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The Case of the European Union

Citi, Manuele; Justesen, Mogens Kamp

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Manuele Citi[*] and Mogens K. Justesen[+]

Abstract

This paper studies how institutional constraints affect legislative activism, and how legislative activism in turn affects policy change, analysing the case of the European Union's legislative process. Our argument revolves around the key role of the European Commission in advancing policy change, and emphasises that the Commission can successfully push for increased policy change by increasing its legislative activity when the institutional opportunity space widens. Using a novel panel dataset covering eight policy sectors from 1984-2012, we find that the number of legislative proposals significantly affects the extent of regulatory reform in the EU. The rise in the number of legislative proposal, in turn, is affected by the extent of gridlock between the EU's legislative bodies. These findings show that the Commission steps up its legislative activity when the institutional opportunity space allows for greater policy change.

Keywords: European Union, legislative activism, Institutions, Veto Players, Regulation.

[*] Address for Correspondence: Manuele Citi, Department of Business and Politics, Copenhagen Business School, Porcelænshaven 1, DK-2000 Frederiksberg C., Denmark; e-mail: mc.dbp@cbs.dk, phone: +45 3815 3394.

[+] Department of Business and Politics, Copenhagen Business School, Porcelænshaven 1, DK-2000 Frederiksberg C., Denmark; e-mail: mkj.dbp@cbs.dk, phone: +45 3815 3564.

INTRODUCTION

The question of how institutions shape the behaviour of policy-makers and governments is central in political science (Cox and McCubbins 2001; Krehbiel 1998; Tsebelis 2002; Wawro et al. 2004). Tightening or relaxing institutional constraints has been shown to matter for a number of important issues like tax reform (Basinger and Hallerberg 2004), government budgets (Citi 2015; Franzese 2002; Jones et al. 2009), monetary policy (Keefer and Stasavage 2003), property rights (Justesen 2015), and European integration (Christin and Hug 2002; Justesen 2007). A common argument in the institutional literature is that increasing institutional constraints diminishes the opportunity space for policy change and decreases the extent to which reforms that deviate significantly from the status quo are feasible. However, while institutions are often related to policy change, the direct effect of institutional constraints on the legislative behaviour of governments and policy-makers is often assumed rather than examined directly. In the most prominent theoretical models of legislative politics – veto player theory (Tsebelis 2002) and pivot theory (Krehbiel 1998) – a wider opportunity space for policy change (the so-called *status quo winset*) is typically assumed to have a direct effect on policy change, while the role of legislative initiative as a mediating factor is left largely unexplored.

In this paper, we focus exactly on the causes and consequences of legislative activism, which – following Walker (1977) – we define as legislative activities aimed at promoting new proposals for policy change and legislative innovation (cf. Binder 1999; Coleman 1999; Kirchner 2012).[1] We develop and test an argument that, first, links specific institutional constraints to legislative activism and, second, links legislative activism to policy change. We do so by focusing on the case of the European Union and in particular the role of the European Commission as the key actor

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[1] Legislative activism is a subset of a broader phenomenon sometimes conceptualised as 'policy entrepreneurship' (Kingdon 1984; Mintrom and Norman 2009; Mintrom 1997). While policy entrepreneurship is a rather broad concept that includes attempts to shape the public agenda (Kingdon 1984), identifying problems and propelling them into the political arena (Mintrom and Norman 2009), and proposing new ideas to solve those problems (Campbell 2002), legislative activism concerns specific activities involved in initiating, producing, and proposing new legislative bills in order to promote policy change.

that initiates and proposes new legislation. While the European Union is not a state, it is a political system with a set of state-like legislative institutions (Campbell and Hall 2015; Hix 1994). The legislative institutions of the European Union constitute a system of checks-and-balances distinct from – but not entirely unlike – the ones found in the USA, which makes the EU an ideal case for studying the relationship between institutional constraints, legislative behaviour, and policy change in a large-scale political system.

The paper contributes to the current literature on institutions and legislative politics in three ways. First, it develops an argument where the institutional opportunity space – conceptualised as the size of the gridlock interval – affects legislative activism, which, in turn, affects the scale of policy change. In doing so, the argument outlines a chain of events where legislative activism operates as a key intervening variable between the gridlock interval and the magnitude of policy change. Second, this argument is applied to the case of the European Commission, where the study of legislative activism has generally been neglected – in spite of the fact that there is considerable variation over time in the level of new legislation initiated by the Commission (Häge 2011). Rather, the current literature on EU legislative activity has focused mainly on how various treaty reforms have influenced legislative output (Crombez and Hix 2015; König and Junge 2009; Tsebelis 2002, 2006, 2010, 2012; Citi and Justesen 2014), the duration of the legislative process (Golub and Steunenberg 2007; Golub 2007, 2008; König 2007; Klüver and Sagarzazu 2013), and the impact of EU enlargement on EU decision-making (Steunenberg 2002; König and Bräuninger 2004; König 2007). However, this literature has not investigated in depth how legislative activism is influenced by the distance between the pivotal members of the EU legislature. A novel contribution of our paper is therefore that it provides a coherent analysis of the institutional causes of the Commission's legislative activism and the consequences that the Commission's legislative initiative has for policy change. Third, we test this argument using panel data that include information on the gridlock interval, the European Commission's legislative activity, and policy change – measured as change in regulatory density in eight different policy areas between 1984 and 2012. As part of this data, we introduce a new measure of legislative activism based on data that counts the number of legislative proposals initiated by the Commission.

The remainder of the paper proceeds as follows: In the next section, we review a number of theoretical and empirical contributions to the literature on institutional constraints, legislative activism and policy change. Next, we outline specific hypotheses on the relationship between the key variables of our analysis. The following section explains how we measure the concepts employed in the analysis, and the section after that describes our research design. The next section presents and discusses the empirical findings from our panel data regressions. The final section concludes on the main findings and discusses their policy implications.

LEGISLATIVE ACTIVISM AND POLICY CHANGE

The relationship between institutional constraints, legislative activity and policy change is key to the analysis of spatial models of legislative politics. While a good part of the literature has focused on explaining variation in legislative output in the US Congress (Anderson, Box-Steffensmeier, and Sinclair-Chapman 2003; Binder 1999), a more theoretically oriented part of the literature has tried to develop full-scale theories of legislative politics, with the aim of explaining policy gridlock and change across a variety of legislative systems. Veto player theory (Tsebelis 2002) and pivot theory (Krehbiel 1998) are the most prominent examples of this approach.

In essence, veto player theory asserts that policy gridlock – both in unicameral and bicameral legislatures – derives from the positioning of the status quo within the current legislative core (Tsebelis 2002). One of the consequences of this proposition is that larger legislative cores increase the probability of policy gridlock. Policy change, in contrast, becomes more likely when the legislative core shrinks. From an empirical standpoint, Tsebelis has shown that an accurate estimation of veto players' position *vis-à-vis* the status quo point – i.e. the status quo winset – can be used effectively to predict policy stability and change (Tsebelis 2002, 2006, 2010, 2012; Tsebelis et al. 2001).

Several studies have tested the predictive power of veto player theory on legislative systems, for instance in the US (McCarty and Poole 1995), Latin America (Negretto 2004; Tsebelis and Alemán 2005), a number of European countries (Tsebelis and Chang 2004; Tsebelis 1999), and the EU (Junge and König 2007; König 2007; Tsebelis 2002, 2006, 2012). Moreover, König and

Bräuninger (2004) and Junge et al. (2015) have demonstrated that it is possible to empirically determine the size of the legislative core in two-dimensional policy spaces.

Krehbiel's (1998) pivot theory is based on the same assumptions as veto player theory, but focuses more explicitly on the concepts of the *pivotal voter* and the *gridlock interval* (Krehbiel 1998: 21). By definition, a legislator is pivotal if its consent is necessary to pass legislation. The median voter of a legislature, however, is not necessarily pivotal. In case of super-majoritarian procedures, such as filibustering in the US Senate (3/5 majority vote), Congressional override of the Presidential veto (2/3 majority vote), or qualified majority vote in the Council of the European Union's ordinary legislative procedure, the pivotal voter can be located far away from the median legislator. Furthermore, some legislative systems have two pivotal voters, either because there are two legislative chambers and/or because a unicameral legislative vote is subject to a potential presidential veto. In a conventional one-dimensional left-right policy space, the gridlock interval is therefore defined as the distance between the leftmost and rightmost pivotal voters of a legislature. If the status quo is placed within this interval, no actual policy change can take place, since none of the pivotal voters would accept to move the status quo policy further away from their ideal point.

The parsimony of pivot theory makes it applicable to different legislative systems, and the fact that gridlock intervals can be operationalized and measured with relative ease makes this theory testable across different political systems. Hence, Krehbiel (1998: 51-75) shows that a wider gridlock interval is associated with lower levels of legislative productivity in the US Congress, while Crombez and Hix (2015) have tested the theory on the EU legislative system, providing evidence that the EU's overall level of legislative output is negatively associated with the size of the gridlock interval.

While these studies have advanced our understanding of the factors that produce policy stability and change considerably, little attention has been given to the relationship between the opportunity space for policy change – the gridlock interval – and the activism of actors who can propose new legislative initiatives. Particularly in the case of the EU legislative process, scholars have paid less attention to the part of the legislative process that comes between the explanatory variable (gridlock interval) and the dependent variable (number of adopted legislative acts) –

two variables that are far apart in the policy-making process. While Crombez and Hix (2015) have investigated the relationship between the opportunity space for policy change and legislative output, they have not considered how the only actor – the EU Commission – that can initiate legislation exploits this opportunity to bring about policy change. In other words, we argue that political actors such as the European Commission can strategically use their legislative prerogative to actively push for policy change in moments when a reduced gridlock interval creates a wider institutional opportunity space for reforming the status quo.[2]

LEGISLATIVE ACTIVISM IN THE EU: HYPOTHESES

We illustrate our argument in Figure 1, where institutional opportunities for policy change explain variations in the Commission's level of legislative activism, which in turn affects the magnitude of policy change. This argument thereby highlights the importance of the Commission's legislative activism in the policy-making process.

[Figure 1 around here]

Conceptually, we use the gridlock interval to signify the magnitude of the institutional opportunity space. Consistent with the work of Krehbiel (1998, 2006) and Crombez and Hix (2015), a smaller gridlock interval provides opportunities for the Commission to increase its level of legislative activism, while a larger gridlock interval makes it more difficult for the Commission to propose legislation that cannot be defeated by an alternative proposal. That is, as the gridlock interval decreases, the institutional opportunity space for policy change widens. When this is the case, the Commission can be expected to act strategically by utilizing the wider opportunity space to push for new legislation.[3]

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[2] For theoretical and empirical contributions discussing the EU legislative process before the Lisbon Treaty, see, e.g., Crombez (1996), Moser (1996), and Scully (1997).

[3] Legislative gridlock can also increase the Commission's bureaucratic discretion, i.e. the power to implement legislation without a significant risk of legislative overrule (Franchino 2007; Junge et al. 2015; Tsebelis 2002: 222-82; Tsebelis and Yataganas 2002; Tsebelis 2008). We do not

The logic behind this argument is that – within the EU political system – the European Commission holds the exclusive right to initiate legislation, while the Council and the European Parliament constitute the two legislative chambers. This right has endowed the Commission with strong capacities for shaping the legislative arena within the EU, and provided the momentum for the completion of internal market and the entire body of legislation that now affects a wide variety of industries and sectors. The Commission is therefore the only agent in the EU system that can exploit the reduction in the interval gridlock to advance new legislation that departs from the status quo. Specifically, the Commission can use its legislative initiative to locate the policy preferences of the pivotal members of the Council and the Parliament and develop proposals that are attractive to the legislative pivots of the two chambers. Accordingly, we expect that a smaller gridlock interval increases the Commission's level of legislative activism, while a larger gridlock interval decreases the incentives of the Commission to initiate new legislation. Therefore, our first hypothesis is:

H_1: A decrease in the size of the gridlock interval leads to an increase in the Commission's legislative activism.

The second part of the chain of events in Figure 1 concerns the relationship between legislative activism and regulatory change. We assume that higher levels of legislative activism signal a stronger commitment of the Commission to reform the status quo. While this relationship is implied in spatial models of EU policy-making (Crombez and Hix 2011), it is not clear precisely what role the Commission's legislative activism plays in these models. We therefore argue that legislative activism works as an intervening variable that links the gridlock interval to the magnitude of regulatory reform. Hence, our second hypothesis is:

H_2: As the level of legislative activism increases, the magnitude of policy reform tends to increase.

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further explore the implications of this claim, since the focus of our analysis is on the Commission's legislative initiative, not on its bureaucratic discretion.

This argument implies that the size of the gridlock interval does not have a direct impact on the magnitude of policy change. Rather, the relationship between the gridlock interval and policy change is mediated by the Commission's legislative activism. Therefore, a decrease in the size of the gridlock interval should lead to higher levels of legislative activism which, in turn, directly affects the magnitude of regulatory reform. In the next section, we test these hypotheses using new data on legislative activism and regulatory change in a number of policy sectors.

RESEARCH DESIGN AND DATA

Our empirical analysis is based on a cross-sectional time-series research design, with data from eight different policy sectors observed over nearly three decades. The data track the yearly variation in regulatory density for each sector. The resulting dataset consists of an NxT matrix, with N=8 sectors observed over T=29 years (1984-2012).[4] The eight sectors consist of four utilities sectors (electricity, gas, telecoms, postal services) and four transport sectors (air, maritime and railway transport, and road haulage) measured yearly during the time period 1984-2012. These sectors were chosen for the following reasons. First, we excluded all the regulatory areas where the EU has very limited competences (e.g. labour market regulation), since legislation in these areas would be naturally limited. Second, we excluded regulatory legislation of policy areas that became EU competence more recently (e.g. banking regulation), since their time series are very short. These eight regulatory sectors are more politically salient than mere technical standards (most of these sectors are in fact conceived as 'strategic' by national governments). Moreover, the sectors became subject to common EC/EU-level regulation at an early stage in the development of the internal market (Citi and Justesen 2014: 714), which also means that data are available for a longer time period. As some contributions to the literature have stressed, the EU had a fundamental role in advancing policy change in these areas, because it promoted a large-scale process of liberalization and re-regulation in sectors that were previously managed as state monopolies or protected from foreign competition (Coen and Héritier 2005; Thatcher and Coen 2008; Thatcher 2002). These sectors therefore constitute key

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[4] The full replication dataset will be available on the authors' webistes.

areas of the EU's internal market, and are highly useful for the purpose of examining developments in EU regulation over time.

Measuring regulatory change

The typical measurement of legislative output used in the literature is the number of legislative acts adopted in a certain period of time. This is also the case with the Crombez and Hix's study (2015), which uses the number of laws adopted by the EU every six months as a measure of legislative activity, and hence as a proxy variable for policy change. However, this measure is problematic for at least a two reasons. First, the total number of laws adopted in a given period of time is not necessarily an accurate indication of the degree to which new legislation departs from the status quo. If we consider a unidimensional policy space – where the extremes are high versus low levels of regulation – the number of adopted acts does not give a clear indication of the direction of the legislative activity. For instance, it does not say whether new acts are producing regulatory expansion or whether they dismantle existing rules. Second, using the number of laws to measure policy change gives the same weight to incremental technical regulations adjusting existing legislation and major directives that alter the regulatory framework of entire policy sectors. This may affect the validity of the dependent variable – policy change.

Unlike previous research, we focus on the extent to which the new acts reform the status quo. Given that the vast majority of EU legislation concerns the regulation of the common market, the dependent variable we use is the change in regulatory density in eight policy sectors: electricity, gas, telecoms, postal services (utilities sectors) and road, air, maritime and railway transport (transport sectors) from 1984-2012. The data were developed by Citi and Justesen (2014) who applied the method developed by Knill et al. (2012) to measure deviations from the status quo in regulatory policies. More specifically, the measurement of change in regulatory density consists in coding the acts in the sample article by article, by applying a multi-layered coding scheme that captures three types of change in status quo policies: variation in policy targets, policy tools and policy settings.[5] Each of these changes is coded as an event of regulatory expansion (or

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[5] On the distinction between these three types or 'orders' of policy change, see Hall (1993)

regulatory dismantling if the event repeals existing regulatory targets, tools or settings). These variations are then summed up in an index that measures overall variation in regulatory density per sector-year. This gives a much more accurate measure than the simple count of adopted laws, since each EU law is coded according to its contribution to regulatory expansion or dismantling, so each act bears a specific 'weight' to the output variable. Full details on the coding scheme used for data collection and a table with descriptive statistics are available in Appendices A and B.

Measuring institutional opportunity space

To measure the *gridlock interval*, we use the variable developed by Crombez and Hix (2015). This measure incorporates information on both institutional and political constraints in the EU legislative system by calculating the set of existing policies that cannot be defeated by new legislative proposals: The more heterogeneous the policy preferences of the EU legislative bodies – the Council and the European Parliament – the larger the gridlock interval. Wider intervals represent situations where the institutional opportunity space for policy change is narrow (gridlock or quasi-gridlock), whereas smaller intervals signal that the institutional opportunity space for policy change is wider.

Measuring legislative activism

To measure the European Commission's level of legislative activism, we use a variable that counts the *number of legislative proposals.* This variable measures the formal legislative activity of the Commission on a sector-by-sector basis, and therefore contains both cross-sectional (sector) and time-series (year) variation. The variable is constructed using original data retrieved from EUR-Lex.[6] Each proposal normally contains more events of regulatory change, either in the direction of regulatory expansion, or in the direction of regulatory dismantling. A proposal can also contain zero regulatory changes in case of simple consolidating acts, or in case of proposals that contain an equal number of expanding and dismantling events (for instance when new regulatory tools replace old ones).

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[6] http://eur-lex.europa.eu/homepage.html

Control variables

The statistical models include a number of control variables. First, we include a time trend to ensure that we are not simply capturing to common trends over time in the variables we examine. Second, we add a variable that tracks variation in the political salience of the eight policy sectors on the European Council's agenda, as coded by the European Union policy agendas dataset.[7] Third, we include a series of dummy variable indicating the year of the election cycle of the European Parliamentary (EP) elections. These are intended to capture the effect that proximity to EP elections may have on the Commission's legislative activity. The Parliament has had the status as a quasi-veto player since the Maastricht Treaty's introduction of Codecision I, and as a formal veto player since the Amsterdam Treaty introduced Codecision II (Tsebelis 2002a, 2002b). It is therefore possible that the number of legislative acts proposed by the Commission is affected by the rotation of the Parliament's election cycle.[8] Finally, we include a control variable measuring the number of EC/EU member states in a given year, in order to control for the possibility that an increasing number of member states may increase both the legislative activism of the Commission and the pressure to adopt new regulatory changes.

EMPIRICAL RESULTS

Estimation model

Our theoretical argument – outlined in Figure 1 – implies that we conduct two sets of analyses: One where we treat legislative activism as the dependent variable, and one where we treat

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[7] The European Union Policy Agendas Dataset codes every sentence or quasi-sentence of all the European Council conclusions following the international policy agendas codebook (Alexandrova et al. 2014). Source: http://www.policyagendas.eu/

[8] As an alternative, we have also included controls for the different Commissions during the time span of our analysis. We do so because some Commissions, for instance the Delors Commission, were renowned for their legislative activism, while other Commissions, such as the Thorn and the Santer Commissions, were known for their lacklustre record in policy change. Replicating the analysis with a full set of Commission dummy variables does not change the main results. Detailed results are available in Appendices C and D.

regulatory change as the dependent variable. Both dependent variables are by definition count variables with a minimum of zero and values that change in one-unit increments. Legislative activism counts the number of legislative proposals initiated by the Commission, and regulatory density counts the number of changes in regulatory policies. Therefore, we use the negative binomial regression model for panel data to conduct our analyses. We opt for the negative binomial regression model rather than the Poisson model because the latter invokes the equidispersion property, which requires that the variance of the data is equal to the mean (Cameron and Trivedi 2010: 670). In contrast, the negative binomial model allows for overdispersion, which is common for count data. In fact, as shown in Appendix B, summary statistics show that for both legislative proposals and regulatory change the variance exceeds the mean – particularly in the case of regulatory change (see also Citi and Justesen 2014). Since our data has a panel structure with policy sectors measured over time, we use the negative binomial fixed effects estimator, which allows for correlation between the (sector) fixed effects and the regressors (Cameron and Trivedi 2010: 638).

Gridlock and legislative activism

The first part of the empirical analysis examines the relationship between the gridlock interval and the European Commission's legislative activism, corresponding to a test of H1. The results are shown in Table 1, where we treat legislative activism as the dependent variable while the gridlock interval constitutes the key explanatory variable. All coefficients are reported as incidence-rate ratios (IRRs), which show the percentage change in the dependent variable given a one-unit change in the explanatory variables, all else being equal (Long and Freese 2006: 359–360). Incidence-rate ratios are calculated simply by taking the exponent of the log(count), e^β, for each coefficient in the negative binomial regression. Therefore, an IRR larger than one is similar to a positive effect, while an IRR less than one is similar to a negative effect.

[Table 1 about here]

Model 1 shows the result from a simple fixed effects regression with the gridlock variable – lagged one year – as the only explanatory variable. The IRR is highly significant (z=3.02) and less than 1, which shows that there is a negative relationship between the size of the gridlock interval and the number of legislative proposals put forward by the Commission. Specifically, the IRR for the gridlock interval is 0.76, which means that a one-unit increase in the gridlock interval decreases the expected number of legislative proposals by 1-0.76 = 24%. This finding is fully in line with H1 and supports the idea that a larger gridlock interval constrains the legislative activism of the Commission.

To guard against spurious correlation, models 2–5 introduce a number of control variables. In model 2, we start by including a time trend, which does not have any effect on the coefficient and significance of the gridlock interval. In model 3, we control for the salience of the eight policy areas on the European Council's policy agenda, but – perhaps somewhat surprisingly – this does not seem to have a systematic effect on the Commissions legislative activity. Model 4 adds a series of dummy variables indicating the year of the election cycle of the European Parliamentary (EP) elections. EP elections have a five-year cycle. We use the year of EP elections as the reference category and then estimate how distance – in years – from the election year affects the number of legislative proposals put forward by the Commission. For instance, the variable 'Election year+1' indicates the year after an EP election. Controlling for the EP election cycle does not affect the relationship between the gridlock interval and the Commission's legislative proposals. However, the results for the election dummies reveal an interesting pattern where – relative to an election year – legislative activism increases significantly in the years following a Parliamentary election. Although the coefficients of only 3 out of 4 election dummies are individually significant, a *Chi*^{2} test – reported at the bottom of Table 1 – shows that they jointly have a significant effect on the Commission's legislative activity. These results suggest that the Commission does take the EP election cycle into account when it proposes new legislation, and

that the number of legislative proposals initiated by the Commission tends to drop in election years and then rise again in the year immediately following the election of a new Parliament.[9]

Finally, in model 5 we take account of the fact that the number of members states of the EC/EU has increased over time, and that this may have increased the pressure on the Commission to propose new legislation. We do so by including a variable that counts the number of member states. It is evident from the results that the effect of the gridlock interval is robust to adding this control variable, and that the number of member states *per se* does not have any particular effect on the Commission's legislative activity. Overall, the results from Table 1 clearly show that the combination of political and institutional constraints – captured by the gridlock interval – matters for the legislative behaviour of the Commission. This suggest that the Commission behaves strategically in the EU legislative system by decreasing the push for legislation when it is faced with more constraints and – conversely – increasing its legislative activism when political and institutional constraints are relaxed and the institutional opportunity space for passing legislation widens.[10]

Legislative activism and regulation

While the previous section established a link between the institutional opportunity space and the Commission's legislative activism, this section moves on to investigate the second part of our argument linking legislative activism to the actual adoption of changes to the regulatory framework governing eight industries within the European Union. This corresponds to a test of H2, and will allow us to arrive at a more complete understanding of the relationship between degrees of institutional constraints, legislative activism, and actual policy change. As an indicator

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[9] To check the robustness of the election cycles result, we have tried to add a dummy variable for the period after the adoption of the Maastricht Treaty, which introduced the co-decision I procedure. This does not change the results. Details are available in Appendices C and D.

[10] In a set of additional regressions, we have also tried to look at whether withdrawn or rejected proposals are related to the gridlock interval. This turns out not to be the case (generally, the number of withdrawn/rejected proposals per year are relatively few). Results are available upon request. Data on withdrawals and rejections are included in the replication dataset.

of policy change, we focus on change in regulatory density as the dependent variable, while the number legislative proposals given by the Commission constitutes the key explanatory variable.

Before we proceed, one important complication concerning the lag structure of the variable measuring legislative activism needs to be addressed. Generally, it is often difficult to theoretically specify the response time between a change in the explanatory variable and the subsequent change in the dependent variable (Plümper, Troeger, and Manow 2005). However, in the case of the EU legislative system it is, in fact, possible to use theoretical priors to inform the choice of lag lengths in the statistical models. The legislative acts that are adopted following the ordinary legislative procedure require up to two readings both in the Parliament and in the Council, and a possible third reading in the Conciliation committee. As shown by earlier work in the literature, around 80% of the EU's legislative acts therefore take up to 2 years before they are finally adopted (König 2007; Häge 2011). On this background, we perform a series of tests aimed at finding the optimal lag length for the measure of legislative proposals. Specifically, we run four negative binomial fixed effects regressions, using regulatory changes as the dependent variable, and where we include lag lengths of zero, one, two, and three years, respectively, for legislative proposals. This allows us to compare the magnitude of the coefficients for each of the four lag lengths as well as their statistical significance. The results are displayed in Figure 2 below.

[Figure 2 about here]

Figure 2 visualises the results from these regressions by displaying the coefficients of legislative proposals – indicated by dots – entered with lags of zero, one, two, and three years, and their corresponding 95% confidence intervals. The horizontal line indicates the value of zero, and so confidence intervals crossing the zero-line show a statistically insignificant relationship ($p \geq 0.05$). If the procedure from a proposal is formally put on the agenda and until it is passed by EU's legislative chambers takes around two years – as we expect – a lag length of two years for the variable measuring legislative proposals should be best for explaining regulatory changes. And this is, in fact, exactly what Figure 1 shows. The coefficient for legislative proposals entered with a two-year lag is clearly larger than the coefficients for the lags of zero, one, or three years. The

two-year lag is also more significant (z=3.12) with a narrower confidence interval than any of the other coefficient for different lag lengths. These results strongly support the argument that a two-year lag of legislative proposals is best for explaining changes in regulatory changes in the EU.

[Table 2 about here]

In Table 2, the key explanatory variable – the number of legislative proposals – therefore enters with a two-year lag. In model 1, the legislative proposals variable is included as the only explanatory variable, and has a positive and highly significant effect on the number of regulatory changes. This result supports H2 and shows that when the Commission increases its activity by proposing more legislation, the number of actual changes in regulatory policies that are passed in the legislative system also increases. Moreover, the effect of the Commission's legislative activity is quite substantial. Proposing one additional piece of legislation – corresponding to a one-unit increase on the legislative proposals variable – increases the expected change in regulatory density by 17%. This suggests that Commissions that are more active in terms of drafting legislative proposals ultimately manage to enact more extensive regulatory changes in key policy sectors. This finding is in line with earlier findings on legislative activity in the U.S. House of Representatives, which have shown that a higher level of legislative activity by House representatives lead to higher rates of legislative success (Anderson, Box-Steffensmeier, and Sinclair-Chapman 2003)

In models 2-6, we further examine this relationship by including additional explanatory variables. Model 2 includes the time trend variable, which has no effect on the relationship between legislative proposals and regulatory changes. In models 3-7, we control for the salience of each policy sector on the European Council's policy agenda, but this is statistically insignificant in all models. We also control for the gridlock interval. This constitutes an important control variable, because – as shown in Table 1 – the gridlock interval causes selection into different levels of legislative activity, and may at the same time also directly affect the dependent variable, regulatory changes. Therefore the gridlock interval could potentially work as a confounder that distorts the relationship between legislative activism and regulatory change. However, the

gridlock interval is insignificant in all regression models, and does not have any particular effect on regulatory changes.[11] This supports the chain of events inherent in our argument (cf. Figure 1): the reduced gridlock interval increases the Commission's level of legislative activity, which then serves as the direct cause of changes in regulatory policies.

Models 5-7 add the election cycle dummies to the set of controls and models 6-7 also control for the number of EU member countries. However, none of these variables have a systematic relationship with the number of regulatory changes, and nor do they alter the relationship between legislative proposals and regulatory changes.

Finally, in model 7 we explore the joint effect of formal legislative proposals and the informal agenda-setting activity of the Commission. We use the number of preparatory policy documents produced by the Commission – the so-called COM documents, which include White Papers and Green Papers – as a proxy for the Commission's informal agenda-setting powers. Preparatory policy documents are often used by the Commission as a tool for collecting policy-relevant information from stakeholders, as well as a means for surveying the position of member states on upcoming formal legislative proposals, thereby increasing their chances of successful adoption. A prime example of this type of pre-legislative activity is the well-known White Paper on the completion of the common market, which constituted the basis of a massive wave of regulatory legislation. These policy documents serve as a means through which the Commission can act as a policy entrepreneur and pave the way for formal legislative proposals by pointing to various social and economic problems and their proposed solutions. Therefore, it is possible that an increase in formal legislative proposals in combination with an increase in the use of informal means of agenda-setting may reinforce each other and jointly lead to a larger effect on regulatory changes. We test this argument by adding a multiplicative interaction term between the number of formal legislative proposals and the number of preparatory policy documents produced by the Commission. The positive coefficient of the interaction term in model 7 shows that the effect of legislative proposals on regulatory changes does in fact increase as the number of policy documents produced by the Commission increases. This suggests that when Commissions utilizes

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[11] Including the gridlock interval and legislative proposals in the same model could potentially give rise to multicollinearity. However, tests for multicollinearity show that this is not an issue.

both of these tools – formal legislative proposals and its informal agenda-setting powers – in combination, they can further increase their impact on the regulatory reforms that are adopted by EU's legislative system.

CONCLUSION

Legislative systems based on division of powers – typically bicameral systems – are populated with formal and *de facto* veto players that can impose different levels of constraints on legislative activity. While the relationship between institutional constraints and the potential for policy change is a well-studied phenomenon, the pathway from institutional constraints to actual policy change, and the way legislative behaviour shapes this relationship, is less well-understood.

To get a better understating of this fairly complex relationship, this article has used the case of the European Union's legislative system. Specifically, the article has contributed to the existing literature by shedding new light on the links between institutional constraints, the legislative behaviour of the European Commission, and the extent of regulatory reform in the EU. Based on the assumption that the Commission acts as a strategic actor that maximises its influence on legislation, the Commission will step up its legislative activity whenever the institutional opportunity space widens – that is, when the gridlock interval is reduced. As a consequence of this institutionally induced legislative activism, the magnitude of actual regulatory reform increases too.

Based on a panel data analysis of eight policy sectors over nearly three decades, our empirical analyses corroborate the hypothesised relationships. First, the empirical evidence supports the hypothesis that the European Commission takes advantage of a reduced gridlock interval by increasing the volume of legislative initiatives. Second, an increased volume of legislative initiatives – what we have labelled legislative activism – has a significant effect on the extent of regulatory reform. This supports the hypothesis that legislative activism is a key variable connecting institutional constraints to policy change. This effect appears to be even stronger when the Commission increases its informal agenda-setting activities too.

These findings contribute to the literature on legislative politics by providing a more complete account on how the institutional actors that are responsible for initiating legislation

react to a widening political opportunity space for policy change. Our findings show that the relationship between the gridlock interval and policy change is not direct, but mediated by legislative activism exerted by key actors with power to initiate new policies. Both veto player theory and pivot theory can be enriched by taking into account the role of this key mediating variable. Even so, more comparative evidence across legislative systems will be required in order to further investigate how formal legislative initiative and informal agenda setting activities are strategically deployed when heterogeneity in policy preferences between pivotal voters is reduced.

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Figure 1. Hypothesised role of legislative activism

Figure 2. Time lags
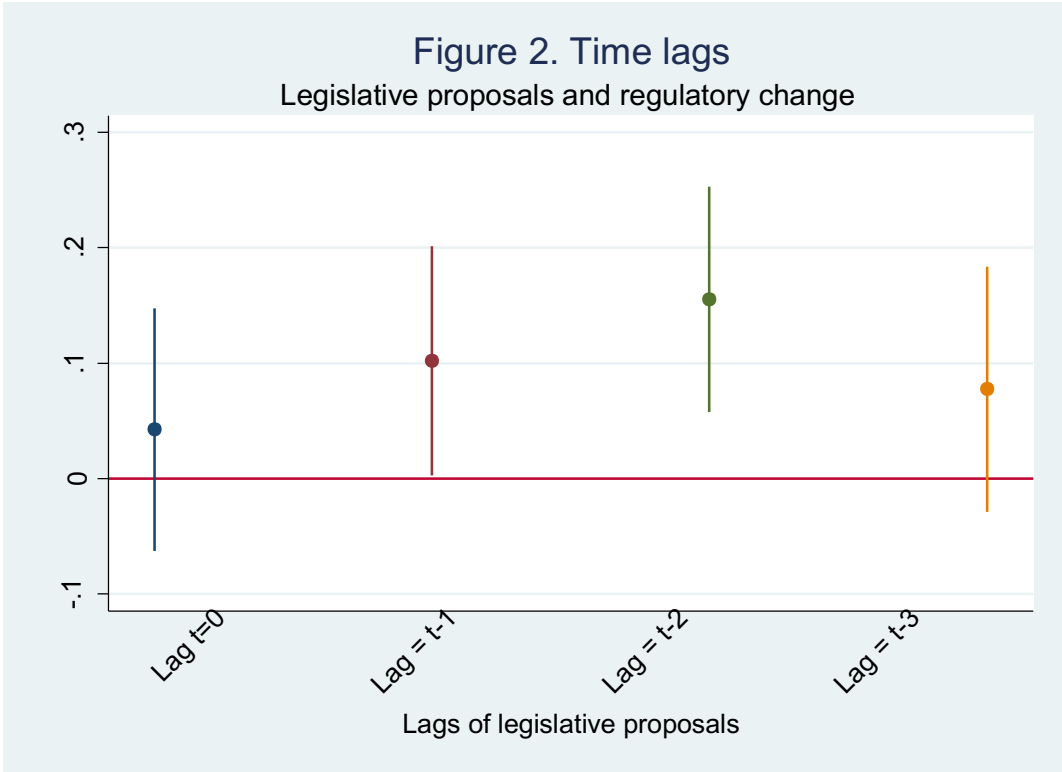
Tables

Table 1. Gridlock and legislative activism

Model	(1)	(2)	(3)	(4)	(5)
Dependent variable	Legislative proposals	Legislative proposals	Legislative proposals	Legislative proposals	Legislative proposals
Gridlock$_{t-1}$	0.76***	0.76***	0.76***	0.71***	0.74***
	(-3.02)	(-3.01)	(-3.09)	(-3.66)	(-2.81)
Salience$_{t-1}$			1.00	1.00	1.00
			(1.27)	(1.23)	(1.21)
Election year				*Reference*	*Reference*
Election year + 1				1.71***	1.74***
				(2.77)	(2.84)
Election year + 2				1.33	1.33
				(1.29)	(1.29)
Election year + 3				1.58**	1.57**
				(2.18)	(2.14)
Election year + 4				1.53**	1.54**
				(2.11)	(2.12)
EU Membership$_{t-1}$					0.97
					(-1.00)
Trend		1.00	1.00	1.00	1.01
		(-0.01)	(-0.32)	(-0.31)	(0.75)
Constant	8.83***	8.84***	9.25***	9.05***	9.43***
	(5.36)	(5.01)	(5.08)	(4.61)	(4.69)
Joint significance (election years), *Chi^2*	-	-	-	8.75*	9.04*
Observations	208	208	208	208	208
Sectors (panels)	8	8	8	8	8

Note. All models show results from negative binomial regressions with panel/sector fixed effects. Coefficients are incidence-rate ratios. z-statistics are shown in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 2. The effect of legislative activism on regulatory change

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable	Regulatory change	Regulatory change	Regulatory change	Regulatory change	Regulatory change	Regulatory change	Regulatory change
Proposals$_{t-2}$	1.17***	1.17***	1.17***	1.15***	1.16***	1.16***	1.05
	(3.12)	(3.11)	(3.10)	(2.69)	(2.85)	(2.80)	(0.72)
Policy docs$_{t-2}$							0.91
							(-1.50)
Proposals$_{t-2}$ x policydocs$_{t-2}$							1.04***
							(3.25)
Salience$_{t-1}$			1.00	1.00	1.00	1.00	1.00
			(-0.03)	(-0.09)	(0.16)	(0.18)	(0.35)
Gridlock$_{t-1}$				1.13	1.16	1.24	1.19
				(0.74)	(0.86)	(1.13)	(0.90)
Election year					Reference	Reference	Reference
Election year + 1					0.70	0.73	0.73
					(-1.06)	(-0.94)	(-0.95)
Election year + 2					1.11	1.11	1.21
					(0.30)	(0.32)	(0.58)
Election year + 3					0.62	0.62	0.59
					(-1.29)	(-1.33)	(-1.47)
Election year + 4					0.61	0.59	0.60
					(-1.38)	(-1.45)	(-1.39)
EU Membership$_{t-1}$						0.97	0.97
						(-0.81)	(-0.64)
Time trend		1.01	1.01	1.02	1.03*	1.05	1.05
		(0.55)	(0.54)	(1.60)	(1.84)	(1.59)	(1.47)
Constant	0.14***	0.13***	0.13***	0.09***	0.09***	0.10***	0.13***
	(-10.00)	(-7.14)	(-7.14)	(-4.91)	(-4.77)	(-4.54)	(-3.97)
Joint significance (election years), *Chi^2*					5.3	5.4	6.7
Observations	216	216	216	200	200	200	200
Number of panel	8	8	8	8	8	8	8

Note. All models show results from negative binomial regressions with panel/sector fixed effects. Coefficients are incidence-rate ratios. z-statistics are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.