Negative preference interdependence, continuous concessions,

and the division of reform gains in the making of the Lisbon Treaty.

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Abstract

Bargaining and bargaining theories are omnipresent in international relations. When uncertainty exists in bargains on international treaties, sovereign countries may repeatedly attempt to find a solution against the fallback solution. To explain the latest international bargains of 25 countries on the reform of the European treaties, which experienced several rounds with summit failures and negative referendums, we introduce an incomplete information bargaining model that highlights two aspects of this process. First, reform-friendly countries continued with making offers and feared a rejection of proposals that disproportionally favored themselves at the expense of the reform-skeptical countries. Second, negative preference interdependence increased the importance of relative gains for reform–skeptical countries, which had to convince their domestic audiences from their bargaining effectiveness.

One of the central puzzles in the history of European integration is that a larger number of political leaders from countries with more diverse preferences was able to reform the institutional framework of the European Union in 2009, while a smaller number with less diverse interests failed to do so before enlargement by 10 new countries in 2004. Existing bargaining theories, including prominent approaches on European integration, such as liberal intergovernmental bargaining theory (Moravcsik 1998, Moravcsik and Nikolaides 1999), two-level game analysis (Putnam 1988, Pahre 1997, Hug and König 2002) and institutionalist accounts (Garrett and Tsebelis 1996, Slapin 2011) can hardly provide a satisfactory answer for the coming into force of the Lisbon Treaty (2009), which overcame tremendous obstacles with summit failures and negative referendums, including more diversity in preferences by the accession of new members.[1] What was impossible to achieve for political leaders from 12 countries in the beginning and 15 countries in the end of the 1990s was unlikely to be achieved with 25 or 27 countries a few years later.

Although bargaining theories are omnipresent in studies on international relations[2] by pointing to a fundamental problem, in which two or more countries can benefit from

[1]After eight years, the 27 political leaders signed and their parliamentary supermajorities ratified the Lisbon Treaty that lowers the voting threshold in the Council of Ministers from 73% to 55% and expands this threshold to sensitive policy matters, which were originally decided by unanimity. Furthermore, the new treaty establishes a bicameral legislature between the Council and the European Parliament as the standard procedure, which disempowers the Commission.

[2] Scholars explain a wide ranging of phenomena such as the creation of international institutions (Axelrod, Alt et al. 1988, Moravcsik 1998, Koremenos et al. 2001), implementation by enforcement and sanctions (Morrow 1994, Fearon 1998, Koremenos 2001), mediation (Block and Siegel 2011), the outbreak of international conflict (Powell 2002, Slantchev 2003) and war (Fearon 1995, Reiter 2003, Tarar 2006, Powell 2006, Lake 2010), escalation (Fearon 1994, Bueno de Mesquita et al. 1997), delay or

cooperation but they can only realize this when they agree on the distribution of the benefit (Schelling 1960), there is little evidence on how the countries solve this problem in reality.[3] The following analysis will show that when the bargains on the reform of the European treaties came to a halt by failed summits and negative referendums, political leaders from reform-friendly countries continued with making offers to their counterparts. In contrast to standard theory, the changes in their utilities suggest that the decisions of these two conflicting groups were motivated at each round by the relative size of their gains from reforming the existing treaties. Similar to the one sided offering infinite-horizon bargaining model of Lopomo and Ok (2001), negative interdependence of preferences existed in this reform process, which required political leaders from reform-friendly countries to continue with making attractive offers under the risk of failure.[4] Because reform-skeptical countries were under pressure from their

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war in crisis (Morrow 1989, Smith 1998, Leventoglu and Tarar 2008), the (inefficient) use of power (Powell 1999), conventional and nuclear deterrence (Harrison Wagner 1982, Achen and Snidal 1989, Fearon 2002, Powell 2003), arms races (Morrow 1989, Grafinkel 1990), alliances (Smith 1995, Morrow 2000), mediation (Johnson 1993, Kydd 2003), democratic peace (Bueno de Mesquita et al. 1999), international trade (Milner and Rosendorff 1997, Dai 2002), ratification (Mo 1994, Tarar 2001, Hug and Koenig 2002), civil wars, ethnic conflict and terrorism (Atkinson et al. 1987, Fearon 2002, Bueno de Mesquita 2005, Powell 2007) with bargaining.

[3] Theoretically, there exists a large toolbox of bargaining models, which are based on Nash solution and the Rubinstein model (1982). Repeated game models are perhaps the simplest way to capture the idea of ongoing interaction between countries. In particular, they capture the shadow of the future where actions taken today will have consequences for tomorrow, and that there is no "last" date from which to unfold the strategic environment via backward induction. However, when both bargainers have incomplete information, the search for cooperation can fail (Myerson and Satterthwaite 1983).

[4] The implications of this model stand in contrast to standard predictions by postulating a fear against rejection of reform-friendly countries and a development towards "fair" offering of outcomes. Depending

domestic audiences, the analysis shows that the outcome moved towards a "more fair" division of the reform pie. Given incomplete information on the domestic audiences in the reform-skeptical countries, this process lasted several rounds and more than eight years.

In evaluating the argument on negative interdependence of preferences, according to which the reform-friendly countries offer concessions, while their counterpart of reform-skeptical countries have private information about their domestic audiences and can only accept or reject the proposals, we use a method that aggregates issue-specific data into a common reform space for identifying the location and relationship between the preferences of political leaders, the proposed offers and the voters. We will show that at each round the reform-friendly countries – in particular those from France, Germany and Italy – offered concessions to the political leaders of the main skeptical countries Ireland, Poland and Estonia, which finally supported the coming into force of the Lisbon Treaty. Because the political leaders of all countries had committed to a reform of the Treaty of Nice, they effectively offset this fallback solution, which was more supported by their domestic audiences.

The remainder is organized in three further parts. We start by contrasting our approach to the predominant complete information bargaining perspective on European treaty reforms. Thereafter, we introduce our data on political leaders' and voters' preferences. Finally, we will examine our perspective on the reform of the Nice Treaty, which emphasizes the role of domestic audiences and offering fair compromises for overcoming reform-skeptical leaders.

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on the weight of the disagreement outcome and discount rate, Lopomo and Ok (2001) show that a perfect Bayesian equilibrium exists whereby the time interval between the offers determines convergence.

From Nice to Lisbon: Towards a fair solution?

From a standard perspective on intergovernmental bargains, treaty reforms require Pareto-efficient consensus through reform gains among political leaders of all signatory countries (Moravcsik 1998). This view has been complemented by more sophisticated two-level game strategies, according to which political leaders from smaller countries states increased their bargaining power by relating treaty ratification to higher domestic hurdles, in particular when announcing referendums (Milner 1997, König and Hug 2000, Hug and König 2002, Finke 2011, Slapin 2011). The disappointing outcome of the summit negotiations (2001) on the Nice Treaty – the final attempt to reform the EU's framework before Eastern enlargement in 2004 – confirmed the status quo-bias of the existing reform procedure (Milner 1997, Finke et al. 2012). In response, the political leaders of the 15 member states adopted the Laeken Declaration on the Future of the EU on 15th December 2001and established a European Convention, which adopted an ambitious draft for a constitutional treaty, which political leaders had to sign at their summit meeting and to ratify according to each country's ratification procedure (König and Finke 2009).

However, this proposal did not survive the following summit in mid-December 2003 where political leaders could not find a compromise solution. Unlike a complete information perspective suggests the Irish presidency presented a compromise on a constitutional treaty a few month later, which political leaders signed in October 2004. Because the French and the Dutch voters surprisingly rejected this constitutional treaty by referendums in Mai and June 2005, a further compromise was needed to convince reform-skeptical leaders to continue with ratification after a two years lasting reflection period. However, this Lisbon Treaty did not find the approval of the Irish voters who

were called to ratify the treaty reform in a mandatory referendum. In June 2008, they rejected the Lisbon Treaty by 53% to 46%, with a turnout of 53.1%. After anew offer from the reform-friendly countries a significant majority of Irish voters (67%) with a turnout of 59% adopted the slightly modified Lisbon Treaty on the second attempt in October 2009 (König and Finke 2012, chapter 6). Figure 1 illustrates the stop-and-go process on the road to the Lisbon Treaty.

Figure 1 about here

The political history of this reform process calls the standard bargaining perspective on treaty reforms into question, which can explain neither disagreement nor continuous offering for reforming the Nice Treaty. An alternative approach to this perspective is an incomplete information bargaining model with negative interdependence of preferences and a more fair division of the outcome. Following Daughety (1994) this type of model basically states that the utility of the reform-friendly countries depends not only on their absolute gain, but also on their relation to the average payoff in the allocation of gains (see appendix for the formal part). Most importantly, the countries are uncertain about their opponent countries degree of preference interdependence. Lopomo and Ok (2001) propose an infinite-horizon bargaining model of one-sided offers and one-sided private information. The basic primitive of this model is a concession game, in which the reform-friendly countries, whose type is common knowledge, make all the offers, while the reform-skeptical countries have private information about their domestic audiences but can only accept or reject the offers from their reform-friendly counterpart. If no offer is ever accepted, the game would end with the disagreement outcome, and if a proposal is accepted in one period, the utility of the countries is discounted accordingly.

To understand the process which finally led to the Lisbon Treaty, consider a situation in which two group of countries try to agree on how to divide the gains of a reform. For simplicity, we reduce the number of countries to two groups, namely the reform-friendly and –skeptical group of countries. In case of disagreement, no group receives a reform gain. Equivalently, one can assume that the countries have an initial value of wealth and are bargaining over gains from a reform, which are wasted if disagreement occurs. However, invoking the European Convention and adopting the conventions' draft on a constitutional treaty increased uncertainty about the disagreement outcome because nobody could expect that the majority of reform-friendly countries would simply return to the status quo ex ante of the Nice Treaty by declaring the constitutional treaty null and void.

When the reform countries care not only about their share from reform, but also have beliefs about how reform-skeptical countries compare with the average level of earnings, their preferences are not independent. Compared to (standard) independent preferences, the feasible set of interdependent preferences is usually smaller. A connection of interdependent preferences with a fear of rejection that reform-friendly countries may have in case they make an offer that favors themselves disproportionately raises the attention to the degree to which a particular type of countries is negatively interdependent. In other words, the reform-skeptical countries must receive a minimum share of the reform pie in relation to the disagreement outcome, which is called the reservation amount. In an infinite-horizon bargaining situation, in which the reform-friendly countries make all proposals and in which only the reform-skeptical countries have private information about their type of domestic audience but can only accept or reject an offer, Lopomo and Ok (2001:273) derive the outcome for either disagreement or a proposal is accepted in the period, where the

utility of the countries is the common discount rate. Over time, persistent disagreement is intolerable for both the reform-friendly and reform-skeptical countries, with differences in the discount rate of the countries of both groups due to upcoming elections or external shocks, such as the financial crisis.

Unfolding the preferences of reform-friendly and –skeptical countries

To study this reform process with several disagreements and continuous offers, which led to the Lisbon and finally modified Lisbon Treaty, a group of DOSEI researchers[5] gathred data on the political leaders' positions by identifying the specific reform issues from the convention documents and interviewing at least two experts from each country on the positions of all political leaders.[6]In preparation of these interviews,the researchers identified a total of 65 reform issues by the proposed amendments in the documents of the convention's deliberations. During the interviews, the experts were

[5] The DOSEI (Domestic Structures and European Integration) project has been financed by the Commission under grant HPSE-CT-2002-00117, in which seven teams collaborated (Michael Laver, Ken Benoit and Raj Chari from Trinity College Ireland, Simon Hix and Giacomo Bernedetto from London School of Economics and Political Science, Han Dorussen and Hartmut Lenz from University of Essex, George Pagoulatos and Spyros Blavoukos from Athens University, Madeleine Hosli, Paul Pennings and Christine Arnold from University of Leiden, Christophe Crombez and Jan Lebbe from Leuven University, Simon Hug and Tobias Schulz from University of St. Gallen, and Daniel Finke, Stephanie Heisele and Thomas König from German University of Administrative Sciences).

[6]Until December 2003, the researchers interviewed 80 per cent of the 85 experts, of whom 47 (57 per cent) were from inside government. The remaining interviews were completed before the end of the intergovernmental bargains in February 2004, with the exception of three additional interviews about the new Spanish government in May 2004 It took about a month to identify the experts of the new socialist Spanish government, which was elected into office on 14 March 2004 (see König and Hug 2006).

aksed to indicate the national position on each issue, whereby more than one expert per country was interviewed with at least one from inside government.[7]This dataset has been completed by adding information on the alternatives proposed by the convention's draft, the location of the status quo according to the Nice Treaty and – at a later stage – the compromises offered for finalzing the Lisbon Treaty.Table 1 overviews the set of reform issues, their date of settlement, the number of political leaders preferring the status quo and the level of conflict, which is measured by the overall distances among political leaders.

Table 1 about here

To analyze the configuration of political leaders and their voters, we reduce their issue-specific reform positions to a common space, in which we can also integrate the positions of their voters from each country (König and Finke 2012, chapter 4). We reduce the issue-specific information on the positions of political leaders for theoretical and empirical reasons into a latent space with a two-dimensional, two-parametric item response model (probit link).[8]Theoretically, an issue-specific analysis of outcomes

[7]The adjusted cross-validity is 85 per cent in the entire dataset, ranging from 66.8 per cent for the Commission to 95.1 per cent in the case of the Irish position). When experts indicated different positions for the same actor, these discrepancies were resolved by ranking the experts according to their competence.

[8]The model is globally identified by normalizing the latent trait, i.e. mean = zero, and variance = unity (Rivers 2003). Finally, correct identification is ensured by an ex post procruste transformation of the reform positions. Essentially, this procedure rotates the entire posterior distribution according to an exogenously given criterion. In this case, we chose the logic underlying standard principal component analysis. The algorithm was implemented in GAUSS 9.0. The estimation method used was a Metropolis-Hastings within Gibbs algorithm which is the standard strategy to estimate Bayesian item response models (see Johnson and Albert 1999: 54). Convergence was reached after a burn-in of approximately

assumes that these cases are decided independently – an assumption that is very strong in our view, in particular for referendums. From an empirical viewpoint, a dimensional representation reduces a multi-issue space to a few very important but characteristic dimensions. Hence, if it is possible to reduce the issue-specific information to a higher dimensional space, we have solid data information about the configuration of political leaders and their voters in a common reform space. Figure 2illustrates the reform preferences of political leaders in this space, whereby the lines indicate the core of countries, which announced ratification by a referendum.

Figure 2 about here

We label the resulting two latent dimensions as "expansion of the EU's policy competencies" and the "reform of institutional rules", which govern decision making in the EU (for more detail, see appendix 1). Compared to the horizontal dimension where all political leaders preferred the expansion of policy competencies, their distribution on the vertical institutional dimension reveals a conflict between large and smaller states on the reform of the Council's decision-making rules and the composition of the Commission. The larger countries favored a smaller Commission and an extension of QMV in combination with a more proportional representation, while smaller states were eager to maintain their agenda-setting and veto powers. On this dimension, France and the Czech Republic are the two countries with referendum announcement on each side of the spectrum. The location of the constitutional treaty (CON) indicates the ambitious

10,000 iterations with another 15,000 draws from the posterior distribution for analysis. Convergence has been validated using three criteria: First, visual inspections of the trace plots. Second, reestimation of the model to see whether the results could be reproduced and were independent of the starting values. Both analytical steps lead to satisfactory results. Third, the algorithm appears to be reasonably efficient, with acceptance rates for the cutoff parameters varying between a minimum of 0.51 and a maximum of 0.80, with a mean of 0.63.

nature of the convention's draft proposal, which is located close to the German preference (DE). However, the Irish preference (IE) is clearly located closer to the status quo, which means that the win-set of the Nice Treaty remains empty. A rejection was also likely by many (smaller) accession countries, which were against the proposed institutional reform, such as Estonia (EE) and Poland (PL).

The configuration of the eleven countries announcing referendums illustrates that they covered almost the entire distribution of the space. In addition to the status quo-prone Irish preference with a mandatory referendum, the reform-skeptical political leaders from Poland, Denmark and the Czech Republic on the one side, and the reform-friendly leaders from Spain, France and Belgium on the other indicate that it was difficult – if not impossible – to find consensus at the summit meeting in mid-December 2003. Amending the constitutional treaty in one direction for the sake of ratification success simultaneously risked to increase the defection likelihood in other countries.[9]

To illustrate the uncertainty about domestic audiences, we use Eurobarometer data and integrate the reform positions of the voters on nine common issues into the latent space.[10]Technically, we accomplish this integration by estimating the respondents'

[9]Note that our factorial solution comes with error for the estimates on both dimensions, which we report in the appendix. In general, the estimates are more robust for the dimension on the expansion of policy competencies, which has also a higher explanatory power for the political leaders' configuration.

[10] We use nine questions from Eurobarometer 60.1, which were identical to those issues of the political leaders (see also Hug and Schulz 2007: 212 f.): Q51/Q32: the design of the European Council presidency; Q52/Q33: the design of the qualified majority voting rules; Q32.3/Q30.3: the Union's external representation; Q32.2/ Q30.2: the coordination of the Union's foreign policy; Q49/Q29.6: Should the EU have a single constitution?; Q32.10/Q30.9: Should the EU have a common immigration policy?;

preferences while constraining the item parameters to the posterior distribution of the two parametric item response modeling of the preferences of political leaders. We further calculate the median lines to identify the voters' yolk centers and radius, the latter as a proxy for domestic instability.[11]Only for very large electorates we can assume that the center of the yolk is the likely stable outcome because it is an element of the epsilon core (Tovey 1991, Hug 1999). Figure 3 shows the location of the yolk centers and the radius of their yolks in the latent common space.

Figure 3 about here

Across all countries, the location of the yolk centers reveals three types of situations: in countries like Italy, Belgium, Greece, Spain, France and the Netherlands, the majority of the voters were likely to prefer institutional and policy reform, whereby only the Belgian and Italian yolk radius include the constitutional treaty; voters from accession countries favored only the expansion of policy competiences but preferred to maintain the institutional framework, which would guarantee them more power. The yolk radius of these countries are farest away from the constitutional treaty but also indicate some distance to the Nice Treaty; in Austria, Germany, Ireland, United Kingdom, Portugal etc., the majority of the voters were in favor of some institutional reform but against the expansion of policy competencies. One explanation for this configuration is that voters from new, smaller and mostly poorer countries expect to benefit from more common policies, which their political leaders can influence by veto power, while the voters from old, larger and richer member states want to have a stronger say in the making of

Q29.2/Q29.2: Should the EU have a common foreign policy?; Q29.3/Q29.3: Should the EU have a common defense and security policy?

[11] Miller et al. (1989: 45) consider the yolk radius as a measure for the extent to which the distribution of ideal points deviates from one that would generate majority-rule equilibrium.

existing policies. Only the voters of the third group – most are founding members – preferred both an expansion of policy comptencies and institutional reform.

Compared to their political leaders, not only the voters from the new member states were less reform-friendly, but also those from Austria, Germany, Portugal, the United Kingdom, Sweden, Denmark and Finland. The location and the small radius of their yolk confirms the predominant view that a British referendum would have been the most difficult one. Many voters from new members were also opposed to a drastic institutional reform. In these electorates the distance from the yolk center to the Nice Treaty suggests that they were more likely to prefer the status quo against the constiutional treaty. However, the yolk radius indicates that a less progressive reform could eventually increase the likelihood for their support. This is also true for those countries in which we observed negative referendums: In France, Ireland and the Netherlands the relative large radius of the yolks underlines a high instability and thus a high uncertainty ofreferendum outcomes.[12]

Uncertainty, expected gains and losses, and more fair offers

The data on political leaders' and voters' preferences allows us to explore our argument on negative interdependence of preferences, uncertainty about rejection and fair

[12] The uncertainty about the voters' decision was possibly higher than the analysis indicates. One reason is that our measurement also comes with estimation uncertainty, which we will discuss later on. A more substantial reason for a higher uncertainty is referendum turnout that depends on several other factors, including campaigning activities of proponents and opponents. Hence, even though parliamentary ratification bears a lower level of uncertainty, strong political leaders can have a significant strategic impact on the outcome of referendums (Hug and Tsebelis 2002, Koenig and Finke 2009).

compromising. Overall, the reform-friendly group offered four proposals in this reform process: The convention's draft (June 2003), the constitutional treaty brokered by the Irish presidency (June 2004), the Lisbon Treaty brokered under the German presidency (June 2007) and the modified Lisbon Treaty (December 2008). Table 2 lists the gains (losses) of all 25 political leaders by comparing their Euclidean distances to the Treaty of Nice to the first three of these proposals.

Table 2 about here

From the 25 political leaders, the analysis reveals that 13 had to expect losses from changing the status quo to the convention's draft of a constitutional treaty, including "older" members such as Denmark, Ireland, the Netherlands and Sweden. However, the largest group of those could be found among the accession countries, which entered into the EU in May 2004 – a few months after the first summit failed in December 2003.Note that the three core countries of the complete information intergovernmental bargaining perspective, namely France, Germany and the United Kingdom, could have already agreed on the convention's draft.

In this situation, the Italian presidency backslid to preparing the final summit by shuttle diplomacy. At this time, political leaders debated whether the convention's proposal or the Nice Treaty should be the starting point for making concessions. Table 2further illustrates that the Italian presidency could not settle the more conflictive reform issues. Except for migration and asylum policy, the indicator on the level of conflict reveals that the more hotly debated issues were solved at the end. While the number of political leaders preferring disagreement was already high for some issues settled by the convention, the positions of political leaders were more homogeneously distributed on issues related to the participation of the European Parliament and the Council voting rule.

The following Irish presidency was confronted with the most contested issues, such as the provisions for qualified majority voting in the Council, the parliamentary rights in budgetary affairs and the religious reference in the preamble. The Irish shifted gears and replaced the shuttle diplomacy style in working groups staffed by high-level governmental diplomats. König and Finke (2012, chapter 5) show that these governmental agents deviated from their government's official position towards the position of their median voters. The compromise brokered by the Irish presidency on the constitutional treaty finally reduced the losses of the opponents and increased the number of proponents, but nine leaders still preferred disagreement, among them Ireland and Sweden. Formally, the situation hardly improved because the ten accession countries had become members when this compromise was presented in June 2004. This accession group included Poland, Estonia, the Czech Republic and Hungary, which immediately expressed their concerns about the constitutional treaty because they had to fear losses from a reform of the Nice Treaty.

Ratification of the constitutional treaty had been scheduled in the order of support, starting with the referendums in the most reform-friendly countries with the hope of a so-called domino effect. This plan failed miserably when the Dutch (May 2005) and French (June 2005) voters rejected the constitutional treaty. Yet again, the reformist camp of political leaders remained rather unimpressed by this set back. During the so-called reflection period another seven member states ratified the constitutional treaty, raising the number of successful ratifications to eighteen. This continued ratification process set the stage for another offer proposed by the German presidency in summer 2009. Although advised to settle for a "mini treaty", the reformist camp opted to propose another round of tailor made concessions to those countries, which yet had still to ratify the treaty (König et al. 2009).

This proposal has been signed in Lisbon in December 2007. By removing any constitutional element, the Lisbon Treaty aimed at appeasing domestic audiences, but still raised concerns among the remaining eight political leaders from reform-skeptical countries. Because only Malta could sufficiently profit from the anew compromise, the win-set of the Nice Treaty remained empty. Under these circumstances, one of the most prominent proponents of the complete information intergovernmental bargaining perspective concluded that "the failure of constitutional reform is, paradoxically, evidence of the success of stability of the existing European constitutional settlement" (Moravcsik2006: 219,see also Franklin 2006 and Rabkin 2006, The Economist, 2.6.2005 "the constitution is dead", Times online, 14.6.2008 "Irish voters sign death warrant for Lisbon Treaty").

From our incomplete information perspective on negative interdependence of preferences, we can observe that Germany, France and Italy belong to the group of winners when the convention's draft would have been the outcome, while the political leaders from Estonia, Ireland and Poland were among the top losers in the event of a reform of the Nice Treaty. This picture changes over time because Germany, France, and Italy made most concessions in each round, which mostly received Ireland, Poland and Estonia. A similar "fair" compensation picture can be found for the convention's draft as the default solution where Ireland, Estonia and Poland were mainly compensated at the expense of Germany, France and Italy. This pattern of compensation also holds true for the second round when the Lisbon Treaty finally failed to guarantee Pareto-efficiency but offered anew a "fair" compromise. Independent from the default solution, the kind of "fair" compromise stimulated the Irish government to engage into the campaign for the second referendum on the Lisbon Treaty.

On October 7, 2009 a significant majority of Irish voters (67%) with a turnout of 59% adopted the slightly modified Lisbon Treaty on the second attempt. According to a Eurobarometer poll (Flash EB 265) 38 per those respondent who had voted No in the 2008 referendum, but now supported the modified Lisbon Treaty did so on grounds of the "satisfactory guarantees" their government had received from its counterpart. This finding clearly indicates the importance of perceived relative gains for accepting the proposed treaty. A few weeks later, the Czech Republic's highest court ruled that the Lisbon Treaty was consistent with the country's constitution, so that the Czech instrument of ratification was the last to be deposited in Rome on 13 November 2009. The Lisbon Treaty entered into force on 1st December 2009. What was impossible to achieve for the 12 political leaders in the beginning and the 15 political leaders in the end of the 1990s, was achieved by offering fair compromises to a larger number of political leaders a few years later.

Conclusion

According to the standard perspective on intergovernmental bargaining (Moravcsik 1998), the three largest countries dominated the complete information situation at summit meetings from Messina (1955) to Maastricht (1992), sometimes buying of smaller states by side payments for their support of treaty reform. Since the mid-1990s, this perspective was complemented by sophisticated two-level game strategies of smaller countries, which were able to increase their bargaining power by tying their hands with announcing referendums (Hug and König 2002, König and Hug 2000). As a result, the following reform attempts at the Amsterdam (1997) and Nice (2000) summit bargains concluded at the lowest common denominator for a status quo-change. These

treaties could not prepare the EU's institutional framework for a time after enlargement by a large number of countries with diverse political, economic and societal backgrounds (König and Bräuninger 2004). Our analysis has started from the observation that a smaller number of countries was unable to reform this framework, while a larger number of countries with more diverse interests achieved this a few years later. We argue that standard models can hardly explain this puzzle, which led to several instances of disagreement, continuous compromising and a more fair division of the reform pie.

Instead, we approached this puzzle by a concession game with incomplete information on other players' concerns for relative gains. In our view, the convention's draft split the countries into two groups, reform-friendly and -skeptical countries, whereby eleven political leaders from both groups announced a referendum for ratification. This strategy not only challenged the convention's draft but also increased the uncertainty about domestic audiences. The consequences became apparent at several summit meetings and ratification processes when the reformist group continuously offered concessions to the reform-skeptical countries, which were rejected by reform-skeptical leaders and their voters: A compromise was offered under the Irish presidency, which was signed by all political leaders but rejected from French and Dutch voters in Spring 2005. This led to a two years lasting reflection period and anew compromise under the German presidency, which Irish voters rejected in 2008. Finally, anew compromise was approved by the Irish voters in a second referendum and the Lisbon Treaty entered into force in December 2009.

In our view, this stop and go process clearly points towards an incomplete information situation with a high level of uncertainty on domestic audiences and the disagreement value, which some saw in the Nice Treaty, while others leaned towards the

constitutional treaty propose by the convention. The set up of this reform game resembles the concession game developed by Lopomo and Ok (2001), in which the outcome tends to be fairer because of negative interdependence of preferences and the proposer's fear of rejection. Our analysis lends support for a "fair" compensation pattern of offers from reform-friendly countries, which constantly redistributed gains from the main winners to the losers of the treaty reform. On closer inspection of the compensation patterns of all stages, we found that the main reform losers were constantly compensated at the expense of the main winners. In our view, the proponents of the reform could gain credibility and power by offering "fair" compromises again and again, thus making further challenges of a slightly modified proposal less likely. In addition to the Convention, this helped to undermine the legitimacy of the Nice Treaty as the fallback solution.

We derive this conclusion from an empirical analysis of the eight years lasting reform process, which started with invoking a convention and ended with the ratification of the Lisbon Treaty. When our data generation process started, it was neither sure whether and when these actors will reach an outcome, what disagreements will emerge and how they will be overcome. Our perspective on the compensation pattern suggests that the perception of concessions as being fair has become a necessary requirement for changing the status quo. Hypothetically, challenging a compromise could have continued over and over again. Yet, this process comes to an end when the discount rate of the challenger increases by upcoming elections or external shocks, such as the financial crisis.

This insight has been documented by several events. The Polish leaders could not sustain their resistance after the electoral defeat of their Spanish coalition partner Aznar in May 2004. The ongoing ratification in reform-friendly countries and the slightly

amended proposals broke the resistance of the remaining reform-skeptical leaders against the Lisbon Treaty, which again was challenged by the first Irish referendum. However, anew modest concessions accompanied by the upcoming financial crisis motivated the Irish government to campaign in favor of the Lisbon plus Treaty in a second referendum, which also overcame the resistance of Czech political leaders. What was impossible to reach by 15 political leaders with more homogeneous interests was possible to reach by 27 political leaders through fair compromise in the end.

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Figure 1: The stop and go-process towards the Lisbon Treaty

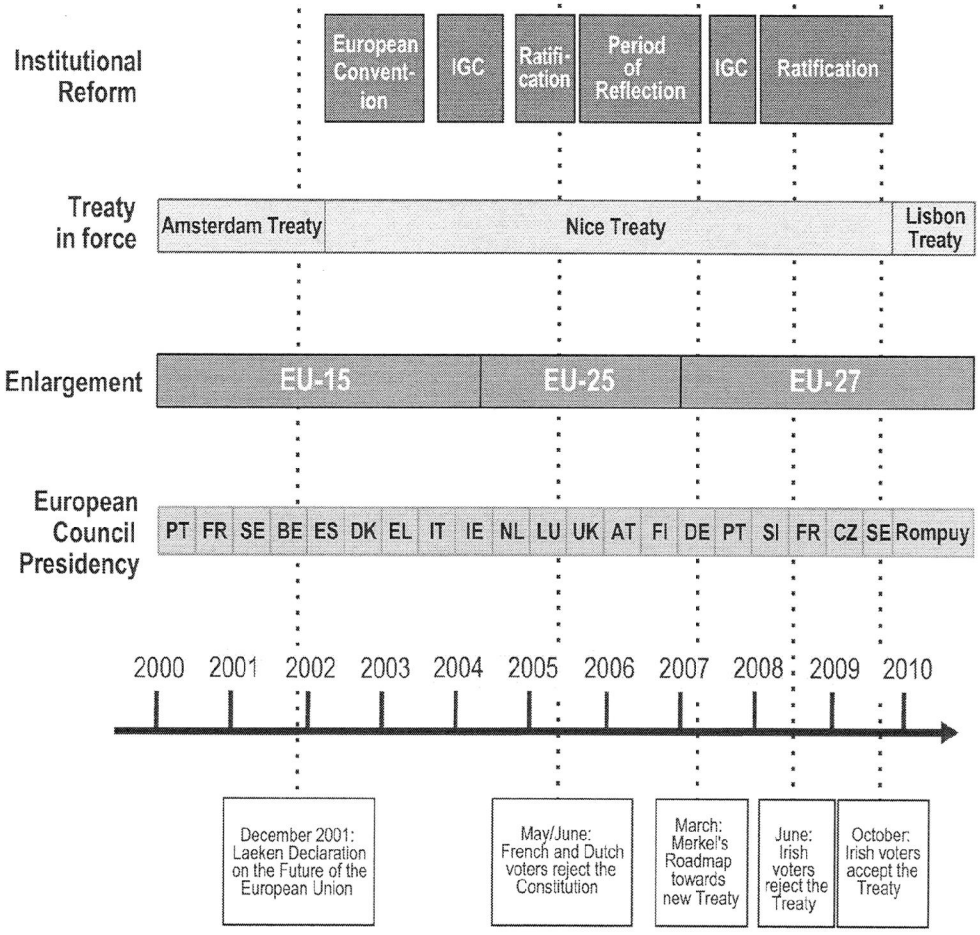
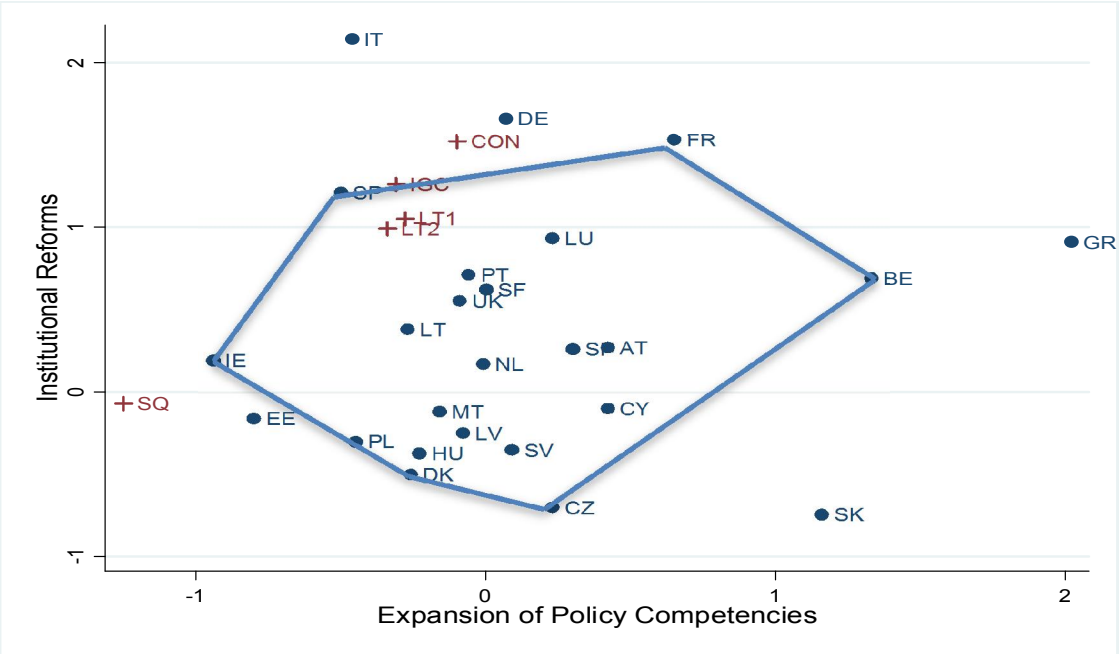
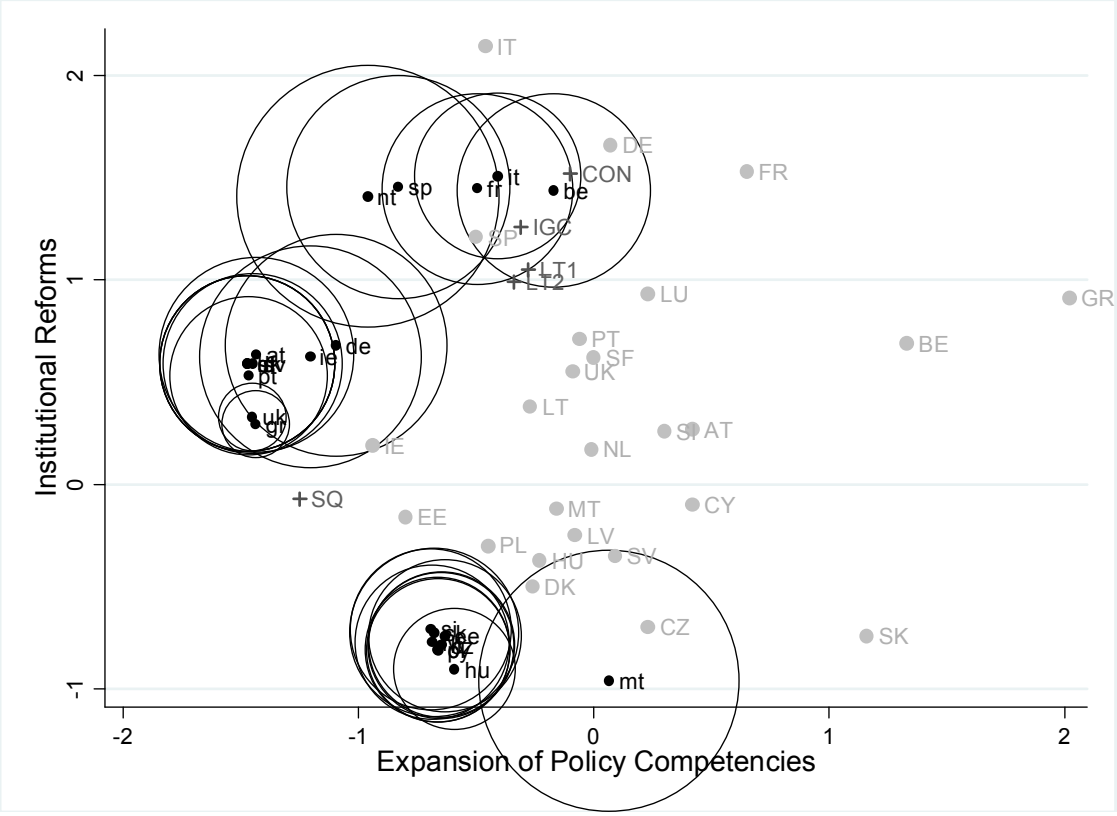


Figure2: Location and core of political leaders announcing referendums



Note: AT = Austria; BE = Belgium; CY = Cyprus; CZ = Czech Republic; DE = Germany; DK = Denmark; EE = Estonia; ES = Spain; FR = France; GR = Greece; HU = Hungary; IE = Ireland; IT = Italy; LU = Luxembourg; LV = Latvia; LT = Lithuania; MT = Malta; NT = Netherlands; PT = Portugal; PL = Poland; SI = Slovenia; SF = Finland; SK = Slovak Republic; SV = Sweden; UK = United Kingdom; SQ = Treaty of Nice; Con = Convention Proposal; IGC = Rome agreement; LT1 = Lisbon Treaty before 1st Irish Referendum; LT2 = amended Lisbon Treaty

Figure 3: Positions of Voters (yolk center) and their level of uncertainty (yolk radius) in the two dimensional space (with shaded positions of political leaders)



Note: AT = Austria; BE = Belgium; CY = Cyprus; CZ = Czech Republic; DE = Germany; DK = Denmark; EE = Estonia; ES = Spain; FR = France; GR = Greece; HU = Hungary; IE = Ireland; IT = Italy; LU = Luxembourg; LV = Latvia; LT = Lithuania; MT = Malta; NT = Netherlands; PT = Portugal; PL = Poland; SI = Slovenia; SF = Finland; SK = Slovak Republic; SV = Sweden; UK = United Kingdom; SQ = Treaty of Nice; Con = Convention Proposal; IGC = Rome agreement; LT1 = Lisbon Treaty before 1st Irish Referendum; LT2 = amended Lisbon Treaty

Table 1: Issues, date of settlement, political leaders preferring SQ and level of conflict

Issues settled by Irish Presidency (June 2004)		**Leaders for SQ**	**Level of conflict**
OMV	18.06.2004, CIG 82-	7	30
Number of commissioners	18.06.2004, CIG 82-	17	17
Presidency of the European Council	18.06.2004, CIG	4	16
Voting rule (council) for Tax harmonization	18.06.2004, CIG	15	10
Voting rule (council) for Common Foreign Policy	18.06.2004, CIG	14	12
Rights of EP in the adoption of the budget	18.06.2004, CIG	9	30
Charter of Fundamental Rights	18.06.2004, CIG 82-	0	21
Scope of ECJ jurisdiction	18.06.2004, CIG	4	25
Level of jurisdiction for Structural and Cohesion	18.06.2004, CIG 84-	22	4
Level of jurisdiction for Freedom, Security and Justice	18.06.2004, CIG	6	8
Level of jurisdiction for Economic Policy	18.06.2004, CIG 82-	15	10
Level of jurisdiction for Employment Policy	18.06.2004, CIG 82-	17	8
Level of jurisdiction for Social Policy	18.06.2004, CIG	17	8
Voting rule (council) for Stability and Growth Pact	18.06.2004, CIG 82-	7	5
Religious reference in the preamble	14.06.2004, CIG	4	33
Decision rule (EP) for Structural and Cohesion	24.05.2004, CIG	12	22
Level of jurisdiction for Health Policy	24.05.2004, CIG	15	14
Appointment of Commissioners (role of EP)	17.05.2004, CIG	13	13
Voting rule (Council) for Area of Freedom, Security	17.05.2004, CIG	8	17
Voting rule (Council) for Social security rights	17.05.2004, CIG	12	13
Presidency of the European Council (nomination)	13.05.2004, CIG	na	18
Appointment of Commission President (role of	13.05.2004, CIG	22	9
Minister of Foreign Affairs (role of Commission in	13.05.2004, CIG	na	2
Voting rule (Council) for Structural and Cohesion	13.05.2004, CIG	24	23
Voting rule (Council) for Defense Policy	13.05.2004, CIG	20	6
External representation	29.04.2004, CIG	0	21
Issues settled by Italian Presidency (Dec 2003)			
Enhanced cooperation	12.12.2003, CIG	8	12
Level of jurisdiction for Tax harmonization	12.12.2003, CIG	17	9
Voting rule (Council) for Social Policy	27.10.2003, CIG	19	7
Voting rule (Council) for Defense Policy	27.10.2003, CIG	21	
Right to withdraw from the Union	27.10.2003, CIG	5	12
Level of jurisdiction for Agriculture	27.10.2003, CIG	18	8
Level of jurisdiction for Environment Policy	27.10.2003, CIG	19	7
Level of jurisdiction for research, technological	27.10.2003, CIG	11	15
Migration and Asylum	27.10.2003, CIG	5	47
Issues settled by Convention (June 2003)			
Legislative initiative for citizens	12.06.2003, CONV	17	17
Minister of Foreign Affairs (role of EP in	12.06.2003, CONV	na	9
Economic objectives: competitiveness	12.06.2003, CONV	24	2
Subsidiarity	30.05.2003, CONV	2	2
Legislative initiative for Council	30.05.2003, CONV	23	2
Voting rule (Council) for Monetary policy	30.05.2003, CONV	6	3
Voting rule (Council) for Economic Policy	30.05.2003, CONV	8	8
Decision rule (EP) for Area of freedom, security and	30.05.2003, CONV	9	9
Decision rule (EP) for Tax harmonization	30.05.2003, CONV	16	16
Decisionrule (EP) forMonetarypolicy	30.05.2003, CONV	12	11
Decisionrule (EP) forEconomicPolicy	30.05.2003, CONV	12	12
Decisionrule (EP) for Common ForeignPolicy	30.05.2003, CONV	23	3
Decisionrule (EP) for Defense Policy	30.05.2003, CONV	23	3
Externalborders (management)	30.05.2003, CONV	4	20
Economicobiectives: marketeconomy	30.05.2003, CONV	0	17
Economicobiectives: employment	30.05.2003, CONV	12	19
Level ofiurisdictionforForeignPolicy	15.05.2003, CONV	11	11
Votingrule (council) forAgriculture	12.05.2003, CONV	25	0
Votingrule (Council) for Internal market	12.05.2003, CONV	25	0
Votingrule (Council) forEmploymentPolicy	12.05.2003, CONV	24	2
Decisionrule (EP) forAgriculture	12.05.2003, CONV	7	18
Decisionrule (EP) for Internal market	12.05.2003, CONV	23	3
Decisionrule (EP) forEmploymentPolicy	12.05.2003, CONV	7	7
Decisionrule (EP) forSocialPolicy	12.05.2003, CONV	19	7
Decisionrule (EP) forSocialsecurityrights	12.05.2003, CONV	15	15
Legislative initiative Commission	24.04.2003, CONV	25	0
Legislative initiative for European Parliament	24.04.2003, CONV	23	3
Legislative initiative for National parliaments	24.04.2003, CONV	25	0
Level ofiurisdictionfor Education Policy	06.02.2003, CONV	21	5

Table 2: Gains and losses of political leaders vis-à-vis the Nice Treaty

	Convention	Constitution	Lisbon
Austria	0,352	0,474	0,671
Belgium	1,024	0,944	0,989
Cyprus	-0,021	0,135	0,369
Czech Rep.	-0,628	-0,418	-0,142
Germany	1,809	1,584	1,346
Denmark	-0,933	-0,668	-0,37
Estonia	-1,307	-0,986	-0,698
France	1,682	1,46	1,323
Greece	1,194	1,048	1,045
Hungary	-0,813	-0,552	-0,257
Ireland	-1,115	-0,782	-0,523
Italy	1,588	1,434	1,151
Latvia	-0,065	0,201	0,488
Luxembourg	1,088	1,124	1,176
Latvia	-0,575	-0,334	-0,045
Malta	-0,534	-0,283	0,008
Netherlands	-0,084	0,137	0,406
Poland	-0,999	-0,715	-0,415
Portugal	0,602	0,798	0,988
Finland	0,52	0,709	0,915
Slovenia	0,264	0,413	0,629
Slovak Rep.	-0,083	0,021	0,234
Spain	0,923	1,167	1,114
Sweden	-0,503	-0,282	-0,003
UK	0,345	0,568	0,811

Appendix 1: Item Discrimination and Difficulty Parameter for 61 Issues

Issue Short Description	Item Discrimination Parameter		Item Difficulty Parameter
	Policy	Institutions	
Charter of Fundamental Rights	1.04*	0.30	-1.04*
Subsidiarity	0.93*	-0.30	0.88*
Religious reference	0.67*	0.10	0.04
Right to withdraw from the Union	0.62*	0.53*	-1.05*
Economic objectives: market economy	0.48*	0.84*	1.09*
Economic objectives: employment	1.03*	-0.01	1.08*
Economic objectives: competitiveness	0.19	-0.24	0.67*
Presidency of the European Council	0.84*	0.26	-0.48*
Presidency of the European Council	0.55*	-0.58*	1.45*
Council Qualified Majority Voting	0.86*	0.56*	0.03
Number of Commissioners	0.13	1.13*	-0.40*
Appointment of Commission President (role of CM, EP or nat. parliaments)	0.06	-0.14	-0.74*
Appointment of Commissioners (role of EP)	1.14*	0.49*	0.66*
External representation	0.87*	0.52*	-0.42*
Minister of Foreign Affairs (Commission appointment)	0.87*	0.54	0.80*
Minister of Foreign Affairs (EP appointment)	-0.35	-0.29	-0.65*
ECJ Jurisdiction	0.75*	-0.37*	-1.32*
Legislative initiative for EP	0.62*	-0.80*	-1.17*
Legislative initiative for CM	0.04	0.13	0.65*
Legislative initiative for Citizens	0.66*	0.49*	0.89*
Enhanced Cooperation	1.02*	1.51*	-0.29
Level of Competence for Agriculture	0.72*	-0.28	1.07*
Level of Competence for Structural & Cohesion	1.18*	-0.64*	-1.48*
Level of Competence for the Area of Freedom, Security and Justice	1.05*	0.66*	0.02
Level of Competence for Foreign Policy	1.26*	0.89*	0.35*
Level of Competence for Economic Policy	1.36*	0.07	0.47*
Level of Competence for Tax Harmonization	1.49*	0.22	0.50*
Level of Competence for Employment Policy	1.55*	-0.70*	0.64*
Level of Competence for Social Policy	1.64*	-0.03	0.28*
Level of Competence for Health Policy	0.91*	0.07	0.10
Level of Competence for Environment Policy	1.35*	-0.86*	0.32*
Level of Competence for Education Policy	1.19*	-0.42	1.11*
Level of Competence for Research, Technological Development & Space	1.49*	0.41	-1.42*
Voting rule (CM) for Structural & Cohesion s	0.66*	0.25	-0.36*
Voting rule (CM) for Freedom, Security & Justice	0.54*	0.35	0.60*
Voting rule (CM) for Tax Harmonization	0.93*	1.18*	-0.66*
Voting rule (CM) for Monetary policy	1.32*	0.21	-0.27
Voting rule (CM) for Economic Policy	1.18*	0.09	-1.29*
Voting rule (CM) for Employment Policy	1.18*	0.90*	-0.37*

Voting rule (CM) for Social Policy	0.56*	1.18*	-0.72*
Voting rule (CM) for Social Security Rights	1.22*	0.52*	0.46*
Voting rule (CM) for Common Foreign Policy	0.83*	1.45*	1.28*
Voting rule (CM) for Defense Policy	1.07*	1.07*	1.29*
Decision rule (EP) for Agriculture	0.41*	-0.50*	-1.28*
Decision rule (EP) for Structural & Cohesion	1.07*	-0.32	-0.23
Decision rule (EP) for Freedom, Security & Justice	1.11*	-0.07	-1.14*
Decision rule (EP) for Internal Market	1.27*	-0.52*	0.82*
Decision rule (EP) for Tax Harmonization	1.77*	0.47*	0.03
Decision rule (EP) for Monetary policy	1.11*	-0.67*	0.13
Decision rule (EP) for Economic Policy	1.03*	-0.90*	-0.45*
Decision rule (EP) for Employment Policy	1.35*	-0.10	-0.40*
Decision rule (EP) for Social Policy	0.89*	0.31	0.18
Decision rule (EP) for Social Security rights	1.20*	0.04	-0.49*
Decision rule (EP) for Common Foreign Policy	1.04*	-0.32	-0.38*
Decision rule (EP) for Defense Policy	1.05*	-0.31	-0.81*
Rights of EP in the adoption of the budget	0.31	0.01	-0.83*
SGP I (flexibility)	0.25	-0.26	-0.36*
SGP II (debt/ GDP criterion)	0.48*	0.05	-1.47*
Defense Cooperation	1.46*	1.51*	1.25*
External Borders (management)	0.54*	0.40*	-1.30*
Migration and Asylum	0.62*	1.00*	0.17

Appendix 2: Political leaders ' preferences and size of error on the two dimensions of the latent space

Country	Institutional Reforms			Expansion of Competencies		
	Mean	CI 95		Mean	CI 95	
Austria	0.27	-0.12	0.63	0.42	0.22	0.63
Belgium	0.69	0.27	1.10	1.33	1.08	1.59
Cyprus	-0.10	-0.49	0.30	0.42	0.22	0.63
Czech Republic	-0.70	-1.01	-0.38	0.23	0.01	0.48
Germany	1.66	1.28	2.02	0.07	-0.26	0.36
Denmark	-0.50	-0.80	-0.19	-0.26	-0.49	-0.03
Estonia	-0.16	-0.52	0.22	-0.80	-1.00	-0.60
France	1.53	1.12	1.95	0.65	0.29	0.96
Greece	0.91	0.32	1.49	2.02	1.68	2.38
Hungary	-0.37	-0.71	-0.05	-0.23	-0.44	-0.03
Ireland	0.19	-0.21	0.56	-0.94	-1.23	-0.68
Italy	2.14	1.61	2.62	-0.46	-0.86	-0.10
Lithuania	0.38	0.11	0.65	-0.27	-0.45	-0.10
Luxembourg	0.93	0.61	1.27	0.23	0.03	0.43
Latvia	-0.25	-0.51	0.01	-0.08	-0.26	0.10
Malta	-0.12	-0.41	0.19	-0.16	-0.34	0.02
Netherlands	0.17	-0.09	0.42	-0.01	-0.17	0.15
Poland	-0.30	-0.62	-0.02	-0.45	-0.64	-0.27
Portugal	0.71	0.34	1.06	-0.06	-0.39	0.24
Finland	0.62	0.32	0.91	0.00	-0.23	0.22
Slovenia	0.26	-0.02	0.54	0.30	0.13	0.47
Slovak Republic	-0.74	-1.21	-0.25	1.16	0.81	1.55
Spain	1.21	0.88	1.54	-0.50	-0.76	-0.25
Sweden	-0.35	-0.60	-0.08	0.09	-0.08	0.26
United Kingdom	0.55	0.26	0.84	-0.09	-0.30	0.11

One sided offerings in infinite horizon bargaining (Lopomo and ok 2001).

Consider a situation in which two countries or group of countries try to agree on how to divide the gains of a reform 2m, where m>1. In case of disagreement, each group receives ε∈ (0, m). Thus, the size of the reform gains is 2m. Without loss of generality, let ε =1 so that the set of all feasible divisions of the reform gains is $X \equiv \{(X_A, X_B) \geq (1,1) : X_A + X_B \leq 2m\}$ while the set of each efficient division is given by $Y \equiv \{(X_A, X_B) \in X : X_A + X_B = 2m\}$. With a given allocation (X_A, X_B) ∈ X of the reform, the utility function $u_i : X \times \mathrm{T}i \to \Re$ of countries i with a distribution of beliefs T*i* is expressed as

1. $u_i(x_A, x_B \mid \theta_i) \equiv V_i\left(x_i \frac{x_i}{\bar{x}} \mid \theta_i\right)$, *i*=A, B,

where all functions are continuous and strictly increasing $Vi(.,. \mid \theta i) for \quad \theta i \in \mathrm{T}i/\{0\}$ in both arguments, while $Vi(.,. \mid 0)$ is strictly increasing in the first and independent of the second argument. From normalization, it follows that

2. $Vi(1,1 \mid \theta i) = 0 \, for$ all $\quad \theta i \in \mathrm{T}i/\{0\}, \; i = A, B$

In words, the preferences are (possibly) negatively interdependent: countries i of type $\theta i \in \mathrm{T}i/\{0\}$ care not only about their share from reform x_i, but also about how x_i compares with the average level of earnings $\bar{x}$. This formulation maintains that $\theta i = 0$ corresponds to the type with (standard) *independent* preferences. Given a type profile (θ_A, θ_B), Lopomo and Ok (2001:267) formulate the Nash bargaining problem associated with the present setting as (U, (0,0)), where (0,0) is the disagreement point and U is the utility possibility set $\{(V_A(x_A, x_A / \bar{x} \mid \theta_A), V_B(x_B, x_B / \bar{x} \mid \theta_B)) : x \in X\}$. The bargaining set B(U)

of this problem is, in turn, defined as the set of all Pareto optimal and individually rational utility allocations in U, that is,

3. $$B(U) \equiv \{(V_A(x_A, x_A / \bar{x} \mid \theta_A),\ V_B(x_B, x_B / \bar{x} \mid \theta_B)) \geq (0,0) : x \in Y\}$$

This set of interdependent preferences is usually smaller than the bargaining set with independent preferences. A connection of interdependent preferences with a fear of rejection that reform-friendly countries may have in case they make an offer that favors themselves disproportionately raises the attention to the degree to which a particular type of countries i is negatively interdependent. In other words, the minimum share of the reform pie that i (of type θ_i) must be given in relation to the disagreement outcome is the reservation amount $r_i(\theta_i)$ defined by

4. $$V_i\left(r_i(\theta_i), \frac{r_i(\theta_i)}{m} \mid \theta_i\right) \equiv 0$$

Due to normalization in (2), the reservation of the independent type is zero, that is $r_i(0) = 1$. Moreover, $r_i(\theta_i) \in \mathrm{T}i / \{0\}$, since

5. $$V_i\left(1, \frac{1}{m} \mid \theta_i\right) < V_i(1,1 \mid \theta_i) = V_i\left(r_i(\theta_i), \frac{r_i(\theta_i)}{m} \mid \theta_i\right) < V_i(m,1 \mid \theta_i).$$

In an infinite-horizon bargaining situation, in which countries i with type θi is common knowledge make all proposals and countries j have private information about their type of domestic audienceθj but can only accept or reject an offer, Lopomo and Ok (2001:273) derive the outcome for either disagreement or a proposal x $\in \Re$ is accepted in period t, where the utility of country i $\delta_{t-1} u_i(X_A, X_B \mid \theta_I; \delta \in (0;1))$ is the common discount rate. If one assumes $TB = [0, \theta_B]$, the following simple one-parameter specification is

6. $$u_i(x_A, x_B \mid \theta_i) \equiv (1-\theta_i)x_i + \theta_i \frac{x_i}{(x_A + x_B)/2} - 1, i = A, B$$

where $(x_A, x_B) \in X$ and $0 \le \theta_i < 1$,

and when assuming that F is common knowledge with the following technical condition

7. $$\lim \inf_{\theta \to \Theta_B} \frac{1 - F(\Theta)}{\Theta_B - \theta} > 0$$

To see the usefulness of this specification, Lopomo and Ok (2001: 274) observe that since the equilibrium is invariant under linear transformation of u_i, they instead take the utility function of individual *i* of type θ_i as

8. $$v_i(x_A, x_B \mid \theta_i) \equiv r(\theta_i) u_i(x_A, x_B \mid \theta_i), \text{ where } \quad r(\theta_i) \equiv (1 - \theta_i + \theta_i / m)^{-1} \in (1, m)$$

is the reservation amount of countries *I* of type θ_i. It follows from (6) that

9. $$v_i(x_A, x_B \mid \theta_i) \equiv x_i - r(\theta_i) \text{ for all } (x_A, x_B) \in Y$$

Given the technical condition in (7), the following proposition holds for any Bayesian equilibrium of this game and the corresponding equilibrium sequence of offers made by countries i:

10. $$\lim_{\delta \to 1} x^1(\delta, \Theta_B) = (2\mathrm{m} - r(\Theta_B), r(\Theta_B))$$

Accordingly, if countries i assign positive probability, however small, to the event that countries j are maximally negatively interdependent, then, as the interval between offers becomes small, this strategy becomes close to the strategy that they would use where it is certain that j's reservation amount is near r(Θj). In particular countries i think that j may be the most competitive type who is almost indifferent between a fair 50-50

division and the disagreement outcome (i.e., if Θj is close to 1), the equilibrium outcome is (almost) the 50-50 split, no matter how unlikely i may think this event really is:

11. $\lim_{\Theta \to 1} \lim_{\underline{\delta \to 1}} x^1(\delta, \Theta_j) = (m, m)$

This shows the effectiveness of using negatively interdependent preferences to incorporate the reasoning of the proposer who fears rejection, which in turn, forces fair outcomes.