

MPRA

Munich Personal RePEc Archive

Widening versus Deepening of International Unions

Hausken, Kjell and Mattli, Walter and Plümper, Thomas

2006

Online at <https://mpra.ub.uni-muenchen.de/75882/>
MPRA Paper No. 75882, posted 31 Dec 2016 11:07 UTC

Widening versus Deepening of International Unions

Kjell Hausken
Faculty of Social Sciences
University of Stavanger
N-4036 Stavanger, Norway
E-mail: kjell.hausken@uis.no
Tel.: +47 950 84532, Fax: +47 51 831550

Walter Mattli
St John's College
University of Oxford
Oxford OX1 3JP, England
E-mail: walter.mattli@st-johns.oxford.ac.uk
Tel.: +44 1865 277300, Fax: +44 1865 277435

Thomas Plümpert
Department of Government
University of Essex
Wivenhoe Park
Colchester CO4 3SQ
E-mail: tpluem@essex.ac.uk
Tel.: +44-1206-873567

Keywords: Widening, deepening, union, regulation, policy, harmonization, insiders, outsiders, two-stage game, political economy.

Journal of Economic Literature classification numbers: C7, D6, D7, H4, H5, H11

Abstract

The article provides a theoretical framework of international unions in the form of two two-stage games with discounting and one simultaneous game aimed at generating insights into the conflict between widening and deepening in the integration process. Each country (player) has a preference for a set of regulations (policies). Regulatory differences between countries cause utility loss. Harmonization reduces the utility loss but entails a cost since it requires union members to implement harmonized rules that may deviate from the country's preferred regulation. Insiders harmonize a subset of the regulations. Widening signifies that outsiders join the union by accepting the union's harmonized set of regulations - which is beneficial for the insiders. Deepening means that insiders proceed to harmonize a larger subset of regulations. We inquire whether widening should precede deepening, or vice versa, or whether it is preferable to interchange widening and deepening in some incrementally prescribed manner. The incentive to pursue further regulatory harmonization within a union increases with the regulatory diversity among insiders *certeris paribus*, provided the effect of outsiders on the utility of insiders is small. Insiders are more reluctant to opt for widening before deepening the more the mean regulatory preference of insiders deviates from the mean regulatory preference of outsiders in areas likely to become harmonized in the future. In contrast, members are more inclined to choose widening before deepening the more the mean regulatory preference of insiders deviates from the mean preference of outsiders in already harmonized areas.

1. Introduction

One central tenet of political economy is that a government's decision to pursue economic and political integration involves a trade-off between political autonomy and economic efficiency in the provision of public goods. In a pathbreaking contribution, Alberto Alesina and Enrico Spolaore (2003; 1997) have argued that the size of nations crucially depends on the cost of government, the heterogeneity of political preferences and the alternatives to political centralization of public good provisions.¹ Along similar lines, Casella (2001:83) has claimed that "the optimal number of jurisdictions is unique and increases with market size," and Bolton and Roland (1997:1057) have suggested that "separation occurs in equilibrium...when income distributions vary across regions and the efficiency gains from unification are small," but that "all incentives for separation disappear...when all factors of production are perfectly mobile." Finally, Wittman (1991) has similarly stated that the unification and dissolution of nation states is driven by wealth maximization considerations. While larger nations can produce public goods more efficiently, smaller political entities possess a higher level of political autonomy and thus find it easier to provide a level of public goods finely attuned to local preferences.

International unions often offer a superior and indeed more obvious alternative to increasing the size of nations (Alesina, Angeloni and Etro 2001, 2005). Unions allow optimizing the provision of public goods. Their members choose to collectively provide only a select set of public goods, leaving the provision of all other policies and regulation in the hands of individual member states; unions thereby increase the aggregate utility of union members.²

Thus, the policies, regulations and public goods provided by any union are very much

¹ Alesina and Spolaore (1997) argued that democratization leads to secessions which, together with international economic integration, imply an inefficiently large number of countries. Alesina and Spolaore (2003) proceeded to "argue that the optimal size of a country is determined by a cost-benefit trade-off between the benefits of size and the costs of heterogeneity." More specifically, "in a large country, per capita costs may be low, but the heterogeneous preferences of a large population make it hard to deliver services and formulate policy. Smaller countries may find it easier to respond to citizen preferences in a democratic way."

² Such processes can lead to a separation of the historically related concepts of government and territoriality; see Frey 2001.

reflective of the preferences and capacities of its members. As a consequence, the widening of union is typically a conflictual process. As an example, Plümper and Schneider (2007) find that “EU members are more likely to suffer from enlargement if they profit from EU transfers and if they are relatively close to applicant countries in which unemployment is significantly higher than in member countries.” They further show “that EU members are more likely to demand a discrimination of new members if distributional conflicts arise.”

Adding new members may well give rise to periods of uncertainty and turbulence, especially if it is revealed that certain policy preferences of new members deviate from the preferences of old members. If newcomers pressure for change, enlargement may well lead to a ‘new kind of union’.³ Old members thus must carefully consider to what extent the utility boost they experience due to enlargement may be offset by future changes in union policies that reflect solely the desires of newcomers.

Our study offers a first comprehensive theoretical framework to tackle such issues and seeks to understand a series of related questions regarding the varying relationships between widening and deepening.⁴ We define widening as increase in the number of union members and deepening as harmonizing an additional set of regulations within a union.

This article provides systematic formal content that permits disciplined discussion of widening and deepening. Our study models the trade-off between widening and deepening of a union not only in a static but also in a dynamic perspective. In a static perspective, our model posits that the members of a union have a positive incentive to widen a union since the newcomers are required (by the terms of the accession agreement) to implement the harmonized policies of the union. Focusing exclusively on deepening causes on the one hand the benefit of reduced regulatory diversity between union members, but on the other hand causes harmonization costs.

³ Time Europe magazine, 23th December 2002.

⁴ Recent analyses of the enlargement process include Cremona 2003; Kandogan 2000, Karp and Bowler 2006, König and Bräuningner 2002; Steunenberg 2002, Streit and Voigt 1997; Plümper, Schneider and Troeger 2006, Schneider 2005.

The dynamic perspective is modeled as two two-stage games with a discount factor for the second stage. With zero discounting, the two stages are equally influential, raising most starkly complicated issue of whether the members prefer ‘widening before deepening’ to ‘deepening before widening’ or vice versa. The model provides a tool that implies normative recommendations about union formation. Future research may test the model empirically against actual cases of union formation.

Our model reveals a fundamental trade-off that old members face: the trade-off between maintaining full control over future developments of the union, in particular the regulatory harmonization agenda, and the gains members derive from having newcomers incorporate union regulations and policies. We show that this trade-off is affected by the degree of preference heterogeneity between insiders and potential newcomers. Union members are likely to choose ‘widening before deepening’ if a) the number of regulations and policies awaiting harmonization is relatively low in comparison to the number of already harmonized policies, b) if members largely discount future pay-offs and c) if further deepening reduces the union’s attractiveness for outsiders. In addition, our model also shows that insiders can enhance the attraction of the ‘widening before deepening’ option to them through discrimination; that is, by limiting the voice granted to newcomers, insiders may secure continuing maximum influence over Union business. However, such influence would come at the cost of reducing the appeal of membership to outsiders. Nevertheless, flexible membership provides an attractive instrument to distribute the gains from enlargement more evenly between accession countries and old members.

Members of international unions have typically been aware of this trade-off. The opening of EU enlargement negotiations in the late 1990s with applicant countries from Central and Eastern Europe raised the perennial question whether a wider Union would also mean a weaker and shallower union. Many believed that a more integrated union was likely to become more difficult to achieve as the number of EU-member countries grew as a result of

eastward enlargement. The choice seemed clear: widening the EU would require current members to abandon efforts for deeper integration, while further deepening would be possible only at the expense of further enlargement. Others dismissed the view that posits a trade-off between widening and deepening, arguing instead that the two processes are inter-twined; with proper preparation deepening renders widening possible and enlargement makes further deepening desirable. In short, this alternative view holds that the two processes feed on each other.

The EU Commission clearly subscribes to the latter view. It considers enlargement as perfectly compatible with the deepening process of integration; enlargement may even reinforce deepening. This belief is based on the Commission's 'positive-sum' game conception of east-ward enlargement. The mutual benefits are said to be many: First, the extension of the zone of peace, stability, and prosperity in Europe could enhance the security of all its people; second, the addition of more than 100 million people, in rapidly growing economies, to the EU's market of 370 million is said to boost economic growth and create jobs in both old and new member countries;⁵ third, stringent EU regulations (policies) for protection of the environment and the fight against crime, drugs, and illegal immigration are expected to improve the quality of life of both new and old member-states; fourth, the arrival of new members is likely to enrich the EU through increased cultural diversity, interchange of ideas, and better understanding of other peoples; finally, enlargement may strengthen the Union's role in world affairs – in foreign and security policy, trade policy, and other fields of global governance.

The Commission's belief that deepening goes hand in hand with widening may have been strengthened, in part, by past experience. Past experience, however, is not necessarily a valid

⁵ A study by the Directorate General for Economic and Financial Affairs ("The Economic Impact of Enlargement," May 2001) estimated that enlargement could increase growth of GDP of the acceding countries by between 1.3 and 2.1 percentage points annually, and for the existing members it could increase the level of GDP by 0.7 percentage points on a cumulative basis; for a similarly positive assessment, see R. Baldwin, J.F. François, and R. Portes, "The Costs and Benefits of Eastern Enlargement," *Economic Policy* 24, 1997.

guide for the future. Guérot (2002) pointedly notes: “For years, the EU has tried to widen and deepen in parallel. But since the treaty of Maastricht took effect in 1992, the deepening progress has stumbled, pattering ahead with the Amsterdam and Nice treaties, but making little real process. The widening process, however, is moving ahead briskly.” The treaty of Amsterdam of 1997 retained the unanimity rule in most areas. The only institutional modifications in the treaty were some reinforcements of the power of the President of the Commission and extensions of the powers of the Parliament. The key institutional issues, however, remained untouched: the size of the college of commissioners, the re-weighting of votes, the extension of qualified majority voting in the Council, and other issues relating to binding decision-making. Similarly, the Nice treaty, has been faulted for introducing a byzantine and highly inefficient decision-making mechanism (triple majority requirement) bound to lead to institutional gridlocks as the Union expands (Baldwin et al. 2001).

This last point puts the finger squarely on what is clearly the critical weakness of the extant literature on the widening-deepening debate: it is highly contextual, contingent, speculative, and analytically tenuous. The paucity of extensive and compelling theoretical discussions on this central and highly timely question is striking and puzzling alike.⁶ Even if we accept that for most of the Community’s history widening and deepening were compatible, we cannot assume that this will always be the case. Instead, we need to theoretically work out the conditions under which harmony rather than incompatibility or tension between the two processes is likely to hold. When and why do trade-offs emerge between widening and deepening? And what are the implications of these trade-offs with regards to the sequencing of deepening and widening; that is, when should deepening precede widening or vice-versa? When should states opt for deepening and forget about enlarging the union; and when is a strategy of widening-only more sensible? The study provides answers to the questions raised

⁶ The only explicitly analytical treatment of the widening-deepening question in the social sciences is by Brewster, Munger, and Oatley (2002). They show that widening need not be inconsistent with deepening as long as a union is endowed with strong central institutions with pro-union proclivities.

above. It is organized as follows: section 2 states the model's assumptions; sections 3 and 4 set the stage for the analysis in section 5 of the implications of different scenarios of interactions between widening and deepening by clarifying the meaning of widening and deepening, as well as stating the costs of regulatory harmonization. Section 6 considers in greater detail the utility function of outsiders and the implications of such utility specification. Section 7 concludes.

2. Assumptions of the Model

The model we develop in this section posits, similarly to a recent model by Alesina, Angeloni, and Etro (2001, 2005), that unions exist because they generate gains from the harmonization of regulation (policy). Alesina et al. model unions as groups of countries deciding to centralize the provision of public goods – or rules, regulations, and policies – that generate externalities across union members. The trade-off between the benefits of coordination and the loss of independent policymaking endogenously determines size, composition and scope of unions. Policy uniformity reduces the size of unions, may block the entry of new members and induces excessive centralization. Alesina et al. argue that “[t]he size of spillovers between countries and the heterogeneity between their preferences or their economic fundamentals determines endogenously the size of the union and its composition” (Alesina et al. 2001: 4).⁷

We build on this insight and offer an analysis that goes one step further. Rather than analyzing union formation as a single shot game in which countries simultaneously determine the union's membership size and its level of integration, we are interested in understanding the dynamic process of growth of a union through widening (enlargement) and deepening.

Our model makes five assumptions. How these are reflected in the model becomes clearer as we proceed. First, gains derive from harmonizing a subset of regulations. Second, harmonization entails costs, notably loss of regulatory autonomy and the cost of implementing

⁷ See also Brou and Ruta 2004; Alesina, Angeloni and Schuknecht 2005.

union-wide reforms that may not be optimally tailored to a country's needs. These costs can be negative. Third, we assume that the union's choice of a harmonized regulation is the weighted average of the union members' preference regarding that regulation.⁸ Fourth, we take the existence of an original union with a specified number of harmonized regulations as exogenously given. The original union is composed of 'old' members, also called insiders; accession countries are outsiders who have applied for union membership. This assumption allows us to make a variety of different starting points for our analysis. Fifth, accession countries must accept and faithfully implement all union regulations in order to become full members.

Consider now $M+N$ countries and a set of $H+K$ regulations. The model poses no upper or lower limits about the generality of regulations. A general regulation can be subsidy to agriculture. A specific regulation can be the amount of insulation in lamps to prevent fire. Each country i has implemented a regulation k denoted $r_{ik} \in [0,1]$, $k=1, \dots, H+K$. The scaling of r_{ik} means that zero and one are extreme regulations. For example, $r_{ik}=0$ may mean zero tolerance for immigration, and $r_{ik}=1$ may mean complete tolerance for immigration. Each country i assigns different issue salience and thus weights w_{ik} to the various regulations. These weights sum up to one for each country,

$$\sum_{k=1}^{H+K} w_{ik} = 1 \quad (1)$$

This constraint ensures that the aggregate influence of each country, across all regulations, is equal. Let us assume further that M countries have formed a union, harmonizing H of their regulations. A harmonized regulation k is expressed as $r_k(M)$, which means that country i has adjusted from r_{ik} to $r_k(M)$. A country with a large weight w_{ik} in regulation k has greater

⁸ We posit constant weights throughout the analysis.

influence on $r_k(M)$ than a country with a small weight. The union choice of regulation is given by the weighted average of the member countries' regulations.⁹ Thus,

$$r_k(M) = \frac{\sum_{i=1}^M p_{ik} w_{ik} r_{ik}}{\sum_{i=1}^M p_{ik} w_{ik}} \quad (2)$$

where $p_{ik} \geq 0$ is the bargaining power of country i for regulation k . For example, $p_{1k} = 0$ means that country 1 has no power in the determination of harmonized regulation k , which means that r_{1k} has no impact on $r_k(M)$. Conversely, $p_{1k} = \infty$ means that country 1 has infinitely large power in the determination of harmonized regulation k , which means that $r_k(M) = r_{1k}$, provided that all other countries have finitely large power. In our formulation, the outcome of the bargaining is determined by regulation preferences, the issue salience attached to each regulation and the relative bargaining power of union members.

Taking M and H as given, the model has two endogenously determined variables. These are which m additional countries shall join the union, and which h additional regulations shall be harmonized. m and h are not strategic choice variables chosen by the $M+N$ countries, but follow from individual utility maximization by each of the $M+N$ countries. The richness of such an approach is that based on five simple and plausible assumptions, we can actually predict which subset of countries will join the union, and which subset of regulations will be harmonized. A tool for such prediction is valuable for policy makers and others who seek to understand membership and harmonization for unions.

⁹ We can let the union impact r_k by summing from 0 to M where w_{0k} and r_{0k} are the union weight and regulation preference, and where the union weights in contrast to equation (1) may sum to a number between 0 and infinity. See Alesina, Angeloni and Etro 2001 for a more comprehensive discussion of decision-making mechanisms.

The implication of the endogenously determined m and h is that the union's regulation choice is endogenously determined by the insiders for each regulation $k=1,\dots,H+K$. Hence the union's regulation choice depends on the members, the non-members, the harmonized regulations, and the unharmonized regulations. The union's choice of a common regulation can be perceived as occurring through a standard voting process where each country reports its preference, or by a team of administrators researching and communicating with countries to clarify their preferences. The design of the union's regulation choice is on the one hand mechanical, but is on the other hand, we believe, descriptive of how a union regulation gets established as a weighted average of member preferences.

We prefer not to let each country choose its regulation r_{ik} strategically. First, most countries have usually established regulations in most policy areas, determined domestically and usually entrenched through time prior to union emergence. Second, if countries were to announce r_{ik} strategically, based on everyone's announcement and the game characteristics, credibility problems arise since a country may announce r_{ik} in the hope of getting a certain regulation as a union member, or announce a fictive r_{ik} and revert to its preferred r_{ik} if it does not become a union member. Third, countries' regulations are usually widely observable, which complicates bargaining when countries try to reconcile observed and announced preferences among each other. However, in principle and theoretically strategic choice of r_{ik} is straightforward to incorporate into the model and means that each country chooses r_{ik} to maximize utility.

After a union has been established, an interesting question for the outsiders is whether they would benefit from harmonization. They may harmonize the same regulations to the union's choice or to some other common regulation they prefer, or harmonize a subset or larger set of the union's harmonized regulations, or they may establish a second union. All these possibilities for

the outsiders create new externalities for the established union which are straightforward to analyze with this model.

3. The Comparative Statics of the Model: Three Simple Scenarios

In this and the following section we set the stage for the subsequent analysis (see section 5) of the implications of different scenarios of interactions between widening and deepening. We first clarify the meaning of widening as well as deepening and then analyze more fully the costs of pursuing union-wide harmonization of regulations. The section begins with a model of the union status quo and then examines how widening and deepening affect the utility of union members.

3.1. ‘Do Nothing’: The Status Quo

Forming a union entails harmonizing a certain set of rules and regulations among member states. Harmonization requires compromise, that is, willingness to embrace a regulation that may be collectively optimal but individually suboptimal for each country. Countries face a trade-off between keeping their preferred national regulations (and thus not paying the price of compromise) and agreeing on joint regulatory standards that may deviate from their preferred regulations (and thereby partake in the general gains of a union formation).

Figure 1b shows the utility of one country i which is member of a union of M countries with H harmonized regulations. We assume that $M+N$ countries exist in total and that these could harmonize $H+K$ regulations (see Figure 1a).

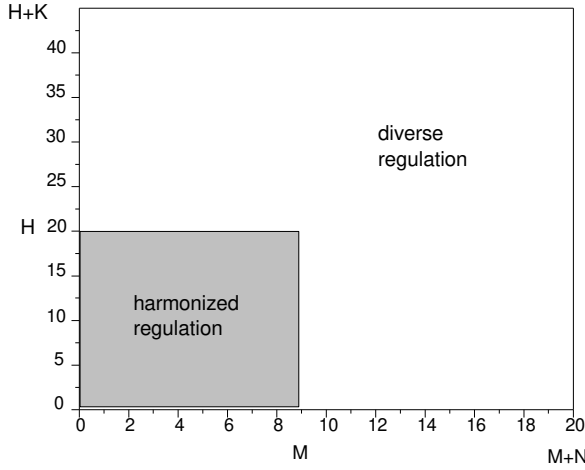


Fig. 1a: Harmonized regulations H among M members of the union

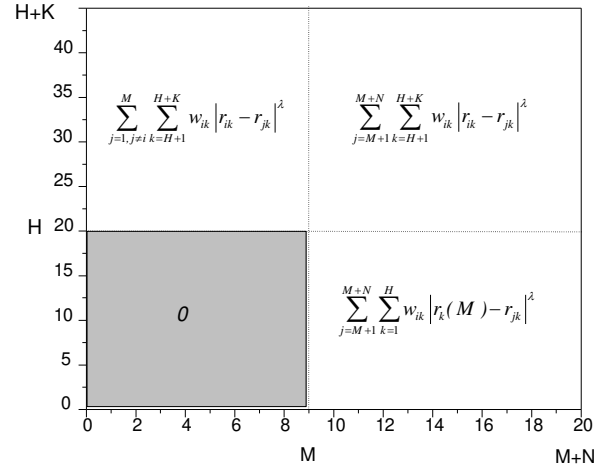


Figure 1b: The utility loss of regulatory diversity, decomposed

Harmonization implies that country i has changed r_{ik} to $r_k(M)$. We standardize our model so that by assumption the net utility of these harmonization measures is nil. In other words, gains and costs associated with past harmonization exercises are sunk, and country i keeps the same weight w_{ik} for regulation k before and after harmonization.

Figure 1b considers the cost of country i – an insider. This country experiences utility loss due to three kinds of regulatory diversity. The lower-left cell is easiest to understand: Since the M insiders have agreed on the harmonization of H regulations, the regulatory diversity is zero. However, we also assume that K non-harmonized regulations exist.¹⁰ The upper-left cell sums up the regulatory diversity in these regulations over the M members of the union. The cell in the lower-right sums up the regulatory diversity between insiders and N outsiders for harmonized regulations, which is why the diversity is determined relative to $r_k(M)$. Finally the upper-right cell sums up the regulatory diversity between insiders and N outsiders for non-harmonized regulations, which is why the diversity is determined relative to r_{ik} . In short, we get

$$u_i = - \sum_{j=1, j \neq i}^M \sum_{k=H+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^2 - \sum_{j=M+1}^{M+N} \sum_{k=1}^H w_{ik} |r_k(M) - r_{jk}|^2 - \sum_{j=M+1}^{M+N} \sum_{k=H+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^2. \quad (3)$$

¹⁰ See Casella and Frey 1992 for a more detailed discussion of ‘overlapping jurisdictions’.

Equation (3) implies that country i may increase its utility by expanding the size of the union from M to $M+N$ and by increasing the integration level of the union by increasing the set of harmonized regulations from H to $H+K$. Hence, country i can increase its utility by $-u_i$.

3.2. Widen: Increase the Number of Members

We now turn to considering partial widening, that is, the acceptance by the union of some new members. Thus assume that $m \geq 1$ of the N outsiders join the union and become insiders, resulting in $M+m$ insiders. In our model, accession countries must accept the regulations of the insiders to qualify for full membership (Mattli, Plümper 2004; and Plümper, Schneider, Troeger 2006). By accepting the H harmonized regulations, accession countries change their H regulations r_{jk} to $r_k(M)$, as shown in Figures 2a and 2b:

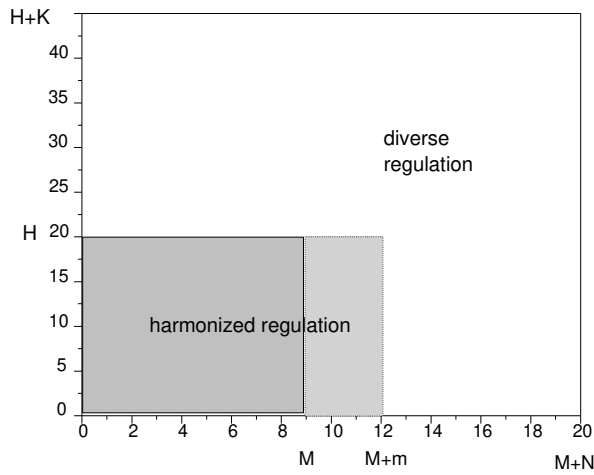


Fig. 2a: Harmonized regulations H among $M+m$ members of the union

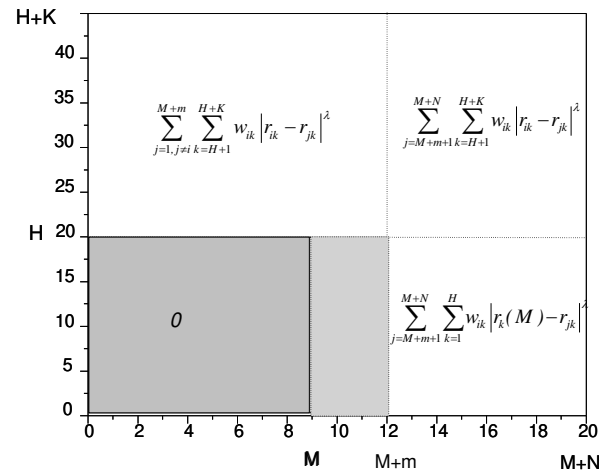


Figure 2b: The utility loss of regulatory diversity, decomposed

Insiders benefit from widening because it eliminates regulatory diversity in the accession countries, leaving the cost of convergence on H harmonized regulations with the newcomers.

By replacing M with $M+m$ and keeping $M+N$ (the total number of countries) in (3), we obtain

$$u_{im} = - \sum_{j=1, j \neq i}^{M+m} \sum_{k=H+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} \sum_{k=1}^H w_{ik} |r_k(M) - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} \sum_{k=H+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^\lambda \quad (4)$$

Subtracting (3) from (4), the utility gain of union expansion from M to $M+m$ is

$$u_{im} - u_i = \sum_{j=M+1}^{M+m} \sum_{k=1}^H w_{ik} |r_k(M) - r_{jk}|^{\lambda} \quad (5)$$

The simplicity of equation (5) follows from the sum of the first and third terms in (3) which equals the sum of the first and third terms in (4). Therefore, equation (5) is always positive. Since we assume that accepting new members is free of cost for the M insiders, widening the union is always beneficial for them. Country *i*'s utility increase caused by *m* additional union members depends on the number *H* of harmonized regulations, the regulatory diversity between $r_k(M)$ for country *i* and r_{jk} for the *m* new members, and the weight w_{ik} assigned to each regulation. The more diverse the outsiders' regulations before union enlargement, the larger the number of harmonized regulations within the union prior to accession, and the greater the weights assigned to these union regulations, the bigger the gains from enlargement for country *i*. Our model thus states the obvious, namely that union insiders always gain from widening if no additional harmonization is intended or feasible. Note that this result depends on the assumption that widening of a union does not lead to a re-negotiation of pre-harmonized regulations. This assumption certainly is valid for the European Union (Plümper et al. 2006), but does not need to apply for all unions at all times.

3.3. Deepen: Increase the number of Harmonized Regulations

Our next step is to illustrate deepening. As shown in Figures 3a and 3b, deepening means increasing the number of harmonized regulations from *H* to *H+h*, while holding membership constant.

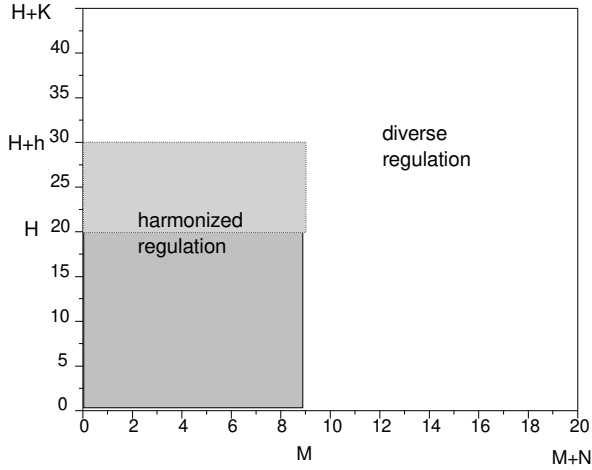


Fig. 3a: Harmonized regulations $H+h$ among M members of the union

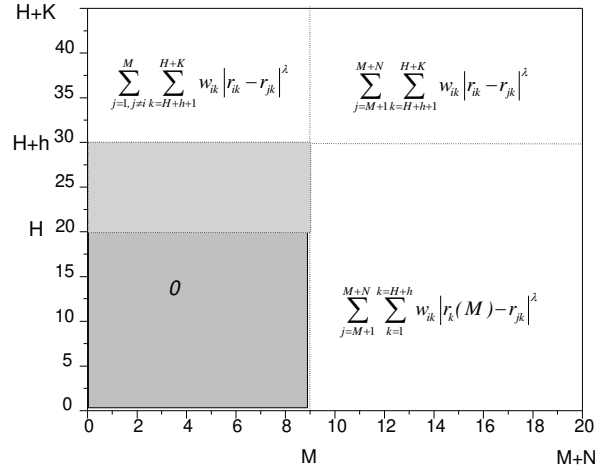


Figure 3b: The utility loss of regulatory diversity, decomposed

Deepening changes the utility of country i as follows.

$$u_{ih} = - \sum_{j=1, j \neq i}^M \sum_{k=H+h+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^{\lambda} - \sum_{j=M+1}^{M+N} \sum_{k=1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^{\lambda} - \sum_{j=M+1}^{M+N} \sum_{k=H+h+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^{\lambda} \quad (6)$$

Let us compare equations (6) and (3) term by term. Subtracting (3) from (6) gives

$$u_{ih} - u_i = \sum_{k=H+1}^{H+h} \left(\sum_{j=1, j \neq i}^M w_{ik} |r_{ik} - r_{jk}|^{\lambda} - \sum_{j=M+1}^{M+N} w_{ik} |r_k(M) - r_{jk}|^{\lambda} + \sum_{j=M+1}^{M+N} w_{ik} |r_{ik} - r_{jk}|^{\lambda} \right). \quad (7)$$

where we have placed the sum from $H+1$ to $H+h$ outside the bracket. The first term equals the first term in (6) minus the first term in (3). The second term equals the second term in (6) minus the second term in (3). The third term equals the third term in (6) minus the third term in (3). The first term is always positive. The reason is that deepening from H to $H+h$ causes reduced regulatory diversity between the M insiders, which is always beneficial. The second term is always negative and must be seen in relation to the third term which is always positive. The second and third terms cancel when $r_k(M) = r_{ik}$. When $|r_{ik} - r_{jk}| > |r_k(M) - r_{jk}|$, deepening causes insider i 's regulation to move closer to the regulation of outsider j . This causes reduced regulatory diversity so that the second and third terms together are positive, which is beneficial for insider i . In other words, since the average deviation between insider i and outsider j can either increase or decrease, the second and third terms can be negative or

positive. The term is positive (negative) if the average deviation from the outsiders' regulation decreases (increases).

Equation (7) is positive or negative for country i depending on i 's regulatory preferences relative to the preferences of other union members $-i$ and those of j . The effect of outsiders' regulations on union members' utility depends on the diversity between the union's point of agreement $r_k(M)$ and the mean position $r_k(N)$ of the outsiders in that regulation, which is calculated as in (2) by substituting M with N for the N outsiders. This suggests that insiders may find it difficult to increase the number of harmonized regulations if outsiders on average have preferences that largely deviate from the agreement point of insiders and if the regulations of outsiders are relatively important for the utility of insiders (which in our model may be the case if the number of outsiders is large, implying big outside market size). In this case, a subset of insiders will oppose additional harmonization unless they are compensated by insiders enjoying positive externalities. This implies that the incentive of further harmonization is larger if the regulatory diversity amongst insiders is also large and if outsiders have a small effect on the utility of union members. Yet, this result presumes that regulatory reforms are either costless or that costs are fixed. If, however, reforms are costly and increase in regulatory diversity, the influence of preference heterogeneity on deepening is less clearcut. We discuss increasing costs in the following section.

4. *Costs of Regulatory Reforms*

We noted earlier that the cost of harmonization increases with the diversity between a country's old optimal regulation and the union's harmonized regulation. We express the cost for country i of adjusting to union regulation as $|r_k(M) - r_{ik}|^\alpha$, suggesting equal cost for all regulations and countries (where $\alpha > 0$ is a parameter). Since $r_k(M)$ and r_{ik} are between zero and one, setting $0 < \alpha < 1$ means that small regulatory reform is relatively more expensive

than large regulatory reform; large reforms cost more in absolute terms and less in relative terms. Conversely, $\alpha > 1$ implies that small regulatory reform is relatively cheaper than large regulatory reform. The cost of regulatory reform affects the utilities of the insiders only in the case of deepening, not when widening. Hence the utility for widening u_{im} in (4) remains unchanged while the utility for deepening u_{ih} in (6) is replaced by

$$u_{ih} = - \sum_{j=1, j \neq i}^M \sum_{k=H+h+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+1}^{M+N} \sum_{k=1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda - \sum_{j=M+1}^{M+N} \sum_{k=H+h+1}^{H+K} w_{ik} |r_{ik} - r_{jk}|^\lambda - \gamma \sum_{k=H+1}^{H+h} |r_k(M) - r_{ik}|^\alpha \quad (8)$$

where the last term is the cost to country i of harmonizing h regulations, given starting point at (M,H), and where $\gamma > 0$ is a unit cost term that scales the last term relative to the other terms.

Countries have more to win if regulatory diversity before agreement is large. However, members with outlier regulatory preferences face steep adjustment costs. Therefore, the probability that some insiders may lose from further harmonization will increase with heterogeneity. In short, further harmonization is less likely the larger the regulatory diversity among union members unless the winners from additional harmonization (those countries with regulation preferences close the union's point of agreement) compensate potential losers. The odds for further harmonization also depend on $\alpha > 0$.

While equation (7) is always positive and equation (8) is positive for some members and negative for others, the cost term is negative for all union members with the exception of those members whose regulation preference are identical to the union's point of agreement. Hence, the cost term is strictly non-positive. This discussion, again leads to a very straightforward conclusion, namely that union members are more likely to increase the number of harmonized regulations if the heterogeneity of regulation preferences among union members is small. This result apparently is more in line than the prediction of a model that

does not make the assumption that bargaining costs increase in preference heterogeneity. More specifically, our model suggests that since the gains from harmonization are larger the more countries join the union while the costs of harmonization for each actor country depend solely on the difference between the country's preferred policy and the union's point of agreement, the number of union members critically influences harmonization of controversial policies. This leads to the counterintuitive finding, namely that *union members are more likely to harmonize controversial policies and regulations, the larger the number of union members*. This claim, however, holds if and only if gains from harmonization rise faster than the bargaining cost of negotiations in a diverse union. And it requires decision rules which either allow non-unanimity decisions or multiple issue-linkages in bargaining situations in which members can trade concessions. In these cases, this finding leads to the identification of a fundamental, but obvious trade-off: The more members a union has, the more likely they are to harmonize a controversial policy. Unfortunately, larger unions tend to be more heterogeneous. This trade-off gives rise to an optimal union size – a notion that we do not further analyze in this article.

5. *The Model in Dynamic Perspective:*

Two More Complicated Scenarios

Members of international unions seeking to deepen integration and expand regionally face the difficult question of whether widening shall precede deepening, or vice versa, or whether it is preferable to interchange widening and deepening in some incrementally prescribed manner. In this section, we analyze the implications of different sequencing scenarios with the aim of deriving a set of hypotheses regarding the desirability of these scenarios. To simplify, we confine attention to the most straightforward and common dynamic extension, which is a two period game. We consider two scenarios, which are 'widening before deepening' and 'deepening before widening', which we compare with the simultaneous choice of widening

and deepening. Each country compares its utility across these three exogenously determined games, and it can be observed which union gets established and which regulations get harmonized.

Let us specify the extensive form of the three games. Starting from M and H , the countries jointly choose m and h through individual utility maximization. In the simultaneous static game, all countries take M and H , and in particular $r_k(M)$, as given when they simultaneously make choices that transform the union from (M,H) to $(M+m,H+h)$.

In the game ‘widening before deepening’, before the first stage all M countries take M , H , and $r_k(M)$, as given and make simultaneous choices that transform the union from (M,H) to $(M+m,H)$. Before the second stage all $M+m$ countries take $M+m$, H , and $r_k(M+m)$, as given and make simultaneous choices that transform the union from $(M+m,H)$ to $(M+m,H+h)$.

In the game ‘deepening before widening’, before the first stage all M countries take M , H , and $r_k(M)$, as given and make simultaneous choices that transform the union from (M,H) to $(M,H+h)$. Before the second stage all M countries take M , $H+h$, and $r_k(M)$, as given and make simultaneous choices that transform the union from $(M,H+h)$ to $(M+m,H+h)$.

5.1. Widening Before Deepening

We begin our analysis of the first scenario – widening before deepening - assuming that widening has a utility u_{im} given by equation (4). We discount the subsequent deepening with a discount parameter δ_d , $0 \leq \delta_d \leq 1$. Subsequent deepening means that the $M+m$ insiders keep their K regulations harmonized to $r_k(M)$, but harmonize the h additional regulations according to

$$r_k(M+m) = \frac{\sum_{i=1}^M p_{ik} r_{ik} + \sum_{i=M+1}^{M+m} \beta_i p_{ik} w_{ik} r_{ik}}{\sum_{i=1}^M p_{ik} w_{ik} + \sum_{i=M+1}^{M+m} \beta_i p_{ik} w_{ik}} \quad (9)$$

which reduces to (2) when $\beta_i = 0$. The parameters δ_d and β_i are the only difference with the static case. Generally, $0 \leq \beta_i \leq 1$. When $\beta_i = 1$, each of the m newcomers has the same voting power and influence on $r_k(M+m)$ as the M original insiders. This means that the political influence of members is independent of their membership duration and depends solely on the individual weight and salience they assign to the m regulations. Conversely, $\beta_i = 0$ describes a situation where insiders discriminate maximally against newcomer number i by allowing it no influence in determining the h additional regulations. Scaling β_i between zero and one allows for “discriminatory widening” in the sense that new insiders can be given some degree of influence on $r_k(M+m)$. As β_i increases from zero to one, joining a union becomes more attractive for outsiders because future costs of harmonization are likely to decline as the influence of newcomers grows.

In our model β_i serves as an instrument, determined by the old insiders, of redistributing utility between old and new insiders. The old insiders consider their own utilities, and the outsiders’ utilities specified in section 6, for the various β_i ’s, and decide which outsiders are offered union membership. Outsider i ’s utility for that β_i determines whether it accepts membership. The union prefers to adjust β_i downwards to that minimum value β_i^{min} where outsider i is indifferent between joining and not joining the union, given that the union members prefer the outsider to join for β_i^{min} . The value $\beta_i = \beta_i^{min}$ maximizes the utilities of the old insiders. Lowering β_i below β_i^{min} means that outsider i prefers not to join. Increasing β_i above β_i^{min} means that outsider i prefers to join, earns an increased utility by joining, while the union members earn a lower utility than when $\beta_i = \beta_i^{min}$. This kind of thinking is analogous to the principal-agent literature where the principal adjusts the salary to the agent downwards to that point where the agent is indifferent between accepting the employment and

choosing his outside opportunity, referred to as the individual rationality and incentive compatibility constraints.

Distinguishing β_i across the m newcomers allows for differential discrimination. For example, the union may choose a low β_i for an outsider eager to join, ensuring its membership while reducing its eagerness, and a high β_i for an outsider reluctant to join, to ensure its membership, assuming the union prefers the outsider in both cases. The union always prefer new members who accept $\beta_i=0$, since these have no influence while removing earlier regulatory diversity, as shown in (5) and Proposition 1. However, conversely, some outsiders may be so reluctant to join that even $\beta_i=1$ is not sufficient to ensure their participation.

A low β_i for the m newcomers in effect divides a union into class A members (the old members) and class B members (the newcomers). In the case of successive waves of enlargement, ‘old’ newcomers will have greater status and influence than ‘new’ newcomers; that is, a first-wave member is assigned β_{i1} , a second-wave member gets β_{i2} , and the n ’th-wave member receives β_{in} . It can be assumed that all β_i ’s increase over time, where $1 \geq \beta_{i1} \geq \beta_{i2} \geq \dots \geq \beta_{in}$. That is, discrimination can in a democratic setting usually be sustainable only in the transition, and the β_i ’s will thereafter increase to 1.

Allowing for “differentiated membership” (Schneider 2005) is not merely a modeling device that allows union members to maximize their utility. Rather, the members of the European Union have typically used temporary membership restrictions for new members to reshuffle enlargement gains from accession countries to old members. In other words, discrimination of new members seems to be the rule rather than the exception.

Equation (9) states that the m new members will have an influence on the h regulations in the subsequent deepening. The reason for applying $r_k(M+m)$ is that the m countries that became insiders now get the opportunity to influence the h additional regulations.

The implication of (9) is that the second term in (4) splits into two terms, one with $r_k(M)$ for H regulations, the other with $r_k(M+m)$ for h regulations. The first and third term in (4) remain unchanged, though we replace H with $H+h$ and keep $H+K$ to account for deepening.

Widening before deepening gives

$$u_{imh} = u_{im} + \delta_d \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq i}^{M+N} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{ik} |r_k(M+m) - r_{jk}|^\lambda - \gamma |r_k(M+m) - r_{ik}|^\alpha \right] \quad (10)$$

The discount parameter δ_d is multiplied by an expression summed over the subsequent deepening, that is, from $k=H+1$ to $H+h$. Inserting $\delta_d=0$ into (10) gives $u_{imh} = u_{im}$, where u_{im} is defined in (4). This means that widening before deepening is equivalent to widening when the future has no value.

Let us now compare the utility members derive from widening before deepening with the utility of deepening-only. In the case of widening, the m new members will be able to take part in the later harmonization of h regulations. Deepening-only means of course that harmonization remains in the hands of insiders. Subtracting (8) from (10) gives

$$\begin{aligned} u_{imh} - u_{ih} = & - \sum_{j=1, j \neq i}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} |r_{ik} - r_{jk}|^\lambda + \sum_{j=M+m+1}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda + \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda \\ & + \gamma \sum_{k=H+1}^{H+h} |r_k(M) - r_{ik}|^\alpha \\ & + \delta_d \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq i}^{M+N} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{ik} |r_k(M+m) - r_{jk}|^\lambda - \gamma |r_k(M+m) - r_{ik}|^\alpha \right] \end{aligned} \quad (11)$$

For the special case $\delta_d=1$, (11) simplifies to

$$\begin{aligned} u_{imh} - u_{ih} = & \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda + \sum_{j=M+m+1}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} \left[|r_k(M) - r_{jk}|^\lambda - |r_k(M+m) - r_{jk}|^\lambda \right] \\ & + \gamma \sum_{k=H+1}^{H+h} \left[|r_k(M) - r_{ik}|^\alpha - |r_k(M+m) - r_{ik}|^\alpha \right] \end{aligned} \quad (12)$$

which is easier to interpret. The first term in (12) is always positive and is larger than equation (5) since the upper limit of the second summation sign is $H+h$ in (12) in contrast to H in (5). Hence widening is beneficial for the insiders because accession countries accept all union regulations. However, the second and third terms may be positive or negative. Whereas (5) represents a safe strategy of widening with guaranteed utility gain for insiders, (12) suggests a more risky strategy. If (12) is positive, widening before deepening is preferable for the union members. This occurs when the second and third terms in (12) are small in absolute size compared with the first term.

In the second term of (12) j runs over the remaining outsiders, that is from $M+m+1$ to $M+N$, while k runs over the h additional regulations, that is from $k=H+1$ to $H+h$. The second term (in square brackets) compares the deviation of the union's agreement in harmonizing h regulations with and without the accession countries. The term in brackets equals zero if and only if the weighted mean of the outside countries' h regulations is identical to the weighted mean of the inside countries' h regulations. If the accession countries' regulatory preferences in h deviate from that of the insiders, then the gains from enlargement become smaller for the insiders as a whole. Each insider, however, benefits if its preferences over h regulations are closer to the preferences of the mean accession country than those of the mean insider. Insiders with preferences more similar to the mean outsider than to the mean insider will profit from enlargement – all other old members will suffer a utility loss. This utility loss is largest for those insiders whose preferences lie farthest from those of the mean outsider.

The third term in (12) is positive if $r_k(M)$ diverges more than $r_k(M+m)$ from member i 's preference r_{ik} for the h regulations. This happens when the m new members have regulation preferences that lie closer to member i 's preferences. The last term multiplied with δ_d in (11) can be positive or negative, and hence (11) can also be positive or negative.

Although (11) and (12) suggest an increased overall tendency to prefer widening before deepening as the gap in regulatory preferences between insiders and outsiders decreases, each particular case has to be analyzed. Particularly controversial are cases where the insiders' preferences vary greatly which may cause some insiders to prefer the adoption of outsiders with extreme preferences to move $r_k(M)$ in their preferred direction. That is, insiders with regulatory preferences lying between those of some old members and the applicant countries may support the outsiders' demand for membership against the wishes of other insiders even if the outsiders' preferences are far off. Consider the following examples:

Example 1. In the first example we consider one regulation k (which means $w_{ik}=1$), two union members $M=2$ with regulation preferences $r_{1k}=0.1$ and $r_{2k}=0.3$ and one outside country with preference $r_{jk}=0.8$ (which means $N=h=1$). With equal bargaining power $p_{1k}=p_{2k}$, equation (2) gives $r_k(2)=(0.1+0.3)/2=0.2$. If, however, r_{jk} is granted membership before members harmonize r_{ik} , the point of agreement becomes $r_k(3)=(0.1+0.3+0.8)/3=0.4$.

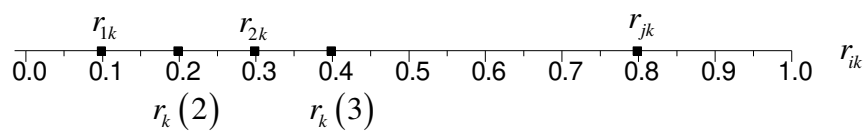


Figure 4a: Preference configuration and points of agreement (example 1)

Figure 4a models a situation in which country 2 is indifferent whether to harmonize regulation k with country 1 alone or with country 1 and country j . The reason is that the distances from r_{2k} to $r_k(2)$, and from r_{2k} to $r_k(3)$, are equal. This means that country 2 is indifferent between options 'widening before deepening' and 'deepening before widening'. In contrast, country 1 prefers deepening before widening since the distance 0.1 from r_{1k} to $r_k(2)$ is 0.2 smaller than the distance 0.3 from r_{1k} to $r_k(3)$.

Example 2. In the second example we consider a case with a slightly altered distribution of preferences $r_{1k}=0.0$ and $r_{2k}=0.3$ and an outside country with preference $r_{jk}=0.9$; here countries

1 and j have moved away from country 2 by the same distance but in opposite directions.

With equal bargaining power $p_{1k}=p_{2k}=p_{3k}$, equation (2) gives $r_k(2)=(0.1+0.3)/2=0.15$ before union enlargement, and $r_k(3)=(0.0+0.3+0.9)/3=0.4$ after union enlargement.

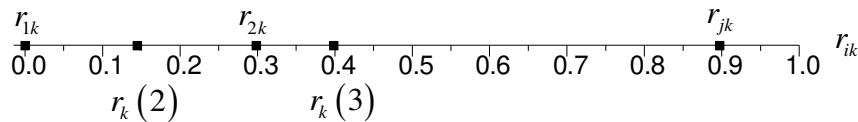


Figure 4b: Preference constellation and points of agreement (example 2)

In Figure 4b, country 2 is now better off if j becomes a member before harmonization occurs, even though the distance to the outsider country j has increased. Country 2 prefers widening before deepening. The reason is that the distance from r_{2k} to $r_k(2)$ has increased from 0.1 to 0.15, which is larger than the (unchanged) distance 0.1 from r_{2k} to $r_k(3)$.

5.2. Deepening Before Widening

The analysis of the second scenario, deepening before widening, begins with the assumption that the utility associated with deepening is correctly given by u_{ih} in equation (8). We discount the subsequent widening with discount parameter δ_w , $0 \leq \delta_w \leq 1$. $\beta_i = 0$. The parameter δ_w is the only difference with the static case, and in this subsection there is no β_i since $r_k(M)$ in (2) remains unchanged. Deepening before widening implies that accession countries will end up having to accept a wider set of harmonized regulations than in the case of widening before deepening. Newcomers thus will have less influence on future rule-making since fewer regulations will be left for future rounds of harmonization. In other words, subsequent widening implies that the m accession countries have to accept $r_k(M)$ for all the H+h regulations that the union has previously harmonized. Let us first set up the equation without

discounting, that is $\delta_w = 1$. By simply replacing M with $M+m$ and keeping $M+N$ in (6), we obtain the following utility for ‘deepening before widening’:

$$u_{ihm} = u_{ih} + \delta_w \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} \left| r_k(M) - r_{jk} \right|^\lambda \quad (13)$$

The discount parameter δ_w is multiplied with an expression summed over the subsequent widening, that is, from $j=M+1$ to $M+m$. These m newcomers accept all the $H+h$ regulations. Inserting $\delta_w = 0$ into (13) gives $u_{ihm} = u_{ih}$, where u_{ih} is defined in (8). This means that ‘deepening before widening’ is equivalent to ‘deepening-only’ when the future has no value.

Let us now compare the utility of ‘deepening before widening’ with the utility of ‘widening-only’. Subtracting (4) from (13) gives

$$\begin{aligned} u_{ihm} - u_{im} = & \sum_{j=1, j \neq i}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} \left| r_{ik} - r_{jk} \right|^\lambda - \sum_{j=M+m+1}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} \left| r_k(M) - r_{jk} \right|^\lambda - \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} \left| r_k(M) - r_{jk} \right|^\lambda \\ & - \gamma \sum_{k=H+1}^{H+h} \left| r_k(M) - r_{ik} \right|^\alpha + \delta_w \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} \left| r_k(M) - r_{jk} \right|^\lambda \end{aligned} \quad (14)$$

The first term runs over all $M+N$ insiders and outsiders and is always positive, resulting in a gain for deepening. The second term is always negative and runs only over the remaining outsiders. If $r_k(M)$ equals r_{ik} for the h regulations, the second term cancels that part of the first term that runs only over the remaining outsiders. If, however, $r_k(M)$ lies closer than r_{ik} to outsiders’ preference r_{jk} , then this yields a net benefit for option ‘deepening before widening’. As before, the last cost term is always negative. The third and fifth terms cancel when $\delta_w = 1$. If $\delta_w < 1$, $u_{ihm} - u_{im}$ gets a lower value, reflecting that the relative advantage of ‘deepening before widening’ over ‘widening-only’ is lower if less importance is attached to future widening. If $\delta_w = 0$, (14) compares the advantage of deepening over widening. This implies that ‘widening before deepening’ can be more attractive for union members than ‘widening-only’ even though these members will see their influence in future union matters decline. In fact, ‘widening before deepening’ is more appealing to insiders if the heterogeneity

between insiders and outsiders on already harmonized policies and regulations is large relative to the preference heterogeneity in the areas which the union members intend to harmonize in the future. In addition, ‘widening before deepening’ is more attractive to union members if the ratio of policies already harmonized to policies yet to be harmonized is large.

5.3. Comparing Widening before Deepening to Deepening before Widening

Let us now consider the overall utility change when the insiders first widen and then deepen the union. Subtracting (3) – the status quo utility - from (10) – the utility derived for widening before deepening - gives

$$\begin{aligned}
 u_{imh} - u_i = & \sum_{j=M+1}^{M+m} \sum_{k=1}^H w_{ik} |r_k(M) - r_{jk}|^\lambda \\
 & + \delta_d \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq i}^{M+N} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{ik} |r_k(M+m) - r_{jk}|^\lambda - \gamma |r_k(M+m) - r_{ik}|^\alpha \right]
 \end{aligned} \tag{15}$$

Equation (15) reduces to (5) when $\delta_d = 0$ since future deepening is discounted. For the three terms multiplied by δ_d , the first term is positive (due to removal of regulatory diversity) and runs over all insiders and outsiders for the h newly harmonized regulations. The second negative term must be seen in connection with the first positive term for the remaining outsiders and h regulations. That is, the M+m insiders change from r_{ik} to $r_k(M+m)$ with a net utility change that may be positive or negative. The third cost term is negative.

Analogously, the overall utility change when the insiders first deepen and then widen is found by subtracting equation (3) from equation (13), i.e.

$$\begin{aligned}
 u_{ihm} - u_i = & \sum_{j=1, j \neq i}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} |r_{ik} - r_{jk}|^\lambda - \sum_{j=M+1}^{M+N} \sum_{k=H+1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda \\
 & - \gamma \sum_{k=H+1}^{H+h} |r_k(M) - r_{ik}|^\alpha + \delta_w \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{ik} |r_k(M) - r_{jk}|^\lambda
 \end{aligned} \tag{16}$$

Equation (16) reduces to (7) when $\delta_w = 0$ since the future widening is then discounted. When $\delta_d = \delta_w = 1$, equations (15) and (16) are equivalent except that $r_k(M+m)$ (widening before

deepening) is replaced with $r_k(M)$ (deepening before widening) in (15). The first term in (16) is always positive. Seeing the second term in connection with the first term, the M insiders change from r_{ik} to $r_k(M)$ with a positive or negative net utility change. The third cost term is negative. In the fourth positive term the m newcomers accept the H+h regulations.

Unless the costs of harmonizing h additional regulations are prohibitively high or the gains from widening are large, ‘deepening before widening’ is a reliably attractive strategy for insiders M. The deepening before widening option dominates the deepening-only option because accepting new insiders is beneficial in our model and the benefits accrue proportionally to the level of harmonization prior to enlargement. However, each additional round of harmonization decreases the incentive for outsiders to join the union. A highly harmonized union poses formidable entry barriers which may deter outsiders.

A comparison between ‘deepening before widening’ and ‘widening before deepening’ shows the potential trade-off the M initial members face. Subtracting (10) from (13) gives

$$\begin{aligned}
u_{ihm} - u_{imh} = & - \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} (1 - \delta_w) w_{ik} |r_k(M) - r_{jk}|^\lambda \\
& + \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq i}^{M+N} (1 - \delta_d) w_{ik} |r_{ik} - r_{jk}|^\lambda + \sum_{j=M+m+1}^{M+N} w_{ik} \left(\delta_d |r_k(M+m) - r_{jk}|^\lambda - |r_k(M) - r_{jk}|^\lambda \right) \right. \\
& \left. + \gamma \left(\delta_d |r_k(M+m) - r_{ik}|^\alpha - |r_k(M) - r_{ik}|^\alpha \right) \right] \quad (17)
\end{aligned}$$

The first term disappears when $\delta_w = 1$; the second term disappears when $\delta_d = 1$, providing

$$\begin{aligned}
u_{ihm} - u_{imh} = & \sum_{k=H+1}^{H+h} \left[\sum_{j=M+m+1}^{M+N} w_{ik} \left(|r_k(M+m) - r_{jk}|^\lambda - |r_k(M) - r_{jk}|^\lambda \right) \right. \\
& \left. + \gamma \left(|r_k(M+m) - r_{ik}|^\alpha - |r_k(M) - r_{ik}|^\alpha \right) \right] \quad (18)
\end{aligned}$$

Of course, if the new members have no influence on the h regulations, so that $r_k(M+m) = r_k(M)$, both terms in (18) are zero and the insiders are indifferent between ‘deepening before widening’ and ‘widening before deepening.’ Assuming that all the M old

insiders have the same preference $r_k(M)$, and that all the N-m outsiders (those that remain outsiders after union widening) have the same preference r_{ok} , we can formulate the following:

Proposition 1: Assume $r_{ik}=r_k(M)$ for all $i=1,\dots,M$, and $r_{jk}=r_{ok}$ for the N-m outsiders. The M old insiders prefer ‘deepening before widening’ when $|r_k(M+m)-r_{ok}|$ is not too small compared with $|r_k(M)-r_{ok}|$.

Proof: Inserting $r_{ik}=r_k(M)$, $r_{jk}=r_{ok}$, and $u_{ihm} > u_{imh}$ into (18) implies

$$\sum_{k=H+1}^{H+h} \left[w_{ik}(N-m) \left(|r_k(M+m)-r_{ok}|^\lambda - |r_k(M)-r_{ok}|^\lambda \right) + \gamma \left(|r_k(M+m)-r_{ik}|^\alpha \right) \right] > 0 \quad , \quad (18a)$$

which gives Proposition 1.

The nature of unions is such that old insiders often have common preferences, which suggests r_{ik} similar to $r_k(M)$. When insiders consider adopting m new members among the N outsiders, $r_k(M+m)$ can on the one hand be further removed from r_{ok} (the average preferences for the N-m that remain outsiders), which means that $r_k(M)$ lies between $r_k(M+m)$ and r_{ok} . This occurs when there is a plurality of preferences among the outsiders and the union succeeds in identifying those outsiders that have preferences similar to the old insiders. In this case (18a) is satisfied and the old insiders prefer ‘deepening before widening’. On the other hand, $r_k(M+m)$ may lie between $r_k(M)$ and r_{ok} . This occurs when the N outsiders have more common preferences and any choice of m new members causes $r_k(M+m)$ to lie in the direction of the N-m outsiders that do not join. Proposition 1 states that the M old insiders may nevertheless prefer ‘deepening before widening’ if $r_k(M+m)$ is

not positioned too much in the direction of r_{ok} and thus away from $r_k(M)$. The mathematical reason in (18a) is that when the first term is negative, the inequality is still satisfied provided that the absolute value of the first term is less than the absolute value of the second term. When Proposition 1 is not satisfied, the M old insiders do not prefer ‘deepening before widening’.

Now, the more regulations the insiders harmonize without taking the preferences of the outsiders into consideration, the less attractive the union becomes for outsiders. The more regulated a union, the higher the price of joining; the higher the price, the lower the demand *ceteris paribus*. By analyzing the comparative statics of the game for the outsiders, we can understand when insiders oppose ‘deepening before widening.’

Let us finally consider an example where the M old insiders do not have the same preferences.

Example 3. Let us use equation (18) to verify our previous two examples. With the numbers in Examples 1 and 2 the first term in (18) is zero since the lower limit $j=2+1+1$ is lower than the upper limit $j=2+1$. Inserting the numbers in Example 1 into the second term in (18) gives

$$\begin{aligned} u_{1hm} - u_{1mh} &= \gamma \left(|0.4 - 0.1|^\alpha - |0.2 - 0.1|^\alpha \right) = \gamma \left(0.3^\alpha - 0.1^\alpha \right) > 0, \\ u_{2hm} - u_{2mh} &= \gamma \left(|0.4 - 0.3|^\alpha - |0.2 - 0.3|^\alpha \right) = 0 \end{aligned} \tag{19}$$

which shows that country 2 is indeed indifferent between ‘widening before deepening’ and ‘deepening before widening’ since $u_{2hm} = u_{2mh}$, while country 1 prefers ‘deepening before widening’ since $u_{1hm} > u_{1mh}$. Inserting the numbers in Example 2 into the second term in (18) gives

$$\begin{aligned} u_{1hm} - u_{1mh} &= \gamma \left(|0.4 - 0.0|^\alpha - |0.15 - 0.0|^\alpha \right) = \gamma \left(0.4^\alpha - 0.15^\alpha \right) > 0, \\ u_{2hm} - u_{2mh} &= \gamma \left(|0.4 - 0.3|^\alpha - |0.15 - 0.3|^\alpha \right) = \gamma \left(0.1^\alpha - 0.15^\alpha \right) < 0, \end{aligned} \tag{20}$$

which shows that country 2 prefers ‘widening before deepening’ since $u_{2hm} < u_{2mh}$. Country 1 still prefers ‘deepening before widening’, and more so in (20) than in (19) since $\alpha > 0$.

6 *The outsider’s utility and discriminatory membership*

Demand for union membership by outsiders is never uniform and cannot be taken for granted. In a recent study on EU enlargement to Central and Eastern Europe, for example, Mattli and Plümpert argue that “leaders in more democratic regimes had a greater incentive to push ahead with (...) costly ‘institution-building reforms’ which, in effect, aligned their countries with EU rules and institutions. (...) The successful launching of (...) reforms naturally led these leaders to contemplate EU membership application; indeed, by submitting an application these leaders expressed confidence in their country’s ability and willingness to overcome the remaining internal obstacles to EU membership and work towards satisfying all membership requirements.” (Mattli/ Plümpert 2002: 551)

We similarly seek in this section to understand the varying stances of outsiders regarding the desirability of union membership in terms of their relative regulatory affinities with insiders.

Let us use s , where $s=M+1, \dots, M+m$, for the m outsiders that consider union membership in a widening process. We keep j as before for countries that remain outsiders after union widening. Equation (3) applies for insider i , given that M insiders have harmonized H regulations. The analogous utility for outsiders contemplating membership is

$$\begin{aligned}
 u_s = & - \sum_{j=1}^M \sum_{k=1}^H w_{sk} |r_k(M) - r_{sk}|^\lambda - \sum_{j=1}^M \sum_{k=H+1}^{H+K} w_{sk} |r_{sk} - r_{jk}|^\lambda \\
 & - \sum_{j=M+1, j \neq s}^{M+N} \sum_{k=1}^H w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+1, j \neq s}^{M+N} \sum_{k=H+1}^{H+K} w_{sk} |r_{sk} - r_{jk}|^\lambda
 \end{aligned} \tag{21}$$

The first term can be simplified, and the last two can be combined to one term, which gives

$$u_s = -M \sum_{k=1}^H w_{sk} |r_k(M) - r_{sk}|^\lambda - \sum_{j=1}^M \sum_{k=H+1}^{H+K} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+1, j \neq s}^{M+N} \sum_{k=1}^{H+K} w_{sk} |r_{sk} - r_{jk}|^\lambda . \tag{22}$$

Let us first consider widening with m new members without subsequent deepening. The utility u_{im} of widening to M insiders is given by equation (4). The m new insiders get the same utility as in (4), substituting i with s , minus the cost of harmonizing H regulations. This gives

$$u_{sm} = - \sum_{j=1, j \neq s}^{M+N} \sum_{k=H+1}^{H+K} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} \sum_{k=1}^H w_{sk} |r_k(M) - r_{jk}|^\lambda - \gamma \sum_{k=1}^H |r_k(M) - r_{sk}|^\alpha \quad (23)$$

Subtracting (22) from (23), we obtain the following utility change to each of the m outsiders of joining the union:

$$u_{sm} - u_s = \sum_{k=1}^H \left[M w_{sk} |r_k(M) - r_{sk}|^\lambda + \sum_{j=M+1, j \neq s}^{M+N} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{sk} |r_k(M) - r_{jk}|^\lambda - \gamma |r_k(M) - r_{sk}|^\alpha \right] \geq 0 \quad (24)$$

The m outsiders prefer to join the union when the inequality is satisfied. The first and fourth terms must be seen jointly. Country s incurs a cost in the fourth term as a result of adjusting to $r_k(M)$ from r_{sk} ; however, it enjoys a benefit in the first term since the regulatory diversity has been removed and the benefit increases in the group size M . The second and third terms are also connected. The third term is the new cost of regulatory diversity toward the $N-m$ remaining outsiders due to the change from r_{sk} to $r_k(M)$ which is balanced by a corresponding benefit in the second term that runs over all the N outsiders before joining the group.

If all the N outsiders have the same regulation preference $r_{sk} = r_{jk}$ for the H regulations, then equation (24) simplifies to

$$u_{sm} - u_s = \sum_{k=1}^H \left[(M + m - N) w_{sk} |r_k(M) - r_{sk}|^\lambda - \gamma |r_k(M) - r_{sk}|^\alpha \right] \quad (25)$$

The first term is the benefit which increases in the group size $M+m$; it can be negative if outsiders are too numerous. The second term gives the cost of regulatory adjustment.

Let us then consider widening before deepening. This means that $r_k(M+m)$ in equation (9), where β_i plays a role, becomes relevant. Equation (10) gives the utility u_{imh} to the M old insiders. The m new insiders get the same utility as in (10), substituting i with s. Thus

$$u_{smh} = u_{sm} + \delta_d \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq s}^{M+N} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{sk} |r_k(M+m) - r_{jk}|^\lambda - \gamma |r_k(M+m) - r_{sk}|^\alpha \right] \quad (26)$$

Subtracting (22) from (26), the utility change to each of the m outsiders of joining the union is

$$\begin{aligned} u_{smh} - u_s = & \sum_{k=1}^H \left[M w_{sk} |r_k(M) - r_{sk}|^\lambda + \sum_{j=M+1, j \neq s}^{M+N} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{sk} |r_k(M) - r_{jk}|^\lambda - \gamma |r_k(M) - r_{sk}|^\alpha \right] \\ & + \delta_d \sum_{k=H+1}^{H+h} \left[\sum_{j=1, j \neq s}^{M+N} w_{sk} |r_{sk} - r_{jk}|^\lambda - \sum_{j=M+m+1}^{M+N} w_{sk} |r_k(M+m) - r_{jk}|^\lambda - \gamma |r_k(M+m) - r_{sk}|^\alpha \right] \geq 0 \end{aligned} \quad (27)$$

The m outsiders prefer to join the union when the inequality is satisfied. The first line in (27) is equivalent to (24). Hence (27) and (24) are equivalent when the subsequent deepening has zero value, that is when $\delta_d=0$. The first line in (27) runs over the H regulations, and the second line runs over the h regulations which are to be harmonized in the subsequent deepening.

Let us then consider deepening before widening. Equation (13) gives the utility u_{ihm} to the M old insiders. The m new insiders get the same utility as in (13), substituting i with s, minus the cost of harmonizing the H regulations. Subtracting the cost of harmonizing the h regulations is already accounted for in (13). This gives

$$u_{shm} = u_{sh} + \delta_w \sum_{j=M+1}^{M+m} \sum_{k=1}^{H+h} w_{sk} |r_k(M) - r_{jk}|^\lambda - \gamma \sum_{k=1}^H |r_k(M) - r_{sk}|^\alpha \quad (28)$$

Subtracting (22) from (28), the utility change to each of the m outsiders of joining the union is

$$\begin{aligned} u_{shm} - u_s = & \sum_{k=1}^{H+h} \left[M w_{sk} |r_k(M) - r_{sk}|^\lambda - \sum_{j=M+1}^{M+N} w_{sk} |r_k(M) - r_{jk}|^\lambda + \delta_w \sum_{j=M+1}^{M+m} w_{sk} |r_k(M) - r_{jk}|^\lambda \right. \\ & \left. + \sum_{j=M+1, j \neq s}^{M+N} w_{sk} |r_{sk} - r_{jk}|^\lambda - \gamma |r_k(M) - r_{sk}|^\alpha \right] + \sum_{k=H+1}^{H+h} \left[\sum_{j=1}^M w_{sk} |r_{sk} - r_{jk}|^\lambda - M w_{sk} |r_k(M) - r_{sk}|^\lambda \right] \geq 0 \end{aligned} \quad (29)$$

The m outsiders prefer to join the union when the inequality is satisfied. Equations (27) and (29) are equivalent when $\delta_d = \delta_w = 1$ and $r_k(M + m) = r_k(M)$, which makes it irrelevant whether widening occurs before deepening or vice versa. In all other cases, however, outsiders prefer ‘widening before deepening’ over ‘deepening before widening’. This suggests

Proposition 2: The probability that an outsider will join a union declines when insiders increase the number of harmonized regulations before offering membership to the outsider.

Insiders are likely to push such preliminary harmonization when their regulatory preferences deviate substantially from those of outsiders, reducing the chances of enlargement. The attraction of union membership declines further if changes in areas bound to be harmonized in the future are very costly.

The finding in Proposition 2 that the probability of joining a union declines when union members increase the number of regulations before accepting new members begs the question of whether potentially higher gains can flow from joining a more deeply integrated (harmonized) union. That is indeed possible, and we illustrate it with an example.

Example 4. Consider one regulation k which means $w_{ik} = 1$, two union members $M = 2$ with regulation preferences $r_{1k} = 0.4$ and $r_{2k} = 0.6$ and one outside country with preference $r_{jk} = 0.2$, which means $N = h = 1$.

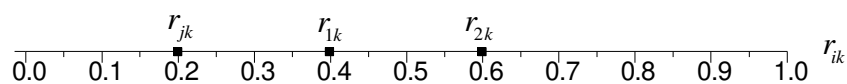


Figure 5a: Preference configuration of two insiders and one outsider.

Without harmonization, the regulatory diversity of the three countries is.

$$\text{Insider 1: } |r_{1k} - r_{2k}|^\lambda + |r_{1k} - r_{jk}|^\lambda = 0.2^\lambda + 0.2^\lambda$$

$$\text{Insider 2: } |r_{2k} - r_{1k}|^\lambda + |r_{2k} - r_{jk}|^\lambda = 0.2^\lambda + 0.4^\lambda$$

$$\text{Outsider j: } |r_{jk} - r_{1k}|^\lambda + |r_{jk} - r_{2k}|^\lambda = 0.2^\lambda + 0.4^\lambda$$

Assuming widening before deepening gives $r_k(3) = (0.2 + 0.4 + 0.6) / 3 = 0.4$

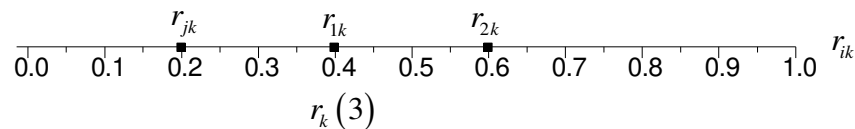


Figure 5b: Preference configuration and point of agreement: widening before deepening.

The regulatory diversity of the three countries is zero.

Insider 1: 0

Insider 2: 0

Outsider j: 0

Such removal of regulatory diversity is beneficial for insiders if the cost of harmonization is not too large. This cost is $\gamma |r_k(3) - r_{1k}|^\alpha = 0$ for insider 1 and $\gamma |r_k(3) - r_{2k}|^\alpha = 0.2^\lambda$ for insider 2. Widening before deepening is always beneficial for outsider j which then influences $r_k(3)$ which causes lower cost of harmonization for outsider j.

Assuming deepening before widening gives $r_k(2) = (0.4 + 0.6) / 2 = 0.5$

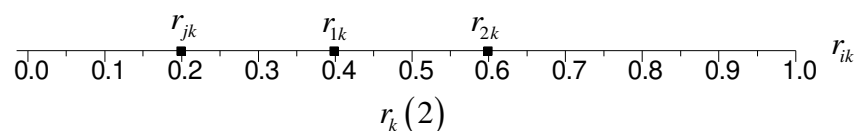


Figure 5c: Preference configuration and point of agreement: deepening before widening.

The regulatory diversity of the three countries is then again positive.

$$\text{Insider 1: } |r_k(2) - r_{jk}|^\lambda = 0.3^\lambda$$

$$\text{Insider 2: } |r_k(2) - r_{jk}|^\lambda = 0.3^\lambda$$

$$\text{Outsider j: } |r_{jk} - r_k(2)|^\lambda + |r_{jk} - r_k(2)|^\lambda = 0.3^\lambda + 0.3^\lambda$$

Deepening before widening is beneficial for insiders if the cost of harmonization is not too large. This cost is $\gamma|r_k(2) - r_{1k}|^\alpha = 0.1^\lambda$ for insider 1 and $\gamma|r_k(2) - r_{2k}|^\alpha = 0.1^\lambda$ for insider 2. The question is whether this is beneficial for outsider j. When $\lambda=1$, outsider j is indifferent between remaining an outsider, and deepening before widening, since $0.2^\lambda + 0.4^\lambda = 0.3^\lambda + 0.3^\lambda$. However, when $\lambda > 1$, we have $0.2^\lambda + 0.4^\lambda > 0.3^\lambda + 0.3^\lambda$. One example is $\lambda=2$, which gives the inequality $0.2 > 0.18$. Now, if outsider j becomes an insider after deepening, it has to incur a cost $\gamma|r_k(2) - r_{jk}|^\alpha$ of harmonization as specified in (23). If $\lambda=2$, and $\gamma|r_k(2) - r_{jk}|^\alpha < 0.02$, then outsider j does indeed prefer to join a more deeply integrated (harmonized) union.

7 Conclusion

This study makes a first contribution in what is theoretically thoroughly uncharted territory. Much of the writings on the question of the relationship between widening and deepening are fed by impressions based on casual readings of prevailing facts narrowly focused on recent developments in European integration. No attempt is made in the literature to ponder the deepening versus widening issue more broadly, that is, with reference to examples beyond Europe, or more systematically, that is, by offering a comprehensive theoretical framework capable of generating insights into the complex and varying relationship between widening and deepening. Our study offers such a framework. We consider two two-stage games with a discount factor for the second stage, and one simultaneous game. We tackle the timely question of whether widening should precede deepening, or vice versa, or whether it is preferable to interchange widening and deepening in some incrementally prescribed manner.

It thereby also examines the implications of different scenarios both for union insiders and potential newcomers. We find, for example, that the incentive to pursue further regulatory harmonization within a union increases *ceteris paribus* with the regulatory diversity among insiders provided the effect of outsiders on the utility of insiders is small. The model also suggests that union members are more reluctant to opt for widening before deepening the more the mean regulatory preference of insiders deviates from the mean regulatory preference of outsiders in areas likely to become harmonized in the future. In contrast, members are more inclined to choose widening before deepening the more the mean regulatory preference of insiders deviates from the mean preference of outsiders in already harmonized areas.

Our model is not restricted to the study of international unions but is applicable to other fields of research such as clubs (Cornes and Sandler 1996, Ellicksen et al. 2001), special interest organizations, coalitions, coalition formation (Chwe 1994), groups, intergroup migration (Hausken 2000), or other kinds of collective entities. Indeed, the trade-off between inclusiveness and exclusiveness of actor groups has gained wide attention within the social and biological sciences. Our model contributes to various discussions by illustrating how dynamic and exclusive groups evolve dependent on the conflicting concerns of increasing participation and ensuring harmonization within the group. The Union or group does not exist in isolation. Outsiders constitute various kinds of exogenous shocks to the union. Some such shocks can be mitigated if outsiders can be made to join the group. This alters both the group and the external environment. Outsiders have to be accepted by the insiders, and the outsiders may in varying degrees be required to accept the group membership criteria. Enlargement and harmonization may go hand in hand, enlargement may preclude harmonization, harmonization may preclude enlargement, or both may be precluded. This article has provided a framework for how to analyze such phenomena of widening and deepening.

Future research may analyze more than two periods, allow the third option 'to do nothing' in addition to 'widening' and 'deepening' in each period, allow 'widening' and 'deepening' to

be negative (shrinkage of union size and abolition of harmonized regulations), allow these five options to be endogenously determined at various points in discrete or continuous time, introduce alternating regulations to address sustainability, reversal, etc., and address timing as well as sequencing. For example, sequencing may be determined as an outcome of collective decisions by insiders.

Literature

- Alesina, Alberto, Ignazio Angeloni and Federico Etro, 2001, "The Political Economy of International Unions", NBER Working Paper No. W8645.
- Alesina, Alberto, Ignazio Angeloni and Federico Etro, 2001, "Institutional Rules for Federations" NBER Working Paper No. W8646.
- Alesina, Alberto, Ignazio Angeloni and Ludger Schuknecht, 2005, "What does the European Union do?", *Public Choice* 123: 275-319.
- Alesina, Alberto, Ignazio Angeloni and Federico Etro, 2005, "International Unions", *American Economic Review* 95: 602-615.
- Alesina, Alberto and Enrico Spolaore, 1997, "On the Number and Size of Nations," *Quarterly Journal of Economics* 112, 1027-1056.
- Alesina, Alberto and Enrico Spolaore, 2003, *The Size of Nations*, MIT Press, Boston.
- Baldwin, Richard, 1997, "The Cause of Regionalism", *The World Economy* 20: 865-888.
- Baldwin, Richard, Erik Berglof, Francesco Giavazzi, Mika Widgren, Nice Try, 2001, "Should the Treaty of Nice be Ratified?" London: Centre for Economic Policy Research.
- Bolton, Patrick and Gérard Roland, 1997, "The Breakup of Nations: A Political Economy Analysis," *Quarterly Journal of Economics* 112, 1057-1090.
- Bordignon, Massimo and Brusco, Sandro, (2003), "On Enhanced Cooperation," CESifo Working Paper Series, CESifo Working Paper No. 996, CESifo GmbH.
- Brewster, Rachel, Michael Munger, and Thomas Oatley, 2002, "Widening Versus Deepening the European Union: an Institutional Analysis," in Madeleine Hosli, Adrian Can Deemen, and Mika Widgren (eds) *Institutional Challenges in the European Union*, London: Routledge, 2002, 48-64.
- Brou, Daniel and Michele Ruta, 2004, "A Positive Explanation of EU Enlargement", EUI Working Paper 30-2004.
- Casella, Alessandra, 2001, "The Role of Market Size in the Formation of Jurisdictions," *Review of Economic Studies* 68, 83-108.
- Casella, Alessandra and Bruno Frey, 1992, "Federalism and Clubs. Towards an Economic Theory of Overlapping political Jurisdictions", *European Economic Review* 36: 639-649.
- Chwe, Michael, 1994, "Farsightedness and Cautiousness in Coalition," *Journal of Economic Theory* 63, 299-235.

- Cornes, Richard, and Todd Sandler, 1996, *The Theory of Externalities, Public Goods and Club Goods*, Cambridge: Cambridge University Press.
- Cremona, Marise (ed.), 2003, *The Enlargement of the European Union*, Oxford: Oxford University Press, 2003.
- Ellickson, Bryan, Birgit Gørdal, Suzanne Scotchmer, and William Zame, 2001, "Clubs and the Market: Large Finite Economies," *Journal of Economic Theory* 101, 40-77.
- European Commission 2003, "Enlargement of the European Union: An Historic Opportunity", Brussels: Enlargement Directorate-General, European Communities, Brussels.
- Frey, Bruno S., 2001, "A Utopia? Government Without Territorial Monopoly," *Journal of Institutional and Theoretical Economics* 157, 162-175.
- Friedman, David 1977, "A Theory of the Size and Shape of Nations," *Journal of Political Economy* 85, 1, 59-77.
- Guérot, Ulrike, 2002, "The European Paradox: Widening and Deepening in the European Union", The Brookings Institution, US-Europe Analysis Series, May 2002.
- Hausken, K. (2000), "Migration and Intergroup Conflict," *Economics Letters* 69, 3, 327-331.
- Kandogan, Yener, 2000, "Political Economy of Eastern Enlargement of the European Union: Budgetary Costs and Reforms in Voting Rules," *European Journal of Political Economy* 16: 685-705.
- Karp, Jeffrey and Shaun Bowler, 2006, "Broadening and Deepening or Broadening versus Deepening: The question of enlargement and Europe's 'hesitant Europeans,'" *European Journal of Political Science*, (forthcoming).
- König, Thomas and Thomas Bräuninger, 2002, "From an Ever-Growing Toward an Ever-Slower Union?" in Hosli, van Deemen, and Widren, 155-172.
- Malamud, Andres, 2005, "Mercosur Turns 15," *Cambridge Review of International Affairs* 18: 421-436.
- Mattli, Walter, 1999, *The Logic of Regional Integration*, Cambridge: Cambridge University Press.
- Mattli, Walter and Thomas Plümpert, 2002, "The Demand-Side Politics of EU Enlargement: Democracy and the Application for EU Membership", in: *Journal of European Public Policy* 9: 550-574.
- Mattli, Walter and Thomas Plümpert, 2004, "The Internal Value of External Options. On the Impact of EU Conditionality on Regulatory Reforms in Transition Countries", *European Union Politics* 5: 307-330.
- Mayhew, Alan, 2000, "Enlargement of the European Union: An Analysis of the Negotiations with the Central and Eastern European Countries", SEI Working Paper no. 39, Brighton: Sussex European Institute.
- Plümpert, Thomas, Christina V. Schneider and Vera E. Troeger, 2006, "Regulatory Conditionality and Membership Selection in the EU. Evidence from a Heckman Selection Model", *British Journal of Political Science* 36: 17-38.
- Plümpert, Thomas and Christina V. Schneider, 2007, "Discriminatory European Union Membership and the Redistribution of Enlargement Gains," *Journal of Conflict Resolution* 51, 4, 568-587.

- Schneider, Christina E., 2008, "Enlargement Negotiations and Distributional Conflicts. The Politics of Differentiated Membership in the European Union", Mimeo, University of Konstanz.
- Steunenberg, Bernhard, 2002, "Enlargement and Institutional Reform in the European Union: Separate or Connected Issues?" *Constitutional Political Economy* 12: 351-370.
- Streit, Manfred and Stefan Voigt, 1997, "Toward Ever Closer Union – Or Ever Larger? Or Both? Entry to the European Union from the Perspective of Constitutional Economics," in Dieter Schmidtchen and Robert Cooter (eds), *Constitutional Law and Economics of the European Union*, Cheltenham: Edward Elgar: 223-247.
- Vervaele, John, 2005, "Mercosur and Regional Integration in South America," *International and Comparative Law Quarterly* 54: 387-410.