

Media Attention and Compliance with the European Court of Human Rights

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Abstract

International courts lack traditional enforcement mechanisms. Scholars theorize that compliance with human rights rulings is therefore often driven by domestic processes, including political mobilization and parliamentary agenda setting. A necessary condition underlying these processes is attention to the rulings which is in part expected to be mediated by media attention. However, these conditions have not been explicitly addressed by the existing compliance literature. In this paper, we assess the impact of media attention to rulings by the European Court of the Human Rights on the likelihood of their implementation, using a novel dataset of case-specific news coverage. Exploiting exogenous variation in media attention caused by competing newsworthy events, we find that the probability of compliance increases, the more coverage a ruling receives. Our findings indicate that domestic news media play a key role for compliance with international courts.

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In a discussion at the Consultative Assembly about possible enforcement mechanisms for a future European Court of the Human Rights (“ECtHR”), Winston Churchill argued that such a court would not need sanctions for enforcing its rulings since he had “no doubt that the great body of public opinion in all these countries would press for action in accordance with the freely given decision”.¹

This statement is based on the assumption that the general public would notice instances of non-compliance and pressure its executive and legislature to comply with that court’s judgments. Many years have passed since this statement and indeed neither the ECtHR, nor most international adjudicating bodies, have sanctions or strong enforcement mechanisms to deter instances of non-compliance. Yet, we observe a decent amount of compliance with their rulings.

Much like Churchill, many scholars theorize that the main drivers of compliance with international courts can be found in domestic politics (e.g., Dai, 2005; Simmons, 2009; Hillebrecht, 2014b). These theories posit that international legal rulings may help shifting the political agenda to the specific issue addressed in these rulings or help local activists to mobilize and increase the pressure for compliance. However, the assumption implicit in these theories—that domestic audiences notice information produced by international courts—has not been studied so far. Hence, it remains unclear whether and to what extent domestic attention to international rulings affects respondents’ compliance, and what role the news media plays in this context.

Processing information about international legal rulings is a cognitively complex task. Given that individuals cannot be experts on all issues, and that gathering and evaluating information is costly, media coverage likely plays an important role in raising attention and informing the public about international legal rulings (e.g., Downs, 1957; Brutger and Strezhnev, 2022). However, it is widely known that media coverage provides a far from perfect portrait of events (e.g., Boydston, 2013). Attention is scarce and, consequently, so

is the space of a week’s news cycle, which implies that not all relevant events can be picked up by the media.

Whether a ruling receives media coverage is a complex process, depending on factors both related and unrelated to the ruling. Human rights rulings, like other events, vary in their “newsworthiness” (e.g., Galtung and Ruge, 1965), due to factors such as the parties involved, the nature of the violation or its perceived gravity. In addition, coverage of a ruling likely depends on how congested the news cycle is or, putting it differently, how many alternative newsworthy events overlap with the ruling (e.g., McCombs and Zhu, 1995; Garz and Sörensen, 2017; Durante and Zhuravskaya, 2018).

Given that domestic attention to human rights rulings is a first necessary condition for many domestic politics theories of compliance and that media coverage cannot be taken for granted, the lack of research on media coverage of human rights rulings and its impact on compliance is a serious gap in the literature. This paper attempts to fill this gap by assessing the impact of media coverage on the likelihood of swift ruling implementation in the context of ECtHR rulings.

The Strasbourg court provides a good case study because most countries under its jurisdiction are either democracies or semi-democracies—at least during the period covered by our sample—which is expected to impact the viability of domestic politics mechanisms of compliance (Simmons, 2009). In addition, the availability of compliance data and data on case-specific controls (Stiansen and Voeten, 2017), such as the type of remedy, allows us to study the impact of media attention while controlling for known compliance covariates.

This paper contributes to the literature in three ways. First, we address an important gap in the literature by outlining the role of domestic attention in domestic politics theories of compliance with human rights rulings. We argue that media attention provides an opportunity for the public and other key actors to be exposed to human rights rulings information. Our findings help us to substantiate assumptions about attention made (but not spelled out) by existing models of compliance. Media attention might not only be

relevant in the case of human rights rulings but also in the context of other courts that have similar enforcement issues, such as the European Court of Justice.

Second, to the best of our knowledge, our paper provides the first attempt at measuring case-specific domestic media coverage of ECtHR rulings for a large set of countries. We compile this media dataset by applying an innovative, supervised machine learning approach that allows us to accurately match news articles to specific rulings, covering 1,113 cases from 30 countries over a period of 25 years. The data are a prerequisite to study the issue at hand, which in turn allows us to formulate practical recommendations for decision-makers.

Third, we empirically assess the causal impact of media coverage. To address endogeneity concerns, we implement an instrumental variable (IV) strategy that exploits plausibly exogenous variation in the news agenda caused by disasters, such as earthquakes, floods, or industrial accidents. We show that ECtHR rulings receive less media coverage when overlapping with these exogenous events, and that less coverage decreases the chances of compliance.

In the next section, we review the literature on compliance with international human rights rulings. We then discuss the role of media attention in compliance mechanisms and derive a testable hypothesis. Afterwards, we describe the data and empirical strategy, followed by a presentation of the results. We conclude with a discussion of limitations and policy implications.

Compliance with international human rights courts: Review of previous findings

International politics scholars have long debated the role of the regime type for compliance with human rights law and rulings (e.g. Moravcsik, 2000; Neumayer, 2005). Regarding the ECtHR, previous findings indicate that a country's compliance is highly associated with

the quality of its political institutions, especially the extent of constraints to the executive branch (Hillebrecht, 2012, 2014a,b). In this regard, new democracies are on average quicker in implementing comparable rulings than stable democracies (Grewal and Voeten, 2015), but stable democracies are more likely to comply in the long run (Grewal and Voeten, 2015; Voeten, 2014; Hillebrecht, 2014a).

Several studies suggest that state capacity is crucial for compliance. In an extensive case-study analysis of several pilot judgments from the ECtHR, Leach et al. (2010) find that lack of bureaucratic capacity or resources is one of the most important causes of non-compliance. Similarly, compliance is associated with the capacity of the legal infrastructure, government effectiveness, and fiscal flexibility (Haglund, 2020b; Anagnostou and Mungiu-Pippidi, 2014).

The evidence is mixed regarding the role of domestic judicial institutions. Huneeus (2011) finds that Inter-American Court of Human Rights (“IACtHR”) rulings directed at domestic courts have the lowest compliance rate. However, according to Haglund (2020a), ECtHR rulings are more effective in countries with higher judicial independence.

Many scholars argue that the enforcement of human rights rests on mobilization by civil society actors (e.g., Ritter and Conrad, 2016; Creamer and Simmons, 2019). Parente (2018) argues that both public support for compliance with a ruling and the extent to which the public poses a threat to the executive impact the likelihood of compliance with IACtHR rulings. Haglund and Welch (2021) argue that effective mobilization requires a strong civil society and the presence of national human rights institutions to diffuse information about human rights practices.

Finally, many scholars posit compliance depends on the nature of the remedies. For example, monetary compensations are associated with the highest rates of compliance (Fikfak, 2018). In contrast, remedies requiring legislative changes tend to have slower implementation rates, as these changes require actions by national parliaments, where the set of possible veto players is larger (Stiansen, 2019).

Attention to human rights rulings and compliance

It is often said that international adjudicating bodies lack the “purse and the sword” to enforce their rulings (e.g., Huneus, 2014) but we still observe a decent amount of compliance. Most mechanisms of compliance proposed by the literature operate at the state level and refer to factors such as relative power and state interests (e.g., Mearsheimer, 1994), states’ reputations (e.g., Guzman, 2008), sanctions and third-state enforcement (e.g., Peksen, 2009), capacity building and persuasion (e.g., Chayes and Chayes, 1998), or naming and shaming by international organizations and non-profits (e.g., Keck and Sikkink, 1999; Murdie and Davis, 2012; Terman and Voeten, 2018). However, some researchers look into domestic politics for possible mechanisms, as compliance typically depends on decisions of domestic actors. We argue that many mechanisms underlying domestic politics models of compliance with international legal rulings are mediated by the amount of attention the rulings receive at home, for which mass media plays a crucial role.

International legal rulings often convey information about the (mis-)behavior of national governments to key domestic actors (e.g., Carrubba, 2005). While there is some variation in the amount of information international courts share about ongoing proceedings, most of them make their rulings accessible to the general public (Reis, 2021). This information can be empirical, normative, or both (Creamer and Simmons, 2019). For example, a ruling may provide information that a state has engaged in torture and therefore has violated international law. Experimental studies suggest that framing state behavior as a violation of international legal norms impacts how the general public (Wallace, 2013; Chaudoin, 2014; Chilton, 2015) and activists (Hafner-Burton et al., 2016) perceive this behavior.

The earliest domestic politics approaches to compliance with international institutions focused on the role of the public in monitoring and enforcing international law (e.g., Mansfield et al., 2002; Dai, 2005, 2007; Simmons, 2009). According to these models, when domestic constituents are informed of an international law violation, they may react by

withdrawing political support or by mobilizing civil society groups against the executive (Ritter and Conrad, 2016). By naming violations and specifying remedies, international legal rulings create a specific legal claim which may help civil society groups and political opposition to overcome collective action problems (Simmons, 2009; Creamer and Simmons, 2019). However, a necessary condition for these mechanisms to work is that the ruling is sufficiently salient, so that the relevant groups are aware of it. Media coverage of the ruling is then a crucial causal pathway for establishing the plausibility of mobilization-based compliance mechanisms (Creamer and Simmons, 2019, p. 1058).²

While the executive is key in designing, monitoring, and enforcing human rights policy, other domestic actors have the power to nudge domestic politics towards compliance. These actors include judges and members of administrative agencies, security forces, and political parties (Alter, 2014, p. 50 ff). Media attention might be key in both informing as well as pressuring these actors to follow the rulings. As Alter notes, the publicity of the rulings, which depends on the amount of media coverage it receives, is crucial in “encouraging recalcitrant actors” to follow the ruling of the court (Alter, 2014, p. 59 ff).

The legislative branch may also be a source of compliance. It can use its formal agenda-setting power to diffuse information about the behavior of the executive (Lupu, 2015) and implement strict oversight of compliance with international legal rulings. We argue that while parliament always has formal agenda setting power, media coverage increases the likelihood that a ruling actually receives parliamentary attention. This argument is in line with evidence that media coverage impacts actions of political actors and public officials, such as decisions related to government spending (e.g., Eisensee and Strömberg, 2007; Drago et al., 2014), antitrust proceedings (Garz and Maass, 2021), or criminal sentencing (Philippe and Ouss, 2018). More to the point of our paper, several studies show that media coverage of a topic precedes subsequent attention in parliaments of parties to the ECHR (e.g., Vliegthart and Walgrave, 2011; Bonafont and Baumgartner, 2013; Van Aelst and Vliegthart, 2014; Sevenans and Vliegthart, 2016).

Similarly, compliance with human rights rulings could also be affected via reactions from a country’s judicial branch. Judges may strategically react to public opinion because deviating from social norms could incite critical media coverage that undermines their institutional legitimacy. Alternatively, judges may change their subjective views about an issues in response to public opinion and media coverage (e.g., Giles et al., 2008). Research in the context of the US Supreme Court provides empirical support for these arguments (e.g., Casillas et al., 2011).

Judges and legal practitioners seem to acknowledge the role of public attention in increasing the costs of non-compliance. Staton (2010) theorizes that courts may conduct public relation campaigns to raise the costs of non-compliance for the executive and presents evidence of these practices in Mexico’s Supreme Court. In the realm of international human rights courts, practitioners have recommended for the IACtHR to implement measures that help to increase media coverage of rulings as a possible compliance-enhancing mechanism: “We thus suggest that the media attention inherent in public hearings may help to generate popular support and compliance pressure around a case” (Cavallaro and Brewer, 2008, p. 793).

Besides nudging reluctant states towards compliance by bolstering the above-mentioned mechanisms of compliance, media coverage may also impact the likelihood of compliance with a ruling because it allows decision-makers to learn both about policy problems and public opinion about these problems (Walgrave and Van Aelst, 2016). That is, media coverage induces learning as posited by political agenda-setting theory (e.g., Walgrave and Van Aelst, 2006; Kepplinger, 2007), through *amplification*, *interpretation*, *revelation*, or a combination of these (Sevenans, 2018).

In our context, *amplification* means that decision-makers may deduce from the amount of coverage that a ruling receives the degree of public interest, which helps them to decide how much attention to devote themselves. *Interpretation* means that media reports may offer new perspectives or additional context about a ruling, which allows policy-makers

to learn something about the issue they did not know before. Similarly, learning could be induced via the *revelation* of new facts. Hence, there are multiple reasons why media coverage of a ruling induces decision-makers to take immediate action, such as the initiation of investigations, consultations, or drafting of laws. Due to the length of those processes, any results typically become visible only after a delay of years though.

In conclusion, we expect the amount of media attention to a ruling to impact the likelihood of compliance either by empowering domestic politics mechanisms or by increasing public attention surrounding the ruling:³

H₁: All things equal, the greater the domestic media attention to a ECtHR ruling, the higher the probability of compliance with that ruling.

Data

Compliance

The Committee of Ministers (“CoM”), an inter-governmental body of the Council of Europe, is in charge of supervising the execution of the ECtHR’s judgments by respondent states.⁴ The CoM monitors each case until all remedies are implemented, at which point the supervision is concluded with the adoption of a final resolution. The presence of these final resolutions makes it possible to measure compliance with a ruling, as compiled in a dataset by Stiansen and Voeten (2017). We use this dataset to measure both whether a state complied with a ruling as well as the number of days until the final resolution, focusing on ECtHR rulings between January 1992 and June 2016. The sample includes 3,058 rulings pertaining to 46 countries. The dataset also includes auxiliary information about each ruling, including the type of violation and required remedy. We use this information to construct various control variables, as listed in Table 1.

Media coverage

We created a novel dataset that measures the media coverage of rulings. To begin with, we collected all articles published within a window of 10 days before and after a ruling for those cases ($N = 1,113$) where we could access at least one media source via Factiva⁵ or, if the country or period was not covered by Factiva, from the websites of individual newspapers. When selecting the newspapers, we attempted to strike a balance between availability, popularity, and ideological balance (see Table A.1 in Online Appendix A). That is, whenever possible—given the availability of data—we aimed at selecting both left- and right-leaning newspapers such as *El País* and *El mundo* for measuring coverage of Spanish cases, *Le Figaro* and *L’Humanité* in France, or the *Times* and the *Guardian* in the UK.

We count 16 countries⁶ for which it was not possible to collect any media data because neither Factiva included any mainstream media sources nor could we retrieve news reports from the website of any major outlet (e.g., because of paywalls or deleted content). As Table A.2 shows, cases for which media data are available differ from cases that lack those data. For example, we observe a lower share of cases with compliance in our analysis sample because media data are more often available for more recent rulings where remedial actions might still be in progress. The included cases also more often involve violations of Articles 3 (prohibition of torture), 8 (right to privacy and family life), 10 (right to freedom of expression), 13 (right to effective remedy), and 14 (prohibition of discrimination) than the excluded cases. It is important to keep the selection of cases in mind when interpreting the results. While our sample is slightly skewed towards bigger countries, it includes both democracies (e.g., France, Germany) and authoritarian states (e.g., Russia, Turkey), developed and developing (e.g., Armenia, Georgia) countries, as well as nations ranking high (e.g., Ireland, Norway) and low (Azerbaijan, Greece) on the freedom of press index (Reporters sans frontières, 2021).

Given a case against a country and the interval $[t - 10, t + 10]$ around the date of the

ruling, we first collected all articles from the selected news outlets in that country. This procedure resulted in a corpus of 1,107,045 unique news articles. After filtering keywords pertaining to the ECtHR and human rights, translated to the publisher’s language (see Online Appendix B), the number of articles was narrowed down to 16,316. These news articles were then paired with the tentative ruling based on the above-mentioned date interval and, where applicable, both the ruling and the news article were translated into English, using the Google Translate API.

Considering the Court’s large backlog, keyword matching within the relevant temporal interval was not sufficient to confidently pair articles and rulings because of a high number of false positives. For that reason, we used supervised machine learning to accurately match news articles and rulings (see Online Appendix C for details). That is, we hand-coded approximately one third of the relevant articles ($n = 5,304$) and used a random forests classifier to predict matches. With a balanced accuracy of 0.86 and a Cohen’s Kappa of 0.71 (see Table C.1), our classifier identified 1,001 articles as being about a specific ECtHR ruling in our data.⁷

As Figure 1 shows, the majority of articles are published on the day after the respective ruling. This pattern is characteristic for the one-day publication lag that most newspapers exhibit. Consequently, in most specifications, we use the article count on day $t + 1$. As a sanity check, we compare the number of news reports about a case published on the day after the ruling with the Google search volume on the topic “European Court of Human Rights” (see Appendix D for all details). Both measures are highly correlated (Figure D.1).

Disasters

We use the Emergency Events Database at the Université Catholique de Louvain to create measures of the occurrence and severity of disasters at the time a country is subject to an ECtHR ruling. The database includes information about any disaster meeting one the following criteria: the relevant country declared a state of emergency, the country requested

international assistance, or at least ten people were killed due to the disaster. The data cover the date, country, and type of disaster (i.e., natural or technological), as well as the number of people killed.

During our observation period, the database lists a total of 11,190 disasters (killing approx. 116 people on average). Following previous studies (e.g., Durante and Zhuravskaya, 2018; Jetter, 2019; Garz and Maass, 2021; Balles et al., 2023), we focus on the number of fatalities to capture the severity of disasters. Intuitively, the more severe a disaster, the higher the degree of public attention to the disaster. However, the number of fatalities is not always comparable across countries regarding the implied “news value” (Galtung and Ruge, 1965). For example, the public might pay more attention when a catastrophe occurs in a country that hardly ever experiences any disasters, due to the uniqueness of the news. For that reason, we divide disasters into quartiles according to the distribution of the number of fatalities within a country, as quartile ranks are easier to compare than total numbers.

We also consider differences in news value resulting from the location of a disaster. *Ceteris paribus*, domestic disasters arguably receive more attention than disasters abroad, and among disasters abroad those far away are likely less newsworthy than those close by. We therefore use the geographical proximity between countries—using the GeoDist database (Mayer and Zignago, 2011)—to capture the relevance of a disaster abroad from each country’s individual perspective.

Overall, to account for differences in severity, uniqueness, and proximity, we approximate the news value of disaster(s) d occurring on date t from the perspective of country j as follows:

$$news_value_{j,t}^{disasters} = \sum_d QR_{d,j,t}^j + \sum_{d,k} \frac{QR_{d,k,t}^k}{W_{j,k}} \quad (1)$$

where QR^j and QR^k refer to the quartile rank of the number of fatalities of domestic and

foreign disasters, respectively, and $W_{j,k}$ is the geographical distance in kilometers between countries j and k .⁸ The quartile rank ranges from 1 (least severe) to 4 (most severe). On days where we do not observe any disasters or only disasters with no fatalities, we set $news_value^{disasters}$ to zero.

The information provided by the Emergency Events Database allows us to link the occurrence of a disaster to an ECtHR ruling by the exact date. However, in most specifications, we use the mean news value of disasters within a window of four days around the date of a ruling (i.e., from $t - 1$ to $t + 2$). The rationale being that certain kinds of disasters are semi-predictable (e.g., a hurricane might draw media attention already a few days before it hits the coast) or the opposite, that relevant information becomes available with a delay (e.g., when a disaster takes place in a secluded part of the world). Taking the mean over several days helps to reduce noise in the data. Formally, our instrumental variable is defined as the 4-day average news value of disasters coinciding with ECtHR ruling i on date t from the perspective of country j addressed in the ruling:

$$avg_news_value_{i,j,t}^{disasters} = \frac{1}{4} \sum_{-1 \leq n \leq 2} news_value_{j,t+n}^{disasters} \quad (2)$$

In line with the delay and anticipation effects mentioned above, we find that the occurrence of disasters significantly reduces media coverage of ECtHR rulings on most days during the 4-day window (see Figure A.1).

Empirical strategy

Estimation approach

Estimating the causal effect of media attention on compliance with human rights rulings is difficult because of omitted variables and endogeneity issues. For instance, some cases might be inherently more salient than others (e.g., if a celebrity is involved), and cases

where the government is initially particularly likely to comply could receive different media coverage than cases where compliance is unlikely. To tackle this identification problem, we exploit exogenous variation in media attention at the time of the ruling caused by plausibly exogenous events, in our case disasters. The rationale is that disasters soak up media attention from human rights rulings, which decreases the chances that the public learns about these rulings. In turn, less media attention implies less domestic pressure for compliance.

Our estimation strategy involves two equations:

$$coverage_i = \alpha_1 + \alpha_2 avg_news_value_i^{disasters} + \gamma_n X_i + \epsilon_i \quad (3)$$

$$compliance_i(t) = compliance_0(t) \exp(\beta_1 \widehat{coverage}_i + \delta_n X_i) \quad (4)$$

Equation (3) is used to estimate the effect of disasters ($avg_news_value_i^{disasters}$ as defined in Equation 2) on the extent of media *coverage* of ruling i (i.e., the first stage). Equation (4)—the second stage—includes the predicted values of ECtHR $\widehat{coverage}$ from the first stage. Hence, β_1 captures the causal effect of that coverage on the probability of *compliance* with ruling i at time t .

We estimate the first stage using OLS and model the second stage as proportional hazards (Cox, 1972; Tchetgen Tchetgen et al., 2015). In the first stage, OLS is consistent for the linear approximation to the conditional expectation function.⁹ In the second stage, we follow previous studies on compliance with human rights rulings (e.g., Grewal and Voeten, 2015; Stiansen, 2019, 2021) and model the number of days until compliance with an ECtHR ruling as a right-censored variable, since we do not observe compliance with 44% of rulings by the end of the sample period. The term $compliance_0(t)$ denotes the baseline hazard.

We estimate Equations (3) and (4) in two stages because there is no single-equation

estimator when the second stage is a survival model. Following Tchetgen Tchetgen et al. (2015), we compute the standard errors by bootstrapping the entire estimation procedure.

Both equations are estimated conditional on the set of case-specific control variables (X_i) previously used in research on compliance rates at the ECtHR (e.g., Grewal and Voeten, 2015; Stiansen, 2019, 2021): the number of articles violated, dummies capturing the kind of violation, dummies capturing the kind of remedy requested by the ECtHR, and dummies for changes in CoM working methods over time¹⁰ (see Table 1). We use these variables to account for baseline differences in news value across cases. For example, violations of Article 8 (prohibition of torture) generally receive more coverage than violations of Article 6 (right for fair trial). Similarly, these controls help to account for overall differences in the likelihood of compliance (e.g., remedies that require legislative changes are generally more difficult to implement than remedies involving the publication of a verdict). These variables primarily improve the precision of the estimates. However, they are also needed for identification if certain case characteristics affect the timing of judgments (and hence the chances to coincide with a disaster) as well as compliance.

Moreover, we include dummy variables to capture the month of the judgment, which allows us to control for potential seasonality in the occurrence of certain disasters (e.g., cold waves). We include country dummies to account for the possibility that more developed countries are less likely to experience disasters and are better able to respond to them, and to control for differences in the baseline hazard of compliance across countries. There are also mechanical differences in the occurrence of disasters resulting from differences in countries' population size and area size. Hence, the country dummies account for factors that likely act as confounders between disasters and compliance. In addition, we control for the total number of news reports by the media sources in the relevant country (i.e., reports unrelated to the case), to rule out that our results are mechanically driven by variation in the number of sources available in Factiva or variation in newspaper size.

Instrument validity

A valid instrument needs to fulfil several conditions: (i) there must be no reverse causality; (ii) the instrument must not correlate with any unobserved variable that simultaneously correlates with the outcome or endogenous regressor; (iii) the exclusion restriction needs to be fulfilled; (iv) the instrument must be a strong predictor of the endogenous regressor; and (v) the instrument must not increase the treatment level in some cases and decrease it in others.

Condition (i) is unproblematic because there are no reasons to expect reverse causality running from compliance or ECtHR news coverage to disasters. Condition (ii) could be violated if those countries that tend to experience more severe disasters have governments that are less inclined to comply with human rights. In the regressions, we account for this possibility by including country fixed effects. Another threat to this condition are time trends in the occurrence of certain disasters as well as general trends in compliance. Those trends are controlled for by the dummies capturing the working methods of the CoM applicable at the time of the ruling, since these dummies can be interpreted as time fixed effects.

Condition (iii) could be violated if disasters crowd out attention to ECtHR rulings via channels not included in our sample of media sources. That is, our results could be biased if coverage of unsampled media sources is systematically different than the coverage of the outlets in the sample. We argue that our efforts to compile a balanced set of mainstream sources minimizes the risk of systematic differences between sampled and unsampled outlets. Hence, our measure of ECtHR coverage acts as a proxy for the true magnitude of that coverage. More generally, the exclusion restriction could be violated if disasters exert an effect on compliance via mechanisms unrelated to media coverage. For example, as previous studies show, disasters may influence national income via trade shocks (Felbermayr and Gröschl, 2013), civil conflict via population size (Brückner, 2010) or economic growth (Bergholt and Lujala, 2012), migration via agricultural production

(Trinh et al., 2021), and quality of democracy via oil price shocks (Ramsay, 2011). That is, an instrument as popular as disasters may drive a variety of factors, all of which are potential violations of the exclusion restriction (Mellon, 2023).

It is arguably fairly unlikely for disasters that coincide with a ruling to have a positive effect on compliance via those alternative mechanisms. A positive effect would require for a disaster to increase the willingness or capability of decision-makers to take actions necessary to remedy a human rights violation. While it might be possible in some situations that a disaster creates a spirit of “now more than ever” among those in charge, it is difficult to see this kind of reverse psychological effect to be a systematic phenomenon. Alternatively, disasters could increase the chances that the incumbent government is voted out of office and replaced by a new government that is less committed to keeping in place the policy that led to the human rights violation. If any of these mechanisms are relevant, media coverage would be even stronger in its effect on compliance. That is, if disasters exert a positive influence on compliance, β_1 in Equation (4) underestimates the true media effect.

In contrast, β_1 overestimates the true media effect if disasters have a negative effect on compliance through non-media mechanisms. For instance, disasters may negatively affect agricultural production, income levels, or other macroeconomic variables, which in turn could induce the government to shift resources (e.g., monetary resources or staff) away from human rights processes towards disaster relief. We believe that this alternative mechanism is unlikely because disaster relief and human rights ruling implementation are typically dealt with by different branches of an administration. The results of placebo tests with lagged values of our instrument in Table A.3 confirm this argument. That is, given the fast pace of the news cycle, we would not expect disasters that took place several weeks before the judgment date to crowd out coverage of a judgment, as confirmed by the estimates. However, those disasters should still affect compliance if the resource-shifting mechanism was relevant, considering that governmental reallocation decisions have long-lasting consequences. As the table shows, this is not the case though, which supports the

exclusion restriction.

Condition (iv) – the strength of the instrument in the first stage – can be tested empirically. We confirm this condition in the results section. Condition (v) – monotonicity – is fundamentally untestable. However, it is not plausible to assume that a disaster would increase (rather than decrease) ECtHR media coverage.

Results

We first present results from our baseline model, followed by a discussion of robustness checks. We then provide complementary evidence on short-term responses to rulings and results from analyzing the tone of the media coverage.

Baseline specification

Results are summarized in Table (2). For the sake of transparency, we report naive Cox and reduced-form estimates in addition to the first- and second-stage estimates. The naive Cox estimate in Column (1) indicates a positive relationship between media coverage of a ruling and the chances of compliance. The reduced form in Column (2) suggests that a higher level of disaster news value at the time of a ruling lowers the chances of compliance with that ruling. The relevant coefficient implies a hazard ratio of $e^{-0.569} = 0.566$. Hence, a one unit increase in disaster news value reduces the hazard of compliance by $1 - 0.566 = 43.4\%$. A one standard deviation increase in disaster news value (0.134) implies a reduction in compliance by $1 - e^{(-0.569 \times 0.134)} = 7.3\%$.

Regarding the first stage (Column 3), we find a highly significant negative effect of disasters on ECtHR media coverage. The point estimate implies that a one unit increase in disaster news values leads to a reduction in the number of ECtHR news reports by 0.407. A one standard deviation increase in disaster news value implies a reduction in coverage by $0.134 \times 0.407 / 0.469 = 11.6\%$ compared to the mean number of ECtHR articles (0.469).

The value of the F-statistic on the excluded instrument ($F = 10.218$, $p = 0.001$) suggests that the first stage is reasonably strong.

In the second stage (Column 4), the IV coefficient is positive and significant at the 10% level, which implies that ECtHR media coverage increases the hazard of compliance. The point estimate suggests that an increase in coverage in the magnitude of the mean value of the number of ECtHR reports (0.469) leads to an increase in the hazard of compliance by $e^{(1.395 \times 0.469)} - 1 = 92.4\%$. In other words, if the amount of coverage is doubled, the chances of compliance are doubled. Hence, the effect of ECtHR coverage on compliance is practically meaningful. The difference in magnitudes between the IV estimate (Column 4) and the naive estimate (Column 1) indicates that the effect of ECtHR media coverage on compliance is masked by confounding, which highlights the necessity to use an IV design.

Robustness checks

In the baseline specification, our measure of ECtHR media coverage pertains to the number of reports published on the day after the ruling—in line with the publication pattern shown in Figure 1—whereas our instrument refers to the mean news value of disasters over a window of four days around the ruling (to reduce noise in the data). In Table A.4, we check whether our results hold when counting the number of ECtHR reports over different time windows. While this exercise confirms the baseline estimates, we note that the strength of the first stage decreases, the longer the window for counting the number of news reports.

Relatedly, it is useful to decompose the aggregate effect of the four-day average news value of disasters. Figure A.1 show estimates of the first stage when using the individual values of the instruments on various days around the ruling. The figure indicates that disasters have significant negative effects on ECtHR media coverage when they occur on days t , $t + 1$, or $t + 2$ relative to the ruling. While the effect of disasters on day $t - 1$ individually is not significant, we find that including this date when computing the four-

day average increases the strength of the first stage.

The instrumental variable defined in Equation (2) involves several assumptions about factors driving the newsworthiness of different disasters. Hence, it is important to evaluate whether the results hold when a simpler, more conventional version of the disaster instrument is used. Following the literature (e.g., Jetter, 2017; Garz and Pagels, 2018; Jetter, 2019), we replicate the analysis while using the plain number of fatalities of domestic disasters as an instrument. The resulting estimates in Table A.5 confirm our findings. However, the F-statistic on the exclusion of the instrument is slightly lower here, which is why we prefer using this version of the instrument for robustness checks only.

In Table A.6, we re-estimate the first stage while using a binary version of our measure ECtHR media coverage. This exercise allows us to evaluate whether disasters not only affect the extent by which a ruling is covered but also if disasters determine whether or not a ruling is covered at all. As the estimates in Column (1) show, disasters do not affect the overall probability that a ruling is covered. Thus, they primarily influence the extent. We also re-estimate the first stage with a coarsened version of the instrumental variable, which makes it possible to check whether the occurrence of any disaster is sufficient to induce a crowding out of ECtHR coverage. Results in Columns (2) and (3) indicate that a binary disaster instrument is not a statistically significant predictor in the first stage. Hence, differences in the news value of disasters matter.

It could be argued that the dummies for the working methods applicable at the time of the ruling (i.e., “after protocol 11”, “after change in CoM working methods”, and “after protocol 14”) are insufficient to capture overall trends in the occurrence and severity of disasters and trends in compliance. In Table A.7, we present estimates based on models that include year fixed effects and a 3rd order trend polynomial, respectively. The results remain similar.

Finally, we evaluate whether our results hold when using an alternative measure of public attention: the volume of searches pertaining to Google’s search topic “European

Court of Human Rights” at the time of the ruling in the relevant country (see Appendix D for details on the construction of this measure). As Table D.1 shows, we do not find any significant effects of Google searches on compliance. We can think of several explanations for these null effects. First, due to their agenda-setting power, attention created by mass media might simply be more effective in influencing decision-makers than attention online. Second, considering that we do not find a significant first stage in most specifications, attention online might be less sensitive to competing events than media coverage. For example, media outlets often face space restrictions or restrictions related to editorial capacities (e.g., number of journalists), which are not or only indirectly relevant for Google users.

Short-term responses to rulings

There is a considerable time lag between ECtHR-related media coverage (on the day after the ruling) and the conclusion of a case (on average four years after the ruling), which raises the question of what the pathway from initial attention to subsequent actions by respondent states looks like. There could be path dependency in the sense that initial media coverage helps to create a collective memory of a case that increases the likelihood of later media coverage, and where governments predict future levels of media attention based on the initial level of attention. In line with that, previous research shows that prior media attention to an issue is a robust predictor of subsequent attention, even years later (Boydstun, 2013, p. 47 ff. and 124-125).

It is difficult to systematically assess these and other mechanisms because of data limitations. However, we can test whether initial media coverage impacts compliance efforts in the short run. To get a sense of whether governments initiate processes to implement a judgment, we consider a procedural feature of the ECtHR compliance mechanism that creates transparency about countries’ implementation efforts, the so-called action plan, which sets out the “individual” and “general” measures that the country intends to take,

including a preliminary timetable of the necessary steps. The action plan is supposed to be submitted no later than six months after the judgment (ECtHR, 2015) but respondent states often fail to do so. We therefore argue that a timely submission of an action plan can be used as a proxy to evaluate whether immediate actions toward compliance took place.

We retrieved information from the HUDOC-EXEC database¹¹ about action plans submitted by respondent states to test these knock-on effects. The data indicate that action plans were submitted in 33.8% of cases in our sample but we observe a timely submission (i.e., within six months) only in 6.7% of cases. As Table A.8 shows, judgments are indeed more likely to be implemented in cases where the respondent submitted an action plan within the requested time of six months after the ruling.

Table 3 presents estimates of the effect of news coverage on the likelihood of a timely submission of an action plan, using our measure of disaster news value as an instrument. As Column (3) indicates, one additional ECtHR report on the day after the ruling increases the probability that an action plan is filed within the next six months by 25.4 percentage points. An increase in coverage in the magnitude of the mean value of the number of ECtHR reports (0.469) raises this probability by $0.254 \times 0.469 = 11.9$ percentage points, which is almost twice as much as the baseline probability of filing a timely action plan (6.7%). This effect is significant at the 5% level. Columns (4) to (6) indicate that we obtain very similar results when we exclude judgments before 2004, the period where the ECtHR did not explicitly ask for an action plan.

Overall, these results are consistent with the notion that initial media coverage of a ruling affects compliance via knock-on effects. This argument can be illustrated by two cases where the ECtHR requested juridical changes from the UK. In case 66069/09 (“Vinter and others v. the United Kingdom”), our data indicate a level of media attention in the top 5% of the distribution of the number of articles. Prime Minister David Cameron and several Members of Parliament commented on the ruling, which stated that life sentences

for murder constitute a human rights violation if there is no possibility of rehabilitation. The UK government submitted a timely action plan, outlining the intended remedies, including an investigation of the legal situation. The UK eventually implemented various changes and the CoM closed the case after 1,058 days. In another ruling (46477/99: “Paul and Audrey Edwards v. the United Kingdom”), the ECtHR detected a violation of human rights in a case where a prisoner was killed by his cell mate. The ruling was neither covered by the media outlets in our sample, nor was an action plan filed. The resolution of the case took 2,821 days.

Tonality of ECtHR-related news reports

Our result that news coverage of a ruling has a positive effect on compliance hinges on the assumption that the coverage is neutral or supportive of the content of the ruling. In contrast, if media coverage were to criticize the ruling, it would not be plausible to expect the coverage to increase the chances of compliance. To test this assumption, we evaluated the content of a random sample of 300 articles stratified by respondent. Specifically, for each article in this sub-sample, we manually coded the tone towards the respondent and the ECtHR, respectively (i.e., positive, negative, or neutral/ambiguous).

Accordingly, the articles can be roughly categorized in three groups. Most of them (91%) offer a relatively objective description of the case, reference the ECtHR in a neutral manner, and implicitly depict the respondent state (or the government, domestic law, court, or authority) in a negative way. For example, if an article reports that a country violated human rights, the tone toward that country is implicitly negative because a domestic institution did something “wrong”. We added a few examples of this type of article in Table C.2 in the Online Appendix. In addition, we observe a small share of reports that are predominantly negative toward the ECtHR, while defending the respondent (5%). These articles typically cite members of the government who accuse the ECtHR of rendering a ruling for ideological reasons. Finally, a small share of reports are explicitly critical toward

the respondent while praising the ruling (4%), which mostly happens when a report features quotes of the plaintiff. Thus, the tone of the vast majority of articles is compatible with the assumptions underlying our theoretical arguments.

Conclusion

Using a novel dataset of media coverage of ECtHR cases, this study presents causal evidence suggesting that a higher level of attention to a ruling increases the chances of compliance with that ruling. The analysis is not without limitations though: Our sample is restricted to cases for which media data are available, which implies that we cannot analyze approximately two thirds of the rulings rendered during the observation period. While there are some differences between sampled and unsampled cases (i.e., especially regarding the underlying violations), we believe that our results are generally applicable to ECtHR rulings because the sample does not exclude any specific type of country or system (e.g., democratic vs. authoritarian, developed vs. developing, free vs. censored press). However, the ECtHR is in many ways an outlier among the regional human rights courts, e.g., in terms of its institutional set-up, granting citizens direct access to the court, as well as case load and baseline compliance rate. Thus, future research is needed to assess to what extent our findings can be replicated in other courts, such as the IACtHR.

The evidence presented in this paper allows us to formulate practical policy recommendations. First, our result supports the notion that strategies to enhance media and public relations, as proposed by Cavallaro and Brewer (2008), may be useful to increase compliance. Public hearings, salient press conferences, or procedural transparency measures (Reis, 2021) could be effective tools for pushing states to take remedial actions fast. Second, it seems advisable that human rights courts do not schedule or issue any rulings on days where the news agenda in the relevant country can be expected to be particularly busy due to predictable, competing news events, such as elections or important sports

matches (e.g., FIFA World Cup or Champions League games).

We invite future research to take up the challenge of disentangling the mechanisms that mediate the relationship between media attention and compliance. For example, does attention trigger parliamentary agenda setting or influence domestic judges' reactions to ECtHR precedents? Do ECtHR rulings with more media coverage lead to more derivative disputes at domestic courts on the same grounds? Is media attention correlated with actual mobilization, such as demonstrations or social media discourse? These questions are crucial for improving our understanding of the domestic politics of compliance with the ECtHR. We played our role in investigating one of the main assumptions of domestic politics models of compliance, but media attention, on its own, cannot explain compliance. We conclude by revisiting the popular adage that international courts lack “the purse and the sword” to enforce their own rulings and note that their “pen” might help.

Notes

¹Consultative Assembly, Report of the Sitting, 17 August 1949, p. 35.

²The public may learn about these rulings through channels other than media coverage (e.g., interpersonal communication or social platforms) but mass media are the most obvious source of information in our context.

³It is possible that the effects of media attention on compliance are moderated by the institutional set-up of a country and public preferences toward the violated norm. However, it would be beyond the scope of our study to investigate those effects.

⁴Article 46 (2) ECHR.

⁵<https://www.dowjones.com/professional/factiva/>

⁶Albania, Andorra, Bosnia and Herzegovina, Denmark, Finland, Iceland, Liechtenstein, Lithuania, Luxembourg, Moldova, Monaco, Montenegro, North Macedonia, Romania, San Marino, and Sweden.

⁷The publication date relative to the date of the ruling is one of the strongest predictors when classifying the articles. In fact, it would not be possible to reliably classify articles without this information, which implies that it is not feasible to identify subsequent coverage of a case either (i.e., beyond the $[t - 10, t + 10]$ interval), for example, when the respondent implements remedial actions or when the CoM concludes the proceedings.

⁸This approach is similar in spirit to gravity models of international trade (e.g., Anderson, 2011). We use the distance between the countries' capitals because we do not know the exact location of many disasters.

⁹It could be argued that our measure of ECtHR coverage is a count variable and therefore requires a Poisson model to obtain unbiased estimates. However, modeling a non-linear first stage would produce inconsistent estimates in the context of simultaneous equation models, see Wooldridge (2010, Section 9.5).

¹⁰It would be possible to include year fixed effects to control for potential time trends more flexibly. However, we do not observe time trends in compliance or disaster news value after accounting for changes in working methods (see Figures A.2 and A.3). For that reason, and because the inclusion of year dummies leads to problems with multicollinearity, we use them for robustness checks only. The dummies capturing the working methods are essentially a coarsened version of year fixed effects, which helps to avoid estimation problems due to overfitting and multicollinearity.

¹¹See <https://hudoc.exec.coe.int>.

References

Alter, K. J. (2014). *The new terrain of international law*. Princeton University Press.

- Anagnostou, D. and A. Mungiu-Pippidi (2014). Domestic implementation of human rights judgments in Europe. *European Journal of International Law* 25(1), 205–227.
- Anderson, J. E. (2011). The gravity model. *Annual Review of Economics* 3(1), 133–160.
- Balles, P., U. Matter, and A. Stutzer (2023). Special interest groups versus voters and the political economics of attention. Working paper.
- Bergholt, D. and P. Lujala (2012). Climate-related natural disasters, economic growth, and armed civil conflict. *Journal of Peace Research* 49, 147–162.
- Blei, D. M. and J. D. Lafferty (2007). A correlated topic model of science. *The Annals of Applied Statistics* 1(1), 17–35.
- Bonafont, L. C. and F. R. Baumgartner (2013). Newspaper attention and policy activities in Spain. *Journal of Public Policy* 33(1), 65–88.
- Boydston, A. E. (2013). *Making the news: Politics, the media, and agenda setting*. University of Chicago Press.
- Brutger, R. and A. Strezhnev (2022). International investment disputes media coverage and backlash against international law. *Journal of Conflict Resolution*, forthcoming.
- Brückner, M. (2010). Population size and civil conflict risk: Is there a causal link? *Economic Journal* 120, 535–550.
- Carrubba, C. J. (2005). Courts and compliance in international regulatory regimes. *The Journal of Politics* 67(3), 669–689.
- Casillas, C. J., P. K. Enns, and P. C. Wohlfarth (2011). How public opinion constrains the u.s. supreme court. *American Journal of Political Science* 55(1), 74–88.
- Cavallaro, J. L. and S. E. Brewer (2008). Reevaluating regional human rights litigation in the twenty-first century: The case of the Inter-American Court. *American Journal of International Law* 102(4), 768–827.
- Chaudoin, S. (2014). Promises or policies? An experimental analysis of international agreements and audience reactions. *International Organization* 68(1), 235–256.
- Chayes, A. and A. H. Chayes (1998). *The new sovereignty: Compliance with international*

- regulatory agreements*. Harvard University Press.
- Chilton, A. S. (2015). The laws of war and public opinion: An experimental study. *Journal of Institutional and Theoretical Economics*, 181–201.
- Cox, D. R. (1972). Regression models and life-tables. *Journal of the Royal Statistical Society: Series B* 34(2), 187–202.
- Creamer, C. D. and B. A. Simmons (2019). Do self-reporting regimes matter? Evidence from the convention against torture. *International Studies Quarterly* 63(4), 1051–1064.
- Dai, X. (2005). Why comply? The domestic constituency mechanism. *International Organization* 59(2), 363–398.
- Dai, X. (2007). *International institutions and national policies*. Cambridge University Press.
- Downs, A. (1957). *An Economic Theory of Democracy*. Harper and Row.
- Drago, F., T. Nannicini, and F. Sobbrío (2014). Meet the press: How voters and politicians respond to newspaper entry and exit. *American Economic Journal: Applied Economics* 6(3), 159–88.
- Durante, R. and E. Zhuravskaya (2018). Attack when the world is not watching? US news and the Israeli-Palestinian conflict. *Journal of Political Economy* 126(3), 1085–1133.
- ECtHR (2015). Guide for the drafting of action plans and reports for the execution of judgments of the european court of human rights. Series vade-mecum no. 1.
- Eisensee, T. and D. Strömberg (2007). News droughts, news floods, and US disaster relief. *Quarterly Journal of Economics* 122(2), 693–728.
- Felbermayr, G. and J. Gröschl (2013). Natural disasters and the effect of trade on income. *European Economic Review* 58, 18–30.
- Fikfak, V. (2018). Changing state behaviour: Damages before the European Court of Human Rights. *European Journal of International Law* 29(4), 1091–1125.
- Galtung, J. and M. H. Ruge (1965). The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. *Journal of Peace*

- Research* 2(1), 64–90.
- Garz, M. and S. Maass (2021). Cartels in the European Union, antitrust action, and public attention. *Journal of Economic Behavior & Organization* 186, 533–547.
- Garz, M. and V. Pagels (2018). Cautionary tales: Celebrities, the news media, and participation in tax amnesties. *Journal of Economic Behavior & Organization* 155, 288–300.
- Garz, M. and J. Sörensen (2017). Politicians under investigation: The news media’s effect on the likelihood of resignation. *Journal of Public Economics* 153, 82–91.
- Giles, M. W., B. Blackstone, and R. L. Vining (2008). The supreme court in american democracy: Unraveling the linkages between public opinion and judicial decision making. *The Journal of Politics* 70(2), 293–306.
- Grewal, S. and E. Voeten (2015). Are new democracies better human rights compliers? *International Organization* 69(2), 497–518.
- Guzman, A. T. (2008). *How international law works: A rational choice theory*. Oxford University Press.
- Hafner-Burton, E. M., D. G. Victor, and B. L. LeVeck (2016). How activists perceive the utility of international law. *The Journal of Politics* 78(1), 167–180.
- Haglund, J. (2020a). Domestic politics and the effectiveness of regional human rights courts. *International Interactions* 46(4), 551–578.
- Haglund, J. (2020b). *Regional Courts, Domestic Politics, and the Struggle for Human Rights*. Cambridge University Press.
- Haglund, J. and R. M. Welch (2021). From litigation to rights: The case of the European Court of Human Rights. *International Studies Quarterly* 65(1), 210–222.
- Hall, D., D. Jurafsky, and C. D. Manning (2008). Studying the history of ideas using topic models. In *Proceedings of the 2008 conference on empirical methods in natural language processing*, pp. 363–371.
- Hillebrecht, C. (2012). Implementing international human rights law at home: Domestic politics and the European Court of Human Rights. *Human Rights Review* 13(3), 279–

- Hillebrecht, C. (2014a). *Domestic politics and international human rights tribunals: The problem of compliance*. Cambridge University Press.
- Hillebrecht, C. (2014b). The power of human rights tribunals: Compliance with the European Court of Human Rights and domestic policy change. *European Journal of International Relations* 20(4), 1100–1123.
- Huneus, A. (2011). Courts resisting courts: Lessons from the Inter-American Court's struggle to enforce human rights. *Cornell International Law Journal* 44, 493.
- Huneus, A. (2014). Compliance with judgments and decisions. In C. P. Romano, K. J. Alter, and Y. Shany (Eds.), *Oxford Handbook of International Adjudication*, pp. 438–59. Oxford University Press.
- Jetter, M. (2017). The effect of media attention on terrorism. *Journal of Public Economics* 153, 32–48.
- Jetter, M. (2019). The inadvertent consequences of al-Qaeda news coverage. *European Economic Review* 119, 391–410.
- Keck, M. E. and K. Sikkink (1999). Transnational advocacy networks in international and regional politics. *International Social Science Journal* 51(159), 89–101.
- Kepplinger, H. M. (2007). Reciprocal effects: Toward a theory of mass media effects on decision makers. *International Journal of Press/Politics* 12(2), 3–23.
- Leach, P., H. Hardman, S. Stephenson, and B. K. Blitz (2010). *Responding to systemic human rights violations: An analysis of pilot judgments of the European Court of Human Rights and their impact at national level*. Intersentia.
- Lupu, Y. (2015). Legislative veto players and the effects of international human rights agreements. *American Journal of Political Science* 59(3), 578–594.
- Mansfield, E. D., H. V. Milner, and B. P. Rosendorff (2002). Why democracies cooperate more: Electoral control and international trade agreements. *International Organization* 56(3), 477–513.

- Mayer, T. and S. Zignago (2011). Notes on CEPII's distances measures: The geodist database. Cepii working paper 2011-25.
- McCombs, M. and J.-H. Zhu (1995). Capacity, diversity, and volatility of the public agenda: Trends from 1954 to 1994. *Public Opinion Quarterly* 59(4), 495–525.
- Mearsheimer, J. J. (1994). The false promise of international institutions. *International Security* 19(3), 5–49.
- Mellon, J. (2023). Rain, rain, go away: 195 potential exclusion-restriction violations for studies using weather as an instrumental variable. Working paper.
- Moravcsik, A. (2000). The origins of human rights regimes: Democratic delegation in postwar europe. *International organization* 54(2), 217–252.
- Murdie, A. M. and D. R. Davis (2012). Shaming and blaming: Using events data to assess the impact of human rights ingos. *International Studies Quarterly* 56(1), 1–16.
- Neumayer, E. (2005). Do international human rights treaties improve respect for human rights? *Journal of Conflict Resolution* 49(6), 925–953.
- Parente, F. (2018). Explaining compliance in the Inter-American Court of Human Rights. Working paper.
- Peksen, D. (2009). Better or worse? The effect of economic sanctions on human rights. *Journal of Peace Research* 46(1), 59–77.
- Philippe, A. and A. Ouss (2018). “No hatred or malice, fear or affection”: Media and sentencing. *Journal of Political Economy* 126(5), 2134–2178.
- Ramsay, K. W. (2011). Revisiting the resource curse: Natural disasters, the price of oil, and democracy. *International Organization* 65, 507–529.
- Reis, J. M. (2021). Opening up international adjudication. In E. D. Brabandere (Ed.), *International Procedure in Interstate Litigation and Arbitration: A Comparative Approach*, pp. 230—260. Cambridge University Press.
- Reporters sans frontières (2021). World press freedom index.
- Ritter, E. H. and C. R. Conrad (2016). Human rights treaties and mobilized dissent against

- the state. *The Review of International Organizations* 11(4), 449–475.
- Sevenans, J. (2018). One concept, many interpretations: The media’s causal roles in political agenda-setting processes. *European Political Science Review* 10(2), 245–265.
- Sevenans, J. and R. Vliegenthart (2016). Political agenda-setting in Belgium and The Netherlands: The moderating role of conflict framing. *Journalism & Mass Communication Quarterly* 93(1), 187–203.
- Simmons, B. A. (2009). *Mobilizing for human rights: International law in domestic politics*. Cambridge University Press.
- Staton, J. K. (2010). *Judicial power and strategic communication in Mexico*. Cambridge University Press.
- Stiansen, Ø. (2019). Delayed but not derailed: Legislative compliance with European Court of Human Rights judgments. *The International Journal of Human Rights* 23(8), 1221–1247.
- Stiansen, Ø. (2021). Directing compliance? Remedial approach and compliance with European Court of Human Rights judgments. *British Journal of Political Science* 51(2), 899–907.
- Stiansen, Ø. and E. Voeten (2017). The Georgetown/PluriCourts European Court of Human Rights Database. Technical report.
- Tchetgen Tchetgen, E. J., S. Walter, S. Vansteelandt, T. Martinussen, and M. Glymour (2015). Instrumental variable estimation in a survival context. *Epidemiology* 26(3), 402–410.
- Terman, R. and E. Voeten (2018). The relational politics of shame: Evidence from the universal periodic review. *The Review of International Organizations* 13(1), 1–23.
- Trinh, T.-A., S. Feeny, and A. Posso (2021). The impact of natural disasters on migration: findings from vietnam. *Journal of Demographic Economics* 87, 479–510.
- Van Aelst, P. and R. Vliegenthart (2014). Studying the tango: An analysis of parliamentary questions and press coverage in The Netherlands. *Journalism Studies* 15(4), 392–410.

- Vliegthart, R. and S. Walgrave (2011). Content matters: The dynamics of parliamentary questioning in Belgium and Denmark. *Comparative Political Studies* 44(8), 1031–1059.
- Voeten, E. (2014). Domestic implementation of European Court of Human Rights judgments: A reply to Dia Anagnostou and Alina Mungiu-Pippidi. *European Journal of International Law* 25(1), 229–238.
- Walgrave, S. and P. Van Aelst (2006). The contingency of the mass media’s political agenda setting power: Toward a preliminary theory. *Journal of Communication* 56(1), 88–109.
- Walgrave, S. and P. Van Aelst (2016). *Political agenda setting and the mass media*. Oxford Research Encyclopedia of Politics.
- Wallace, G. P. (2013). International law and public attitudes toward torture: An experimental study. *International Organization* 67(1), 105–140.
- Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. MIT Press.

Tables

Table 1: Summary statistics

	Mean	SD	Min.	Max.
Compliance (binary)	0.56	0.50	0.00	1.00
Time until compliance (days)	1575.36	1092.49	99.00	7188.00
Timely action plan (binary)	0.07	0.25	0.00	1.00
Disaster news value (score)	0.02	0.13	0.00	1.25
Number of ECtHR news reports				
...t+1	0.47	1.35	0.00	27.00
...t and t+1	0.63	1.70	0.00	33.00
...t-1, t, t+1, and t+2	0.70	1.96	0.00	42.00
Total number of news reports				
...t+1	119.55	155.11	0.00	1112.00
...t and t+1	206.65	235.78	0.00	2065.00
...t-1, t, t+1, and t+2	355.17	354.20	6.00	3081.88
Need for legislative change (binary)	0.32	0.47	0.00	1.00
Need for jurisprudential change (binary)	0.19	0.39	0.00	1.00
Need for executive action (binary)	0.25	0.43	0.00	1.00
Need for publication (binary)	0.88	0.32	0.00	1.00
Need for practical measure (binary)	0.17	0.38	0.00	1.00
Need for property change (binary)	0.02	0.14	0.00	1.00
Need for reopening dom. proceedings (binary)	0.14	0.35	0.00	1.00
Need for prosecution (binary)	0.03	0.16	0.00	1.00
Need for other individual measure (binary)	0.20	0.40	0.00	1.00
Number of articles violated	1.31	0.68	0.00	10.00
Article 2 (binary)	0.04	0.21	0.00	1.00
Article 3 (binary)	0.13	0.33	0.00	1.00
Article 5 (binary)	0.13	0.34	0.00	1.00
Article 6 (binary)	0.37	0.48	0.00	1.00
Article 8 (binary)	0.19	0.39	0.00	1.00
Article 10 (binary)	0.08	0.27	0.00	1.00
Article 13 (binary)	0.09	0.29	0.00	1.00
Article 14 (binary)	0.05	0.21	0.00	1.00
Protocol violation (binary)	0.12	0.33	0.00	1.00
After protocol 11 (binary)	0.96	0.19	0.00	1.00
After change in CoM methods (binary)	0.71	0.45	0.00	1.00
After protocol 14 (binary)	0.44	0.50	0.00	1.00

Notes: N = 1,113, covering 30 countries between January 1992 and June 2016.

Table 2: Effect of media coverage on compliance

	(1)	(2)	(3)	(4)
	Compliance (naive estimate)	Compliance (reduced form)	Number of ECtHR news reports on t+1 (first stage)	Compliance (second stage)
Number of ECtHR news reports on t+1	0.125*** (0.035)			1.395* (0.751)
Disaster news value		-0.569** (0.285)	-0.407*** (0.127)	
Kleibergen-Paap F-statistic			10.218	

Notes: N = 1,113 rulings. Estimates in Columns (1), (2), and (4) are log hazard ratios. Column (3) shows OLS estimates. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01

Table 3: Effect of media coverage on action planning

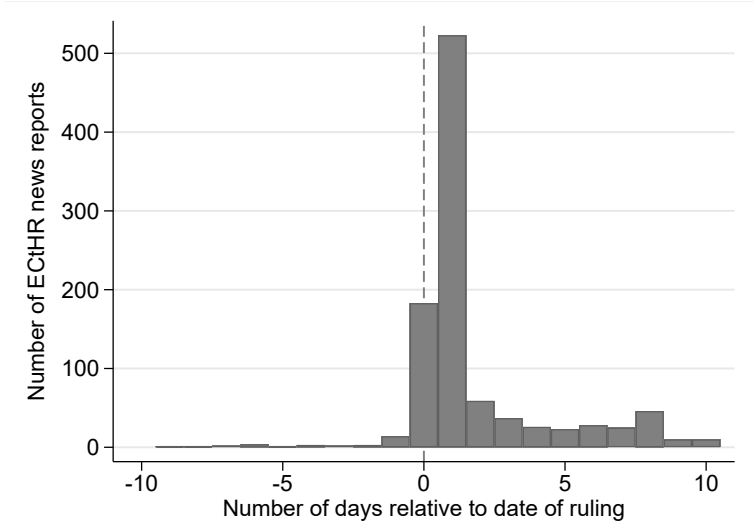
	Full sample			Only judgments as of 2004		
	(1) Timely action plan (yes/no) (reduced form)	(2) Number of ECtHR reports on t+1 (first stage)	(3) Timely action plan (yes/no) (second stage)	(4) Timely action plan (yes/no) (reduced form)	(5) Number of ECtHR reports on t+1 (first stage)	(6) Timely action plan (yes/no) (second stage)
Disaster news value	-0.104*** (0.028)	-0.407*** (0.127)		-0.122*** (0.036)	-0.486*** (0.175)	
Number of ECtHR reports on t+1			0.254** (0.101)			0.251** (0.118)
Kleibergen-Paap F-statistic		10.218			7.695	
Observations	1113	1113	1113	935	935	935

Notes: *Timely action plan* takes the value 1 if the respondent state submitted an action plan within six months after the ruling, and 0 otherwise. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). Robust standard errors are in parentheses. The standard errors of the IV estimates are based on a single-equation estimation procedure.

* p<0.10, ** p<0.05, *** p<0.01

Figures

Figure 1: Timing of media coverage of ECtHR rulings



Online Appendix

A Additional Tables and Figure

Table A.1: Sources used for collecting media data

Country	Source name
1 Armenia	ARKA - News (Factiva); Arminfo News (Factiva)
2 Austria	Die Presse (Factiva)
3 Azerbaijan	Turan (Factiva); Azer Press (Factiva); Day.az (Factiva)
4 Bulgaria	Dnevnik (website); Novinite (website)
5 Croatia	HINA (Factiva)
6 Cyprus	Cyprus Mail (Factiva)
7 Czechia	Hospodarske Noviny (Factiva)
8 Estonia	Eesti Päevalehe (website); Postimees (website)
9 France	Le Figaro (Factiva); Les Echos (Factiva); L'Humanité (Factiva)
10 Georgia	Prime-News (Factiva)
11 Germany	Suddeutsche Zeitung (Factiva); taz - die tageszeitung (Factiva)
12 Greece	Kathimerini (website)
13 Hungary	24.hu (website); Index (website)
14 Ireland	The Irish Times (Factiva)
15 Italy	Corriere della Sera (Factiva); La Repubblica (Factiva); Il Sole 24 Ore Digital Replica Edition of Print Edition (Factiva); La Nazione (Factiva); La Repubblica (website)
16 Latvia	Latvian News Agency - LETA (Factiva)
17 Malta	Malta Today (Factiva)
18 Netherlands	De Telegraaf (Factiva); De Volkskrant (website)
19 Norway	Norsk Telegrambyrå (Factiva); Dagbladet (website)
20 Poland	Parkiet (Factiva); Rzeczpospolita (Factiva)
21 Portugal	Diario de Noticias (Factiva); Correio da Manha (Factiva); Publico Online (Factiva); Publico Online (website)
22 Russia	Izvestia (Factiva); Moskovskii Komsomolets (Factiva); The Moscow Times (Factiva); Nezavisimaya Gazeta (Factiva)
23 Serbia	Novosti (website)
24 Slovakia	TASR - Tlacova Agentura Slovenskej Republiky (Factiva)
25 Slovenia	Dnevnik Slovenia (website)
26 Spain	El País - Nacional (Factiva); El Mundo (Factiva)
27 Switzerland	Tages Anzeiger (Factiva); 24 Heures (Factiva); Blick (Factiva); Le Temps (Factiva)
28 Turkey	Hürriyet (website)
29 Ukraine	Ukrinform: News (Factiva); Fakty i Kommentarii (website); Ukrayinska Pravda (website)
30 United Kingdom	The Times (Factiva); Daily Mail (Factiva); The Guardian (Factiva)

Table A.2: Comparison of samples

	Cases without media data (mean)	Cases with media data (mean)	<i>p</i> -value (difference)
Compliance (binary)	0.68	0.56	0.000
Time until compliance (days)	1523.75	1575.36	0.204
Timely action plan (binary)	0.04	0.07	0.004
Year of judgment	2006.42	2008.35	0.000
Need for legislative change (binary)	0.32	0.32	0.846
Need for jurisprudential change (binary)	0.17	0.19	0.237
Need for executive action (binary)	0.21	0.25	0.023
Need for publication (binary)	0.89	0.88	0.743
Need for practical measure (binary)	0.15	0.17	0.102
Need for property change (binary)	0.02	0.02	0.666
Need for reopening dom. proceedings (binary)	0.13	0.14	0.559
Need for prosecution (binary)	0.03	0.03	0.953
Need for other individual measure (binary)	0.15	0.20	0.001
Number of articles violated	1.29	1.31	0.534
Article 2 (binary)	0.04	0.04	0.194
Article 3 (binary)	0.09	0.13	0.003
Article 5 (binary)	0.13	0.13	0.946
Article 6 (binary)	0.54	0.37	0.000
Article 8 (binary)	0.14	0.19	0.001
Article 10 (binary)	0.06	0.08	0.055
Article 13 (binary)	0.06	0.09	0.002
Article 14 (binary)	0.03	0.05	0.003
Protocol violation (binary)	0.12	0.12	0.679
After protocol 11 (binary)	0.90	0.96	0.000
After change in CoM methods (binary)	0.61	0.71	0.000
After protocol 14 (binary)	0.33	0.44	0.000
New democracy (binary)	0.49	0.26	0.000
Political constraints (index)	0.43	0.42	0.057
Bureaucratic capacity (index)	3.00	3.02	0.744
Government accountability (index)	1.35	1.25	0.000
Non-democracy (binary)	0.11	0.22	0.000
Number of cases	1945	1113	
Number of countries	46	30	

Table A.3: Effect of media coverage on compliance (placebo tests with lagged instruments)

	ECtHR reports			ECtHR reports		
	Compliance (reduced form)	t+1 (first stage)	Compliance (second stage)	Compliance (reduced form)	t+1 (first stage)	Compliance (second stage)
ECtHR news reports t+1			-0.815 (1.111)			-2.901 (26.910)
Disaster news value:						
...4 weeks before judgment	-0.203 (0.307)	0.249 (0.178)				
...8 weeks before judgment				0.044 (0.401)	-0.015 (0.176)	
Kleibergen-Paap F-statistic		1.953			0.007	
Observations	1113	1113	1113	1113	1113	1113

Notes: Notes: N = 1,113 rulings. Estimates in Columns (1), (3), (4) and (6) are log hazard ratios. Columns (2) and (5) show OLS coefficients. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01

Table A.4: Effect of media coverage on compliance (alternative time windows when counting ECtHR reports)

	ECtHR reports		ECtHR reports		ECtHR reports	
	t+1	Compliance	t and t+1	Compliance	t-1 to t+2	Compliance
	(first stage)	(second stage)	(first stage)	(second stage)	(first stage)	(second stage)
Disaster news value	-0.407*** (0.127)		-0.432*** (0.154)		-0.567** (0.222)	
Number of ECtHR news reports						
...t+1		1.395* (0.751)				
...t and t+1				1.330* (0.712)		
...t-1 to t+2						1.047* (0.536)
Kl.-Paap F-statistic	10.218		7.900		6.522	

Notes: N = 1,113 rulings. Columns (1), (3), and (5) show OLS coefficients. Estimates in Columns (2), (4), and (6) are log hazard ratios. All models include the total number of articles, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01

Table A.5: Effect of media coverage on compliance (simple disaster instruments)

	Number of ECtHR reports on t+1 (first stage)	Compliance (second stage)	Number of ECtHR reports on t+1 (first stage)	Compliance (second stage)
Number of fatalities in domestic disasters	-0.412*** (0.136)			
Log(1 + number of fatalities in domestic disasters)			-0.570*** (0.183)	
Number of ECtHR news reports on t+1		1.545* (0.833)		1.445* (0.760)
Kleibergen-Paap F-statistic	9.127		9.672	

Notes: N = 1,113 rulings. Columns (1) and (3) show OLS coefficients. Estimates in Columns (2) and (4) are log hazard ratios. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01

Table A.6: Effect of disasters on media coverage (binary measures)

	ECtHR reports on t+1 (yes/no)	Number of ECtHR reports on t+1	ECtHR reports on t+1 (yes/no)
Disaster news value	-0.115 (0.075)		
Disaster yes/no		-0.215 (0.386)	0.023 (0.076)
Kleibergen-Paap F-statistic	2.357	0.310	0.095

Notes: N = 1,113 rulings. The table shows OLS coefficients. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). Robust standard errors are in parentheses.

* p<0.10, ** p<0.05, *** p<0.01

Table A.7: Effect of media coverage on compliance (controlling for year of judgment)

	Number of ECtHR reports on t+1 (first stage)	Compliance (second stage)	Number of ECtHR reports on t+1 (first stage)	Compliance (second stage)
Disaster news value	-0.372*** (0.141)		-0.417*** (0.133)	
ECtHR news reports on t+1		1.840* (0.977)		1.366* (0.755)
Year fixed effects	Yes	Yes	No	No
3rd order trend polynomial	No	No	Yes	Yes
Kleibergen-Paap F-statistic	6.927		9.846	

Notes: N = 1,113 rulings. Columns (1) and (3) show OLS coefficients. Estimates in Columns (2) and (4) are log hazard ratios. All models include the total number of news reports, dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01

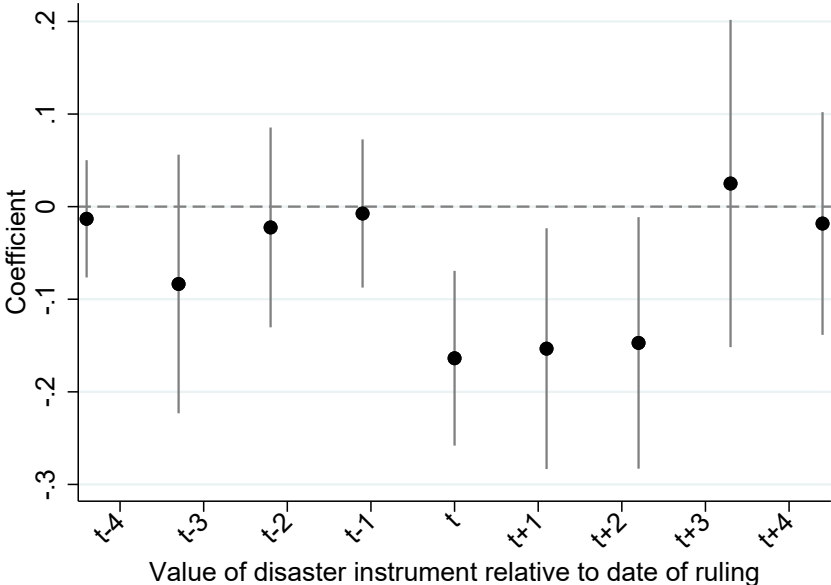
Table A.8: Timely submission of action plan and compliance

	(1)	(2)
	Compliance	Compliance
Timely action plan (yes/no)	0.425** (0.205)	0.430** (0.205)
Total number of news reports on t+1		-0.000 (0.000)
Observations	1113	1113

Notes: The table shows log hazard ratios. *Timely action plan* takes the value 1 if the respondent state submitted an action plan within six months after the ruling, and 0 otherwise. All models include dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). Robust standard errors are in parentheses.

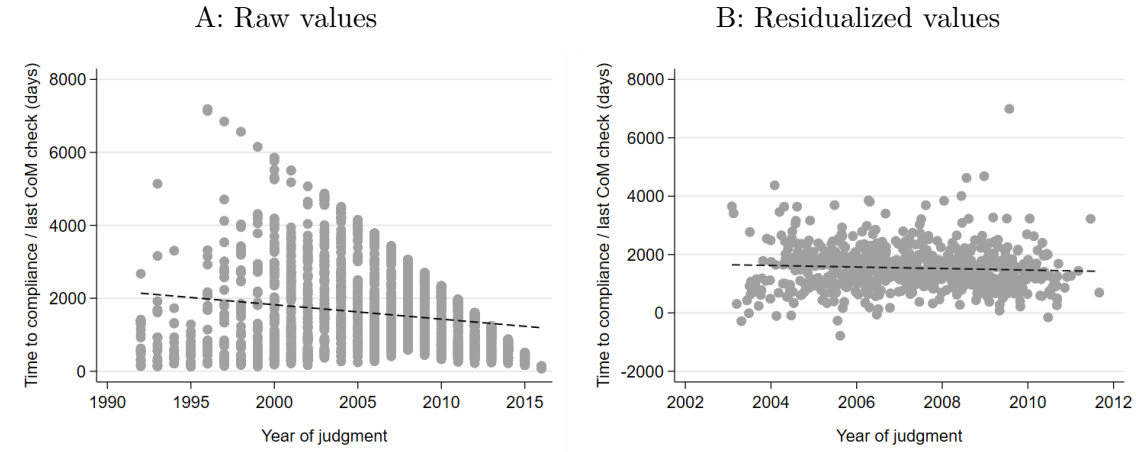
* p<0.10, ** p<0.05, *** p<0.01

Figure A.1: Effects of disaster news value on ECtHR coverage, by day relative to ruling



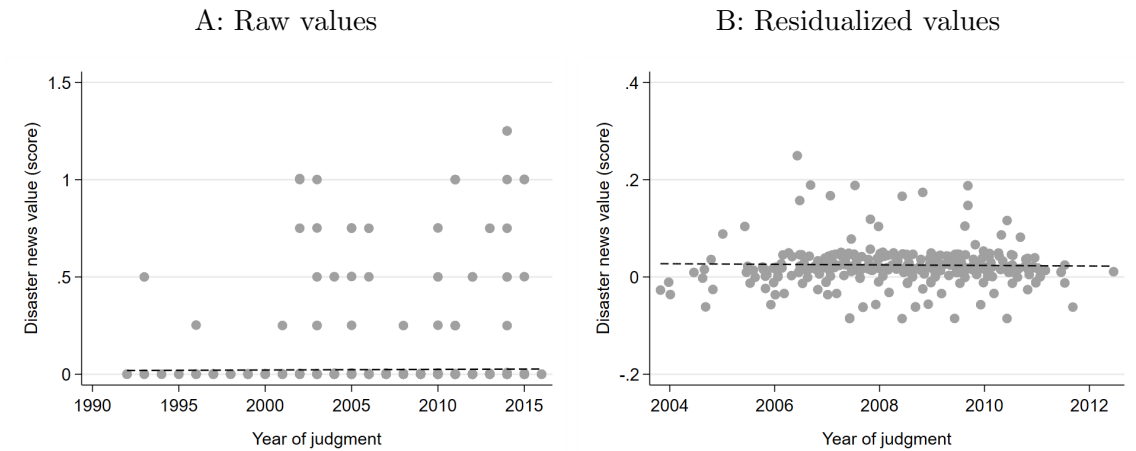
Notes: The figure shows results from multiple first-stage models, where we regress the number of ECtHR-related news reports (on day $t + 1$) on values of the instrumental variable on various days around the ruling, as denoted on the x-axis. Hence, in contrast to the four-day mean disaster news value used in Table 2, the figure shows the effect of disasters disaggregated by individual days. Apart from that, the regressions are identical to the baseline specification, including the set of controls.

Figure A.2: Compliance over time



Notes: Panel B of the figure shows residuals of the variables from regressions on country dummies and dummies capturing changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The dashed line is the linear fit.

Figure A.3: Disaster news value over time



Notes: Panel B of the figure shows residuals of the variables from regressions on country dummies and dummies capturing changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The dashed line is the linear fit.

B ECtHR-related keywords

The keywords used for filtering the likely relevant articles from all the articles matching the date interval $[t - 10, t + 10]$ around the date of the ruling can be found in Table B.1. The process of selecting and translating the relevant keywords went as follow. We started by selecting a set of keywords in English. We aimed at including both keywords which are very precise and directly related with the Court, such as “European Court of Human Rights”, as well as broader keywords (e.g., “Court”) to avoid false negatives. This selection process resulted in the following keywords: “European Court of Human Rights”, “Human Rights”, “European Convention of Human Rights”, “Strasbourg”, and “Court”.

Next, we translated these words to the languages of the relevant newspapers (see Table A.1 in Online Appendix A) by visiting the English Wikipedia page on that keyword (e.g. https://en.wikipedia.org/wiki/European_Court_of_Human_Rights) and extracted all the other language versions of that very same page. The title of the page would then be used for the translation (e.g. https://tr.wikipedia.org/wiki/Avrupa_%C4%B0nsan_Haklar%C4%B1_Mahkemesi). We used Google Translate in cases where this page was missing for a specific language. If an acronym was available for the Court in a specific language, e.g. TEDH in Portuguese or ЕСПЧ in Russian, we would also include them in the set of relevant keywords of the language.

For each newspaper-language dyad, we took the set of all retrieved articles and kept those matching the relevant keywords, using case-insensitive regular expressions.

Table B.1: Keywords used for filtering media articles within the relevant time-interval

ISO639_1	Keywords
az	Avropa İnsan Hüquqları Məhkəməsi, İnsan hüquqları, Avropa İnsan Hüquqları Konvensiyası, Strasburq, Məhkəmə, İnsan Hüquqları üzrə Avropa Məhkəməsi, məhkəmə
bg	Европейски съд по правата на човека, Права на човека, Европейска конвенция за защита правата на човека и основните свободи, Страсбург, Съд, Европейският съд по правата на човека, Човешки права, Европейската конвенция за правата на човека, Съдебна зала
bs	Evropski sud za ljudska prava, Ljudska prava, Evropska konvencija o ljudskim pravima, Strasbourg, Sud, Strazbur, sud
ca	Tribunal Europeu de Drets Humans, Drets humans, Conveni europeu de drets humans, Estrasburg, Tribunal, Conveni Europeu de Drets Humans, tall
cs	Evropský soud pro lidská práva, Lidská práva, Úmluva o ochraně lidských práv a základních svobod, Štrasburk, Soud, Evropská úmluva o lidských právech, Strasbourg
da	Den Europæiske Menneskerettighedsdomstol, Menneskerettighederne, Den Europæiske Menneskerettighedskonvention, Strasbourg, Domstol, Menneskerettigheder, Europæiske menneskerettighedskonvention, Ret
de	Europäischer Gerichtshof für Menschenrechte, Menschenrechte, Europäische Menschenrechtskonvention, Straßburg, Gericht, Strassburg
el	Ευρωπαϊκό Δικαστήριο Ανθρωπίνων Δικαιωμάτων, Ανθρώπινα δικαιώματα, Ευρωπαϊκή Σύμβαση για τα Δικαιώματα του Ανθρώπου, Στρασβούργο, Δικαστήριο, Δικαστήριο των Δικαιωμάτων του Ανθρώπου, Ευρωπαϊκή Σύμβαση των Δικαιωμάτων του Ανθρώπου
es	Tribunal Europeo de Derechos Humanos, Derechos humanos, Convención Europea de Derechos Humanos, Estrasburgo, Tribunal de justicia, Convenio Europeo de Derechos Humanos, Corte
et	Euroopa Inimõiguste Kohus, Inimõigused, Euroopa inimõiguste ja põhivabaduste kaitse konventsioon, Strasbourg, Kohus, Euroopa inimõiguste konventsiooni, kohus
fi	Euroopan ihmisoikeustuomioistuin, Ihmisoikeudet, Euroopan ihmisoikeussopimus, Strasbourg, Tuomioistuin, Euroopan ihmisoikeussopimukset
fr	Cour européenne des droits de l'homme, Droits de l'homme, Convention européenne des droits de l'homme, Strasbourg, Tribunal, Droits humains
hr	Evropski sud za ljudska prava, Ljudska prava, Evropska konvencija o ljudskim pravima, Strasbourg, Sud, Strazbur

hu	Emberi Jogok Európai Bírósága, Emberi jogok, Az emberi jogok európai egyezménye, Strasbourg, Európai Emberi Jogi Bíróság, Európai Emberi Jogi Egyezmény, Bíróság
hy	Մարդու իրավունքների եվրոպական դատարան, Մարդու իրավունքներ, Մարդու իրավունքների Եվրոպական կոնվենցիա, Ստրասբուրգ, Դատախազություն, Եվրոպական դատարանը Մարդու իրավունքների, Եվրոպական կոնվենցիան Մարդու իրավունքների, դատարան
is	Mannréttindadómstóll Evrópu, Mannréttindi, Samningur um verndun mannréttinda og mannfrelsis, Strassborg, Dómstóll, European Mannréttindadómstóll, European Convention Mannréttindadómstóll, Strasbourg, Court
it	Corte europea dei diritti dell'uomo, Diritti umani, Convenzione europea per la salvaguardia dei diritti dell'uomo e delle libertà fondamentali, Strasburgo, Organo giurisdizionale, Convenzione europea dei diritti dell'uomo, Tribunale
ka	ადამიანის უფლებათა ევროპული სასამართლო, ადამიანის უფლებები, სტრასბური, სასამართლო, ევროპის ადამიანის უფლებათა სასამართლოს, ქადამიანის უფლებები, ევროპის ადამიანის უფლებათა კონვენციის, სტრასბურგში
lt	Europos Žmogaus Teisių Teismas, Žmogaus teisės, Europos žmogaus teisių ir pagrindinių laisvių apsaugos konvencija, Strasbūras, Teismas, Žmonių teisės, Europos žmogaus teisių konvencija, teismas
lv	Eiropas Cilvēktiesību tiesa, Cilvēktiesības, Eiropas Cilvēktiesību konvencija, Strasbūra, Tiesa
mk	Европски суд за човекови права, Човекови права, Европска конвенција за човекови права, Стразбур, Суд, Европскиот суд за човекови права, Човечки права, Европската конвенција за човекови права, судот
nl	Europees Hof voor de Rechten van de Mens, Rechten van de mens, Europees Verdrag voor de Rechten van de Mens, Straatsburg, Rechtbank, Mensenrechten
no	Den europeiske menneskerettsdomstol, Menneskerettigheter, Den europeiske menneskerettskonvensjon, Strasbourg, Domstol, Europeiske menneskerettighetskonvensjonen, Court
pl	Europejski Trybunał Praw Człowieka, Prawa człowieka, Europejska konwencja praw człowieka, Strasburg, Sąd, Europejska Konwencja Praw Człowieka, Strasbourg
pt	Tribunal Europeu dos Direitos Humanos, Direitos humanos, Convenção Europeia dos Direitos Humanos, Estrasburgo, Tribunal, Strasbourg

ro	Curtea Europeană a Drepturilor Omului, Drepturile omului, Convenția Europeană a Drepturilor Omului, Strasbourg, Tribunal, curte
ru	Европейский суд по правам человека, Права человека, Конвенция о защите прав человека и основных свобод, Страсбург, Суд, Европейская конвенция о правах человека, корт
en	European Court of Human Rights, Human rights, European Convention on Human Rights, Strasbourg, Court, Human Rights, European Convention of Human Rights
sk	Európsky súd pre ľudské práva, Ľudské práva, Dohovor o ochrane ľudských práv a základných slobôd, Štrasburg, Súd, Európsky dohovor o ľudských právach, Strasbourg, súd
sl	Evropsko sodišče za človekove pravice, Človekove pravice, Evropska konvencija o človekovih pravicah, Strasbourg, Sodišče
sq	Gjykata Evropiane për të Drejtat e Njeriut, Të drejtat e njeriut, Konventa Evropiane për të Drejtat e Njeriut, Strasbourg, Gjykata, Gjykata Evropiane e të Drejtave të Njeriut, Konventa Evropiane e të Drejtave të Njeriut, Strasbourg, gjykatë
sr	Европски суд за људска права, Људска права, Европска конвенција о људским правима, Стразбур, Суд, суд
sv	Europadomstolen, Mänskliga rättigheter, Europakonventionen, Strasbourg, Domstol, Europeiska konventionen om de mänskliga rättigheterna
tr	Avrupa İnsan Hakları Mahkemesi, İnsan hakları, Avrupa İnsan Hakları Sözleşmesi, Strazburg, Mahkeme, Strasbourg, mahkeme
uk	Європейський суд з прав людини, Права людини, Конвенція про захист прав людини і основоположних свобод, Страсбург, Суд, Європейська конвенція про права людини, суд

C Identification of Relevant Media Articles

As mentioned in the data section in the main text, using relevant keywords to search for news articles around the date of a ruling involves many false positives among the 16,316 retrieved articles. We used the following supervised machine learning approach to identify the true positives, i.e., those news articles that actually report about a specific ECtHR ruling. First, we automatically translated all articles and rulings using the Google Translate API. The authors then hand-coded whether an article matched a specific ruling for a sample of 5,304 of the article-ruling dyads. This coding task did not involve any subjective evaluation, which is why it was sufficient to code each sample article once rather than conducting a multi-coder procedure.

The coded dyads were then used to train a random forests model, using the `Ranger` package in R. We also evaluated other possible classifiers, though preference was given to models which performed well, while being interpretable. The random forests model outperformed all other models in most relevant cross-validation metrics (see Table C.1). Figure C.1 displays the balanced accuracy, Cohen’s Kappa, and F-score of the model cross-validation for the random forests and the runner-up model (penalized logistic regression as implemented by the `glmnet` R package).

The number of randomly selected predictors and the minimal node size parameters were selected through cross-validation. The features used to train the model were of three types: (i) document metadata-based; (ii) language similarity-based; and (iii) content similarity-based. Among the metadata-focused features (i.e., features that either compare metadata from the ruling/article documents or that attempt to find metadata from the ruling within the article), particularly helpful predictors were the date distance in days between the date of publication of the article and the date of the ruling, whether the name of the applicant was mentioned in the news article, whether the respondent was mentioned in the article, and whether the ECtHR or Strasbourg were mentioned in the text of the article.

For language similarity metrics, we generated two corpora, one containing the news

articles and one containing the rulings texts, and calculated the *Term-Frequency Inverse-Document Frequency* (TF-IDF) of each word in each document of both corpora:

$$TFIDF(t) = \frac{\text{frequency of } t \text{ in doc}}{\text{total words}} \times \log_2 \frac{\text{total docs}}{\text{docs with term } t}. \quad (\text{C.1})$$

By weighting the frequency of a word in a document by the inverse frequency of that word in the other documents of the corpus, the TF-IDF can be interpreted as measuring the frequency of a word weighted by its idiosyncrasy. The 500 words with the highest TF-IDF score of each ruling and article were filtered and used for comparison. We compared them by calculating the Jaccard similarity:

$$Jaccard(w_{\text{article}}, w_{\text{ruling}}) = \frac{|w_{\text{article}} \cap w_{\text{ruling}}|}{|w_{\text{article}} \cup w_{\text{ruling}}|}, \quad (\text{C.2})$$

and the pairwise similarity between the top TF-IDF word vectors of the article and those of the ruling:

$$sim(w_{\text{article}}, w_{\text{ruling}}) = w_{\text{article}} \cdot w_{\text{ruling}}. \quad (\text{C.3})$$

While language overlap is a crucial metric, news outlets reporting legal events are expected to convey the relevant information using non-technical legal terms. Hence, a substantial degree of variance in the language used is expected even when covering a specific ruling. To also capture content similarity, instead of just using language similarity, several topic models (Blei and Lafferty, 2007) were estimated, selecting the number of ($k = 33$, $k = 70$) based on exclusivity, semantic coherence, heldout likelihood, and residual dispersion.

We used the document-level topic-probability distributions to compare the content of the article and the ruling in a more language agnostic manner. Following Hall, Jurafsky, and Manning (2008), we measured topical similarity by computing the Jensen-Shannon divergence of their probability distributions of topics. The Jensen-Shannon divergence is a measure of dissimilarity of probability distributions and, as such, can be used to

compare the similarity of the estimated topic distributions of two documents. The Jensen-Shannon divergence score of the topic distributions was calculated using the estimated topic distributions and included them as a feature when training the random forests model.

Our random forests classifier predicted whether the articles in the test sample were about the paired ruling with a balanced accuracy of 0.86 and a Cohen's Kappa of 0.71 (see Table C.1). Our classifier identified 1,037 articles as being about a specific ECtHR ruling in our data.

Figure C.1: Cross-validation metrics for random forests and lasso/elastic-net logistic regression models (glmnet)

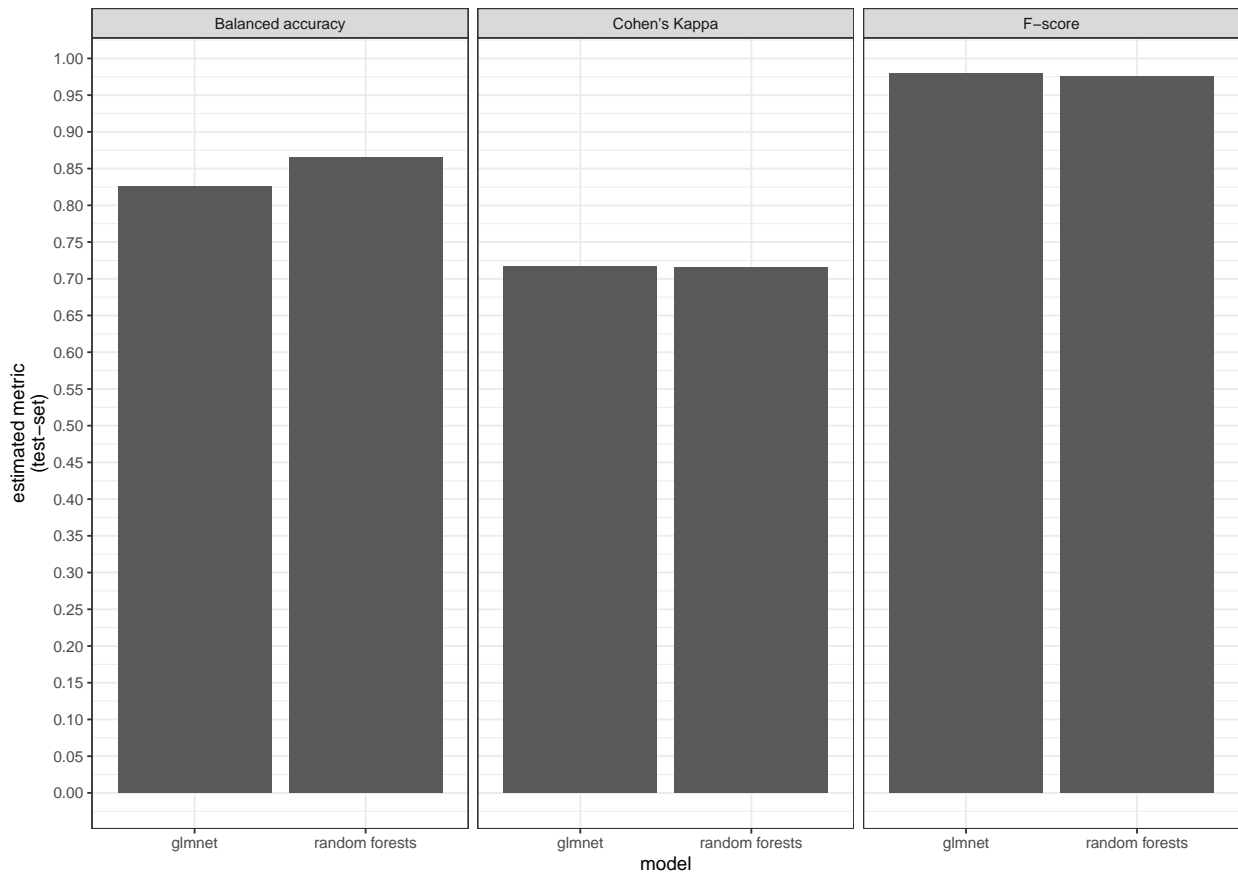


Table C.1: Test-set classification results

	Metric	Estimate
1	Balanced Accuracy	0.86
2	F-score	0.98
3	Positive Predictive Value	0.98
4	Negative Predictive Value	0.72
5	Recall	0.97
6	Precision	0.98
7	Cohen's Kappa	0.71
8	ROC (area under the curve)	0.96

Table C.2: Examples of ECtHR news reports

Irish Times from Dec 17, 2010 on case 25579/05 (Ireland, date of ruling: Dec 16, 2010)

State loses case on woman’s abortion right

The European Court of Human Rights has ruled that the Irish State violated the rights of a woman with cancer who says she was forced to travel abroad to get an abortion. In its ruling yesterday, the court unanimously found that the State failed to properly implement the constitutional right to a lawful abortion where a mother’s life is at risk. The woman – known only as C – had a rare form of cancer and feared she would relapse when she became unintentionally pregnant. However, the woman said she was unable to find a doctor willing to make a determination as to whether her life would be at risk if she continued to term. The court ruled that neither medical nor litigation options constituted “effective or accessible procedures” for the woman to establish a lawful abortion.

Diario de Noticias from Feb 1, 2012 on case 61226/08 (Portugal, date of ruling: Jan 31, 2012)

European Court of Human Rights condemns Portugal

The European Court of Human Rights considered that the Lisbon Family Court, which removed parental authority, prohibited visits to the daughter and opened an adoption process, violated the European Convention on Human Rights, condemning the State to pay the father ten thousand euros for moral damages. The European Court of Human Rights considers that there was “lack of information about the steps, forms and deadlines” to appeal the decision, taking into account that the father did not have a lawyer and that he was unaware of the Portuguese law. For the European Court, the right of access to the court was violated due to lack of information. However, it considered, by majority, that there was no violation of the right to respect for family life.

Süddeutsche from Mar 15, 2013 on case 18734/09 (Germany, date of ruling: Mar 14, 2013)

Invented abuses

Strasbourg – A couple from Duisburg has won a case against the German state before the European Court of Human Rights. The Strasbourg judges found Germany violating the right to family life. German courts had stripped the couple of custody of their two children because they allegedly beat them regularly. After a year, the children admitted to making up the abuse. The human rights court complained that the German judges had only relied on the statements of the two children and had not sufficiently considered the arguments of the parents. For example, they had submitted a letter from their family doctor, who had never observed any injuries to the children. Even sports teachers hadn’t noticed any beatings. The judges awarded the parents €50,000 in damages.

Notes: The table shows English translations of the second and third articles.

D ECtHR-related Google searches

Google Trends provides data on the search volume associated with a keyword or a topic normalized by the total searches in a given geography and time frame. Google reports the following procedure:

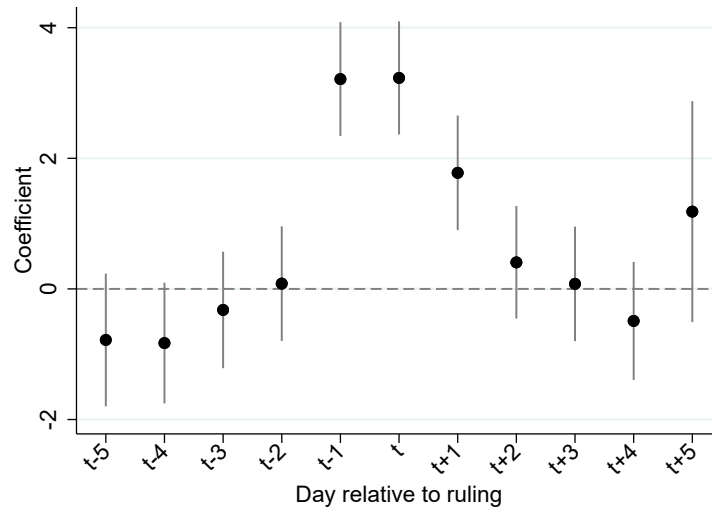
“Each data point is divided by the total searches of the geography and time range it represents to compare relative popularity. [...] The resulting numbers are then scaled on a range of 0 to 100 based on a topic’s proportion to all searches on all topics. [...]”¹²

For each country present in our sample as defendant at the ECtHR, we collected daily search volume data for the topic “European Court of Human Rights” between January 2004 (the earliest time the Google data are available) and June 2016. We prefer to use Google’s topic feature because it is language-independent, which is not the case when retrieving search data on individual keywords.

As a first exercise, we check whether media coverage predicts Google searches or vice versa. If Google searches were to predict media coverage but not the other way around, this could be an indication that the public learns about ECtHR rulings through channels or sources outside our sample of media outlets. For that purpose, we compile a panel dataset that includes daily observations on each case within a window of +/- 10 days around the date of the ruling. We use this dataset to regress the ECtHR-related Google search volume on lags and leads of the number of ECtHR news reports. As the results in Figure D.1 indicate, the number of media reports on day $t - 1$, t , and $t + 1$ is positively associated (at the 1% level) with Google searches on day t . Hence, it is difficult to identify a clear pattern regarding the direction of a potential causal arrow between both variables. However Google searches on day t are more strongly associated with the number of media reports on $t - 1$ than $t + 1$, which is more consistent with the notion that media coverage drives Google searches than the other way around.

Next, we check whether the ECtHR-related Google search volume affects compliance, using the same estimation approach as outlined in Equations (3) and (4) in the main text. However, the IV estimates in Table D.1 do not indicate any significant causal effects.

Figure D.1: Relationship between Google searches and media coverage



Notes: Data used in the figure are at the case-day level. $N = 19,236$ (916 cases \times 21 days per case), showing estimates from a regression of the ECtHR-related Google search volume on lags and leads of the number of ECtHR news reports. The regression includes case fixed effects and 5 lags of the dependent variable. The vertical spikes denote 95% confidence intervals based on standard errors clustered by case.

Table D.1: Effect of Google searches on compliance

	ECtHR searches on t+1 (first stage)	Compliance (second stage)	ECtHR searches t and t+1 (first stage)	Compliance (second stage)	ECtHR searches t-1 to t+2 (first stage)	Compliance (second stage)
Disaster news value	-9.808 (6.107)		-11.607** (4.618)		-10.816*** (3.628)	
ECtHR-related Google search volume						
...t+1		-0.014 (0.047)				
...t and t+1				-0.012 (0.040)		
...t-1 to t+2						-0.013 (0.043)
Kleibergen-Paap F-statistic	2.579		6.318		8.889	
Observations	916	916	916	916	916	916

Notes: Columns (1), (3), and (5) show OLS coefficients. Estimates in Columns (2), (4), (6) are log hazard ratios. All models include dummy variables capturing the month of the judgment, country dummies, the number of articles violated, dummies capturing the kind of remedy (jurisprudential change, executive action, publication and dissemination, practical measure, domestic investigation or prosecution, return of property, reopening of domestic proceedings, other individual measure), dummies capturing the kind of violation (right to life violation, prohibition of torture violation, right to liberty violation, right to fair trial violation, right to privacy and family life violated, freedom of expression violation, right to effective remedy violation, prohibition of discrimination violation, property rights violations), and dummies accounting for changes in working methods (after protocol 11, after change in CoM working methods, after protocol 14). The standard errors (in parentheses) of the IV estimates are based on 1,000 Bayesian bootstrap replications, taking the full estimation procedure (first and second stage) into account. In all other cases, the standard errors are heteroscedasticity-robust analytical standard errors.

* p<0.10, ** p<0.05, *** p<0.01