

The Apex Court's Dilemma: Rulemaking Alignment Under Hierarchical and Political Constraints[†]

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Abstract

Under what conditions do apex courts align with lower courts in constructing legal rules? Many theories of court behavior have formally modeled and empirically documented how judicial hierarchies influence rulemaking in apex courts. Other theories highlight how apex courts adapt their decisions in response to external political actors. However, it remains unclear how do apex courts prioritize between these competing demands. In this article, I examine this tension by investigating how the operating conditions of the European Court of Justice influence the extent to which it aligns its rulemaking with domestic court referrals through the adoption of corresponding legal bases. Using a novel dataset of more than 5,000 referral applications submitted between 2008 and 2023, I employ a causal identification strategy to disentangle the effects of hierarchical disengagement, political constraints, and legal information. Contrary to prevailing theory, I find that the chief mechanism by which member states induce misalignment is not the threat of a credible override but the provision of alternative legal options. Disengagement pressures from domestic high courts consistently exert a positive effect, yet, they are outweighed when at odds with the misalignment effects of legal alternatives. These findings suggest that apex court responsiveness to judicial hierarchies is more constrained by institutional design than previously recognized.

Keywords: *Judicial Hierarchy; European Union; High Courts; European Court of Justice; Rulemaking*

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We have to deliver... to the satisfaction in particular of the national judges that are asking the questions. This is... our first addressee... It's not academia... but it's the judge that has asked the question, and we want that... she receives an answer that she can work with.

And then the Commission is in every proceeding, tells us, "Well, the directive effectively intends to regulate this and that," and so on and so forth. And of course, the Member State in question would say, "No, no, no, this is going way too far."

— Former Vice President to the ECJ, Thomas von Danwitz,
Borderlines Podcast #3, 1st November 2024

INTRODUCTION

WHEN DO APEX COURTS align with lower courts for making legal rules? Does judicial hierarchy outweigh external political concerns in this alignment process?

Rulemaking is a hallmark feature of apex courts within a judicial hierarchy (Carrubba and Clark 2012; Lax 2007). Besides disposing of cases (choosing winners and losers), judges write opinions that contain legal rules (rationales) which become vertically binding to their subordinates, and signal to outside parties *which* legal arguments may be viable in future litigation (Fox and Vanberg 2014; Hansford et al. 2013; Huang et al. 2019; Lax 2012; Liu 2020; Tiller and Cross 2006). At the same time, a hierarchical judicial structure also implies a degree of delegation to lower courts, where they constantly conduct rulemaking experiments to address new factual scenarios, legal inconsistencies, or shifting societal demands (Beim 2017; Carrubba and Clark 2012; Clark and Kastellec 2013; Hansford et al. 2013). Lower courts, in turn, act as decentralized repositories of legal rules, which may later be reaffirmed, modified, or overturned upon reaching an apex court docket.

Institutionally, this places apex courts at the center of the judicial system, where their opinions matter for both judicial hierarchy and governments alike. Within this dual role, scholarship has pursued two separate puzzles: how rulemaking operates in hierarchical judicial systems and how political contexts shape apex court decision-making.

On one hand, theories of judicial hierarchy examine how apex courts manage and leverage the multi-level court system. Inter-court judicial behavior theories focus on the strategic crafting of legal rules used to maximize top-down enforcement (Carrubba and Clark 2012; Clark and Kastellec 2013). In this view, lower courts supply legal issues, rules, and facts through their decisions but do not always act as strict implementers of higher court doctrines (Klein 2002; Kornhauser 1995). On the other hand, theories of court decision-making behavior explore how apex courts adapt their decisions to signals from external actors (Caldeira and Wright 1988; Carrubba et al. 2008; Helmke 2002; Songer et al. 1995). In responding to cues from lawmakers or the executive, apex courts may strategically refine their reasoning to preempt the possibility of being overridden, confronted with non-compliance, or undermined in their legitimacy (Larsson and Naurin 2016; Lupu and Voeten 2012; Staton and Vanberg 2008). At the intersection of these perspectives lies a core tension: apex courts must balance rulemaking to satisfy both the hierarchical demands of lower courts and pressures from external political actors —yet such dual optimization is rarely feasible.

This tension is particularly pronounced in the European Union judicial system, where the European Court of Justice (ECJ) crucially relies on domestic courts. The ECJ receives most of its cases via preliminary references, which are both submitted and implemented

by these courts.¹ Historically, this relationship has characterized domestic courts as the “main allies” of the ECJ in the judicial construction of Europe (Alter 1996; Slaughter et al. 1998; Weiler 1991). Consistent with any judicial hierarchy, the ECJ expects domestic courts to incorporate its caselaw into domestic cases involving EU law, even when a preliminary reference is unnecessary (Davies 2012). These institutional logics imply latent, yet ever-present, threats of disengagement and non-compliance with its rulings from the judicial hierarchy. That is, rulemaking alignment is not only an informational response, but a way to maintain court comity and cooperation from domestic courts, and by extension, misalignment may be perceived as dismissive by domestic judges and deter them from referring cases in the future (van Gestel and de Poorter 2019, Ch.4; Bobek 2008; Leijon and Glavina 2022).

At the same time, the ECJ is influenced —and sometimes constrained— by threats of override and non-compliance from the member states. Once a case arrives to Luxembourg, any member state can submit their written observations to the Court expressing their legal views.² And in cases dealing with secondary law, if enough member states oppose a particular interpretation of EU law, they can credibly threaten an override through the enacting of new legislation in the Council by Qualified Majority Voting (QMV) (Carrubba et al. 2008; Larsson and Naurin 2016). More pressing, however, are threats of systemic non-compliance with the judicial ruling by affected member states (Carrubba et al. 2008). These threats of non-compliance are particularly pernicious because they undermine the ECJ’s authority and the effective enforcement of EU law, potentially leading to fragmented legal interpretations and inconsistent application across member states.

Leveraging this EU-specific tension, I examine how hierarchical pressures from domestic referring courts and member states observations shape the ECJ’s rulemaking alignment. Specifically, I assess the correspondence between legal bases raised by domestic courts and those addressed by the ECJ. To capture this alignment, I develop a novel citation-based measure grounded in set-theoretic and information-theoretic principles, tailored to quantify alignment between referral question-judgment dyads.³

I focus on citations to EU law because they form the legal scaffolding upon which legal rules are specified. When a domestic court submits a preliminary reference, it constructs a legal argument about how one or more EU provisions should be interpreted —either highlighting potential incompatibility with domestic law or granting the provisions novel effects on their own. Citations serve as costly signals that activate distinct semantic and legal networks, with substitutions or additions altering both interpretive meaning and the scope of triggered legal effects (Koniaris et al. 2018; Schmid et al. 2022).⁴ By capturing overlaps and divergences in cited legal bases, the metric captures how the ECJ aligns with the legal reasoning signaled by domestic courts, reflecting both hierarchical influence and strategic variation in rulemaking.

Theoretically, I build on insights of judicial hierarchy and court decision-making behavior to derive testable expectations for the EU setting. First, the ECJ cannot adjudicate every

¹From a legal lens, Broberg and Fenger (2021), recount that “When the Court of Justice gives a preliminary ruling, in principle it does not decide on the resolution of the actual case before the national court, but only gives a ruling on the validity or interpretation of one of the legal acts referred to in Article 267(1)” (2021, pp.399).

²As established in Article 267 of the Treaty on the Functioning of the European Union (TFEU) and specified in Article 96 of the CJEU’s Rules of Procedure (RoP).

³I build on the assumptions of Arnold et al. (2023); Clark and Kastellec (2013); Larsson and Naurin (2016); Lupu and Fowler (2013). For full details see appendix section D.

⁴This is not to say that changing a single citation always produces an entirely different legal rule. Often it only adjusts the scope of applicability. Nevertheless, it introduces a discernible shift in framing, sufficient for assessing alignment or misalignment in line with the view of Friedman (2006) to take “law seriously”.

case dealing with EU law across the Union, its own resource constraints incentivize it to craft legal rules that will be more likely used by domestic courts (Beim 2013; Davies 2012). This resource limitation, combined with its dependence on referral applications to issue new rulings, engenders a persistent *hierarchical disengagement* pressure from domestic courts. Second, the ECJ's role is not confined to its hierarchical position. Member states have an institutionalized right to submit observations in every case, and when disputes involve only secondary law, they can signal a *credible override*, since such legislation is frequently revised in the Council (Carrubba et al. 2008; Larsson et al. 2017). Third, when cases deal with primary law, the threat of an override is not credible since that would require unanimous Treaty revision and ratification by all 27 member states. Yet, the ECJ is still subject to the influence of *legal alternatives* presented by the submitted observations (Larsson and Naurin 2016). On balance, the ECJ seeks to be responsive to both stakeholder spheres: domestic courts in the application and interpretation of EU Law and the member states who ought to implement and enforce those particular interpretations of law.

Empirically, I evaluate these implications using a unique dataset (N=5017) encompassing all referral applications submitted to the ECJ between 2008 and 2023. Using a causal identification strategy I disentangle the effects of hierarchical disengagement, credible override, and legal alternatives. First, I estimate their marginal effects to test whether each pathway produces effects in their theorized direction: expecting positive effects for hierarchical disengagement, negative effects for credible override, and smaller negative effects for legal alternatives. Second, I examine how these effects vary across institutional contexts by estimating conditional effects under two sets of conditions: credible override $\times$ hierarchical disengagement, and legal alternatives $\times$ hierarchical disengagement. This reveals whether the effectiveness of judicial constraints depends systematically on both the type of constraint and the level of hierarchical pressure in the institutional environment.

The results reveal a fundamental paradox in judicial politics that challenges conventional wisdom about apex court responsiveness. Contrary to established theory, I find that member states exert their greatest influence not through credible threats of legislative override, but through the provision of alternative legal arguments—precisely when they lack formal power to override ECJ decisions. While hierarchical pressures from domestic high courts consistently increase rulemaking alignment as expected, legal alternatives from member states significantly decrease ECJ alignment even in referrals from domestic high courts, demonstrating that the Court is more responsive to alternative legal reasoning than to formal institutional threats. These findings suggest that informal influence through legal reasoning is more powerful than formal institutional leverage, fundamentally reframing our understanding of how apex courts navigate competing pressures in multi-level judicial systems.

THEORY

Scholars of judicial behavior now widely agree that the primary function of apex courts is to create legal rules rather than rectify lower court mistakes. Previous studies posited that apex courts primarily function to police lower court decisions and to rectify “bad ones” in order to instill discipline within the judicial hierarchy (Caldeira and Wright 1988; Cross and Tiller 1998; Songer et al. 1995). However, more recent formal models suggest that within judicial hierarchies, apex courts are strategically better off leveraging the information generated by lower court decisions to refine and optimize their doctrinal preferences (Beim 2017; Hansford et al. 2013; Kornhauser 1995). This dynamic grants lower courts a degree of agenda-setting power, allowing them to shape legal rules by highlighting specific issues or factual patterns.

Evidence of lower court influence has been documented across jurisdictions. In the United Kingdom, [Bowie et al. \(2024\)](#) find that justices on the UK Supreme Court incorporate the language from lower court decisions into their own opinions, indicating, at the very least, that a high court relies on the lower court's opinion for justification (2024, pp.232). Similarly, in the United States, [Corley et al. \(2011\)](#) demonstrate that the US Supreme Court consistently incorporates language from lower federal court opinions into its majority opinions. In addition, [Hansford et al. \(2013\)](#) find that SCOTUS uses citation practices that closely resemble those of the U.S. Circuit Courts, underscoring the importance of citations in the rulemaking process between higher and lower courts.

However, apex courts have also been found to adapt their decisions to the political context that they face ([Carrubba et al. 2008](#); [Glick 2009](#); [Staton and Vanberg 2008](#)). Since executive actors have the power of the sword (and sometimes of the purse) to implement their rulings, apex courts who want their rules enforced must grant these political actors some consideration. Particularly, in the EU, where member states observations (*amici curiae* briefs) have been shown to significantly affect judicial behavior when solving case dispositions ([Cheruvu 2025](#), pp.12; [Larsson and Naurin 2016](#), pp.375; [Carrubba et al. 2008](#), pp.440). Against this backdrop, the next sections flesh out the main lessons from dominant strands of rulemaking in judicial hierarchy and of apex court decision making under political constraints.

Optimizing Hierarchy: managing the judiciary

Theories that focus on the managing of the judicial hierarchy emphasize how apex courts need to optimize for lower court compliance with their decision rules ([Carrubba and Clark 2012](#); [Clark 2016](#); [Lax 2012](#); [Sunstein 1999](#)). Lower courts are considered “strategic actors” that have their own preferences and do not blindly follow vertical *stare decisis* ([Carrubba and Clark 2012](#); [Hansford et al. 2013](#)). While not outright dismissive, lower courts retain discretion about what precedents to cite when making their judgments. This careful construction of arguments-through-law is not innocuous, but directly shapes the range of possible legal outcomes of a case ([Arnold et al. 2023](#)).⁵ This implies that the rules crafted by the apex court must account for the expectations of lower courts rather than simply maximizing its own doctrinal preferences ([Callander and Clark 2017](#); [Clark 2016](#); [Jr 1991](#); [Lax 2012](#)). When apex courts outright disregard lower courts, they risk undermining the application of their decision rules throughout the polity by engendering an animus relationship with these judges; as it is lower court judges who retain discretion to use or not use them in their day-to-day work.

Following the flow of legal information, lower courts act as agenda-setters within a parallel and distributed legal system.⁶ In this system, the apex court uses lower court decisions to shape novel legal rules. A key insight emerges from this structure.

The position in hierarchy of the lower court transmits an implicit threat of disengagement when framing a legal rule. As one moves up in the judicial tier, lower court preferences become more authentic and they *should* care more about having them upheld by the apex court ([Zorn and Bowie 2010](#), pp.1219). In tandem, this means a corresponding increase in the quality of the rules produced by lower courts, that will jointly influence their uptake by the apex court, as it seeks to ensure future usage by lower courts ([Clark 2016](#); [Lax 2012](#)).

⁵For example, in the EU context, a national court determining whether a member state is liable for breaches of EU law decides whether to apply the *Francovich* test based on its interpretation of the relevant facts and whether the criteria are met.

⁶I draw an analogy to parallel and distributed systems to highlight how lower courts operate simultaneously across multiple legal issues, rather than sequentially. This generates multiple and sometimes competing legal interpretations that higher courts may reference, adapt, or refine.

With limited resources, the apex court is more likely to adopt a rule from a ‘higher’ lower court. These higher lower courts produce higher-quality legal rules that require less rectification, saving valuable time and resources. By contrast, lower-quality rules coming from ‘lower’ lower courts often necessitate changes in cited legal sources, making the process more resource-intensive (Lupu and Fowler 2013; Lupu and Voeten 2012). This occurs because judges and clerks must engage in research to determine which legal instruments and existing interpretations to cite, while ensuring they are appropriately discussed to avoid criticism for inaccurate citations. More importantly, even when an apex court somewhat disagree with the legal rule, it might adopt it to avoid overt confrontation that causes disharmonious effects within the hierarchy it oversees.

In sum, optimizing hierarchy theories provide a key pathway which affect rulemaking alignment between an apex court and a lower court: hierarchical disengagement.

Constrained Flexibility: adjusting to political signals

Unlike the aforementioned theories that focus on bottom-up rule creation within judicial hierarchies, constrained flexibility theories emphasize the influence over case outcomes – specifically, determining who wins and who loses (Carrubba et al. 2008; 2012). More recent accounts, however, suggest that political actors consider both ‘law and politics’ simultaneously, recognizing that different case dispositions reflect distinct legal rules (Dederke and Naurin 2018; Larsson et al. 2017). This is evident from the inclusion of legal experts in modern governments who can decode the legal rules used by judges. The central premise of these theories is that apex courts strategically adjust to external political demands (Carrubba et al. 2008; Glick 2009; Larsson and Naurin 2016). To navigate these pressures, courts may preemptively employ vagueness to mitigate political backlash (Staton and Vanberg 2008), and strategically use citations to strengthen their legal justifications, particularly when operating in a more politically adverse environment (Larsson et al. 2017).

From an informational standpoint, external political actors reveal their positions after litigants and lower courts have already framed the legal issue and it has arrived at the apex court. At this stage, strong executives or legislators may signal their stance via *amici curiae* within court proceedings (Caldeira and Wright 1988; Gleason and Provost 2016; Larsson and Naurin 2016). Explicitly, these briefs contain their view of the identified legal issue and their distilled interpretation of law for how the case should be decided (Dederke and Naurin 2018). Implicitly, they convey a threat of override when backed by a legislative majority or a threat of willful non-compliance when the cost of implementing the ruling is too high (Carrubba et al. 2008). By extension, these briefs serve as the chief mechanism of influence for external political actors by pro-positively engaging in legal argumentation that demand the court due consideration. That is, the political actors do not just provide obstructive political threats but alternative legal visions to the court that might not be plausible alternatives to the initial framing.

This logic provides two key insights. First, when a credible threat of an override exists the apex court is more likely to refrain from addressing the framed legal issue or the implied legal rule. A credible threat of override poses a serious challenge to the court’s legitimacy, as it subordinates judicial interpretation to a politically preferred exegesis (Carrubba et al. 2008, pp. 440; Larsson and Naurin 2016, pp. 375). Yet, a court’s legitimacy is essential for enforcing its judgments because it lacks the power of the sword and, therefore, requires buy-in from external political actors to enforce its rulings, and that legislative majorities refrain from quashing them. In turn, submitting an *amicus brief* signals a credible threat of override from the political actor, as it indicates that the actor cares about the issue at hand and has distilled its stance into legal arguments for the apex court to see. Thus, the more political constituents submit briefs, the more credible the threat becomes.

Second, the submission of multiple *amici curiae* briefs also supplies the apex court with plausible legal alternatives that may differ from the initial framing (Dederke and Naurin 2018; Larsson and Naurin 2016). Whereby, as the number of briefs increases, the probability that the apex court keeps the original framing of the legal rule decreases. In practical terms, more briefs increase the number of readily available legal rules in the court's repertoire, providing potential alternative framings to the one implied by the original question. In a hypothetical scenario where only legal considerations mattered for adopting a legal rule, the apex court would bear the entire workload and responsibility of deciding whether the current framing is correct or if changes should be made. In practice, the apex court receives legal briefs from political actors, who use legal arguments to persuade the court by highlighting relevant factual patterns or omitted laws. In sum, constrained flexibility theories offer two pathways of political influence: threat of a credible override and legal alternatives.

Strategic Rulemaking Alignment by the ECJ

The European Union judicial system is a suitable case for testing hierarchical and political constraints on rulemaking alignment. First, the preliminary reference procedure grants domestic courts an strategic agenda-setting power in shaping binding legal interpretations of EU law with little formal ECJ 'docket control' (Šadl and Wallerman 2019). Under this procedure cases arise from three main scenarios. The first scenario is when a domestic court in the member states determine that a national law *might* conflict with certain EU legal provisions. The second one occurs when the domestic court recognizes that EU law applies but is unclear about how to interpret it and thus seeks clarification from the ECJ. And the third happens when litigants question the validity of an EU act and the domestic court sends a referral asking for such legal review.⁷ To better illustrate this, I will use the *Roca Álvarez* case original framing and discuss alternative ones to highlight differences across these types.⁸

Based on the original framing, *Roca Álvarez* exemplifies the first scenario. In this case, the High Court of Justice of Galicia inquired the ECJ whether Article 37.4 of the Spanish Workers' Statute was compatible with Article 13 of the then ECC Treaty and Directive 2002/73/EC. This legal question arose because the Spanish statute provided that employed mothers, but not employed fathers, were entitled to paid leave. Essentially, the question was whether the Spanish law should be 'disapplied' in light of Article 13 and the directive, to ensure that fathers are similarly guaranteed parental leave. However, the Galician court could have framed its question in a manner characteristic of the second scenario too. It might have asked whether Article 13 of the Treaty and Directive 2002/73/EC confer a right to parental leave for fathers even in the absence of the conflicting Spanish statute. In doing so, the domestic court would have identified a set of EU legal provisions applicable to specific factual circumstances that endow individuals with an EU claim-right. Alternatively, under the third type of case, the private company, Sesa Start, could have flipped the case on its head by questioning the validity of Directive 2002/73/EC on the basis of a provision of primary EU law, prompting the Galician court to make the referral asking the ECJ to invalidate secondary law.⁹ Across all three instances, when the ECJ receives the preliminary reference, it already includes the case facts, pertinent national laws (if applicable), and

⁷According to the Foto-Frost doctrine, national courts have no jurisdiction to declare EU acts invalid. When a question of validity of an EU act arises that national court must refer the question to the ECJ for a preliminary ruling if it has doubts about the act's validity. See Case C-314/85, *Foto-Frost v Hauptzollamt Lübeck-Ost* [1987], ECLI:EU:C:1987:452.

⁸C-104/09, *Pedro Manuel Roca Álvarez v Sesa Start España ETT SA* [2010], ECLI:EU:C:2010:561.

⁹Only EU secondary law can be declared invalid whereas Treaty provisions cannot, though they can still be subject of re-interpretations.

crucially a set of EU laws invoked for the potential creation of a legal rule—illustrating the importance of the referring court for the activation of this process.

Second, this procedure forces the ECJ to engage with legal issues raised by domestic courts when crafting its judgments, providing a straightforward way to compare rulemaking alignment.¹⁰ As documented in qualitative and empirical legal studies, once the ECJ receives a preliminary reference, it often reformulates the questions, diverging from the legal issue originally raised by the domestic court (Ghavanini 2022; Šadl and Wallerman 2019; van Gestel and de Poorter 2019). A key aspect of this rephrasing practice involves altering, omitting, or adding EU legal provisions, which ultimately shape the scope and nature of the resulting legal rule (Sarmiento 2012). For instance, the omission of EU treaty provisions can lead to a narrower rule confined to the subject matter of secondary legislation, whereas retaining treaty provisions results in broader, more durable legal interpretations.

As noted in interviews conducted by Hoevenaars and Krommendijk (2021) with Irish and Dutch judges from both lower and higher courts, reformulation is problematic because it indicates that the ECJ misunderstood the original question, making it difficult to obtain an answer to “[...] the question you want them to answer” —all the more so considering the amount of careful work put into the “formulation of the questions” (2021, pp. 76). Similarly, results from van Gestel and de Poorter (2019)’s study of Supreme Administrative Court judges and their referrals indicate that “the ECJ rarely responds directly to the argumentation of referring courts,” a tendency that has instilled a feeling of distrust among these supreme judges (2019, Ch.3, Ch.4). In turn, if the ECJ does systematically follow these practices, it risks discouraging domestic judges from making referrals in the future, thereby starving itself of cases essential for the development and enforcement of EU law.¹¹

Third, the ability of EU member states to submit observations after the initial framing by domestic courts institutionalizes a pathway of external political influence on rulemaking alignment.¹² That is, instead of an ECJ that optimizes its doctrinal preferences solely by leveraging the informational boon of hierarchy and responding to lower court disengagement pressures, we have an ECJ that also engages with member state legal briefs. In its judicial opinions, the ECJ regularly discusses the arguments presented by member states—either to refute them, agree with them, or merely acknowledge their existence (Lindholm et al. 2025). Thus, these briefs transmit potential alternative legal visions and oftentimes threats of override and non-compliance (Cheruvu 2025, pp.12; Larsson and Naurin 2016, pp.375; Carrubba et al. 2008, pp.440). This dynamic showcases that the ECJ’s decision-making process is not only shaped by its hierarchical position but also by the political pressures exerted through member state involvement, which can influence both the outcome and interpretation of EU law.

Rulemaking alignment, therefore, is not solely a function of legal reasoning but arises from the strategic interactions between domestic courts, the ECJ, and the member states. Before detailing my research design in the following sections, I first outline the key assumptions underlying my analysis and present my hypotheses.

Building on the theoretical insights of the previous sections, I advance a theoretical model of conditional rulemaking alignment to derive testable implications stemming from three influence pathways —two of political management (*hierarchical disengagement* and a

¹⁰The way rulemaking alignment is conceptualized and measured is explained in the measuring section and further detailed in Appendix D.

¹¹In 2023, the ECJ received 558 new cases via the preliminary reference procedure which accounted for 63% of the court’s overall workload.

¹²Specifically, Article 23 of the Statute (Protocol No. 3 TFEU) enables national courts to shape EU law through referrals while allowing member states, the Commission, and select EU institutions to intervene, a process formalized by Article 96 of the RoP, which structures these pathways of hierarchical and political influence.

credible override) and one from information (*legal alternatives*) (see Table 1). This model takes into account the relevant set of regularized steps and their sequence in the making of legal rules by the ECJ. That is, it follows the flow of legal information and their respective political management pressures as it flows through the EU legal system into established legal rules.

Table 1: Theorized Effects of Judicial Hierarchy and Political Constraints on Rulemaking Alignment

	Cause	Mechanism	Direction of Effect
<i>Political Management Pathways</i>	(1) Hierarchical disengagement	Hierarchical disengagement pressure by domestic courts increases rulemaking alignment with the ECJ.	+
	(2) Credible override	A credible threat of override from EU member states reduces rulemaking alignment with the ECJ.	–
<i>Informational Pathway</i>	(3) Legal alternatives	Alternative legal arguments to the ECJ decreasing rulemaking alignment with domestic courts.	–

First, the ECJ must balance its doctrinal preferences while maintaining its relationship with domestic courts. Each referral carries the risk of hierarchical disengagement, particularly if the Court’s legal rules deviate significantly from the referring court’s initial framing, as noted by Dutch and Irish judges (Hoevenaars and Krommendijk 2021; van Gestel and de Poorter 2019). This does not mean the ECJ cannot reformulate questions for greater legal precision, but rather that it does so selectively, depending on the perceived importance of the legal issue and the status of the referring court. For this reason, domestic high courts pose the greatest threat of disengagement because they wield authority over their jurisdictions and can reassert control over them “to influence the development of EU law” (Pavone and Kelemen 2019, pp. 352). Moreover, as integral parts of their domestic judicial systems, higher courts benefit from lighter caseloads, greater experience, and more resources, leading to higher-quality referrals in the first place (van Gestel and de Poorter 2019, Ch.4). And, in the post-Lisbon era, domestic high courts have been more willing to engage with the ECJ, as seen by the German and Spanish Constitutional Court referrals *Gauweiler* (2015) and *Melloni* (2013).¹³ This increases instances for potential rulemaking alignment. Ultimately, when the ECJ receives a referral from a higher domestic court, it can streamline its reasoning and formulate a judgment based on the legal provisions already outlined by the referring court. As a result, I expect that ECJ’s rulemaking alignment increases with the level of the referring court. This leads me to my first hypothesis.

Hypothesis 1 (H1) A higher position of the referring court in the judicial hierarchy increases rulemaking alignment between the ECJ and the referring court, even in the presence of a credible override threat or legal alternatives from the member states.

At the same time, the ECJ’s ability to manage judicial rulemaking is tempered by external pressures from member states, particularly when it perceives a credible threat of an override (Carrubba et al. 2008; Larsson and Naurin 2016). It would be futile for the ECJ to maintain a harmonious relationship with all EU member state courts and issue judgments based on its preferred legal rules if member state governments did not consider

¹³Case C-62/14, *Gauweiler and Others v. Deutscher Bundestag*, 16 June 2015, ECLI:EU:C:2015:400.; Case C-399/11, *Melloni v. Ministerio Fiscal*, 26 February 2013, ECLI:EU:C:2013:107.

them legitimate or directly decided to override them. After the Lisbon Treaty, most areas of EU secondary law, except for taxation and foreign and security policy, became subject to QMV exposing almost all secondary law to this threat. Then, submitting observations signals a credible threat of override from the member state, as it indicates that the actor cares about the issue at hand and has distilled its stance into legal arguments for the ECJ.¹⁴ In turn, the more political constituents submit their briefs, the more credible the threat becomes.

I expect these political management pathways to have independent effects on rulemaking alignment, since cases differ both in the level of the referring court and in the number of submitted observations. At the crossroads, however, I anticipate that these effects will be conditional on each other, reflecting the ECJ's balancing act. Specifically, the positive effect of hierarchical disengagement is moderated by the threat of override, while the negative effect of override is moderated by the court level of the originating referral.¹⁵

To illustrate this interaction, consider a referral from the High Court of Justice of Galicia with no member state observations. Here, hierarchical disengagement should have a stronger positive effect on rulemaking alignment, as the court's authority carries more weight. If, however, several member states submit observations, the credible threat of override should dilute—or even overpower—the disengagement effect. Conversely, in a referral from the German Constitutional Court with several member state observations, the override threat remains, but it should be tempered, if not outweighed, by the hierarchical disengagement threat, since the ECJ would want to avoid misalignment and preserve its relationship with such an influential court. These expectations lead to my next two hypotheses.

Hypothesis 2 (H2) In cases dealing only with EU secondary law, a greater number of member state observations decreases rulemaking alignment between the ECJ and the referring court, even in the presence of a hierarchical disengagement threat from the referring court.

Hypothesis 3 (H3) In cases dealing only with EU secondary law, the negative effect of member state observations on rulemaking alignment weakens as the referring court's judicial hierarchy increases; equivalently, the positive effect of judicial hierarchy on alignment is stronger when member state observations are fewer.

Beyond the pressures of the political management pathways, information too plays a crucial role in rulemaking alignment. The ECJ also receives informational inputs from the EU member states' observations, which provide the Court alternative legal visions and resourcefulness. Given that these briefs are submitted after the initial framing from the referring court, but before the judgment is issued, they can sway the Court to reformulate the legal issue and preferred rule when issuing its judgment (Larsson et al. 2017). That is, in areas of law that are not subject to QMV and specially for cases that deal with EU primary law, member states observations still decrease rulemaking alignment. This is not because the Court believes the member states would override its decisions, but because it is swayed by the legal arguments presented. This information pathway shows that observations are not simple objections to developing EU law, but alternative legal visions of how EU caselaw should develop. As recently shown by Lindholm et al. (2025), the ECJ's makes this explicit by addressing these briefs in their judgments not only for positively but by

¹⁴Since EU member state observations documents are not disclosed for my analysis period, I validate this assumption using external hand-coded data detailed in Appendix F

¹⁵This does not imply that the two variables causally affect one another in my model. Rather, their variation across instances can be examined in a set-theoretic way. Functionally, they interact only at the outcome level—namely, in the balancing act performed by the Court.

negatively referencing briefs as a tool to increase the precision of the case law and to foster its legitimacy by showing responsiveness to external parties (2025, pp.21).

Still, just as in the credible override pathway, the influence of alternative legal visions is moderated by the referring court's position in the judicial hierarchy. When a case is referred by a domestic high court and concerns EU primary law (or domains not subject to QMV), the ECJ is less likely to be swayed by alternative legal arguments in member state observations because a stronger disengagement threat raises the cost of misalignment with the high court's initial framing.

Accordingly, the greater the number of member state briefs supplying alternative legal visions, the more they can reduce the Court's alignment with the referring court's rule-making. This effect, however, is weaker for referrals from high courts, where the threat of disengagement is most pronounced. These considerations yield the fourth and fifth hypotheses.

Hypothesis 4 (H4) In cases dealing with EU primary law, the number of EU member state briefs decreases rulemaking alignment between the ECJ and the referring court, even in the presence of a hierarchical disengagement threat from the referring court.

Hypothesis 5 (H5) In cases dealing with EU primary law, the negative effect of member-state observations on rulemaking alignment weakens as the referring court's judicial hierarchy increases; equivalently, the positive effect of judicial hierarchy on alignment is stronger when member-state observations are fewer.

DATA AND MEASUREMENT

To evaluate rulemaking alignment between domestic courts and the ECJ, I assembled a novel dataset covering all preliminary references submitted between 2008 and 2023.¹⁶ The dataset contains 5,017 referral applications comprising 14,127 legal questions and 26,149 citation points from referring courts. In parallel, it includes 4,435 ECJ judgments, encompassing 6,916 paragraphs with 15,510 citation points.¹⁷

This dataset includes two key variables: referring court citations and ECJ citations. The first variable, referring court citations, records the EU law in-text citations provided by the referring court parsed for each referral application question, while the second, ECJ citations, captures the EU law in-text citations made by the ECJ in the corresponding operative parts where it addresses the question at hand. I used these variables to provide the foundation for the calculation of the dependent variable: rulemaking alignment.

To complement this data, I incorporated three additional variables that map to the theorized pathways of influence: 1) count of member state observations when case deals with secondary law only, 2) count of member state observations when case deals with primary law, 3) the level in hierarchy of the referring court all derived from the IUROPA CJEU Database platform (Brekke et al. 2024; Wallerman Ghavanini, Anna et al. 2024).

Crucially, I decomposed the count of member state observations, rather than treating it as a single exposure because EU member state observations operate through two distinct mechanisms depending on the type of law involved. For primary law cases, the threat of override lacks credibility due to the near-impossibility of amendment (requiring unanimity plus referendums), making information availability the dominant mechanism. For secondary law cases, the more frequent updates and lower modification barriers make political pressure through override threats the primary pathway. Both mechanisms produce negative effects

¹⁶Referrals without a judgment as of December 2023 are excluded.

¹⁷For details on data collection and citation standardization see Appendix Sections B and C.

but represent fundamentally different causal logics that warrant separate measurement in the dataset.

Measuring Judicial Rulemaking Alignment

Traditional challenges in scaling judgments arise from the multidimensional nature of text itself. Judicial opinions, in particular, combine a mix of legal provisions, legal principles and interpretative practices that do not easily fit into a single measurement. Despite this, some of the most successful approaches have leveraged citations as means to quantify judicial reasoning. One line of work has focused on the costs associated with precedential citations, emphasizing that the numerical count of citing precedent can be resource-intensive, in terms of both time and effort, and thus more informative of the court's opinion (Larsson et al. 2017; Lauderdale and Clark 2012; Lupu and Voeten 2012). More sophisticated studies have refined this by examining specific kinds of precedents used by U.S. district courts (e.g., the set of outside-circuit citations) (Choi and Gulati 2008). Yet more recent work by Arnold et al. (2023) considers the entire set of citations within a decision, arguing that when judges choose to cite different procedural rules, it implies a different underlying legal rule.

In the context of the EU's preliminary reference procedure, I subscribe to this more recent approach for measuring rulemaking alignment. As noted in the previous section, when the ECJ receives the preliminary reference application, it already includes the case facts, pertinent national laws (if applicable), and crucially a set of EU laws (Broberg and Fenger 2021; Sarmiento 2023). It is precisely, the set of EU law citations which underpin the making of a legal rule.

Consider, for example, *Portuguese Judges*, where the ECJ established the principle of effective judicial protection as a fundamental requirement under Article 19 TEU and Article 47 of the EU Charter.¹⁸ The Court did not derive this principle *ex nihilo* but rather grounded it in the legal provisions cited in the referral question, demonstrating how legal rulemaking occurs through interpretation rather than an mere discursive declarations. Or consider, a more technical subject, *Gottwald*, where the ECJ examined whether a residency-based condition for a toll exemption amounted to nationality-based discrimination under Article 12 of the EC (Maastricht Treaty). The referring court provided the relevant EU legal provisions and the ECJ assessed whether the restriction was compatible with them. It ultimately ruled that "Article 12 EC must be interpreted as meaning that it does not preclude a national rule which restricts the issue of an annual toll disc free of charge to those disabled persons who are resident [...]" (para. 42).¹⁹ These cases illustrate how rulemaking alignment can be analyzed by examining the degree to which the ECJ's EU legal references align with those of the referring domestic court (Leloup and Spieker 2024; Lenaerts et al. 2023).

To measure judicial rulemaking alignment, I develop a citation-based metric called Local Information-Adjusted Citations (LIAC) that evaluates referral question-judgment dyads using set-theoretic and information-theoretic principles.²⁰ The measurement process involves two steps: first calculating a Set Citation Alignment Ratio (SCAR) that handles citation overlap, missing citations (legal provisions the ECJ disregarded), and extra citations (provisions the ECJ added beyond the referring court's framing), then applying a local information adjustment that transforms these ratios into interpretable alignment units scaled by the referring court's initial citation universe.

¹⁸Case C-64/16, *Associação Sindical dos Juizes Portugueses v. Tribunal de Contas*, 27 February 2018, ECLI:EU:C:2018:117.

¹⁹Case C-103/08, *Gottwald v. Bezirkshauptmannschaft Bregenz*, 1 October 2009, ECLI:EU:C:2009:597.

²⁰Full details found in the Appendix D.

Positive LIAC values signal net information alignment where courts agree more than they disagree on legal foundations, negative values indicate net misalignment, and zero represents equilibrium. This approach captures alignment by quantifying overlap between referring courts and the ECJ while penalizing both omissions and strategic additions, and crucially calculates alignment at the question-paragraph level before aggregating at the referral-judgment dyad level to avoid Simpson’s paradox—the statistical reversal that can occur when disaggregated patterns are obscured by naïve aggregation (Pearl 2009b; Pearl 2013). This provides a nuanced, reliable metric of inter-court rulemaking alignment that enables cross-contextual comparison and strategic behavior detection.

RESEARCH DESIGN

Estimation

The empirical strategy follows a modern causal inference logic, where I transform the causal structure along with the minimal adjustment set to an estimable functional form (Pearl 2009a; Pearl 2011).²¹ The resulting causal specification employs a Huber Robust OLS regression of the following form:²²

$$y_i = \eta + \gamma + \delta + (\eta \times \gamma) + (\eta \times \delta) + X_i + \lambda_i^p + \varepsilon_i^r \quad (1)$$

Where y_i represents the degree of rulemaking alignment for referral-judgment dyad i , η denotes hierarchical disengagement, γ captures the threat of credible override, and δ measures legal alternatives. The interaction terms $(\eta \times \gamma)$ account for the conditional moderation effect of hierarchical disengagement and credible override, while $(\eta \times \delta)$ denotes the same for hierarchical disengagement and legal alternatives. X_i denotes vector of confounders used for the minimal adjustment. λ_i^p represents fixed effects that control for ECJ’s field of law classification p (Imai and Kim 2019). Finally, ε_i^r is a robust error term clustered at the level of the referring member state court c to account for within-court correlation (Abadie et al. 2023).²³

Considering that the theoretical pathways do not have direct observable measures, I use the following operationalization. For rulemaking alignment (y_i), I use LIAC, which measures citation alignment between courts with information-theoretic adjustments for missing and extra citations. For hierarchical disengagement (η), I use the level in hierarchy of the referring court, where one denotes a court of first-instance in their judiciary, two an appeals court, and three a domestic high court. For the threat of credible override (γ), I use the count of member state observations when the referral includes provisions of EU secondary law only.²⁴ Finally, for legal alternatives (δ), I use the count of member states observations when the case deals with EU primary law.

For the first test, I use this model to estimate the average marginal effects of each pathway variable on rulemaking alignment.²⁵ For hierarchical disengagement, it shows the effect of moving from lower courts to middle courts, and from lower courts to high courts,

²¹Full causal identification details provided in Appendix E

²²I use Huber robust OLS because the outcome variable (LIAC) contains unbalanced negative outliers, which can distort parameter estimates, and the Huber method down-weights these deviations to preserve the central tendency. Robustness details in Appendix I.

²³I do not include any of the β parameters in the equation above because they represent the raw coefficients, which are not the relevant or reliable estimates for this analysis.

²⁴Revisions under Article 48 TEU require unanimous approval by all member states, both during inter-governmental conferences (IGCs) and national ratifications. This creates a veto-point minefield, as seen in: Ireland’s initial rejection of Lisbon (2008) and the failure of the Constitutional Treaty due to French and Dutch referendums (2005). See Ritleng (2024) and Craig (2011).

²⁵For all estimates I use the `marginal effects` package from Vincent Arel-Bundock et al. (2024)

respectively. Whereas for the credible override and legal alternatives, the marginal effect will show the effect of one additional member state brief. This is expressed as follows:

$$\beta_i = \frac{\partial \hat{y}}{\partial x_i}, \quad \text{where } x_i \in \{\eta, \gamma, \delta\} \quad (2)$$

For the second test, I estimate the difference in expected values across two condition sets. For the first condition set I compute a cross tabulation between *Credible Override* $\times$ *Hierarchical Disengagement*, using the expected values. Effectively this shows the difference made by high courts at below and above median levels of member state observations. Complementarily, this shows the difference made by above median member state observations when the referral comes from a lower court versus a high court. For the second condition set, I compute a cross tabulation between *Legal Alternatives* $\times$ *Hierarchical Disengagement*. Like before, this shows the difference made by high courts at below and above median levels of member state observations. Complementarily, this shows the difference made by above median member state observations when the referral comes from a lower court versus a high court. Both of these cross tabulations show not only the marginal effects but how the rulemaking alignment changes across these theoretically relevant conditions.

This difference-in-expected-values approach for both sets of cross-tabulations is formalized as:

$$\Delta = \mathbb{E}[y \mid x_1, c] - \mathbb{E}[y \mid x_0, c] \quad (3)$$

where x_1 and x_0 index the two condition sets being compared (such as above vs. below median observations, or lower vs. high court referrals). This difference Δ quantifies the change in expected alignment when moving from one condition to the other.

Since this study uses observational data, rather than experimental, I address confounding bias through research design and my modeling choices informed by the theorized causal structure. First, considering that the unit of analysis is alignment between the referral-judgment dyad, I am effectively treating each case in its own terms rather than comparing among them. For each referral, the referring court decides which citations to raise based on the specific facts of the case. These citations are then sent to the ECJ, which determines whether to align with them, thus mitigating any confounding factors related to formalism or ‘case facts’ since both are adjudicating the same matter (Krommendijk 2019; Cameron and Kornhauser 2017, pp.552). Second, since the dependent variable operationalizes EU legal provisions as the basis of its analysis, this mitigates the confounding effect of time. While some provisions may become more widely accepted over time, the key focus remains on the alignment between courts and their strategic choices when to raise certain provisions for making of legal rules. Third, the temporal structure of the process, where both the level in hierarchy and the submission of observations precede the issue of judgments make these claims possible.

Additionally, I implement two key theoretically driven statistical adjustments. First, I include court classification fixed effects (λ_i^p) that allow for different intercepts across areas of law, as judicial preferences and decision-making patterns can vary significantly depending on the legal domain (Lauderdale and Clark 2012, pp.850; Wallerman 2019). Second, I employ robust standard errors clustered at the referring member state court level (ε_i^T) to account for the non-independence of referrals, since multiple cases may originate from the same national courts and thus exhibit correlated error structures (Abadie et al. 2023).

Table 2 presents the summary statistics for the causal variables used in the for the analysis.

Table 2: Causal Model – Variables Statistics

	<i>n</i>	<i>mean</i>	<i>std</i>	<i>range</i>
Rulemaking Alignment ⁱ	5017	-1.361	4.341	[-44.73, 18.00]
Credible Override ⁱⁱ	5017	1.542	1.716	[0, 13]
Legal Alternatives ⁱⁱⁱ	5017	0.709	1.705	[0, 22]
Primary Law $\langle P \rangle$	5017	0.264	0.441	[0, 1]
EC Submits Observations	5017	0.999	0.037	[0, 1]
Hierarchical Pressure ^{iv}	5017	—	—	3 categories
ECJ Policy Area	5017	—	—	41 categories

ⁱ Citation alignment (LIAC) of the ECJ with respect to the referring court.

ⁱⁱ Count of member state observations when referral does not deal with primary law.

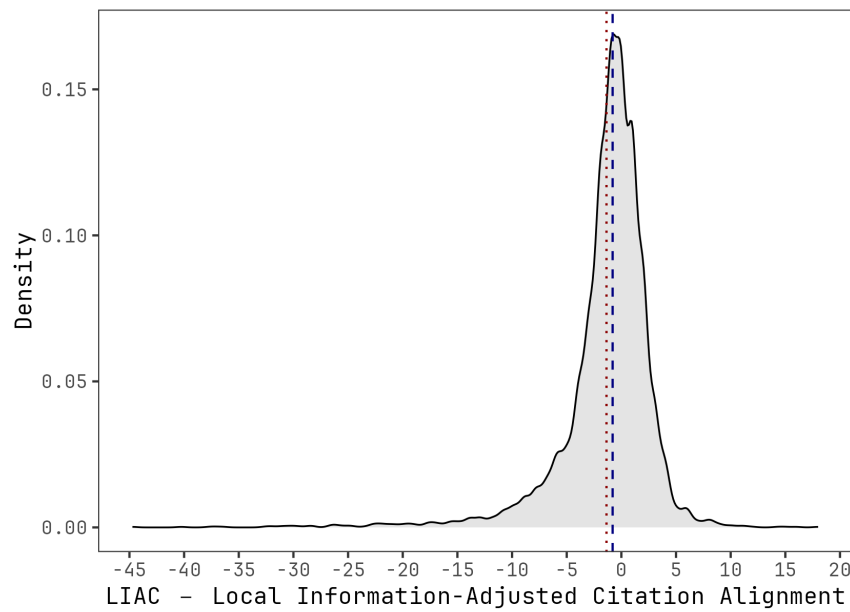
ⁱⁱⁱ Count of member state observations when referral deals with primary law.

^{iv} Referring court’s position within its own judicial hierarchy.

RESULTS

After parsing all the citation data at the referral-judgment dyads the LIAC-based citation alignment is computed, the resulting in an output that reveals the empirical distribution of rulemaking alignment by the ECJ. As shown in Figure 1, the ECJ typically operates *below* this balanced information exchange point, suggesting they tend to under-engage with referring courts’ legal frameworks, rather than finding that natural dialogue balance. This pattern corroborates the previous qualitative accounts that had focused on the reformulation of preliminary references (Ghavanini 2022; Šadl and Wallerman 2019; van Gestel and de Poorter 2019). This finding is particularly surprising considering that the Court itself views referring judges as their main ‘audience’ as said by the former Vice President of the Court.

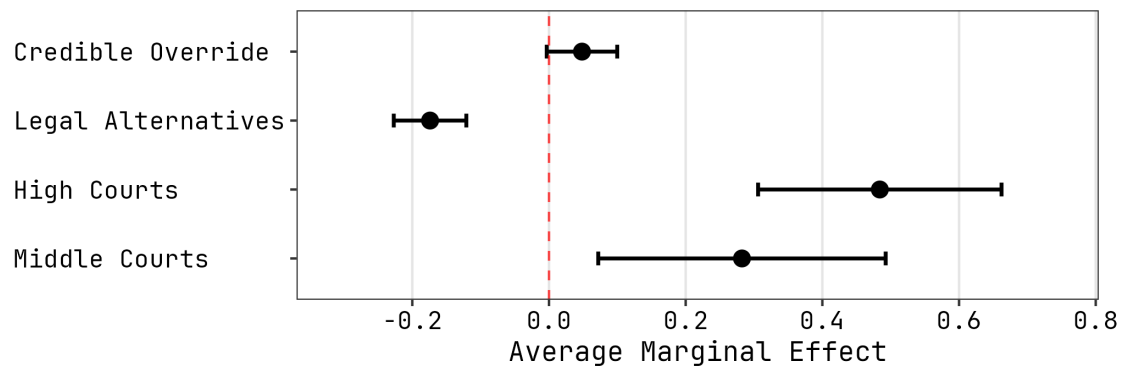
Figure 1: Distribution of Rulemaking Alignment



Note: This figure shows the probability density distribution LIAC scores. The red dashed line represents the mean (-1.36) and the blue dashed line represents the median (-0.8). The peak of the distribution occurs around -1.0 , indicating that most rulemaking processes exhibit negative alignment scores.

Moreover, by examining the entire distribution, three insights emerge. First, 56% of the time the ECJ engages in a kind of *altered dialogue*, meaning that the number of missing or extra citations in the operative part is greater than the number of mutual citations from the initial framing, causing significant deviation from the legal bases. Second, 10% of the time, it engages in *balanced dialogue*, meaning the number of citation changes is equal to the number of initial citations, but still addressing many citations from the original framing. Third, 34% of the time, the ECJ engages in *affirmative dialogue*, meaning that the number of changed or missing citations is always fewer than the initial number, or there are none at all, indicating that the ECJ has addressed some or all of the original citations. Taken together, these results highlight that the Court's engagement with domestic framing is neither random nor uniformly affirmative, but patterned in ways that we can leverage to test the theoretical expectations.

Figure 2: AME of Theorized Influence Pathways on Citation Alignment (LIAC).



Exposure	$\frac{\partial \hat{y}}{\partial x}$	SE	CI 2.5%, 97.5%	Pr(> z)
Credible Override	0.048	0.026	(-0.003, 0.100)	0.066
Legal Alternatives	-0.174	0.027	(-0.227, -0.121)	< 0.001***
High Courts	0.484	0.091	(0.306, 0.662)	< 0.001***
Middle Courts	0.282	0.107	(0.072, 0.493)	0.008**

Note: Marginal effect estimates were constructed using Huber robust OLS. Confidence intervals and p-values were constructed using cluster-robust standard errors at the referring court level.

Beyond these descriptive findings, the marginal effects presented in Figure 2 along with the differences shown on Table 3 and Table 4 provide the empirical evidence necessary to evaluate the hypotheses. First, concerning *H1*, *hierarchical disengagement* has a strong positive effect on rulemaking alignment. Specifically, referrals from high courts increase the alignment by +0.484 points, while middle court referrals show a smaller effect of +0.282 points, both relative to the first instance court baseline.²⁶ Moreover, Table 4 shows across both conditions when there's above and below median member state observations the effect remains positive at +0.463 and +0.222. Similarly, this pattern is also present on Table 4 where the effect is +0.553 and +1.194. Jointly, this confirms that as the level of the referring court increases the more the ECJ cares more about addressing referred questions. These empirical findings substantiate the theoretical claims advanced by Pavone and Kelemen (2019) and van Gestel and de Poorter (2019). The consistent positive relationship between court hierarchy and ECJ responsiveness thus confirms strategic dynamics underlying the preliminary reference procedure.

Moving to *H2* on the threat of a *credible override*, the findings disconfirm with the long-established wisdom that the ECJ is constrained by the external risk of override from member states (Carrubba et al. 2008; Larsson and Naurin 2016). Instead, I find the opposite effect: each additional member state brief increases rulemaking alignment by +0.048.²⁷ This effect is more clear in Table 3, where member state briefs at above median levels increases citation alignment by +0.485 and +0.245 when the referral comes from lower court and a high court respectively. While this does not entirely negate the possibility of override threats—such threats may still operate at the case disposition level—it suggests that they do not translate into changes in EU legal basis. These findings provide sufficient evidence

²⁶These results are substantively robust, as court levels were modeled as unordered categorical factors, allowing each court type to have independent effects rather than forcing a hierarchical ordering.

²⁷While the average marginal effect of a single member state brief is not statistically significant when examining expected values at above and below median levels are statistically significant.

to reject the second hypothesis.

Also, equivalently surprising is that the unexpected findings concerning *H4* on *legal alternatives*. First, it was theorized that the effect of member states briefs, when the case deals with primary law, should be negative but smaller than the credible override since that's when the member states have more formal power. Contrary to this the marginal effect of legal alternatives is -0.174 . More pressing still, is the difference shown in Table 4, where member state briefs at above median levels decreases alignment by -2.163 and -1.522 when the referral comes from lower court and a high court respectively. This finding also contradicts views that emphasize formal power and shows that the “responsiveness” of the ECJ is more than mere lip service (Lindholm et al. 2025, pp.21). These findings provide sufficient evidence to reject the fourth hypothesis.

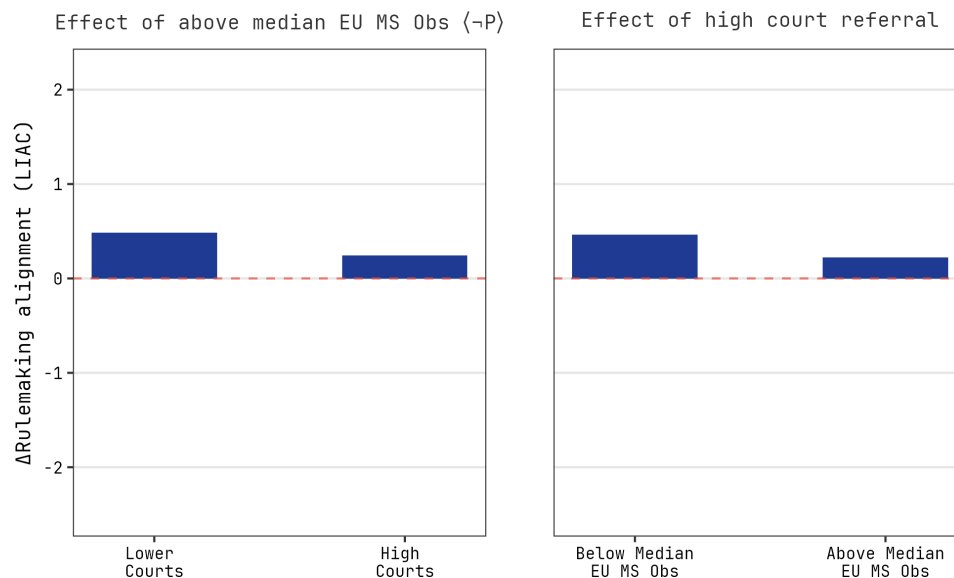
Putting both of these findings together reveal a fundamental paradox in judicial politics: Formal power and informal influence work in opposite directions. Member states are most influential precisely when they have the least formal leverage - a finding that challenges basic assumptions about judicial politics in multi-level governance systems.

Table 3: Cross-Tabulation of Credible Override $\times$ Hierarchical Pressure

	Lower courts	High courts	Δ
EU MS obs $\langle \neg P \rangle x < \tilde{x}$	-1.246	-0.783	$+0.463$
EU MS obs $\langle \neg P \rangle x > \tilde{x}$	-0.761	-0.538	$+0.222$
Δ	$+0.485$	$+0.245$	$+0.467$

Note: Expected values across all condition pairs. Bottom delta (Δ) is the difference made by having above median EU MS observations (*credible override*). Top-right delta is difference made by high courts (*hierarchical pressure*). All values are estimated $\mathbb{E}[y \mid x_1, c] - \mathbb{E}[y \mid x_0, c]$. Confidence intervals, standard errors, and p-values were obtained via bootstrap with 1,000 replications, and estimates remained stable across runs.

Figure 3: Difference Credible Override $\times$ Hierarchical Pressure



Given the findings from *H1*, *H2*, and *H4*, *H3* is definitionally rejected. The hypothesis presupposed competing forces between credible override and hierarchical pressure, yet both mechanisms consistently increase alignment, invalidating the theoretical basis for moderation. The combined effect increases rulemaking alignment by +0.467.

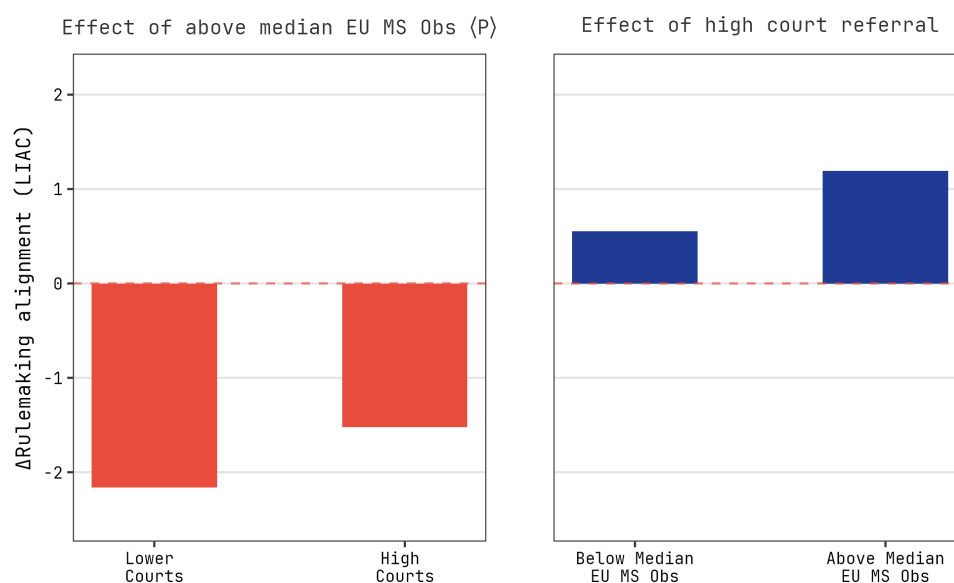
More interesting, however, are the expectations from *H5* which place *legal alternatives* $\times$ *hierarchical disengagement* at odds. First, Figure 4 shows how the negative effect of above median observations decreases from -2.163 to -1.522 or 24% decrease in the effect. This demonstrate that referrals coming from influential courts can tame the misaligning effect. Yet, contrary to the expectations the effect of a high court referral is higher when there is above median level of member state observations rather than below median, moving from $+0.553$ to 1.194 or 115% increase in the effect. This finding suggests that the effect of hierarchal disengagement pressure is most useful when there are actually objections raised by the member states, and when they are not, hierarchy ceases to play a significant role. Lastly, at this cross condition of a high court referral and the above member the effect of legal alternatives overwhelms hierarchical disengagement pressures by resulting in -0.328 . Jointly these findings prove the first part of *H5* and disprove the second.

Table 4: Cross-Tabulation of Legal Alternatives $\times$ Hierarchical Pressure

	Lower courts	High courts	Δ
EU MS obs $\langle P \rangle x < \tilde{x}$	-1.504	-0.951	$+0.553$
EU MS obs $\langle P \rangle x > \tilde{x}$	-3.668	-2.473	$+1.194$
Δ	-2.163	-1.522	-0.328

Note: Expected values across all condition pairs. Bottom delta (Δ) is the difference made by having above median EU MS observations (*legal alternatives*). Top-right delta is difference made by high courts (*hierarchical pressure*). All values are estimated $\mathbb{E}[y \mid x_1, c] - \mathbb{E}[y \mid x_0, c]$. Confidence intervals, standard errors, and p-values were obtained via bootstrap with 1,000 replications, and estimates remained stable across runs.

Figure 4: Difference Legal Alternatives $\times$ Hierarchical Pressure



CONCLUSION

The findings reveal a profound paradox that challenges fundamental assumptions in EU judicial politics. Member states exert their greatest influence precisely when they lack formal power to override ECJ decisions—particularly in cases involving EU primary law where legal alternatives decrease alignment by -0.174 points compared to +0.048 for credible override scenarios. The ECJ proves more responsive to sophisticated legal arguments than to explicit institutional threats, overturning conventional wisdom that formal political power dictates judicial behavior. This counterintuitive finding suggests that courts may be fundamentally more “legally minded” than strategic models assume, giving credence to the points raised by Friedman (2006) about taking law seriously prompting a revaluation of power dynamics within multi-level governance systems.

Second, incorporating hierarchical disengagement pressures in ECJ decision-making reveals that while high court referrals consistently increase alignment (+0.484 points), this effect amplifies by over 115% when the ECJ faces contestation from multiple member state observations. Rather than simply wielding institutional authority, prestigious domestic courts serve as strategic legitimacy shields that bolster the ECJ’s resilience against external pressures. This dynamic reinforces the paradox identified above: the ECJ’s responsiveness appears driven more by the legal sophistication and institutional prestige of the interlocutor than by their formal override capacity.

Undergirding these empirical discoveries are three critical methodological innovations. First, this study decomposes member state observations into distinct causal pathways—political pressure through credible override threats versus informational influence via legal alternatives—resolving conceptual conflations that plagued previous research. Second, the LIAC (Local Informational-Adjusted Citation) alignment measure developed here allows for systematic measurement of legal argument sophistication, enabling researchers to distinguish between mere political posturing and substantive legal discourse. Third, the development of a unified citation standardization framework overcomes structural inconsistencies in existing legal identifiers, enabling precise hierarchical referencing of complex legal texts.

Together, these advances facilitate an unprecedented quantitative examination of judicial rulemaking alignment.

Finally, while deriving from the EU context, these findings suggest that judicial strategy operating through legal discourse may be common across various judicial systems and case types. Recognizing that strategic behavior and legal reasoning are intertwined challenges scholars to reassess judicial behavior models broadly, accounting for how judges across different contexts use legal argumentation to navigate political pressures and maintain legitimacy.

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Appendix

A. Information flow of in EU legal space

This Diagram will show the flow of information in the EU

Figure A.1: Diagram flow of referrals from national courts trickling up towards the ECJ creating instances of rulemaking alignment or misalignment.

B. Data Collection

Table A.1: Descriptive statistics for text data

Variable	Count
Referral Applications texts	5,017
Referral Questions	14,127
Referral Questions Citations	26,149
ECJ Operative texts	4,435
ECJ Operative Judgment Paragraphs	6,916
ECJ Operative Judgment Citations	15,510

C. Citation Standardization

EU legal identifiers, CELEX numbers, suffer from internal structural inconsistencies that make reliable analysis difficult. First, celexes are not in the same level of granularity. A celex number can refer to an entire treaty bundle, an specific annex, or many other suffixed variants (e.g., `11957E/PRO/ALL`), that point to different documents within the same act without clear hierarchical logic. Second, the system provides no systematic way to address precise within-document locations like specific articles or paragraphs for all documents. For instance, primary law usually gets unique addresses up to the article level but this is not the case for secondary law. To enable reliable analysis, I developed a Python package that standardizes CELEX citations into a consistent internal structure, resolving ambiguities in document scope and creating precise addressing for internal locations.

Building on this foundation, the package also harmonizes European Legal Identifiers (ELIs) within the framework, enabling seamless integration of citations from both systems. This results in a unified identifier that precisely specifies the referenced legal act and its internal location, supporting accurate measurement and reliable linking between referral questions and ECJ operative paragraphs. The package has processed all citations appearing in this paper and generates standardized identifiers to facilitate replication. Researchers can reconstruct the analysis dataset using these standardized identifiers provided in the replication materials. Comprehensive documentation and code are planned for future release in an academic publication. Please cite the documentation and publication once they become available. The advantages of this approach can be illustrated by the following examples.

Example 1

Both `11951K` and its annex variant `11951KN01` are standardized into the unified base identifier `1:ECSC:1951:0001:00`, resolving internal celex structural ambiguity.

Example 2

“Article 1, Paragraph 3 of Annex 2 of Directive 2008/48/EC” is encoded with full granularity as: `3:DIRV:2008:0048:00_ANX0002_00_BDY00000:ART00001:PAR00003`

Example 3

ELI “https://eur-lex.europa.eu/eli/dir/2008/48/art_1/par_3” is encoded as:

`3:DIRV:2008:0048:00_MAIN001_00_BDY00000:ART00001:PAR00003`

D. Measuring Local Information-Adjusted Citation Alignment

To obtain a robust measure of rulemaking alignment, I developed a citation-based metric tailored to the evaluation of referral question-judgment dyads grounded in set-theoretic and information-theoretic principles. This interpretation builds on the assumption that citations to law and caselaw matter in meaningful ways, as established by the works of Larsson and Naurin (2016), Lupu and Fowler (2013), Clark and Kastellec (2013), and Arnold et al. (2023). I advance this further by mapping mathematical properties to theoretically interesting categories.

Positive values unambiguously signal net information alignment — courts agree more than they disagree on legal foundations. Negative values clearly indicate net information misalignment — courts disagree more than they align on cited legal bases. Zero represents equilibrium — equal amounts of citation agreement and disagreement, providing a natural baseline for comparison.

To calculate this metric I proceed in two steps. First I calculate the set citation alignment ratio (SCAR) which follows a case classification logic that handles empty sets, perfect subsets, and null intersections properly (See equation A.1). Second, I apply a local information-adjustment that transform these ratios into interpretable citation alignment units scaled by the initial number of citations raised by the referring court (LIAC) (See equation A.2). Mathematically SCAR is estimated as follows:

1. Set citation alignment ratio at referral question–judgment dyad q :

Let $\{x_q\}$ be the set of all citations by the referring court at question q .

Let $|\{x_q\}|$ be count of citations by the referring court (cardinality).

Let $\{y_q\}$ be the set of all ECJ citations when answering question q .

Let $|\{y_q\}|$ be the count of citations by the ECJ (cardinality).

Let α be the smallest ratio obtained in Case 2 from Equation A.1.²⁸

$$\text{SCAR}_q = \begin{cases} 1.0 & \text{if } \{x_q\} = \emptyset \\ \frac{|\{x_q\} \cap \{y_q\}|}{|\{x_q\} \cap \{y_q\}| + |\{x_q\} \Delta \{y_q\}|} & \text{if } \{x_q\} \cap \{y_q\} \neq \emptyset \\ \alpha \times \frac{1}{|\{x_q\}| + |\{y_q\}|} & \text{if } \{x_q\} \cap \{y_q\} = \emptyset \end{cases} \quad (\text{A.1})$$

The first case is when the referring court offers no citations, the ECJ enjoys unrestricted interpretive freedom (*carte blanche*), precluding any misalignment. Instead of misaligning, citations function to clarify and flesh out vague or ambiguous initial questions, warranting a consistent SCAR rating of 1.0. For the second case, it means that there was at least one intersection between the legal bases raised by the referring court and the ECJ. The numerator, $|\{x_q\} \cap \{y_q\}|$, is the actual count of aligned citations by both courts; whereas the denominator includes the count of agreement plus the symmetric difference between each others sets of citations, $|\{x_q\} \Delta \{y_q\}|$. This symmetric difference term represent two informational penalties. On the one hand, $\{x_q\}$ denotes *missing citations*, or legal provisions that the ECJ disregarded from the referring court initial framing. On the other hand, $\{y_q\}$ denotes *extra citations*, or legal provisions that the referring court did not asked about but the ECJ added. Both penalties represent information misalignment that reduces the

²⁸Note that the α parameter scales the ratio, $\frac{1}{|\{x_q\}| + |\{y_q\}|}$, such that the smallest intersection found in the dyad is still larger than no intersection at all.

overall citation alignment score. This formulation ensures that the ECJ is penalized both for omitting relevant laws and for including potentially strategic or irrelevant citations.²⁹

Lastly, the third case occurs when there is no intersection whatsoever, meaning that the ECJ disregarded all initially framed legal bases. For this scenario, I employ a simple ratio that decreases as the number of missing and extra citations grows. However, this value should remain smaller than the smallest intersection; therefore, I use the smallest ratio from case 2 to ensure this constraint is satisfied. Once we have obtained this ratio we can move to calculating LIAC.

2. Local Information-Adjusted Citations aligned at dyad q :

The SCAR metric already contains the degree of rulemaking alignment at a given question-judgment pair; however, these values cannot be interpreted in terms of citations but rather as points on a zero to one scale. To recover an interpretable quantity, I use a local information-adjusted transformation that converts symmetric citation alignment ratios into context-sensitive alignment units.

Following the SCAR definition, the Local Information Adjusted Citations (LIAC) metric is defined as:

$$\text{LIAC}_q = (\text{SCAR}_q \times |\{x_q\}|) - ((1 - \text{SCAR}_q) \times |\{x_q\}|) \quad (\text{A.2})$$

where $|\{x_q\}|$ represents the local citation universe size established by the referring court for referral question q . This scaling choice is methodologically crucial: alternative approaches using the union of both courts' citations ($|\{x_q\} \cup \{y_q\}|$) would mathematically collapse LIAC to simple net alignment, eliminating the information-theoretic properties that enable cross-contextual comparison and strategic behavior detection.

The first term ($\text{SCAR}_q \times |\{x_q\}|$) denotes the extent to which the ECJ aligns with the local citation universe established by the referring court. The second term $(1 - \text{SCAR}_q) \times |\{x_q\}|$ complementarily captures the extent to which the ECJ deviates from the agenda-setting citation framework, scaled by the same universe size. If the ECJ addressed all legal bases raised by the referring court, the complement term becomes zero, yielding the maximum level of alignment possible for that question. Conversely, as more extra or missing citations are introduced, the deviation penalty increases, potentially resulting in negative LIAC values when informational misalignment overtakes alignment.

LIAC values represent locally scaled units of information alignment that show how judicial citation behavior aligns or diverges from the citation universe defined by the referring court. The magnitude and sign of a LIAC score capture both the direction and intensity of this alignment, offering a nuanced measure of agreement or disagreement between courts. By grounding alignment in information-theoretic principles rather than raw citation counts, LIAC provides a theoretically robust tool for detecting patterns of strategic judicial behavior across diverse legal contexts.

Non-trivially, because referrals often contain multiple questions, LIAC values must be aggregated to produce accurate referral-level alignment estimates. Each question may raise distinct legal issues and receive separate judicial treatment, so analyzing only question-level dyads or conducting referral-level analyses without proper aggregation risks producing misleading results.

²⁹This measure is mathematically equivalent to the Jaccard coefficient, since $|\{x_q\} \cup \{y_q\}| = |\{x_q\} \cap \{y_q\}| + |\{x_q\} \triangle \{y_q\}|$ by the properties of set union and symmetric difference (Jaccard 1912). However, the explicit formulation using symmetric difference makes clear the distinct theoretical underpinnings: alignment is measured as shared information relative to total informational disagreement.

The correct strategy is to calculate both SCAR and LIAC at the question–judgment level, and then aggregate only the LIAC values to the referral application–judgment dyad. This ensures both precision and flexibility, while also avoiding Simpson’s paradox—the statistical reversal that can occur when disaggregated patterns are obscured by naïve aggregation (Pearl 2009b; Pearl 2013). Without question-level disaggregation followed by proper LIAC aggregation, apparent patterns of citation alignment could be reversed or masked, leading to erroneous conclusions about judicial strategy.

Figure A.2 demonstrates the analytical superiority of the LIAC metric, which yields a score of -0.688 in this case. Unlike conventional net alignment measures that would produce a binary -1 score, LIAC accounts for the substantive citation overlap between the referring court and the ECJ, thereby preserving crucial information about partial institutional correspondence. Conversely, Figure A.3 illustrates the opposite scenario, where the LIAC score is 0.666 . A pure net alignment measure would have yielded $+1$, failing to recognize that the ECJ introduced additional legal bases beyond those originally cited by the referring court. Lastly, Figure A.4 shows perfect alignment with a true $+1.0$ score, where the referring court raises one legal basis (Article 12 EC) and the ECJ addresses precisely that same provision without omission or addition. This demonstrates LIAC’s ability to distinguish between complete alignment, partial alignment with expansion, and partial alignment with substitution—nuances that traditional binary measures cannot capture, thereby enabling more sophisticated analysis of judicial dialogue patterns.

Figure A.2: Referral Question-Judgment Paragraph Dyad $\Rightarrow$ SCAR $\Rightarrow$ LIAC

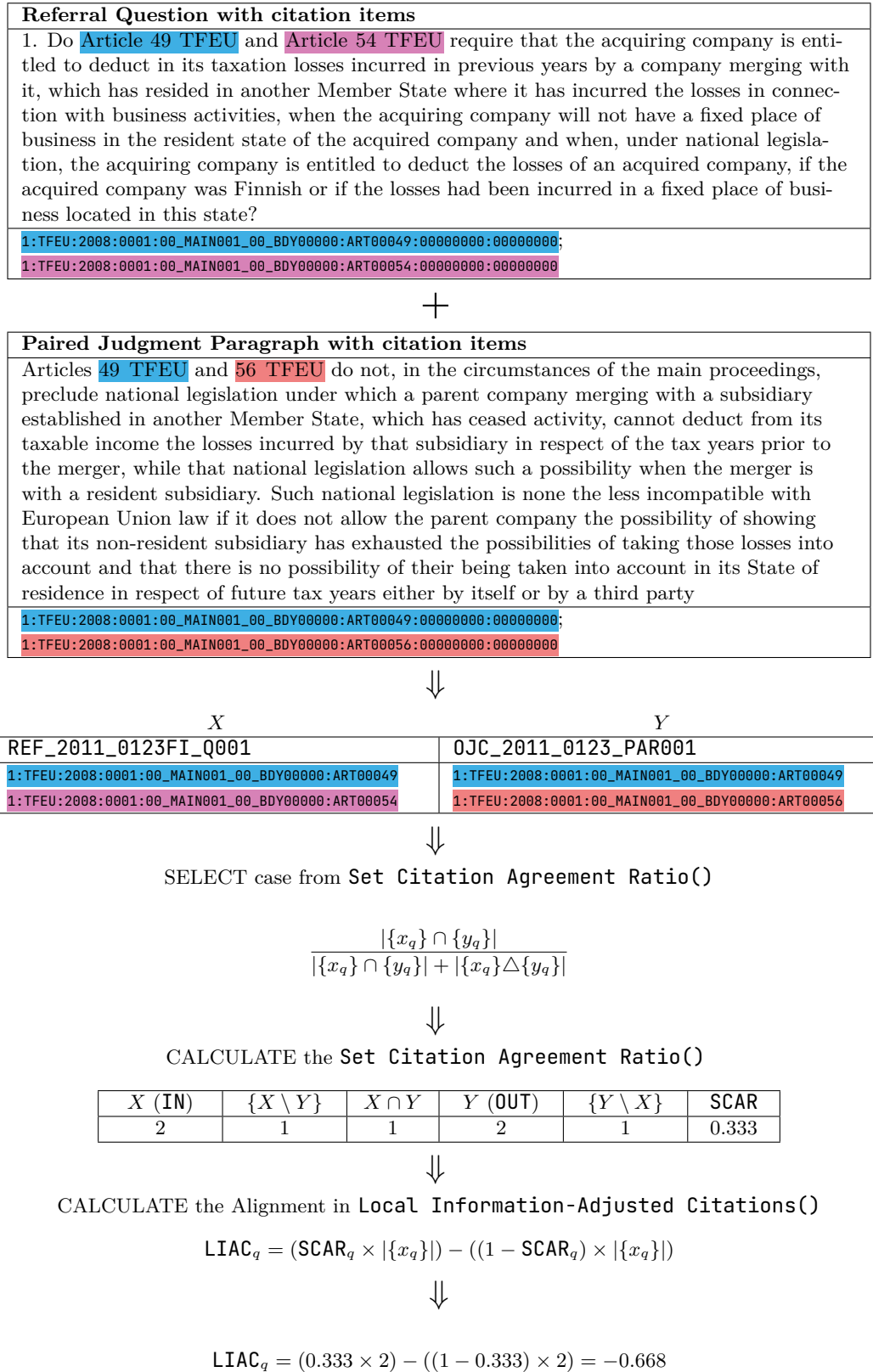


Figure A.3: Referral Question-Judgment Paragraph Dyad $\Rightarrow$ SCAR $\Rightarrow$ LIAC

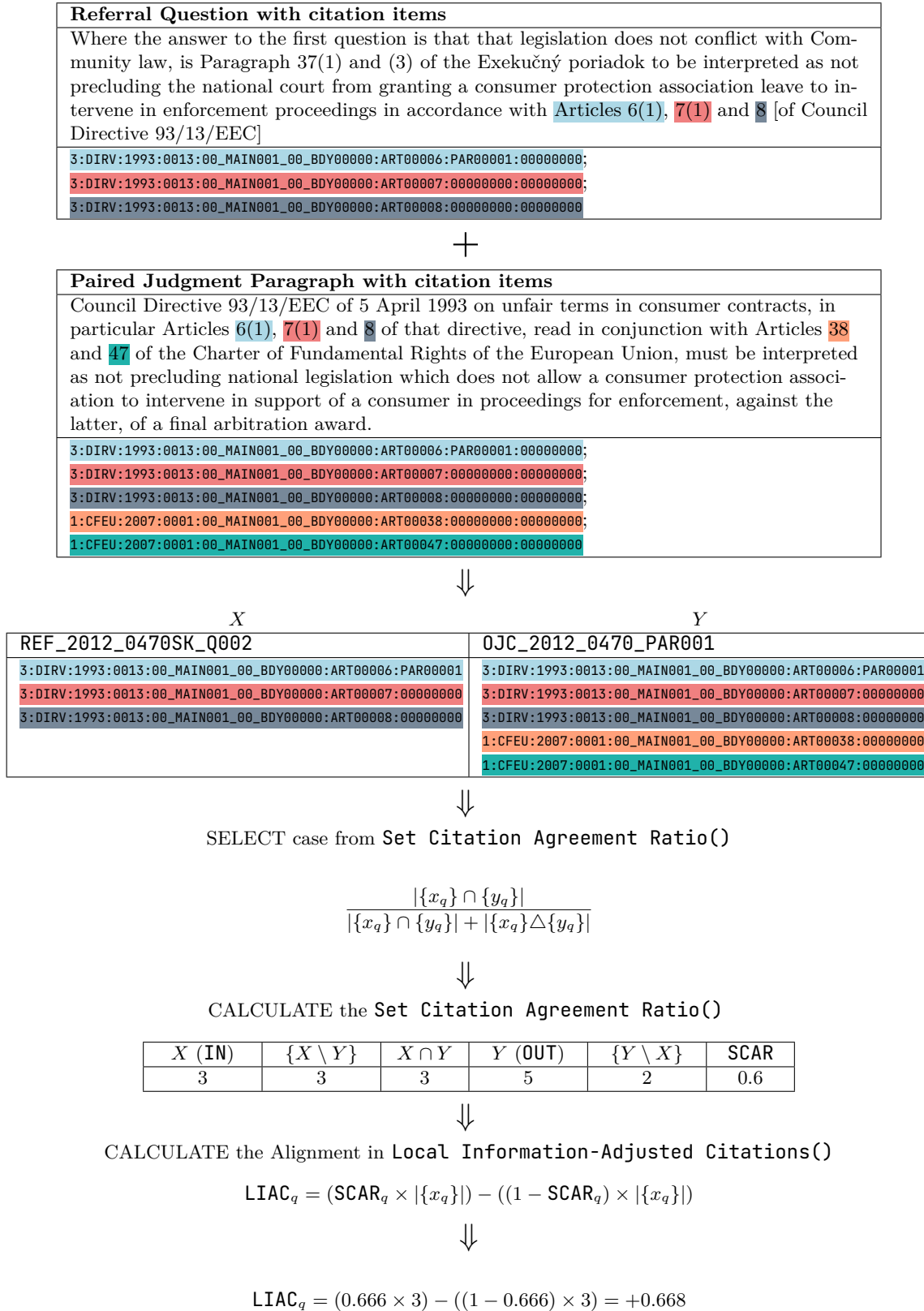
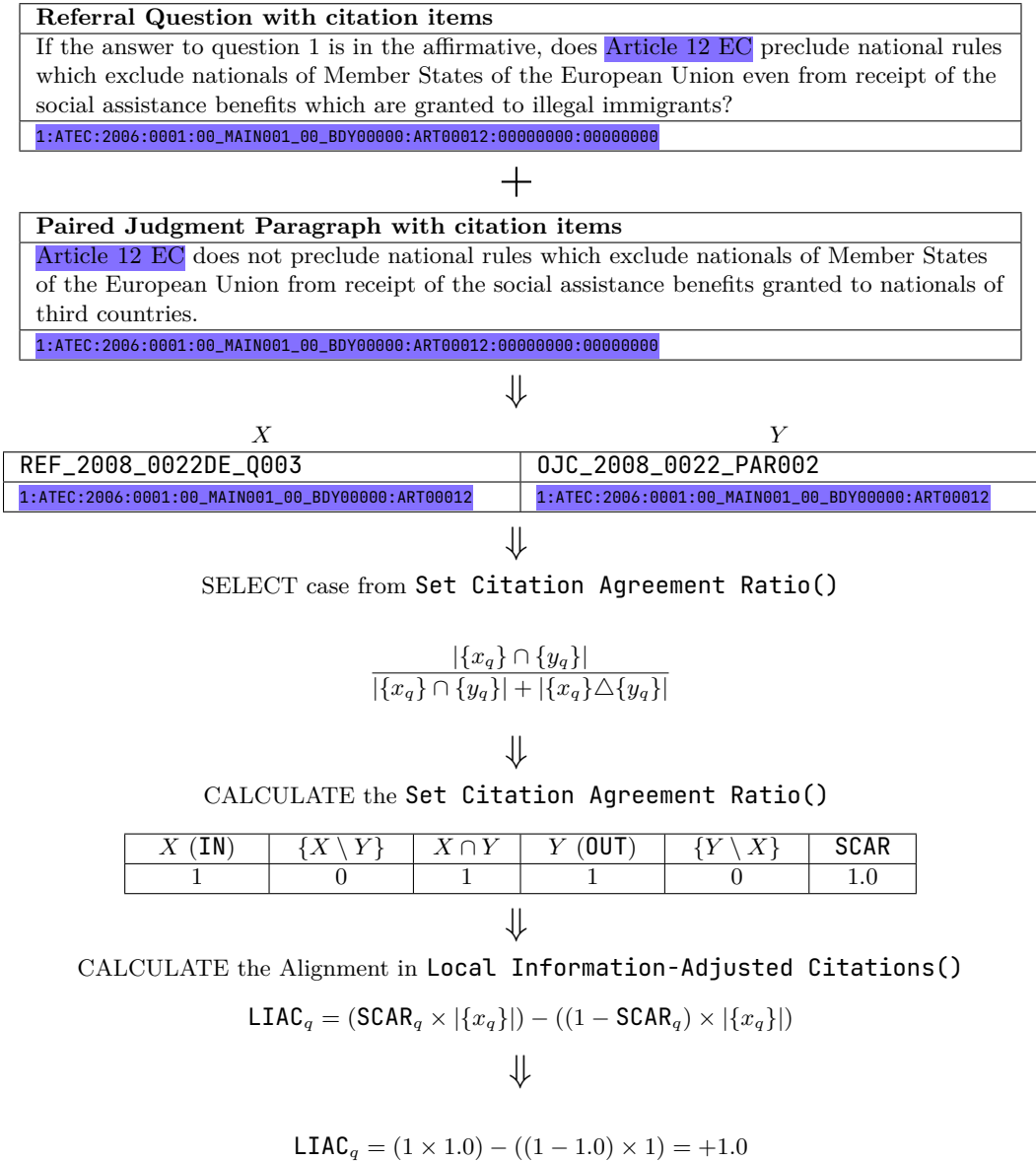


Figure A.4: Referral Question-Judgment Paragraph Dyad $\Rightarrow$ SCAR $\Rightarrow$ LIAC



E. Mapping Causal Pathways

To estimate unbiased causal effects, I employ a systematic causal identification strategy. First, I construct a Directed Acyclic Graph (DAG) that explicitly encodes my theoretical assumptions and delineates the theoretical causal pathways. First, drawing on existing literature on the ECJ, I expect EU MS observations to decrease rule-making alignment between the ECJ and the referring court. However, instead of treating it as a single exposure variable, I propose that EU MS observations encompass two distinct theoretical mechanisms: one of political pressure (*threat of override*) and one of information availability (*legal alternatives*). These mechanisms are contingently activated depending on whether the referral deals with primary law or not.

The logic is that when a case deals with primary law, the threat of override is less credible, since the modifiability of primary law is highly unlikely given the stringent requirements of unanimity and subsequent referendum in each of the 27 member states (Carrubba et al. 2008, pp.440; Larsson and Naurin 2016, pp.375). By contrast, secondary law is less durable and more frequently updated, which makes the threat of override more credible. Both mechanisms are expected to have negative effects, but their causal logics represent distinct pathways, where one has primacy over the other.

These expectations are shown in Figure A.5, where B denotes the count of EU MS observations, P behaves as an activation node and decomposes B into two distinct theoretical mechanisms, T and I , denoting the *threat of override* and *legal alternatives*, respectively. Both pathways have the same mediator variables M_1 (*Judge-Observing MS Match*, *AG Opinion*), since only one pathway can be open at the time but might mediate the relationship in different ways (Cheruvu 2025, pp.12). Z_1 denotes law area as represented by the ECJ which confound their effects as judicial preferences and decision-making patterns can vary significantly depending on the legal domain (Lauderdale and Clark 2012, pp.850; Wallerman 2019).

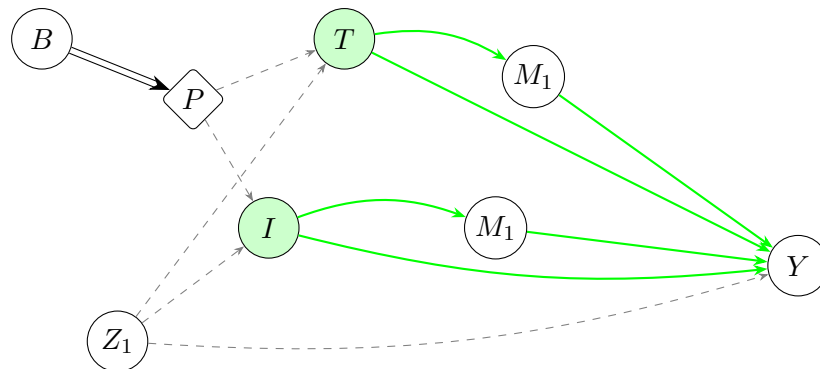


Figure A.5: External Political Environment Exposures

Second, drawing on judicial hierarchy literature, I expect the referring court level to increase rulemaking alignment between the ECJ and the referring court. That is, as the level of the referring court increases so does the level of alignment. This being because the ECJ must maintain court comity from lower courts to receive referrals, whereby greatest threat of disengagement comes from domestic high courts because they wield authority over their jurisdictions (Pavone and Kelemen 2019, pp. 352.;van Gestel and de Poorter 2019, Ch.4). These expectations are shown in Figure A.6, where H denotes level of the referring court *hierarchical pressure*. Both pathways adjust for the same mediator variables

M_2 (Chamber Size; Judge–Court MS Match) and are adjusted by policy area Z_1 , which might confound their effect.

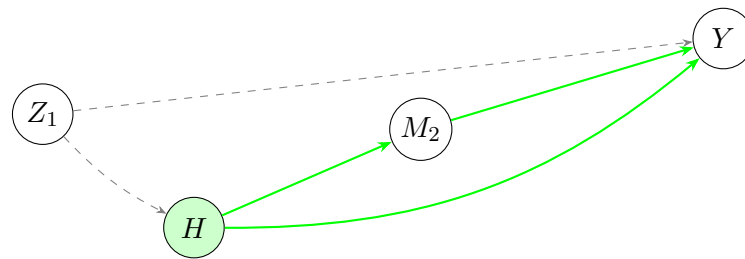


Figure A.6: Judicial Hierarchy Exposure

Third, I integrate these pathways into a unified theory of conditional rulemaking alignment that captures the ECJ’s strategic balancing across competing institutional pressures as shown in Figure A.7. Rather than operating independently, the political management pathways (hierarchical disengagement and credible override) and the informational pathway (legal alternatives) interact conditionally to shape the Court’s alignment decisions. The unified model recognizes that the ECJ faces a multi-dimensional optimization problem where it must simultaneously maintain hierarchical legitimacy with domestic courts, avoid political backlash from member states, and incorporate substantive legal information—pressures that do not simply sum linearly but whose relative influence depends on the institutional context of each case.

Conditional activation represents the core mechanism of this unified theory. The legal status of EU provisions (primary versus secondary law) serves as an institutional switch that determines which causal pathway dominates the ECJ’s calculus. In cases involving secondary law, the credible override pathway takes precedence because member states possess genuine political tools to reverse ECJ decisions through qualified majority voting. Conversely, in primary law cases, the informational pathway becomes dominant as the practical impossibility of treaty amendment renders override threats non-credible, leaving legal persuasion as the primary channel through which member state observations influence ECJ reasoning.

Within each activated pathway, hierarchical moderation operates as a cross-cutting force that determines how responsive the ECJ will be to member state pressures. High courts pose the greatest disengagement threat due to their institutional authority and capacity to influence future referral patterns, leading the ECJ to prioritize alignment even when facing strong political or informational pressures. This framework generates context-dependent predictions: maximum alignment when high courts refer primary law cases with few observations (hierarchical pressure dominates), minimum alignment when low courts refer secondary law cases with many observations (credible override dominates), and moderated effects in intermediate cases where competing pressures *might* offset each other.

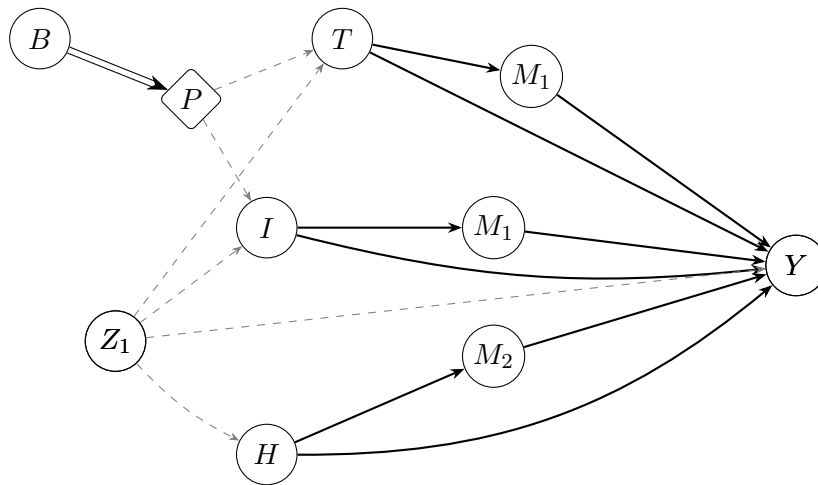


Figure A.7: Unified Theory Conditional Rulemaking Alignment

Symbol	Variable
Y	Rulemaking Alignment
T	Threat Override
I	Legal Alternatives
$\langle P \rangle$	Primary Law ⁱ
[B]	EU MS Observations ⁱⁱ
H	Hierarchical Disengagement
M ₁	Judge–Observing MS Match; AG Opinion
M ₂	Chamber Size; Judge–Court MS Match; AG Opinion
Z ₁	Policy Area (λ)
E ₁	EC Observes (pression variable)

ⁱ Primary law $\langle P \rangle$ is not a causally relevant variable but behaves as a activation switch for the theoretical mechanisms T and I .

ⁱⁱ EU MS Observations [B] is causally relevant, yet encodes two distinct theoretical mechanisms which if modeled with traditional two-way interactions would confound their effects.

Table A.2: Symbol definitions for variables used in the model.

F. Probing Theoretical Assumptions

The theoretical model advanced in this paper assumes that, when member states submit their observations, they will more often than not have a negative effect by raising at least one objection. Such objections, in turn, will lead to citation misalignment by the ECJ *vis-à-vis* the referring court’s initial framing. Given that the observations of the Member States are confidential for the period under analysis, I use the dataset from Larsson and Naurin (2016) to test this assumption. This dataset contains hand-coded data on EU member state stances in ECJ preliminary rulings for the period 1995–2011.

Considering that, the original entries included text labels (“yes”, “no”) and numeric codes (95–99) for non-participation or opposition. I recoded these into a 3-point scale: 2 = explicit positive (“yes”); 1 = negative (incl. “no”, codes 95–97 for strategic opposition); 1.5 = unclear or technical non-participation (codes 98–99). Positions were aggregated hierarchically: at the question–document level, I used the minimum value so any negative marked the document negative; at the document–referral level, I averaged across Member States and applied a 1.5 threshold ($> 1.5 = \text{negative}$, $\geq 1.5 = \text{positive}$). This yields a binary referral-level coding while preserving the distinction between strategic opposition and agreement.

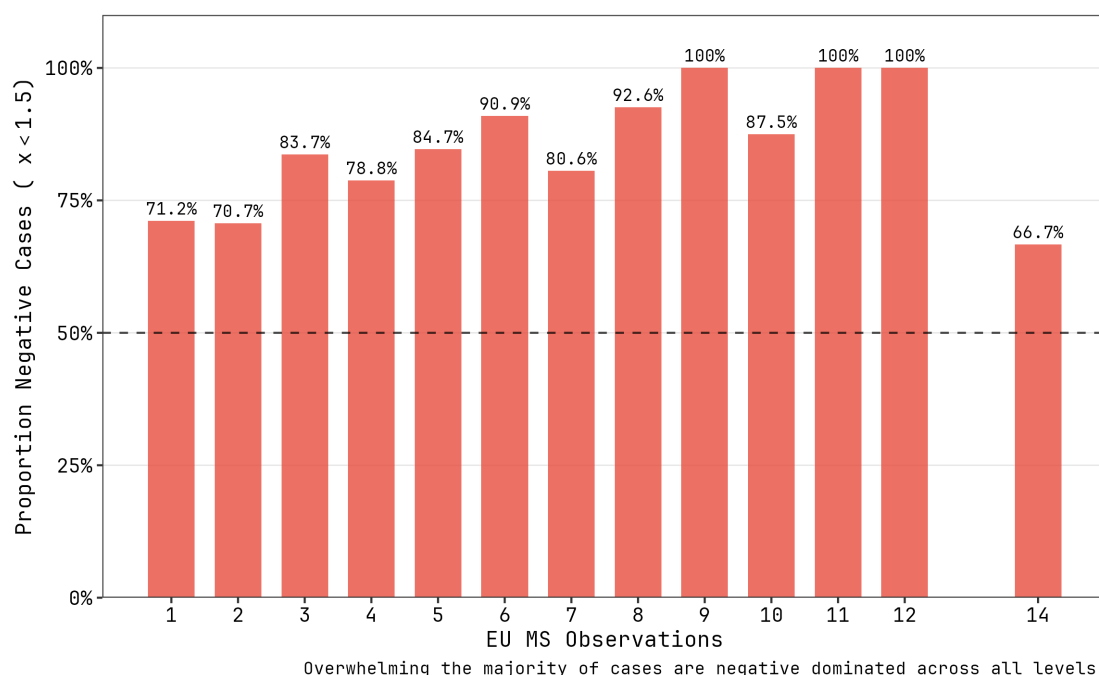
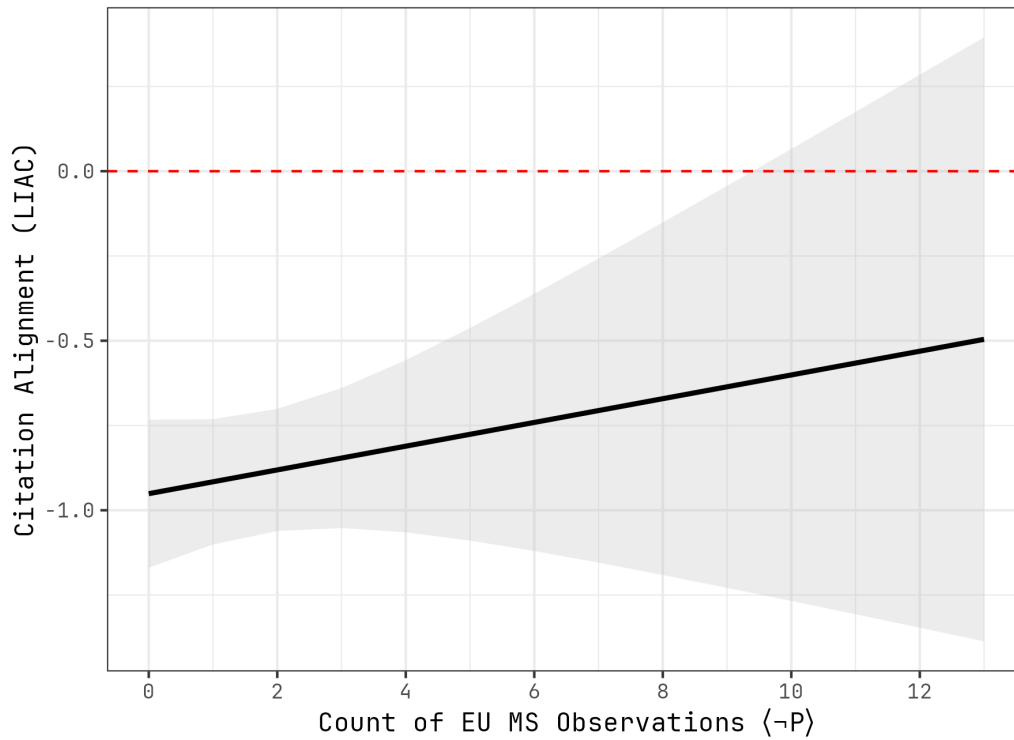


Figure A.8: TBD

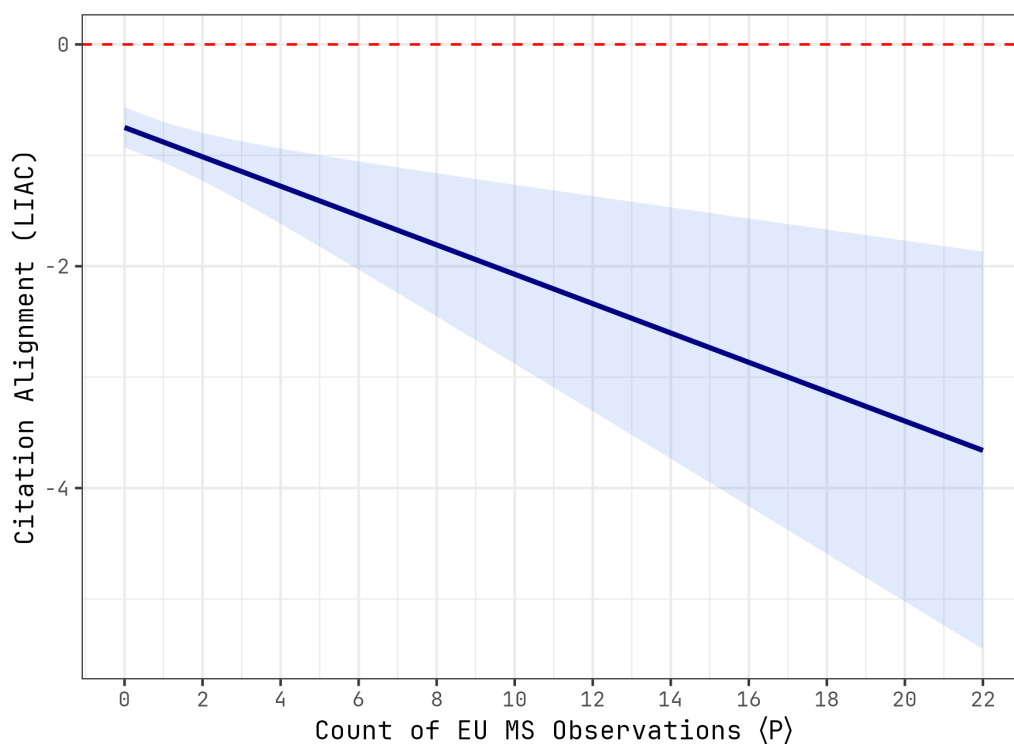
As shown by the Figure A.8, this external validation using hand-coded position data, we can reasonably assume that when EU member states submit observations, they typically seek to challenge or modify the initial legal framing rather than simply endorse it. Therefore, increased member state participation can be interpreted as a proxy for increased opposition to the preliminary reference issues.

G. Full Range of Causal Estimates



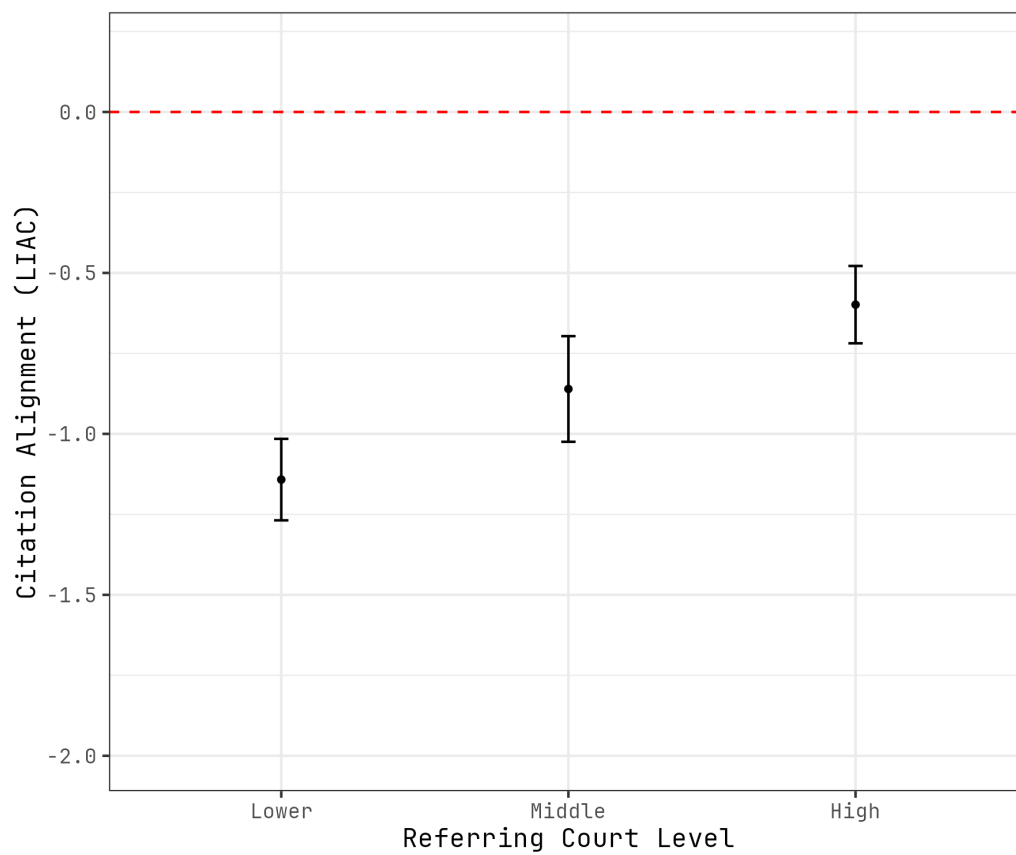
MS Obs	$\mathbb{E}[\hat{y}]$	CI 2.5%, 97.5%	$\Pr(> z)$
0	-1.031	(-1.216, -0.845)	< 0.001***
1	-0.983	(-1.145, -0.821)	< 0.001***
2	-0.936	(-1.089, -0.783)	< 0.001***
3	-0.888	(-1.050, -0.727)	< 0.001***
4	-0.841	(-1.026, -0.657)	< 0.001***
13	-0.415	(-1.003, 0.173)	0.166

Figure A.9: Expected values of citation alignment across levels of EU Member State observations (*threat of override*).



MS Obs	$\mathbb{E}[\hat{y}]$	CI 2.5%, 97.5%	$\Pr(> z)$
0	-1.031	(-1.216, -0.845)	< 0.001***
1	-1.213	(-1.387, -1.040)	< 0.001***
2	-1.396	(-1.573, -1.219)	< 0.001***
3	-1.579	(-1.775, -1.384)	< 0.001***
21	-4.870	(-5.929, -3.812)	< 0.001***
22	-5.053	(-6.164, -3.942)	< 0.001***

Figure A.10: Expected values of citation alignment across levels of EU member state observations (*legal alternatives*).



Court Level	$\mathbb{E}[\hat{y}]$	CI 2.5%, 97.5%	$\Pr(> z)$
Lower	-1.142	(-1.269, -1.015)	< 0.001***
Middle	-0.860	(-1.025, -0.696)	< 0.001***
High	-0.598	(-0.719, -0.478)	< 0.001***

Figure A.11: Expected values of citation alignment across levels in hierarchy of referring courts (*hierarhical pressure*).

H. Delta Difference Causal Estimates

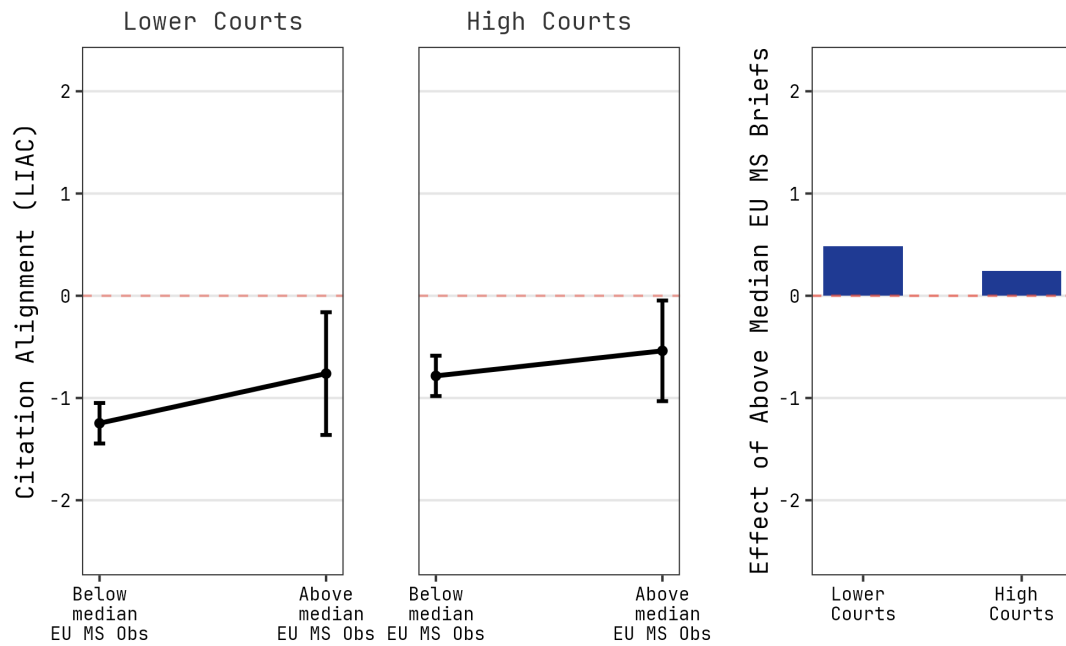


Figure A.12

Condition	Estimate	CI 2.5%, 97.5%	Pr(> z)
EU MS obs below median Lower courts	-1.247	(-1.445, -1.049)	< 0.001***
EU MS obs above median Lower courts	-0.761	(-1.362, -0.161)	0.013*
EU MS obs below median High courts	-0.784	(-0.981, -0.586)	< 0.001***
EU MS obs above median High courts	-0.539	(-1.031, -0.046)	0.032*

Note: Expected values of citation alignment ($\mathbb{E}[y \mid x, c]$) for each pairwise condition between *credible override* and *hierarchical pressure*. Contrasts between these conditions are computed separately.

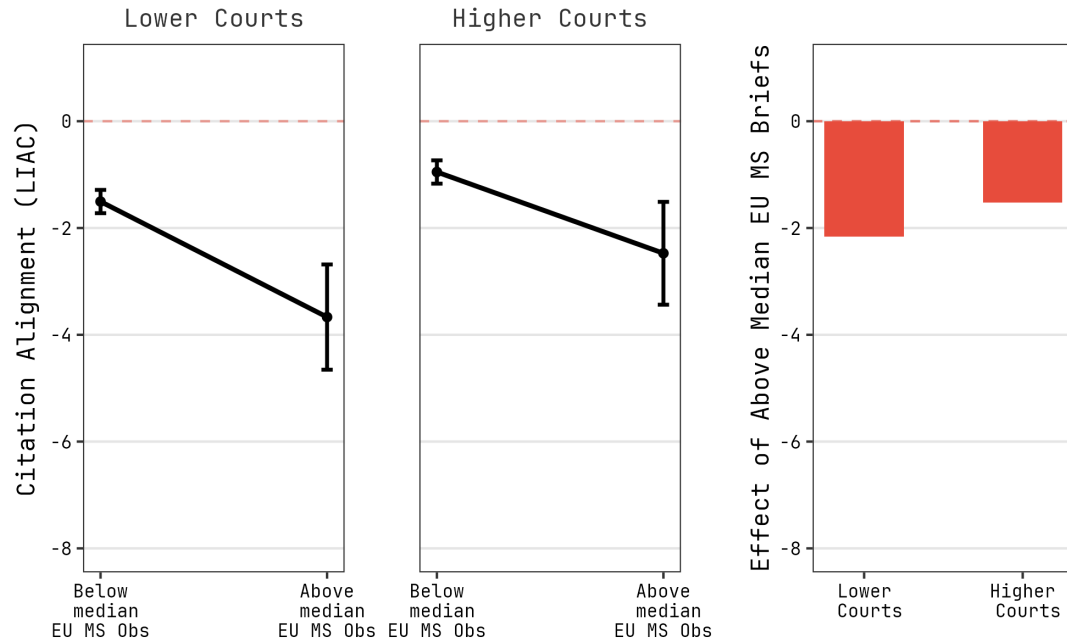


Figure A.13

Condition	Estimate	CI 2.5%, 97.5%	Pr(> z)
EU MS obs below median Lower courts	-1.504	(-1.722, -1.286)	< 0.001***
EU MS obs above median Lower courts	-3.668	(-4.654, -2.683)	< 0.001***
EU MS obs below median High courts	-0.951	(-1.169, -0.733)	< 0.001***
EU MS obs above median High courts	-2.473	(-3.436, -1.510)	< 0.001***

Note: Expected values of citation alignment ($\mathbb{E}[y \mid x, c]$) for each pairwise condition between *legal alternatives* and *hierarchical pressure*. Contrasts between these conditions are computed as $\mathbb{E}[y \mid x_1, c] - \mathbb{E}[y \mid x_0, c]$.

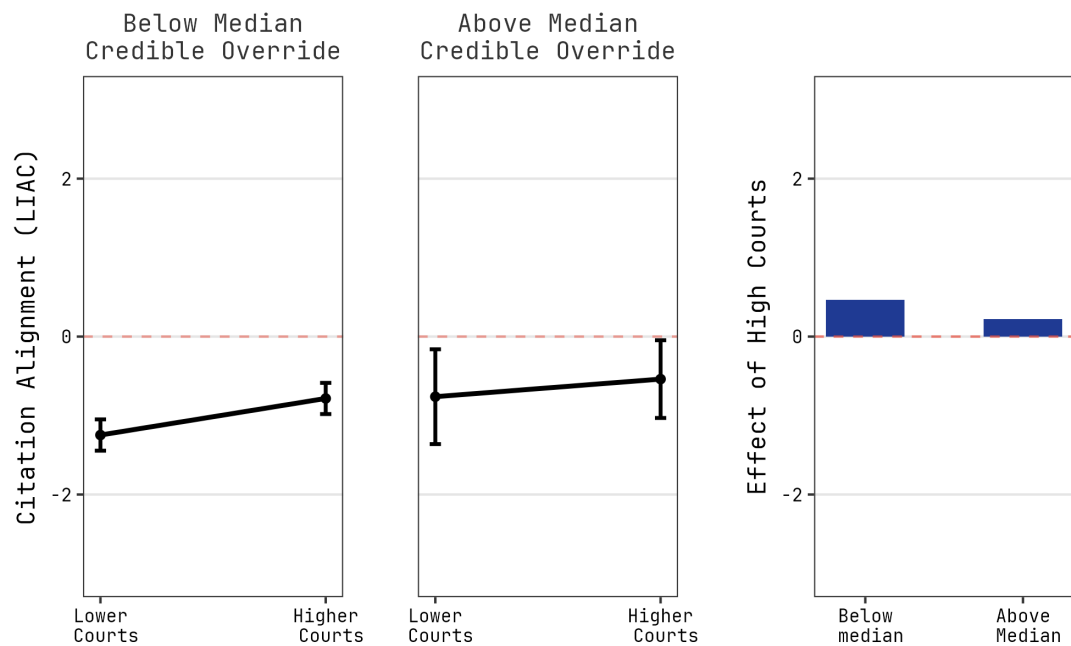


Figure A.14

ADD TABLE of Expected Values and CIs

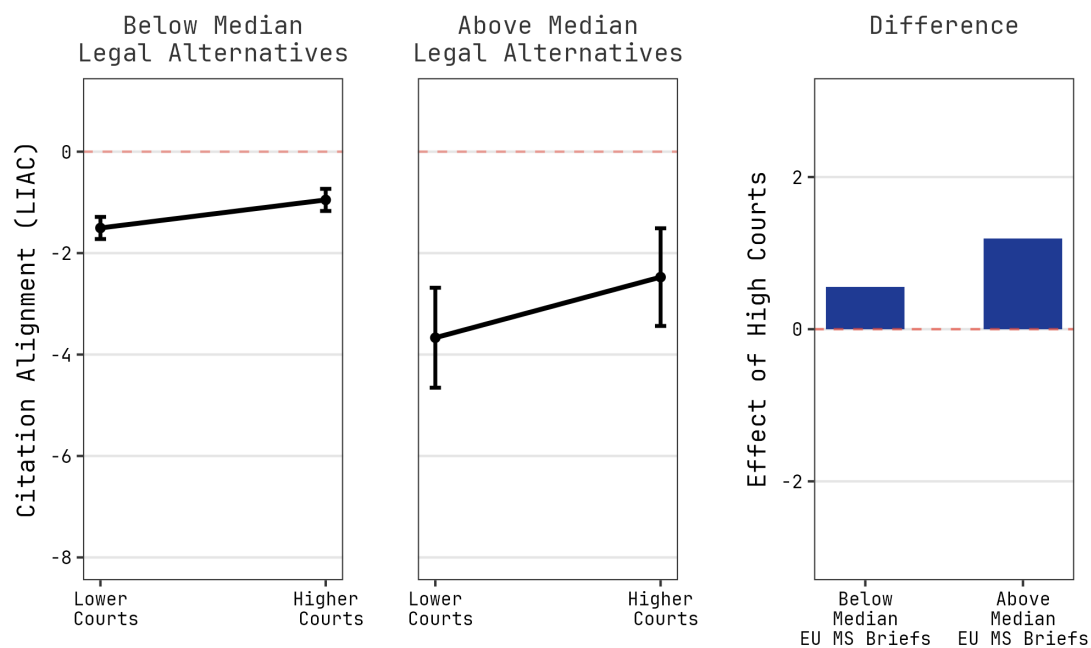


Figure A.15

ADD TABLE of Expected Values and CIs

I. Model Robustness and Raw Estimates

To assess the sensitivity of my findings to outlier influence, I compare OLS estimates with Huber robust regression. Given the substantial negative tail in our LIAC distribution (ranging from -44 to $+15$, with numerous single observations at extreme negative values), standard OLS estimation is particularly vulnerable to leverage effects from these extreme strategic misalignment cases (Huber 1973). As shown in A.3, the substantive conclusions remain largely unchanged across both approaches, with effect directions and significance levels generally preserved. Court hierarchy effects show identical estimates (High Courts: 0.484, Middle Courts: 0.282), while other variables show modest adjustments under robust estimation, with appropriately conservative standard errors.

In the main analysis, I use Huber robust regression as the preferred specification because it appropriately handles the long tail of extreme strategic citation behaviors while preserving all theoretically important observations. Unlike approaches that would exclude extreme cases, Huber weighting allows us to study the complete spectrum of judicial strategic information alignment while ensuring that typical patterns are not dominated by rare extreme strategic behaviors. The high similarity between standard and robust estimates provides confidence in the overall stability of the findings.

Table A.3: Marginal Effects of Main Exposures Using OLS

Exposure	$\frac{\partial \hat{y}}{\partial x}$	SE	CI 2.5%, 97.5%	Pr($> z $)
Credible Override	0.124	0.053	(0.020, 0.228)	0.019*
Legal Alternatives	-0.293	0.060	(-0.412, -0.175)	$< 0.001^{***}$
High Courts	0.484	0.091	(0.306, 0.662)	$< 0.001^{***}$
Middle Courts	0.282	0.107	(0.072, 0.493)	0.008**

Table A.4: Huber Robust Regression Coefficients used for AME Calculations

	<i>Dependent variable:</i>		
	Citation Alignment (LIAC)		
	(1)	(2)	(3)
Threat of override (Count EU MS Obs $\langle P \rangle$)	0.061 (0.045)	0.070 (0.046)	0.069 (0.046)
Legal alternatives (Count EU MS Obs $\langle \neg P \rangle$)	-0.189*** (0.042)	-0.188*** (0.044)	-0.188*** (0.044)
Hierarchy Pressure (Mid courts)	0.313* (0.163)	0.360** (0.164)	0.359** (0.165)
Hierarchy Pressure (High courts)	0.540*** (0.142)	0.498*** (0.143)	0.498*** (0.143)
Threat of override X Mid courts	-0.019 (0.065)	-0.032 (0.066)	-0.032 (0.066)
Threat of override X High courts	-0.047 (0.059)	-0.035 (0.060)	-0.034 (0.060)
Legal alternatives X Mid courts	-0.019 (0.064)	-0.040 (0.064)	-0.040 (0.064)
Legal alternatives X High courts	0.054 (0.059)	0.056 (0.059)	0.056 (0.059)
EC Submits Observations			0.388 (1.059)
Policy Area Fixed Effects		Yes	Yes
Information Controls	Yes	Yes	Yes
Estimation Method	Huber Robust	Huber Robust	Huber Robust
Observations	5,017	5,017	5,017

Note:

*p<0.1; **p<0.05; ***p<0.01

Outcome incorporates information fixed effects via LIAC. No additional information controls included in model.

Table A.5: OLS vs. Robust Regression Comparison - Full Model

	<i>Dependent variable:</i>	
	Citation Alignment (LIAC)	
	<i>OLS</i> Standard OLS (1)	<i>Robust linear</i> Huber Robust (2)
Threat of override (Count EU MS Obs $\langle P \rangle$)	0.181*** (0.070)	0.069 (0.046)
Legal alternatives (Count EU MS Obs $\langle \neg P \rangle$)	-0.315*** (0.066)	-0.188*** (0.044)
Hierarchy Pressure (Mid courts)	0.678*** (0.251)	0.359** (0.165)
Hierarchy Pressure (High courts)	0.803*** (0.218)	0.498*** (0.143)
EC Submits Observations	0.114 (1.613)	0.388 (1.059)
Threat of override X Mid courts	-0.102 (0.100)	-0.032 (0.066)
Threat of override X High courts	-0.085 (0.091)	-0.034 (0.060)
Legal alternatives X Mid courts	-0.070 (0.097)	-0.040 (0.064)
Legal alternatives X High courts	0.089 (0.090)	0.056 (0.059)
Policy Area Fixed Effects	Yes	Yes
Information Controls	Yes	Yes
Observations	5,017	5,017
Adjusted R ²	0.048	—

Note:

*p<0.1; **p<0.05; ***p<0.01

Outcome incorporates information fixed effects via LIAC. No additional information controls included in model.