yes* or *No* decision with respect to a fully negotiated but undesirable from the French point of view accession deal.

De Gaulle's unilateral and sudden decision to end accession negotiations by pronouncing 'Britain not ready for Europe' came to the *chagrin* of the 'Five' other EEC members and initially caused some disenchantment and malaise in the everyday workings of the Community, effectively slowing down the pace of integration. Even the Germans, who under Adenauer placed high political stakes in a French-German *rapprochement*[31] but were also eager to welcome a major trading partner and militarily powerful country like Britain into the Community, were negatively surprised by de Gaulle's actions; yet, apart from some ireful statements by politicians like Schroeder and Erhard, they chose not to confront France on the issue lest they jeopardize the heretofore achieved gains from cooperation and destabilize the internal institutional bargain of the EEC. Despite strong reactions by politicians of the other member-states, not one country chose to instigate the dissolution of the Community in light of the high economic and political stakes at hand. A similar episode took place in 1967 during the second British application for EEC accession under Wilson's Labor government, only this time the official excuse for de Gaulle's veto was the monetary instability of the sterling in light of its devaluation in 1967 (see Ludlow, 2006, Ch. 5). However, in the aftermath of the second French veto, peace, unity, and integration momentum were unlikely to return to the Community until the enlargement controversy (also known as *la question anglaise*) had been addressed in a manner satisfactory to both applicants and member states.

[30] Here is a translated excerpt from his press conference as quoted in Ludlow, 1997, p. 207: "England is, indeed, insular and maritime, linked by her trade, her markets and her food supplies to diverse and often far-flung countries. She works primarily in industry and commerce, and hardly at all in agriculture. She has, in all her patterns of work, habits and traditions [,] which are highly distinctive and original. ¶ In short, the nature, the structure, the economic situation that characterize England, differ profoundly from the Continent. ¶ How then could England, as she lives, as she produces, as she trades, be incorporated into the Common Market as it was conceived and as it works?"

[31] As evidenced by the signing of the bilateral Elysée Treaty shortly after de Gaulle's press conference in January 1963, which remains until today a strong symbol of French-German *rapprochement* in the 60s.

Enlargement negotiations were finally reopened in the Hague Summit of 1969, were concluded in 1971, and the UK, Denmark, and Ireland officially became the first EEC expansion members in 1973 (Norway's accession was rejected by popular referendum). The French under their newly elected Gaullist president Georges Pompidou – but with the express approval of his predecessor and ideological kinsman de Gaulle – appeared much more accommodating during the enlargement process, having simultaneously achieved some much desired progress on the completion of the Community's initial agenda (*achèvement*) and the deepening of cooperation into new policy areas (*approfondissement*). The British, on the other hand, got a much worse deal than they would have in 1963, as it became apparent that the onus of adaptation to the *acquis* lay with the states wishing to join the EEC, in light of the complexity of existing internal policy bargains. In the context of our models, this bargaining outcome translates into a policy further away from the expansion country's ideal point[32].

The French vetoes of the British bids for EEC membership in the 60s[33] provide an interesting illustration of the above model, where France would be country *A*, Germany would be country *B*, and the UK would be the expansion country *C*. We choose to restrict our attention to this triptych of actors because of their major role in the bargaining dynamics of the first enlargement. Firmly grounded on a rational choice perspective, one may interpret the above historical account through the theoretical prism of *strategic delay* in the formation of the EEC-9. Accordingly, de Gaulle wanted to make sure that 1) the customs union and its common external tariff had been completed subject to the timetable set out by the Treaty of Rome, 2) the Common Agricultural Policy and its financial regulation framework became a *fait accomplit*, and 3) the institutional make-up of the union strongly reflected French interests, before he would agree to enter into membership negotiations with Britain (see Moravcsik, 1998, Ch. 3). France was apprehensive that premature British accession would derail the ongoing common market integration process, lead to the renegotiation of the CAP (through the formation of a strong British-German pro-

[32] Even though the *acquis* needs to be fully accepted and implemented by all new Community members, the single policy bargaining dimension in our models is just a metaphor for the 'terms of accession' or, in other words, how flexible the expansion country's adjustment is to an existing body of legislation (e.g. through derogation clauses and transitional periods). That is why accession to an already formed and institutionalized union is not treated as a dichotomous decision to fully accept or reject the *acquis* as it is. Another way to rationalize the unidimensionality of the enlargement bargaining process is that it captures the afforded degree of an accession country's influence upon the character and institutional design of the enlarged union.

[33] See N. Piers Ludlow (1997) for a detailed analysis of the relationship between the UK and the EEC in the 60s.

industrial axis), and on the whole alter the character of the EEC integration project towards a looser Atlanticist free trade area[34].

The British on the other hand underestimated the political and economic stakes of existing members in the preservation of the Community as well as their resolve to adhere to the general principles of the *acquis*. When they eventually came to realize how much they had to gain or by corollary how little the French would benefit from enlargement, they softened their bargaining stance and agreed to much more onerous accession terms. This can avowedly not be a story of partisan re-orientation of the country, since 1) British accession negotiations were concluded under Conservative Prime Minister Edward Heath, who was also the Lord Privy Seal or main negotiator during the 1961-3 period, and 2) a general cross-partisan consensus came about in Britain in the mid 60s with regards to the desirability of entry into the EU. To summarize, a way to explain this dynamic through a rational-choice framework is by arguing that the French reluctance to expand the union in the 60s was simply an attempt to signal its high resolve and contentment with the EEC-6 *status quo*. Gradualism in this vein may be construed as a strategic ploy in an uncertain environment of overlapping interdependencies with the aim of tilting future expansion negotiations in the founding members' favor. The clash between France and Britain in this instance became even more pronounced because of their diametrically opposed preferences over the ideological orientation of European integration and structurally distinct commercial interests.

Although the perception of French and British national interests by de Gaulle and Macmillan respectively may also be viewed through the prism of the wider geopolitical environment at the time (as many historians are apt to do[35]), strategic political economy factors (coupled with domestic political considerations) do certainly come into play in examining the dynamics of enlargement. Even though geopolitical incentives loomed in the background in the form of

[34] The following quote (Ludlow, 2006, p. 138) by General de Gaulle is quite indicative on this point: "Either it will have to be recognized that their [the British] entry into the Common Market, with all the exceptions that would inevitably accompany it, with all the quantitative and qualitative changes that it would entail, and with the participation of multiple other states that would certainly be its corollary, would amount to the establishment of an entirely new entity, all but erasing that which has been built. And where, then, would this lead us other perhaps than the creation of a type of European free trade area, which would in turn lead to an Atlantic zone that would deprive our continent of any real personality."
[35] See for example Vaïsse, 1998; de la Serre, 1992.

‘security externalities’ (Gowa, 1994), the primary strategic considerations driving the integration and enlargement process were essentially economic, especially given that attempts towards political integration and security cooperation had not yet come to fruition following the failure of the Fouchet Plan in the early 60s. De Gaulle’s European policy was not dictated by illusions of *grandeur* or crude geopolitical considerations (Moravcsik, 2000); his perception of a ‘European Europe’ was above all of an economic nature and his primary concern was the promotion of shared commercial interests. It is within the above historical context that our political economy story of gradualism becomes germane.

IV. Discussion and Extensions

The above theoretical framework provides an explanation for the paradox of union expansion to formerly eligible countries (UK, Scandinavian countries, Austria) or in other words piece-meal coalition formation in the absence of binding exogenous (e.g. geostrategic) constraints. We have managed to derive equilibrium delay in the formation of the *grand* union through the postulate of private information. Another way to view this model is that it makes gains from trade increasing over time and assumes the change of union policy increasingly expensive in terms of high fixed costs of bureaucratic and economic infrastructure (lock-in effect). This effectively amounts to an infant-industry special interests argument of systematically shifting preferences over time that give rise to dynamically expanding bargaining policy winsets.

Tampering with the dimensionality and the information structure of these models suggests one of the ways to proceed in making these models richer, more comprehensive, and more realistic, by obviating the need for complex exogenous assumptions. Given the broad, non-issue specific nature of political unions, it seems more than plausible to assume more than one policy dimensions in the negotiation process, thus giving rise to opportunities for issue-trading, issue linkages, as well as *enhanced cooperation* in the form of policy-specific subunions. Adding a second policy dimension or public good opens up a range of possibilities with regards to the equilibrium relationship between union size and scope and the optimal rules of union formation.

This extension to the $N = 3$ union formation model allowing for a two-dimensional policy space should accordingly examine whether the separability of the policy dimensions has any significant welfare implications. An efficiency comparison of the bargaining equilibria of various schemes of union formation, such as federal package deals, enhanced cooperation, and open partnerships[36] could be potentially quite enlightening about the future of the European project. Alesina et al. (2001, 2005) use a public goods approach to predict a bias towards excessive centralization and small union size owing to a time-inconsistency problem. However, the historical record of European integration particularly in the 90s has shown that union expansion may be concomitant with deepening under the appropriate rules. In this extension to the model with multiple policy jurisdictions or public goods, it seems appropriate to examine how the coalition formation protocol affects the equilibrium relationship between size and scope. A multidimensional union formation model with externalities would be able to highlight the various incentives of countries to free-ride or otherwise bandwagon upon international initiatives and regimes.

One related avenue for future research would be to explore a dynamic model of enlargement and union deepening, whereby piece-meal integration helps current and prospective members refine and signal their beliefs about the common uncertain benefits of integration through a number of random sample draws proportional to the degree of integration. Subunions (or *enhanced cooperation agreements*) could serve as policy laboratories experimenting on the actual effects of policy coordination in particular areas subject to highly variable exogenous shocks. Moreover, it would be interesting to model uncertainty about the size of union benefits (or else the resolve of 'core' countries to wait before they invite the peripheral country for negotiations) as a continuous-time *war of attrition* game with uncertainty (see for example Admati and Perry, 1987; Cramton, 1992), in order to derive *strategic delay* through a perfect separation of types.

[36] Models of *variable geometry*, such as the *concentric circles* approach proposed by Karl Lamers and the *eccentric circles* approach proposed by Edouard Balladur, essentially distinguish between a 'core' and a 'periphery' of countries integrating over overlapping and non-overlapping jurisdictions and subunions. In addition, *generalized subsidiarity* and *open partnerships*, a model of flexible integration put forward by Dewatripont et al. (1995), advocates the need for commitment to a common base of integration, allowing at the same time for discretion on the part of member-states to experiment and engage in optional new forms of cooperation in other policy areas.

Finally, in light of the economic and political interdependence of otherwise sovereign states, it would also be instructive for our purposes to allow for policy externalities or *spillovers* (positive or negative), whereby the welfare of the autarchic country is affected by the common policy adopted by the bilateral union, within these types of bargaining settings. It should be expected that the presence of externalities would affect equilibrium payoff allocations and coalition formation paths[37].

To conclude, we will briefly evaluate the modeling techniques used in explaining the process of regional integration. The spatial bargaining model is based on the interpretation of an international union (or regime) as a commitment device to coordinate policy across countries in an efficient manner. This approach is better suited to analyze the bargaining aspect of union formation by emphasizing the policy trade-offs and bargains inherent in a positive-sum game among countries seeking to capture the surplus gains of supranational policy coordination. This non-cooperative game-theoretic approach is also amenable to illustrative extensive-form representations of the process of international cooperation and popular ratification. It may thus be construed as an attempt to formalize the tenets of the *liberal intergovernmentalist* theory (Moravcsik, 1998) of European integration and to capture the concept of nested two-level games (Putnam, 1988) in a game-theoretic manner through the incorporation of domestic political constraints in the popular ratification of intergovernmental treaties. Spatial analysis is flexible enough to be adequately applied to the explanation of both the 'grand bargains' of EU treaty negotiations as well as international cooperation in distinct policy areas that do not fall within the realm of 'high politics'.

However, parsimonious and versatile as they may be, spatial bargaining models can become quite laborious and inconclusive in more than one dimensions. In the absence of a restrictive notion of equilibrium stability, it appears excessively complex to extend the results to higher dimensions and thus to draw conclusions about the endogenous choice of policy areas of centralization (namely the scope of the union). Furthermore, the complexity of these models grows exponentially as one increases the number of countries; hence, they are not amenable to

[37] Etro (2001) has analyzed the model with three countries and spillovers of international policy coordination and has found that if union policy is characterized by strategic complementarities then the *grand* union is much more likely to form than in the case of strategic substitutabilities.

N-country generalizations. Finally, there are reasons to be critical of the arbitrariness of the exogenous assumptions on the sequential bargaining structure and to be doubtful of the robustness of the results with respect to those assumptions[38], a common critique of non-cooperative bargaining models.

Appendix

<u>Proposition 4</u>: For a non-degenerate support of high y_{AB} types $[\tilde{y}, \tilde{y}+\varepsilon], \varepsilon > 0$, there exists an immediate *grand* coalition formation policy $x^*_{ABC} \in [m_C - y_{ABC}, m_B]$ such that $\langle ABC(x^*_{ABC}), ABC(x^*_{ABC})\rangle R_i \langle AB(m_A)/C, ABC(E(x^{*i}_1))\rangle$ for all $i = A, B, C$, where R_i denotes the weak preference relation.

Proof: Let $y_{AB} \in [\tilde{y}, \tilde{y}+\varepsilon], \varepsilon > 0$. We first need to find the set of *grand* union policies that make *A* weakly better off in an immediate coalition formation path rather than a gradualist one, i.e. find $x_{ABC} \geq m_A$ such that

$$\langle ABC(x_{ABC}), ABC(x_{ABC})\rangle R_A \langle AB(m_A)/C, ABC(E(x^{*i}_1))\rangle.$$

So we need the following inequality to hold:

$$(1+\delta)(m_A - x_{ABC} + y_{ABC}) \geq y_{AB} + \frac{\delta}{3}\left[2y_{ABC} - (m_C - m_A) + y_{AB} + m_A - \frac{m_A + m_C - \tilde{y}}{2} + y_{ABC}\right]$$
$$\Leftrightarrow m_A \leq x_{ABC} \leq \frac{1}{1+\delta}\left(\frac{2+\delta}{2}m_A + \frac{\delta}{2}m_C + y_{ABC} - \frac{3+\delta}{3}y_{AB} - \frac{\delta}{6}\tilde{y}\right) = \bar{x}_{ABC}$$

Given that $\tilde{y} \leq 2y_{ABC} - (m_C - m_A)$, it turns out that $\bar{x}_{ABC} \geq m_C - y_{ABC}$, which implies that there may be such an immediate *grand* coalition proposal that could make *C* weakly better off. Since *B*, the moderate country, will trivially have a strict preference to participate in an immediate *grand* union with a

[38] See Sutton (1986) for an overview of these problems.

common policy much closer to its own ideal point, all we need to show is that C is weakly better off under such an immediate agreement compared to the gradualist equilibrium whereby it believes A and B to be of a high type, i.e.

$$\left\langle ABC(\bar{x}_{ABC}), ABC(\bar{x}_{ABC}\right\rangle R_C \left\langle AB(m_A)/C, ABC(E(x*_1^i))\right\rangle$$
$$\Leftrightarrow (1+\delta)(\bar{x}_{ABC} - m_C + y_{ABC}) \geq \frac{\delta}{3}\left[(m_A + y_{ABC} - y_{AB}) - m_C + y_{ABC} + \frac{m_A + m_C - \tilde{y}}{2} - m_C + y_{ABC}\right]$$
$$\Leftrightarrow y_{AB} \leq 2y_{ABC} - (m_C - m_A)$$

Since we know from before that $\tilde{y} \leq 2y_{ABC} - (m_C - m_A)$, then the latter expression has to be true for $\varepsilon \geq 0$ and will hold as a strict inequality for an interior cutoff type $\tilde{y}$. We have thus shown that an immediate *grand* coalition formation path under $\bar{x}_{ABC}$ will be a Pareto superior solution, hence the *interim* inefficiency of the gradualist equilibrium. *QED*

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