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Published in:
European Union Politics

DOI:
10.1177/1465116508099760

European Union Politics
http://eup.sagepub.com/

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European Union Politics 2009 10: 35
DOI: 10.1177/1465116508099760

The online version of this article can be found at:
http://eup.sagepub.com/content/10/1/35

Published by:
SAGE
http://www.sagepublications.com

European Union Politics
DOI: 10.1177/1465116508099760
Volume 10 (1): 35–62

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The Time-Dependent Effect of Conflict in the Council on Delays in the Transposition of EU Directives

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ABSTRACT

This article analyses the effect of conflict in the Council of the European Union (EU) on delays in the transposition of EU directives. Based on enforcement and management theories, we predict that conflict in the Council speeds up the transposition process. In addition, we control for the instigation of infringement procedures by the Commission and expect a weaker effect of conflict in cases where the Commission disagrees with a directive and if directives grant more discretion to member states. These hypotheses are tested using two indicators of conflict: heterogeneity and polarization. Cox regression analysis is applied with time-dependent effects and with a shared frailty to control for the multilevel structure of the data. The analyses show that, over time, conflict has an increasing negative effect on delays.

KEY WORDS

- conflict
- the Commission
- the Council
- transposition

Introduction

The implementation process in the European Union (EU) could be defined as the transmission of legislation adopted at the EU level into the actions of member states (Mastenbroek, 2007). In the first stage of implementation, member states are obliged to incorporate the EU law into their national legislation before a specified deadline; a process that is referred to as *transposition*. If a member state fails to meet the deadline, the delay in transposition is interpreted as a deviation from the EU law (Mastenbroek, 2003; Steunenberg, 2006; Thomson et al., 2007).

Most EU scholars focus on factors *at the national level* to explain member states' non-compliance with EU laws. Studies report evidence that delays in transposition are caused by constraints within member states, such as government and administrative inefficiency (see Haverland and Romeijn, 2007; Mbaye, 2001, for infringement procedures), a mismatch between existing domestic legislation and an EU law (Héritier, 1996; Duina, 1997) or the presence of domestic veto players (Steunenberg, 2006). Other studies focus on the characteristics of *EU legislation* and show that short deadlines and high levels of discretion granted to national authorities lead to longer delays (Kaeding, 2006, 2008; Thomson et al., 2007). However, most studies focus on characteristics of the adopted policy decision and disregard characteristics of decision-making, such as the level of conflict in the Council of the EU.

The present study aims to account for 'the missing link' between conflict in decision-making and implementation by making four contributions to the study on delays in the transposition of EU directives. First, we introduce *the level of conflict* between member states in the Council of the EU as a characteristic of decision-making that affects delays in transposition. Based on the literature dealing with enforcement and management in the EU, we predict that conflict in the Council speeds up the transposition process, which contradicts the predictions of standard implementation theories. In addition, we predict that (1) this positive effect of conflict is mediated by the instigation of infringement procedures by the Commission against member states, and (2) the effect of conflict is dependent upon (a) the level of disagreement of the Commission with a policy and (b) the level of discretion granted to member states. Thus, our predictions are informed by the specific institutional context of decision-making and transposition.

The second contribution of this study is the specific *operationalization* of conflict in the Council. In this study, we use a data set on 'Decision making in the European Union' (hereafter DEU), which provides information on the policy preferences of 15 member states in relation to 23 directives. Thus, we are able to measure conflict directly in terms of differences in policy

preferences. The few studies that explicitly test the effect of conflict in the Council on discretion or delays in transposition either use imperfect proxies of conflict such as voting rules (Franchino, 2004), or derive estimates of member states' policy preferences based on party positions in election manifestos (König, 2001; König et al., 2005; Franchino, 2007). The only exception is the study by Thomson and Torenvlied (2007), who also measure conflict directly. However, they apply it to the study of discretion and not transposition. In addition, our study employs two different measures of substantive preference-based conflict in the Council: heterogeneity and policy polarization.

The third contribution of this research is related to the *method of analysis*. Most studies on transposition disregard the multilevel structure of transposition data, when: (1) different member states are transposing the same directives, and (2) different directives are being transposed by the same member state. Neglecting the nested structure of transposition data produces unreliable estimates, because observations are not independent. By contrast, we introduce *shared frailty models* in our statistical analyses to account for the nested structure of the data.

Finally, we test how the effects of our independent variables change over time. Thus, we arrive at a more precise interpretation of the estimates of the time-dependent terms. Advanced techniques to interpret time-interacted variables have only recently been applied to EU decision-making by Golub and Steunenberg (2007). We apply these techniques to the study on transposition delay.

Theory

Theories of policy implementation study the problem of compliance by employing simplified assumptions about the underlying mechanisms that explain variation between implementers and policy issues in compliance with policy objectives (Torenvlied, 2000). It is assumed that a difference in most preferred policies between legislators and implementers is a necessary condition for the occurrence of non-compliance (Pressman and Wildavsky, 1973). Spatial models of policy implementation and political control of bureaucracy map these most preferred policies in one or more issue dimensions as *policy positions*. Each *legislator* is assumed to strive for a collective *decision outcome* as close as possible to her own policy position. She does so under restrictions, such as relative bargaining power and access to institutional resources (Thomson et al., 2006). Each *implementer* is assumed to strive for a *policy performance* as close as possible to her own policy position.

The distance between the policy position of an implementer and the decision outcome is an indicator of the implementer's *incentive to deviate*. Implementers choose to deviate under restrictions, such as their expected reputational loss and expected costs from policy deviations (Torenvlied, 2000). The application of different ex ante and ex post instruments for monitoring and penalizing policy deviations by 'oversight committees' affects the likelihood of costs and reputation loss by the implementer (McCubbins et al., 1987, 1989).

Conflict among legislators

The problem of compliance is intensified if we take into account the level of support for decision outcomes by legislators. If policy positions between legislators differ strongly – as an indicator of conflict – there is little agreement among legislators on the proper course of action. In various ways, theories of policy implementation incorporate the effect of conflict. First, decision outcomes reached under conflict are more likely to reflect (watered down) compromises. A collective outcome based on highly diverging positions will be potentially ambiguous and incoherent, which will constrain the efficiency of implementers (Hill and Hupe, 2002) and exacerbate the compliance problem (Ferejohn and Weingast, 1992). Secondly, decision outcomes reached under conflict grant 'preference-induced discretion' to implementers, who are able to exploit disagreement between different majority coalitions in the legislature (McCubbins et al., 1987, 1989). Thirdly, deviations from decision outcomes reached under conflict are likely to be (tacitly) approved of by some legislators, thus reducing the costs of reputational loss associated with the policy deviation (Torenvlied, 2000). On the basis of these mechanisms, implementation theory predicts that legislative conflict negatively affects compliance.

In EU policy-making, member states are the legislators in the Council of the EU, but they are also responsible for implementing the EU policies within their national contexts (Falkner et al., 2005; Franchino, 2007; Thomson et al., 2007). The mechanisms that explain non-compliance, as specified by implementation theory, are also observed in the EU context. For example, if member states have widely divergent policy positions, they are likely to have an incentive to deviate during the implementation stage (dubbed 'opposition through the back door' by Falkner et al., 2004). Consequently, we would expect longer delays for EU policies that were more contested in the Council (Falkner et al., 2004; König et al., 2005). However, this effect of conflict in the Council would be explained when controlling for member states' incentives to deviate. Furthermore, two recent studies find a positive effect of incentives

for deviation on the timeliness of transposition (König et al., 2005; Thomson et al., 2007).

The role of the Commission

EU policy-making combines intergovernmental decision-making in the Council with supranational policy preparation and oversight by the Commission. The Commission has extensive powers to monitor member state compliance with EU laws, to issue warnings to member state governments with a questionable implementation record, and to pursue formal infringement procedures before the European Court of Justice (ECJ) in cases of persistent non-compliance. The Commission even has the power to propose punitive fines to be issued against member states that violate EU law before the ECJ (Pollack, 2003: 86). Thus, there are strong parallels between the Commission in the context of EU policy-making and 'oversight committees' in the US Congressional setting.

The present article focuses on directives as a type of EU law. Directives leave open the choice for national governments of how to transpose their content into their own legislation. Nevertheless, directives bind member states in the sense that national governments are required to inform the Commission before a specified deadline about the measures they took in transposing an EU directive. In addition, the Commission has the power to monitor and evaluate the transposition process by means of its own research and initiative. For instance, the Commission can oversee the transposition process through national or European parliamentary questions and petitions. In addition, the Commission responds to member state non-compliance in reaction to complaints from citizens, civil society, enterprises and other member states that consider their rights to be violated according to an EU law (From and Stava, 1993: 63).

Council conflict and Commission oversight

Member states do not exclusively act upon their own interests. They also care about the transposition of an EU policy in all member states because unequal practices lead to negative externalities (Majone, 2001), which defeat the purpose of adopting an EU law (Franchino, 2007). Thus, member states could commit to the transposition of a directive if the expected costs of non-compliance outweigh the benefits of postponing the implementation process. In addition, conflict in the Council of the EU could *signal* imminent problems in transposition or national application to the Commission. In his study of

EU compliance, Tallberg (2003) argues that the combination of rule enforcement by independent agents and the management of potential problems induces rule-conforming behaviour by member states. *Enforcement* is necessary when member states are not willing to bear the costs of transposing directives that are incompatible with national arrangements. We expect that more controversial directives are more likely to be enforced by the Commission (Tallberg, 2003; König et al., 2005) through increased oversight and a credible threat of sanctions. *Management* is necessary when member states are not able to solve problems because of differences in established policy practices, which lead to delays in transposition (Mbaye, 2001; Tallberg, 2003). We expect that more controversial directives are more likely to be subject to informal bargaining through management and dispute settlement strategies (Elgström and Jönsson, 2000). Because both enforcement and management are assumed to speed up the transposition process, we arrive at the following hypothesis:

H1: Conflict in the Council speeds up the transposition of EU directives.

The *enforcement perspective* shows that increased rigor in the Commission's monitoring is reflected by infringement procedures (Tallberg, 2003). Member states are expected to transpose faster after the instigation of an infringement procedure. We indeed observe a widening of the gap between the first legal step in the infringement procedure (the number of 'letters of formal notice') and subsequent steps – often referred to as an indicator of rigorous monitoring by the Commission (Mendrinou, 1996: 16). The *management perspective* also embraces infringement procedures: the first EU infringement procedures (Article 226 of the EC Treaty) are interpreted in terms of a managerial dialogue between the Commission and the accused member state (Börzel et al., 2005). Thus, the Commission is expected to affect the transposition process directly by instigating legal procedures against violators of the EU law. These procedures impose costs on further delays in transposition and help member states communicate problems – resulting in a faster transposition of EU law.

H2a: Member states will speed up the transposition of an EU directive after receiving a letter of formal notice with respect to their performance on this directive.

If the Commission responds to conflict in the Council and interprets it as a signal of potential non-compliance problems, we expect more monitoring and infringement procedures for controversial directives. Thus, we expect that the instigation of infringement procedures (i.e. letters of formal notice) mediates the relation between conflict and timely transposition.

H2b: Controlling for the instigation of an infringement procedure, the positive effect of conflict in the Council on the timeliness of transposition decreases.

Conditions for enforcement and management

The enforcement and management of EU legislation by the Commission come at a price and are highly sensitive to the limited resources available to the Commission (Jensen, 2007). For example, monitoring is a time-consuming process that requires the mobilization of different sources of information. Thus, the two perspectives disregard the *scope conditions* under which conflict in the Council induces the Commission to prevent or respond to non-compliant behaviour by member states. Although conflict in the Council signals which directives are prone to potential transposition problems, specific Commission characteristics could moderate this relation (Börzel, 2001; Tallberg and Jönsson, 2001). Thus, implementation problems might arise because enforcing agents' policy priorities often diverge from the goals of decision-makers (Pressman and Wildavsky, 1973). This finding has been corroborated in studies on the implementation of EU policies by member states (Héritier et al., 1996; Falkner et al., 2005). In this study we apply this perspective to the Commission as an enforcement agent (Tallberg, 2003). Thus, a first scope condition for investment in enforcement and management is the Commission's level of disagreement with the outcome of decision-making. The Commission is expected to put less effort into the enforcement and management of controversial directives that are further away from its own policy preferences. Thus, we expect a negative interaction effect between conflict in the Council and disagreement by the Commission of the timeliness of transposition.

> **H3:** The positive effect of conflict in the Council on the timeliness of transposition is weaker, the more the Commission disagrees with an EU policy.

A second scope condition for effective enforcement and management by the Commission is the *level of discretion* granted to member states in a directive. The delegation literature shows that discretion is closely related to incomplete contracting and a lack of precision in the adopted policies (Franchino, 2007). Based on the management approach, directives that grant discretionary powers to member states are ambiguous and incoherent in their policy objectives (Chayes and Chayes, 1993).[1] Thus, discretion granted to member states creates non-compliance problems because states are uncertain about the behavioural requirements of an EU law. Since highly ambiguous directives also limit the capacity of the Commission to respond effectively to member state non-compliance (Börzel et al., 2005), we expect a negative interaction effect between conflict in the Council and the level of discretion granted to member states on the timeliness of transposition.

> **H4:** The positive effect of conflict in the Council on the timeliness of transposition is weaker, the more discretion is granted to member states in the transposition process.

Research design

We tested our hypotheses using data on 23 directives that were compiled by Thomson et al. (2007).[2] The 23 directives cover a variety of policy areas: the internal market (eight directives), economic and financial affairs (five directives), agriculture (three directives), transport (three directives), justice and home affairs (one directive), employment (one directive), energy (one directive) and health (one directive).

The data set is based on several sources. First, information on delays in transposition was obtained from the EU databases EUR-lex and CELEX (Thomson et al., 2007). We searched for records and documents of national legislation to complement the data on the transposition records of member states and update the data set.[3] Data on the policy positions of the Commission and the 15 member states were provided by the DEU data set (Thomson et al., 2006). The selection of proposals in the DEU data set was based on three criteria. First, the selected proposals had to be subject to either the codecision or the consultation procedure, and the procedure should not have been changed after the Amsterdam Treaty came into force in 1999. Second, the selected proposals had to be discussed in the Council meetings between 1998 and 2001. Third, all selected proposals had to contain at least one controversial issue. A random sample would have led to the inclusion of issues with only marginal, technical importance, where member states would have taken similar positions (Thomson and Stokman, 2003; Thomson et al., 2007).

Dependent variable: Transposition delay

The dependent variable in this study, delays in transposition, is measured as the length of delay in weeks from the deadline until the date of the earliest reported transposition measure by each member state (Thomson et al., 2007).[4] Because information is available on 15 member states transposing 23 directives, we obtain 345 potential cases of transposition. In 129 cases, the member state had already transposed the directive before the deadline expired, so for these cases delay is 0 weeks. By the end of the present study, after extensive search, we were not able to obtain transposition reports for 49 cases. For these censored cases the length of delay is calculated as the number of weeks between the expiration date of the deadline to the end of the study (12 February 2007). Two cases were not relevant because one of the directives on economic and financial affairs did not apply to France, and because the Justice and Home Affairs directive includes an exemption for Denmark. Thus, we have 343 cases available for the analysis on delays in transposition. Table 1 provides information on the major variables in the analysis.

Table 1 Descriptive statistics for the variables in the analysis based on transposition cases

	N	*Mean*	*Minimum*	*Maximum*	*S.d.*
Dependent variable					
Delay in transposition	343	75.80	0.00	424.14	127.58
Independent variables					
Directive level					
Heterogeneity	343	38.23	16.06	50.03	10.97
Policy polarization	343	10.46	3.06	16.57	5.32
Commission disagreement	343	37.24	0.00	75.00	22.79
Discretion	343	18.21	0.00	50.00	14.62
Member state level					
Member state incentive	337	45.37	0.00	100.00	34.06
Member state distance from Commission	337	33.96	0.00	100.00	33.00
Formal notice (time-varying covariate)	343	0.33	0.00	1.00	0.47

Conflict: Heterogeneity and polarization

This study employs two indicators of conflict: *heterogeneity* and *policy polarization*. The selection of these two conflict indicators is based on the fact that heterogeneity and policy polarization stress different properties of conflict.

Heterogeneity stresses alienation between member states in terms of their policy positions, and is measured by the standard deviation in member state policy positions. Under qualified majority voting (QMV), larger member states count more than smaller ones, since they are allotted more votes (Cini, 2003). Therefore, we weighted member state positions by their capabilities on the basis of their Shapley Shubik Index (SSI) score – thus incorporating the effect of the decision rule (Shapley and Shubik, 1954; Thomson and Stokman, 2003).

Policy polarization stresses both alienation between and identification within groups of member states: internally homogeneous groups might be highly antagonistic towards each other even if their level of alienation is moderate. A polarization measure is based on the index developed by Esteban and Ray (1994).[5] Alienation is measured by taking the absolute distance between groups of member states that share a different policy position. Identification is a function of the relative group size π, and a 'polarization sensitivity' parameter α, which is bounded between 0 and 1.6 to differentiate polarization from inequality (see Esteban and Ray, 1994). In the present study, α is set to 1.6. For the computation of relative group size π, we differentiated

between directives decided under unanimity and those decided under QMV. For unanimity, we computed π as the proportion of member states supporting the same policy position relative to the total number of member states. For QMV, we computed π for each group as the aggregated member state SSI score (Shapley and Shubik, 1954; Thomson and Stokman, 2003).

The policy positions of member states were measured by Thomson et al. (2006) on the basis of interviews with key informants (see Thomson et al., 2006, and Thomson et al., 2007, for a full discussion and illustration of the construction of issue scales). Because issues are nested within proposals, we followed Thomson et al. (2007) by taking the maximum issue value of the conflict measures as the directive-level measure, thus assuming that the most debated issue gives rise to disagreement associated with the whole directive.

Figure 1 illustrates the empirical relation between the two conflict indicators in the data set. The major observation from Figure 1 is that heterogeneity and policy polarization are highly correlated. The most polarized directives are also the most heterogeneous ones. However, there exists more variation in heterogeneity for lower values of policy polarization. A more detailed look at the data uncovers the driving force behind this result: the most conflictive directives are those for which member states are equally distributed into two opposing policy groups. By contrast, directives with three or more policy groups supporting different policy positions reflect lower levels of polarization but still relatively high levels of heterogeneity.

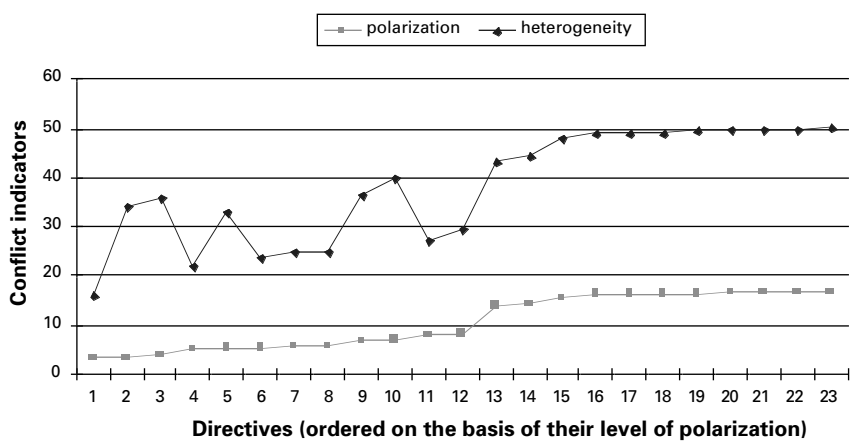

Figure 1 Heterogeneity and policy polarization for 23 directives.

Other independent variables

Infringement procedures were identified by reviewing the *Annual Report of the Application of Community Law* for each of the years between 1999 and 2006. The initiation of an infringement procedure against a member state is measured by a dummy variable (formal notice = 1). Since, in principle, letters of formal notice should have been sent to *all* delayed cases in the analyses, we introduce a time-varying covariate (a variable that changes values over time), which takes the value of 1 when a member state transposes a directive after receiving a formal notice.

Commission disagreement with the outcome is measured at the level of the directive as the average distance between the Commission's position on an issue and a policy outcome. *Discretion* is computed by dividing the number of provisions granting powers to member states by the total number of provisions in a directive (i.e. the discretion ratio) (Franchino, 2004; Thomson et al., 2007). In addition, we controlled for a *member state's incentive to deviate*, which is measured as the absolute distance between the policy position of a member state and the decision outcome. We took the maximal value of the member state incentive on the issues (Thomson et al., 2007). We also controlled for a member state's *disagreement with the Commission*, which is measured by taking the absolute value of the distance between a member state's policy position and the policy position supported by the Commission.

Design of the analyses

Because we test hypotheses on the *timing* of transposition, we applied Cox regression analysis. Cox regression is an event-history modelling technique (also known as *survival analysis*) that allows us to study the probability that a particular directive will be transposed in any given week provided that it has not yet been transposed. Furthermore, the Cox model is especially useful since it allows us to estimate the effects of our independent variables on member states' transposition without having to assume a specific parametric form for the distribution of time until an event occurs (Cleves et al., 2002; Golub, 2007). In addition, this model easily allows for the inclusion of 'censored' cases (Mastenbroek, 2003; Thomson et al., 2007). These are the cases in which no transposition measure was reported before the end of the study (49 cases in this analysis). We included two recent methodological advances in survival analysis to our study: (a) we controlled for the multilevel structure in the data, and (b) we specified time-dependent effects.

Shared frailty models

In this study, we applied a Cox regression model *with a shared frailty factor* to accommodate the multilevel structure of our data. Frailty models are the *survival data* analogy to regression models that account for heterogeneity and random effects. Shared frailty models account for the dependency between clustered events by introducing a 'cluster-specific random effect' – the frailty – which is common for the whole cluster. In this research, member states are 'clustered' within directives and thus shared frailty models allow us to control for unobserved random effects at the level of the directive. These unobserved effects are tested using a variance component *theta* (θ) and a likelihood ratio test for the hypothesis that this variance is zero. A shared frailty factor with zero variance implies that the events of transposition by member states are not affected by the fact that 15 member states are transposing the same 23 directives. By contrast, a significant variance component of the shared frailty factor indicates that member states' transposition times are affected by unobserved directive-level characteristics (Wienke, 2003; Cleves et al., 2002).

The nested structure of the data is even more complex: the different directives are also transposed by the same 15 member states. In other words, there could be unobserved random effects at the member state level. However, Cox regression does not allow us to fit two shared frailty models at the same time. Instead, we computed 15 country dummies and tested whether member states significantly differ in transposition performance. If member states transpose the directives based on country-level unobserved characteristics, we should see significant differences between member states.

Figure 2 illustrates the average length of delay for each of the 15 member states. Although we observe some differences between the member states' average transposition performance, the test of parameters for the country dummies showed that these differences are not significant (χ^2 (14) = 11.10, p = .678).[6] Thus, in the following analyses we account only for the shared frailty at the level of directives.

The proportionality assumption and time-dependent variables

An important characteristic of the Cox model is the assumption that the effects are proportional over the different values of the independent variables. In essence, this implies that the effects of independent variables are constant over time. This consideration is important because estimation of proportional hazards models with non-proportional effects can result in biased estimates and flawed inferences about the substantive impact of relevant independent variables (Box-Steffensmeier and Zorn, 2001; Golub, 2007; Golub and

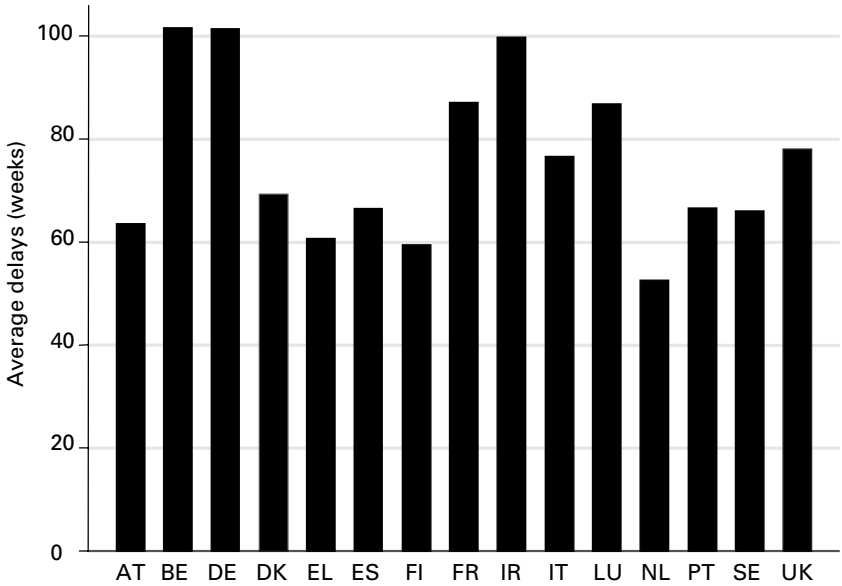

Figure 2 Average delays of the 15 member states transposing the 23 directives.
Note: AT = Austria, BE = Belgium, DE = Germany, DK = Denmark, EL = Greece, ES = Spain, FI = Finland, FR = France, IR = Ireland, IT = Italy, LU = Luxembourg, NL = the Netherlands, PT = Portugal, SE = Sweden, UK = United Kingdom.

Steunenberg, 2007). Thus, the proportionality assumption should be checked for all independent variables before any conclusions can be drawn about the effect of conflict on delays in transposition.

In this study, we apply the Grambsch and Therneau test for proportionality, the most widely accepted test. Those variables for which the test reports non-proportional effects should be interacted with a function (usually $\ln(t)$) of survival time (Box-Steffensmeier and Zorn, 2001).

Table 2 presents the results of the Grambsch and Therneau test. The table reveals that we should reject the null hypothesis of proportionality ($p < .05$) for most of the variables in the analysis. The proportionality assumption is met for only three of the variables in the model with heterogeneity as a conflict indicator (i.e. member state's incentives for deviation, member state distance from the Commission, and the interaction between heterogeneity and the Commission's disagreement with a directive). In the model with polarization, only member state's incentives for deviation and member state distance from the Commission have proportional effects on the dependent variable. Therefore, the appropriate model specification will include Cox models that account for changes in the time-dependent effects.

Table 2 Grambsch and Therneau test for the proportionality assumption

	Polarization			*Heterogeneity*		
	rho	χ^2	*p-value*	*rho*	χ^2	*p-value*
Directive level						
Conflict	.216	96.88	.000	.169	51.14	.000
Commission disagreement	–.129	33.95	.000	–.159	51.22	.000
Conflict * Commission disagreement	.068	9.35	.002	.030	1.62	.204
Conflict * Discretion	–.109	25.13	.000	–.075	10.96	.001
Discretion	.110	24.56	.000	.077	11.53	.001
Member state level						
Member state incentive	–.070	1.71	.191	–.030	0.31	.575
Member state distance from Commission	.035	0.43	.513	.006	0.01	.907
Formal notice (time-varying covariate)	.264	28.08	.000	.270	29.53	.000
Global test	–	192.45	.000	–	127.04	.000

Results

Conflict and delays in transposing EU directives

Before specifying the models, it is important to remark that the coefficients estimate the change in the *hazard* that a directive will be transposed in a particular week owing to one unit of change on the independent variable. Thus, a positive sign on the coefficient refers to an increase in the hazard ratio of transposition owing to an increase in the relevant independent variable. A negative sign refers to a decrease in the transposition rate. One minus the exponent of each coefficient represents the proportional change in the hazard rate based on a one-unit increase in the value of the relevant independent variable. Note that the tables present coefficients, whereas in the text we discuss hazard ratios.

Table 3 reports the estimates of three models testing the effect of conflict on delays in the transposition of 23 EU directives. Because heterogeneity and polarization are highly correlated, their effects are reported separately. Furthermore, we include the test for significance of the shared frailty variance to detect whether the multilevel structure of the data matters. As Table 3 shows, the variance of the shared frailty factor (θ) is significantly larger than 0 in all models. This result implies that the transposition times by member states are significantly correlated when they are transposing the same

directive. Thus, the hazard ratios should be interpreted conditional on the shared frailty (that is, the directive-specific random effects).

For each model we first discuss the model specification and subsequently the substantive results. The Preference Model tests Hypothesis 1 that conflict in the Council speeds up the transposition of EU directives. The Preference Model also controls for the member states' incentives for deviation, the Commission's disagreement with a directive, the discretion ratio and member state distance from the Commission. Additionally, all variables for which the proportionality assumption is not met are interacted with ln(time) to correct for their non-proportional effects on delays in transposition.[7]

The results of the Preference Model show that conflict does not initially affect the timeliness of transposition, but that its effect turns significant and positive over time. Both heterogeneity and policy polarization increase the hazard of transposition of EU directives several weeks after the deadline has expired. Likewise, Commission disagreement with a directive has a negative effect on the hazard rate of transposition by member states as time has passed after the deadline (only the time-dependent effect is significant). The effects reported in Table 3 do not allow for a precise interpretation of the time-dependent coefficients, and we will elaborate on this later.

The discretion ratio negatively affects timeliness in transposition. More precisely, with a one-unit increase in the discretion ratio the hazard of transposing the directives decreases by 2.3% (i.e. 1 – exp(–0.0236423) = 1 – 0.97663499). The time-dependent coefficient of discretion is positive but not significant. In addition, the distance between a member state and the Commission has a significant effect on the timeliness of transposition of EU directives. According to the analyses, when the Commission disagrees with the policy position of a member state, the latter is 0.4% more likely to transpose the EU laws on time. A member state's incentive for deviation does not affect the hazard of transposition.

The Enforcement Model in Table 3 includes the behaviour of the Commission. We predicted in Hypothesis 2 that (a) member states speed up transposition after the instigation of infringement procedures, and (b) the positive effect of conflict on the hazard of transposition is mediated by the instigation of an infringement procedure (i.e. a letter of formal notice). Thus, we expect that including the effect of a letter of formal notice in the analysis should at least partly explain the effect of conflict in the Council on delays in transposition.

Because the instigation of a formal notice is a time-varying covariate, it addresses the question of whether the hazard of transposition is higher before or after a member state has received a letter of formal notice. The results in the Enforcement Model show that letters of formal notice initially have a

Table 3 Cox regression analyses for heterogeneity (H) and polarization (P) models

	I Preference model		*II* Enforcement model		*III* Full model	
	H	*P*	*H*	*P*	*H*	*P*
Time-constant variables						
Directive level						
Conflict	–0.006	–0.012	–0.003	–0.011	–0.005	–0.004
	(.017)	(.034)	(.015)	(.032)	(.013)	(.030)
Commission disagreement	0.002	0.001	0.001	0.001	–0.001	0.0002
	(.008)	(.008)	(.007)	(.007)	(.007)	(.007)
Discretion	–0.024*	–0.024*	–0.021*	–0.022*	–0.020*	–0.020*
	(.013)	(.013)	(.012)	(.012)	(.011)	(.012)
Conflict * Commission disagreement					–0.001	–0.001
					(.001)	(.002)
Conflict * Discretion					–0.001	–0.001
					(.001)	(.002)
Member state level						
Formal notice (time-varying covariate)			–1.760***	–1.714***	–1.773***	–1.770***
			(.572)	(.561)	(.575)	(.566)
Member state distance from Commission	0.004*	0.004*	0.004*	0.004*	0.003	0.004*
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Member state incentive	0.002	0.001	0.001	0.001	0.002	0.001
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)

Table 3 Continued

	I Preference model		*II* Enforcement model		*III* Full model	
	H	*P*	*H*	*P*	*H*	*P*
Variables interacted with time						
Directive level						
Conflict * ln(*t*)	0.014***	0.033***	0.008**	0.021***	0.007*	0.019**
	(.003)	(.007)	(.004)	(.008)	(.004)	(.007)
Commission disagreement * ln(*t*)	–0.006***	–0.005**	–0.006***	–0.006***	–0.009***	–0.008***
	(.002)	(.002)	(.002)	(.002)	(.002)	(.002)
Discretion * ln(*t*)	0.001	0.002	0.001	0.002	0.002	0.002
	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)
Conflict * Commission disagreement * ln(*t*)						–0.00001
						(.0004)
Conflict * Discretion * ln(*t*)					–0.001**	–0.002***
					(.0003)	(.001)
Member state level						
Formal notice (time-varying covariate) * ln(*t*)			0.745***	0.695***	0.835***	0.782***
			(.169)	(.169)	(.171)	(.173)
Shared frailty directive-level θ	0.537***	0.519***	0.404***	0.429***	0.250***	0.353***
	(.185)	(.179)	(.151)	(.158)	(.114)	(.143)
Wald χ^2	26.59***	33.96***	48.61***	50.68***	65.48***	56.72***

Notes: Unstandardized coefficients; standard errors in parentheses; $n = 337$.
*** $p < .01$, ** $p < .05$, * $p < .10$

negative effect on the hazard of transposition by member states. This finding is not surprising, since formal letters are mostly sent to member states after the deadline has expired and are largely the result of non-notification by national authorities about the undertaken transposition measures. For the purposes of this study, it is more interesting to find out how this effect changes over time. The analysis shows that, as expected, the initially negative effect of infringement procedures on the hazard of transposition decreases over time. It appears that member states speed up the transposition process after receiving a letter of formal notice. Later in this section we will return to discussing the precise changes in the coefficient.

Hypothesis 2b stated that the instigation of infringement procedures by the Commission should at least partly explain the effect of conflict on delays in transposition. In comparison with the Preference Model, both polarization and heterogeneity have smaller coefficients in the Enforcement Model. However, the time-dependent effects are still highly significant. Thus, we need to estimate how the conflict coefficients change over time once we control for the behaviour of the Commission. We will discuss this issue in the subsequent section.

In the Full Model we test the conditions under which the Commission will be most effective in monitoring and managing compliance. In Hypothesis 3 we predicted that the effect of conflict on delays in transposition should be weaker for policies that are further away from the Commission's policy preferences. Thus, we add an interaction between the conflict indicators and the Commission's disagreement with a directive. However, Table 3 shows that the interaction is negative but not significant. Therefore, we do not find support for Hypothesis 3.

Finally, Hypothesis 4 predicts that the positive effect of conflict in the Council on the hazard rate of transposition should be weaker for policies that grant more discretion to member states. The analysis in the Full Model shows that this prediction is supported for the time-dependent interaction effects of both conflict indicators.

Interpretation of time-dependent effects

The results in Table 3 give only a general idea of the effects of the independent variables on delays in the transposition of EU directives. The interpretation of the variables with significant time-dependent effects is not straightforward, since the impact of these variables on the hazard rate is now a *combination of their time-constant and time-varying coefficients* (Golub and Steunenberg, 2007: 556). A more precise interpretation of these coefficients would require the calculation of the magnitude of the combined effects at

different time points (in this case: weeks after the deadline). We could easily do that on the basis of the estimates in Table 3. However, a simple re-estimation of the combined effects could still be misleading, since it does not take into account the standard errors of the combined coefficients.[8]

In Table 4 we do take into consideration the standard errors of the coefficients and show how the impact of our variables changes over time. For reasons of space, in the Full Model we present the results only for the model with polarization as a conflict indicator; the same conclusions apply for the effect of heterogeneity.

Table 4 shows that, in all three models, the positive effect of conflict (i.e. polarization) increases over time. Although the effect is not significant in the first weeks after the deadline has expired, it suddenly turns significant after the eighth week and increases in magnitude from that period on. More precisely, in the Preference Model 12 weeks after the deadline, a one-unit increase in the level of conflict in the Council increases the hazard of transposition by 7.3% (exp(0.0709144) – 1 = 1.073489331 – 1). In one year (52 weeks) the hazard in transposition is already 12.8% (exp(0.1200239) – 1 = 1.127523799 – 1) owing to an increase in polarization, and this percentage increases with the passage of time**.** Thus, Hypothesis 1 predicts that conflict in the Council speeds up the transposition of EU directives, but this happens only several weeks after the deadline has expired. Thus, according to our interpretation, the signal of conflict to the Commission becomes relevant for enforcement and management only after an initial period of time. This could be explained by the existence of initial thresholds to the Commission (i.e. minimal costs) before enforcement and management become active.

In Table 4 we see that, once we control for the effect of letters of formal notice in the Enforcement Model, the polarization coefficient turns significant only 35 weeks after the deadline has expired. At this time the hazard rate of transposition is 11.3% in the Preference Model (exp(0.1067583) – 1 = 1.112665291 – 1), but only 6.6% in the Enforcement Model (exp(0.0639458) – 1 = 1.066034618 – 1). However, the polarization coefficient is positive and highly significant in subsequent weeks. In addition, the effect of a formal notice is also not significant in the first 35 weeks after the deadline has expired. Based on these observations we do not find support for Hypothesis 2b that the positive effect of conflict on transposition time is mediated by the instigation of infringement procedures by the Commission. The same holds for the effect of polarization in the Full Model.

Table 3 shows that instigating a letter of formal notice had a time-dependent effect on member states' transposition performance. Table 4 reports how this effect changes over time. The estimations show that letters

Table 4 Polarization models: Weeks of transposition delay after the deadline

	12 weeks	*22 weeks*	*35 weeks*	*52 weeks*	*75 weeks*	*120 weeks*	*165 weeks*	*210 weeks*	*255 weeks*	*300 weeks*
I. Preference model										
Conflict	0.071**	0.091***	0.107***	0.120***	0.132***	0.148***	0.159***	0.167***	0.173***	0.179***
	(.033)	(.034)	(.036)	(.037)	(.038)	(.040)	(.041)	(.042)	(.043)	(.044)
Commission disagreement	–0.011	–0.013	–0.016*	–0.017*	–0.019*	–0.021**	–0.023**	–0.024**	–0.025**	–0.026**
	(.008)	(.009)	(.009)	(.009)	(.010)	(.010)	(.011)	(.011)	(.011)	(.012)
II. Enforcement model										
Conflict	0.041	0.054	0.064*	0.072**	0.080**	0.090**	0.097**	0.102**	0.106**	0.109**
	(.032)	(.033)	(.035)	(.037)	(.038)	(.040)	(.042)	(.043)	(.044)	(.045)
Formal notice (time-varying covariate)	0.013	0.435	0.757**	1.032***	1.287***	1.614***	1.835***	2.003***	2.138***	2.251***
	(.281)	(.274)	(.294)	(.325)	(.363)	(.419)	(.462)	(.495)	(.523)	(.547)
Commission disagreement	–0.013*	–0.017**	–0.019**	–0.021**	–0.023**	–0.026***	–0.028***	–0.029***	–0.030***	–0.031***
	(.008)	(.008)	(.009)	(.009)	(.009)	(.010)	(.010)	(.011)	(.011)	(.011)
III. Full model										
Conflict	0.044	0.056*	0.065**	0.073**	0.080**	0.089**	0.095**	0.100**	0.103**	0.106**
	(.029)	(.031)	(.032)	(.034)	(.036)	(.038)	(.040)	(.041)	(.042)	(.043)
Formal notice (TVC)	0.174	0.648**	1.010***	1.320***	1.607***	1.974***	2.224***	2.412***	2.563***	2.691***
	(.285)	(.281)	(.304)	(.338)	(.378)	(.437)	(.481)	(.516)	(.544)	(.569)
Commission disagreement	–0.019**	–0.023***	–0.027***	–0.030***	–0.032***	–0.036***	–0.039***	–0.041***	–0.042***	–0.044***
	(.008)	(.008)	(.009)	(.010)	(.010)	(.011)	(.011)	(.012)	(.012)	(.013)
Conflict * Discretion	–0.004**	–0.005**	–0.006**	–0.007***	–0.007***	–0.008***	–0.009***	–0.009**	–0.009***	–0.010***
	(.002)	(.002)	(.002)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)	(.003)

Notes: Unstandardized coefficients; standard errors in parentheses.
*** $p < .01$, ** $p < .05$, * $p < .10$

of formal notice do not affect member states' transposition performance in the first weeks after the deadline has expired. However, 35 weeks after the deadline the hazard of transposition is 2.13 times higher for member states that have been officially warned by the Commission than for those without formal notifications until this week.[9] Based on these results, we find support for Hypothesis 2a. However, from Table 4 we can conclude that the effect of a formal notice increases as time passes. This result suggests the operation of additional factors, such as the decision of the Commission to continue the infringement procedures against member states.

The discretion ratio weakens the positive effect of conflict on the hazard of transposition over time, as can be seen in Table 3. The results reported in Table 4 generally support this finding. The negative effect of the interaction term turns significant after the deadline has expired. 12 weeks after the deadline has passed the positive effect of polarization on the hazard of transposition decreases by 0.5% if directives grant more discretionary authority to member states. Thus, hypothesis 4 is supported based on the analysis of time-dependent effects.

Finally, Table 4 offers support that the negative effect of the Commission's disagreement with a directive on the hazard of transposition increases over time. In the Preference Model, the effect turns significant again in the 35th week after the deadline. In this period, a unit increase in the Commission's disagreement with a directive decreases the hazard ratio of transposition by 1.6%. In all models the effect becomes stronger as time passes. One interpretation of this result is that the Commission is impartial in enforcing compliance before the deadline has expired. However, when member states continue disobeying the EU directives, the Commission starts to discriminate between more preferred and less preferred policies. A different interpretation of this result is that, as time passes, member states learn that they can get away with further delaying transposition of directives with which the Commission does not agree.

Why frailty models?

All three models show a significant shared frailty factor, implying that there is a dependency in the observations based on common unobserved directive-level characteristics. Table 5 shows the estimates of the time-dependent effects in the Full Model if the shared frailty factor is excluded from the analysis.

The most important difference from the results in Table 4 pertains to the effect of conflict. More precisely, the polarization coefficient is not significant once we control for the effect of formal notice, which contradicts the results in Table 4. In addition, if we disregard the dependency in the observations,

Table 5 Polarization models without the shared frailty factor: Weeks of transposition delay after the deadline

	12 weeks	*22 weeks*	*35 weeks*	*52 weeks*	*75 weeks*	*120 weeks*	*165 weeks*	*210 weeks*	*255 weeks*	*300 weeks*
III. Full model										
Conflict	0.020	0.026	0.030	0.034	0.038	0.042	0.045	0.048	0.049	0.051
	(.016)	(.019)	(.021)	(.022)	(.025)	(.027)	(.029)	(.031)	(.032)	(.033)
Formal notice (time-varying covariate)	0.663***	1.206***	1.621***	1.976***	2.304***	2.725***	3.011***	3.227***	3.400***	3.547***
	(.251)	(.237)	(.254)	(.285)	(.323)	(.380)	(.423)	(.458)	(.485)	(.508)
Commission disagreement	–0.023***	–0.029***	–0.033***	–0.037***	–0.041***	–0.045***	–0.048***	–0.051***	–0.052***	–0.054***
	(.004)	(.005)	(.006)	(.007)	(.008)	(.008)	(.009)	(.009)	(.010)	(.010)
Conflict * Discretion	–0.006***	–0.007***	–0.008***	–0.009***	–0.009***	–0.010***	–0.011***	–0.011***	–0.012***	–0.012***
	(.001)	(.001)	(.002)	(.002)	(.002)	(.002)	(.002)	(.003)	(.003)	(.003)

Notes: Unstandardized coefficients; standard errors in parentheses.
*** $p < .01$, ** $p < .05$, * $p < .10$

letters of formal notice start having a significant effect much earlier. The results are similar, even if we simply adjust the standard errors for clustering. However, shared frailty models are more appropriate for accounting for the dependency in the observations than standard clustering techniques, since the former directly model the correlation in the transposition times of member states. Unlike standard techniques (such as adjusting the standard errors), the shared frailty factor explains the dependence in the sense that, had we known the frailty, the events would be independent (Wienke, 2003: 2).

In sum, quantitative studies on EU implementation should account for the dependency of the observations that emerges when several member states implement the same directives. Failing to do so might lead to faulty inferences about the effects of a few or more of the independent variables.

Conclusion and discussion

This study has contributed in four different ways to the existing literature on the transposition of EU legislation. First, we introduced conflict among member states in the Council of the EU as a factor affecting delays in transposition. Based on theories of the enforcement and management of EU law, we predicted that conflict speeds up the transposition process of EU directives. Second, on the basis of data on the policy positions of member states, we were able to construct two measures of preference-based conflict: heterogeneity and policy polarization. Third, we accounted for the multilevel structure of the transposition process by controlling for *shared frailty* in the data analysis on the transposition times of member states. Finally, we controlled for time-dependent effects in our analysis and arrived at precise estimates for the changes over time.

The first and most important result of our study is that preference-based conflict in the Council indeed affects delays in transposition. Both heterogeneity and polarization have significant positive effects on the transposition performance of member states – even after controlling for member states' incentives for deviation, the discretion ratio, formal notice or other unobserved characteristics of the directives accounted by the shared frailty factor. We also found that conflict starts affecting transposition a couple of months after the deadline, with an increasing effect over time.

The finding that conflict in the Council leads to shorter delays in the transposition of EU directives is in accordance with arguments about the importance of enforcement and management for the implementation of EU legislation (Tallberg, 2003). In this study we tried to account for the Commission's monitoring intensity by controlling for the instigation of formal

letters by the Commission against member states. We found that member states are more likely to transpose EU directives after receiving a letter of formal notice. However, we did not find support for the prediction that infringement procedures mediate the positive effect of conflict on transposition time. Thus, if the effect of conflict could be explained by the Commission's activities to solve compliance problems, discussions between member states and the Commission must operate at a more informal level than is captured by infringement procedures. We also found that the positive effect of conflict on transposition decreases over time, the more discretion is granted to member states at the implementation stage. One interpretation of this finding is that the Commission is not always capable of responding effectively to signals of potential non-complaint behaviour by member states, especially if directives grant high discretion to member states.

The second important result of this study concerns the significant time-dependent effects in our analysis. We observed that the proportionality assumption is not met for a number of our independent variables, indicating that their effects on transposition change over time. Indeed, although the analyses showed non-significant time-constant effects, these effects turned out to be highly significant over time. Thus, the results of this study raise important theoretical questions regarding the dynamics of independent effects. More precisely, we need specific causal theories that explain how effects change over time and which mechanisms are responsible for triggering these changes (König, 2008).

Finally, we showed that the directive-level shared frailty factor has a significant variance for all analyses. The significant frailty factor at the directive level is in line with arguments from policy analysis and the implementation literature that cost implications vary significantly across policies (Lowi, 1964). For instance, our analyses show that there are additional factors at the level of the directive, not tested in the present study, that would further account for the transposition performance of member states. The aim of this study was not to find all possible directive-level characteristics that influence transposition, and future research on member states' transposition performance could further explore variables at the directive level.

Owing to some data limitations, our results must be put in a proper perspective. Although we controlled for the effect of infringement procedures, we could not take full account of other more appropriate measures of the enforcement and management of EU legislation, such as informal dialogues between the Commission and member states regarding the transposition of EU directives. It is a task for future research to find more adequate operationalizations for monitoring and managing compliance. Another limitation is that the dependent variable in this study captures delays only

until the first transposition measure adopted by a member state. A more sophisticated operationalization of the dependent variable would be to measure delays until the first 'correct' measure of transposition (Falkner et al., 2005). However, information on the correct transposition measures of 15 member states for 23 directives would require intensive and time-consuming data collection, which is beyond the scope of a single article. It is a challenge for future research to extend the study of transposition with data on actual deviations and performance of member states.

The dataset, do-file, and additional tables for the empirical analysis in this article can be found at http://eup.sagepub.com/supplemental/

Notes

We thank Robert Thomson for his helpful suggestions on a previous version of this paper, Jeroen Weesie for his insights on shared frailty models and four anonymous reviewers for their very useful remarks. An earlier version was presented at the fourth ECPR (European Consortium for Political Research) General Conference, Pisa, 6–8 September 2007. Torenvlied acknowledges support from the Polarization and Conflict Project CIT-2-CT-2004–50604, funded by the European Commission DG Research Sixth Framework Programme and VIDI grant 452–06–001 from the Netherlands Organization for Scientific Research (NWO).

1 However, see Héritier et al. (1996) and Knill (2001), who derive the opposite prediction that more discretion leads to more timely transposition.
2 The original sample in the study by Thomson et al. (2007) contained information on 24 directives. We excluded one directive from our analysis, because it contained only one issue, on which member states all took the same policy position.
3 Internet search terms included the directive's number, title and key-words for content.
4 Thus, the findings of this study refer to the beginning of the transposition process rather than the completed transposition by member states.
5 Esteban and Ray (1994) developed the following polarization measure and applied it to income distributions: $P(\pi, x) = K \sum_{id=1}^{n} \sum_{jd=1}^{n} \pi_{id}^{1+\alpha} \pi_{jd} | x_{id} - x_{jd} |$, where K is a scaling parameter, $K > 0$; α is a polarization sensitivity parameter: $0 \leq \alpha \leq 1.6$.
6 We performed the test by comparing the hazard rates of the country dummies with the Netherlands (reference category). This is the country with the shortest average delay in transposition.
7 In the current analyses, interacting the variables with ln(time) is better than interacting them with 'time', since the former better fits the data. In addition, most treatments of non-proportional effects apply ln(time) as a function of survival time (Box-Steffensmeier and Zorn, 2001: 978). Once these interactions are included, the proportionality assumption is no longer violated.
8 See Golub and Steunenberg (2007) for an elaborate discussion of the interpretation of time-dependent effects in EU decision-making.

9 In the enforcement model, the hazard ratio of letters of formal notice 35 weeks after the deadline is equal to exp(0.757), which is approximately 2.13.

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