

Crisis Bargaining in the European Union: Formal Rules or Market Pressure?

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Abstract

To what extent did the EMU crisis alter the logic of EU decision making? We analyze the relevance of asymmetric market pressures as compared to that of formal voting and agenda setting rules by applying three established bargaining models to the 'EMU Positions» data. Accounting for the interdependence between issues and agreements, we locate actors' positions on three reform dimensions, namely the level of fiscal discipline, transfer payments and institutionalization. We find that market pressure during the height of the Eurozone crisis was particularly relevant, and that debtor countries were weakened by their difficulty in refinancing their public debt. Our finding shows that formal rules determining agenda setting and veto rights remain relevant even in times of.

Introduction

Over the last few years, we have seen substantive reforms of the Economic and Monetary Union (EMU) aimed at preventing another Eurozone crisis. Starting with the first economic adjustment package for Greece in 2010, these reforms gradually institutionalized a financial assistance scheme in combination with reinforced fiscal austerity requirements to prevent a future sovereign debt crisis. Although they did so with different intensity, the same three fundamental reform dimensions kept resurfacing over the course of the negotiations. First, to what degree should Eurozone members assist each other financially ('transfers')? Second, how much should fiscal policy sovereignty be limited, especially the sovereigns' right to borrow money and to accrue public debt ('fiscal discipline')? Third, cutting across both dimensions was the question of the 'institutionalization' of the new regime, meaning any mechanism that guarantees compliance with stricter fiscal discipline while ensuring mutual solidarity in the event of a crisis.

Despite the negotiations of these three reform dimensions having received a great amount of scholarly and public attention, opinions on whether formal, institutional power or economic power affected the outcome of these reforms still differ.. Some scholars have identified the significant impact of supranational actors such as the Commission on the reform outcome (Ioannou et al., 2015; Schimmelfennig, 2014; Bauer and Becker, 2014), whereas other studies outline the newly strengthened power of the German-French alliance (Schild, 2013; Crespy and Schmidt, 2014; Degner and Leuffen, 2019), or the leadership of a financially stable and economically strong Germany (Schoeller, 2017). Moreover, the EMU crisis hit member states asymmetrically. Whereas some states

(e.g. Greece, Italy) faced acute challenges to refinancing their public debt, others (e.g. Germany, the Netherlands) were financially stable, but worried about the stability of the Euro. The key question that arises here is how far these acute and asymmetric market pressures offset the well-known effects of formal voting power and agenda rules on decision making in the EU.

To analyse the relative importance of economic pressure as compared to that of voting and agenda power for understanding EU crisis politics, we use the 'EMU Positions» data to conceptualize and illustrate bargaining using three established models of EU decision making. The models differ in two important ways. First, they incorporate different assumptions about actors' power in multilateral bargaining, i.e. how individual preferences are aggregated to a collective bargaining outcome. Second, they rely on different assumptions about the relevance of formal veto rights, resulting in different constraints defining the set of feasible bargaining outcomes (Thomson et al. 2006; Finke and Fleig 2013). Thus, the combination of established models with unique data enables us to discuss the relevance of formal voting and agenda setting rules as compared to that of financial market pressures. Given the small number of truly independent cases, we cannot statistically test the predictive power of these competing models. Instead, this article offers a set of three case studies of EMU crisis bargaining, guided by a visualization of the different constraints, mechanisms for aggregating preferences and, ultimately, predictions offered by established models.

Which power resources are relevant to understanding the outcome of EMU crisis bargaining? First, we are interested in the relevance of economic power asymmetries that may have originated from

member states' different exposure to the crisis. While all states had an incentive to avoid a fully-fledged currency crisis, only a limited number few were paying enormous risk premiums on refinancing their public debt. During the height of the crisis, these debtor countries were subject to particular market pressures and impatient to find a collective solution. Following the intuition of Rubinstein's (1982) bargaining model, this impatience should have weakened their position at the intergovernmental bargaining table. In support of this argument, Schimmelfennig (2015) finds that asymmetric market pressures caused an EMU reform in favour of the German position. We, however, find only limited support for this perspective.

Second, we evaluate the relevance of formal veto power, meaning the voting hurdles that define the winset — the set of reform proposals all relevant actors prefer to having no reform. As veto rights are allocated by formal rules, we distinguish between the intergovernmental negotiations at the EU Council and the legislative negotiations applying the Ordinary Legislative Procedure (OLP). With regard to intergovernmental negotiations, we explore the extent to which every single Eurozone member had *de facto* veto power. With respect to legislative bargaining, we demonstrate that the qualified majority rules were crucial for opening a window for reforms. Third, we study the agenda setting role of the European Commission, which has been described as a major winner in many of the reforms (Bauer and Becker 2014).

In contrast to Lundgren et al's (2019) study of bargaining success, we find that asymmetric market pressures matter in times of crisis and that governments under less financial pressure are more likely to return successful from the international bargaining table. This confirms the importance of

economic factors, as also found by Tarlea et al. (2019). In particular, during the height of the crisis, member states that found refinancing their public debt increasingly costly were vulnerable at the bargaining table. We also found that, market pressures did not perfectly correlate with governments' reform positions. Specifically, France, which had relatively stable refinancing conditions throughout, shielded the group of crisis-ridden countries against more severe austerity measures. Moreover, we uncover that formal voting rules matter. Whereas the inter-governmental agreements left (almost) all Eurozone members better off, the legislative reform packages only satisfied a qualified majority of member states. Consequently, our analysis does not support the argument according to which intergovernmental bargaining was dominated by a Franco-German axis. Finally, we argue that the Commission's agenda power depends on its formal rights. Explicitly modelling the Commission's agenda setting power in EU law-making improves our understanding of the Six Pack and the Two Pack. By contrast, including the Commission and its reform positions does not improve our understanding of previously negotiated intergovernmental treaties.

Before we demonstrate the relevance of asymmetric economic power for explaining the outcome of the EU reform negotiations, this article proceeds with a brief review of the relevant literature.

Subsequently, we introduce the bargaining models and their operationalization. In the empirical section, we offer three case studies on how the intergovernmental and legislative bargaining processes led to the EMU reforms. The empirical section starts by conceptualizing the three-dimensional reform space (the three dimensions being discipline, transfers and institutionalization).

To account for the interdependence of individual reform acts, we aggregate the analysis in two

intergovernmental, and one legislative reform package. We then visualize, explore and discuss the different models for aggregating preferences, the sets of feasible outcomes and emergent predictions in that reform space. In addition, we offer a comparative evaluation of the models at the level of the individual reform acts: Greek Assistance Package, EFSF, ESM, Fiscal Compact, Two Pack, Six Pack, Banking Union.

Bargaining During the Eurozone Crisis

Studies of member states' bargaining positions (Lundgren et al 2018) or their ultimate bargaining success (Tarlea et al 2018) during the Eurozone crisis are static. They do not consider the dynamics of multilateral crisis bargaining, such as agenda setting by the European Commission or governments' veto threats. Our comparison of different bargaining models allows for the exploration of different sources of power, including asymmetric market pressures as well as veto threats and supranational agenda setting.

Our interest in the impact of market pressures as compared to that of formal voting and agenda rules is motivated by existing empirical studies of EMU negotiations, which emphasize and discuss different aspects of these complex negotiations. In the following, we contrast these discussions with three theoretical expectations derived from established models of decision making in the European Union (EU).

- 1) The Commission enjoys agenda setting power in legislative, but not in intergovernmental bargaining.

Under the OLP the Commission's unique right of initiative grants it gate-keeping, if not agenda setting powers (Tsebelis and Garrett, 2000). Empirical studies of EU legislative decision-making find that the Commission is highly skilled in using its exclusive right of initiative (Crombez, 1996; Kreppel and Oztas, 2017; Boranbay-Akan et al., 2017; Hartlapp et al., 2014). By contrast, the Commission has no formal role in intergovernmental negotiations. However, this view has been challenged with respect to the Eurocrisis negotiations from two sides.

First, the Commission has gained administrative powers under the intergovernmental treaties reforming the EMU (Bauer and Becker, 2014; Lundgren et al., 2019; Tarlea et al., 2019). These gains, e.g. in the oversight of the national EU budgets, can easily lead to the perception that the Commission is successful actor in crisis bargaining. Specifically, the Commission is said to have received a key role in economic governance through its responsibility for the monitoring of bailout conditionality (Dinan, 2012). From a supranationalist perspective this result stems from how the Commission's influences the reform agenda by issuing a permanent flow of documents (Camisão, 2015). However, other scholars refute this position, arguing that the Commission's influence during the early crisis management was limited (Puetter, 2012: 282; Camisão, 2015), not least because the EU governments were eager to avoid agency slack in times of crisis (Menz and Smith, 2013: 198).

Second, Chang (2013) argues that the Eurozone crisis triggered a shift from the Community to the Union Method, and therefore that the Commission had surprisingly limited influence in legislative bargaining. For example, he points specifically to public letters published by national governments with instructions for the bodies developing legislation, the introduction of task forces, and intergovernmental treaties (Chang, 2013). Hence, the Commission was said to be successful only when its preference coincided with the position of Germany and its allies (Schimmelfennig, 2015: 188). Other scholars refute this intergovernmental turn in EU legislation and argue that the Commission has great influence in setting the agenda for the Six- and Two Pack legislation (Dinan, 2012; Menz and Smith, 2013), not least because it tabled its legislative proposals a month before the intergovernmental task force (Bauer and Becker, 2014; Camisã, 2015). Moreover, the OLP trilogue enabled the adoption of the Six Pack and the Two Pack legislation after the first reading, avoiding lengthy discussions which could have watered down the Commission's original ideas (Camisã, 2015).

- 2) The formal voting rule constrains the win set for possible reforms.

Essentially, the response to the Eurozone crisis has been adopted either in the form of intergovernmental treaties among Eurozone members or as EU legislation. While the former implies unanimity among Eurozone members, the latter requires a qualified majority in the Council. Yet some studies question this formal unanimity-voting requirement, suggesting that for small and crisis-ridden states, veto was not an option. This perspective on intergovernmental bargaining goes back to Moravcsik's (1998) original argument that the history of European integration can be explained by

exclusively focussing on Germany, France and the UK. As the UK is outside the Eurozone, analysts of the Eurozone crisis have emphasized the reinforced German-French alliance (Degner and Leuffen, 2019), which was said to have had a crucial impact on the course of negotiations (Schild, 2013; Dinan, 2012). Thus, certain bargains were only deemed possible after the French and German governments had agreed to a common solution (Crespy and Schmidt, 2014). While some claimed that it was the German government that was proactive, dragging a weak and confused French leadership in its wake (Menz and Smith, 2013: 203), others see the German-French relationship as more balanced (Schild, 2013). The German government favoured a rule-based approach to preventing the Euro from breaking apart, while France instead opted for a policy discretion approach (Schild, 2013). A major compromise between the two leading governments – Germany embracing the French demand for economic government and France agreeing to the automatic financial sanctions desired by the Germans – is said to be at the core of the institutional solutions found during the Eurozone crisis (Crespy and Schmidt, 2014). Against the background of this discussion, we study how far the inclusion of formal veto rights improves our understanding of the EMU reforms.

3) The asymmetry of market pressures was decisive during the height of the crisis.

During the crisis, countries such as Greece, Portugal, Spain, Italy and Ireland found it increasingly difficult to refinance their public debts and were facing an imminent threat of public default. Despite their fear of the spill-over effects of such defaults, other Eurozone economies faced no issues in borrowing money. Schimmelfennig (2015) analysed EMU crisis bargaining as a chicken game, in which

member states' mixed motives resulted from their financial exposure to the crisis. He concludes that the breakdown of the Euro was averted by a cooperative solution, the terms of which "reflected German preferences predominantly" (Schimmelfennig, 2015: 177). From the perspective of bargaining theory, the asymmetric market pressures resulted in different levels of patience (urgency) on the part of member states to strike a collective agreement. According to the Rubinstein model (1982), patience is an important source of bargaining power. We also see that the asymmetry of market pressures changed over the course of the negotiations (see Figure 1). Consequently, we expect market pressures to have had the greatest impact at the height of the EMU crisis.

The relevance of asymmetric market pressures has been discussed from two perspectives. First, there are other sources of economic and financial bargaining power, most notably GDP. Specifically, analysts emphasize that the unique resources of both Germany and France were their GDPs (Schoeller, 2017) and, correspondingly, their share of European Central Bank capital: 27 per cent for Germany and 21 per cent for France (Schild, 2013). Second, other scholars point to member states' collective interest in saving, and argue that the power asymmetry was not actually that extreme, because the states that were not hit by public debt crises were eager to protect the unity of the Eurozone and, ultimately, the survival of the currency itself. The French and German governments publicly committed themselves to preventing the Euro area from breaking apart and to keeping Greece in, leading to Chancellor Merkel's famous words; 'if the Euro fails, Europe fails'. From this perspective, the German government was actually weak, because it was convinced that the rescue of Greece was necessary to save the Euro (Schimmelfennig, 2015: 185). Germany was relatively

vulnerable since it had greatly profited from the introduction of the Euro (Moravcsik, 1993), and since the German national banking system had a high level of exposure to at-risk countries (Howarth and Quaglia, 2016; Tarlea et al., 2019). Walter (2016) points out that the different vulnerability profiles of the Eurozone countries explained how each government tried to protect its voters.

Bargaining Models

Individual Utility Function

In order to analyze the internal negotiation dynamics we make use of decision-making models that have been successfully applied to the empirical analysis of EU negotiations (Thomson et al., 2006; Bueno de Mesquita and Stokman, 1994; Finke and Fleig, 2013; Schneider et al., 2010).

All of these models assume the same spatial utility loss function:

$$u(\mathbf{x}) = -\sqrt{(\boldsymbol{\theta} - \mathbf{x})' \mathbf{A} (\boldsymbol{\theta} - \mathbf{x})} \quad (1)$$

where $\boldsymbol{\theta} = (\theta_1, \theta_2, \theta_3, \dots, \theta_d)$ represents an actor's ideal point, and $\mathbf{x} = (x_1, x_2, x_3, \dots, x_d)$, the location of the bargaining outcome in a d-dimensional space (Enelow and Hinich 1984). The main diagonal of \mathbf{A} contains the salience an actor attaches to each *reform dimension*¹, i.e. a_{11} is the salience of dimension 1, a_{22} is the salience of dimension 2 etc. The intuition of eq. (1) is straightforward: actors prefer outcomes that are closer to their ideal position. Additionally closeness is conceptualized as Euclidean distance. The 'EMU Positions» project has collected data on the ideal

¹ Here, we assume that actors' preferences are separable across dimensions, that is, $a_{ij} = 0$, unless $i = j$.

positions of member states and the Commission. We aggregate that data into three reform packages. Each reform package was negotiated along issues which can be grouped along the same three reform dimensions ($d=3$), namely the level of fiscal discipline, transfers and institutionalization. The 'EMU positions' project has also collected data on the corresponding salience of the negotiation positions for the actors involved (i.e. a_{11} , a_{22} *asf.*).

Constraints

Some of the models explicitly account for the fact that individual or groups of member states have the power to veto a reform proposal. Veto power depends on the formal voting rule. In case of unanimity voting, every state has veto power. In the case of qualified majority voting (QMV), a blocking minority of states has veto power. States will vote against any reform proposal that is further away from their ideal position than the status quo ante (SQ). In other words, they will reject all proposals x for which $u(x) > u(sq)$. For example, the Greek government might have preferred no bailout package (i.e. the SQ), despite the risk of bankruptcy, to a minor bailout that would force them to enact strict austerity measures. These models constrain the set of feasible outcomes to the win-set to the status quo (Θ), i.e. the set of proposals a majority of states would not veto because they are closer to their ideal position than the SQ. In the case of legislative reform packages such as the Two Pack and the Six Pack, the relevant qualified majority threshold is defined by the OLP. Earlier intergovernmental reform agreements required **unanimity**_[SB1].

Objective Function

Finally, the models differ in how they aggregate individual utility functions to predict the collective bargaining outcome, x^* . At its core, this is a question about actors' relative power, which can be a result of agenda setting privileges or relevant economic resources. Romer and Rosenthal (1978) study the case in which one actor has an exclusive right to set the agenda, i.e. no other actor can table a proposal to put to vote. As a result, we would expect a reform outcome as close as possible to the agenda setter's (AS) ideal position, but within the win set to the status quo. Consequently, the objective function is:

$$x^* = \max_{x \in \Theta} (u_{AS}(x) - (u_{AS}(sq))) \quad (2)$$

Note that in the pure agenda setting model other actors are only relevant to define the winset of the status quo Θ . Without any such constraints, this function would always lead us to predict the ideal position of the agenda setter.

In a similar vein, scholars modeling zero-sum bargaining games ("divide the pie") have studied different allocations of agenda setting rights (e.g. Rubinstein 1982, Merlo and Wilson 1995, Eraslan 2002). Their overall conclusion is that actors who have an advantage in multilateral bargaining are more likely to be selected as agenda-setters early on in the negotiations. As outlined above, the literature on the EMU crisis discusses whether the Commission has been able to set the agenda in international crisis bargaining.

Specifying the objective function is more complex in the absence of a unique agenda setter. The canonical Nash bargaining solution (NBS) (Nash 1950) is a useful starting point for modelling

multilateral bargaining. It is also firmly rooted in the literature on decision making in the EU. Achen (2006) shows that the unconstrained NBS is an approximation of the Compromise Model proposed by van den Bos (1994). The Compromise Model is simply the mean of all actors' positions weighted by the salience they attach to the respective issue. The multidimensional extension of the Compromise Model has been termed the Position Exchange Model (Arregui et al., 2006)².

Briefly summarized, the Nash Bargaining Model predicts that actors agree on the reform proposal x^* within the winset of the status quo Θ , which maximizes the product of their weighted utility functions. That translates in the following objective function:

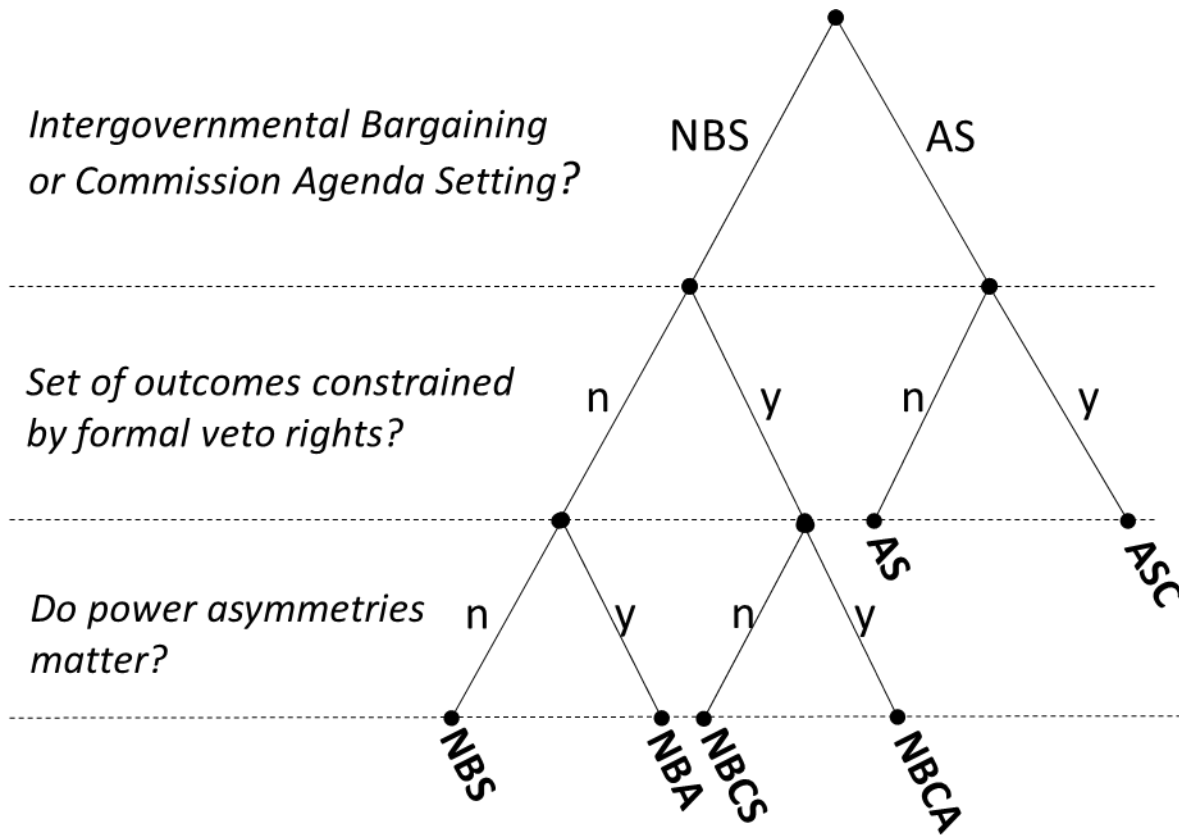
$$x_{nbs}^* = \max_{x \in \Theta} \prod_{i=1}^n (u_i(x) - (u_i(Q)))^{v_i} \quad (3)$$

If all actors have the same power, we can ignore v_i . This is the "Symmetric Nash Bargaining Solution". If, however, actors bargaining power differs, equation (4) describes the "Asymmetric Nash Bargaining Solution". An easy way to conceive of the power weights v_i is that they multiply actors' influence. For example, assuming that $v_{DE} = 2$ and $v_{FR} = 1$ is equal to saying that France had to face two Germanys, or to assuming that Germany had twice as much power. Here, we are particularly interested in whether crisis-ridden states, i.e. states under greater market pressures, were weaker than states not directly hit by the Euro crisis.

² The multidimensional extension of the Compromise Model has been termed the Position Exchange Model (Arregui et al 2006).

Figure 1 summarizes the six different models in the light of our three research questions. First, we distinguish between Agenda Setting (AS) models, minimizing the distance between the Commission and the outcome, and intergovernmental bargaining models (NB), which maximize the Nash product. Second, we distinguish between those models which constrain the set of feasible outcomes to the win set to the SQ, and those without such constraints. Technically this means that the optimization algorithm searches only within the win set (“constrained optimization”). The unconstrained NBS minimizes the product of the utility loss functions (eq. (1)). Note that the unconstrained agenda setting agenda setting model always predicts the ideal position of the Commission. Third, some of the intergovernmental bargaining models assume that member states possess different levels of power, these models maximize the asymmetric Nash product.

Figure 1 Overview of models and their relationship with the main research questions.



Note:

NBS= Symmetric Nash Bargaining Model (unconstrained)

NBA= Asymmetric Nash Bargaining Model (unconstrained)

NBCS= Symmetric Nash Bargaining Model constrained to the win-set to the status quo

NBCA= Asymmetric Nash Bargaining Model constrained to the win-set to the status quo

AS= Agenda Setting Model (unconstrained, i.e. prediction identical to ideal position of agenda setter)

ASC= Agenda Setting Model constrained to the win-set to the status quo

Operationalization

Reform Space

In a next step, we apply the above models to the 'EMU Positions' data set (for a detailed description of the 'EMU Positions» data please see the introduction to this special issue (Wasserfallen et al., 2019). The data set contains information on the ideal positions and salience of member states as well as the Commission on the most important reform issues. It also has information on the location of the reform outcome and, for most issues, the location of the SQ. Our conceptualization and operationalization of the EMU reform space is based on two insights.

First, the 'EMU Positions» data contains seven collective reform acts which feature 41 individual reform issues. Obviously, negotiations on issues belonging to the same package, and even negotiations concerning different reform packages, were interrelated. For example, treating negotiations over the ESM and the Fiscal Compact as independent would lead to potential logrolling over rules of fiscal discipline and the extent of transfers being missed by the study. Considering the timeline, we therefore decided to combine the data into *two intergovernmental-, and one legislative reform package*. We start with a first intergovernmental package early on in the crisis (Greece Bailout, EFSF), followed by a second intergovernmental package at the peak of the crisis (ESM, Fiscal Compact) and, finally, a second legislative package that began at the height of the crisis, but persisted until the crisis was almost over (Six Pack and Two Pack). We did not include issues which did not reach a final outcome during the time of the analysis e.g. the debates about the banking union.

Second, we aggregate reform issues to three *theoretically defined reform dimensions*. Please note that this is not a contradiction to Lehnert and Wasserfallen (2019), who identify one *latent conflict*

dimension. We also find that most member states' position can be ordered along a single dimension with the Netherlands and Germany at one end, Italy, and Greece at the other end. However, in order to understand multi-dimensional negotiations, it is crucial to focus on conflict *and* consensus (Tollison and Willett 1979). Moreover, it is important to include the minority of states that do not align with the main dimension of conflict, but may nevertheless be crucial for understanding the negotiation outcome. Specifically, we follow the literature on political economics that conceptualizes the reform space along (i) the level of *transfers* as well as (ii) the level of *fiscal discipline (austerity)* (for example Rodden (2002)). As a third dimension, we identify (iii) the level of *institutionalization*. This institutional dimension is crucial for understanding the bargaining dynamics in reforming the EMU. For example, we show below that the governments' decision to postpone institutionalization enabled high levels of transfer and austerity during the early reform packages. Yet governments were eager to establish trust in their reforms, and therefore, institutionalization became more important in the later stages of the reform process. Specifically, institutions were key to overcoming credible commitment problems amongst member states and, possibly, third actors such as financial markets (Moravcsik 1998). As a result, bargaining over the extent of transfers and the degree of fiscal discipline cannot be understood without taking into account agreed institutional safeguards, monitoring and sanctioning mechanisms.

Aggregating the 'EMU Positions» data to theoretically meaningful reform dimensions within the three reform packages bears two additional analytical advantages. As outlined above, some of our models are highly dependent on the correct specification of the winset of [K2] [SB3] the status quo.

Unfortunately, many individual issue dimensions deal with the specific design of a new institution (for

example EFSF, ESM), once it has already been founded. For example, in once instance, governments negotiated the EFSF's effective capacity. However, any outcome on that issue assumed that the EFSF would be founded in the first place; an issue captured separately in the 'EMU Positions» data. Consequently, identifying the location of the status quo on "effective capacity" is impossible because it dependent on the foundation of the EFSF. Finding the location of the status quo is much easier at the level of aggregated, theoretically meaningful dimensions, because we know the ex-ante degree of fiscal discipline, the ex-ante level of transfers and the ex-ante degree of overall institutionalization³. Moreover, the aggregation enables us to compare different reform packages over time. Specifically, we are able to track the progress on, and the dynamics of, the EMU reforms on the same three reform dimensions. Hence, we see for example, whether modelling asymmetric market pressures is of higher importance for understanding austerity negotiations than for understanding institutionalization negotiations.

We aggregate the positions in the following three steps. First, we assign individual issues to one of the three dimensions in each of the three reform packages. All dimensions (austerity, transfer, institutionalization) were negotiated in each of the three reform packages – albeit to a varying extent. We explain the assignment method below, when discussing the three packages of crisis bargaining in chronological order(see online appendix). In particular, we made sure that the individual issues have the correct signs: higher numbers on our negotiation issues ranging from 0 to 100 indicate more transfers, stronger fiscal discipline and higher levels of institutionalization. Second, we impute missing

³ In contrast, the article by Lundgren et al. (2019) does not use the status quo in its calculation of bargaining success, while the study by Tarlea et al in this special issue does not identify 0 as an approximation of the status quo.

values by averaging the actor's position over other issues assigned to the same dimension, as well as other actors' positions on the same issue. This imputation does not artificially shrink the winset, nor does it systematically favour any of the models, although it will pull all bargaining models towards the centre of the reform space.⁴ Third, we average each actor's positions over all issues assigned to the same dimension. In an alternative specification, we weigh the average with the salience actors attach to each issue, yet the results remain unchanged. In order to aggregate actors' salience to each of our three conceptual dimensions, we follow the same steps.

The resulting space is a valid operationalization of the reform dimensions discussed in the literature. As we will show below, it also boasts a high level of historical face validity. However, we would like to emphasize that the following applications of the data to the bargaining models come with an unspecified error term. First, the data itself (as all data) has a measurement error. Second, though theoretically guided, some of our assignment of issues to reform dimensions may be disputed. We guard ourselves against these errors by (i) reporting only major patterns, which should be very robust, and (ii) combining numbers with a qualitative analysis of the reform process.

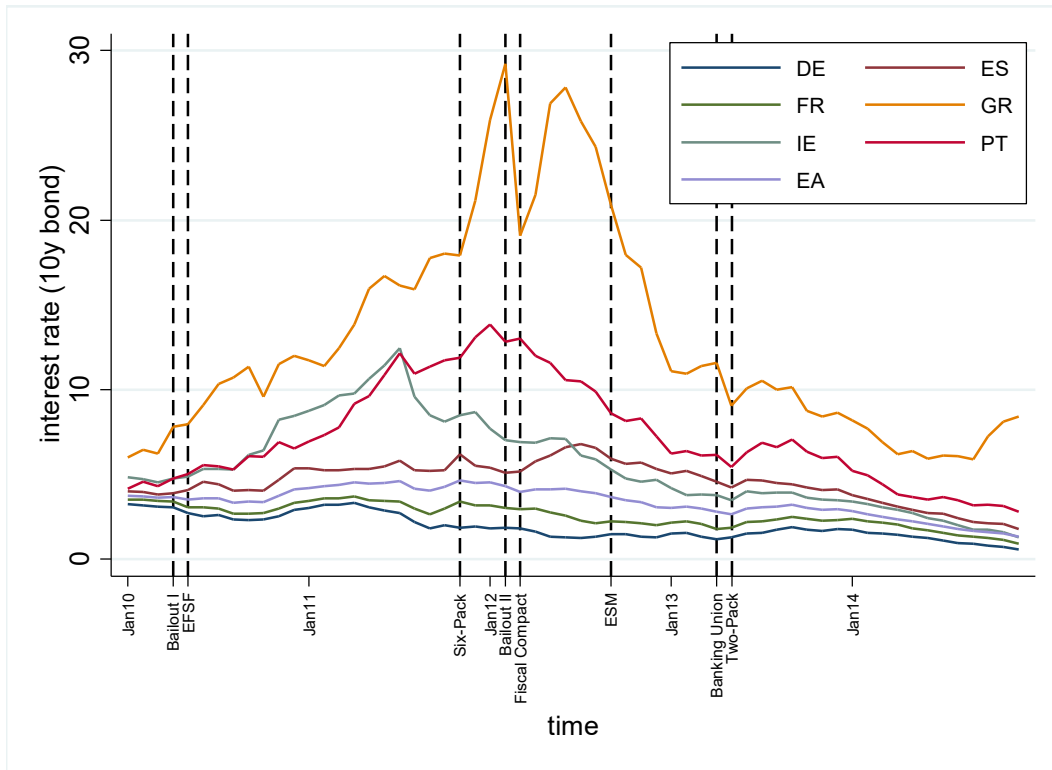
Asymmetric Market Pressures

⁴ We refrain from using imputation algorithms, which exploit the covariance in the data (e.g. Amelia) because that would carry the risk of individual, imputed values being extreme and thus affect the win set. For a discussion of imputing missing values in positional data see König et al. (2005).

Following the Rubinstein (1982) model and its multilateral extensions (Chae and Yang, 1988; Merlo and Wilson, 1995; Torstensson, 2009), patience is a source of bargaining power. The longer a negotiator can wait for an agreement, the more the counterparts have to concede if they are more interested in a timely agreement. The argument is of intuitive relevance to bargaining during the Eurozone crisis. Only some Euro economies experienced a sovereign debt crisis, including Portugal, Spain, Ireland and, most severely, Greece. By contrast, other Euro economies such as Austria, Germany and the Netherlands were primarily concerned that the debt crisis could become a currency crisis if some of the states went bankrupt and, consequently, defaulted on their loans. Whereas the crisis-ridden countries had to pay high-risk premiums to refinance their public debt, the stable Northern European economies experienced no such costs. A valid indicator for operationalizing the severity of a sovereign debt crisis is the interest rate on government bonds, which indicates the governments' costs of refinancing their debt (see Ioannou, Leblond and Niemann 2015). Thus we use the interests on 10-year monthly averaged governmental bonds as recorded by the ECB (see Figure 2 below).⁵ Specifically, v_i is standardized based the Eurozone member paying the highest interest (that is, Greece), so that $v_i = \frac{\text{interest}_{GR}}{\text{interest}_i}$. The literature discusses this indicator of economic urgency in comparison to the economic interest in the stability and survival of the Eurozone, which arguably may have been stronger in Northern Europe.

Figure 2: Interest of 10-year governmental bonds between 2010 and 2015.

⁵ Source: <http://sdw.ecb.europa.eu/browse.do?node=bbn4864>



Model Implementation

All models were implemented in Matlab version 2017b using the Global Optimization Toolbox.⁶ We checked the robustness of the results by simulating different starting values. In the following section, we present our empirical analysis in terms of the three reform packages introduced above. Each of the three sections starts with a short description of the reform space followed by a description and discussion of the model predictions. Finally, we discuss the robustness of our approach by comparing

⁶ We thank Piers Lawrence for his excellent work in implementing the models.

it to a case-wise application of the formal models at the level of the original issue dimensions of the ‘‘EMU Positions’’ dataset.

Empirical Analysis

Package 1: First Bailout of Greece and EFSF

Reform Space

In May 2010, the Council agreed on the EFSF and governments adopted the First Economic Adjustment Programme for Greece. The previous months were characterized by intense negotiations among the governments of the Eurozone. Simultaneously, the interest rates on 10-year government bonds began to diverge. In particular, Greece found refinancing its public debt increasingly expensive (see Figure 2). The negotiations constituted the very start of a reform of the EMU.

These early rounds of reform negotiations placed an emphasis on *transfer* payments. Specifically, the ‘‘EMU Positions’’ data set contains information on the governments’ initial willingness to bail out Greece (G1)⁷, on their willingness to relieve the Greek debt (G4) and on governments’ readiness to participate in the loan guarantees for the EFSF (EFSF1). Moreover, the data contains information on actors’ positions with regard to the EFSF’s effective capacity (EFSF2), and whether or not it should obtain a banking licence (EFSF4).

⁷ We reference the issues in the EMU positions data by their respective labels (see the online appendix for an explanation of the abbreviations).

The negotiations at this stage referred to a lesser extent to the issue of *institutionalization*. However, the data set contains information on whether governments favoured the establishment of a systemic crisis management framework or leaned towards an ad hoc combination of existing instruments requiring limited legal changes and institution-building (G2). Finally, the data contains no direct question regarding *fiscal discipline* preferences. However, for both packages we asked experts to indicate actors' positions on the involvement of the IMF (G3, EFSF3). From the outset, all parties were aware that involving the IMF would imply rigorous austerity measures.⁸ Although there may have been other motivations for or against involving the IMF, we consider it a valid proxy for governments' diverging preferences on fiscal discipline requirements.

Results

Table 1 lists the Euclidean distances from the predicted outcome to the actual outcome of the different bargaining models. This allows a comparison between the various models and an interpretation regarding which bargaining model provides the closest prediction of the bargaining outcome. In this way the bargaining model predictions illustrate which modelled negotiation dynamics capture the negotiation process most accurately. Figures 3.1 and 3.2 represent two-dimensional projections of the negotiation space. These compact figures depict information

⁸ See , for example, the following media reports on the involvement of the IMF (all accessed 15 January 2018):

<https://www.theguardian.com/world/2010/apr/16/greece-imf-bailout-reaction>

<https://www.reuters.com/article/eurozone-greece-germany/germany-wants-imf-involved-in-greek-bailout-for-reform-rigour-sources-idUSL5N10V2E820150820>

contained in the 'EMU Positions» data, as well as information resulting from our application of the bargaining models. First, they locate member states' ideal positions in the aggregated reform space. Second, they depict the status quo ante (SQ), as well as the outcome of the negotiations (OUT). Third, they show the point predictions of the six different models introduced above and summarized in Figure 1 (NBS, NBCA, ASC etc.). Fourth, they depict the unanimity win-set to the status quo, i.e. the set of positions all members of the Eurozone preferred to the status quo ante (the shape delimited by a black line). Finally, the contour lines within the win set illustrate the Nash Bargaining product. Please note that the reform space is three-dimensional and, therefore, the win set is also a three-dimensional object. In order to project it in two dimensions, we had to slice it at a chosen value on the third dimension. Figures 3.1 and 3.2. depict the resulting cross-section. Here, we have chosen to "slice" (or "evaluate") the win set and the Nash product at the value predicted by the constrained, asymmetric Nash Bargaining solution (NBCA) on the third dimension.⁹

Figure 3.1 depicts the Transfers-Fiscal discipline projection. The x-axis "Transfers" in figure 3.1 contains all negotiation issues in the first bargaining round which dealt with transfer questions. Similarly, the y-axis displays all issues dealing with fiscal discipline questions in that first reform package. Governments' positions cluster in two camps, with Germany (DE), the Netherlands (NL) and Finland (SF) demanding high discipline in combination with low transfers, and France (FR), Spain (ES) and Italy (IT) holding the diametrically opposite position, that is, low discipline in combination with

⁹ Since our model predictions are located at different values on the third dimension, this choice might cause the projected two-dimensional model predictions to be located outside the projected two-dimensional win set –despite being located in the three-dimensional win set.

high transfers. The position of these two groups of countries in the negotiation space corresponds to the single latent conflict dimensions identified by Lehnert and Wasserfallen (2019). The third dimension (figure 3.2) captures the level of institutionalization. Here, Germany (DE), Belgium (BE) and Slovenia (SI), as well as the Commission (AS), demanded the most far-reaching and systematic institutionalization. While a majority of the other governments also favoured institutionalization, Austria (AT) and Slovakia (SK) (which refused to participate in the Greek bailout programme) opposed any institutional reforms.

Studying the two-dimensional projections separately, the results appear puzzling: No single actor preferred high transfers in combination with rigorous fiscal discipline and very limited institutionalization. In other words, the outcome appears to be in disequilibrium. The bargaining outcome makes more sense when we link all three issues: both the austerity camp around Germany (DE), and the transfers camp around France (FR) preferred very high levels of institutionalization. Yet they soon discovered that far-reaching institutional reforms were not feasible – at least not at the swift pace the economic situation demanded. The opposition of the Slovakian (SK) and Austrian (AT) governments to institutionalized financial assistance packages also did little to speed up matters. Consequently, France (FR), Germany (DE) and other states gave up on institutionalization, which made it possible to agree on transfers under the condition of strict fiscal discipline- yet only on an ad hoc, temporary basis.

What Can We Learn from the Models?

First, given the temporary nature of the outcome regarding institutionalization, the Commission does not appear to have been successful at all (Hodson, 2013; Puetter, 2012). Thus the two agenda setting models (AS, ASC) consistently feature the largest distance to the outcome. The different predictive accuracy of the remaining models is insightful. On the institutional dimension, the Slovakian (SK) and Austrian (AT) governments define the boundaries of the win-set with their extreme positions. Both governments did not want to promote EU institutionalization further. As a result, we find that those models which consider the applicable voting rules (ASC, NBCS, NBCA) correctly predict low levels of institutionalization (Figure 3.2). By contrast, the two unconstrained Nash Bargaining models (NBA, NBS) provide better prediction of the actual high levels of transfer and fiscal discipline which were agreed upon in the negotiations. Overall, the constrained, asymmetric Nash Bargaining solution (NBCA) correctly highlights two factors of importance for understanding the negotiation outcomes. It respects the Austrian (AT) and Slovakian (SK) aversion to institutionalization, as well as the slightly higher bargaining power of the Northern European countries grouped around Germany (DE), which were not subject to financial market pressures.

Figures 3.1/3.2: Win-set and Model Predictions for Reform Package 1. (Two-dimensional projections evaluated at the prediction of the asymmetric, constrained Nash solution on dimension 3, NBCA).

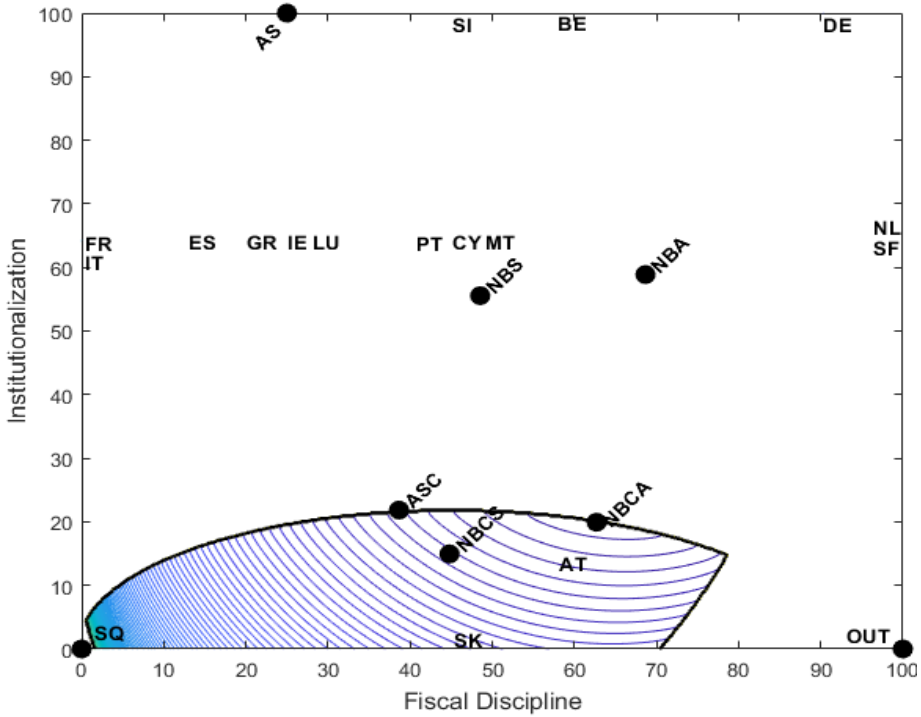
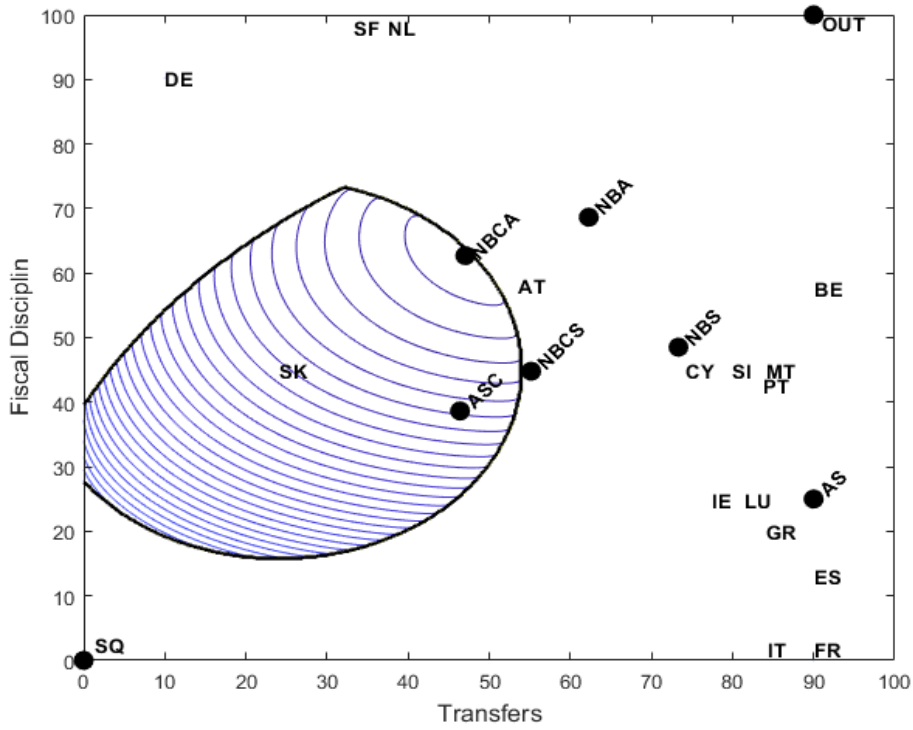


Table 1: Model predictions and Euclidean distances to the outcome.

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Phase 1							
Transfer	90	73.30	62.30	55.20	47.20	46.60	90.00
Fiscal Discipline	100	48.50	68.60	44.80	62.80	38.70	25.00
Institutionalization	0	55.50	58.90	15.00	20.20	21.80	100.00
<i>Euclidean Distance</i>	<i>0</i>	<i>77.53</i>	<i>72.27</i>	<i>66.96</i>	<i>60.20</i>	<i>78.21</i>	<i>125.00</i>
Phase 2							
Transfer	18.8	73.70	61.20	64.10	39.50	78.10	78.20
Fiscal Discipline	50	48.90	65.10	40.90	76.10	48.20	48.20
Institutionalization	32.5	52.90	58.80	52.60	66.10	52.5	52.50
<i>Euclidean Distance</i>	<i>0</i>	<i>58.58</i>	<i>52.13</i>	<i>50.39</i>	<i>46.31</i>	<i>62.61</i>	<i>62.70</i>
Phase 3							
Transfer	50	52.10	68.70	50.10	52.50	43.2	50.00
Fiscal Discipline	50	56.30	46.50	57.70	55.00	60.2	66.70
Institutionalization	57.1	31.40	36.20	28.40	28.90	57.6	100.00
<i>Euclidean Distance</i>	<i>0</i>	<i>26.54</i>	<i>28.26</i>	<i>29.72</i>	<i>28.75</i>	<i>12.27</i>	<i>46.04</i>

In sum, the first phase of EMU reforms resulted in far-reaching transfers in return for IMF involvement as guarantor of fiscal discipline. The deal was the consequence of governments postponing any plans for institutionalization, a political compromise reached in the face of the economic urgency of the situation. The veto power of Austria and Slovakia, and the resulting unanimity win-set was particularly relevant for understanding the lack of institutionalization. Asymmetric market pressures favouring financially stable Germany and the Netherlands on the one side, and France on the other, are particularly relevant for understanding the compromise outcome of high levels of transfer and fiscal discipline. Agenda setting power, i.e. the Commission, was irrelevant at this stage.

Package 2: ESM and Fiscal Compact

Reform Space

At the next stage of the negotiations, the aim was to calm the markets and prevent a future debt crisis by reforming the EMU rules. To this end, governments agreed on the Fiscal Compact in March 2012. A month earlier, member states signed the ESM to introduce lasting institutional reforms of the EMU rules. The ESM established a permanent bailout regime that could rescue Eurozone members in the event of a future public debt crisis. The Fiscal Compact focussed on ensuring fiscal discipline by all Eurozone members to prevent any public debt crisis. The two treaties were not only negotiated simultaneously, but were also negotiated as one package with only member states that signed the Fiscal Compact being eligible to access ESM funds.

Importantly, during negotiations over the ESM and the Fiscal Compact, the asymmetric market pressure among member states reached its peak (see Figure 2). Since reform positions partly correlated with this asymmetry in power, we expect that models which explicitly include power asymmetries to come closest to the real world negotiations.

As mentioned above, the ESM focussed on the extent of future *transfers*. Some member governments preferred to match the effective lending capacity of the temporary EFSF, while others argued in favour of a substantively larger lending capacity (ESM2). Moreover, some wanted to involve the private sector in future public debt-restructuring programmes (ESM4), and others opposed the idea. Finally, governments negotiated whether the ESM should be granted a bank licence and be allowed to

issue bonds (ESM6), as well as whether it should have access to additional financial resources such as fines collected under the SGP (ESM6).

With regard to *fiscal discipline*, the ESM negotiations centred on the crucial issue of conditionality. Ultimately, governments agreed on full conditionality, i.e. that the 'granting of financial assistance under the mechanism [the ESM] will be made subject to strict conditionality' (Art. 136.3) (ESM3).

Some member governments (especially after the election of the French president Hollande) argued for a broadening of the focus of the Fiscal Compact beyond fiscal stability and discipline, also including objectives such as the generation of growth and jobs (FC7).

At this stage, the negotiations focussed especially on *institutionalization*. There was a debate about incorporating the ESM and the Fiscal Compact into the EU treaty framework (ESM1, FC1, FC2, FC9). In particular, some governments opposed giving the EU institutions (ECJ, EC, EP) any role in ESM decisions. Others favoured some coordination between the ESM and the EU institutions responsible for SGP enforcement, and yet others were open to integrating the ESM into the supra-nationalized SGP enforcement (ESM7, FC4, FC5).

Results

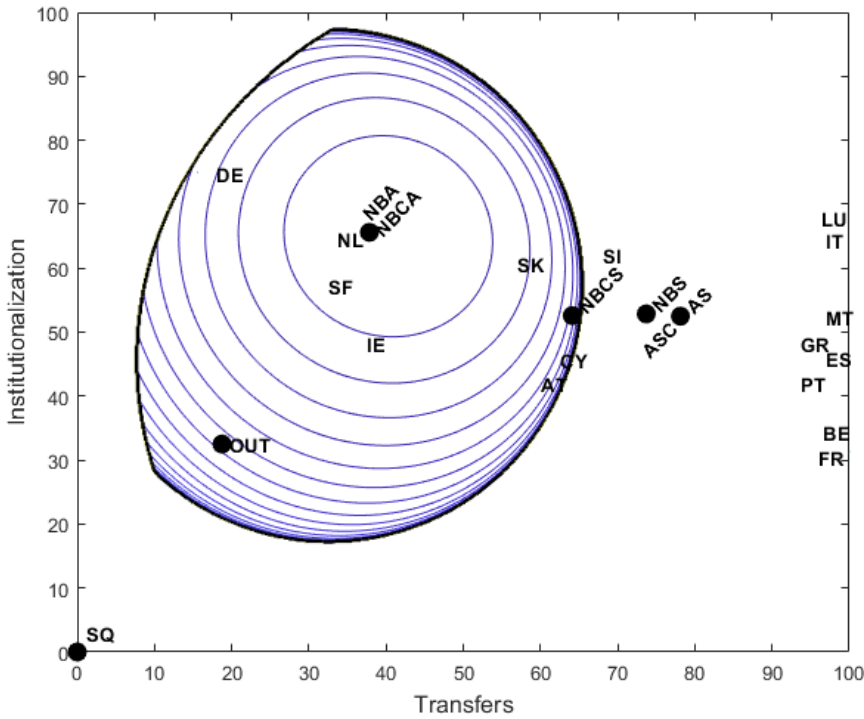
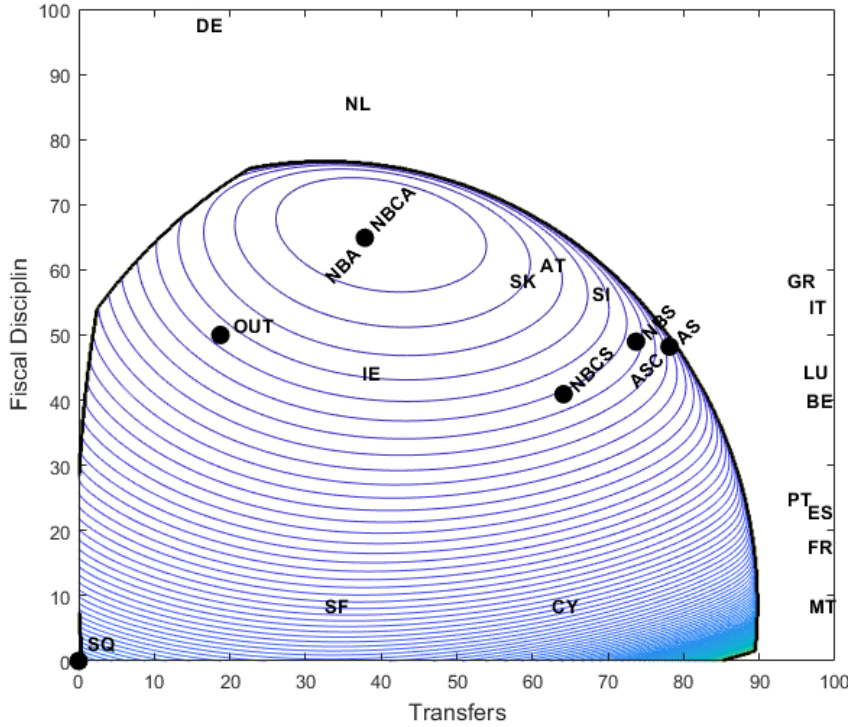
Figures 4.1 and 4.2 provide the same kind of information as Figures 3.1-3.2: Member states' ideal positions, the status quo ante (SQ), as well as the outcome (OUT) in the aggregated reform space. In addition, the black line delimits the win-set to the status quo, i.e. the set of positions all member states would have preferred to the status quo ante. Within that space, the contour lines illustrate the

asymmetric Nash product. Finally, the figures locate the point predictions of all six models introduced above (see Figure 1).

We start the analysis with the transfers-fiscal discipline projection (Figure 4.1). As previously, we sliced the three-dimensional win-set at the level of institutionalization predicted by the constrained asymmetric Nash Bargaining model (NBAC). Consequently, the point prediction of the NBAC is located at the maximum of the Nash product (contour lines). With respect to the reform positions, we still observe a cleavage between Germany (DE), Austria (AT) and the Netherlands (NL) (high discipline, low transfers), and France (FR), Spain (ES) and Portugal (PT) (low discipline, high transfers). However, in the 'French' camp, crisis-ridden governments such as Italy (IT) and Greece (GR) were now more open to fiscal discipline – not least to reinstall market trust in their planned consolidation. The location of the outcome in figure 4.1 shows a clear victory for Germany (DE), the Netherlands (NL), Austria (AT) and Sweden (SV) on the transfer dimension, while on the discipline dimension the outcome was a compromise between the two extreme positions.

With respect to institutionalization, Germany (DE)'s position to establish far-reaching, legally guaranteed monitoring and sanction mechanisms came closest to the extreme position. Interestingly, the Commission (AS), as well as France (FR), Belgium (BE) and Spain (ES) were less enthusiastic about institutionalization. Although the Commission sought empowerment, it did not fully back the idea of conditionality. After all, institutional guarantees were more important for ensuring fiscal discipline during "normal times" than for guaranteeing payment of bailout funds in times of crisis.

Figures 4.1/4.2: Win-set and Model Predictions for Reform Package 2. (Two-dimensional projections evaluated at the prediction of the asymmetric, constrained Nash solution on dimension 3, NBCA).



What Can We Learn from the Models?

The outcome is a compromise at a low common denominator. The camp not subject to financial pressure situated around Germany (DE) was very successful in prohibiting high transfer payments and obtained some concessions with regard to institutionalization, in particular the conditionality guarantee in Art. 163 ESM. This is reflected in the superior performance of the asymmetric Nash Bargaining models (NBCA, NBA) which explicitly accounts for asymmetric market pressures (see also Table 1). Note that the constraints set by the unanimity win-set are irrelevant in this case, and therefore the two asymmetric Nash Bargaining solutions are identical. Again, the agenda setting models (AS, ASC) deliver the worst predictions in terms of distance to the real world outcome. This corresponds to the logic of intergovernmental treaty negotiations where there is no place for agenda setting agenda setting by the Commission, such as in the OLP.

The first stage of EMU crisis bargaining had already shown that governments could not evade bailout in times of crisis. Consequently, this bailout promise [K4] needed limited institutional safeguards to ensure compliance. By contrast, the fiscal discipline rules suffered from an inherent credible commitment problem, which could only be solved by stronger institutional safeguards, that is, monitoring and sanctioning mechanisms. In this respect, the “French” camp was more successful in preventing strict fiscal discipline requirements being combined with effective monitoring and sanctioning institutions.

Overall, we correctly expected the success of the *financially stable and unpressured* Northern governments on the transfer dimension. By contrast, *veto power* played a limited role at this stage because the three-dimensional win-set to the status quo was very large. As a result, the win-set had no effect on the prediction of the asymmetric Nash Bargaining solution (NBCA=NBA). Thus despite their higher financial stability and patience, the states in the ‘German’ camp did not obtain their desired institutional safeguards for ensuring fiscal discipline, and lost on the institutionalization dimension. Germany had originally intended that states in non-compliance of the fiscal compact rules could be taken by the Commission to the European Court of Justice (FC5). However, the final outcome resulted only in an agreement to monitor member states without this power. Finally, our analysis of the second stage of intergovernmental reform negotiations does not point to any kind of supranational *agenda setting power*.

Package 3: Legislative Bargaining

Reform Space

In September 2010, the European Commission tabled a package of five regulations and one directive (aka ‘Six Pack’) to reform the Stability and Growth Pact, and to introduce greater macro-economic surveillance. Simultaneously, the Commission proposed a package of two additional regulations (‘Two Pack’) to strengthen the coordination and surveillance of budgetary processes within the Eurozone. This package was not adopted until March 2013. Despite the time lag, negotiations over the two legislative packages cannot be considered independently. The Two Pack was prepared during the

negotiations over the Six Pack. All legislative proposals were negotiated and adopted under the OLP, which requires QMV in the Council of Ministers and co-decision by the European Parliament.

Both packages had a distinct focus on institutionalizing future monitoring and sanctioning procedures. Nevertheless, some elements also touched on transfers and fiscal discipline. With regard to *transfers* (see Figure 5.1), the EP strove to secure a formal commitment to a redemption fund that would mutualize some member governments' debts (TP1). However, all it obtained in the negotiations was an expert group evaluating the possibility of such a fund. Moreover, governments negotiated over the question whether EU funds should be withheld to deficit countries (SP2).^[K5] Note that this proposal would have moved the outcome (OUT) towards lower levels of transfer. However, the status quo (SQ) prevailed.

With regard to *fiscal discipline*, some governments pointed out that debt increases brought about by the implementation of structural reforms or investments in public goods should not be fully included in the macro-economic imbalance calculation, in order to provide fiscal space for desirable reforms (SP5). Note that this proposal would have moved the status quo (SQ) towards less discipline. In a similar vein, there was a debate on whether the macro-economic imbalance procedure should be symmetrically applied to surpluses and deficits (SP6). None of these reform proposals were adopted however, hence, the status quo (SQ) prevailed.

In terms of *institutionalization*, the member states and the European Parliament negotiated whether sanctioning in the event of non-compliance with the SGP should include suspension of Council voting rights (SP1). Furthermore, they discussed whether sanctions should be instigated by reversed QMV, that is, at the discretion of the Commission unless blocked by a qualified majority in the Council (SP3). In the Two Pack they deliberated on whether the Commission should be given a role in pre-approving national budgets (TP2), and whether national fiscal councils should be established to provide independent macro-economic forecasts as basis for monitoring (TP3).

Results

Figures 5.1-5.3 are adapted to match the formal rules governing legislative bargaining in the EU. They depict the ideal positions of *all* member states and the *European Parliament*, and the status quo ante (SQ), as well as the outcome (OUT) in the aggregated reform space. In addition, the black line delimits the win-set to the status quo, i.e. the set of positions a *qualified majority of member states and the European Parliament* would have preferred to the status quo ante. Within that space, the contour lines illustrate the asymmetric Nash product. Given the applicable qualified majority rule, legislative bargaining is characterized by a multitude of possible winning coalitions. Therefore, the shape of the win-set and the Nash product become significantly more complex. Finally, the figures locate the point predictions of all six models introduced above (see Figure 1).

In legislative bargaining, the Commission should enjoy significant agenda setting power. In order to explore that power, we chose to slice the three-dimensional reform space at the level predicted by the constrained agenda setting model (ASC) on dimension 3. For example, the cross-section in figure

5.1 depicts the transfers and fiscal discipline dimension at the level of institutionalization predicted by the constrained agenda setting model.

As before, we start the analysis with the transfers-fiscal discipline projection (Figure 5.1). In contrast to reform stages 1 and 2, the status quo (SQ) is located in the centre of the reform space. Around the status quo, we observe a similar pattern of conflict as before, albeit now including all 28 EU member states. In the “low transfer-high discipline” corner, we find Austria (AT), Germany (DE), Sweden (SV) and the Netherlands (NL). At the other end of the continuum, we find France (FR), Greece (GR), Spain (ES) and Italy (IT). Yet some of the member states are also located outside this main conflict area, such as Ireland (IE), which demands fairly high discipline and transfers. The Commission, as agenda setter (AS), was close to the status quo, whereas the Parliament (EP) was unwilling to change the fiscal discipline rules, but preferred higher transfers.

The crucial dimension in the legislative bargaining game concerns the reform of monitoring and sanctioning procedures, that is, institutionalization (Figures 5.2, 5.3). On this dimension, the Commission (AS) now sought full-scale empowerment as the agent responsible for monitoring and sanctioning national budgets. By contrast, the Parliament (EP) was more sceptical with regard to institutionalization. Concerning the member states, Germany (DE) and the Netherlands (NL) were most in favour of institutionalisation, while the majority of member states favoured a limited increase in this. Notable exceptions were Belgium (BE), Spain (ES), Italy (IT) and Portugal (PT), who preferred the status quo, but did not command a blocking minority under the QMV voting rules. Consequently, we observe some degree of correlation of positions between the fiscal discipline and

institutionalization dimensions, which again confirms the single latent conflict dimensions uncovered by Lehnert and Wasserfallen (2018c).

What Can We Learn from the Models?

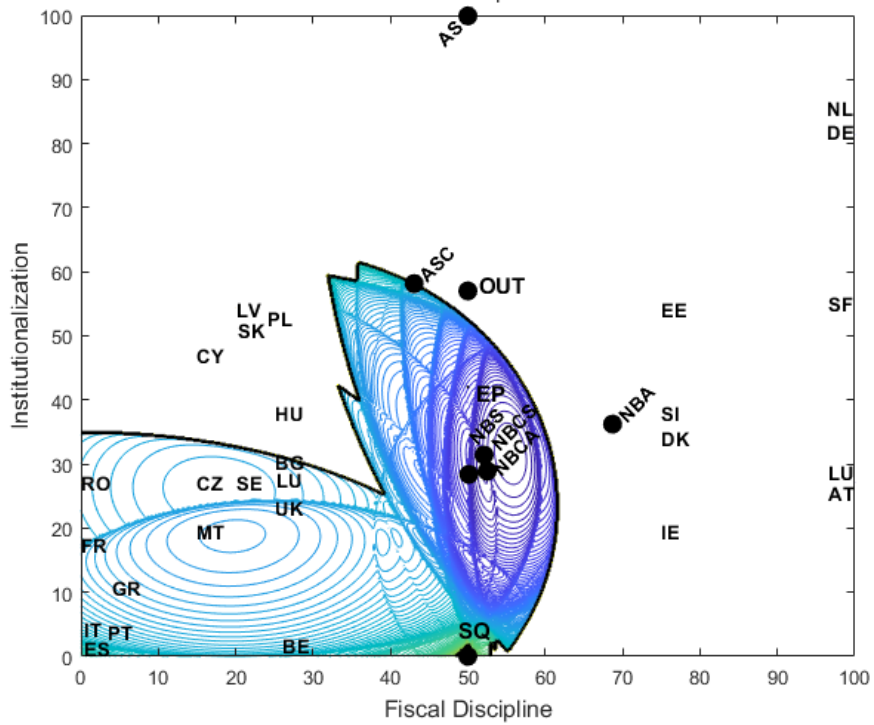
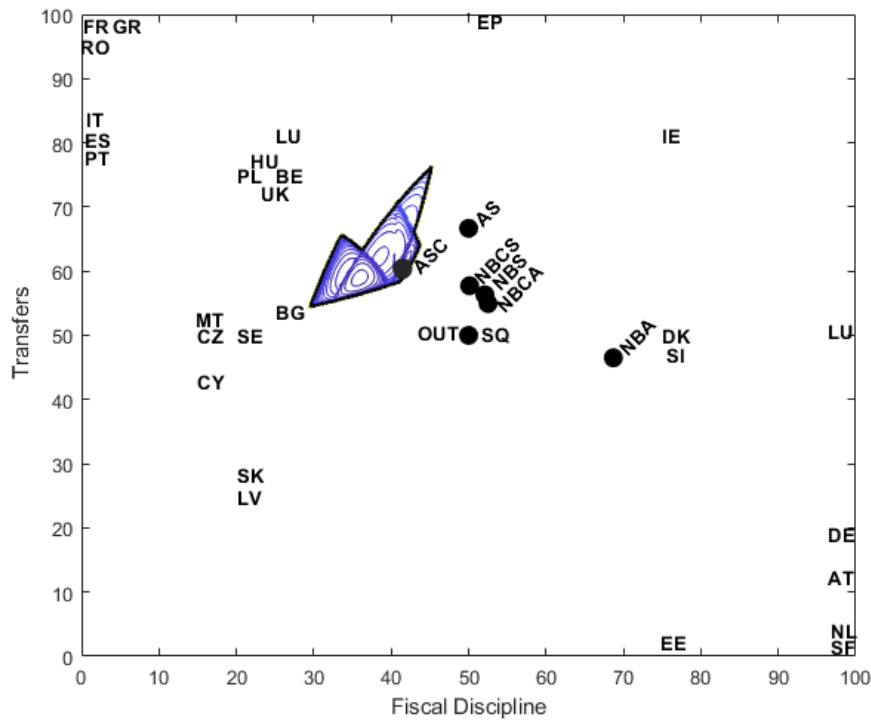
Because of the centrally located SQ, the win-set in the two-dimensional “transfer-fiscal discipline” space would be empty. However, a qualified majority of member states preferred an increased level of institutionalization, thereby opening the win-set for reforms on all three reform dimensions (Tollison and Willett 1979). Nevertheless, the outcome neither contained substantive reforms of the level of transfers nor of the required fiscal discipline. Why?

The results in Figures 5.1-5.3 illustrate that the Commission (AS) acted as a powerful agenda setter, but it was satisfied with the level of transfers and fiscal discipline under the status quo. Its primary concern was in increasing the level of institutionalization. The projection in Figure 5.1 depicts the transfers and fiscal discipline dimension at the level of institutionalization predicted by the constrained agenda setting model (ASC). Since the Commission preferred maximal institutionalization, the ASC predicts an outcome at the fringes of the win-set, resulting in a very small win-set when projected on two dimensions. The opposite holds when slicing the win-set lengthways (Figures 5.2 and 5.3), revealing that the Commission enjoyed significant discretion to push for a high level of institutionalization.

The Commission successfully exploited this discretion, and our results confirm its strong agenda setting role in EU legislative bargaining. Specifically, the constrained agenda setting model (ASC) perfectly predicts the outcome on the institutional dimension, where the outcome is located right at

the fringes of the QMV win-set. The ASC predictions are also very close to the outcome on the other two dimensions.

Figures 5.1/5.2: Win-set and Model Predictions for Reform Package 3. (Two-dimensional projections evaluated at the prediction of the constrained Agenda Model on level 3, ASC).



The constrained Nash Bargaining models (NBS, NBCA) are clustered closely together in the centre of the space. By contrast, the unconstrained, asymmetric Nash Bargaining model (NBA), predicts an edge

for the northern states, despite the slow convergence in interest rates on governmental bonds since autumn 2012. This failure of the asymmetric Nash Bargaining model illustrates that *asymmetric market pressures* were not particularly relevant when it came to negotiating the Two Pack and Six Pack legislation. All of the three bargaining models underpredict the level of institutional reforms, because they fail to consider the *agenda setting power* of the European Commission.

In the web appendix (Section “Model comparison and Robustness”) we offer a more detailed model comparison and robustness tests.

Conclusion

The “EMU Positions” data enables us to analyse the relevance of agenda setting, formal voting rights and economic power in EU crisis bargaining. Specifically, we apply the data set to established bargaining models.. In short, our case studies emphasize the importance of formal rules as well as the relevance of asymmetric market pressures in during the Euro crisis.

More specifically, we find that the Commission was a very powerful agenda-setter in the legislative bargaining over the Six Pack, the Two Pack and the Banking Union. By contrast, we find the Commission to be irrelevant for explaining the outcome of international treaty negotiations such as the Greece Assistance Package, the EFSF, the ESM and the Fiscal Compact. This result not only confirms a major theoretical argument in the literature on EU politics, but also corroborates those qualitative studies that find a limited role of the Commission during the EMU reforms (Dinan 2012; Menz and Smith 2013). By contrast, our finding refutes accounts arguing either that the Commission

was influential in intergovernmental negotiations, or that legislative crisis bargaining followed the logic of the Union Method rather than that of the Community Method (Chang 2013).

Moreover, our results clearly emphasize the relevance of formal voting rules and the resulting veto power. This holds for the QMV rules as well as for the implied unanimity among Eurozone members when adopting international treaties. The latter is only 'implied', because not every small member state has to participate to make an international treaty effective. However, our results indicate that smaller member states were important: some of them, for example Austria and Slovakia in the first phase, effectively constrained the win-set.

Finally, we find that modelling asymmetric market pressures is key to understanding the strict fiscal discipline agreed during the height of the crisis. This highlights how important package deals over different issue dimensions are for our understanding of the EMU reforms, especially with regard to the German-French ^[K6]axis (Degner and Leuffen, 2019). The two largest financially stable member states represent the two coalitions that span the main conflict dimension. France shielded many of the crisis-ridden countries against more severe austerity requirements. Hence, Germany, the Netherlands, and Austria had to overcome France (protecting Greece, Spain, Portugal and Italy) to strike a deal. In the end, what appeared to be an effective and dynamic German-French ^[K7]tandem is an almost inevitable result of asymmetric market pressures in combination with reform interests (Degner and Leuffen, 2019)

^[SB8]

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Online Appendix:

This Online appendix is structured in three sections. A1 reveals the allocation of individual reform issues to our three theoretical reform dimensions. A2 discusses different ways to evaluate model predictions, before listing the point predictions for all individual issues. A3 gives model predictions for single-issue models, i.e. models which do not allow for issue-linkage.

A1. Allocation of negotiation issues

Issue abbreviation	Definition
EFSF1	Prep
EFSF2	IMF r
EFSF3	Enha
EFSF4	Allow
ESM1	Char
ESM2	Size
ESM3	Conc
ESM4	Priva
ESM5	Supp
ESM6	Finan
ESM7	Role
FC1	Adop
FC2	Fisca
FC3	The l

FC4
FC5
FC6
FC7
FC8
FC9
G1
G2
G3
G4
SP1
SP2
SP3
SP5
SP6
TP1
TP2
TP3

The r
The r
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Susp
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Rede
Pre-a
Indep

A2: Model predictions at disaggregated level.

The visual inspection of the model predictions, winsets and Nash product along the three phases of bargaining over EMU reforms leads us to the following conclusions. First, procedural agenda setting rules matter, and consequently, the Commission had agenda agenda setting power in legislative, but not in intergovernmental bargaining. Second, formal voting rules improve the predictions. Explicitly modelling the unanimity winset for intergovernmental bargaining and the QMV winset for legislative bargaining leads to systematically better predictions. Third, economic bargaining power is shown to have been particularly relevant in times of crisis, especially concerning the first negotiation package (first bailout of Greece and EFSF) and partly package #1 (ESM and Fiscal Compact).

Above, we justify two important steps in our research design, namely (1) aggregating governmental positions to three theoretically meaningful dimensions and (2) analyzing cases as reform packages instead of individual treaties or laws. Here we check the robustness of our results by analyzing the disaggregated model predictions for each of the six cases plus the negotiations over the Banking Union in Table A2 in the Appendix.

The results in Table A2 partly confirm our above conclusions, but are less unambiguous. In particular, Table A2 does not reflect the relevance of the winset of the status quo, i.e. the unconstrained models frequently outperform their constrained competitors. The reason for these inconclusive results is that for some of the individual dimensions we are only able to locate the status quo by making very crude

assumptions. As discussed above, this holds for all issues that refer to the design of institutions that are yet to be founded, meaning that an actual status quo does not exist. Hence, the results in Table A2 justify our aggregation decision and, more generally, illustrate the importance of correctly conceptualizing the reform space and identifying the location of the status quo therein. Despite these operational shortcomings, the disaggregated findings indicate the relevance of economic power (as visible in the better model predictions for the asymmetrical NBS, which integrates economic power) during the height of the crisis and, partly, the power of the Commission in legislative bargaining.

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Initial willingness to support Greece (Bailout I)	100.00	79.19	74.40	41.36	40.10	25.50	100.0
The First Greek Program: ad hoc vs. systematic	0.00	64.07	65.40	40.13	42.60	66.98	100.0
The IMF involvement in the First Greek Program	100.00	51.43	56.30	49.01	51.70	50.00	50.00
Debt relief in the Second Greek Package	50.00	44.04	45.70	45.21	46.30	50.00	50.00
		83.26	82.83	87.59	88.03	111.9	111.8
	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Preparedness to issue loan guarantees	100.00	66.20	92.40	61.80	62.20	50.10	100.0
IMF involvement	100.00	77.60	42.30	61.90	60.80	49.90	0.00
Enhancement of the EFSF's effective capacity	100.00	41.40	60.20	34.20	35.70	53.70	100.0
Allowing the EFSF to use additional instruments	100.00	62.60	67.70	46.90	48.40	53.50	100.0
		80.48	77.55	100.3	98.81	96.47	100.0
	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Changing EU treaties	20.00	17.90	24.20	21.50	27.40	24.40	20.00
Size of ESM	0.00	85.20	67.20	74.10	54.10	77.80	100.0
Conditionality	100.00	100.0	100.0	100.0	100.0	100.0	100.0
Private sector involvement	20.00	33.20	35.70	31.80	33.50	30.00	30.00
Support instruments of ESM	20.00	54.30	39.50	37.10	21.90	77.80	100.0
Financing of the ESM	20.00	71.20	54.60	56.20	39.90	20.00	20.00
Role of supranational institutions in the ESM	40.00	34.60	39.40	36.00	39.00	95.70	100.0
		106.1	79.74	85.15	59.70	112.3	141.7
	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Adoption of the fiscal compact	50.00	100.0	100.0	100.0	100.0	100.0	100.0
Fiscal compact adopted by treaty change	0.00	75.60	77.10	74.70	75.00	50.00	50.00
The legal form of the debt brake	50.00	37.90	38.90	30.50	33.20	50.00	50.00
The role of the ECJ in the fiscal compact	0.00	4.90	8.20	3.60	6.40	0.00	100.0
The role of the EC in the fiscal compact	0.00	48.30	57.50	46.10	55.00	0.00	100.0
The participation of non-euro members in the Euro	50.00	49.60	51.40	48.90	49.80	50.00	50.00
The purpose of the fiscal compact	0.00	57.20	49.80	57.60	51.80	50.00	50.00
Tax policy coordination	0.00	71.00	65.40	69.10	62.10	71.40	71.40
Incorporation to EU Treaties	100.00	100.0	100.0	100.0	100.0	100.0	100.0
		137.9	136.7	136.7	134.2	112.2	180.5
	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Suspension of Council voting rights for SGP non-	0.00	35.60	45.90	13.50	50.10	70.70	70.80
Withholding EU Funds to deficit countries	0.00	40.50	78.80	18.00	21.90	0.90	0.00
The blocking of SGP sanctions by reversed QMV	100.00	73.40	90.20	31.30	47.20	50.50	100.0
Six-pack rules on 'good' and 'bad' debts	100.00	60.70	90.00	47.10	69.70	78.30	100.0
		71.83	92.26	89.58	81.83	89.00	70.80
	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Redemption fund in two-pack	0.00	46.60	33.90	45.00	30.10	31.90	33.00
Pre-approval of budgets by the Commission	50.00	2.40	33.20	0.00	39.90	34.20	100.0
Independent macro-economic forecasts	0.00	3.70	0.00	0.00	3.10	15.00	100.0
		66.72	37.83	67.27	31.90	38.63	116.5

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
EU cap on bank bonuses: legal vs. shareholder-approved	100.0	91.30	94.60	96.30	97.50	88.00	100.0
Capital buffers: centralization vs. flexibility	50.00	16.30	36.50	24.40	44.90	65.90	100.0
Scope of the SSM: all banks vs. some banks	70.00	75.40	42.40	51.40	31.00	80.20	100.0
Double majority for EBA's decisions	0.00	8.20	2.10	4.20	0.70	40.10	50.00
Institutional responsibility for SSM at ECB	100.0	39.30	16.60	28.10	15.00	75.10	100.0
SSM deadlines: speed vs. quality	50.00	53.00	21.40	27.00	14.50	16.70	20.00
SRM: decision-making powers	70.00	45.80	8.30	19.30	3.50	61.00	100.0
SRF build-up and mutualization	80.00	62.70	15.66	35.10	8.40	53.50	80.00
SRF fiscal backstop	0.00	56.00	21.90	31.10	15.20	64.00	100.0
		94.99	131.0	110.8	140.7	93.36	133.0

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Suspension of Council voting rights for SGP non-	0.00	35.60	40.20	18.60	31.30	32.30	100.0
Withholding EU Funds to deficit countries	0.00	40.40	61.30	22.00	39.00	34.20	50.00
The blocking of SGP sanctions by reversed QMV	100.0	73.40	82.20	41.20	63.20	53.90	100.0
Six-pack rules on 'good' and 'bad' debts	100.0	60.70	79.30	49.00	63.70	53.00	20.00
Redemption fund in two-pack	0.00	46.40	42.10	44.00	48.30	63.30	100.0
Pre-approving Budgets by the Commission	50.00	2.40	7.50	2.00	5.00	51.00	80.00
Independent macro-economic forecasts	0.00	3.70	6.10	2.50	4.00	64.70	100.0
		97.90	98.67	105.5	97.71	121.4	93.40

A3: Comparing Single-Dimensional to Three-Dimensional Model Predictions.

(Note: Upper table contains single-dimensional predictions; lower table contains three-dimensional predictions. Mean Errors are standardized to enable comparison.)

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Phase 1							
Transfer	90	73.34	20.00	12.21	18.75	62.28	90
Fiscal Discipline	100	48.50	0	0	0	68.65	25
Institutionalization	0	55.50	0	0	0	58.88	100
<i>Stand. Mean Error</i>	0	41.23	56.66	59.26	57.08	39.31	58.33
Phase 2							
Transfer	18.8	73.70	31.75	15.63	29.30	61.96	78.20
Fiscal Discipline	50	48.98	17.25	17.25	14.02	65.12	48.20
Institutionalization	32.5	52.68	52.50	62.50	48.20	58.78	52.50
<i>Stand. Mean Error</i>	0	40	64.50	73.20	64.96	40.56	38.70
Phase 3							
Transfer	50	52.60	50	50	50	68.70	50.00
Fiscal Discipline	50	53.31	50	76.55	50	46.50	66.70
Institutionalization	57.1	31.41	35.08	27.15	27.15	35.23	100.00
<i>Stand. Mean Error</i>	0	38.5	41.69	30.2	39.05	36.67	57.76

	OUT	NBS	NBA	NBCS	NBCA	ASC	AS
Phase 1							
Transfer	90	73.30	62.30	55.20	47.20	46.60	90.00
Fiscal Discipline	100	48.50	68.60	44.80	62.80	38.70	25.00
Institutionalization	0	55.50	58.90	15.00	20.20	21.80	100.00
<i>Stand. Mean Error</i>	0	43.7	41.72	38.65	34.75	45.15	72.16
Phase 2							

Transfer	18.8	73.70	61.20	64.10	39.50	78.10	78.20
Fiscal Discipline	50	48.90	65.10	40.90	76.10	48.20	48.20
Institutionalization	32.5	52.90	58.80	52.60	66.10	52.5	52.50
<i>Stand. Mean Error</i>	0	33.82	30.09	29.09	26.73	36.14	36.19
Phase 3							
Transfer	50	52.10	68.70	50.10	52.50	43.2	50.00
Fiscal Discipline	50	56.30	46.50	57.70	55.00	60.2	66.70
Institutionalization	57.1	31.40	36.20	28.40	28.90	57.6	100.00
<i>Stand. Mean Error</i>	0	15.32	16.31	17.15	16.59	7.08	26.58