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The core or the winset? Explaining decision-making duration and policy change in the European Union

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Abstract   This article examines to what extent different formal conceptualizations of ideological conflict can help to explain the capacity for and speed of policy change in the European Union (EU). We compare the core and the winset, two competing concepts based on the spatial theory of voting. The empirical analysis shows that the latter concept bears a strong and systematic influence on decision making in the EU. The smaller the winset containing the outcomes that a majority of actors in the Council of the EU prefers over the *status quo,* the longer a decision-making process lasts and the smaller the potential for policy change.

Introduction

How long does it take a polity to decide on a matter, and how far-reaching are the decisions made? The duration of a decision-making process and the reform potential are key aspects of the efficiency and democratic responsiveness of a political system. Legislative deliberations that drag on for years are wasteful and leave citizens

uncertain regarding what to expect from the decision-making process. In the face of conflict, lengthy processes may be necessary to allow for the bridging of substantive differences, through processes like log-rolling or side-payments (Schulz and König, 2000). Time may also be spent on mutual deliberation – a search for consensus in face of conflict, allowing participants to accept results they otherwise would not, even when no preferences are changed (Shapiro, 2003, pp. 122–123). This is highly relevant to the European Union (EU), which has been argued to have a strong culture of consensus at least within the Council (Lewis, 1998, 2000), which allows for steady legislative progress. Yet, these benefits of long duration are not directly visible to the public. 'Deliberation can amount to collective fiddling while Rome burns' (ibid., p. 121). Even if the decision makers finally agree on a policy reform, the majority of the population will remain frustrated if the decision does not correspond to its wish for a more radical policy change.

Making use of well-established concepts in the spatial theory of voting, this article examines the efficiency and reform capacity of political decision making. Our central theoretical argument is that the intensity of ideological conflict largely determines both the reform capacity and the duration of the legislative process. Our theoretical framework adds to a rich literature that, starting with Sloot and Verschuren (1990), has investigated the effect of formal institutions on policy change and decision-making duration. We test our theoretical claim by empirically analyzing legislative decision making in the EU, which provides a particularly good environment to study the effects of political conflict (see also Golub, 1999; Schulz and König, 2000; Golub, 2002; Golub, 2007; König, 2007; Golub and Steunenberg, 2007; König, 2008; Golub, 2008; Toshkov and Rasmussen, 2012).

A number of empirical studies examining policy change and decision-making duration confirm Sloot and Verschuren's analysis by demonstrating that procedural factors such as the type of the legislative act, the voting threshold in the Council and the legislative procedure strongly affect policymaking in the EU (Golub, 1999; Schulz and König, 2000; Golub, 2002; Golub, 2007; König, 2007; Golub and Steunenberg, 2007). Much of the literature on the reform potential of the EU, by contrast, is almost purely theoretical, offering either illustrations (for example, Tsebelis and Yataganas, 2002) or computer simulations (for example, Steunenberg, 2002) of formally deduced hypotheses without empirically testing them. While König and Bräuninger (2004) assess the probability of gridlock in an enlarged EU with the help of macroeconomic data, Dobbins *et al* (2004) and Zimmer *et al* (2005) analyze the reform potential of the EU by addressing the impact of enlargement on EU legislation.

Building on earlier work focusing largely on institutional characteristics, more recent studies acknowledge the importance of political conflict for legislative decision making in the EU (for example, Tsebelis, 2002; Schneider and Baltz, 2005; Selck, 2006; Toshkov and Rasmussen, 2012; Klüver and Sagarzazu, 2013). However, most of these studies examine the effect of political conflict solely with

regard to the ideological conflict *within one legislative body*. Golub (1999, 2002, 2007) and Golub and Steunenberg (2007) analyze the political conflict in the Council of the EU by including a dummy variable for Margaret Thatcher arguing that she was an extreme preference outlier who would slow down the policy-making process. Schulz and König (2000) rely on differences between policy areas to infer the political conflict between member state governments in the Council. While member states would have homogenous preferences over internal market, agricultural, competition and external trade policy issues, they would have diverging views in other policy areas according to Schulz and König (2000). König (2007) uses a more sophisticated measure of intra-Council conflict by relying on national party manifestos to estimate the policy positions of member state governments in four policy areas and along the left–right and European integration dimension.

More recent studies examine the effect of ideological conflict *between different legislative bodies* in order to explain policy change and decision-making duration in the EU. Toshkov and Rasmussen (2012) operationalize conflict within the Council by taking the weighted range of member state positions while conflict between the Council and the European Parliament (EP) is measured by the weighted distance between the EP and the Council. On the basis of an analysis of all legislative proposals submitted under co-decision to the 5th and 6th EP, they show that first reading negotiations of trilogues on salient legislation take longer than first readings of similar files reconciled at second and third reading. Klüver and Sagarzazu (2013) operationalize political conflict between the European Commission, the Council and the EP by using the squared distance between the two legislative bodies located at the extremes on the left–right dimension. They find that political conflict between the three legislative bodies indeed slows down policymaking based on an empirical analysis of about 12 000 legislative proposals tabled by the Commission between 1979 and 2010.

While these studies have provided important insights regarding the conflict between the European Commission, the Council and the EP, the employed measures are very crude proxies for inter-institutional conflict, which disregard important theoretical advances in the spatial analysis of policy making (Tsebelis, 2002).This article seeks to overcome the shortcomings of previous research by evaluating the predictive strength of an alternative conceptualization of political conflict, the inter-institutional *winset*, and to compare its predictive accuracy with that of the inter-institutional core. While the winset and core have been successfully employed to predict *policy change* in the EU in previous research (for example, Steunenberg, 1994; Tsebelis, 1994, 1997; Schneider, 1995; Crombez, 1996, 1997, 2001; Crombez and Hix, 2015), there is up until now no empirical study that investigates the impact of the inter-institutional winset on *decision-making duration*. Our study is therefore the first to study this link.

In contrast to the core, the winset acknowledges that predicting decision-making outcomes not only depends on the configuration of preferences among involved

actors, but also on the location of the *status quo*. Accordingly, the winset contains the set of points that all or a majority of decision makers prefer over the *status quo*. Like it is the case with the core, we can accordingly distinguish between an unanimity and a qualified majority version of the winset. In light of its richer information, we expect that the winset considerably outperforms alternative measures of political conflict used in previous research including the inter-institutional core in predicting decision-making duration and efficiency.

In order to overcome the shortcomings of previous research, we empirically test the impact of the inter-institutional winset and core drawing on the DEU data set that provides precise estimates of decision makers' issue-specific policy preferences and the location of the *status quo* (Thomson and Stokman, 2006). Using information on 62 legislative proposals, we show that the size of the winset affects both the duration of decision making and the capacity for policy change. Our results have major implications for our understanding of the policy-making process in the EU, both in terms of efficiency and legitimacy.

Ideological Conflict, Decision Making and Political Change

Conflict is the *sine qua non* of politics. A rich literature shows how the addition of players and the almost inevitable growth in the heterogeneity of preferences affects decision making. As Sandler and Hartley (2001, p. 891) note in a survey of alliance research, 'small groups are more likely to solve the collective action problem compared with groups of many nations'. The addition of relevant actors has similar effects on domestic decision making (Tsebelis, 2002).

However, we do not know which conceptualization of conflict is most useful in explaining and predicting decision making within an ideologically heterogeneous set of actors. The spatial theory of voting offers a wide array of concepts that help us understand how ideologically motivated actors arrive at joint decisions or fail to do so. Some early empirical examinations using these tools were experimental (for example, Berl *et al*, 1976), while more recent applications use ideal point estimations to explain and predict decision-making outcomes (for example, Bueno de Mesquita, 2002; Thomson *et al*, 2006; Thomson, 2011). This article follows in the footsteps of these latter analyses, exploring the predictive power of two key conceptualizations of political conflict developed by spatial voting theory: the core and the winset. Although cooperative bargaining models provided more accurate forecasts than spatial models of decision making, Thomson *et al* (2006) and Schneider *et al* (2006) recommend the usage of mixed models that combine features of the two modeling traditions as the measures of conflict evaluated here help to determine the bargaining range of the actors.

The core is a parsimonious concept that contains the set of possible decision-making outcomes that alternative proposals cannot beat. The most straightforward

prediction that one can derive from this concept is that decision-making bodies will not agree on any kind of policy reform if the *status quo* is inside the core. Hence, the core is a measure of stability, as its existence guarantees that the decision-making process is at least to some extent predictable. However, a qualified-majority core does not exist if the conflict space is multi-dimensional and if the supra-majoritarian voting threshold is too low (Greenberg, 1979; Schofield et al, 1988). In the EU, this tradeoff implies at least for the most important legislative actor, the Council of Ministers, that the qualified majority requirements of around 70 per cent of the votes under the Nice Treaty and the subsequent modifications under the Lisbon Treaty guarantee a core if the number of conflict dimensions does not exceed two. As Drüner (2008) shows, the Council decides most often in conflict spaces with just one or two dimensions, so that the fears of endless legislative cycles or 'chaos' that might arise in situations of uncertainty do not matter much for this organization. In the quasi-bicameral setting of the EU, a core exists in a two-dimensional policy-making space as long as there is sufficient preference homogeneity within the chambers and considerable conflict between the institutions (Humphreys, 2008, see also Hammond and Miller, 1987).

In the empirical domain, the unanimity and the qualified majority core have been used to gauge a polity's reform potential. Hammond and Butler (2003), for instance, use the concept to analyze the extent to which various institutional arrangements shape public decision making. They stress that comparative politics should include an estimation of actors' preference profiles to assess the relative impact of decision-making rules. Various analysts of EU decision making have resorted to the core to estimate empirically how political conflict among member states and EU institutions affects decision making, the general result being that decision making becomes less efficient as conflict between decision makers intensifies and, therefore, the size of the core increases (Franchino, 2004, 2007; König, 2007).

In light of this literature, we believe that the core is an adequate starting point for our inquiry of how political conflict affects EU's decision-making efficiency and reform potential. The further apart the ideal points of the actors, the more conflict we can expect, and the larger the core. We consequently posit that the size of the core decreases the reform potential of the decision-making process. The effect on decision-making duration is less straightforward, as the core is a static concept that does not directly allow for deducing a hypothesis with regard to decision-making speed. However, in reality, decision makers do not have full information and they therefore do not know where the preferences of the other actors are located. We accordingly assume that it will take more time to figure out the true location of the ideal points in ideologically divided committees rather than in homogeneous ones, which protracts decision making.

Hypothesis 1:   The larger the core, the lower the reform potential, and the longer the decision-making process takes.

As indicated, the core is not the only measure of political conflict provided by the spatial theory of voting. In our view, one important analytical limitation of the concept concerns the lack of explicit modeling of how the location of the *status quo* affects decision making. If the *status quo* is inside the core, no policy change is possible as some decisive members will always be disadvantaged by a move away from the *status quo*. In the event that the current policy is outside the core, some reforms are possible although the reform potential depends at least for the unanimity rule on how close the *status quo* is to the core (Colomer, 1999).

If we believe the efficiency of decision making and the potential for change to depend on the location of the *status quo vis-à-vis* the preferences of the key actors, we can resort to the winset as a more appropriate concept. This key element of the spatial theory of voting represents the set of points which a majority in a committee prefers over the *status quo*. If unanimity is required, the winset is the set of policy options eventually preferred by all actors over the current policy. The (qualified) majority winset reduces the number of actors to the minimal winning coalition, given a certain voting threshold.

The larger the winset, the higher the chance that a majority of committee members prefers a clear change of the *status quo*. If, for example, every decision maker's ideal position is far removed from the *status quo*, we can expect moves away from past decisions. The smaller the winset, though, the less reform-minded a decision-making committee is expected to be. Actual policy change then will be less dramatic, and actors will need more time finding a proposal supported by a majority. In the extreme case of an empty winset, no policy change would be possible at all. In the absence of decision-making costs or a clear agenda-setter, the legislative process would drag on forever. We thus expect that both decision-making speed and reform potential decrease as the winset gets smaller.

Hypothesis 2:   The smaller the winset, the lower the reform potential, and the longer the decision-making process takes.

Research Design

In order to test our two hypotheses empirically, we examine decision making in the EU. Previous studies of EU decision-making efficiency and reform potential have largely relied on data sets created with the help of the official CELEX/PRELEX databases. These sources offer information on all binding EU legislative proposals, but studies using these data sets usually fall short at measuring ideological conflict (for example, Golub, 1999; Schulz and König, 2000). Crombez and Hix (2015) resorted to measuring conflict using Döring and Manov's ParlGov data set. In doing so, they only calculated conflict on one dimension – left versus right – generalized for 6-month period.

Instead, the present examination uses the DEU data set by Thomson and Stokman (2006) which is a stratified sample of legislative proposals that were sufficiently controversial. It has the distinctive advantage of offering precise preference measures for the member states, the Commission and the EP on 62 legislative proposals.[1] We are therefore able to measure the issue-specific policy preferences of all involved legislative bodies which is one of the major problems of veto player analysis (Ganghof, 2003).[2]

For each legislative proposal, expert interviews were conducted. The interview partners of the DEU team first identified the controversial issues of the decision-making process. The number of contested questions varied between one and six per proposal. For each issue, experts located the ideal points of the Member States, the Commission and the EP on a scale from 0 to 100, as well as the location of the *status quo* and the outcome. It has to be noted that the experts indicated the policy positions that member states held immediately after the introduction of the Commission proposal (Thomson/Stokman, 2006, p. 38). The DEU data set is therefore based on the standard rational choice assumption of stable preferences. It could be the case that member state governments changed their positions over the course of the legislative process, in particular following a change in the composition of the domestic government. Unfortunately, because of data limitations we are not able to take potential preference changes into account. Furthermore, expert judgments are not free of measurement error as they are often subjective. However, it is unlikely that there is a systematic variation of over- or understating the preferences of member state governments and the EU institutions so that the preferences indicated by experts can be taken as a proxy for the true policy positions. Despite these caveats, the DEU data set is still by far the most accurate data source on issue-specific ideal points of member states in EU legislative politics and as a result probably the most widely used data set on decision making in the EU (for a review, see Mattila, 2012).

Given the presence of correlations between actors' preferences on the issues of a proposal, we identified the underlying conflict dimensions. We did so using correspondence analysis, principal components analysis and a substantive interpretation of the issues, before determining the core and the winset.[3] Accordingly, 37 out of the 62 analyzed proposals proved to have only one conflict dimension, while 25 proposals contained two dimensions. Our statistical analysis refers to these aggregated preference data. We calculated by hand, based on these dimensions, how much of the political space is covered by either the winset or the core.

We focus on the size of the inter-institutional winset and the core as conceptualizations of conflict, as they relate to the decision-relevant distribution of actor preferences. It is crucial to carefully identify the set of actors that truly constitute veto players (Ganghof, 2003). We accordingly make a distinction between veto players in different legislative procedures in the EU. For the consultation procedure, we focus on the Council and the Commission, as the EP has no formal role within this procedure. For co-decision, the Council and the EP are veto players.

The Commission is excluded as it has no formal role at the final stage of this procedure.[4] The stricter the decision rule applied and the more the actors' ideal points are scattered in the policy space, the larger is the resulting core (Tsebelis, 2002, pp. 19–32). The core represents the area in the policy space that cannot be reformed. We can accordingly use the proportion not covered by the qualified majority or unanimity core as a proxy of the reform capacity of an organization (Tsebelis, 2002, p. 21; Hammond and Butler, 2003; König and Bräuninger, 2004). Complete gridlock is the consequence if the core overlaps entirely with the policy space, while far-reaching reforms are feasible in the event the core is empty or consists only of a point in the one-dimensional case, or a line segment in the two-dimensional case.

The *inter-institutional core* is the area defined by the Council core and the ideal point of the Commission in case of consultation, and the Council and the EP for co-decision. Figure 1 displays the qualified majority core for a decision-making body with seven members deciding by a 5/7 majority in a two-dimensional conflict space.[5] The heptagon formed by the seven ideal points corresponds to the unanimity core. Note that our calculations consider the decision-making threshold in the Council. We accordingly consider both the unanimity and qualified majority versions of both conflict variables.

Given that the member states are crucial players in the EU, we first have to determine the intra-Council winset. This is the intersection of the preferred-to sets of all member states in case of unanimity, and the combined winsets of all possible majority coalitions in case of a QMV threshold. The differently shaded areas in Figure 2 present the winset of a seven-actor committee deciding by simple majority, a 6/7 majority and unanimity, again in two-dimensions.

If an actor considers the two conflict dimensions of equal importance, their preferred-to set consists of those points that are circumscribed by a circle through the
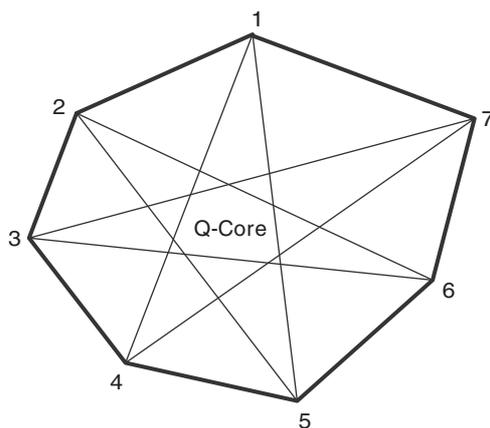

Figure 1: Qualified majority core with $q = 5$ of a committee with seven members.
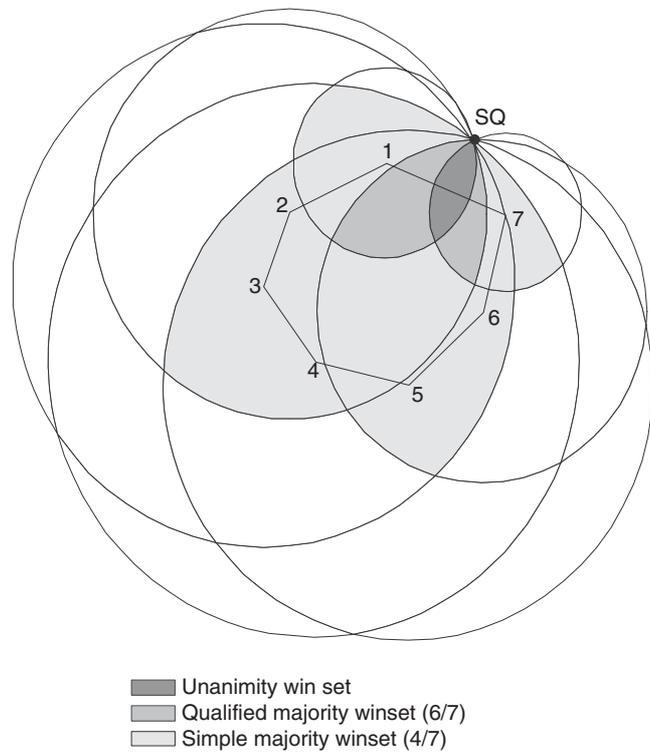
Figure 2: Winsets for different decision rules of a committee with seven members.

status quo point around the actor's ideal points. This corresponds to the seven circles in Figure 2. The preference contours take an elliptic form in the event that an individual decision maker considers the dimensions of unequal importance. The salience attributed to the various conflict dimensions then varies. Any of the points within the circles or ellipses are preferred by the actor over the *status quo*. For the present application we use the simplifying assumption of constant salience levels. The stricter the applied decision rule, the less scattered the relevant actors' ideal points, and the closer the ideal points are to the reference point, the smaller is the area defined by the intersection of their preferred-to sets (Tsebelis, 2002, pp. 19–32).

The inter-institutional winset is formed by the intersection of the preferred-to sets of the Council and the Commission (consultation) or the EP (co-decision). Both concepts are measured as a proportion of the policy space produced by the actors' ideal points and the *status quo*. A core with a size of 0.5 covers 50 per cent of the policy space and a core of size 1 occupies the whole space. A winset of size 0 corresponds to an empty winset, which is the case when the *status quo* is located within the core. The two variables are quasi-continuous.

In order to estimate the effect of the core and the winset on decision-making duration and policy change, we control for several institutional variables that were identified by previous studies.[6] First, we control for the *legislative instrument* by including a dummy variable for directives. Schulz and König (2000) posit that member states are less flexible in adopting a directive than a decision or regulation because the former requires a change in domestic law, which may be difficult to accomplish for national governments because of domestic opposition. We do not share this point of view, because the former type of instrument allows them more leeway for implementation. As EU enforcement is rather patchy, member states have the opportunity to partially circumvent the requirements flowing from EU directives. We thus expect that member states are less hesitant to adopt directives than decisions and regulations. The effect on duration, though, is expected to wane over time. That is, once a certain amount of time has passed without a decision having been taken it makes ultimately no difference whether the proposal aims at a directive or a directly binding instrument.

Second, we control for *formal EP involvement* in the form of co-decision versus consultation as we expect that formal EP involvement increases both the danger of gridlock and the time needed for decision making because the EP can be regarded as an institutional veto player (Golub, 1999, 2002, 2007; Schulz and König, 2000; Tsebelis, 2002; Golub and Steunenberg, 2007; König, 2007). We moreover expect that the effect of EP involvement on duration decreases over time: If the EP really pursues another preference, it will adopt a dissenting position in the negotiation process early on. However, once the preference has been stated, Council members draft amendments that will appease the recalcitrant legislature. As this increases the chance of a compromise, the need for the Parliament to prolong the deliberations fades over time.

Novelty of the legislative proposal is a third institutional variable expected to play an important role. New proposals can be expected to evoke more resistance and requests for information than amendments, which merely update or modify existing measures (see for example, Zubek and Klüver, 2015). Yet, we expect this effect to diminish over time, as actors tend to slowly accept the Commission's move into a new sector.

Finally, we control for the *voting rule* in the Council of the EU as previous studies have found that decision-making speed is faster when the Council decides by qualified majority rather than by unanimity (Golub, 1999, 2002, 2007; Schulz and König, 2000; Golub and Steunenberg, 2007; König, 2007). We expect the effect on duration to be time-independent, as decision making within the Council is a rather continuous process. In addition, one could argue that the number of member states should have an effect on the potential for policy change and decision-making duration. However, the proposals in our sample were introduced and adopted between 1996 and 2002 and there were therefore no changes in the number of member states of the EU.

Analysis

This section evaluates the contending hypotheses on the relationship between political conflict on the one hand and reform capacity and decision-making duration on the other hand. We use linear regression to shed light on the determinants of reform potential and survival analysis for the examination of decision-making duration. Survival analysis is a statistical method specifically designed to study duration until a particular event occurs which has become the standard tool to analyze decision-making speed (Golub, 1999, 2007; Schulz and König, 2000; König, 2007). The duration equals the number of days between the date of publication of the proposal and the date of formal adoption by the Council, measured in days. The most important modeling decision in survival analysis is the choice between parametric and semi-parametric models, the most well-known model of the latter type being the Cox proportional hazards model. These two classes of models deal with the baseline hazard in a different fashion. Parametric models make a specific assumption about the shape of the baseline hazard while Cox regression leaves the distribution of the duration times unspecified, making use of the ordering of the duration times instead (Box-Steffensmeier and Jones, 2004, p. 49). As we do not have any *a priori* assumptions about the specific probability distribution for the time until a proposal is adopted, we estimated a semi-parametric Cox model, which has become standard practice in political science (see for example, Box-Steffensmeier and Jones, 2004; Golub and Steunenberg, 2007).

For both the OLS regression of policy change and the Cox regression of decision-making duration we start out with a baseline model that builds on existing empirical studies and then move to the estimation of the core and winset models. An integrated model containing all explanatory variables complements the statistical tests.

Table 1 contains the linear regression models that allow for assessing the potential for policy change. The dependent variable is the distance between the legislation ultimately adopted and the *status quo* in the 62 cases under consideration. The analysis suggests that the winset outperforms the core. While the size of the winset has a strongly statistically significant effect in both the winset and the full model, the size of the core only exerts a marginally significant impact in the core model – an effect that even disappears in the full model. Note that the correlation between these two conflict variables is limited to 0.57.[7] The winset model explains a considerable proportion of the variance (R^2 of 0.26) and the winset variable has by far the largest coefficient. The larger the size of the winset, the further away the adopted legislation from the *status quo*. A larger winset is thus associated with a higher reform potential.

In addition to the complete models presented in Table 1, we also estimated three regression models only containing (i) the size of the core, (ii) the size of the winset and (iii) both, the size of the winset and the core. These analyses confirm our findings that the winset has a consistent statistically significant positive effect while the core effect is insignificant when controlling for the size of the winset.

Table 1: Institutional and political determinants of policy change in the EU: OLS regression

	Variable	Base model	Core model	Winset model	Full model
Institutional variables	Procedure	0.00 (0.09)	−0.02 (0.09)	−0.11 (0.09)	−0.11 (0.09)
	Novelty	−0.18** (0.08)	−0.18** (0.08)	−0.17** (0.07)	−0.17** (0.07)
	Voting rule	−0.13 (0.09)	−0.07 (0.10)	−0.06 (0.08)	−0.06 (0.09)
	Instrument	0.00 (0.09)	0.05 (0.09)	0.07 (0.08)	0.07 (0.09)
Political variables	Size of winset	—	—	0.41*** (0.10)	0.41*** (0.11)
	Size of Core	—	−0.20* (0.11)	—	0.01 (0.11)
Statistical information	Constant	0.69*** (0.08)	0.77*** (0.09)	0.54*** (0.08)	0.53*** (0.10)
	Observations	62	62	62	62
	Adjusted R^2	0.05	0.08	0.26	0.25
	F	1.73	2.10	5.23	4.28
	P>F	0.16	0.08	0.00	0.00

*$P<0.10$, **$P<0.05$, ***$P<0.01$.

Note: Standard errors are in parentheses.

The findings also point toward limitations of decision making studies that focus solely on institutional attributes. If we aim at understanding legislative change in the EU, we need to include political conflict by considering the preferences of the actors and the location of the legislative *status quo* (Selck, 2006). Viewed in this light, it is not surprising that, of all the control variables, only the novelty of the proposal exerts a systematic impact on policy change.

Table 2 presents an analysis of decision-making duration. In a first step, we estimated several Cox models to compare the winset, core and full models to the baseline model. Only the winset model performed better than the baseline model according to both information critera, the AIC and the BIC. The Cox regression analysis therefore provides empirical support for the claim that the winset is a more powerful predictor of decision-making speed than the core.

In a second step, we checked for time-dependence. The full model clearly violates the proportional hazards assumption. More specifically, a Grambsch–Therneau test based on Schoenfeld residuals indicates that the proportional hazards assumption is violated by the two variables legislative procedure ($P=0.000$) and instrument ($P=0.044$). In a third step, we thus included time-dependent effects (TDEs) for these variables. In addition, we included an interaction of novelty and time, since we expect that the effect of novelty similarly wanes over time.[8] The model taking into account TDEs fits the data much better than the previous models, as the AIC and BIC indicate.

As shown by our results, the winset trumps the core in explanatory power. The hazard ratio for the winset is 2.97, indicating that legistlative proposals with a winset of 1 face a hazard of adoption that is three times higher than for proposals with a completely empty winset. The winset is significant at the 5 per cent level and proved robust to the introduction of TDEs. This result lends support to our

Table 2: Institutional and political determinants of decision-making efficiency in the EU: Cox regression

	Variable	Base model	Core model	Winset model	Full model	Full model with TDEs
Institutional variables	Procedure	0.42*** (0.13)	0.39*** (0.13)	0.28*** (0.10)	0.28*** (0.11)	0.01*** (0.02)
	Novelty	0.42*** (0.12)	0.40*** (0.12)	0.40*** (0.12)	0.41*** (0.12)	0.27** (0.18)
	Voting rule	1.16 (0.34)	1.26 (0.39)	1.22 (0.36)	1.19 (0.37)	1.02 (0.32)
	Instrument	0.39*** (0.13)	0.42*** (0.14)	0.44** (0.15)	0.43** (0.15)	2.43 (1.84)
Political variables	Size of winset	—	—	2.75*** (1.16)	2.95** (1.43)	2.97** (1.46)
	Size of core		0.74 (0.26)	—	1.13 (0.46)	1.18 (0.50)
Time-dependent effects (TDEs)	Procedurextime	—	—	—	—	1.005** (0.00)
	Noveltyxtime	—	—	—	—	1.001 (0.00)
	Instrumentxtime	—	—	—	—	0.997** (0.00)
Statistical information	Observations	62	62	62	62	62
	Log likelihood	−183	−182	−180	−180	−170
	AIC	374	374	370	371	358
	BIC	382	385	381	385	377

*$P<0.10$, **$P<0.05$, ***$P<0.01$.

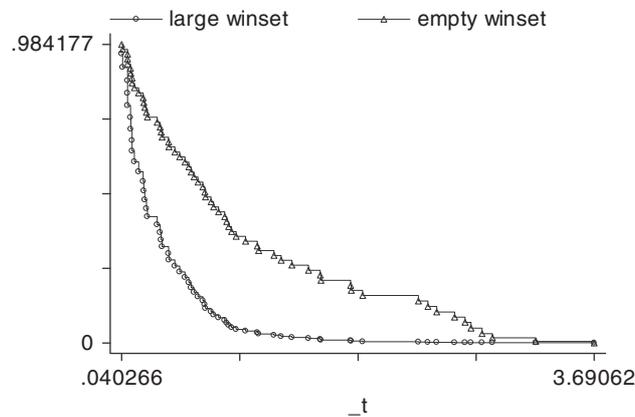*Notes*: Coefficients are indicated as hazard ratios. Standard errors are in parentheses.

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Figure 3: Estimated survivor function for empty versus large Winsets (all other variables set at 0).

hypothesis that the speed of decision making in the EU depends on the constellation of actor preferences as captured by the winset. The larger the winset, that is, the larger the room for maneuver determined by the location of the actors' ideal points and the status quo, the faster decisions are made. This is depicted in Figure 3, which shows the estimated survivor cores for proposals with an empty versus a very large winset.

The core is not statistically significant in any of the models, and has the wrong sign in both the full model and the full model with TDEs. In line with our theoretical expectations, the winset therefore better predicts policy change and decision-making speed. Given that the winset takes into account the location of the *status quo* in addition to ideal points of decision makers rather than solely predicting policy decisions with reference to the preferences of legislators, the winset performs much better than the core.

The evidence for the control variables is mixed. The effects of *legislative procedure* are in line with our expectations. Early on in the decision-making process, proposals subject to co-decision face a hazard that is only 1 per cent of that for consultation proposals. Over time, though, this difference disappears. *Novelty* also behaves similarly to our expectations. The hazard ratio is 0.27, which means that new Commission proposals face a hazard that is 73 per cent lower than amending proposals. The TDE has the expected sign, but is not significant. The *voting rule* was expected to have a hazard ratio smaller than 1. Although this is not reflected by the results, it does not come as a surprise, as the voting rule is represented by both the winset and core variables. The analysis also confirms our expectations regarding the legislative instrument. Initially, directives face a higher hazard than regulations and decisions. Over time, though, this effect wanes, and the difference between the hazards for these two groups of instruments diminishes.

Conclusion

Why does the extent of policy change and the duration of decision-making processes vary in the EU? The reform potential and the speed with which policy decisions are taken to be important for the efficiency and the legitimacy of the EU. Even though lengthy decision making may be necessary to reach consensus, if the EU is unable to quickly respond to public demands for political reforms and if policy change is only incremental, citizens become frustrated. This may undermine democratic legitimacy and provides fertile ground for increasing Euroscepticism. While previous research has shed light on the effect of institutional characteristics on the potential for policy change and decision-making speed, the effect of intra- and inter-institutional conflict has largely been overlooked. In an effort to address this shortcoming, this article has argued that the empirical study of decision making in the EU needs to consider political conflict in order to better understand reform capacity and decision-making duration. We tested this assertion with a comparative evaluation of conflict variables widely used in the spatial theory of voting- the core and the winset- using a set of 62 decision making cases in the EU included in the DEU data set.

Our empirical analysis shows that political conflict indeed matters for policy change. Of the two conflict variables examined in this study, the winset has most explanatory power. The core, representing the more parsimonious of the two concepts, exerts a marginal influence at best. By contrast, the size of the winset strongly determines both the extent of policy change and decision-making duration, that is, how far and how fast the EU is able to move away from the legislative *status quo*. We moreover found that the explanatory power of the winset suppresses the predictive capacity of other institutional variables figuring prominently in previous studies of EU decision-making duration. Hence, going beyond previous research that solely focused on institutional characteristics or on crude proxies for conflict between member state governments and the EU institutions, we have shown that the winset best explains the potential for policy change and decision-making speed in the EU. Thus, the reform potential of the EU depends on the issue-specific conflict between the Council, the EP and the European Commission and the location of the *status quo*.

Although other researchers have demonstrated the usefulness of the core for predictive purposes (for example, Franchino, 2004; König and Bräuninger, 2004; König, 2007; Crombez and Hix, 2015), our analysis suggests that this concept should be mainly used in its traditional role of uncovering instances of legislative chaos and decision cycles. Our analysis implies that the spatial theory of voting offers useful concepts for explanatory purposes. The inclusion of spatial considerations such as the winset into theories of decision making should be further extended.

While our study has generated important findings regarding the effect of political conflict on policy change and decision-making duration, much remains

to be done. Most importantly, our study was limited to a subset of policy proposals analyzed in the framework of the DEU project. This sample covers 62 controversial proposals from a wide variety of policy areas that were subject to different legislative procedure to vary important institutional and political variables. The DEU data set therefore constitutes an ideal opportunity to study the effect of the winset on policy change and decision-making speed in the EU as it includes information about the issue-specific preferences of the Council, the Commission and the EP as well as the location of the *status quo* that is required for the winset analysis. However, the sample of proposals was not randomly selected and was confined to proposals discussed in the Council between 1999 and 2000. Hence, even though there are good reasons to expect a similar effect of the winset on legislative decision making on less controversial EU proposals than analyzed in this study, the external validity of our findings should be strengthened by repeating the analysis in different settings. Future research should extend our analysis to cover a broader range of EU policy proposals to shed light on whether the effect of the winset holds when other periods of EU policymaking are analyzed.

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Notes

1 We dropped all issues with four or more missing values for member states' ideal point positions, a missing value for the Commission position, a missing value for the EP for co-decision cases, a missing outcome value or a missing value for the *status quo*. This reduced the original data set by 61 issues, among which there were eight complete proposals. The sample we use has a total of 62 proposals consisting of 113 issues. For cases with four or less missing values, the values were imputed by viewing the member state's position as indifferent to the *status quo* (Steunenberg and Selck, 2006, 70).

2 While Ganghof (2003) makes a distinction between outcome preferences, positional preferences and final preferences, we measure like most spatial models negotiation positions of veto players regarding specific policy proposals tabled by the European Commission.

3 The data represent different measurement levels which vary between dichotomous, ordinal and metric scales. We therefore used a mixture of dimension-reduction techniques and qualitative considerations to determine the relevant number of conflict dimensions (Zimmer *et al*, 2005). If the results of the principal components analysis, the correspondence analysis and a substantial examination of the content of two statistically clearly correlated issues were confirmative, we assumed that two, or sometimes three, issues could be traced back to one underlying conflict dimension. The results of these three analyses were mostly in line with each other and led to a unique number as well as a substantive 'label' for the aggregated dimensions in all of the 18 cases where the number of dimensions has been reduced.

4 Depending on the decision rule applied, the Council core is the convex hull of the ideal points of all member states in case of unanimity or the area defined by the q-dividers in the event that a qualified majority threshold is used. A q-divider is a line that connects the ideal points of two actors who are pivotal for a possible winning coalition (the lines defining the centrally located heptagon in Figure 1). Each q-divider thus separates the policies preferred by this majority coalition and those preferred by a losing minority of actors or votes. The centrally located polygon formed by all q-dividers is the set of points that are never on the 'losing side' of a q-divider, that is, there exists no coalition preferring a point outside the core.

5 The five-out-of-seven-rule roughly corresponds to the voting threshold under QMV in the EU Council of Ministers.

6 Golub (2007) argues that studies of EU decision-making speed should account for state changes in variables, as all important variables are likely to change over time as a result of, for example, EU treaty reform or enlargement, government change or new modes of actor behavior. We expect that the effects of certain of our independent variables change over time, and therefore account for time-dependent coefficients. However, it has to be acknowledged that the composition of governments might have changed because of national elections over the course of the legislative process. Given that the DEU dataset only measured the policy positions immediately after the introduction of the Commission proposal, we are not able to take state changes in the ideological composition of the Council into account (Thomson and Stokman, 2006, p. 38).

7 We conducted correlation and variance inflation tests and found heteroskedasticity to represent no problem.

8 We ran two model specifications interacting each of the non-proportional covariates with time and ln (time). Both models arrive at the same substantial findings with regard to our explanatory variables. As the fit of the model including time interactions is superior to the fit of the model using ln(time) interactions, we only present the time interaction model.

References

Berl, J.E., McKelvey, R.D., Ordeshook, P. and Winder, M.P. (1976) An experimental test of the core in a simple N-person cooperative nonsidepayment game. *Journal of Conflict Resolution* 20(3): 453–479.

Box-Steffensmeier, J.M. and Jones, B.S. (2004) *Event History Modeling: A Guide for Social Scientists*. Cambridge, UK: Cambridge University Press.

Bueno de Mesquita, B. (2002) *Predicting Politics*. Columbus, OH: Ohio State University Press.

Colomer, J.M. (1999) The geometry of unanimity rule. *Journal of Theoretical Politics* 11(4): 543–553.

Crombez, C. (1996) Legislative procedures in the European community. *British Journal of Political Science* 26(2): 199–228.

Crombez, C. (1997) The Co-decision procedure in the European Union. *Legislative Studies Quarterly* 22(1): 97–119.

Crombez, C. (2001) The treaty of Amsterdam and the co-decision procedure. In: G. Schneider and M. Aspinwall (eds.) *The Rules of Integration*. Manchester, UK: Manchester University Press, pp. 101–122.

Crombez, C. and Hix, S. (2015) Legislative activity and gridlock in the European Union. *British Journal of Political Science* 45(3): 477–499.

Dobbins, M., Drüner, D. and Schneider, G. (2004) Kopenhagener Konsequenzen: Gesetzgebung in der EU vor und nach der Erweiterung. *Zeitschrift für Parlamentsfragen* 35(1): 51–68.

Drüner, D. (2008) *Between Chaos and Sclerosis: Decision-making in the 'Old', the Enlarged and a Reformed European Union*. Saarbrücken, Germany: VDM Verlag.

Franchino, F. (2004) Delegating powers in the European community. *British Journal of Political Science* 34(2): 449–476.

Franchino, F. (2007) *The Powers of the Union. Delegation in the EU*. Cambridge, UK: Cambridge University Press.

Ganghof, S. (2003) Promises and pitfalls of veto player analysis. *Swiss Political Science Review* 9(2): 1–25.

Golub, J. (1999) In the shadow of the vote? Decision-making in the European community. *International Organization* 53(4): 733–764.

Golub, J. (2002) Institutional reform and decisionmaking in the European Union. In: M. Hosli and A. van Deemen (eds.) *Institutional Challenges in the European Union*. London: Routledge, pp. 134–154.

Golub, J. (2007) Survival analysis and European Union decision-making. *European Union Politics* 8(2): 155–179.

Golub, J. (2008) The study of decision-making speed in the European Union: Methods, data and theory. *European Union Politics* 9(1): 167–179.

Golub, J. and Steunenberg, B. (2007) How time affects EU decision-making. *European Union Politics* 8(4): 555–566.

Greenberg, J. (1979) Consistent majority rules over compact sets of alternatives. *Econometrica* 47(3): 627–636.

Hammond, T.H. and Butler, C.K. (2003) Some complex answers to the simple question 'do institutions matter?': Policy choice and policy change in presidential and parliamentary systems. *Journal of Theoretical Politics* 15(2): 145–200.

Hammond, T.H. and Miller, G.J. (1987) The core of the constitution. *American Political Science Review* 81(4): 1155–1174.

Humphreys, M. (2008) Existence of a multicameral core. *Social Choice and Welfare* 31(3): 503–520.

Klüver, H. and Sagarzazu, I. (2013) Ideological congruency and decision-making speed: The effect of partisanship across European Union institutions. *European Union Politics* 14(3): 388–407.

König, T. (2007) Convergence or divergence? From ever-growing to ever-slowing European legislative decision making. *European Journal of Political Research* 46(3): 417–444.

König, T. (2008) Analysing the process of EU legislative decision-making: To make a long story short. *European Union Politics* 9(1): 145–165.

König, T. and Bräuninger, T. (2004) Accession and reform of the European Union. *European Union Politics* 5(4): 419–439.

Lewis, J. (1998) Is the hard bargaining image of the council misleading? The committee of permanent representatives and the local election directive. *Journal of Common Market Studies* 36(4): 479–504.

Lewis, J. (2000) The methods of community in EU decision-making and administrative rivalry in the council's infrastructure. *Journal of European Public Policy* 7(2): 261–289.

Mattila, M. (2012) Resolving controversies with DEU data. *European Union Politics* 13(3): 451–461.

Sandler, T. and Hartley, K. (2001) Economics of alliances: The lessons for collective action. *Journal of Economic Literature* 39(3): 869–896.

Schneider, G. (1995) The Limits of Self-Reform: Institution Building in the European Community. *European Journal of International Relations* 1(1): 59–86.

Schneider, G. and Baltz, K. (2005) Domesticated eurocrats: Bureaucratic discrection in pre-negotiations of the European Union. *Acta Politica* 40(1): 1–27.

Schneider, G., Steunenberg, B. and Widgrén, M. (2006) Evidence with insight: What models contribute to EU research. In: R. Thomson, F.N. Stokman, C.H. Achen and T. König (eds.) *The European Union Decides*. Cambridge, UK: Cambridge University Press, pp. 299–316.

Schofield, N., Grofman, B. and Feld, S.L. (1988) The core and the stability of group choice in spatial voting games. *American Political Science Review* 82(1): 195–211.

Schulz, H. and König, T. (2000) Institutional reform and decision-making efficiency in the European Union. *American Journal of Political Science* 44(4): 653–666.

Selck, T.J. (2006) *Preferences and Procedures: European Union Legislative Decision-Making*. New York: Springer.

Shapiro, I. (2003) Optimal deliberation? In: J.S. Fishkin and P. Laslett (eds.) *Debating Deliberative Democracy*. Oxford: Blackwell Publishing, pp. 121–137.

Sloot, T. and Verschuren, P. (1990) Decision-making speed in the European community. *Journal of Common Market Studies* 29(1): 75–85.

Steunenberg, B. (1994) Decision making under different institutional arrangements: Legislation by the European community. *Journal of Theoretical and Institutional Economics* 150(4): 642–669.

Steunenberg, B. (ed.) (2002) An even wider Union: The effects of enlargements on EU decision-making. In: *Widening the European Union: The Politics of Institutional Change and Reform*. London: Routledge, pp. 97–118.

Steunenberg, B. and Selck, T. (2006) Testing procedural models of EU legislative decision-making. In: R. Thomson, F.N. Stokman, C.H. Achen and T. König (eds.) *The European Union Decides*. Cambridge, UK: Cambridge University Press, pp. 54–84.

Thomson, R. (2011) *Resolving Controversy in the European Union*. Cambridge, UK: Cambridge University Press.

Thomson, R. and Stokman, F.N. (2006) Research design: Measuring actors' positions, saliences and capabilities'. In: R. Thomson, F.N. Stokman, C.H. Achen and T. König (eds.) *The European Union Decides*. Cambridge, UK: Cambridge University Press, pp. 25–53.

Thomson, R., Stokman, F.N., Achen, C.H. and König, T. (eds.) (2006) *The European Union Decides*. Cambridge, UK: Cambridge University Press.

Toshkov, D. and Rasmussen, A. (2012) Time to decide: The effect of early agreements on legislative duration in the EU. *European Integration Online Papers (EIoP)* 16(11): 1–20.

Tsebelis, G. (1994) The power of the European parliament as a conditional agenda setter. *American Political Science Review* 88(1): 128–142.

Tsebelis, G. (1997) Maastricht and the democratic deficit. *Aussenwirtschaft* 52(1/2): 29–56.

Tsebelis, G. (2002) *Veto Players: How Political Institutions Work*. Princeton, NJ: Princeton University Press.

Tsebelis, G. and Yataganas, X. (2002) Veto players and decision-making in the EU after nice. *Journal of Common Market Studies* 40(2): 283–307.

Zimmer, C., Schneider, G. and Dobbins, M. (2005) The contested council: The conflict dimensions of an intergovernmental institution. *Political Studies* 53(2): 403–422.

Zubek, R. and Klüver, H. (2015) Legislative pledges and coalition government. *Party Politics* 21(4): 603–614.